BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 1, 1875.

QC
982
.B85
1875
(May-June)

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.

LIBRARY
MAR 16 1951
WEATHER BUREAU

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.10	764.4	69.4	20.8		ESE			1		0			0			
Algiers			30.10	764.4	64.4	18.0	78	NNW			2		9			0.008			
La Calle			30.20	767.0	71.1	21.7		NW			2		0			0			
Tunis			30.24	768.1	78.1	25.6	38	E			3		0			0	0		Jacques.
Sfax			30.19	766.9	68.7	20.4	51	S			3		1			0	0		Chauvey.
Saida			30.09	764.2	58.6	14.8		W			1		9			0.236	6.0	Rainy	Grosjean.
Tebessa			30.16	766.0	70.3	21.3		SW			3		6			0	0	Threatening	Colin.
Geriville			30.10	764.5	60.4	15.8		NNW			2		10			0.118	3.0		Bernadach.
Laghouat			30.12	765.0	69.8	21.0	34	NE			2		9			0	0		Poinsignon.
Biskra			30.18	766.5	77.5	25.3		NE			2		2			0	0		Coulon.

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National Oceanic & Atmospheric Administration
U.S. Dept. of Commerce

AUSTRIAN SERIES.

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

Agram			29.95	760.6	66.9	19.4	47	Calm			0		3			0.032	0.8	Raining	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.03	762.7	46.0	7.8	86	W			3		10			0.030	1.0		I. R. Observatory.
Eperies			29.91	759.6	51.4	10.8	70	Calm			0		10			0	0		Julius Mikolik.
Gratz			29.93	760.3	59.0	15.0	78	E			2		10			0.480	12.2		Andreas Rospini.
Hermannstadt			29.84	757.9	47.5	8.6	88	WSW			3		8			0.177	4.50		Prof. Reissenberger.
Kremsmünster			29.95	760.7	60.1	15.6	52	NE			3		3			0	0		Prof. C. Wagner.
Lemberg			29.88	759.0	43.9	6.6	76	N			3		10			0.142	3.6		Dr. T. Stanecki.
Nyiregyhaza			29.89	759.2	57.2	14.0	65	N			1		9			0.426	10.83	Graupel	Habzsuda Daniel.
Pola			29.97	761.2	64.2	17.9	64	SE			2		2cs			0	0		I. R. Hydrographic Office
Szegedin			29.86	758.5	63.3	17.4	38	NW			2		7			0.108	2.75		Karl Stancel.
Trieste			29.97	761.2	64.8	18.2	54	W			1		7			0	0		Prof. V. Farolfi.
Vienna			29.94	760.5	57.7	14.3	50	NE			2		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

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

Brussels	29.74	755.5			66.6	19.2	53	E			1		6		W	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

M061
U585

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.05	763.3	44.0	6.7		SSE	18	8.0			9			0	0		William Boswell.
Annanhill																			
Ardrossan			29.91	759.7	54	12.2		NE			3		8						William McNeil.
Armagh Observatory			29.90	759.4	53.7	12.1		SE	8	3.6			10						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Coll																			
Bidston, Liverpool Obs			29.90	759.4	50.0	10.0		ESE			3		10					Raining	John Hartnup, Jr.
Birr Castle, Parsonstown			29.87	758.7	61.3	16.3		WSW			1		6						J. Dreyer, for L'd Rosse
Bradford			29.95	760.7	47.3	8.5		E			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.08	764.0	84.0	28.9		NE			4		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.94	760.[illegible]	48.9	9.4		E			1		5						H. Todd.
Cape Town, (Cape Colony)			29.94	760.[illegible]	60.2	15.7		W			4		10						Sgt. D. E. Hunt.
Cape Good Hope Obs	29.95	760.7			62.2	16.8	71	WNW	14	6.3			10						The Staff, for E. J. Stone
Cardington			29.[illegible]	[illegible]	51.0	10.6		E					10						John McLaren.
Carlisle			29.[illegible]	[illegible]	54.6	12.6		E					10			0	0		T. Bell, for J. Cartmell.
Chatham, [illegible]			29.[illegible]	759.7	52.0	11.1		NE			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			[illegible]	760.5	85.2	29.6		SW			4		7						Sgt. W. F. Hopkins
Dartmoor			30.00	762.0	49.5	9.7		SW			1		10						R. E. Power.
Donaghadee			29.88	758.9	55	12.8		ESE			3		10						J. Mac Gowan, Jr.
Dover			29.94	760.5	50	10.0		NE			1		10					Raining	J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.92	760.0	51.5	10.8		ENE	3	1.3			10						G. D. Goldney.
Falmouth Observatory			29.94	760.5	56.6	13.7		WNW	22	9.8			6						Thomas Mackereth.
Fort Napier, (Natal)			29.79	756.7	84.6	29.2		SE			3		1						The Staff.
Freetown, (Sierra Leone)			29.84	757.9	87.0	30.6		N					5						Pvt. G. Salmon.
Galway, Queen's College			29.83	757.7	59	15.0		SE			1		3						B. G. Clare, for Prof. Curtis
Gibraltar, (Mediterranean)			30.06	763.5	72.0	22.2		SW			4		0						Sergt. E. G. Baker.
Glasgow Observatory			29.94	759.7	54.0	12.2		ENE			3		9						James Gray.
Great Yarmouth			29.99	761.7	44	6.7		E			4		8					Raining	G. T. Watson.
Greenwich Royal Obs			29.91	759.7	52.6	11.4		E			2		10						The Staff, for G. B. Airy
Guernsey			29.94	760.5	54.5	12.5		SW			1		8					Showery	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.93	760.2	46.1	7.8		E					10					Drizzling	F. J. Page, for L. J. Crossley
Halifax, (Nova Scotia)			29.59	751.6	4[illegible].6	5.9		NW			2		9						Corp'l J. Y. Thompson.
Helston			29.90	759.4	60	15.6		W			4		5					Showery	Dr. W. B. Mavle.
Holyhead			29.88	758.9	57	13.9		WSW			1		3						John Tilston.
Kew Observatory																			
Kew Observatory			29.90	759.4	52.7	11.5		E	15	6.7			10					Threatening	The Staff.
Kingstown			29.92	760.0	54	12.2		SSE			2		10					Drizzling	George Mitchell.
Lampeter																			
Leicester Museum			29.95	760.2	48.3	9.1		E			2		10					Raining	William J. Harrison
Llandudno			29.88	758.9	55.0	12.8		WNW					10					Threatening	Dr. James Nicol.
Malta, (Mediterranean)			30.16	766.1	68.0	20.0		SW			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.93	760.2	52	11.1		Calm			0		8						William D. Penny.
Nassau, (Bahamas)			30.15	765.8	79	26.1		E			2		6						Surg.-Maj. J. Jameson.
North Shields			30.02	762.5	46	7.8		SE			5		9						John Wm. Irvine.
Nottingham			29.97	761.2	47.1	8.4		ENE			1		10n		ENE			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.93	760.2	48.7	9.3		ENE			3		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			29.87	758.7	52	11.1		E			1		10					Drizzling	J. Lucas, for R. Main.
Plymouth			29.91	759.7	55	12.8		SE			2		10					Foggy	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.87	758.7	58	14.4		SW			4		5						W. Kennedy.
Saint Ann's Head			29.88	758.9	53	11.7		Calm			0		10						John C. Walker.
Saint Helier, (Jersey)			29.95	760.7	55.0	12.8		WSW			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			29.98	761.5	46.2	7.9		SE	28	12.5			6						Rev. C. Clouston.
Scarborough			30.02	762.5	43.7	6.5		SE			4		10						F. Shaw.
Scutari, (Turkey)			29.95	760.7	55.2	12.9		SSW			1		1					Slight haze.	Sergt. W. H. Lyne.
Sheffield			29.98	761.5	50.4	10.2		ENE			1		10			0	0	Raining	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.90	759.4	57.3	14.1		SE			6		7			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.98	761.5	45.1	7.3		ESE			1		10					Raining	Rev. C. J. Steward.
Stonyhurst Observatory			29.94	760.5	49.2	9.6		E			1		10						The Staff.
Stornoway, Lewis C. (Hebr)			29.90	759.4	54	12.2		SE			1		4						John Smith.
Strathfield Turgiss			29.90	759.4	54.5	12.5		SW			1		10					Raining	Rev Charles H. Griffith
Streatley Vicarage			29.92	760.0	54.2	12.2		WSW			1		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.97	761.2	50	10.0		SE			4		7						John Trotter.
Truro, Royal Institution			29.88	758.9	61	16.1		W			4		6						W Newcombe.
Valencia Observatory			29.88	758.9	54.8	12.7		SW	16	7.2			3						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York			29.93	760.2	51.0	10.6		SW			1		10					Raining	William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.21	767.4	45.1	7.3	51	SSW			2		0						
Fanöe			30.15	765.9	51.8	11.0	59	SE			6		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.80	756.9	48.2	9.0	97	NE			2		8						
Thorshavn, (Faröe)			30.01	762.3	50.2	10.1	76	SE			2		6						
Vestervig			30.15	765.8	53.4	11.9	55	ESE			2		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.01	762.3	72.7	22.6	34						1s						Normal School.
Alençon			29.98	761.6	59.0	15.0	81	W			1		8n			0	0		Normal School.
Amiens			29.92	760.0	75.6	24.2	70	W			2		5		W	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.93	760.3	63.1	17.3	65	WNW			2		10		S	0	0		Normal School.
Besançon			30.01	762.2	75.2	24.0	38	SSW			3		5		SW	0	0		Normal School.
Bourg en Bresse			30.00	762.1	72.7	22.6	64	S			1		2		NE	0	0		Normal School.
Bourges			30.06	763.4	66.9	19.4	76	WSW			2		8		S	0	0		Normal School.
Brest			29.94	760.5	61.3	16.3	67	WNW			3		5		WNW	0.138	3.50		Naval Observatory.
Caen			29.97	761.2	58.3	14.6	80	S			1		10		SW	0.032	0.8		Normal School.
Chartres			29.91	759.8	62.2	16.8		W			3		9n		SW	0	0	Raining	Normal School.
Chaumont			29.89	759.1	73.4	23.0		SSW			2		8		SSW	0	0		Normal School.
Commercy			30.00	762.0	69.1	20.6	24	W			4		5		E	0	0		Normal School.
Le Mans			30.04	763.0	57.2	14.0	84	SW			3		8		SW	0	0		Normal School.
Lons-Le Saulnier			30.03	762.7	64.4	18.0	45	S			2		2			0.098	2.5		Normal School.
Mâcon																			
Mirecourt			30.04	763.0	68.5	20.3	32	W			0		10		E	0	0		Normal School.
Orleans			30.02	764.2	69.8	21.0	63	WSW			4		8		SW	0	0		Normal School.
Paris Observatory			29.89	759.1	59.7	15.4		S			2		8		WSW	0	0	Storming	National Observatory.
Parthenay			30.04	763.1	62.6	17.0	80	W			2		5		W	0	0		Normal School.
La Roche sur Yon			30.06	763.4	62.6	17.0	70	W			2		8		E	0.020	0.5		Normal School.
Rouen			29.95	760.8	60.4	15.8	76	WSW			2		10		W	0	0		Normal School.
Saint Lo			29.99	761.8	55.0	12.8	95	SW			2		10		W	0.098	2.5		Normal School.
Villefranche			29.99	761.7	82.4	28.0	74	ESE			2		5			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.55	623.5			57.0	13.9	73	ESE	14.9	6.66			5		W	0	0		—. Falguère.
Montsouris Observatory			29.89	759.1	75.9	24.4	31	SE			2		10kæc		SSE	0	0		Marié Davy.
Perpignan	29.90	759.4			70.3	21.3	63	SE	5.6	2.50			1		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.88	759.0	75.2	24.0	30	SSE			1		9			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.02	762.4	57.9	14.4	80	SW			1		10		W	0	0		C. Marquet.
Versailles, (near Paris)			29.89	759.2	77.7	25.4	28	NW			2		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.13	765.2	54.3	12.4	80	SE	6.9	3.1			Mist			0 / 0	0 / 0	Misty	H. Le Leo, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.97	761.3	62.6	17.0	40	NW			4		2			0	0		Prof. Hoh.
Berlin			30.24	768.2	55.6	13.1	42	NE			1		8			0.142	3.6		Prof. Arndt.
Breslau			30.15	765.7	50.2	10.1	60	NNW			3		10			0.146	3.7		Dr. P. Neugebauer.
Carlsruhe			29.92	760.0	71.2	21.8	33	NE			1		0			0	0		A. Senz.
Cassel			29.93	760.3	64.9	18.3	54	NNW			2		3			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.00	762.0	62.6	17.0	65	SW					2			0.508	12.9		M. Wilhelm.
Hamburg			30.16	766.1	53.8	12.1	61	SE			4		9ks			0.074	1.80		W. Reinert.
Kiel			30.17	766.4	51.8	11.0	54	E			5		0			0	0		Prof. G. Karsten.
Königsberg			30.13	765.4	42.8	6.0	40	N			2					0.001	0.03		Prof. E. Luther.
Köslin			30.37	771.3	44.4	6.9		NE			4		0			0	0		Dr. T gert.
Leipsic			30.12	765.0	55.8	13.2	65	NE			2		7			0.134	3.4		Prof. Bruhns.
Münster			30.06	763.4	62.6	17.0	59	E			3		0			0.606	15.4		Prof. E. Heis.
Posen			30.19	766.9	50.7	10.4	45	NE			5		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.93	760.2	70.7	21.5	32	Calm			0		2			0.268	6.56		Hartwig and Tülk.
Stuttgart			30.11	764.7	69.8	21.0	36	E					0			0	0		Mr. Würth.
Thorn			30.13	765.2	48.7	9.3	50	N			5		2			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.88	759.0	71.4	21.9	32	W			3		2			0	0		Prof. Flesch.
Wustrow			30.23	767.7	50.0	10.0	32	ENE			3					0	0		E. F. Schüts.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.97	761.2	70.2	21.2	60	SE	6.3	2.8			2	S		0	0		
Mondovi			29.95	760.6	65.8	18.8	58	SE			2		1	WNW		0	0		
Genoa			30.08	763.9	58.8	14.9	81	S	2.5	1.1			10	SE		Blank	Blank		
Pavia			29.95	760.7	72.1	22.3	42	W			8		0			0	0		
Verona			29.88	759.0	75.2	24.0	42	E			1		0			0	0		
Padua			29.92	760.0	67.3	19.6	51	SE	1.8	0.8			0			0	0		
Parma																			
Bologna			29.95	760.6	70.9	21.6	18	NW			4		0			0	0		
Livorno			30.08	764.1	62.6	17.0	66	W	10.5	4.7			1			0	0		
Urbino			30.00	762.1	66.2	19.0	43	SSW			4		0			0	0		
Ancona			30.00	761.9	66.9	19.4	58	SSE			4		0			0	0		
Siena			30.04	762.9	67.6	19.8	56	NW			1		5	W		0	0		
Rome			30.12	765.1	68.7	20.4	38	SSW	5.6	2.5			0			0	0		
Naples, O. U			30.17	766.3	66.2	19.0	65	SSW			2		1	NW		0	0		
Lecce			30.09	764.3	64.4	18.0	45	WSW	12.5	5.6			1			0	0		
Cosenza			30.10	764.6	71.1	21.7	36	NW			4		0	W		0	0		
Catania, (Sicily)																			
Siposto			30.11	764.9	71.2	21.8	52	S			2		2			0	0		
Palermo			30.09	764.2	66.0	18.9	36	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.18	766.5	65.8	18.8	61	SW			3					0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.98	761.5	59.7	15.4		ESE			3								
Groningen			30.00	762.1	55.6	13.1		ESE			2								
Helder			30.02	762.6	48.9	9.4		ENE			2								
Utrecht			29.95	760.8	61.2	16.2	54	E			2		2						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.16	766.1	50.0	10.0	69	Calm	0	0			10			0	0		
Christiania			30.14	765.6	53.4	11.9	47	SSW	8.9	4.0			0			0	0		
Tromsö			29.79	756.6	37.0	2.8	98	SW			3		10			0.102	2.6		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.84	757.8			66.7	19.3	50	NW	7.4	3.3			4						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.03	762.7	47.1	8.4	42	N	9	4			10						Astronomical Obs.
Wilna			30.00	761.9	45.7	7.6	39	N	10	4.5			10						Astronomical Obs.
Dorpat			30.08	763.9	43.3	6.3	34	NW	11	5			0						Physical Cabinet.
St. Petersburg			29.98	761.6	43.2	6.2	41	NNE	4	2			1						Central Physical Obs.
Kuopio																			
Kieff			29.80	756.9	57.4	14.1	70	W	4	2			9						Physical Cabinet.
Nikolaiev			29.91	759.6	55.6	13.1	44	S	13	6			0						
Kertch			29.96	761.0	57.4	14.1	57	SW	8	3.5			8						Lagorio.
Moscow			29.91	759.8	49.8	9.9	50	WNW	8	3.5			5						Meteorological Obs.
Lugan			29.80	757.0	53.8	12.1	56	N	8	3.5			5						Meteorological Obs.
Archangel			29.79	756.7	38.5	3.6	90	NNW	8	3.5			10					Raining	Ogorodnikof.
Tiflis			29.78	756.4	75.0	23.9	34	E	10	4.5			5						Physical Obs.
Astrakhan			29.97	761.2	64.8	18.2	41	W	10	4.5			4						Sebastianof.
Kasan			29.60	751.9	40.5	4.7	94	WNW	4	2			10						Physical Cabinet.
Orenburg			29.64	752.9	70.5	21.3	73	NW	7	3.5			9						Tschernischef.
Ekaterinburg			29.94	760.4	52.3	11.3	49	E	20	9			10						Meteorological Obs.
Kasaly			29.77	756.1	88.2	31.2	68	SW	20	9			2						Bobrof.
Tashkend			29.88	759.0	81.7	27.6	50	Calm	0	0			1						Michelson.
Barnaul			30.27	768.8	46.0	7.8	37	Calm	0	0			1						Meteorological Obs.
Yeniseisk			29.96	759.4	33.8	1.0	69	NW	20	9			10						Marks.
Irkutsk			29.85	758.3	34.9	1.6	66	NW	10	4.5			10						Usolzef.
Oorga			29.52	749.9	48.2	9.0	68	Calm	0	0			3						Mossin.
Peking, (China)			30.00	762.1	55.2	12.9	45	SSE	10	4.5			8						Physical Observatory
Nertchinsk			29.67	753.7	45.0	7.2	37	WSW	8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					31.1	— 0.5	100	E	10	4.5			0						Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.99	761.8	76.1	24.5	38	SW	5.2	2.33		1	3	N		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.07	763.7	44.6	7.0	71	NW			2		2			0	0		
Hernosand			30.10	764.4	47.8	8.8	89	SW			2		6			0	0		
Stockholm			30.10	764.6	48.9	9.4	29	S			3		0			0	0		
Wisby															N				
Sub-Series.																			
Upsala			30.11	764.7	52.9	11.6	36	W			2		1						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.56	725.3			66.9	19.4	46	NNE			2		6			0	0		The Observatory.
Zurich	28.34	719.9			72.5	22.5	37	NW			1		3			0.591	15.0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.8mm.; Thermometer, +5°0. C.; Relative Humidity, —12 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Beirut, (Syria)			29.94	760.4	69.8	21.0	67	W			3		10					Rain	
Constantinople			29.98	761.5	60.3	15.7	59	SW	3.4	1.5			0			0	0		
Fao, (Persian Gulf)			29.92	759.9	84.2	29.0		SE			4		0						
Salonica					72.1	22.3		NW			1		0						
Valona			30.04	762.8	68.9	20.5		S			2		0						
Varna			29.92	760.0	53.6	12.0		SE			2		8					Light rain	

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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.

Brockville, Ontario			30.02	762.2	43	6.1		Calm	0	0		5c	0	W		0	0		
Chatham, N. B.			29.64	752.8	38	3.3	87	N	5	2.2			Haze			0	0		
Charlottetown, P. E. Island			29.57	751.1	37	2.8	57	NW	10	4.5			10s			1.25	31.7		
Fort Garry, Manitoba			30.15	765.8	19	— 7.2	97	NW	9	4.0		0	0			0	0		
Halifax, N. S.			29.50	749.3	42	5.6	87	W	16	7.2			5n		NW	0.08	2.0	Clearing	
Kingston, Ontario			29.98	761.5	36	2.2	83	Calm	0	0		10c	0			0	0		
Montreal, Quebec			29.89	759.2	38	3.3	72	W	12	5.4			10ks		W	0	0		
Ottawa, Ontario			29.94	760.5	38	3.3	52	W	4	1.8		5ck	0	W		0	0		
Parry Sound, Ontario			29.93	760.2	32	0.0	60	NE	7	3.1		2cs	5ks	NE	NE	0	0		
Port Dover, Ontario			29.93	760.2	35	1.7	70	NE	13	5.8		10k	0	NE		0	0		
Port Stanley, Ontario			29.89	759.2	36	2.2	69	E	35	15.6			10n			0	0		
Quebec, Quebec			29.78	756.4	40	4.4	82	SW	12	5.4		8k	2ks	SW	SW	0.06	1.5	Clearing	
Saugeen, Ontario			29.89	759.2	33	0.6	79	E	8	3.6			8s			0	0		
Stayner, Ontario			29.91	759.7	35	1.7	76	SE	1	0.4		Haze	0			0	0		
Sydney, C. B.			29.45	748.0	35	1.7	94	NW	9	4.0			10n		N	0.13	3.3		
Toronto, Ontario			29.98	761.5	34	1.1	70	SE	3	1.3			10n			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

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

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.97	761.2	43	6.1	59	NW	3	1.3		2c	0	W		0	0		
Alpena, Mich.			29.86	758.4	33	0.1	69	E	9	4.0			10ks		SE	0	0		
Atlantic City, N. J.			30.03	762.7	47	8.3	69	NE	8	3.6		5c	0	NW		0	0		
Augusta, Ga.			29.87	758.7	67	19.4	79	S	6	2.7		5cs	0	S		0	0		
Baltimore, Md.			29.98	761.5	53	11.7	52	E	4	1.8		5ck	5s	W		0	0		
Barnegat, N. J.			30.03	762.7	45	7.2	64	W	3	1.3		0	8s		W	0	0		
Benton, Montana			29.95	760.7	35	1.7	80	E	2	0.9		5k	0			0.23	5.8		
Bismarck, Dakota			30.08	764.0	25	— 3.9	77	NE	5	2.2		10k	0	NE		0	0		
Boston, Mass.			29.91	759.7	45	7.2	38	W	11	4.9		2c	0	NW		0	0		
Breckenridge, Minn.			30.16	766.1	23	— 5.0	72	N	12	5.4		0	0			0	0		
Buffalo, N. Y.			29.92	760.0	34	1.1	61	E	8	3.6			Haze			0.02	0.5		
Burlington, Vt.			29.91	759.7	40	4.4	64	W	5	2.2		0	2s			0	0		
Cairo, Ill.			29.42	747.3	65	18.3	73	SW	20	8.9			10ks		SW	0.84	21.3	Threatening	
Cape Hatteras, N. C.			29.95	760.7	65	18.3	83	SW	12	5.4		5ck	Haze	SW		0	0		
Cape Henry, Va.			29.97	761.2	53	11.7	86	SE	8	3.6			10s			0	0		
Cape May, N. J.			30.03	762.7	49	9.4	50	S	10	4.5		5k	0	NW		0	0		
Charleston, S. C.			29.98	761.5	68.5	20.3	90	SW	12	5.4		8c	Haze	SW		0	0		
Cheyenne, W. T.			29.90	759.4	31	— 0.1	79	SW	12	5.4		5ck	0	W		0	0		
Chicago, Ill.			29.50	749.3	37	2.8	100	N	14	6.3			10n			0.17	4.3	Heavy rain.	
Cincinnati, Ohio			29.45	748.0	56	13.3	80	SE	12	5.4			10s		SE	0.59	15.0	Threatening	
Cleveland, Ohio			29.75	755.6	41.2	5.1	70	SE	16	7.2			10n			0.03	0.8	Light rain	
Colorado Springs, Col.			29.91	759.7	35	1.7	80	S	6	2.7			10n			0.17	4.3	Light rain.	
Corsicana, Texas			29.79	756.7	59	15.0	64	W	10	5.4		0	0			0	0		
Davenport, Iowa			29.59	751.6	35	1.7	90	N	20	8.9			10n		N	0.51	13.0	Light rain.	
Denver, Col.			29.95	761.5	36	2.2	80	E	2	0.9		0	5s		S	0.35	8.9		
Detroit, Mich.			29.74	755.4	39	3.9	72	E	11	4.9			10n		E	0.01	0.3	Light rain.	
Dodge City, Kansas			29.67	753.6	35	1.7	80	N	20	8.9			10s			0	0		
Dubuque, Iowa			29.72	754.9	33	0.1	89	N	10	4.5			10n			0.51	13.0	Light rain.	
Duluth, Minn.			29.94	760.5	29	— 1.7	67	N	12	5.4			10s		N	0	0	Threatening	
Eastport, Me.			29.68	753.9	43	6.1	66	N	22	9.8		10k	0	N		0	0		
Erie, Penn.			29.85	758.2	41	5.0	56	E	8	3.6			10n			0	0	Light rain.	
Escanaba, Mich.			29.82	757.4	30	— 1.1	100	E	6	2.7			10n			0.08	2.0	Heavy snow	
Fort Gibson, I. T.			29.55	750.6	58	14.4	93	N	16	7.2			10s		N	5.09	129.3		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.12	765.0	27	— 2.8	82	NE	10	4.5		0	0			0.10	2.5		
Galveston, Texas			29.75	755.6	70	21.1	90	SW	5	2.2		0	0			0.08	2.0		
Grand Haven, Mich.			29.61	752.1	37	2.8	80	E	15	6.7			10s			0	0		
Indianapolis, Ind.			29.26	743.2	51	10.6	100	SE	20	8.9			10n		SE	1.30	33.0	Light rain.	
Indianola, Texas			29.78	756.4	71	21.7	90	S	4	1.8		0	Fog			0.01	0.3		
Jacksonville, Fla.			30.01	762.2	69	20.6	71	S	8	3.6		8k	0	SW		0	0		
Keokuk, Iowa			29.47	748.5	38	3.3	100	N	20	8.9			10n		N	1.03	26.2	Light rain.	
Key West, Fla.			30.06	763.5	78.3	25.7	78	SE	12	5.4			Sm'e			0	0		
Kittyhawk, N. C.			29.94	760.5	57	13.9	88	S	2	0.9			10s		W	0	0		
Knoxville, Tenn.			29.68	753.9	58	14.4	81	W	2	0.9		8k	0	W		0.04	1.0		
La Crosse, Wis.			29.75	755.6	37	2.8	81	N	10	4.5			10s		N	0.10	2.5		
Leavenworth, Kan.			29.84	757.9	39	3.9	75	N	20	8.9			10s		N	0.44	11.2		
Lexington, Ky.			29.50	749.3	61	16.1	55	S	28	12.5			10n			0.20	5.1	Threatening	
Long Branch, N. J.			30.03	762.7	50	10.0	39	NW	5	2.2		10c		NW		0	0		
Louisville, Ky.			29.40	746.7	65	18.3	73	SE	20	8.9			10ks		SW	0.72	18.3	Threatening	
Lynchburg, Va.			29.88	758.9	57	13.9	75	Calm	0	0			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.87	758.7	29	— 1.7	89	N	8	3.6			10n			0.02	0.5	Light snow.	
Memphis, Tenn.			29.54	750.3	65	18.3	89	SW	14	6.3			10ks		SW	1.54	39.1		
Milwaukee, Wisconsin			29.67	753.6	36	2.2	70	SE	16	7.2			10s			0	0		
Mobile, Ala.			29.82	757.4	72	22.2	85	S	8	3.6			10s		SW	0	0		
Montgomery, Ala.			29.82	757.4	71	21.7	75	S	9	4.0		5cs	5k	SW		0	0		
Morgantown, W. Virginia			29.76	755.9	47	8.3	96	NW	3	1.3			10n			0.06	1.5	Light rain.	
Mt. Washington, N. H.			29.72	754.9	13	—10.6	100	NW	66	29.5			Fog			0	0		
Nashville, Tenn.			29.54	750.3	65	18.3	78	S	16	7.2			10ks		S	0.42	10.7		
New Haven, Conn.			30.02	762.5	51	10.6	45	W	7	3.1		1cs	0	NW		0	0		
New London, Conn.			30.01	762.2	47	8.3	41	W	9	4.0		1c	0	W		0	0		
New Orleans, La.			29.79	756.7	73.5	23.1	85	S	8	3.6		2k	5ks	SW	S	0.02	0.5		
Newport, R. I.																			
New York, N. Y.			30.05	763.3	45	7.2	46	NW	6	2.7		0	0			0	0		
Norfolk, Va.			29.96	761.0	57	13.9	80	SE	8	3.6			10s		W	0	0		
North Platte, Neb.			29.72	754.9	33	0.1	70	NW	10	4.5		2ck	5ks	N	NW	0	0		
Omaha, Neb.			29.86	758.4	35	1.7	80	N	20	8.9		0	0			0.04	1.0		
Oswego, N. Y.			29.98	761.5	39.6	4.2	59	WNW	3	1.3			10s			0	0		
Peck's Beach			30.06	763.5	47	8.3	69	E	8	3.6		5ck	5s	S		0	0		
Pembina, D. T.			30.15	765.8	18	— 7.8	75	NW	8	3.6		2c	0			0	0		
Philadelphia, Penn.			30.04	763.0	45	7.2	38	E	11	4.9		2ck	8s	W	E	0	0		
Pike's Peak, C. T.			29.78	756.4	11	—11.7	100	NW	16	7.2		10k	0	N		0.19	4.8		
Pittsburgh, Penn.			29.80	756.9	44	6.7	100	NE	4	1.8			10n		NE	0	0	Light rain.	
Port Huron, Mich.			29.80	756.9	36	2.2	62	SE	12	5.4			10n		SE	0	0	Light rain.	
Portland, Maine			29.85	758.2	46	7.8	40	S	3	1.3		1c	0	NW		0	0		
Portland, Or.			30.18	766.6	52	11.1	86	SW	8	3.6			10s			0	0		
Punta Rassa, Fla.			30.05	763.5	72.5	22.5	85	SE	12	5.4		Haze	Sm'e	SW		0	0		
Rochester, N. Y.			29.96	761.0	36	2.2	70	SW	2	0.9		5c	Haze			0	0		
Salt Lake City, Utah			29.87	758.7	48	8.9	36	E	3	1.3		0	0			0.02	0.5		
Sandy Hook, N. J.			30.01	762.2	45	7.2	45	N	6	2.7		8cs	Haze	W		0	0		
San Diego, Cal.			30.06	763.5	56	13.3	81	NW	4	1.8			10s		W	0	0		
San Francisco, Cal.			30.11	764.8	50	10.0	79	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.64	752.8	44.5	6.9	57	S	8	3.6		2c	5s	SW	SW	0.07	1.8		
Savannah, Georgia			29.97	761.2	70	21.1	67	S	8	3.6		8c	Sm'e			0	0		
Shreveport, La.			29.65	753.1	65	18.3	86	Calm	0	0		0	0			2.03	51.6		
Springfield, Mass.			29.97	761.2	48	8.9	49	SW	8	3.6		5cs	0	NW		0	0		
St. Louis, Mo.			29.29	744.0	60	15.6	87	SW	12	5.4			10n			1.42	36.1	Light rain.	
St. Marks, Fla.			29.95	760.7	68	20.0	84	SE	10	4.5		5c	0	W		0	0		
St. Paul, Minn.			29.93	760.2	31	— 0.6	68	SW	12	5.4		0	0			0.01	0.3		
St. Paul's Island, Alaska			29.11	739.4	34	1.1	89	NE	21	9.4			10s			0.01	0.3		
Squan Beach, N. J.			30.03	762.7	46	7.8	26	N	5	2.2		8k	0			0	0		
Toledo, Ohio			29.67	753.6	43	6.1	83	E	20	8.9			10n		SE	0.12	3.0	Light rain.	
Tybee Island, Ga.			29.97	761.2	71	21.7	75	SW	2	0.9		2c	5s	SW		0	0		
Vicksburg, Miss.			29.70	754.4	72	22.2	75	SW	16	7.2		0	5cs		SW	0	0		
Virginia City, Mon.			29.66	753.4	32	0.0	62	N	2	0.9		0	0			0	0		
Washington, D. C.			29.96	761.0	53	11.7	40	SE	6	2.7			10s			0	0		
Wilmington, N. C.			29.95	760.7	71	21.7	67	NW	14	6.3		3c	Haze	NW		0	0		
Wood's Hole, Mass.			29.98	761.5	47	8.3	48	W	16	7.2		5c	0	NW		0	0		
Wytheville, Va.			29.59	751.6	59	15.0	70	SE	10	4.4			10s			0	0		
Yankton, D. T.			30.02	762.5	29	— 1.7	77	NW	18	8.0		0	0			0.05	1.3		

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7	74	NE	7	3.1		2k	2s	W		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.05	763.3	81	27.2	70	E				2k	5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.80	759 2	79	26.1	72	S	4.8	2.1		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.25	768.3	78	25.6	73	Calm	0	0		1k	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			78	25.6	74	E	4	1.8		2k	2ks	NE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.88	758.9	78	25.6	65	Calm	0	0		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.10	764.5	67	19 4	79	SW	4.8	2.1		0	0			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	64	17.8	75	NE			2					0	0		E. P. Church.
Makawao, Maui, S. I.																0.13	3.3	Threatening	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.13	765.3	9	--12.8	100	N	10	4.5			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.11	764 8	65	18.3	88	SSE	2.5	1.1			5k			0	0		C. Partridge.
St. John's, Newfoundland			29.85	758.2	35	1.7	100	E				Fog	Fog			0	0		John Delaney.
St. John's, Porto Rico, W. I																			Leon M. Acuña.
Elyria, Ohio			29.70	755.9	41	5.0	61	SE	8	3.6			10n			0.47	11.9		H. M. Redington.
Indianola, Iowa	28.92	734.6			36	2.2	80	NE					10n			0.18	4.6		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 30° 08', W. 65° 18'	E ½ S	2	30.04	763.0	65	18.3	92	WNW			2		..s			Smooth			James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2.205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 2, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.5	74.7	23.7		NNE			2		1			0	0		Charnot.
Algiers			30.06	763.4	69.4	20.8	75	WNW			2		0			0	0		Peter.
La Calle			30.20	767.0	69.8	21.0		W			2		0			0	0		Kuntz.
Tunis			30.25	768.4	70.9	21.6	61	ESE			3		0			0.055	1.4		Jacques.
Sfax			30.17	766.3	73.0	22.8	62	SSE			3		2			0	0		Chauvey.
Saida			30.09	764.2	73.4	23.0		SSE			1		0			0	0		Grosjean.
Tobessa			30.12	765.0	68.2	20.1		SSE			5		10			0.630	16.0	Storming	Colin.
Gerlville			30.1	764.6	69.8	21.0		NW			2		1			0	0		Bernadach.
Laghouat			30.11	764.8	76.1	24.5	25	NW			2		3			0	0		Poinsignon.
Biskra			30.13	765.2	78.3	25.7		NW			2		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jellinek, 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.01	762.2	67.3	19.6	41	NE			3		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.15	765.7	52.2	11.2	58	NE			2		2			0	0		I. R. Observatory.
Eperies			30.10	764.4	48.7	9.3	47	NE			3		6			0	0		Julius Mikolik.
Gratz			30.09	762.1	57.9	14.4	80	SW			2		8			0.035	0.9		Andreas Rospini.
Hermannstadt			29.95	760.6	52.2	11.2	58	N			3		5			0.317	8.05		Prof. Reissenberger.
Kronsmünster			29.93	760.2	58.8	14.9	51	E			3		7			0.236	6.0		Prof. C. Wagner.
Lemberg			30.06	763.5	44.8	7.1	50	N			4		9			0.039	1.0		Dr. T. Stanecki.
Nyiregyhaza			30.10	764.4	51.4	10.8	47	N			3		9			0	0		Habzsuda Daniel.
Pola			30.00	762.0	63.0	17.2	68	SE			3		7cks			0	0		I. R. Hydrographic Office
Szegedin			30.07	763.7	54.3	12.4	38	E			2		4			0	0		Karl Stancel.
Trieste			30.02	762.4	62.4	16.9	65	N			1		10			0.154	3.9	Drizzling	Prof. V. Farolfi.
Vienna			30.03	762.8	58.8	14.9	28	E			1		3			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.74	755.4			61.2	16.2	61	W			1		9	W	SW	0.071	1.80	Clearing	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.96	761.0	46.9	8.3		SSE	19	8.5			9			0	0		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			29.85	758.2	58.0	14.4		SE	17	7.6			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.93	760.2	53.7	12.1		ESE			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.78	756.4	59.0	15.0		SE			3-4		10						J. Dreyer, for L'd Rosse
Bradford																			J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.06	763.5	83.0	28.3		NE			2		5						T. H Hunt.
Bywell																			
Cambridge Observatory			29.97	761.2	52.0	11.1		NW			1		4						H. Todd.
Cape Town, (Cape Colony)			29.99	761.7	61.8	16.6		NW			5		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.01	762.2			61.6	18.1	72	NW	13	5.8			6						The Staff, for E. J. Stone
Cardington			29.97	761.2	60.0	15.6		NW					9						John McLaren.
Carlisle			29.91	759.7	59.1	15.1		E					10			0	0		T. Bell, for J. Cartmell
Chatham, School M. E.			29.92	760.0	54.5	12.5		W			1		10						Q. M. Sergt. J. Conroy
Colombo, (Ceylon)			29.92	760.0	82.5	28.1		SW			2		5						Sgt. W. F. Hopkins
Dartmoor			30.06	763.5	50.5	10.3		SW			2		8						R. E. Power.
Donaghadee			29.88	758.9	51	10.6		SE			4		10						J. Mac Gowan, Jr.
Dover			30.95	760.7	52	11.1		WSW			1		9						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.93	760.2	54.3	12.4		ESE	2.6	1.2			10						Thomas Mackereth.
Falmouth Observatory			29.97	761.2	56.5	13.6		S	20	8.9			10						The Staff.
Fort Napier, (Natal)			29.76	755.9	76.4	24.7		E			2		9						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	87	30.6		N					7						
Galway, Queen's College			29.71	754.6	61	16.1		SE			6		10						B. G. Clare, for Prof. Cu[illegible]
Gibraltar, (Mediterranean)			30.03	762.7	71.5	21.9		SW			3		0						Sergt. E. G. Baker.
Glasgow Observatory			29.89	759.2	52.2	11.2		ENE			1		10						James Gray.
Great Yarmouth			29.92	760.0	51	10.6		NNE			2		1						G. T. Watson.
Greenwich Royal Obs.			29.96	761.0	54.5	12.5		NW			1		10						The Staff, for G. B. Airy
Guernsey			30.01	762.2	57	13.9		SW			1		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			F. J. Page, for L. J. Cro[illegible]
Halifax, (Nova Scotia)			29.92	760.0	37.3	14.1		SE			3		10						Corp'l J. Y. Thompson
Helston			29.94	760.5	60	15.6		S			5		10						Dr. W. B. Moyle.
Holyhead			29.92	760.0	58	14.4		SSW			3		2						John Tilston.
Hull Park																			
Kew Observatory			30.00	762.0	54.7	12.6		W	6	2.7			10					Threatening	The Staff.
Kingstown			29.89	759.2	55	12.8		SSE			1		5						George Mitchell.
Lampeter																			
Leicester Museum			29.98	761.5	53.0	11.7		Calm			0		9						William J. Harrison
Llandudno			29.93	760.2	56.4	13.6		NE					9						Dr. James Nicol.
Malta, (Mediterranean)			30.06	763.5	69.0	20.6		SW			1		6k						Fred Travis, Pvt A.H.G.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.89	759.2	53	11.7		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.12	765.0	79.9	26.6		SE			2		0						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.97	761.2	56.3	13.5		SE			2		10k		SE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.97	761.2	52.8	11.6		SSW			2		10					Foggy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.94	760.2	59	15.0		WNW			1		10						J. Lucas, for R. Main.
Plymouth			29.98	761.5	58.5	14.7		SE			2		9						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.80	756.9	53	11.7		S			5		10					Raining	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.02	762.5	57.6	14.2		SSE			1		5						A. P. Amy.
Sandwick Manse(Orkneys)			29.92	760.0	48.2	9.0		SSE	25	11.2			4						Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.95	760.7	58.0	14.4		N			2		6					Showery	Sergt. W. H. Lyne.
Sheffield			29.95	760.7	53.5	11.9		SW			1		10			0.4	1.0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.92	760.0	57.9	14.4		Calm			0		8			0	0		Rev Francis Redford
Somerleyton, (Lowestoft)			29.92	760.0	62.1	16.7		NNE			1		2						Rev. C. J. Steward.
Stonyhurst Observatory			29.93	760.2	53.7	12.1		E			1		10					Threatening	The Staff.
Stornoway, Lews C. (Hebr.)			29.86	758.4	57	13.9		ENE			1		0						John Smith.
Strathfield Turgiss			29.95	760.7	61.4	16.3		NW			1		3						Rev Charles H. Griffith
Streatley Vicarage			29.98	761.5	63.9	17.7		W			2		8						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.92	760.0	52	11.1		SSE			2		3					Hazy	John Trotter.
Truro, Royal Institution			29.92	760.0	58	14.4		SW			6		10						W. Newcombe.
Valencia Observatory			29.67	753.6	56.6	13.7		SSE	30	13.4			10					Raining	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.15	765.9	50.5	10.3	54	S			2		0						
Fanöe			30.07	763.6	53.4	11.9	59	SE			6		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.65	753.0	48.9	9.4	78	SE			4		8					Raining	
Thorshavn, (Faröe)			29.90	759.5	46.0	7.8	94	SE			2		10					Foggy	
Vestervig			30.07	763.8	54.7	12.6	42	SSE			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.99	761.8	67.6	19.8	57						1s						Normal School.
Alençon			30.06	763.5	64.4	18.0	39	NW			2		5k			0	0		Normal School.
Amiens			30.00	761.9	56.5	13.6	65	WSW			3		10			0.512	13.0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.04	763.0	56.1	13.4	67	WNW			2		10		WNW	0.276	7.0		Normal School.
Besançon			30.10	764.4	60.8	16.0	55	SW			2		8		SW	0.394	10.0		Normal School.
Bourges			30.07	763.8	61.2	16.2	73	WSW			6		5		S	0.114	2.9		Normal School.
Bourg en Bresse			30.11	764.8	65.3	18.5	53	NW			2		1		NE	0	0		Normal School.
Brest			29.95	760.8	61.3	16.3	69	SW			3		10		SW	0.020	0.50		Naval Observatory.
Caen			30.04	763.0	61.9	16.6	58	WNW			1		1		W	0.583	14.8		Normal School.
Chartres			30.00	762.0	63.7	17.6		NW			1		5k		NW	0.079	2.0		Normal School.
Chaumont			29.95	760.8	58.8	14.9		WSW			2		...kn		WSW	0.252	6.4		Normal School.
Commercy			30.09	761.2	57.6	14.2	53	W			4		5		E	0.213	5.40		Normal School.
Le Mans			30.13	765.2	59.5	15.3	58	WNW			2		5		WNW	0	0		Normal School.
Lons-Le Saulnier			30.06	763.5	61.0	16.1	49	W			2		2		E	0	0		Normal School.
Mâcon																			Normal School.
Mirecourt			30.13	765.3	58.6	14.8	45	E			2		10		W	0.098	2.5		Normal School.
Orleans			30.15	765.9	69.8	21.0	46	NNW			2		2		WSW	0	0		National Observatory.
Paris Observatory			30.04	762.9	54.9	12.7		NW			2		8		WNW	0.220	5.58		Normal School.
Parthenay			30.01	763.1	62.6	17.0	64	W			4		5		W	0	0		Normal School.
La Roche sur Yon			30.08	763.9	66.9	19.4	46	SW			1		5		NE	0	0		Normal School.
Rouen			30.01	762.3	52.9	15.1	56	W			3		5		W	0.307	7.8		Normal School.
Saint Lo			30.05	763.3	62.4	16.9	63	NW			2		5		NW	0.158	4.0		Normal School.
Villefranche			30.07	763.7	65.3	18.5	61	SSW			1		5		NW	0.520	13.2		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.88	632.0			52.3	11.3	85	ESE	14.9	6.66			8		SW	0.138	3.5		—. Falguère.
Montsouris Observatory			30.03	762.7	54.7	12.6	77	W			1		10kn		W	0.356	8.9		Marié Davy.
Perpignan	29.88	758.9			72.5	22.5	43	ENE	7.4	3.33			1		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.03	762.8	54.3	12.4	78	W			1		10			0.106	2.7	Light rain	E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.04	763.1	65.5	18.6	41	SW			1		5		W	0.032	0.8		C. Marquet.
Versailles, (near Paris)			30.01	762.2	55.8	13.2	71	WNW			2		10			0.155	3.93		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.13	765.3	58.1	14.5	86	ESE	5.8	2.6			Fog			{ 0 / 0	0 / 0 }		H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a.m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.09	761.8	50.0	10.0	96	S			2		10			0.094	2.4	Rain	Prof. Hoh.
Berlin			30.14	765.5	57.7	14.3	25	S			1		3			0	0		Prof. Arndt.
Breslau			30.18	766.6	52.2	11.2	42	SE			3		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.99	761.8	56.8	13.8	72	SW			2		10			0.252	6.4	Thunder-storm.	A. Senz.
Cassel			29.92	760.0	57.0	13.9	75	N			2		10			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.05	763.2	52.7	11.5	88	W					10			0.024	0.6		M. Wilhelm.
Hamburg			30.06	763.4	56.5	13.6	39	ESE			5		0			0	0		W. Reinert.
Kiel			30.06	764.5	55.2	12.9	37	E			4		0			0	0		Prof. G. Karsten.
Königsberg			30.17	766.4	50.5	10.3	36	N			1					0.001	0.03		Prof. E. Luther.
Köslin			30.34	770.5	50.2	10.1		N			4		2			0	0		Dr. T gert.
Leipsic			30.00	762.1	62.6	17.0	34	SE			3		4			0	0		Prof. Bruhns.
Münster			29.97	761.2	55.8	13.2	86	NE			2		9			0	0		Prof. E. Heis.
Posen			30.19	766.8	51.1	10.6	41	S			5		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.98	761.5	57.2	14.0	78	NE					10			0.064	1.61		Hartwig and Tülk.
Stuttgart			29.98	761.4	54.5	12.5	77	W					10			0.673	17.1	Raining	Mr. Würth.
Thorn			30.17	766.4	51.4	10.8	44	N			5		0			0	0		Dr. H senbalg.
Treves, (Trier)			29.92	759.9	62.2	16.8	52	W			7		8			0.251	6.38		Prof. Flesch.
Wustrow			30.15	765.8	54.5	12.5	44	E			2					0	0		E. F. chütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.08	761.4	61.2	16.2	76	ESE	6.3	2.8			10	E		0	0		
Mondovi			29.93	760.3	62.1	16.7	61	S			4		10	SW		0	0		
Genoa			30.24	768.0	63.7	17.6	65	SE	9.8	4.4			10	SE		0	0		
Pavia			29.98	761.5	64.9	18.3	52	NW			2		9	NE		0	0		
Verona			29.99	759.5	74.5	23.6	41	E			4		3			0	0		
Padua			29.97	761.1	64.6	18.1	58	NE	12.5	5.6			7	SW		0	0		
Parma																			
Bologna			29.95	761.7	67.5	19.7	18	WNW			6		2	S		0	0		
Livorno			30.06	763.4	63.9	17.7	63	SSW	8.7	3.9			4			0	0		
Urbino			30.02	762.4	65.8	18.8	26	SW			2		1			0	0		
Ancona			30.00	761.9	67.3	19.6	49	SE			4		1	S		0	0		
Siena			29.99	761.8	68.4	20.2	47	SE	0	0			3	W		0	0		
Rome			30.07	763.7	69.3	20.7	53	SW	6.9	3.1			2			0	0		
Naples, O.U.			30.10	764.5	67.6	19.8	64	SSW			2		1			0	0		
Lecce			30.06	763.4	66.2	19.0	70	ENE	11.2	5.0			0			0	0		
Cosenza			30.05	763.2	72.0	22.2	36	WNW			2		0	W		0	0		
Catania, (Sicily)																0	0		
Ritposto			30.04	763.1	69.1	20.6	56	E			2		2	S					
Palermo			30.02	762.5	65.8	18.8	58	NE			2		6			0	0		
Sub-Series.																			
Naples, S. R.	30.12	765.0			67.6	19.8	62	SW			0					0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.97	761.2	52.2	11.2		W			3								
Groningen			29.87	758.6	60.4	15.8		ESE			2								
Helder			29.91	759.6	58.3	14.6		S			2								
Utrecht			29.89	759.2	58.5	14.7	77	SW			2		8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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	53.6	12.0	47	SW	3.4	1.5			7			0	0		
Christiania			30.11	764.9	49.6	9.8	69	SW	6.0	2.7			1			0	0		
Tromsö			30.00	762.1	34.2	1.2	98	NE			1		10			0.118	3.0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon	29.78	756.3			70.9	21.6	48	ESE	6.3	2.8			2						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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	765.5	48.9	9.4	39	N	4	2			5						Astronomical Obs.
Wilna			30.11	764.9	46.4	8.0	52	N	8	3.5			6						Astronomical Obs.
Dorpat			30.11	764.9	47.8	8.8	40	NNW	7	3			1						Physical Cabinet.
St. Petersburg			30.00	761.9	40.8	4.9	62	WNW	7	3			0						Central Physical Obs.
Kuopio																			
Kieff			29.98	761.5	43.5	6.4	90	NNW	9	4			10						Physical Cabinet.
Nikolaiev			29.91	759.7	54.1	12.3	64	SSW	4	2			8						
Kertch			29.91	759.6	57.0	14.0	67	SSE	13	6			6						Lagorio.
Moscow			29.96	760.9	39.6	4.2	71	N	4	2			7						Meteorological Obs.
Lugan			29.80	756.9	60.3	15.7	42	E	4	2			7						Meteorological Obs.
Archangel			29.90	759.5	38.1	3.4	76	Calm	0	0			8						Ogorodnikof.
Tiflis			29.85	758.2	58.5	14.7	61	WNW	20	9			10						Physical Obs.
Astrakhan			30.00	761.9	62.6	17.0	38	WNW	2	1			10						Sebastianof.
Kasan			29.72	754.9	54.7	12.6	36	WNW	4	2			7						Physical Cabinet.
Orenburg			29.86	758.5	48.4	9.1	73	E	8	3.5			10						Tschernischef.
Ekaterinburg			29.60	751.8	48.7	9.3	89	W	13	6			10					Raining	Meteorological Obs.
Kasaly			29.80	756.9	81.9	27.7	48	WNW	8	3.5			3						Bobrof.
Tashkend			29.87	758.8	81.3	27.4	59	NW	20	9			5						Michelson.
Barnaul			30.13	765.2	51.3	10.7	34	NE	8	3.5			2						Meteorological Obs.
Yeniseisk			30.10	764.6	39.4	4.1	54	NW	8	3.5			0						Marks.
Irkutsk			30.03	762.8	32.4	0.2	96	SW	10	4.5			10						Usolzef.
Oorga			30.00	762.1	24.1	− 4.4	100	Calm	0	0			0						Mossin.
Peking, (China)			29.98	761.6	56.7	13.7	46	S	8	3.5			0						Physical Observatory
Nertchinsk			29.50	749.2	44.4	6.9	62	NW	4	2			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					30.7	− 0.7	94	E	4	2			0						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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	761.0	74.5	23.6	36	SW	14.2	6.33		0	6			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.02	762.5	54.3	12.4	48	NW			2		8			0	0		
Hernosand			30.06	763.4	54.0	12.2	39	W			1		6			0	0		
Stockholm			30.08	763.9	54.7	12.6	32	SSE			3		4			0	0	Hazy	
Wisby			29.18	766.6	40.6	4.8	81	NW			2		2			0	0		
Sub-Series. Upsala			30.08	764.1	57.0	13.9	33	Calm			0		7						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.61	726.7			61.9	16.6	69	SSW			2		7			0.346	8.8		The Observatory.
Zurich	28.43	722.1			51.3	10.7	94	W			1		10			0.976	24.8	Rainy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.2mm.; Thermometer, +2°.1 C.; Relative Humidity, +11 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)																			
Constantinople			29.97	761.3	51.8	11.0	81	N	22.4	10.0			8		N	0.299	7.6	Thunder-storm	
Fao, (Persian Gulf)			29.93	760.3	87.3	30.7		NW			4		0						
Salonica					64.8	18.2		NW			1		2						
Valona			30.01	762.2	70.5	21.4		S			2		0						
Varna			29.96	761.0	56.3	12.0		NW			4		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.42	747.3	36	2.2		SW	15	6.7			10s		SW	0.01	0.3		
Chatham, N. B.			29.90	759.4	39	3.9	70	E	3	1.3		5k	5s	E	E	0	0		
Charlottetown, P. E. Island			29.94	760.5	37	2.8	82	SE	9	4.0		8ck	0			0	0		
Fort Garry, Manitoba			30.01	762.2	25	− 3.9	94	NW	4	1.8		0	0			0	0		
Halifax, N. S.			29.82	757.4	37	2.8	80	E	6	2.7			10n			0	0		
Kingston, Ontario			29.38	746.2	36	2.2	93	SW	30	13.4			10ks			0.41	10.4		
Montreal, Quebec			29.38	746.2	38	3.3	90	SW	18	8.0			10n		SW	0.78	19.8	Light rain	
Ottawa, Ontario			29.23	742.4	38	3.3	76	S	18	8.0			10n			0.25	6.3	Light rain	
Parry Sound, Ontario			29.21	741.9	33	0.6	94	[illegible]	24	10.7			10n		W	0.65	16.5	Light snow	
Port Dover, Ontario			29.53	750.0	33	0.6	89	W	24	10.7		10k	0	W		0.68	17.3		
Port Stanley, Ontario			29.61	752.1	32	0.0	89	W	45	20.1			10n		W	1.33	33.8		
Quebec, Quebec			29.56	750.8	32	0.0	100	NE	22	9.8			10n		NE	0.27	6.9	H'vy rain & sleet	
Saugeen, Ontario			29.58	748.8	30	− 1.1	95	W	28	12.5			10s			0.82	20.8	Heavy snow	
Stayner, Ontario																0.29	7.4		
Sydney, C. B.			30.00	762.0	40	4.4	73	NE	1	0.4		8c	0	W		0	0		
Toronto, Ontario			29.41	747.0	36	2.2	83	W	25	11.2			10ks		W	0.66	6.8		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

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

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.43	747.5	43	6.1	100	S	8	3.6			10ks		SW	0.35	8.9		
Alpena, Mich.			29.53	750.0	28	— 2.2	88	W	24	10.7			10ks		W	0.08	2.0		
Atlantic City, N. J.			29.58	751.3	56	13.3	56	NW	14	6.3		0	0			0.01	0.3		
Augusta, Ga.			29.85	758.2	65	18.3	68	NW	8	3.6		0	0			0.50	12.7		
Baltimore, Md.			29.65	752.8	52	11.1	41	W	25	11.2			10s		S	0.01	0.3		
Barnegat, N. J.			29.56	750.8	57	13.9	61	W	15	6.7		0	0			0	0		
Benton, Montana			29.92	760.0	44	6.7	75	W	20	8.9		5k	5s	N		0	0		
Bismarck, Dakota			29.85	758.2	29	— 1.7	78	SE	4	1.8			10s			0	0		
Boston, Mass.			29.39	746.2	45	7.2	100	NW	8	3.6			Fog			0.33	8.4	Foggy	
Breckenridge, Minn.			30.00	762.0	25	— 3.9	83	NW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.46	748.3	32	0.0	89	SW	22	9.8			10n		SW	0.80	20.3	Light snow.	
Burlington, Vt.			29.39	746.5	43	6.1	67	S	8	3.6			10n			0.29	7.4	Light rain	
Cairo, Ill.			30.17	766.3	38	3.3	54	N	12	5.4		0	0			0.09	2.3		
Cape Hatteras, N. C.			29.73	755.1	66	18.9	90	SW	16	7.2			8s			0.40	10.2		
Cape Henry, Va.			29.67	753.6	68	20.0	60	W	12	5.4		2k	0	W		0	0		
Cape May, N. J.			29.60	751.8	52	11.1	72	W	6	2.7		0	0			0	0		
Charleston, S. C.			29.87	758.7	71	21.7	85	SW	4	1.8		0	5ks			0	0		
Cheyenne, W. T.			29.74	754.4	41	5.0	63	W	2	0.9			10s			0.07	1.8		
Chicago, Ill.			29.98	761.5	33	0.1	70	W	7	3.1		0	0			0.81	20.6		
Cincinnati, Ohio			30.00	762.0	39	3.3	72	NW	12	5.4			10s		NW	0.47	11.9		
Cleveland, Ohio			29.72	754.9	35.8	2.1	70	W	28	12.5		10k	0	W		1.10	27.9		
Colorado Springs, Col.			29.70	754.4	40	4.4	91	NW	2	0.9			10s			0.08	2.0		
Corsicana, Texas			30.10	764.5	46	7.8	76	N	6	2.7		2cs	0			0	0		
Davenport, Iowa			30.07	763.8	31	— 0.6	79	NW	12	5.4		0	Sm'e			0.04	1.0		
Denver, Col.			29.82	757.4	46	7.8	62	S	3	1.3			10s		W	0.05	1.3		
Detroit, Mich.			29.73	755.1	30	— 1.1	84	W	23	10.3		5ck	2k	NW		1.45	36.8		
Dodge City, Kansas			29.70	754.4	42	5.6	66	SE	12	5.4			10s			0	0		
Dubuque, Iowa			30.03	762.7	32	0.0	69	NW	8	3.6		0	0			0.21	5.3		
Duluth, Minn.			29.91	759.7	34	1.1	61	NW	6	2.7		5k	0	NW		0	0		
Eastport, Me.			29.76	755.9	37	2.8	90	SE	24	10.7			10n		SE	0.07	1.8	Light rain	
Erie, Penn.			29.56	750.8	34	1.1	79	W	30	13.4			10n			0.83	21.1	Light snow.	
Escanaba, Mich.			29.77	756.1	29	— 1.7	77	W	12	5.4			10s		W	0.40	10.2		
Fort Gibson, I. T.			30.12	765.0	41	5.0	65	E	12	5.4		5cs	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.84	757.9	35	1.7	63	SE	20	8.9		0	8s		SE	0	0		
Galveston, Texas			29.98	761.5	63	17.2	78	NE	16	7.2		0	0			0	0		
Grand Haven, Mich.			29.89	759.2	34	1.1	61	NW	25	11.2		0	0			0.45	11.4		
Indianapolis, Ind.			30.03	762.7	34	1.1	61	NW	16	7.2		8k	0	NW		0.46	11.7		
Indianola, Texas			30.00	762.0	60	15.6	90	NE	24	10.7		0	2s		NE	0	0		
Jacksonville, Fla.			29.89	759.2	73	22.8	90	S	4	1.8			10n			0.51	13.0	Heavy rain	
Keokuk, Iowa			30.08	764.0	34	1.1	61	NW	8	3.6		0	0			0.08	2.0		
Key West, Fla.			30.03	762.7	78.4	25.8	82	S	10	5.4		Haze	Haze			0	0		
Kittyhawk, N. C.			29.70	761.2	66	18.9	84	NW	16	7.2		5c	0	W		0.05	1.3		
Knoxville, Tenn.			30.02	762.5	46	7.8	47	NW	14	6.3		1k	0	W		0.30	7.6		
La Crosse, Wis.			29.99	761.7	31	— 0.6	68	W	12	5.4		0	0			0	0		
Leavenworth, Kan.			30.15	765.8	36	2.2	61	S	1	0.4		0	0			0.01	0.3		
Lexington, Ky.			30.04	763.0	37	2.8	53	NW			2	5k	0	NW		0.63	16.0		
Long Branch, N. J.			29.56	750.8	55	12.8	62	NW	25	11.2		0	0			0.05	1.3		
Louisville, Ky.			30.07	763.8	37	2.8	71	W	12	5.4			10s		W	0	0		
Lynchburg, Va.			29.72	754.9	56	13.3	35	NW	12	5.4		0	0			0.03	0.8		
Malone, N. Y.																			
Marquette, Mich.			29.77	756.1	30	— 1.1	78	NW	12	5.4			10s		NW	0.02	0.5		
Memphis, Tenn.			30.13	765.3	46	7.8	61	NE	10	4.5		0	0			0	0		
Milwaukee, Wisconsin			29.95	760.7	28	— 2.2	77	NW	13	5.8		2cs	0	NE		0.68	17.3		
Mobile, Ala.			29.96	761.0	65	18.3	63	N	5	2.2		0	0			0	0		
Montgomery, Ala.			29.98	761.5	62	16.7	64	N	10	4.5		0	0			0.09	2.3		
Morgantown, W. Virginia			29.79	756.7	41	5.0	82	SW	23	10.3			10s			0.46	11.7		
Mt. Washington, N. H.			29.60	751.8	21	— 6.1	100	S	40	17.9			Fog			0	0		
Nashville, Tenn.			30.08	764.0	46	7.8	48	NW	8	3.6		0	0			0	0		
New Haven, Conn.			29.50	749.3	50	10.0	78	N	3	1.3		0	5ks			0.24	6.1		
New London, Conn.			29.47	748.5	51	10.6	89	W	10	4.5		0	8s		W	0.10	2.5	Clearing	
New Orleans, La.			29.95	760.7	70	21.1	61	NE	12	5.4		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.53	750.0	50	10.0	64	W	16	7.2		0	0			0.09	2.3		
Norfolk, Va.			29.68	753.9	67	19.4	54	NW	14	6.3		0	0			0	0		
North Platte, Neb.			29.54	750.3	37	2.8	80	SE	14	6.3			10ks		SW	0	0		
Omaha, Neb.			30.06	763.5	34	1.1	79	Calm	0	0		5c	0	W		0	0		
Oswego, N. Y.			29.43	747.5	40	4.4	63	WSW	16	7.2			10s			0.39	9.9		
Peck's Beach			29.59	751.6	56	13.3	56	NW	16	7.2		Haze	Haze			0	0		
Pembina, D. T.			29.98	761.5	25	— 3.9	74	NW	4	1.8		0	0			0	0		
Philadelphia, Penn.			29.58	751.3	55	12.8	50	W	12	5.4		0	0			0.01	0.3		
Pike's Peak, C. T.			29.76	755.9	14	—10.0	82	W	14	6.3			10s			0.09	2.3		
Pittsburgh, Penn.			29.72	754.9	41	5.0	56	W	24	10.7		5k	0	NW		0.30	7.6		
Port Huron, Mich.			29.64	752.8	30	— 1.1	78	W	27	12.1		8k	0	W		1.10	27.9		
Portland, Maine			29.51	749.5	39	3.9	91	E	18	8.0			10n			0.60	15.2	Light rain	
Portland, Or.			30.23	767.8	49	9.4	85	SE	8	3.6			10s			0.02	0.5		
Punta Rassa, Fla.			30.03	762.7	79.0	26.1	82	S	12	5.4		5ck	5ks	S		0	0		
Rochester, N. Y.			29.41	747.0	36	2.2	80	W	28	12.5			10s		W	0.58	14.7		
Salt Lake City, Utah			29.90	759.4	55	12.8	38	NW	12	5.4			10s			0			
Sandy Hook, N. J.			29.52	749.8	40	9.4	92	W	24	10.7		1k	Haze	W		0.05	1.3		
San Diego, Cal.			30.01	762.2	55	12.8	79	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.05	763.3	50	10.0	79	S	4	1.8		0	0			0	0		
Santa Fe, N. M.			29.66	753.4	45	7.2	61	S	4	1.8		5c	2s	SW	S	0.06	1.5		
Savannah, Georgia			29.88	758.9	73	22.8	81	SW	6	2.7		5k	0	SW		0.18	4.6		
Shreveport, La.			30.10	764.5	51	10.6	72	NE	8	3.6		0	0			0	0		
Springfield, Mass.			30.48	774.2	40	4.4	91	N	8	3.6			10n		N	0.46	11.7	Light rain	
St. Louis, Mo.			30.17	766.3	35	15.7	44	NW	10	4.5		0	0			0	0		
St. Marks, Fla.			29.89	759.2	72	22.2	95	SW	1	0.4		0	5ks		W	0.44	11.2		
St. Paul, Minn.			29.94	760.5	30	— 1.1	59	NW	8	3.6		0	0			0	0		
St. Paul's Island, Alaska			29.38	746.2	29	— 1.7	77	N	23	10.3		0	10k			0	0		
Squan Beach, N. J.			29.55	750.6	56	13.3	55	NW	12	5.4		0	Haze			0.02	0.5		
Toledo, Ohio			29.83	757.7	34	1.1	79	W	22	9.8		2k	2s	SW	W	0.65	16.5		
Tybee Island, Ga.			29.88	758.9	73	22.8	81	Calm	0	0		2k	0	W		0	0		
Vicksburg, Miss.			30.12	765.0	56	13.3	62	NE	8	3.6			10s		NE	0	0		
Virginia City, Mon.			29.66	753.4	40	4.4	63	S	4	1.8		Haze	1s			0	0		
Washington, D. C.			29.72	754.9	53	11.7	45	NW	24	10.7		8ks	0	SW		0	0		
Wilmington, N. C.			29.79	756.7	72	22.2	71	W	14	6.3			10ks		W	0.61	15.5		
Wood's Hole, Mass.			29.44	747.8	48	8.9	85	SW	16	7.2			10s			0	0		
Wytheville, Va.			29.61	752.1	43	6.1	50	W	12	5.4		5k	0	W		0.16	4.1		
Yankton, D. T.			30.08	764.0	28	— 2.2	77	Calm	0	0		8cs	0	NW		0	0		

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	79	26.1	86	NE	6	2.7		2k	0	NE		0.36	9.1		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.04	763.0	80	26.7	69	E				5c	2cs			0.10	2.5		L. V. Bigard.
Havana, Cuba, W. I.			29.79	756.7	84	28.9	82	S	3.6	1.6		2fc	0	S		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.24	768.1	78	25.6	69	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			77	25.0	82	E	10	4.5		2ck	5ks	E		0.25	6.3		W. S. Cameron.
Santiago de Cuba, W. I.			29.90	759.4	78	25.6	74	Calm	0	0		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.08	764.0	68	20.0	79	SW	12	5.4		0	2k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.					66	18.9	76	NE			2	0	5ks			0	0		E. P. Church.
Makawao, Maui, S. I.	27.88	708.1			61	16.1	94	Calm			0	0	8n			0.20	5.1		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.99	761.7	15.0	− 9.4	100	N	20	8.9			10s			0.01	0.3		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	64	17.8	88	S	4.0	1.8		0	2k			0	0		C. Partridge.
St. John's, Newfoundland			29.95	760.7	37	2.8	95	N								0.70	17.8		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.76	755.9	34	1.1	61	W	20	8.9			10n			1.13	28.7		H. M. Redington.
Indianola, Iowa	29.23	742.4			36	2.2	79	SW				2c		W		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 29° 55', W. 64° 30'	SE	0.5	30.03	762.7	72	22.2	85	Calm			0	..c		NE		Tranquil.		Damp	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2.205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 3, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.05	763.3	71.8	22.1		NNW			1		1			0	0		Charnot.
Algiers			30.06	763.5	71.[illegible]	22.0	67	NNW			1		2			0	0		Peter.
La Calle			30.16	766.1	65.7	1[illegible].7		NW			2		6			0	0	Threatening	Kuntz.
Tunis			30.22	767.5	75.7	24.3	65	NW			3		0			0	0		Jacques.
Sfax			30.12	765.0	71.6	22.0	66	ESE			3		1			0	0		Chauvey.
Saïda			30.11	764.8	75.4	24.1		NE			1		1			0	0		Groslean.
Tebessa			30.09	764.2	64.4	18.0		W			3		7			0	0		Colin.
Gerlville			30.10	764.6	73.4	23.0		SW			5		9			0	0	Thunder	Bernadach.
Laghouat			30.11	764.8	79.5	26.4	17	S			3		9			0	0		Poinsignon.
Biskra			30.11	764.7	86.0	30.0		S			4		9			0	0		Coulon.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.07	763.8	48.9	9.4	79	NE			1		10			0.181	4.6		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Tracow																			
Eperies			30.12	765.0	56.8	13.8	55	NE			2		1			0	0		I. R. Observatory.
Gratz			30.07	763.7	55.4	13.0	43	NE			2		4			0	0		Julius Mikolik.
Hermannstadt			30.10	764.5	47.3	8.5	93	E			2		10			0.346	8.8		Andreas Rospini.
Kremsmünster			30.02	762.6	56.1	13.4	47	E			1		3			0	0		Prof. Reissenberger.
Lemberg			30.04	763.0	52.2	11.2	75	E			2		10			0.043	1.1		Prof. C. Wagner.
Nytregyhaza			30.13	765.3	59.0	10.0	44	NW			3		3			0	0		Dr. T. Stanecki.
Pola			30.11	764.8	57.2	14.0	45	E			2		4			0	0		Habzsuda Daniel.
Szegedin			30.01	762.2	63.1	17.3	75	S			2		7cks			0	0		I. R. Hydrographic Office
Trieste			30.07	763.6	59.3	14.6	28	SE			2		3			0	0		Karl Stancel.
Vienna			29.99	761.8	57.6	14.[illegible]	82	NE			1		10			0.433	11.0	Raining	Prof. V. Farolfi.
			30.08	763.9	52.0	11.1	70	ESE			2		10			0.012	0.3	Raining	I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.79	756.7			63.3	17.4	54	SW			1		7		8	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.88	758.9	53.4	11.9		SSE	13	5.8			3			0	0	Foggy	William Boswell.
Annanhill																			
Ardrossan			29.86	758.4	55	12.8		SSE			2		6						William McNeil.
Armagh Observatory			29.84	757.9	62.3	16.8		SSW	12	5.4			7						S. Call, for Dr. Robin
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.89	759.2	57.9	14.4		S			1		10					Raining	John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.82	757.4	61.6	16.4		S			1		8						J. Dreyer, for L'd Ro
Bradford			29.88	758.9	61.8	16.6		SW			1		2						J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.02	762.5	82.4	28.0		NE			3		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.93	760.2	64.9	18.3		SW			1		4						H. Todd.
Cape Town, (Cape Colony)			29.92	760.0	60.2	15.7		WNW			5		10						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.92	760.0			62.2	16.8	74	NW	17	7.6			10						The Staff, for E. J. Sto
Cardington			29.95	760.7	65.0	18.3		SW					5						John McLaren.
Carlisle			29.88	758.9	62	16.7		W					7			0	0		T. Bell, for J. Cartme
Chatham, School M. E.			29.95	760.7	65.2	18.4		WSW			1		5						Q. M. Sergt. J. Conro
Colombo, (Ceylon)			29.93	760.2	84.2	29.0		SW			5		8						Sgt. W. F. Hopkins
Dartmoor			29.98	761.5	51.5	10.8		SW			2		8						R. E. Power.
Donaghadee			29.82	757.4	52	11.1		SSE			2		2						J. Mac Gowan, Jr.
Dover			29.98	761.5	54	12.2		WSW			1		3						J. Costello.
Dublin																			
Durham Observatory													10						G. D. Goldney.
Eccles, (near Manchester)			29.90	759.4	58.5	14.7		SW	2.8	1.3			10						Thomas Mackereth.
Falmouth Observatory			29.88	758.9	53.7	12.1		SSE	17	7.6			10					Foggy	The Staff.
Fort Napier, (Natal)			29.87	758.7	73.8	23.2		NE			3		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.88	758.9	83	28.3		W					6						
Galway, Queen's College			29.74	755.4	60	15.6		S			4		2						B. G. Clare for Prof. C
Gibraltar, (Mediterranean)			30.05	763.3	68.2	20.1		SSW			5		5						Sergt. E. G. Baker.
Glasgow Observatory			29.86	758.4	55.0	12.8		S			1		10						James Gray.
Great Yarmouth			29.97	761.2	51	10.6		SE			2		4					Haze	G. T. Watson.
Greenwich Royal Obs.			29.95	760.7	62.5	16.9		SW			1		9						The Staff, for G. B. Ai
Guernsey			29.95	760.7	58.5	14.7		SSE			1		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.83	757.7	63.7	17.6		SW					5						F. J. Race, for L. J. Cro
Halifax, (Nova Scotia)			29.57	751.1	45.1	7.3		W			2		2						Corp'l J. V. Thompso
Helston			29.83	757.7	61	16.1		S			4		10k					Showery	Dr. W. B. Mavie.
Holyhead			29.89	759.2	57	13.9		SSW			3		4						John Tilston.
Hull Park																			
Kew Observatory			29.95	760.7	63.5	17.5		S	16	7.2			6						The Staff.
Kingstown			29.85	758.2	55	12.8		SSE			3		5					Haze	George Mitchell.
Lampeter																			
Leicester Museum			29.94	760.5	63.4	17.4		SW			1		6						William J. Harrison
Llandudno			29.88	758.9	60.3	15.7		NE					8						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	74.0	23.3		SW			1		1k						Fred Travis, Pvt A. H
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.79	756.7	64	17.8		Calm			0		5						William D. Penny.
Nassau, (Bahamas)			30.12	765.0	79.9			SE			2		6						Surg.-Maj. J. Jamieso
North Shields			29.90	759.4	56	13.3		SE			3		2						John Wm. Irvine.
Nottingham			29.93	760.2	67.7			S			4		5k		SSE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.93	760.2	58.1	14.5		SSW			2		10						Rev. Stephen Whitty
Oxford, Radcliffe Obs.			29.9	759.4	65	18.3		S			2		8						J. Lucas, for R. Main
Plymouth			29.90	759.4	56	13.3		SE			2		10					Foggy	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.86	758.4	57	13.9		S			3		10						W. Kennedy.
Saint Ann's Head			29.86	758.4	55	12.8		Calm			0		6					Hazy	John C. Walker.
Saint Helier, (Jersey)			29.95	760.7	59.2	15.1		NNW			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			29.81	757.2	53.2	11.8		SSE	25	11.2			2						Rev. C. Clouston
Scarborough			29.93	760.2	51.4	10.8		SSE			3		6						F. Shaw.
Scutari, (Turkey)			30.11	764.8	65.8	18.8		N			1		2						Sergt. W. H. Lyne.
Sheffield			29.90	759.4	63.6	17.6		SW			2		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.88	758.9	58.8	14.9		Calm			0		6			0	0		Rev Francis Redford
Somerleyton, (Lowestoft)			29.96	761.0	62.0	16.7		SSE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.88	758.9	57.8	14.3		S			2		9					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			29.76	755.9	55	12.8		SSE			1		10						John Smith.
Strathfield Turgiss			29.94	760.5	65.2	18.4		SW			1-2		4						Rev Charles H. Grif
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.80	756.9	62	16.7		S			3		6						John Trotter.
Truro, Royal Institution			29.84	757.9	59	15.0		S			6		10					Raining	W Newcombe.
Valencia Observatory			29.85	758.2	51.0	10.0		NW	17	7.6			10					Drizzling	The Staff.
Wick																			
Wisbeach																			
Worthing			29.96	761.0	56.0	13.3		ESE			1		5						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.15	765.7	52.2	11.2	42	SSE			2		0						
Fanöe			30.06	763.4	58.1	14.5	53	SE			4		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.59	751.6	40.3	4.6	87	SE			6		10					Raining	
Thorshavn, (Faröe)			29.80	756.9	47.5	8.6	89	Calm			0		10					Misty	
Vestervig			30.06	763.4	59.7	15.4	34	SSE			2		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.01	762.2	65.7	18.7	84						5ck						Normal School.
Alençon			30.00	762.0	62.6	17.0	64	SW			1		8n			0.158	4.0		Normal School.
Amiens			30.00	762.0	67.6	19.8	67	WSW			4		2		WSW	0.047	1.2		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.00	761.9	65.7	18.7	42	SSW			1		5		WSW	0.028	0.7		Normal School.
Besançon			30.08	764.1	64.8	18.2	44	SSE			2		0			0	0		Normal School.
Bourg en Bresse			30.06	763.3	71.1	21.7	37	W			2		ck		E	0.102	2.6		Normal School.
Bourges			30.01	762.3	64.0	17.8	70	SW			4		8		S	0	0		Normal School.
Brest			29.89	759.1	59.2	15.1	82	SW			3		10		WSW	0.295	7.50		Naval Observatory.
Caen			29.98	761.6	62.6	17.0	61	SE			2		8		S	0	0		Normal School.
Chartres			29.94	760.4	66.7	19.3		W			2		8n		NW	0	0		Normal School.
Chaumont			29.96	761.0	67.8	19.9		SW			1		5		SW	0	0		Normal School.
Commercy			30.00	764.2	63.3	17.4	37	NNW			4		5		E	0	0		Normal School.
Le Mans			30.13	765.2	62.4	16.9	70	SW			3		8		S	0	0		Normal School.
Lons-Le Saulnier			30.05	763.2	64.6	18.1	37	NW			1		2		E	0	0		Normal School.
Mâcon																			
Mirecourt			30.14	765.6	59.5	15.3	38	SW			2		5		NE	0	0		Normal School.
Orléans			30.11	764.7	69.8	21.0	41	S			2		5		SSW	0	0		Normal School.
Paris Observatory			29.99	761.7	65.8	18.8		S			1		8		SW	0.033	0.83		National Observatory.
Parthenay			30.01	762.2	60.8	16.0	69	SW			4		5		W	0	0		Normal School.
La Roche sur Yon			30.02	762.4	64.4	18.0	71	S			4		5			0.020	0.5		Normal School.
Rouen			29.96	760.9	65.5	18.6	46	SSE			2		2		SW	0	0		Normal School.
Saint Lo			29.95	761.7	60.3	15.7	64	WSW			2		10		SW	0	0		Normal School.
Villefranche			30.04	763.1	69.8	21.0	45	ESE			1		5			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.87	631.8			46.8	8.2	92	ENE	2.5	1.11			5		ENE	0.138	3.5		—. Faignère.
Montsouris Observatory			29.97	761.2	70.3	21.6	35	SW			2		10k&kn		WSW	0	0		Marié Davy.
Perpignan	29.89	759.3			66.6	19.2	72	ENE	1.9	0.83			0			0.028	0.7		Dr. Fines.
Saint Maur, (near Paris)			29.99	761.7	67.1	19.5	38	Calm			0		4			0.035	0.9		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.00	762.1	66.9	19.4	42	S			1		8		W	0	0		C. Marquet.
Versailles, (near Paris)			29.99	761.8	68.7	20.4	40	SW			2		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			30.21	767.3	55.0	12.8	90	SE	6.5	2.9		0	0			0 0	0 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Corrected Inches.	Corrected Millimeters.	Reduced to sea-level. Inches.	Reduced to sea-level. Millimeters.	Fahrenheit.	Centigrade.	Relative Humidity.	Winds. Direction.	Velocity. Miles per hour.	Velocity. Meters per second.	Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper	Clouds. Direction. Lower.	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Bamberg			29.98	761.4	58.6	14.7	68	SE			2		3			0.016	0.4		Prof. Hoh.
Berlin			30.15	765.8	63.5	17.	29	SE			1		2			0	0		Prof. Arndt.
Breslau			30.13	765.4	60.6	15.9	30	SE			3		3			0	0		Dr. P. Neugebauer.
Carlsruhe			29.99	761.8	62.2	16.8	76	SW			2		9			0.122	3.1		A. Senz.
Cassel			29.94	760.5	62.4	16.9	77	S			2		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.02	762.6	54.5	12.5	77	W					8			0.091	2.3	Light rain	M. Wilhelm.
Hamburg			30.06	763.5	61.3	16.3	46	SE			4		4cs			0	0		W. Reinert.
Kiel			30.09	764.2	57.4	14.1	49	ENE			5		1			0	0		Prof. G. Karsten.
Königsberg			30.20	767.0	58.8	14.9	43	N			1					0.000	0.01		Prof. E. Luther.
Köslin			30.32	770.2	58.3	14.6		SE			4		2			0	0		Dr. T gert.
Leipsic			30.02	762.4	65.5	18.6	37	SE			2		9			0	0		Prof. Bruhns.
Münster			29.98	761.6	61.2	16.2	74	SE			2		5			0	0		Prof. E. Heis.
Posen			30.17	766.4	58.6	14.8	40	SE			6-7		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.01	762.3	62.8	17.1	59	NE					6			0	0		Hartwig and Tülk.
Stuttgart			29.98	761.6	58.5	14.7	75	NE					8			0.197	1.0	Rainy	Mr. Würth.
Thorn			30.18	766.6	56.3	13.5	42	E			4		0			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.95	760.8	65.1	18.4	48	NW			4		4			0	0		Prof. Flesch.
Wustrow			30.11	764.8	58.6	14.8	47	ESE			3					0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations.	Corrected Inches.	Corrected Millimeters.	Reduced to sea-level. Inches.	Reduced to sea-level. Millimeters.	Fahrenheit.	Centigrade.	Relative Humidity.	Winds. Direction.	Velocity. Miles per hour.	Velocity. Meters per second.	Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper	Clouds. Direction. Lower.	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Moncalieri			29.94	760.5	68.9	20.5	49	SE	6.3	2.8			3	NW		0	0		
Mondovi			29.93	760.3	65.8	18.8	54	N			4		1	WSW		0	0		
Genoa			30.02	762.4	64.8	18.2	68	SE	6.3	2.8			10	SE		Blank	Blank		
Pavia			29.95	760.6	70.7	21.5	46	SW			1		2	SW		Blank	Blank		
Verona			29.93	760.3	71.6	22.0	49	E			1		10			0	0		
Padua			29.97	761.1	62.4	16.9	57	SE	7.4	3.3			8	WNW		0	0		
Parma																			
Bologna			29.99	761.7	66.7	19.3	19	N			4		4	N		0.197	5.0		
Livorno			30.05	763.2	64.6	17.8	55	SSW	14.3	6.4			7			0	0		
Urbino			30.00	762.0	66.6	18.9	37	SW			2		5			0	0		
Ancona			30.00	762.0	66.6	18.9	68	SSE			2		4			0	0		
Siena			30.00	762.0	65.7	18.9	66	SSW	1.3	0.6			0	W		0.063	1.6		
Rome			30.08	764.1	69.3	20.7	58	S	8.1	3.6			7	SW		0	0		
Naples, O.U.			30.11	764.8	68.4	20.2	59	SW			2		2			0	0		
Lecce			30.09	764.2	66.9	19.4	61	ESE	10.5	4.7			0			0	0		
Cosenza			30.06	763.4	72.5	22.5	37	WNW			2		0	NW		0	0		
Catania, (Sicily)																			
Trapesto			30.07	763.8	69.3	20.7	57	WSW			2		2	S		0	0		
Palermo			30.06	763.4	67.5	19.7	56	E			2		4			0	0		
Sub-Series.																			
Naples, S. R.			30.13	765.2	67.8	19.9	59	SW			4					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.02	762.5	58.6	14.8		SW			2								
Groningen			29.98	760.6	60.8	16.0		NW			2								
Helder			30.00	762.1	57.0	13.9		SW			2								
Utrecht			29.97	761.1	63.9	17.7	62	SSW			2		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.05	763.3	57.2	14.0	43	NNW	0.4	0.2			10			0	0		
Christiania			30.09	764.3	56.5	13.6	42	S	11.2	5.0			0			0	0		
Tromsö			29.81	757.2	37.4	3.0	93	W			4		10			0	0	Raining	

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.76	756.0			68.4	20.2	57	SW	15.0	6.7			7						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.14	765.5	54.5	12.5	39	E	4	2			5						Astronomical Obs.
Wilna			30.22	767.6	53.1	11.7	38	Calm	0	0			2						Astronomical Obs.
Dorpat			30.22	767.5	51.1	10.6	39	WNW	9	4			5						Physical Cabinet.
St. Petersburg			30.14	765.6	44.8	7.1	61	NW	7	3			2						Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			30.18	766.6	46.4	8.0	50	NE	9	4			5						
Nikolaiev			30.01	762.2	50.5	10.3	86	NW	10	4.5			10						
Kertch			29.93	760.3	54.9	12.7	78	W	10	4.5			9					Raining	Lagorio.
Moscow			30.09	764.2	48.4	9.1	41	WNW	8	3.5			3						Meteorological Obs.
Lugan			29.86	758.5	53.4	11.9	73	SW	8	3.5			10					Raining	Meteorological Obs.
Archangel			30.06	763.4	32.0	0.0	92	WNW	10	4.5			0						Ogorodnikof.
Tiflis			29.92	759.9	62.2	16.8	43	NW	10	4.5			9					Raining	Physical Obs.
Astrakhan			30.04	762.9	64.6	18.1	33	N	4	2			8						Sebastianof.
Kasan			29.89	759.3	48.4	9.1	48	W	4	2			7						Physical Cabinet.
Orenburg			29.91	759.7	62.8	17.1	31	Calm	0	0			1						Tschernischef.
Ekaterinburg			29.78	756.5	51.1	10.6	43	SW	13	6			10						Meteorological Obs.
Kasaly			29.41	746.9	57.2	14.0	84	NE	22	10			4						Bobrof.
Tashkend			29.63	752.6	85.8	29.9	65	Calm	0	0			1						Michelson.
Barnaul			29.71	754.6	65.8	18.8	30	SSE	4	2			4						Meteorological Obs.
Yeniseisk			29.87	758.6	47.7	8.7	50	SE	8	3.5			0						Clarks.
Irkutsk			30.03	762.7	32.7	0.4	92	Calm	0	0			0						Usolzef.
Oorga			30.11	764.9	32.2	0.1	100	Calm	0	0			0						Mossin.
Peking, (China)			29.91	757.2	55.9	15.1	71	Calm	0	0			10					Raining	Physical Observatory
Nertchinsk			29.66	753.3	57.2	2.9	52	NW	4	2			5						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					31.6	− 0.2	93	E	13	6			0						Kurd kof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.97	761.2	76.3	24.6	41	W	11.2	5.00		0	5			0	0		Royal Observatory
San Fernando																			The Naval Observatory

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.03	762.8	47.8	8.8	73	SW			1		4			0	0		
Hernosand			30.05	763.2	54.0	12.2	39	SSW			2		2			0	0		
Stockholm			30.08	763.9	56.5	13.6	62	WNW			3		2			0	0		
Wisby			30.20	767.0	47.1	8.4	62	WNW			3		0			0	0		
Sub-Series.																			
Upsala			30.08	763.9	61.0	16.1	27	W			2		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.58	725.9			63.0	17.2	40	N			2		2			0	0		The Observatory.
Zurich	28.39	721.1			61.3	16.3	53	NW			1		6			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.4mm.; Thermometer, +2°.6 C.; Relative Humidity, —18 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Beirut, (Syria)			30.06	763.5	66.7	19.3	67	N			2		5					Rain	
Constantinople			30.14	765.6	59.5	15.3	48	NNE	7.8	3.5			2		WSW	0	0		
Fao, (Persian Gulf)			30.12	765.0	79.3	26.3		NW			3		0						
Salonica					72.0	22.2		SW			2		2						
Valona			29.06	763.4	72.7	22.6		S			2		2						
Varna			30.12	765.0	59.0	15.0		SE			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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.

Brockville, Ontario			29.78	756.4	35	1.7		W	16	7.2		0	5s		W	0.08	2.0		
Chatham, N. B.			29.45	748.0	41	5.0	69	SW	9	4.0		8k	0	SW		0.59	13.5		
Charlottetown, P. E. Island			29.52	749.8	40	4.4	85	S	8	3.6			10s			0.13	3.3		
Fort Garry, Manitoba			29.97	761.2	25	— 3.9	75	NE	3	1.3		0	2s			0	0		
Halifax, N. S.			29.49	749.0	42	5.6	85	SW	14	6.3		0	2ks		SW	0.47	11.9		
Kingston, Ontario			29.82	757.4	37	2.8	59	W	14	6.3		0	0			0.03	0.8		
Montreal, Quebec			29.55	750.6	32	0.0	84	W	30	13.4			10n		W	0.19	4.8	Light snow.	
Ottawa, Ontario			29.64	752.8	33	0.6	69	W	16	7.2			10n		W	0.10	2.5	Threatening	
Parry Sound, Ontario			29.80	756.9	34	1.1	83	W	23	10.3		0	0			0.28	7.1		
Port Dover, Ontario			29.96	761.0	35	1.7	70	W	7	3.1		0	0			0	0		
Port Stanley, Ontario			29.96	761.0	39	3.9	64	W	20	8.9		0	0			0	0		
Quebec, Quebec			29.41	747.0	33	0.6	45	W	40	17.9			10n			0.35	8.9	Light snow.	
Saugeen, Ontario			29.89	759.2	31	— 0.6	68	W	12	5.4		0	0			0.05	1.3		
Stayner, Ontario			29.83	757.7	36	2.2	59	NW	18	8.0		0	0			0.02	0.5		
Sydney, C. B.			29.55	750.6	42	5.6	89	W	9	4.0		0	8ks		W	0.16	4.1	Clearing	
Toronto, Ontario			29.89	759.2	36	2.2	67	W	15	6.7		0	0			0.01	0.3		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

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

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.82	757.4	39	3.9	91	W	14	6.3			10k			0.06	1.5		
Alpena, Mich.			29.85	758.2	35	1.7	89	NW	8	3.6		0	0			0.01	0.3		
Atlantic City, N. J.			30.03	762.7	45	7.2	46	W	6	2.7		0	0			0	0		
Augusta, Ga.			30.01	762.2	55	12.8	68	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.05	763.3	47	8.3	35	W	3	1.3		2c	0			0	0		
Barnegat, N. J.			30.00	762.0	46	7.8	77	W	25	11.2		0	Haze			0	0		
Benton, Montana			30.01	762.2	46	7.8	60	W	8	3.6		0	0			0	0		
Bismarck, Dakota			29.9[illegible]	759.4	37	2.8	53	SW	5	2.2		0	0			0	0		
Boston, Mass.			29.74	755.4	43	6.1	35	NW	21	9.4		0	2s		NW	0	0		
Breckenridge, Minn.			29.98	761.5	33	0.1	79	N	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.93	760.2	34	1.1	69	SW	8	3.6		1k	1s	W		0.01	0.3		
Burlington, Vt.			29.67	753.6	39	3.9	64	SW	11	4.9		5k	2s	W		0.05	1.3		
Cairo, Ill.			30.02	762.5	44	6.7	100	SE	8	3.6			10n		S	0.14	3.5	Light rain	
Cape Hatteras, N. C.			30.02	762.5	54	12.2	73	NE	21	9.4		0	0			0	0		
Cape Henry, Va.			30.09	764.3	56	13.3	46	N	4	1.8		0	Haze			0	0		
Cape May, N. J.			30.05	763.3	45	7.2	60	SW	12	5.4		0	0			0	0		
Charleston, S. C.			30.00	762.0	70	21.1	61	N	4	1.8		5c	Haze			0	0		
Cheyenne, W. T.			29.99	761.7	32	0.0	69	W	1	0.4		0	0			0.01	0.3		
Chicago, Ill.			29.96	761.0	45	7.2	5[illegible]	SW	6	2.7			10s			0	0		
Cincinnati, Ohio			30.09	764.3	43	6.1	66	SE	4	1.8		2c	8s	SE		0	0		
Cleveland, Ohio			30.00	762.0	38.9	3.8	58	SW	11	4.9		2c	5s	W		0	0		
Colorado Springs, Col.			29.98	761.5	37	2.8	71	N	6	2.7		0	0			0.05	1.3		
Corsicana, Texas			29.86	758.4	57	13.9	81	E	2	0.9		0	0			0	0		
Davenport, Iowa			29.95	760.7	43	6.1	75	SE	8	3.6			10n			0	0	Light rain	
Denver, Col.			30.06	763.5	39	3.9	82	S	2	0.9		2k	0	N		0.05	1.3		
Detroit, Mich.			29.95	760.7	39	3.9	63	W	11	4.9		5c	Sm'e			0	0		
Dodge City, Kansas			29.68	753.9	44	6.7	60	NW	8	3.6		0	0			0.07	1.8		
Dubuque, Iowa			29.98	761.5	42	5.6	91	Calm	0	0			10n			0.02	0.5	Drizzling	
Duluth, Minn.			29.93	760.2	35	1.7	61	Calm	0	0		5c	0			0	0		
Eastport, Me.			29.57	751.1	41	5.0	64	SW	8	3.6		2k	0			1.01	25.7		
Erie, Penn.			29.95	760.7	39	3.9	73	SW	16	7.2		2c	Haze			0	0		
Escanaba, Mich.			29.91	759.7	33	0.1	70	NW	1	0.4		0	0			0	0		
Fort Gibson, I. T.			29.85	758.2	49	9.[illegible]	93	E	11	4.9			10s		N	0.16	4.1		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.04	763.0	34	1.1	90	Calm	0	0		1ck	2s	SW		0.34	8.6		
Galveston, Texas			29.82	757.4	71	21.7	95	SE	3	1.3			10s		SE	0	0	Threatening	
Grand Haven, Mich.			29.94	760.5	43	6.1	70	SW	4	1.8		0	0			0	0		
Indianapolis, Ind.			30.04	763.0	41	5.0	69	SE	3	1.3			10s		SE	0	0		
Indianola, Texas			29.84	757.9	69	20.6	97	NE	10	4.5			10s			0	0		
Jacksonville, Fla.			30.01	762.2	71	21.7	56	N	8	3.6		6ck	0	SW		1.22	31.0		
Keokuk, Iowa			29.86	758.4	45	7.2	76	SE	16	7.2			10n		SE	0.02	0.5	Light rain	
Key West, Fla.			30.04	763.0	78.0	25.6	78	SW	8	3.6		2k	Haze	SW		0	0		
Kittyhawk, N. C.			30.09	764.3	50	10.0	58	N	24	10.7		2c	0	NW		0	0		
Knoxville, Tenn.			30.05	763.3	44	6.7	59	NE	6	2.7		10ck	0	W		0	0		
La Crosse, Wis.			29.92	760.0	45	7.2	6[illegible]	W	2	0.9			10s		W	0	0		
Leavenworth, Kan.			29.73	755.1	48	8.9	85	W	4	1.8			10s		NW	0.16	4.1		
Lexington, Ky.			30.07	763.8	43	6.1	75	E				5k	2s			0	0		
Long Branch, N. J.			29.97	761.2	46	7.8	47	NW	24	10.7		0	0			0	0		
Louisville, Ky.			30.06	763.5	44	6.7	76	NE	7	3.1			10s			0	0		
Lynchburg, Va.			30.08	764.0	50	10.0	39	NW	8	3.6		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.91	759.7	35	1.7	63	NW	4	1.8		0	0			0	0		
Memphis, Tenn.			29.96	761.0	50	10.0	5[illegible]	E	8	3.6			10s			0	0		
Milwaukee, Wisconsin			29.93	760.2	43	6.1	58	W	6	2.7		2cs	0	NW		0	0		
Mobile, Ala.			29.94	760.5	67	19.4	64	E	5	2.2		10k	0	SW		0	0		
Montgomery, Ala.			29.99	761.7	61	16.1	5[illegible]	N	4	1.8		2c	Haze			0	0		
Morgantown, W. Virginia			30.07	763.8	46	7.8	59	SW	4	1.8		0	0			0	0		
Mt. Washington, N. H.			29.37	746.0	9	−12.8	100	NW	96	42.9			Fog			0	0		
Nashville, Tenn.			30.01	762.2	48	8.9	62	NE	4	1.8		0	10s			0.01	0.3		
New Haven, Conn.			29.88	758.9	47	8.3	48	W	23	10.3		2k	0	W		0	0		
New London, Conn.			29.87	758.7	43.5	6.4	33	W	18	8.0		0	0			0	0		
New Orleans, La.			29.88	758.9	70	21.1	85	SE	8	3.6			10ks		SE	0	0		
Newport, R. I.																			
New York, N. Y.			29.96	761.0	41	5.0	41	W	20	8.9		0	0			0	0		
Norfolk, Va.			30.10	764.5	53	11.7	36	NE	10	4.5		8c	0	W		0	0		
North Platte, Neb.			29.63	752.6	41	5.0	82	SW	14	6.3		0	...ks		NW	0	0		
Omaha, Neb.			29.78	756.4	42	5.6	91	Calm	0	0			10n		W	0.70	17.8	Drizzling	
Oswego, N. Y.			29.85	758.2	36.5	2.5	57	W	23	10.3		Haze	2s			0	0		
Peck's Beach			30.05	763.3	46	7.8	61	W	16	7.2		2k	0	W		0	0		
Pembina, D. T.			29.95	760.7	35	1.7	69	S	8	3.6		10k	0			0	0		
Philadelphia, Penn.			30.0[illegible]	763.0	44	6.7	50	NW	19	8.5		2k	0	W		0	0		
Pike's Peak, C. T.			29.45	758.2	8	−13.3	100	N	8	3.6		0	0			0.08	2.0		
Pittsburgh, Penn.			30.05	763.5	37	2.8	62	W	2	0.9		0	Haze			0	0		
Port Huron, Mich.			29.95	761.7	36	2.2	70	W	10	4.5		0	0			0	0		
Portland, Maine			29.63	752.6	41	5.1	57	W	17	7.6		5ck	0	NW		0.27	6.9		
Portland, Or.			30.19	766.8	50	10.0	85	S	4	1.8			10s			0.06	1.5		
Punta Rassa, Fla.			30.06	763.[illegible]	78.6	25.9	78	S	4	1.8		2cs	2s	SW	SW	0	0		
Rochester, N. Y.			29.85	758.2	37	2.8	90	W	24	10.7		0	0			0	0		
Salt Lake City, Utah			30.02	762.5	47	8.3	48	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.94	760.5	43	6.1	43	W	20	8.9		0	Haze			0	0		
San Diego, Cal.			30.02	762.5	58	14.4	87	S	4	1.8			10s		S	0	0		
San Francisco, Cal.			29.96	761.0	53	11.7	80	W	6	2.7		0	0			0	0		
Santa Fe, N. M.			29.71	755.4	38	3.3	58	Calm	0	0		0	5s		SW	0	0		
Savannah, Georgia			30.09	762.0	67	19.4	41	NW	4	1.8		5c	0	W		0	0		
Shreveport, La.			29.91	759.7	5[illegible]	15.0	70	Calm	0	0		5c	5s	W	E	0	0		
Springfield, Mass.			29.83	757.7	44	6.7	44	W	20	8.9		5k	0	W		0.03	0.8		
St. Louis, Mo.			30.00	762.0	45	7.2	68	E	6	2.7			10s		E	0.05	1.3		
St. Marks, Fla.			29.97	761.2	70	21.1	95	E	3	1.3			10s			0	0		
St. Paul, Minn.			29.87	758.7	41	5.0	65	SW	2	2.2		10c	0			0	0		
St. Paul's Island, Alaska			29.14	740.4	25	−3.9	87	N	22	9.8			10s			0.06	1.5		
Squan Beach, N. J.			30.00	762.0	44	6.7	45	W	14	6.3		0	Haze			0	0		
Toledo, Ohio			30.00	762.0	43	6.1	66	SW	12	5.4		5c	0	W		0	0		
Tybee Island, Ga.			30.00	762.0	67	19.4	48	Calm	0	0		2c	2s	W		0.03	0.8		
Vicksburg, Miss.			29.94	760.5	58	14.4	57	SE	12	5.4		2cs	0		SE	0	0		
Virginia City, Mon.			29.76	755.9	34	1.1	61	SE	4	1.8		Haze	0			0	0		
Washington, D. C.			30.08	764.0	45.5	7.5	45	NW	12	5.4		1c	Haze	W		0	0		
Wilmington, N. C.			30.01	762.2	61	16.1	50	NE	8	3.6		1cs	0	SW		0	0		
Wood's Hole, Mass.			29.84	757.9	47	8.3	41	W	20	8.9		0	0			0	0		
Wytheville, Va.			29.85	758.2	42	5.6	58	NW	1	0.4		0	0			0	0		
Yankton, D. T.			29.94	760.5	54	1.1	84	N	13	5.8			10s		N	0.13	3.3		

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7	91	E	5	2.2		5k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.01	762.2	80	26.7	65	E				2k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	79	26.1	78	SE	6	2.7		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.22	767.6	78	25.6	86	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			77	25.0	82	E	8	3.6		2c	5k			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	88	31.1	78	Calm	0	0		0	2k			0	0		Robert Mason.
St. Georges, Bermudas			29.98	761.5	70	21.1	87	SW	11.1	5.0		8ks	5k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.17	766.3	66	18.9	76	NE			2					0	0		E. P. Church.
Makawao, Maui, S. I.	27.94	709.7			61.0	16.1	88	Calm			0	1n	1n	S		0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.																			
Clifton, Jamaica, W. I.			29.96	761.0	22	-5.6	93	N	6	2.7			10s			0.11	2.8		J. Fortescue.
St. John's, Newfoundland			30.10	764.5	62	16.7	88	S	2.0	0.9		2	2k	SSE		0	0		C. Partridge.
St. John's, Porto Rico, W. I.			29.96	761.0	33	0.6	100	NE				Haze	Haze			0	0	Misty	John Delaney.
Elyria, Ohio																			Leon M. Acuña.
Indianola, Iowa	30.01	762.2			37	2.8	70	W	8	3.6			8s			0	0		H. M. Redington.
	28.95	735.3			41	5.0	83	SE					10n			0	0	Raining	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 28° 52′, W. 62° 43′	SE	5	30.01	762.2	74	23.3	90	SSW			6	..c	..c	NNE	SSW	Smooth		Damp	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN
OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 4, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.05	763.2	71.6	22.0		NNE			2		1			0	0		Charnot.
Algiers			30.09	764.2	67.6	19.8	83	S			1		2			0	0		Peter.
La Calle			30.16	766.0	68.2	20.1		NW			2		0			0	0		Kuntz.
Tunis			30.18	766.5	77.4	25.2	61	E			3		0			0.268	6.8		Jacques.
Sfax			30.13	765.3	73.8	23.2	60	ESE			3		2			0	0		Chauvey.
Saida			30.12	765.0	80.6	27.0		NNW			1		0			0	0		Grosjean.
Tebessa			30.09	764.2	70.0	21.1		W			5		9			0	0		Colin.
Geryville			30.13	765.3	78.1	25.6		NW			2		2			0	0		Bernadach.
Laghouat			30.11	764.9	78.8	26.0	24	W			2		6			0	0		Poinsignon.
Biskra			30.11	764.8	90.5	32.5		N			5		6			0	0		Coulon.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.08	764.1	63.7	17.6	57	NE			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Eperies			30.11	764.9	59.5	15.3	54	NE			3		1			0	0		I. R. Observatory.
Gratz			30.08	764.1	57.9	14.4	46	S			1		8			0	0		Julius Mikolik.
Hermannstadt			30.07	763.7	57.1	14.0	81	ESE			2		8			0	0		Andreas Rospini.
Kremsmünster			30.06	763.5	61.0	16.1	45	SE			4		7			0	0		Prof. Reissenberger.
Lemberg			30.05	763.3	58.8	14.9	60	SE			1		6			0	0		Prof. C. Wagner.
Nyiregyhaza			30.10	764.5	57.2	14.0	42	SE			4		3			0	0		Dr. T. Stanecki.
Pola			30.15	765.8	57.2	14.0	71	NE			1		10			0.319	8.12		Habzsuda Daniel.
Szegedin			30.07	763.6	65.5	18.6	66	SE			2		3ks			0.034	0.86		I. R. Hydrographic Office
Trieste			30.07	763.8	50.7	10.4	91	Calm			0		10			0.673	17.10		Karl Stancel.
Vienna			30.06	763.4	61.9	16.6	80	WSW			1		4			0	0		Prof. V. Farolfi.
			30.13	765.4	51.4	10.8	72	ESE			1		10			0.232	5.9		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.84	757.8			64.0	17.8	59	WSW			1		10.5		S	0	0	Sprinkling	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.90	759.4	63.4	17.4		SE	10	4.5			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.00	762.0	55	12.8		SW			2		7						William McNeil.
Armagh Observatory			30.04	763.0	59.8	15.4		WSW	5	2.2			0						S. Call, for Dr. Robin
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30. 0	762.0	53.0	11.7		W			1		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.04	763.0	54.6	12.6		NNW			1		10						J. Dreer, for L'd Ro
Bradford			29.97	761.2	61.2	16.2		SW			1		9						J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.02	762.5	82.0	27.8		E			2		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.00	762.0	63.0	17.2		S			1		3						H. Todd.
Cape Town, (Cape Colony)			30.04	763.0	61.2	16.2		NW			3		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.06	763.5			63.1	17.3	95	NW	10	4.5			10						The Staff, for E. J. St
Cardington			30.01	762.2	66.0	18.9		SW					8						John McLaren.
Carlisle			29.98	761.5	66.6	19.2		W					3			0	0		T. Bell, for J. Cartme
Chatham, School M. E.			30.01	762.2	60.4	15.8		NE			1		10					Hazy	Q. M. Sergt. J. Conro
Colombo, (Ceylon)			29.92	760.0	84.8	29.3		SW			4		6						Sgt. W. F. Hopkins
Dartmoor			30.08	764.0	53	11.7		W			1		10						R. E. Power.
Donaghadee			30.01	762.2	53	11.7		SE			3		7						J. Mac Gowan, Jr.
Dover			30.02	762.5	57	13.9		E			1		3						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.96	761.0	63.2	17.3		SW	4.8	2.1			10					Misty	Thomas Mackereth.
Falmouth Observatory			30.05	763.3	57.7	14.3		NNW	8	3.6			9						The Staff.
Fort Napier, (Natal)			29.90	759.4	80.0	26.7		NE			1		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	88	31.1		E					8						
Galway, Queen's College			29.91	759.7	62	16.7		S			2		3						B. G. Clare, for Prof. C
Gibraltar, (Mediterranean)			30.07	763.8	73.5	23.1		ENE			3		2						Sergt. E. G. Baker.
Glasgow Observatory			29.96	761.0	58.4	14.7		SW			1		8						James Gray.
Great Yarmouth			30.04	763.0	53	11.7		SE			1		3						G. T. Watson.
Greenwich Royal Obs.			30.01	762.2	62.2	16.8		SE			1		8						The Staff, for G. B. A
Guernsey			30.02	762.5	57	13.9		NW			2		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.91	759.7	65.2	18.4		S					9					Hazy	F. J. Page, for L. J. Cr
Halifax, (Nova Scotia)			29.68	753.9	45.1	7.3		NW			4		1						Corp'l J. Y. Thompso
Helston			30.01	762.2	61	16.1		NW			4		8						Dr. W. B. Mavle.
Holyhead			30.03	762.7	55	12.8		NW			3		4						John Tilston.
Hull Park																			
Kew Observatory			30.00	762.0	61.7	16.5		SE	6	2.7			8					Hazy	The Staff.
Kingstown			30.08	764.0	58	14.4		ESE			1		9					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			30.02	762.5	63.4	17.4		S			1		8						William J. Harrison
Llandudno			30.01	762.2	59.5	15.3		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.11	762.2	70.2	21.2		SE			1		6k						Fred Travis, Pvt A. B
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.90	759.4	60	15.6		SW			1		8						William D. Penny.
Nassau, (Bahamas)			30.08	764.0	79.9	26.6		SE			2		7						Surg.-Maj. J. Jameso
North Shields			29.97	761.2	57	13.9		ESE			2		8					Foggy	John Wm. Irvine.
Nottingham			30.00	762.0	65.9	18.8		SSW			2		7k&k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.00	762.0	61.0	16.1		S			2		9					Hazy	Rev. Stephen Whitt
Oxford, Radcliffe Obs.			29.98	761.5	64	17.8		Calm			0		10						J. Lucas, for R. Main
Plymouth			30.01	762.2	56	13.3		SSE			1		10					Foggy	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.04	763.0	58	14.4		SW			2		5						W. Kennedy.
Saint Ann's Head			30.01	762.2	54	12.2		NW			1		5						John C. Walker.
Saint Helier, (Jersey)			30.02	762.5	57.2	14.0		WSW			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			29.88	758.9	54.2	12.3		WSW	20	8.9			4						Rev. C. Clouston.
Scarborough			29.99	761.7	57.0	13.9		SE			1		9						F. Shaw.
Scutari, (Turkey)			30.19	766.8	66.0	18.9		NE			2		4					Slight haze	Sergt. W. H. Lyne.
Sheffield			29.96	761.0	65.1	18.4		SW			1		8			0	0		W. F. Cooper.
Sidmouth																			
Siloth Rectory			29.98	761.5	60.9	16.1		SW			1		2			0	0		Rev. Francis Redto
Somerleyton, (Lowestoft)			30.03	762.7	63.7	17.6		SSE			1		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.98	761.5	56.1	13.4		W			2		10					Hazy	The Staff.
Stornoway, Lewis C. (Hebr.)			29.86	758.4	56	13.3		W			5		10						John Smith.
Strathfield Turgiss			30.00	762.0	67.8	19.9		W			1		5						Rev Charles H. Gr
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.86	758.4	59	15.0		W			4		7						John Trotter.
Truro, Royal Institution			29.97	761.2	63	67.2		NW			4		6						W Newcombe.
Valencia Observatory			30.03	762.7	56.0	13.3		SSW	12	5.4			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.00	762.0	59.9	15.5		S			1		3						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.16	766.0	55.4	13.0	42	SSE			4		0						
Fanöe			30.01	763.2	61.9	16.6	61	SW			2		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.67	753.5	43.5	6.4	83	SE			2		8						
Thorshavn, (Faröe)			29.63	752.7	52.5	11.4	87	SSW			4		10					Raining	
Vestervig			30.00	763.1	63.0	17.2	61	SE			2		6						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.03	762.8	68.0	20.0	74						2k						Normal School.
Alençon			30.29	769.3	59.0	15.0	93	W			1		8n			0.315	8.0		Normal School.
Amiens			30.03	762.8	65.5	18.6	72	WSW			4		2		WSW	0.994	2.4		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.06	763.4	62.6	17.0	67	NW			1		8		NW	0.110	2.8		Normal School.
Besançon			30.16	766.0	59.0	15.0	82	S			2		10		SW	0.043	1.1		Normal School.
Bourg en Bresse			30.13	765.4	66.7	19.3	50	W			2		5cn		N	0.220	0.5		Normal School.
Bourges			30.06	763.4	60.8	16.0	82	SW			6		10		S	0.09[illegible]	2.4		Normal School.
Brest			30.02	762.5	55.6	13.1	77	NW			2		10		NW	0.069	1.75		Naval Observatory.
Caen			30.04	763.0	60.3	15.7	76	SSW			1		8		SW	0.193	4.9		Normal School.
Chartres			30.02	762.4	55.4	13.0		W			1		10			0.016	0.4		Normal School.
Chaumont			30.03	762.8	59.4	15.2		SW			2		10		SW	0	0	Sprinkling	Normal School.
Commercy			30.13	765.3	62.6	17.0	46	W			2		8		E	0	0		Normal School.
Le Mans			30.21	767.4	59.4	15.2	78	SW			3		8		SW	0.035	0.9		Normal School.
Lons-Le Saulnier			30.10	76[illegible].6	66.0	18.9	54	W			1		8		NE	0.043	1.1		Normal School.
Mâcon																			
Mirecourt			30.22	767.6	59.2	15.1	64	N			2		5		S	0	0		Normal School.
Orleans			30.17	766.4	69.8	21.0	57	S			2		2		S	0	0		Normal School.
Paris Observatory			30.04	762.9	62.6	17.0		SSW			2		8		WSW	0.033	0.84	Raining	National Observatory.
Parthenay			30.02	762.5	61.7	16.5	69	W			2		5		N	0.039	1.0		Normal School.
La Roche sur Yon			30.11	764.8	64.0	17.8	61	SW			2		5		NE	0.012	0.3		Normal School.
Rouen			30.02	762.4	64.2	17.9	62	NW			2		10		SW	0	0		Normal School.
Saint Lo			30.00	763.5	57.4	14.1	99	WNW			2		10		NW	0.118	3.0		Normal School.
Villefranche			30.13	765.4	65.5	18.6	57	N			3		8			0.039	1.0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.92	632.9			56.5	13.6	69	SSW	22.4	10.0			3		SW	0.250	6.5		—. Falguère.
Montsouris Observatory			30.03	762.7	62.6	17.0	56	SW			2		10kn		SW	0.100	2.7		Marié Davy.
Perpignan	29.94	760.5			70.5	21.4	35	SW	7.4	3.33			1		SW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.04	762.9	63.0	17.2	60	SSW			1		10			0.071	1.8		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.07	763.6	62.2	16.8	52	WSW			2		10		WNW	0.094	2.4		C. Marquet.
Versailles, (near Paris)			30.04	763.1	61.2	16.2	59	SW			2		10			0.089	2.27		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.18	766.6	58.5	14.7	92	ESE	8.5	3.8		0	0			0 0	0 0		H. Le Lee, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.98	761.4	61.2	16.2	60	SW			2		3			0.189	4.8		Prof. Hoh.
Berlin			30.14	765.6	66.0	18.9	36	S			1		2			0	0		Prof. Arndt.
Breslau			30.18	766.5	61.5	16.4	30	N			1		7			0	0		Dr. P. Neugebauer.
Carlsruhe			30.03	762.7	66.9	19.4	37	W			1		9			0.035	0.9		A. Senz.
Cassel			29.92	761.1	66.2	19.0	53	SW			2		6			0.160	4.07		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.09	764.2	59.9	15.5	63	[illegible]					5			0	0		M. Wilhelm.
Hamburg			30.10	764.6	59.9	15.5	66	SW			4		9ks			0	0	Threatening	W. Reinert.
Kiel			30.10	764.4	61.7	16.5	54	SE			3		2			0	0		Prof. G. Karsten.
Königsberg			30.22	767.5	62.6	17.0	35	SE			1		1			0.000	0.01		Prof. E. Luther.
Köslin			30.33	770.4	61.3	16.3		SE			4		2			0	0		Dr. T gert.
Leipsic			30.08	764.1	66.2	19.0	29	ESE			2		2			0	0		Prof. Bruhns.
Münster			30.01	762.3	64.9	18.3	65	E			2		0			0	0		Prof. E. Heis.
Posen			30.20	767.1	61.7	16.5	32	E			5		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.05	763.2	66.7	19.3	46	SW					8			0.005	0.13		Hartwig and Tülk.
Stuttgart			30.03	762.7	63.3	17.4	55	N					9			0	0		Mr. Würth.
Thorn			30.20	767.0	60.8	16.0	32	SE			4		2			0	0		Dr. Hesenbalg.
Treves, (Trier)			29.98	761.5	68.9	20.5	38	NW			5		10			0	0		Prof. Flesch.
Wustrow			30.11	764.9	63.1	17.3	36	SE			2					0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.07	763.8	63.6	17.0	70	ESE	1.8	0.8			9	W		Blank	Blank	Showery	
Mondovi			30.03	762.7	63.1	17.3	66	NNW			2		6	SW		Blank	Blank		
Genoa			30.09	764.2	62.0	17.0	78	SE	2.5	1.1			8	S		Blank	Blank		
Pavia			30.08	763.9	63.1	17.3	72	SE			1		8	NW		0.047	1.2		
Verona			30.02	762.5	71.8	22.1	45	E			2		10			0.122	3.1	Raining	
Padua			30.03	762.8	66.4	19.1	51	SE	5.4	2.5			8	WNW		0	0		
Parma																			
Bologna			30.08	764.0	65.7	18.7	20	NW			4		7			0.472	12.0	Showery	
Livorno			30.10	764.5	66.4	19.1	67	SSW	9.4	4.2			7			0	0		
Urbino			30.10	764.6	55.8	13.2	88	NE			4		10			0.650	16.5	Raining	
Ancona			30.08	764.1	62.8	17.[illegible]	79	S			4		10			0.039	1.0	Raining	
Siena			30.07	763.8	61.0	16.1	81	SW	0	0			10	W		0.039	1.0	Raining	
Rome			30.11	764.7	67.1	19.5	84	W	3.1	1.4			10	SW		0.020	0.5	Light rain	
Naples, O. U.			30.14	765.5	68.2	20.2	61	SW			4		2	SW		0	0		
Lecce			30.14	765.5	66.2	19.0	72	ESE	10.5	4.7			8			0	0		
Cosenza			30.12	765.1	76.1	24.5	27	NW			1		9			0	0		
Catania, (Sicily)																			
Lipposto			30.11	764.7	71.2	21.8	46	Calm			0		8	W		0	0		
Palermo			30.06	763.4	67.5	19.7	56	E			4		4			0	0		
Sub-Series.																			
Naples, S. R.			30.16	766.0	67.1	19.5	66	S			0					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.06	763.5	62.2	16.8		SSW			2								
Groningen			29.98	761.4	64.8	18.2		NE			1								
Helder			30.04	763.0	58.2	14.9		NE			2								
Utrecht			29.98	761.6	64.8	18.2	62	ENE			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.01	762.2	57.2	14.0	49	S	17.2	7.7			5			0	0		
Christiania			30.09	764.3	56.5	13.6	43	S	10.5	4.7			3			0	0		
Tromsö			29.96	760.9	33.8	1.0	100	Calm			0		10			0.047	1.2	Raining & Snowing	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.77	756.1			66.2	19.4	40	ENE	4.9	2.2			4						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.18	766.6	59.0	15.0	36	E	7	3			6						Astronomical Obs.
Wilna			30.27	768.8	57.0	13.9	40	SE	4	2			10						Astronomical Obs.
Dorpat			30.23	767.8	56.7	13.7	34	WSW	7	3			0						Physical Cabinet.
St. Petersburg			30.11	764.9	41.7	5.4	77	WNW	7	3			7						Central Physical Obs.
Kuopio																			
Kieff			30.24	768.2	52.9	11.6	47	NE	7	3			6						Physical Cabinet.
Nikolaiev			30.24	768.0	60.3	15.7	62	Calm	0	0			6						
Kertch			30.15	765.8	58.6	14.8	64	NNW	10	4.5			5						Lagorio.
Moscow			30.22	767.6	52.3	11.3	35	NW	4	2			0						Meteorological Obs.
Lugan			30.09	762.0	51.6	10.9	81	SW	4	2			9					Raining	Meteorological Obs.
Archangel			29.92	760.0	38.5	3.6	70	NW	10	4.5			2						Ogorodnikof.
Tiflis			30.12	765.0	61.0	16.1	40	NNW	17	7.5			5						Physical Obs.
Astrakhan			30.17	766.4	51.3	10.7	82	W	8	3.5			9					Raining	Sebastianof.
Kasan			30.04	763.1	50.2	10.1	36	NW	4	2			2						Physical Cabinet.
Orenburg			30.04	763.0	57.0	13.9	49	E	4	2			0						Tschernischef.
Ekaterinburg			29.87	758.6	39.0	4.2	42	W	17	7.5			10						Meteorological Obs.
Kasaly			29.90	759.5	62.6	17.0	53	NW	13	6			3						Bobrof.
Tashkend			30.18	766.6	67.3	19.6	71	E	8	3.5			9						Michelson.
Barnaul			29.50	749.3	72.0	22.2	37	S	4	2			4						Meteorological Obs.
Yeniseisk			29.42	747.3	55.8	13.2	45	E	10	4.5			10						arks.
Irkutsk			29.87	758.7	33.8	1.0	51	Calm	0	0			0						Usolzef.
Oorga			29.98	761.4	31.3	— 0.4	65	Calm	0	0			0						Mossin.
Peking, (China)			30.10	764.6	58.8	14.9	25	SSW	13	6			0						Physical Observatory
Nertchinsk			29.77	756.2	30.9	— 0.6	85	NNW	13	6			8					Snowing	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					32.9	0.5	89	E	13	6			10						Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.98	761.4	77.4	25.2	34	W	12.7	5.67		1	1	NW		0	0		Royal Observatory
San Fernando																			The Naval Observatory

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.01	762.3	54.0	12.2	61	NNW			2		2			0	0		
Hernosand			30.06	763.4	50.7	10.4	37	SSW			3		0			0	0		
Stockholm			30.07	763.8	60.6	15.9	21	W			3		2			0	0		
Wisby			30.23	767.8	48.6	9.2	51	W			3		0			0	0		
Sub-Series.																			
Upsala			30.09	764.2	61.2	16.2	28	SW			4		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.65	727.8			59.0	15.0	57	NNE			2		7			0	0		The Observatory.
Zurich	28.48	723.3			57.9	14.4	70	W			1		9			0.043	1.1	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.2mm.; Thermometer, +0°.3 C.; Relative Humidity, —1 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.08	764.0	66.9	19.4	73	N			2		5						
Constantinople			30.24	768.0	62.0	17.0	50	NE	16.8	7.5			2		NE	0	0		
Fao, (Persian Gulf)			30.12	765.0	61.5	16.4		NW			3		0						
Salonica					77.2	25.1		SW			1		2						
Valona			30.08	764.0	69.4	20.8		W			1		10						
Varna			30.20	769.0	60.8	16.0		NE			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.84	757.9	42	5.6		W	3	1.3		5c	2s	W		0	0		
Chatham, N. B.			29.63	752.6	40	4.4	64	SW	5	2.2		10k	0	SW		0.01	0.3		
Charlottetown, P. E. Island			29.64	752.8	38	3.3	68	NW	11	4.9		8k	0	NW		0	0		
Fort Garry, Manitoba			29.91	759.7	28	— 2.2	77	NE	4	1.8		0	0			0	0		
Halifax, N. S.			29.59	751.9	45	7.2	55	W	15	6.7		0	2cs		NW	0	0		
Kingston, Ontario			29.82	757.4	38	3.3	64	Calm	0	0		10c	0			0	0		
Montreal, Quebec			29.73	755.1	39	3.9	73	W	12	5.4		3k	2ks	W		0.03	0.8		
Ottawa, Ontario			29.70	754.4	42	5.6	62	W	9	4.0		5ck	0	W		0	0	Clearing	
Parry Sound, Ontario			29.81	757.2	35	1.7	71	NE	1	0.4		2cs	2ks	NE	NE	0	0		
Port Dover, Ontario			29.83	757.7	40	4.4	56	NW	7	3.1		8k	0	NW		0	0		
Port Stanley, Ontario			29.83	757.7	42	5.6	42	N	6	2.7		Haze	0			0	0		
Quebec, Quebec			29.70	754.4	36	2.2	61	SW	10	4.5			10n		SW	0.05	1.3		
Saugeen, Ontario			29.82	757.4	33	0.6	89	Calm	0	0		5cs	0			0	0		
Stayner, Ontario			29.81	757.2	36	2.2	57	N	4	1.8		5c	0	NW	W	0	0		
Sydney, C. B.			29.63	752.6	41	5.0	72	W	13	5.8		8k	2ks	W		0	0		
Toronto, Ontario			29.82	757.4	39	3.9	54	W	7	3.1			10n			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

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

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.75	755.6	42	5.6	75	Calm	0	0			10s			0	0		
Alpena, Mich.			29.81	757.2	35	1.7	52	NW	10	4.5		5cs	0			0	0		
Atlantic City, N. J.			29.69	754.1	44	6.7	92	SE	22	9.8			10n		SE	0.16	4.1	Light rain	
Augusta, Ga.			29.76	755.9	66	18.9	73	NW	7	3.1			10s		NW	0.15	3.8		
Baltimore, Md.			29.73	755.1	46	7.8	92	NE	8	3.6			10n		NE	0.47	11.9	Light rain	
Barnegat, N. J.			29.71	754.6	44	6.7	100	SE	10	4.5			10n		E	0.30	7.6	Light rain	
Benton, Montana			29.76	755.9	55	12.8	44	W	10	4.5			10s			0	0		
Bismarck, Dakota			29.60	751.8	42	5.6	65	NE	2	0.9			10ks			0	0		
Boston, Mass.			29.77	756.1	46	7.8	47	W	5	2.2		Haze	Haze			0	0		
Breckenridge, Minn.			29.77	756.1	49	9.4	71	SW	4	1.8		2k	0	NW		0	0		
Buffalo, N. Y.			29.79	756.7	36	2.2	70	SW	4	1.8		0	8s		SW	0	0		
Burlington, Vt.			29.73	755.1	43	6.1	67	S	1	0.4		2c	2s			0	0		
Cairo, Ill.			30.01	762.2	47	7.8	76	N	12	5.4			10ks		N	0.55	14.0		
Cape Hatteras, N. C.			29.66	753.4	66	18.9	90	SW	18	8.0		8ks	2s	SW	SW	0.10	2.5		
Cape Henry, Va.			29.62	752.3	61	16.1	94	W	8	3.6			10n			0.29	7.4	Light rain	
Cape May, N. J.			29.68	753.9	44	6.7	92	E	16	7.2			10n		E	0.52	13.2	Heavy rain	
Charleston, S. C.			29.81	757.2	66	18.9	94	SW	16	7.2			10n		SW	0.98	24.9	Heavy rain	
Cheyenne, W. T.			29.87	758.7	46	7.8	42	W	12	5.4		5c	0			0	0		
Chicago, Ill.			29.91	759.7	45	7.2	68	SW	5	2.2		0	0			0.21	5.3		
Cincinnati, Ohio			29.92	760.0	44	6.7	76	NW	8	3.6			10s			0.07	1.8		
Cleveland, Ohio			29.81	757.2	42.5	5.8	91	W	8	3.6		2ck	5s	W		0.12	3.0		
Colorado Springs, Col.			29.89	759.2	44	6.7	52	N	4	1.8		2c	2s	W		0	0		
Corsicana, Texas			30.07	763.8	51	10.6	72	N	8	3.6		0	0			0	0		
Davenport, Iowa			29.99	761.7	40	4.4	82	W	2	0.9		0	Sm'e			0.12	3.0		
Denver, Col.			29.93	760.2	47	8.3	55	S	5	2.2		5cs	0	NW		0	0		
Detroit, Mich.			29.84	757.9	42	5.6	42	N	5	2.2		5c	Sm'e			0	0		
Dodge City, Kansas			29.69	754.0	48	8.9	65	S	4	1.8		0	0			0	0		
Dubuque, Iowa			29.97	761.2	42	5.6	74	Calm	0	0		0	Haze			0.30	7.6		
Duluth, Minn.			29.73	755.1	46	7.8	40	W	4	1.8		7ck	0	W		0	0		
Eastport, Me.			29.69	754.1	42	5.6	49	NW	12	5.4		2k	0	NW		0	0		
Erie, Penn.			29.79	756.7	42	5.6	83	SW	8	3.6			10s			0	0		
Escanaba, Mich.			29.83	757.7	37	2.8	80	S	4	1.8		2cs	Haze			0	0		
Fort Gibson, I. T.			30.06	763.5	45	7.2	85	N	4	1.8		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.97	761.2	42	5.6	83	SE	6	2.7		2cs	0	W		0	0		
Galveston, Texas			30.01	762.2	66	18.9	64	NE	24	10.7		0	0			0	0		
Grand Haven, Mich.			29.87	758.7	43	6.1	75	SW	11	4.9		2c	Haze	W		0	0		
Indianapolis, Ind.			29.94	760.5	43	6.1	75	NW	5	2.2			8ks		NW	0.05	1.3	Clearing	
Indianola, Texas			30.03	762.7	66	18.9	68	NE	24	10.7		0	0			0	0		
Jacksonville, Fla.			29.90	759.4	70	21.1	84	SW	4	1.8			8s		SW	0.59	15.0		
Keokuk, Iowa			29.98	761.5	38	3.3	90	NW	1	0.4		0	Fog			0	0		
Key West, Fla.			29.99	761.7	79.1	26.2	78	S	11	4.9		2cs	2s	W		0	0		
Kittyhawk, N. C.			29.51	749.5	63	17.2	89	SW	20	8.9			10ks			0.25	6.3		
Knoxville, Tenn.			29.88	758.9	47	8.3	85	SW	4	1.8			10ks		W	0.42	10.7		
La Crosse, Wis.			29.89	759.2	44	6.7	60	SW	7	3.1		0	0			0.02	0.5		
Leavenworth, Kan.			30.04	763.0	45	7.2	60	Calm	0	0		0	Fog			0	0		
Lexington, Ky.			29.91	759.7	42	5.6	83	N			2		10s			0.32	8.1		
Long Branch, N. J.			29.79	756.7	45	7.2	76	NE	4	1.8			10n			0.01	0.3	Light rain	
Louisville, Ky.			29.91	759.7	43	6.1	75	NW	4	1.8			10s			0.25	6.3		
Lynchburg, Va.			29.67	753.6	55	12.8	74	NW	2	0.9		2c	0	W		0.21	5.3		
Malone, N. Y.																			
Marquette, Mich.			29.76	755.9	39	3.9	38	SW	16	7.2			8s		W	0	0		
Memphis, Tenn.			30.02	762.5	50	10.0	78	NW	4	1.8		0	0			0.35	8.9		
Milwaukee, Wisconsin			29.87	758.7	43	6.1	83	W	10	4.5		0	0			0	0		
Mobile, Ala.			29.95	760.5	61	16.1	73	N	5	2.2		5k	5s	NW		0.57	14.5		
Montgomery, Ala.			29.97	761.2	56.5	13.6	72	NW	8	3.6		10cs	0			0.58	14.7		
Morgantown, W. Virginia			29.75	755.6	40	4.4	87	N	8	3.6			10n			0.24	6.1	Light rain	
Mt. Washington, N. H.			29.70	754.4	26	— 3.3	100	NW	26	11.6			Fog			0	0		
Nashville, Tenn.			29.93	760.2	52	11.1	79	NW	5	2.2		0	10ks		W	0.35	8.1		
New Haven, Conn.			29.79	756.7	47	8.3	62	N	4	1.8			10n			0	0	Light rain	
New London, Conn.			29.80	756.9	47	8.3	70	Calm	0	0			10s		W	0	0		
New Orleans, La.			29.95	760.5	65	18.3	63	N	12	5.4		5k	5s	N		1.23	31.2		
Newport, R. I.																			
New York, N. Y.			29.78	756.4	44	6.7	76	NE	12	5.4			10n			0.08	2.0	Light rain	
Norfolk, Va.			29.63	752.6	59	15.0	100	SW	10	4.5			10n		SW	0.20	5.1	Light rain	
North Platte, Neb.			29.56	750.8	42	5.6	82	SE	9	4.0		5c	5ks	NW	NW	0	0		
Omaha, Neb.			30.02	762.5	39	3.9	86	Calm	0	0		0	Sm'e			0.02	0.5		
Oswego, N. Y.			29.79	756.7	43.0	6.1	58	Calm	0	0		4cs	4s	W		0	0		
Peck's Beach			29.68	753.9	44	6.7	100	E	24	10.7			10n			0.32	8.1	Heavy rain	
Pembina, D. T.			29.76	755.9	31	— 0.6	84	NE	8	3.6			10s			0	0		
Philadelphia, Penn.			29.75	755.6	46	7.8	76	E	12	5.4			10n			0.07	1.8	Light rain	
Pike's Peak, C. T.			29.89	759.2	17	— 8.3	83	NW	36	16.1		5c	0	NE		0	0		
Pittsburgh, Penn.			29.80	756.9	38	3.3	81	NW	3	1.3			10		NW	0.34	8.6	Light rain	
Port Huron, Mich.			29.86	758.4	37	2.8	62	N	10	4.5		10c	0			0	0		
Portland, Maine			29.77	756.1	45	7.2	46	W	10	4.5			10s			0	0		
Portland, Or.			29.98	761.5	53	11.7	83	Calm	0	0			10n			0.09	2.3		
Punta Rassa, Fla.			30.00	762.0	79.0	26.1	52	S	16	7.2		8cs	2ks		S	0	0		
Rochester, N. Y.			29.77	756.1	41	5.0	57	W	4	1.8		Haze	5s			0	0		
Salt Lake City, Utah			29.88	758.9	53	11.7	48	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.76	755.9	44	6.7	84	NE	9	4.0			10n		NE	0.12	3.0	Light rain	
San Diego, Cal.			29.94	760.5	57	13.9	87	NW	4	1.8			10s		NW	0	0		
San Francisco, Cal.			29.97	761.2	50	10.0	86	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.74	755.4	45	7.2	59	N	4	1.8		0	2s		NW	0	0		
Savannah, Georgia			29.82	757.4	67	19.4	90	SW	6	2.7			10s			0.87	22.1		
Shreveport, La.			30.06	763.5	56	13.3	68	N	4	1.8		0	0			0	0		
Springfield, Mass.			29.79	756.7	44	6.7	67	W	1	0.4			10s			0	0	Threatening	
St. Louis, Mo.			30.04	763.0	45	7.2	68	N	8	3.6		2k	2s	N		0.22	5.6		
St. Marks, Fla.			29.90	759.4	66	18.9	94	N	6	2.7			10n		S	0.47	11.9	Light rain	
St. Paul, Minn.			29.80	756.9	42	5.6	58	SW	8	3.6		5ck	0	NW		0	0		
St. Paul's Island, Alaska			29.26	743.2	32	0.0	79	N	19	8.5			10s			0.03	8.9		
Squan Beach, N. J.			29.78	756.4	44	6.7	83	NE	4	1.8			10n			0.04	1.0	Heavy rain	
Toledo, Ohio			29.87	758.7	44	6.7	67	NW	11	5.8			10s		NW	0.23	5.8		
Tybee Island, Ga.			29.84	757.9	66	18.9	94	SW	6	2.7			10ks			0	0	Threatening	
Vicksburg, Miss.			30.07	763.8	57	13.9	57	N	8	3.6		0	0			0	0		
Virginia City, Mon.			29.62	752.3	44	6.7	60	W	10	4.5			10s			0	0		
Washington, D. C.			29.72	754.9	45	7.2	96	N	12	5.4			10n		NE	0.35	8.9	Misty	
Wilmington, N. C.			29.73	755.1	67	19.4	84	SW	18	8.0			10s		SW	0.09	2.3		
Wood's Hole, Mass.			29.81	757.2	45	7.2	84	S	4	1.8			10s			0	0		
Wytheville, Va.			29.54	750.3	45	7.2	68	NW	10	4.5		10k	0	W		0.04	1.0		
Yankton, D. T.			29.99	761.7	40	4.4	73	SW	7	3.1		1cs	0	NW		0	0		

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	83	28.3	79	NE	5	2.2		5k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.00	762.0	79	26.1	65	E				2cs	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.76	755.9	78	25.6	78	SE	3.6	1.6		2c	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	80	26.7	74	SE	5	2.2		0	3ks			0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			78	25.6	72	E	8	3.6		2ck	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	80	26.7	78	Calm	0	0		0	4k		SW	0	0		Robert Mason.
St. Georges, Bermudas			30.01	762.2	71.5	21.9	88	SW	9	4.0			10n			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.17	766.3	64	17.8	71	NE			2					0	0		E. P. Church.
Makawao, Maui, S. I.	27.89	708.4			61	16.1	83	E			3	0	3n			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Methersen, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.99	761.7	14	−10.0	100	N	6	2.7			Haze			0	0	Hazy	J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	65	18.3	90	S	2.0	0.9		2c	0	SSE		0	0		C. Partridge.
St. John's, Newfoundland			29.69	754.1	45	7.2	86	SW				5k	5s			0.05	1.3		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.82	757.4	41	5.0	91	SW	4	1.8			5s			0	0		H. M. Redington.
Indianola, Iowa	29.15	740.4			40	4.4	90	NW				0	0			0.30	7.6		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 28° 14′, W. 61° 40′	SE by E	2	30.01	762.2	73	22.8	93	S			3		k		NW	Smooth		Damp	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 5, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.5	71.1	21.7		NNE			2		0			0	0		Charnot.
Algiers			30.04	763.1	74.5	23.6	52	E			1		2			0	0		Peter.
La Calle			30.16	766.0	66.2	19.0		NW			2		0			0	0		Kuntz.
Tunis			30.12	765.0	77.2	25.1	56	ESE			3		0			0	0		Jacques.
Sfax			30.11	764.9	72.3	22.4	71	E			3		2			0.039	1.0		Chauvey.
Saïda			30.10	764.5	84.9	29.4		NNW			1		1			0	0		Grosjean.
Tebessa			30.[illegible]7	763.6	77.2	25.1		ESE			2		3			0	0		Colin.
Geriville			30.11	764.7	80.6	27.0		SW			3		2			0	0		Bernadach.
Laghouat			30.08	763.9	81.1	27.2	25	SE			1		3			0.079	2.0		Poinsignon.
Biskra			30.08	764.0	75.7	24.3		NE			2		6			0.	0		Coulon.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.02	762.4	68.9	20.5	50	NE			4		4			0.012	0.3		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.07	763.6	64.4	18.0	62	ESE			1		8			0	0		I. R. Observatory.
Eperies			30.06	763.4	57.6	14.2	67	Calm			0		10			0	0		Julius Mikolik.
Gratz			30.05	763.3	60.1	15.6	78	SW			2		5			0	0		Andreas Rospini.
Hermannstadt			30.05	763.3	52.3	11.3	80	ESE			3		10			0.167	4.25	Raining	Prof. Reissenberger.
Kremsmünster			29.98	761.4	59.4	15.2	55	NE			1		1			0	0		Prof. C. Wagner.
Lemberg			30.07	763.7	59.0	15.0	45	E			4		9			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.11	764.7	53.6	12.0	94	E			1		10			0.035	0.90		Habzsuda Daniel.
Pola			30.05	763.2	65.1	18.4	67	SSE			2		5ks			0	0		I. R. Hydrographic Office
Szegedin			30.06	763.4	58.6	14.8	69	Calm			0		10			0.016	0.40		Karl Stancel.
Trieste			30.05	763.3	60.8	16.0	79	W			1		7			0.382	9.7		Prof. V. Farolfi.
Vienna			30.02	762.6	64.2	17.9	36	SE			1		4			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.80	756.9			64.9	18.3	64	WSW			1		7k			0	0	Sprinkling	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.02	762.5	53.1	11.7		SE	10	4.5			2			0	0		William Boswell.
Annanhill																			
Ardrossan			29.97	761.2	58	14.4		WNW			1		7					Misty	William McNeil.
Armagh Observatory			29.96	761.0	56.7	13.9		SE	15	6.7			7						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.93	760.2	63.6	17.6		WNW			1		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.87	758.7	58.0	14.4		SSE			1-2		10						J. Dreyer, for L'd Rosse
Bradford			29.94	760.5	59.8	15.4		NE			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.05	763.3	80.6	27.0		NE			3		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.97	761.2	67.0	19.4		SE			1		3						H. Todd.
Cape Town, (Cape Colony)			29.97	761.2	69.0	20.6		W			4		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.98	761.5			70.6	21.4	56	NNW	14	6.3			5						The Staff, for E. J. Stone
Cardington			29.98	761.5	69.0	20.6		S					6						John McLaren.
Carlisle			29.95	760.7	63.9	17.7		N					8			0	0		T Bell, for J. Cartmell
Chatham, School M. E.			29.96	761.0	68.2	20.1		W			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759.2	86.5	30.3		SW			3		6						Sgt. W. F. Hopkins
Dartmoor			30.07	763.8	53	11.7		SW			1		8						R. E. Power.
Donaghadee			29.96	761.0	57	13.9		S			3		2						J. Mac Gowan, Jr.
Dover			30.03	762.7	50	10.0		SW			3		10					Foggy	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.94	760.5	60.6	15.9		ENE	1.2	0.5			10						Thomas Mackereth.
Falmouth Observatory			29.98	761.5	54.5	12.5		SSE	15	6.7			9						The Staff.
Fort Napier, (Natal)			29.98	761.5	75.6	24.2		NE			3		6						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.80	756.9	86	30.0		NE					7						
Galway, Queen's College			29.80	756.9	60	15.6		S			2		8						B. G. Clare for Prof. Curtis
Gibraltar, (Mediterranean)			30.01	762.2	73.8	23.2		ENE			3		2						Sergt. E. G. Baker.
Glasgow Observatory			29.96	761.0	58.8	14.9		NE			1		10						James Gray.
Great Yarmouth			30.01	762.2	53	11.7		Calm			0		3					Haze	G. T. Watson.
Greenwich Royal Obs.			29.99	761.7	68.9	20.5		S			1		2						The Staff, for G. B. Airy
Guernsey			30.00	762.0	55	12.8		ESE			1		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.93	760.2	59.3	15.2		ENE					10						F. J. Page, for L. J. Crow
Halifax, (Nova Scotia)			29.67	753.6	45.9	7.7		N			2		1						Corp'l J. Y. Thompson.
Helston			29.95	760.7	60	15.6		SE			4		4k						Dr. W. B. Mavle.
Holyhead			29.93	760.2	57	13.9		NW			1		3						John Tilston.
Hull Park																			
Kew Observatory			29.99	761.7	66.0	18.9		S	12	5.4			2						The Staff.
Kingstown			29.95	760.7	55	12.8		ESE			2		7						George Mitchell.
Lampeter																			
Leicester Museum			29.97	761.2	65.5	18.6		S			1		8						William J. Harrison
Llandudno			29.93	760.2	55.6	13.1		NE					10						Dr. James Nicol.
Malta, (Mediterranean)			30.07	763.8	66.6	19.2		NE			1		1k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.99	761.7	57	13.9		ENE			1		10						William D. Penny.
Nassau, (Bahamas)			30.13	765.3	81.9	27.7		S			2		6						Surg.-Maj. J. Jameson.
North Shields			30.01	762.2	54	12.2		NNE			3		1						John Wm. Irvine.
Nottingham			30.06	763.5	69.3	20.7		ENE			3		8k&ks		ESE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.94	760.5	67.5	19.7		ESE			3		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.96	761.0	64	17.8		S			2		5						J. Lucas, for R. Main.
Plymouth			29.97	761.2	58	14.4		S			2		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.87	758.7	58	14.4		SSE			3		10						W. Kennedy.
Saint Ann's Head			29.96	761.0	56	13.3		Calm			0		4						John C. Walker.
Saint Helier, (Jersey)			29.99	761.7	61.8	16.6		ESE			3		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.02	762.5	51	10.6		W	14	6.3			0						Rev. C. Clouston.
Scarborough			30.1	762.2	53.4	11.9		ENE			1		4						F. Shaw.
Scutari, (Turkey)			30.11	764.8	60.2	15.7		NE			1		9						Sergt. W. H. Lyne.
Sheffield			29.95	761.7	67.9	19.8		ESE			2		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.94	760.5	67.5	19.7		SW			3		2			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.00	762.0	65.0	18.3		ESE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.93	760.2	58.9	14.9		E			1		8					Hazy	The Staff.
Stornoway, Lews C. (Hebr).			29.98	761.5	57	13.9		SE			1		7						John Smith.
Strathfield Turgiss			29.99	761.7	64.1	17.8		SW			1		4						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.01	762.2	54	12.2		WNW			2		6						John Trotter.
Truro, Royal Institution			29.92	760.0	60	15.6		SE			2		5						W Newcombe.
Valencia Observatory			29.79	756.7	52.0	11.1		ESE	30	13.4			10					Showery	The Staff.
Wick																			
Wisbeach																			
Worthing			30.03	762.7	51.0	10.6		S			1		10					Foggy	William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.12	765.0	56.8	13.8	42	SSE			2		0						
Fanöe			30.02	762.4	60.1	15.6	77	W			2		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.63	752.7	48.2	9.0	81	SE			6		10					Raining	
Thorshavn, (Faröe)			29.96	761.0	54.1	12.3	72	SW			4		3						
Vestervig			30.01	762.3	63.0	17.2	55	SE			2		6						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.00	762.1	67.8	19.9	76						2ks						Normal School.
Alençon			29.99	761.7	66.2	19.0	47	SW			1		8kn			0	0		Normal School.
Amiens			30.05	763.3	58.3	14.6	68	W			3		5		SE	0.551	14.0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.06	763.4	62.1	16.7	64	SE			1		5		S	0.760	19.3		Normal School.
Besançon			30.10	764.6	65.1	18.4	55	N			2		0			0.098	2.5		Normal School.
Bourg en Bresse			30.07	763.8	68.0	20.0	38	N			2		2		E	0.016	0.4		Normal School.
Bourges			30.00	762.0	64.4	18.0	66	SE			4		2		NW	0.134	3.4		Normal School.
Brest			29.91	759.7	62.8	17.1	66	S			2		2ks		S	0	0		Naval Observatory.
Caen			30.03	762.8	57.4	14.1	74	ENE			4		10		S	0	0		Normal School.
Chartres			30.01	762.3	66.7	19.3		W			1		4k		NW	0.157	4.0		Normal School.
Chaumont			30.01	762.3	61.7	16.5		WNW			1		..kn		WNW	0.217	5.5		Normal School.
Commercy			30.11	764.8	61.9	16.6	58	W			2		8		E	0.167	4.25		Normal School.
Le Mans			30.11	764.8	64.2	17.9	67	SE			2		8		SE	0.012	0.3		Normal School.
Lons-Le Saulnier			30.05	763.2	55.0	12.8	47	N			1		2		S	0	0		Normal School.
Mâcon																			
Mirecourt			30.13	765.2	59.5	15.3	56	E			2		5		W	0.283	7.2		Normal School.
Orleans			30.13	765.4	71.6	22.0	53	S			2		2		S	0	0		Normal School.
Paris Observatory			30.01	762.3	65.3	18.5		S			1		5		S	0.009	0.22		National Observatory.
Parthenay			29.97	761.1	62.6	17.0	36	SW			2		5		N	0	0		Normal School.
La Roche sur Yon			30.01	762.9	69.4	20.8	55	SE			2		2		NW	0	0		Normal School.
Rouen			30.01	762.2	64.2	17.9	56	SSE			2		2		S	0.150	3.8		Normal School.
Saint Lo			30.03	762.8	63.9	17.7	57	SW			2		1[illegible]		SW	0	0		Normal School.
Villefranche			30.05	763.2	69.1	20.6	48	NNW			1		5		W	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.88	632.0			58.8	14.9	72	ESE	14.9	6.66			4		W	0.008	0.2		—. Falguère.
Montsouris Observatory			30.01	762.2	71.1	21.7	45	SE			1		7k		SE	0	0		Marié Davy.
Perpignan	29.87	758.7			69.1	20.6	53	ENE	5.6	2.50			1		SW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.01	762.3	65.1	18.4	51	S			1		9			0.067	1.7		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.98	761.6	69.3	20.7	40	SSE			1		5		S	0	0		C. Marquet.
Versailles, (near Paris)			30.01	762.3	64.0	17.8	57	NW			2		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.00	762.0	63.3	17.4	86	SE	17.9	8.0			Fog			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. 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. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Bamberg			29.95	760.8	63.0	17.2	62	S			2		6			0	0		Prof. Hoh.
Berlin			30.10	764.4	66.7	19.3	26	SE			1		2			0	0		Prof. Arndt.
Breslau			30.14	765.6	64.0	17.1	34	ENE			1		7			0	0		Dr. P. Neugebauer.
Carlsruhe			29.99	761.8	62.8	17.1	68	S			1		7			0.012	0.3	Light rain	A. Senz.
Cassel			29.92	760.0	71.4	21.9	51	NW			2		4			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.03	762.8	60.8	16.0	64	S					7			0.039	1.0		M. Wilhelm.
Hamburg			30.06	763.5	65.8	18.8	54	SE			2		5k			0.537	13.63	Fog	W. Reinert.
Kiel			30.06	763.4	63.3	17.4	53	NE			1		7			0	0		Prof. G. Karsten.
Königsberg			30.10	766.8	65.8	18.8	27	SE			1					0	0		Prof. E. Luther.
Köslin			30.30	769.5	61.9	16.6		SE			4		0			0	0		Dr. Tägert.
Leipsic			30.01	762.3	70.5	21.4	32	SSE			2		5			0	0		Prof. Bruhns.
Münster			29.98	761.4	66.9	19.4	67	E			2		0			0	0		Prof. E. Heis.
Posen			30.14	765.4	65.5	18.6	35	S			5		2			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.01	762.3	66.4	19.1	49	W					8			0.018	0.46		Hartwig and Tülk.
Stuttgart			30.00	761.9	63.5	17.5	66	W					8			0	0	Light rain	Mr. Würth.
Thorn			30.15	765.7	64.4	18.0	33	SE			4		5			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.95	760.7	64.0	17.8	61	SW			6		6			0.020	0.52		Prof. Flesch.
Wustrow			30.09	764.2	66.7	19.3	37	ESE			4					0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. 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. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Moncalieri			30.03	762.7	61.0	16.1	77	ESE	9.4	4.2			9	E		0	0		
Mondovi			30.00	761.9	62.2	16.8	66	NW			2		6			0	0		
Genoa			30.05	763.2	63.9	17.7	75	S	4.9	2.2			8	SE		Blank	Blank		
Pavia			30.05	763.3	57.4	14.1	94	E			4		9	E		0.520	13.2		
Verona			30.02	762.5	58.4	14.8	74	E			4		10			0	0		
Padua			30.00	761.9	65.1	18.4	61	SE	11.2	5.0			10	SE		Blank	Blank		
Parma																			
Bologna			30.02	762.6	66.6	19.2	16	ENE			4		5			0.433	11.0	Showery	
Livorno			30.08	764.0	66.6	19.2	63	SW	11.9	5.3			4			0	0		
Urbino			30.07	763.6	59.0	15.0	78	SSW			2		10			0.098	2.5	Raining	
Ancona			30.04	763.0	65.1	18.4	67	SE			4		6			0.413	10.5		
Siena			30.04	763.0	66.6	19.2	62	S	3.1	1.4			5	W		0	0		
Rome			30.09	764.3	70.9	21.6	55	SSW	8.7	3.9			3			0	0		
Naples, O.U.			30.12	765.0	70.3	21.3	57	SW			2		1			0	0		
Lecce			30.11	764.9	67.3	19.6	68	NNW	4.9	2.2			6			0	0		
Cosenza			30.10	764.5	74.3	23.5	25	NW			1		4	SE		0	0		
Catania, (Sicily)																			
Liposto			30.07	763.7	70.5	21.4	59	SSE			2		7	NE		0	0		
Palermo			30.04	763.1	67.0	19.6	60	NE			4		1			0	0		
Sub-Series.																			
Naples, S. R.			30.12	765.1	68.0	20.0	62	S			4		6			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.05	763.3	54.7	12.6		NW			2								
Groningen			29.96	761.0	62.4	16.9		NE			1								
Helder			30.02	762.4	58.1	14.5		NNE			1								
Utrecht			29.95	760.8	71.6	22.0	44	WSW			2		8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.06	763.4	49.3	9.6	95	SSW	7.4	3.3			10			0.244	6.2		
Christiania			30.02	762.5	60.4	15.8	48	SW	11.0	4.9			6			0	0		
Tromsö			29.67	753.5	43.5	6.4	99	S			4		10			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.75	755.6			66.6	19.2	68	SW	8.7	3.9			8						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.14	765.5	61.3	16.3	36	E	7	3			9						Astronomical Obs.
Wilna			30.27	768.8	60.4	15.8	32	E	8	3.5			8						Astronomical Obs.
Dorpat			30.25	768.3	56.[illegible]	13.8	37	WNW	7	3			0						Physical Cabinet.
St. Petersburg			30.15	765.9	45.7	7.6	70	NW	11	5			0						Central Physical Obs.
Kuopio																			
Kieff			30.32	770.0	59.0	15.0	48	SSE	2	1			8						Physical Cabinet.
Nikolaiev			30.26	768.5	63.5	17.5	48	SE	4	2			7						
Kertch			30.15	765.7	55.9	13.3	76	S	17	7.5			2						Lagorio.
Moscow			30.23	767.7	54.0	12.2	42	NNW	10	4.5			7						Meteorological Obs.
Lugan			30.15	765.7	61.0	16.1	43	ENE	8	3.5			5						Meteorological Obs.
Archangel			30.18	766.6	38.5	3.6	73	Calm	0	0			8						Ogorodnikof.
Tiflis			30.17	766.4	64.9	18.3	22	NNW	20	9			0						Physical Obs.
Astrakhan			30.24	768.2	53.8	12.1	73	E	4	2			10					Raining, hailing	Sebastianof.
Kasan			29.98	761.4	52.2	11.2	41	NNW	10	4.5			10						Physical Cabinet.
Orenburg			30.04	763.2	58.8	14.9	43	NE	4	2			0						Tschernischef.
Ekaterinburg			29.84	758.0	43.7	6.5	45	W	17	7.5			10						Meteorological Obs.
Kasaly			30.07	763.7	59.2	15.1	87	W	8	3.5			3						Bobrof.
Tashkend			30.12	765.0	72.7	22.6	42	N	8	3.5			7						Michelson.
Barnaul			30.04	763.1	45.5	7.5	47	W	13	6			4						Meteorological Obs.
Yeniseisk			29.05	737.8	56.3	13.5	63	SW	25	11			10						[illegible]arks.
Irkutsk			29.64	752.8	41.4	5.2	54	NE	10	4.5			4						Usolzef.
Oorga			29.79	756.7	33.4	0.8	65	Calm	0	0			0						Mossin.
Peking (China)			29.92	760.0	58.5	14.7	48	Calm	0	0			10					Raining	Physical Observatory.
Nertchinsk			29.87	758.7	28.8	— 1.8	48	Calm	0	0			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					36.9	2.7	96	W	10	4.5			0						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.93	760.1	76.6	24.8	24	SW	18.6	8.33		2	1	W		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.2	43.5	6.4	86	S			2		8			0	0		
Hernosand			29.95	760.8	52.9	11.6	48	SW			2		0			0	0		
Stockholm			30.06	763.6	60.8	16.0	36	SSW			3		6			0	0		
Wisby			30.19	766.8	61.2	16.2	43	WSW			1		0			0	0		
Sub-Series.																			
Upsala			30.05	763.2	63.7	17.6	34	SW			4		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.64	727.5			53.6	13.4	64	N			2		5			0.004	0.1		The Observatory.
Zurich	28.43	722.0			59.0	15.0	69	NE			1		9			0.059	1.5		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.9mm.; Thermometer, —1°.3 C.; Relative Humidity, +6 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Beirut, (Syria)			30.03	762.8	68.0	20.0	77	S			2		0						
Constantinople			30.15	765.7	57.6	14.2	66	N	12.3	5.5			8		WSW	0	0		
Fao, (Persian Gulf)			29.95	760.6	90.0	32.2		NW			3		0						
Salonica					73.9	23.3		SW			3		0						
Valona			30.08	764.1	71.6	22.0		W			1		2						
Varna			30.16	766.0	60.8	16.0		NE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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.

Brockville, Ontario			29.97	761.2	41	5.0		SW	8	3.6		0	0			0	0		
Chatham, N. B.			29.76	755.9	37	2.8	80	Calm	0	0		2k	8ks			0	0		
Charlottetown, P. E. Island			29.72	754.9	36	2.2	82	N	8	3.6			8ks			0	0		
Fort Garry, Manitoba			29.98	761.5	28	— 2.[illegible]	82	NE	1	0.4		0	2ks			0	0		
Halifax, N. S.			29.59	751.6	44	6.7	67	NW	4	1.8		0	2ks		NW	0	0		
Kingston, Ontario			29.93	760.2	42	5.6	68	Calm	0	0		0	0			0	0		
Montreal, Quebec			29.84	757.9	46	7.8	65	W	10	4.5		0	0			0	0		
Ottawa, Ontario			29.88	758.9	41	5.0	61	Calm	0	0		0	2s			0	0		
Parry Sound, Ontario			29.80	756.9	39	3.9	43	SE	11	4.9		2cs	5ks	SW	SW	0	0		
Port Dover, Ontario			29.91	759.7	42	5.6	74	S	11	4.9		8k	0	W		0	0		
Port Stanley, Ontario			29.80	756.9	44	6.7	76	Calm	0	0		Haze	0			0	0		
Quebec, Quebec			29.76	755.9	48	8.9	85	S	15	6.7		8ks	10n			0	0		
Sugeen, Ontario			29.81	757.2	43	6.1	57	Calm	0	0		8k	2n	S	S	0	0		
Sydney, C. B.			29.64	752.8	34	1.1	86	NE	6	2.7			0			0	0		
Toronto, Ontario			29.83	759.2	42	5.6	66	S	4	1.8			10n		NE	0	0		
												2ck	2s	W		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

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

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.90	759.4	54	12.2	49	S	1	0.9		0	0			0	0		
Alpena, Mich.			29.69	754.1	35	1.7	90	NW	5	2.2			10ks		SW	0.07	1.8		
Atlantic City, N. J.			30.03	767.2	49	9.4	57	W	8	3.6		0	0			0.30	7.6		
Augusta, Ga.			30.08	764.0	57	13.9	46	E	6	2.7		0	0			0	0		
Baltimore, Md.			30.04	763.0	51	10.6	59	W	9	4.0		0	0			0.06	1.5		
Barnegat, N. J.			30.00	762.0	51	10.6	53	W	4	1.8		0	0			0	0		
Benton, Montana			29.68	753.9	60	15.6	50	SW	16	7.2			10s			0	0		
Bismarck, Dakota			29.71	754.6	42	5.6	34	S	6	2.7		10k	0	S		0	0		
Boston, Mass.			29.87	758.7	51	10.6	46	NW	10	4.5		0	8ks		N	0	0		
Breckenridge, Minn.			29.88	758.9	34	1.1	61	Calm	0	0		0	0			0.10	2.5		
Buffalo, N. Y.			29.90	759.4	40.5	4.7	64	SW	4	1.8		5c	0	SW		0	0		
Burlington, Vt.			29.85	758.2	50	10.0	72	W	2	0.9		2k	0			0	0		
Cairo, Ill.			29.98	761.5	49	9.4	71	S	8	3.6			10s		S	0	0	Threatening	
Cape Hatteras, N. C.			30.10	764.5	53	11.7	70	NE	8	3.6		0	Haze			0	0		
Cape Henry, Va.			30.11	764.8	58	14.4	61	NW	8	3.6		Haze	0			0.01	0.3		
Cape May, N. J.			30.04	763.0	47	8.3	77	NW	12	5.4		0	0			0.19	4.8		
Charleston, S. C.			30.09	764.3	58	14.4	68	NE	12	5.4		0	0			0.12	3.0		
Cheyenne, W. T.			29.87	758.7	57	13.9	26	W	16	7.2		5c	5s			0	0		
Chicago, Ill.			29.76	753.4	50	10.0	64	SW	9	4.0			10s			0	0	Threatening	
Cincinnati, Ohio			30.02	762.5	46	7.8	76	S	4	1.8			10s			0	0		
Cleveland, Ohio			29.90	759.4	49.7	9.8	58	SW	16	7.2		2c	2s	W		0	0		
Colorado Springs, Col.			29.88	758.9	47	8.3	62	Calm	0	0		5cs	0	NW		0	0		
Corsicana, Texas			29.91	759.7	55	12.8	80	S	5	2.2		2c	0			0	0		
Davenport, Iowa			29.72	754.9	48	8.9	92	SW	4	1.8			10n			0.32	8.1	Light rain	
Denver, Col.			29.93	760.2	52	11.1	53	S	6	2.7		5ck	0	NW		0	0		
Detroit, Mich.			29.83	757.7	47	8.3	62	SW	9	4.0			10s			0	0		
Dodge City, Kansas			29.42	747.3	60	15.6	82	N	8	3.6		2c	0	NE		0	0		
Dubuque, Iowa			29.74	755.4	49	9.4	93	SW	2	0.9			10n			0.09	2.3	Light rain	
Duluth, Minn.			29.85	758.2	38	3.3	45	SE	8	3.6		0	0			0.03	0.8		
Eastport, Me.			29.70	754.4	44	6.7	67	N	9	4.0		2c	0	W		0	0		
Erie, Penn.			29.89	759.2	50	10.0	88	SW	12	5.4		5ck	Haze	SW		0	0		
Escanaba, Mich.			29.71	754.6	33	0.6	79	W	8	3.6		0	2ks			0.58	14.7		
Fort Gibson, I. T.			29.78	756.4	58	14.4	61	SE	8	3.6		10ck	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.78	756.4	42	5.6	87	E	1	0.4		8c	0	W		0.05	1.3		
Galveston, Texas			29.97	761.2	67	19.	73	S	7	3.1		0	0			0	0		
Grand Haven, Mich.			29.76	755.9	43	6.1	83	SW	17	7.6			10n		W	0.14	3.5	Light rain	
Indianapolis, Ind.			29.92	760.0	48	8.9	63	S	7	3.1			10s		S	0	0		
Indianola, Texas			29.99	761.7	70	21.1	75	S	8	3.6		0	0			0	0		
Jacksonville, Fla.			30.04	763.0	68	20.0	64	W	2	0.9		8k	0	SW		0	0		
Keokuk, Iowa			29.72	754.9	52	11.1	79	S	2	0.9			10n		S	0.09	2.3	Light rain	
Key West, Fla.			30.06	763.5	79.2	26.2	70	E	5	2.2		0	5s			0	0		
Kittyhawk, N. C.			30.12	765.0	53	11.7	54	N	9	4.0		0	0			0	0		
Knoxville, Tenn.			30.08	764.0	44	6.7	91	NE	2	0.9		5c	0			0	0		
La Crosse, Wis.			29.80	756.9	38	3.3	71	NE	9	4.0			10s		NE	0.10	2.5		
Leavenworth, Kan.			29.67	753.6	55	12.8	62	S	1	0.4		2c	0	NW		0	0		
Lexington, Ky.			30.04	763.0	44	6.7	84	S			1		10s			0	0		
Long Branch, N. J.			30.01	762.2	51	10.6	53	NW	8	3.6		0	0			0.50	12.7		
Louisville, Ky.			30.02	762.5	46	7.8	69	Calm	0	0		Haze	Fog			0	0		
Lynchburg, Va.			30.00	764.9	51	10.6	56	W	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.66	753.1	37	2.8	70	W	16	7.2			8s		NW	0.15	3.8		
Memphis, Tenn.			30.06	763.5	48	8.9	77	E	3	1.3		8k	0	N		0	0		
Milwaukee, Wisconsin			29.80	756.9	34	1.1	90	NE	13	5.8			10n			0.23	5.8	Heavy rain	
Mobile, Ala.			30.05	763.3	60	15.6	70	NE	5	2.2		5c	0			0	0		
Montgomery, Ala.			30.07	763.8	56	13.3	78	Calm	0	0		2c	Haze			0	0		
Morgantown, W. Virginia			30.01	762.2	53	11.7	66	Calm	0	0		2c	Haze	NW		0.10	2.5		
Mt. Washington, N. H.			29.83	757.7	19	— 7.2	100	NW	36	16.1			Fog			0	0		
Nashville, Tenn.			30.06	763.5	45	7.2	85	Calm	0	0		0	10s		SW	0	0		
New Haven, Conn.			29.96	761.0	51	10.6	52	NW	4	1.8		2cs	0	NW		0.50	12.7		
New London, Conn.			29.95	760.7	56	13.3	57	NW	3	1.3		0	0			0.47	11.9		
New Orleans, La.			30.02	762.5	66.5	19.2	71	NE	8	3.6		1k	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.0	762.2	45	7.2	60	W	4	1.8		0	0			0.32	8.1		
Norfolk, Va.			30.13	765.3	53	11.7	60	W	3	1.3		Haze	0			0	0		
North Platte, Neb.			29.44	747.8	48	8.9	85	SW	3	1.3		8c	0			0	0		
Omaha, Neb.			29.64	752.8	54	12.2	79	NW	8	3.6		5c	0	NW		0	0		
Oswego, N. Y.			29.93	760.2	45	7.2	38	W	6	2.7		Haze	Haze			0	0		
Peck's Beach			30.05	763.3	50	10.0	86	NW	12	5.4		0	0			0.08	2.0		
Pembina, D. T.			29.92	760.0	32	0.0	69	Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.05	763.3	49	9.4	50	W	4	1.8		0	0			0.11	2.8		
Pike's Peak, C. T.			29.96	761.0	23	— 5.0	86	W	40	17.9		2c	0			0	0		
Pittsburgh, Penn.			29.96	761.0	46	7.8	61	S	5	2.2		0	0			0.11	2.8	Smoky	
Port Huron, Mich.			29.82	757.4	45	7.2	76	S	14	6.3			10s			0	0	Threatening	
Portland, Maine			29.85	758.2	47	8.3	48	W	4	1.8		2c	0			0	0		
Portland, Or.			29.87	758.7	53	11.7	80	S	6	2.7			10s			0.60	15.2		
Punta Rassa, Fla.			30.07	763.8	73.4	23.0	85	NW	10	4.5			8ks		SW	0	0		
Rochester, N. Y.			29.90	759.4	43	6.1	67	SW	6	2.7		5c	Haze			0	0		
Salt Lake City, Utah			29.92	760.0	55	12.8	38	S	3	1.3		0	0			0	0		
Sandy Hook, N. J.			29.98	761.5	44	6.7	75	W	10	4.5		0	Haze			0.28	7.1		
San Diego, Cal.			29.92	760.0	58	14.4	87	N	4	1.8			10s		NW	0	0		
San Francisco, Cal.			29.92	760.0	52	11.1	93	S	2	0.9		0	0			0	0		
Santa Fe, N. M.			29.73	755.1	53	11.7	41	N	4	1.8		2c	0	SW		0	0		
Savannah, Georgia			30.08	764.0	63	17.2	52	NE	8	3.6		0	0			0	0		
Shreveport, La.			29.99	761.7	59	15.0	70	S	9	4.0		5c	0	NW		0	0		
Springfield, Mass.			29.92	760.0	53	11.7	42	NW	4	1.8		1cs	0			0.03	0.8		
St. Louis, Mo.			29.87	758.7	53	11.7	66	SW	8	3.6			10n		SW	0	0	Light rain	
St. Marks, Fla.			30.03	762.7	63	17.2	88	N	4	1.8			10ks		W	0.48	12.2		
St. Paul, Minn.			29.79	756.7	37	2.8	45	NE	4	1.8		0	0			0.23	5.8		
St. Paul's Island, Alaska			29.51	749.5	30	— 1.1	78	NW	13	5.8			10k			0	0		
Squan Beach, N. J.			30.00	762.0	48	8.9	54	W	8	3.6		0	0			0.50	12.7		
Toledo, Ohio			29.87	758.7	49	9.4	57	S	12	5.4		10c	0	W		0	0		
Tybee Island, Ga.			30.09	764.3	63	17.2	73	NE	2	0.9		0	Sm'e			0	0		
Vicksburg, Miss.			30.07	763.8	55	12.8	68	SE	9	4.0		0	2s		SE	0	0		
Virginia City, Mon.			29.54	750.3	50	10.0	51	Calm	0	0			10s			0	0		
Washington, D. C.			30.07	763.8	51	10.6	64	S	4	1.8		Haze	Sm'e			0.02	0.5		
Wilmington, N. C.			30.12	765.0	58	14.4	53	NE	8	3.6		0	Haze			0	0		
Wood's Hole, Mass.			29.92	759.7	54	12.2	61	W	4	1.8		0	5s			0.50	12.7		
Wytheville, Va.			29.80	759.2	39	3.9	72	NW	1	0.8		0	0			0	0		
Yankton, D. T.			29.79	756.7	47	8.3	85	NE	6	2.7			10s		NE	0	0		

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
ridgetown, B'b'does, W. I.			30.10	764 5	84	28.9	83	NE	6	2.7		5k	5ks	E		0	0		E. Racker.
ointe-A Pitre, G'd'loupe, do			30.04	765.0	77	25.0	72	E				Haze	0			0	0	Hazy	L. V. Bigard.
avana, Cuba, W. I.			29.81	756.9	80	26.7	78	Calm	0	0		5ck	0	SE		0	0		Charles Hasselbrink.
ingston, Jamaica, W. I.			30.20	767.1	80	26.7	78	SE	2	0.9		0	0			0	0		James Gall.
t. Thomas, St. T., W. I.	30.28	769.1			77	25.0	72	E	10	4.5			8kn			0	0	Clearing	W. S. Cameron.
antiago de Cuba, W. I.			29.86	758.4	79	26.1	74	NE	3.6	1.6		2ck	0	N		0	0		Robert Mason.
t. Georges, Bermudas			29.94	760.5	72	22.2	88	SW	13.2	5.9		10c	1d	W		0.110	2.79		C. F. Allen.
onolulu, Oahu, S. I.			30.13	765.3	73	22.8	71	NE			2					0	0		E. P. Church.
akawao, Maui, S. I.	27.85	707.4			61	16 1	83	E			2	0	1n			0.28	7.1		F. L. Clarke.
umberland, B. A.																			
t. Chippewyan, B. A.																			
t. Merrherson, B. A.																			
t. Simpson, B. A.																			
ork Factory, B. A.			30.08	764.0	15	-- 9.4	100	N	4	1.8			Fog			0	0	Foggy	J. Fortescue.
lifton, Jamaica, W. I.			30.06	763.5	66	18.9	84	S	4.0	1.8		2c	2k	SSE		0	0		C. Partridge.
t. John's, Newfoundland			29.69	754.1	35	1.7	89	S					10n			0.01	0.3		John Delaney.
t. John's, Porto Rico, W. I																			Leon M. Acuña.
lyria, Ohio			29.91	759.7	47	8.3	69	SW	12	5.4		0	2s			0	0		H. M. Redington.
ndianola, Iowa	29.82	757.4			56	13.3	79	NW				0	5ks			0.04	1.0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
chooner Addie Fuller N. 27° 50′, W. 69° 22′	ESE	2	30.01	762.2	75	23.9	91	S			3		..k		NNE	Short swell	SE	Squally	James Jorgensen, Mate.

Note.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

Note.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 6, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours																			
Algiers			30.06	763.5	75.4	24.1		NNE			2		0			0	0		Charnot.
La Calle			29.98	761.4	71.6	22.0	70	NNW			2		1			0	0		Peter.
Tunis			29.98	761.5	77.2	25.1		W			1		0			0	0		Kuntz.
Sfax			29.99	761.7	81.7	27.6	47	E			4		0			0	0		Jacques.
Saïda			30.06	763.5	72.9	22.7	68	SE			3		3			0.020	0.5		Chauvey.
Tebessa			30.06	763.4	79.5	26.4		NW			1		0			0	0		Grosjean.
Geriville			30.03	762.8	80.6	27.0		WSW			4		6			0	0		Colin.
Laghouat			30.08	764.0	82.4	28.0		NW			2		0			0	0		Bernadach.
Biskra			30.07	763.7	82.4	28.0	27	NE			2		4			0	0		Poinsignon.
			30.04	763.0	89.8	32.1		E			2		0			0	0		Coulon.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.97	761.3	69.3	20.7	52	SW			1		4			0.028	0.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.04	763.0	64.9	18.3	54	WSW			3		9			0	0		I. R. Observatory.
Eperies			30.02	762.6	60.3	15.7	61	Calm			0		9		N	0.064	1.50		Julius Mikolik.
Gratz			30.02	762.5	54.5	12.5	84	SW			2		10			0	0		Andreas Rospini.
Hermannstadt			30.01	762.3	63.1	17.3	52	ENE			2		5			0	0		Prof. Reissenberger.
Kremsmünster			30.01	761.2	62.6	17.0	53	NW			1		6			0	0		Prof. C. Wagner.
Lemberg			30.03	763.8	56.3	13.5	58	SE			2		8			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.02	763.6	60.4	15.8	93	Calm			0		8			0	0		Habzsuda Daniel.
Pola			30.04	762.9	63.3	17.4	66	SE			1		4nks			0.691	17.55		I. R. Hydrographic Office
Szegedin			30.02	762.4	64.0	17.8	53	S			1		10			0	0		Karl Stancel.
Trieste			30.04	763.0	61.5	16.4	80	W			1		6			0	0		Prof. V. Farolfi.
Vienna			30.02	762.4	60.3	15.7	62	SW			2		9			0.004	0.1		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.67	753.5			70.0	21.1	50	SW			1		8k		SW	0.457	11.60	Clearing	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.67	753.6	*48.1	8.9		SE	12	5.4			10			0	0	Foggy	William Boswell.
Annanhill																			
Ardrossan			29.61	752.1	56	13.3		SSW			3		7						William McNeil.
Armagh Observatory			29.47	748.5	54.0	12.2		ESE	21	9.4			8					Showery	S. Cali, for Dr. Robin
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.64	752.8	61.0	16.1		SSE			3		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.42	747.3	56.3	13.5		S			3		10						J. Dreyer, for L'd Ro
Bradford			29.65	753.1	57.8	14.3		SE			1		3					Showery	J. Mc Landsborough
Bridgetown, (Barbadoes)			29.99	761.7	81.4	29.1		NE			2		6						T. H Hunt.
Bywell																			
Cambridge Observatory			29.75	755.6	67.1	19.5		SSW			2		3						H. Todd.
Cape Town, (Cape Colony)			30.06	763.5	62.8	17.1		N			1		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.08	764.0			64.3	17.9	76	SSE	12	5.4			8						The Staff, for E. J. St
Cardington			29.78	756.4	68.6	20.3		S					4						John McLaren.
Carlisle			29.63	752.6	57	13.9		S					8			0.02	0.5		T. Bell, for J. Cartm
Chatham, School M. E.			29.83	757.7	65.2	18.4		W			2		9						Q. M. Sergt. J. Conr
Colombo, (Ceylon)			29.86	758.4	85.5	29.7		SW			4		4						Sgt. W. F. Hopkins
Dartmoor			29.84	757.9	49	9.4		SW			4		10					Foggy	R. E. Power.
Donaghadee			29.54	750.3	55	12.8		SSE			5		10					Raining	J. Mac Gowan, Jr.
Dover			29.84	757.9	56	13.3		WSW			3		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.68	753.9	60.7	15.9		SSE	5.4	2.4			5						Thomas Mackereth
Falmouth Observatory			29.74	755.4	56.4	13.6		S	26	11.6			9						The Staff.
Fort Napier, (Natal)			29.90	759.4	81.0	27.2		E			1		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.80	756.9	87	30.6		NE					7						
Galway, Queen's College			29.71	754.6	59	15.0		S			4		8						B. G. Clare for Prof.
Gibraltar, (Mediterranean)			30.0	762.0	70.2	21.2		SSW			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.61	752.1	57.3	14.1		SSE			1		10						James Gray.
Great Yarmouth			29.81	757.2	53	11.7		SSE			3		4					Hazy	G. T. Watson.
Greenwich Royal Obs.			29.80	756.9	66.8	19.3		SW			4		6						The Staff, for G. B. A
Guernsey			29.84	757.9	60.5	15.8		S-W			1		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.65	753.1	58.6	14.8		SSE					10					Showery	F. J. Pace, for L. J. Cr
Halifax, (Nova Scotia)			30.02	762.5	43.4	6.3		SW			2		1						Corp'l J. Y. Thompson
Helston			29.71	754.6	59	15.0		S			4		8k						Dr. W. B. Doyle.
Holyhead			29.63	752.6	58	14.4		S			5		4						John Tilston.
Hull Park																			
Kew Observatory			29.81	757.2	61.0	16.1		SSW	21	9.4			7						The Staff.
Kingstown			29.56	750.8	54	12.2		SSE			4		10					Squally	George Mitchell.
Lampeter																			
Leicester Museum			29.75	755.6	62.9	17.2		SW			3		4						William J. Harrison
Llandudno			29.64	752.8	62.3	16.8		SSW					8						Dr. James Nicol.
Malta, (Mediterranean)			30.02	762.5	68.0	20.0		NE			1		8k						Fred Travis, Pvt A. B
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.61	752.1	56	13.3		E			1		10						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	80.0	26.7		SE			1		7						Surg.-Maj. J. Jamieson
North Shields			29.70	754.4	55	12.8		S			3		4						John Wm. Irvine.
Nottingham			29.74	755.4	63.0	17.2		SE			2		7k		SE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.71	754.6	60.8	16.0		S			4		9						Rev. Stephen Whitt
Oxford, Radcliffe Obs.			29.75	755.6	62	16.7		SSW			3		9						J. Lucas, for R. Mai
Plymouth			29.77	756.1	58.5	14.7		S			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.48	748.8	52	11.1		SW			4		8			Blank	Blank		W. Kennedy.
Saint Ann's Head			29.66	753.4	54	12.2		S			4		5						John C. Walker.
Saint Helier, (Jersey)			29.84	757.9	65.0	18.3		SSE			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			29.72	754.9	50.2	10.1		SE	23	10.3			0						Rev. C. Clouston
Scarborough			29.75	755.6	50.2	10.1		SE			2		9						F. Shaw.
Scutari, (Turkey)			30.08	764.0	58.8	14.9		NE			2		1			Blank	Blank		Sergt. W. H. Lyne.
Sheffield			29.69	754.1	62.3	16.8		WSW			4		7			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.64	752.8	61.0	16.1		S			6		6			0.030	0.76		Rev Francis Redto
Somerleyton, (Lowestoft)			29.81	757.2	61.0	16.1		ESE			1		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.66	753.4	59.4	15.2		S			4		6					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			29.60	751.8	57	13.9		Calm			0		7						John Smith.
Strathfield Turgiss			29.81	757.2	61.6	16.4		N			1		6						Rev Charles H. Gri
Streatley Vicarage			29.79	756.7	63.4	17.1		SSW			7		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.68	753.9	54	12.0		ESE			2		10						John Trotter.
Truro Royal Institution			29.68	763.9	60	15.6		S			6		10						W Newcombe.
Valencia Observatory			29.38	746.2	55.6	13.1		S	35	15.6			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.84	757.9	58.7	14.8		SW			3		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.05	763.2	59.2	15.1	49	SSE			2		0						
Fanöe			29.92	760.0	65.8	18.8	49	SSE			4		7						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.34	745.2	43.2	6.2	97	SW			2		10					Raining	
Thorshavn, (Faröe)			29.75	755.6	50.2	10.1	89	SE			2		10						
Vestervig			29.91	759.8	61.5	16.4	57	SE			4		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.98	761.6	64.8	18.2	82						2c						Normal School.
Alençon			29.89	759.2	68.0	20.0	50	SW			2		5k			0.165	4.2		Normal School.
Amiens			29.87	758.7	67.6	19.8	72	SE			3		5		WSW	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.92	760.0	67.5	19.7	50	WSW			3		5		W	0	0		Normal School.
Besançon			30.02	762.5	73.4	23.0	47	SSE			2		2		SW	0	0		Normal School.
Bourg en Bresse			30.02	762.6	77.0	25.0	34	S			2		2		NE	0.011	0.3		Normal School.
Bourges			29.97	761.1	66.6	19.2	70	S			0		8		S	0	0		Normal School.
Brest			29.78	756.4	61.0	16.1	73	SW			3		10		SW	0.071	2.00	Misty	Nawak Observatory.
Caen			29.88	759.0	68.4	20.2	57	S			2		8		S	0	0		Normal School.
Chartres			29.87	758.6	70.0	21.1		W			1		3c		NW	0	0		Normal School.
Chaumont			29.89	759.2	68.7	20.4		S			1		4kn		SW	0	0		Normal School.
Commercy			30.00	761.9	68.7	20.4	46	S			2		5		E	0	0		Normal School.
Le Mans			30.04	763.1	66.2	19.0	57	W			3		8		WSW	0	0		Normal School.
Lons-Le Saulnier			30.00	761.9	64.0	17.8	46	W			6		0			0	0		Normal School.
Mâcon																			Normal School.
Mirecourt			30.20	767.0	65.8	18.8	54	SE			2		8		SW	0	0		Normal School.
Orleans			30.08	764.1	78.8	26.0	49	SSW			2		5		SSW	0	0		National Observatory.
Paris Observatory			29.80	759.3	71.8	22.1		SW			3		5		SW	0	0		Normal School.
Parthenay			29.93	760.3	63.5	17.5	56	N			2		5		W	0.059	1.5		Normal School.
La Roche sur Yon			29.99	761.7	65.5	18.6	60	S			4		5		NE	0	0		Normal School.
Rouen			29.88	758.9	66.9	19.4	58	SW			2		8		S	0	0		Normal School.
Saint Lo			29.89	759.1	66.6	19.2	56	SW			2		10		NW	0	0		Normal School.
Villefranche			29.99	761.8	78.1	25.6	27	SE			3		5			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Parent.
Mont-Louis	24.86	631.3			57.0	13.9	77	SSW	11.1	5.0			3		SW	0.27	6.9		—Falguère.
Montsouris Observatory			29.80	759.3	71.6	22.0	44	SW			3		8kn&k			0	0		Marié Davy.
Perpignan	29.85	758.3			70.7	21.5	68	E	3.7	1.67			1		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.90	759.4	71.1	21.7	41	SW			3		8			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.94	760.4	69.4	20.8	41	WSW			2		8		WSW	0	0		C. Marquet.
Versailles, (near Paris)			30.30	769.7	68.0	20.0	47	NW			2		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			29.77	756.2	62.1	16.7	65	WNW	23.7	10.6		0	2			0.398 / 0.496	10.1 / 12.6		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.95	760.7	63.5	17.5	54	NE			2		2			0	0	Thunder-storm	Prof. Hoh.
Berlin			30.02	762.4	70.7	21.5	29	SE			1		5			0	0		Prof. Arndt.
Breslau			30.08	763.9	66.2	19.0	32	SE			5		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.93	760.1	70.2	21.2	37	NW			3		1			0	0		A. Senz.
Cassel			30.24	768.1	71.6	22.0	40	SE			5		3			0.178	4.52		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.01	762.3	61.7	16.5	65	W					1			0	0		M. Wilhelm.
Hamburg			29.97	761.3	68.2	20.1	35	SSE			2		3es			0	0		W. Reinert.
Kiel			29.99	761.8	64.8	18.2	38	SE			1		0			0.089	2.25		Prof. G. Karsten.
Königsberg			30.13	765.4	65.8	18.8	32	SE			1					0	0		Prof. E. Luther.
Köslin			30.23	767.7	62.2	16.8		SE			2		3			0	0		Dr. Tägert.
Leipsic			29.95	760.7	73.9	23.3	26	S			3		7			0	0		Prof. Bruhns.
Münster			29.88	759.0	73.0	22.8	49	SE			2		0			0.043	1.1		Prof. E. Heis.
Posen			30.08	763.8	66.2	19.0	44	S			6–7		9			0.134	3.4		Dr. Magener.
Strassburg, (in Alsace)			29.93	760.2	72.0	22.2	33	S					2			0.024	0.60		Hartwig and Tülk.
Stuttgart			29.93	760.1	71.7	21.7	39	W					6			0	0		Mr. Würth.
Thorn			30.10	764.5	61.7	16.4	51	NE			4		5			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.88	758.9	69.6	20.9	38	SE			6		3			0	0		Prof. Flesch.
Wustrow			30.01	762.3	66.9	19.4	35	ESE			3					0	0		F. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.01	762.3	66.0	18.9	57	S	1.8	0.8			8	E		0	0		
Mondovi			30.00	762.1	64.0	18.0	57	NW			2		8	NW		0	0		
Genoa			30.06	763.4	65.3	18.5	71	SW	5.6	2.5			4	E		0	0		
Pavia			30.03	762.8	66.2	19.0	64	SW			1		3	SW		0	0		
Verona			30.00	762.0	69.6	20.9	57	E			1		5			0	0		
Padua			30.01	762.2	65.1	18.4	55	NE	2.5	1.1			4	NE		0	0		
Parma																			
Bologna			30.05	763.2	65.3	18.5	21	N			4		3			Blank	Blank		
Livorno			30.05	763.3	66.0	18.9	68	W	4.9	2.2			2			0	0		
Urbino			30.08	764.0	57.0	13.9	75	SSE			2		10			0	0		
Ancona			30.05	763.2	63.9	17.7	70	ESE			2		4			0.370	9.4	Showery	
Siena			30.02	762.6	64.4	18.0	64	W	0	0			7	NE		0	0		
Rome			30.07	763.6	71.2	21.8	60	S	6.9	3.1			7	SSW		0	0		
Naples, O. U.			30.09	764.2	72.3	22.4	54	SW			2		4			0	0		
Lecce			30.07	763.7	68.0	20.0	62	SSW	4.9	2.2			2			0	0		
Cosenza			30.06	763.5	75.4	24.1	35	ENE			2		3	SE		0	0		
Catania, (Sicily)																			
Liposto			30.00	762.1	68.2	20.1	69	ESE			2		7	N		0	0		
Palermo			30.02	762.5	67.3	19.6	70	ENE			4		1			0	0		
Sub-Series.																			
Naples, S. R.			30.10	764.5	68.9	20.5	67	SW			4		–c		SW	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.87	758.8	63.7	17.6		SSW			3								
Groningen			29.84	757.8	66.6	19.2		S			2								
Helder			29.87	758.6	62.8	17.1		W			2								
Utrecht			29.83	757.7	72.1	22.3	43	S			2		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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	761.4	60.4	15.8	54	S	1.8	0.8			3			0.126	3.2		
Christiania			30.06	763.4	62.2	16.8	29	SW	10.3	4.6			1			0	0		
Tromsö			30.04	763.1	38.8	3.8	97	NW			1		10			0.024	0.6		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon	29.77	756.2			66.7	19.3	45	NW	9.8	4.4			6						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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	62.8	17.1	46	ESE	11	5			8						Astronomical Obs.
Wilna			30.25	768.3	61.3	16.3	36	SE	8	3.5			10						Astronomical Obs.
Dorpat			30.23	767.9	62.6	17.0	34	WNW	9	4			2						Physical Cabinet.
St. Petersburg			30.14	765.6	51.3	10.7	53	NW	11	5			3						Central Physical Obs.
Kuopio																			
Kieff			30.25	768.4	64.2	17.9	54	Calm	0	0			8					Solar corona.	Physical Cabinet.
Nikolaiev			30.20	767.1	65.3	18.5	45	SE	4	2			7						
Kertch			30.15	765.9	63.9	17.7	58	E	13	6			2						Lagorio.
Moscow			30.23	767.7	59.7	15.4	35	NNW	8	3.5			4						Meteorological Obs.
Lugan			30.16	766.1	64.2	17.9	31	NE	8	3.5			4						Meteorological Obs.
Archangel			29.84	757.9	42.4	5.8	79	WNW	8	3.5			9						Ogorodnikof.
Tiflis			30.27	768.8	64.6	17.8	54	S	2	1			4						Physical Obs.
Astrakhan			30.35	770.9	65.3	18.5	40	WSW	2	1			5						Sebastianof.
Kasan			30.08	763.9	56.8	13.8	35	WNW	4	2			5						Physical Cabinet.
Orenburg			30.06	763.4	59.0	15.5	92	NW	4	2			8						Tschernischef.
Ekaterinburg			29.98	761.6	39.2	4.0	64	W	10	4.5			0						Meteorological Obs.
Kasaly			30.18	766.6	62.8	17.1	70	Calm	0	0			3						Bobrof.
Tashkend			30.06	763.5	72.3	22.4	27	W	31	14			10						Michelson.
Barnaul			29.72	754.9	54.1	12.3	38	S	4	2			4						Meteorological Obs.
Yeniseisk			29.63	752.6	50.4	10.2	55	S	13	6			3						Clarks.
Irkutsk			29.91	759.8	36.7	2.6	89	Calm	0	0			4						Usolzef.
Oorga			29.74	755.5	58.6	14.8	55	Calm	0	0			0						Mossin.
Peking, (China)			29.85	758.2	63.5	17.5	52	Calm	0	0			0						Physical Observatory.
Nertchinsk			29.72	754.9	39.9	4.4	52	Calm	0	0			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					33.8	1.0	98	S	8	3.5			0						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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			29.88	758.9	74.7	23.7	35	SW	11.2	5.00		1	1	SW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.02	762.4	61.5	16.4	54	NW			1		4			0	0		
Hernosand			30.06	763.5	57.9	14.4	42	SSW			1		0			0	0		
Stockholm			30.09	764.3	65.5	18.6	32	S			3		4			0	0		
Wisby			30.20	767.0	51.1	10.6	54	NW			3		0			0	0		
Sub-Series.																			
Upsala			30.08	764.1	69.1	20.6	32	SSW			4		3		SW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.56	725.6			62.4	16.9	60	N			2		6			0	0		The Observatory.
Zurich	28.37	720.6			67.5	19.7	50	W			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.0mm.; Thermometer, +1°.8 C.; Relative Humidity, +2 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.97	761.1	70.0	21.1	74	NW			2		0						
Constantinople			30.13	765.2	56.5	13.6	66	N	14.5	6.5			0			0	0		
Fao, (Persian Gulf)			30.95	760.8	88.7	31.5		NW			3		0						
Salonica					75.0	23.9		SE			2		2						
Valona			30.03	762.8	68.9	20.5		S			3		5						
Varna			30.16	766.0	60.8	16.0		E			3		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.79	756.7	45	7.2		Calm	0	0			10s		SW	0.08	2.0	Light rain	
Chatham, N. B.			30.05	763.3	32	0.0	96	Calm	0	0		Haze	Fog			0.16	4.1	Foggy	
Charlottetown, P. E. Island			30.05	763.3	34	1.1	78	Calm	0	0			8ks			0.05	1.3		
Fort Garry, Manitoba			29.80	756.9	40	4.4	73	SE	6	2.7		5k	5n	SW	SW	0	0		
Halifax, N. S.			29.93	760.2	41	5.0	85	N	5	2.2		0	2ks		N	0	0		
Kingston, Ontario			29.76	755.9	42	5.6	95	SW	9	4.0			10n		SW	0.27	6.9	Light rain	
Montreal, Quebec			29.81	757.2	43	6.1	83	Calm	0	0			10n			0	0	Light rain	
Ottawa, Ontario			29.76	755.9	44	6.7	79	E	7	3.1			10s		SE	0.10	2.5	Heavy snow	
Parry Sound, Ontario			29.71	754.6	34	1.1	92	S	7	3.1		2k	8n	S	S	0.52	13.2	Light snow	
Port Dover, Ontario			29.83	757.7	37	2.8	71	NW	11	4.9		0	0			0.26	6.6		
Port Stanley, Ontario			29.84	757.9	37	2.8	79	NW	15	6.7		5k	0	NW		0.45	11.4		
Quebec, Quebec			29.96	761.0	39	3.9	73	NE	12	5.4			10n		NE	0	0		
Saugeen, Ontario			29.77	756.1	33	0.6	80	W	7	3.1			10s			0.38	9.7		
Stayner, Ontario			29.73	755.1	36	2.2	70	NW	6	2.7			10n		NW	0.05	1.3	Threatening	
Sydney, C. B.			30.00	762.0	43	6.1	58	NW	4	1.8		2k	2ks	NW	NW	0	0		
Toronto, Ontario			29.76	755.9	39	3.9	72	W	16	7.2		0	0			0.34	8.6		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

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

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.79	756.7	53	11.7	60	SE	12	5.4			10ks		S	0	0		
Alpena, Mich.			29.77	756.1	39	3.9	82	NW	16	7.2		2k	5ks	NW	NW	0	0		
Atlantic City, N. J.			29.84	757.9	46	7.8	100	S	12	5.4			10n		SE	0.08	2.0	Light rain	
Augusta, Ga.			29.93	760.2	65	18.3	84	S	1	0.4		5cs	0	S		0	0		
Baltimore, Md.			29.81	756.9	54	12.2	86	S	1	0.4			10s		SW	0.02	0.5		
Barnegat, N. J.			29.84	757.9	47	8.3	100	SE	2	0.9			10n		SE	0.13	3.3	Light rain	
Benton, Montana			29.67	753.6	50	10.0	58	SW	12	5.4			10s		SE	0	0		
Bismarck, Dakota			29.23	742.4	48	8.9	77	SW	6	2.7			10ks			0.09	2.3		
Boston, Mass.			29.93	760.2	55	12.8	50	SW	4	1.8		Haze	Haze			0	0		
Breckenridge, Minn.			29.73	755.1	43	6.1	100	SE	16	7.2			10n			0.02	0.5	Light rain	
Buffalo, N. Y.			29.75	755.6	40	4.4	73	NW	8	3.6		0	2ks		NW	0.23	5.8		
Burlington, Vt.			29.80	756.9	54	12.2	74	S	5	2.2			10s			0	0		
Cairo, Ill.			29.97	761.2	55	12.8	30	NE	6	2.7		0	5ks		N	0	0		
Cape Hatteras, N. C.			29.90	759.4	60	15.6	82	N	7	3.1		10k	0	W		0.14	3.5		
Cape Henry, Va.			29.87	758.7	65	18.3	73	SW	3	1.3		8k	0	W		0.65	16.0		
Cape May, N. J.			29.82	757.4	47	8.3	100	S	12	5.4			10s			0.08	2.0	Thrtng, foggy	
Charleston, S. C.			29.98	761.5	67	19.4	84	SW	8	3.6		5k	Haze	SW		0	0		
Cheyenne, W. T.			29.73	755.1	51	10.6	32	W	8	3.6		8c	0			0	0		
Chicago, Ill.			29.98	761.5	45	7.2	60	NW	2	0.9		5cs	0	W		0.30	7.6		
Cincinnati, Ohio			29.95	760.7	45	7.2	60	N	10	4.5		0	0			0.07	1.8		
Cleveland, Ohio			29.86	754.4	40.2	4.6	82	NW	13	5.8		5k	0	W		0.23	5.8		
Colorado Springs, Col.			29.76	755.9	55	12.8	44	SW	2	0.9			10s			0	0		
Corsicana, Texas			29.87	758.7	64	17.8	83	S	8	3.6			10s			0	0		
Davenport, Iowa			29.99	761.7	45	7.2	69	SE	4	1.8		5ck	0	NW		0.09	2.3		
Denver, Col.			29.78	756.4	58	14.4	37	E	3	1.3		2cs	0			0	0		
Detroit, Mich.			29.84	757.9	38	3.3	76	NW	10	4.5		2k	0			0.22	5.6		
Dodge City, Kansas			29.34	745.2	66	18.9	79	S	4	1.8		2c	0	S		0	0		
Dubuque, Iowa			29.70	754.4	45	7.2	76	S	4	1.8		8ck	0	S		0.11	2.8		
Duluth, Minn.			29.94	760.5	36	2.2	70	Calm	0	0		Haze	7ck			0	0		
Eastport, Me.			30.01	762.2	43	6.1	75	NE	3	1.3		2c	0	W		0	0		
Erie, Penn.			29.80	756.9	40	4.4	64	W	12	5.4		5c	Haze	W		0.52	13.2		
Escanaba, Mich.			29.97	761.2	40	4.4	60	N	8	3.6		0	0			0.08	2.0		
Fort Gibson, I. T.			29.78	756.4	66	18.9	68	SE	4	1.8		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.41	747.0	55	12.8	73	NW	6	2.7		5c	0	SW		0	0		
Galveston, Texas			29.96	761.0	71	21.7	85	S	7	3.1		2k	0	S		0	0		
Grand Haven, Mich.			29.95	760.7	43	6.1	75	NW	8	3.6		0	Haze			0.26	6.6		
Indianapolis, Ind.			29.96	761.0	44	6.7	59	N	5	2.2		0	0			0.17	4.3		
Indianola, Texas			29.95	760.7	75	23.9	81	S	6	2.7		0	0			0	0		
Jacksonville, Fla.			30.03	762.7	75	23.9	72	W	11	4.9		0	2s		W	0	0		
Keokuk, Iowa			29.93	760.2	45	7.2	76	SE	15	6.7		5ck	5ks	NW	NW	0.04	1.0		
Key West, Fla.			30.08	764.0	82.1	27.8	67	NE	8	3.6		2k	Sm'e	NE		0	0		
Kittyhawk, N. C.			29.89	759.2	58	14.4	88	SW	4	1.8		8k	0	W		0.48	12.2		
Knoxville, Tenn.			29.90	759.4	57	13.9	69	SW	1	0.4		0	2k		W	0.01	0.3		
La Crosse, Wis.			29.93	760.2	44	6.7	67	NE	2	0.9		2k	5s			0	0		
Leavenworth, Kan.			29.81	757.2	56	13.3	68	SE	8	3.6		0	0			0	0		
Lexington, Ky.			29.95	760.7	50	10.0	79	N			4	8k	0	N					
Long Branch, N. J.			29.86	758.4	44	6.7	91	S	8	3.6			10n			0.05	1.3	Light rain	
Louisville, Ky.			29.94	760.5	48	8.9	56	NW	12	5.4		0	0			0	0		
Lynchburg, Va.			29.82	757.4	61	16.1	61	S	3	1.3		2k	0	W		0.01	0.3	Clearing	
Malone, N. Y.																			
Marquette, Mich.			29.98	761.5	40	4.4	64	NW	8	3.6		0	0			0	0		
Memphis, Tenn.			29.92	760.0	61	16.1	71	Calm	0	0		2cs	Sm'e			0.02	0.5		
Milwaukee, Wisconsin			29.99	761.7	43	6.1	66	W	4	1.8		8c	0	N		0.19	4.8		
Mobile, Ala.			30.04	763.0	64	17.8	94	S	2	0.9			Fog			0	0	Fog	
Montgomery, Ala.			30.03	762.7	64	17.8	83	SW	8	3.6			10s		SW	0	0		
Morgantown, W. Virginia			29.76	755.9	54	12.2	83	SW	8	3.6			10s			0.05	1.3		
Mt. Washington, N. H.			29.98	761.5	27	— 2.8	100	E	35	15.6		10s	0	S		0	0		
Nashville, Tenn.			29.90	759.4	54	12.2	86	Calm	0	0		5cs	Fog	W		0.01	0.3		
New Haven, Conn.			29.91	759.7	49	9.4	78	SE	6	2.7			10n			0.01	0.3	Light rain	
New London, Conn.			29.94	760.5	45	7.2	84	SE	11	4.9			10s			0	0		
New Orleans, La.			30.02	762.5	67	19.4	84	Calm	0	0		0	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			29.86	758.4	47	8.3	85	SE	3	1.3			10n			0.05	1.3	Light rain	
Norfolk, Va.			29.88	758.9	61	16.1	82	SW	6	2.7		10k	Haze	W		0.41	10.4		
North Platte, Neb.			29.10	739.1	59	15.0	70	SE	6	2.7		5c	5s	SW	SW	0	0		
Omaha, Neb.			29.71	754.6	54	12.2	73	SE	20	8.9		8c	0			0	0		
Oswego, N. Y.			29.74	755.4	44.5	6.9	84	W	2	0.9			10n			0.20	5.1	Light rain	
Peck's Beach			29.84	757.9	47	8.3	100	S	8	3.6			10n			0.10	2.5	Light rain	
Pembina, D. T.			29.69	754.1	46	7.8	84	SE	12	5.4			10s			0	0		
Philadelphia, Penn.			29.82	757.2	50	10.0	86	S	6	2.7			10s		S	0.06	1.5		
Pike's Peak, C. T.			29.93	760.2	26	— 3.3	88	W	48	21.5		5k	0	N		0	0		
Pittsburgh, Penn.			29.79	756.7	45	7.2	84	NW	9	4.0			10s		NW	0.07	1.8		
Port Huron, Mich.			29.84	757.9	36	2.2	80	NW	9	4.0			10s		NW	0.28	7.1		
Portland, Maine			29.96	761.0	47	8.3	70	SE	6	2.7		5c	0			0	0		
Portland, Or.			29.91	759.7	50	10.0	85	SW	4	1.8			10s			0.32	8.1		
Punta Rassa, Fla.			30.10	764.5	79.6	26.4	74	SW	4	1.8		1ck	Haze			0	0		
Rochester, N. Y.			29.71	754.6	45	7.2	84	W	6	2.7			10s		W	0.14	3.5		
Salt Lake City, Utah			29.76	755.6	58	14.4	69	SW	4	1.8		0	10s			0	0		
Sandy Hook, N. J.			29.84	757.9	46	7.8	100	S	8	3.6			10n		S	0.05	1.3	Light rain	
San Diego, Cal.			30.03	762.7	57	13.9	87	SE	4	1.8			10s			0	0		
San Francisco, Cal.			29.95	760.7	52	11.1	93	W	16	7.2			10s		W	0	0		
Santa Fe, N. M.			29.72	754.9	52	11.1	35	SW	8	3.6		5c	0	SW		0	0		
Savannah, Georgia			29.99	761.7	69	20.6	79	SW	7	3.1		2c	Sm'e			0	0		
Shreveport, La.			29.96	761.0	65	18.3	89	S	4	1.8		0	0			0	0		
Springfield, Mass.			29.89	759.2	54	12.2	51	S	4	1.8			10s			0	0	Threatening	
St. Louis, Mo.			30.01	762.2	50	10.0	51	E	14	6.3		5k	0	NW		0.10	2.5		
St. Marks, Fla.			30.03	762.7	65	18.3	94	Calm	0	0		0	Fog			0	0		
St. Paul, Minn.			29.82	757.4	42	5.6	57	SE	12	5.4		10c	0			0	0		
St. Paul's Island, Alaska			29.64	752.8	31	— 0.6	78	N	7	3.1			10k			0	0	Snow & hail	
Squan Beach, N. J.			29.84	757.9	45	7.2	92	S	6	2.7			10n			0.12	3.0	Light rain	
Toledo, Ohio			29.91	759.7	42	5.6	74	W	5	2.2		0	0			0.27	6.9		
Tybee Island, Ga.			30.00	762.0	69	20.6	75	SW	6	2.7		2c	2s	SW		0	0		
Vicksburg, Miss.			30.01	763.0	62	16.7	83	SW	3	1.3		0	2s		S	0	0		
Virginia City, Mon.			29.46	748.3	34	1.1	79	S	10	4.5			10s			0.50	12.7		
Washington, D. C.			29.80	756.9	55	12.8	87	SW	4	1.8		2ck	8s	SW	SW	0.03	0.8		
Wilmington, N. C.			29.93	760.2	67	19.4	68	W	12	5.4		2cs	8ks	W	W	0	0		
Wood's Hole, Mass.			29.97	761.2	48	8.9	70	S	6	2.7			10s			0	0		
Wytheville, Va.			29.62	752.3	54	12.2	73	W	5	2.2		5k	0	W		0.05	1.3		
Yankton, D. T.			29.62	752.3	51	10.6	72	SE	18	8.0		2cs	2s	NW	NW	0	0		

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	86	30.0	88	E	4	1.8		5k	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.01	762.2	79	26.1	70	NE				5k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.2	79	26.1	82	SE	2.4	1.1		8k	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.13	767.8	78	25.6	72	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			77	25.0	76	E	8	3.6		2ck	2k	E		0.16	4.1	Hazy	W. S. Cameron.
Santiago de Cuba, W. I.			29.87	758.7	78	25.6	69	Calm	0	0		0	2k		SW	0	0		Robert Mason.
St. Georges, Bermudas			30.03	762.7	66.5	19.2	79	E	8	3.6		10cks	1k	SW		0.145	3.69		C. F. Allen.
Honolulu, Oahu, S. I.																			
Makawao, Maui, S. I.			30.15	765.8	65	18.3	72	NE			2	5c	5ks	N		0	0		E. P. Church.
Cumberland, B. A.																			F. L. Clarke.
Ft. Chippewyan, B. A.																			
Ft. Methérson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.																			
Clifton, Jamaica, W. I.			30.08	764.0	16.5	— 8.6	100	NE	4	1.8			Fog			0	0		J. Fortescue.
St. John's, Newfoundland			30.07	763.8	68	20.0	79	S	1	0.4		2c	0	SE		0	0		C. Partridge.
St. John's, Porto Rico, W. I.			29.76	755.9	30.5	4.2	94	NE					10n			0.42	10.7		John Delaney.
Lyria, Ohio																			Leon M. Acuña.
Indianola, Iowa			29.88	758.9	30	3.9	71	NW	16	7.2		0	5ks			0.35	8.9		H. M. Redington.
	28.98	736.1			52	11.1	71	SE				8ns	0	NW		0	0		G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 27° 36′, W. 59° 42′	S	3	30.02	762.5	77	25.0	91	NE			3.5		..k		NE	Short sea.		Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 7, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.09	764.2	77.0	25.0		NE			2		0			0	0		Charnot.
Algiers			30.03	762.8	67.6	19.8	79	N			2		1			0	0		Peter.
La Calle			30.04	763.0	68.0	20.0		NW			3		2			0	0		Kuntz.
Tunis			30.07	763.6	79.7	26.5	40	E			3		1			0	0		Jacques.
Sfax			30.08	764.1	71.2	21.8	74	NE			4		3			0.032	0.9		Chauvey.
Saïda			30.09	764.3	82.8	28.2		N			1		0			0	0		Grosjean.
Tebessa			30.10	764.4	66.2	19.0		S			5		9			0.945	24.0	Storming	Colin.
Gerlville			30.11	764.9	82.9	28.3		SE			2		0			0	0		Bernadach.
Laghouat			30.05	763.2	82.8	28.2	32	NE			1		1			0	0		Poinsignon.
Biskra			30.06	763.5	91.4	33.0		E			2		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. The rain-fall is measured at 7 a. m., local time.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jellinek, 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.98	761.4	73.3	22.9	42	SW			2		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.99	761.7	64.4	18.0	74	NE			3		7			0.067	1.7		I. R. Observatory.
Eperies			30.02	762.4	63.0	17.2	61	SW			1		9			0	0		Julius Mikolik.
Gratz			29.93	760.1	66.7	19.3	56	SSE			2		2			0.630	16.0		Andreas Rospini.
Hermannstadt			30.09	762.0	64.4	18.0	42	SE			2		3			0.041	1.05		Prof. Reissenberger.
Kronsmünster			29.84	757.8	69.6	20.9	42	ESE			2		7			0.555	14.1		Prof. C. Wagner.
Lemberg			30.01	762.3	64.6	18.1	43	S			3		6			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.06	763.4	68.0	20.0	57	S			1		1			0	0		Habzsuda Daniel.
Pola			30.08	763.9	64.0	17.8	79	S			2		3cks			0	0		I. R. Hydrographic Office
Szegedin			30.02	762.4	68.0	20.0	40	S			2		2			0	0		Karl Stancel.
Trieste			30.07	763.8	63.9	17.7	79	NW			1		7			0	0		Prof. V. Farolfi.
Vienna			29.87	758.8	73.0	23.1	39	S			2		4			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.60	751.8			62.8	17.1	55	W			2		7c&k	WSW	SW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.55	750.6	51.0	10.6		SE	11	4.9			3			0	0		William Boswell.
Annanhill																			
Ardrossan			29.50	749.3	52	11.1		SSW			1		7						William McNeil.
Armagh Observatory			29.50	749.3	58.3	14.6		SSW			10		6						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.50	749.3	56.5	13.6		NW			2		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.50	749.3	58.8	14.9		SSW			1-2		9						J. Dreyer, for L'd Rosse
Bradford			29.44	747.8	56.8	13.8		W			2		5						J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.02	762.5	83.0	28.3		NE			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			29.53	750.0	54.0	12.2		SW			3		5						H. Todd.
Cape Town, (Cape Colony)			29.97	761.2	62.2	16.8		NW			3		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.98	761.5			63.4	17.4	79	NW	12	5.4			2						The Staff, for E. J. Stone
Cardington			29.53	750.0	56.0	13.3		W					7					Thunder storm.	John McLaren.
Carlisle			29.48	748.8	56.5	13.3		W					9			0	0		T. Bell, for J. Cartmell
Chatham, School M. E.			29.60	751.8	54.9	12.7		WSW			5		10						Q. M. Sergt. J. Conroy
Colombo, (Ceylon)			29.86	758.4	83.8	28.8		SW			3		6						Sgt. W. F. Hopkins
Dartmoor			29.77	756.1	51.8	11.0		W			7		8						R. E. Power.
Donaghadee			29.48	748.8	55	12.8		SSW			3		5						J. Mac Gowan, Jr.
Dover			29.69	754.1	53	11.7		WSW			5		8						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.47	748.5	59.6	15.3		SW	3.0	1.3			7					Misty	Thomas Mackereth.
Falmouth Observatory			29.71	754.6	57.5	14.2		SW	31	13.9			10						The Staff.
Fort Napier, (Natal)			29.96	761.0	73.0	22.8		NE			3		9						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.79	756.7	88	31.1		E					7						
Galway, Queen's College			29.49	749.0	58	14.4		S			1		4						B. G. Clare, for Prof. C
Gibraltar, (Mediterranean)			30.00	762.0	73.5	23.1		ENE			3		0						Sergt. E. G. Baker.
Glasgow Observatory			29.47	748.5	55.6	13.1		SW			2		9						James Gray.
Great Yarmouth			29.56	750.8	49	9.4		S			5		10					Raining	G. T. Watson.
Greenwich Royal Obs.			29.59	751.6	53.4	11.9		SW			5		10						The Staff, for G. B. Airy
Guernsey			29.79	756.7	58.5	14.7		SW			5		6					Showery	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.42	747.3	56.7	13.7		W					6						F. J. Pace, for L. J. Crow
Halifax, (Nova Scotia)			30.09	764.3	42.7	5.9		E			2		8						Corp'l J. Y. Thompson
Helston			29.68	753.9	60	15.6		SW			6		8					Hazy	Dr. W. B. Mavie.
Holyhead			29.56	754.8	55	12.8		WSW			1		1						John Tilston.
Hull Park																			
Kew Observatory			29.58	751.3	54.0	12.2		SW	28	12.5			10					Drizzling	The Staff.
Kingstown			29.56	750.8	56	13.3		SSE			3		7						George Mitchell.
Lampeter																			
Leicester Museum			29.51	749.5	53.3	11.8		W			1		9					Raining	William J. Harrison
Llandudno			29.53	750.0	58.1	14.5		NE					0						Dr. James Nicol.
Malta, (Mediterranean)			30.09	764.3	66.6	19.2		NE			1		2k						Fred Travis, Pvt A. H.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.48	748.8	66	18.9		SW			1		2						William D. Penny.
Nassau, (Bahamas)			30.15	765.8	82.1	27.8		SE			1		4						Surg.-Maj. J. Jamieson
North Shields			29.50	749.3	53	11.7		E			3		7						John Wm. Irvine.
Nottingham			29.50	749.3	56.3	13.5		SW			2		9kd		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			29.49	749.0	72.5	11.4		SW			2		10			Blank	Blank	Misty	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.52	749.8	57	13.9		SW			4		10						J. Lucas, for R. Main
Plymouth			29.70	754.4	57	13.9		SW			5		8					Threatening	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.54	750.3	56	13.3		SW			3		10			Blank	Blank		W. Kennedy.
Saint Ann's Head			29.59	751.6	51	10.6		W			4		10					Foggy	John C. Walker.
Saint Helier, (Jersey)			29.81	757.2	56.6	13.7		W			4		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)			29.55	750.6	52.9	11.6		SE	25	11.2			0						Rev. C. Clouston.
Scarborough			29.68	753.9	55.4	13.0		SSW			2		9						F. Shaw.
Scutari, (Turkey)			30.[illegible]8	764.0	60.0	15.6		NE			2		2						Sergt. W. H. Lyne.
Sheffield			29.45	748.0	58.9	14.9		SW			2		4k			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.50	749.3	57.1	13.9		SW			4		5			0	0		Rev Francis Redford
Somerleyton, (Lowestoft)			29.59	751.6	51.3	10.7		SSW			3		10					Raining	Rev. C. J. Steward.
Stonyhurst Observatory			29.47	748.5	54.7	12.6		W			2		7					Hazy	The Staff.
Stornoway, Lews C. (Hebr)			29.44	747.8	59	15.0		E			1		5						John Smith.
Strathfield Turgiss			29.59	751.6	53.2	11.8		W			2-3		10					Showery	Rev. Charles H. Griffith
Streatley Vicarage								SSW			7		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.51	749.5	61	16.1		SE			5		4						John Trotter.
Truro Royal Institution			29.64	752.8	57	13.9		SW			6		10					Raining	W Newcombe.
Valencia Observatory			29.47	748.5	55.8	13.2		SSE	25	11.2			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.67	753.6	55.9	13.3		WSW			6		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.88	759.0	57.2	14.0	66	SSE			2		0						
Fanöe			29.73	755.1	63.5	17.5	56	SE			6		8						
Godthaab, (Greenland)											4		10					Raining	
Stykkisholm, (Iceland)			29.37	746.0	39.2	4.0	93	SE			0		10					Misty	
Thorshavn, (Faröe)			29.52	749.8	48.9	9.4	92	Calm			6		0						
Vestervig			29.76	755.8	65.1	18.4	42	ESE											

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.99	761.8	74.5	23.6	68						2c						Normal School.
Alençon			29.89	759.1	63.3	17.4	56	SW			3		8kn			0	0		Normal School.
Amiens			29.80	757.0	64.4	18.0	78	W			6		5		W	0.094	2.4		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.87	758.8	63.9	17.7	41	WSW			3		10		W	0.209	5.3		Normal School.
Besançon			30.07	763.6	60.1	15.6	85	SW			3		8		SW	0	0		Normal School.
Bourg en Bresse			30.09	764.2	61.0	16.1	79	S			2		10n		NE	0.008	0.2		Normal School.
Bourges			29.96	761.0	63.7	17.6	74	W			8		8		W	0.071	1.8	Raining	Normal School.
Brest			29.78	756.5	59.9	15.5	78	SW			4		10		SW	0.240	0.25	Misty	Naval Observatory.
Caen			29.91	759.8	60.4	15.8	59	SW			4		8		SW	0.236	6.0		Normal School
Chartres			29.85	758.2	61.5	16.4		W			6		5k		NW	0	0		Normal School.
Chaumont			29.92	759.9	58.8	14.9		SSW			2		..kn		SSW	0.173	4.3		Normal School.
Commercy			29.99	761.7	59.7	15.4	66	W			4		8		E	0.118	3.00		Normal School.
Le Mans			30.03	762.7	61.7	16.5	64	W			4		8		W	0.126	3.2		Normal School.
Lons-Le Saulnier			30.04	763.0	60.6	15.9	87	SW			2		10		S	0.402	10.2		Normal School.
Mâcon																			
Mirecourt			30.04	763.0	57.7	14.3	77	SW			6		10		NE	0.051	1.3		Normal School.
Orleans			30.04	763.1	73.0	23.1	51	SSW			4		5		SSW	0	0		Normal School.
Paris Observatory			29.80	759.1	62.8	17.1		SW			6		5		WSW	0.123	3.12		National Observatory.
Parthenay			30.02	762.4	62.0	17.0	67	W			6		5		E	0	0		Normal School.
La Roche sur Yon			29.98	761.6	65.5	18.6	56	SW			4		5		NE	0.189	4.8		Normal School.
Rouen			30.00	762.0	62.1	16.7	61	SSW			4		10		W	0.098	2.5		Normal School.
Saint Lo			29.85	758.2	62.1	16.7	53	W			3		10		W	0.146	3.7		Normal School.
Villefranche			30.12	765.0	63.9	17.7	65	SSE			3		10		ENE	0.515	13.0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.91	632.6			54.3	12.4	90	ESE	9.3	4.17			4		W	0.165	4.2		— Falguère.
Montsouris Observatory			29.88	759.0	63.0	17.2	58	SW			3		7k		SW	0.110	2.8		Marié Davy.
Perpignan	29.92	760.0			70.3	21.3	63	E	5.0	2.50			1		NW	0.037	0.9		Dr. Fines.
Saint Maur, (near Paris)			29.89	759.2	63.1	17.3	47	SW			4		9			0.079	2.0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.95	760.8	65.3	18.5	46	WSW			3		5		W	0.233	5.9		C. Marquet.
Versailles, (near Paris)			29.89	759.2	63.3	17.4	52	SW			3		8			0.117	2.97		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.03	762.1	55.0	12.8	77	NNE	2.7	1.2		0	0			{ 0 / 0 }	{ 0 / 0 }		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Low'r 0—10.	Clouds. Direction. Upper From—	Lower From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.84	758.0	61.7	16.5	74	SW			3		9			0.059	1.6		Prof. Hoh.
Berlin			29.87	758.8	68.0	20.0	47	S			2		8			0.047	1.2	Rainy	Prof. Arndt.
Breslau			29.97	761.3	70.2	21.2	40	SE			4		7			0	0		Dr. P. Neugebauer.
Carlsruhe			29.91	759.7	57.9	14.4	88	SW			3		10			0.094	2.4	Showery	A. Senz.
Cassel			29.77	756.2	57.9	14.4	89	S			3		10			0.195	4.97		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.02	762.6	56.3	13.5	83	W					10			0	0	Showery	M. Wilhelm.
Hamburg			29.74	755.5	69.1	20.6	55	S			4		9ks			0	0	Threatening	W. Reinert.
Kiel			29.76	755.9	65.8	18.8	50	E			4		6			0	0		Prof. G. Karsten.
Königsberg			30.04	763.0	66.2	19.0	34	SE			1					0	0		Prof. E. Luther.
Köslin			30.10	764.5	65.1	18.4		SE			3		8			0	0		Dr. Tägert.
Leipsic			29.84	757.9	64.9	18.3	57	W			1		9			0.016	0.4	Thunder-storm	Prof. Bruhns.
Münster			29.77	756.2	59.5	15.3	85	NW			4		5			0.244	6.2		Prof. E. Heis.
Posen			29.96	761.0	66.0	18.9	58	E			2		10			0.185	4.7		Dr. Magener.
Strassburg, (in Alsace)			29.94	760.4	62.2	16.8	70	SE					10			0.192	4.88		Hartwig and Tülk.
Stuttgart			29.94	760.4	58.1	14.5	82	W					10			0.228	5.8	Rainy	Mr. Würth.
Thorn			29.98	761.6	66.4	19.1	41	E			4		3			0.232	5.9		Dr. Hasenbalg.
Treves, (Trier)			29.80	757.0	62.8	17.1	65	SW			7		8			0.287	7.30		Prof. Flesch.
Wustrow			29.82	757.5	68.9	20.5	48	SE			2					0	0		F. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit.	Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Low'r 0—10.	Clouds. Direction. Upper From—	Lower From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.03	762.7	66.6	19.2	59	ENE	0	0			9			0	0		
Mondovi			29.99	761.7	66.6	19.2	56	N			2		8	NW		0	0		
Genoa			30.08	763.9	66.2	19.0	70	SW	4.3	1.9			4	W		Blank	Blank		
Pavia			30.03	762.8	70.0	21.1	56	NE			2		7	SW		0	0		
Verona			30.02	762.2	70.9	21.6	60	E			1		6			0	0		
Padua			29.94	760.5	67.5	19.7	62	ESE	8.7	3.9			9	W		0	0		
Parma																			
Bologna			30.07	763.6	68.4	20.2	15	ENE			4		5			0	0		
Livorno			30.08	764.0	66.6	19.2	72	SW	4.9	2.2			8			0	0		
Urbino			30.07	763.6	63.7	17.6	74	NE			2		8			0	0		
Ancona			30.08	764.1	63.7	17.6	84	SE			4		1			0	0		
Siena			30.04	763.0	68.2	20.2	58	WNW	0	0			8	W		0	0		
Rome			30.10	764.5	73.4	23.	61	SSW	4.3	1.9			4	WNW		0	0		
Naples, O.U.			30.12	765.0	73.6	23.1	55	SW			2		4			0	0		
Lecce			30.17	766.4	65.3	18.5	70	ESE	11.9	5.3			0			0	0		
Cosenza			30.11	764.8	76.6	24.8	32	NW			2		3	NE		0	0		
Catania, (Sicily)																			
Lipposto			30.09	763.3	70.5	21.4	64	WSW			2		6			0	0		
Palermo			30.03	762.8	70.3	21.3	52	NE			2		2			0	0		
Sub-Series.																			
Naples, S. R.			30.15	765.9	70.9	21.6	59	W			1		6	W		0	0		Prof. F. Brioschi

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.79	756.7	60.1	15.6		WSW			5								
Groningen			29.68	753.8	59.5	15.3		S			3								
Helder			29.72	754.9	54.9	12.7		SSW			4								
Utrecht			29.72	754.8	64.6	18.1	56	WSW			4		8						
											2								

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.80	757.0	65.1	18.4	34	SE	9.8	4.4			10			0	0		
Christiania			29.98	761.4	64.4	18.0	36	SSW	4.5	2.0			4			0	0		
Tromsö			30.03	762.7	39.9	4.4	97	Calm			0		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.76	756.0			70.2	21.2	52	N	6.3	2.8			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.99	761.8	66.9	19.4	42	ESE	7	3			4						Astronomical Obs.
Wilna			30.15	765.7	64.0	17.8	40	ESE	8	3.5			6						Astronomical Obs.
Dorpat			30.24	768.2	63.9	17.7	35	NE	2	1			1						Physical Cabinet.
St. Petersburg			30.19	766.9	51.1	10.6	69	NW	4	2			1						Central Physical Obs.
Kuopio																			
Kieff			30.23	767.7	62.6	17.0	61	W	7	3			5						Physical Cabinet.
Nikolaiev			30.18	766.5	70.7	21.5	29	SE	4	2			5						
Kertch			30.07	763.6	64.2	17.9	63	NE	13	6			7						Lagorio.
Moscow			30.23	767.7	61.0	16.1	32	WNW	4	2			6						Meteorological Obs.
Lugan			30.14	765.5	64.8	18.2	31	NE	3	6			5						Meteorological Obs.
Archangel			30.23	767.8	33.4	0.8	71	NW	20	9			10						Ogorodnikof.
Tiflis			30.14	765.5	68.7	20.4	45	S	4	2			2						Physical Obs.
Astrakhan			30.36	771.2	65.1	18.4	36	S	10	4.5			1						Sebastianof.
Kasan			29.91	759.6	62.1	16.7	43	W	13	6			7						Physical Cabinet.
Orenburg			30.15	765.7	62.1	16.7	93	NW	8	3.5			9						Tschernischef.
Ekaterinburg			29.72	754.5	49.5	9.7	58	SW	20	9			10						Meteorological Obs.
Kasaly			30.21	767.2	56.5	13.6	75	N	13	6			3						Bobrof.
Tashkend			30.47	774.0	64.0	17.7	50	Calm	0	0			2						Michelson.
Barnaul			29.97	761.3	47.7	8.7	32	WNW	4	2			1						Meteorological Obs.
Yeniseisk			29.61	752.0	37.0	2.8	60	W	17	7.5			2						arks.
Irkutsk			29.72	754.9	43.9	6.6	54	Calm	0	0			0						Usolzef.
Oorga			29.91	759.6	42.6	5.9	85	Calm	0	0			0						Mossin.
Peking, (China)			29.72	755.0	68.7	20.4	51	Calm	0	0			0						Physical Observatory
Nertchinsk			29.62	752.3	48.0	8.9	63	S-E	10	10			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					31.8	— 0.1	92	NE	8	3.5			0						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.97	761.3	77.5	25.3	33	W	6.0	2.67		3	2	NW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.08	764.0	51.8	11.0	63	S			2		0			0	0		
Hernosand			30.11	764.8	59.0	15.0	43	S			3		0			0	0		
Stockholm			30.11	764 7	61.9	16.6	33	SSE			3		2			0	0		
Wisby			30.14	765.5	63.3	17.4	45	S			3		0			0	0		
Sub-Series.																			
Upsala			30.11	764.7	66.6	19.2	28	S			4		4		S				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.62	727.0			58.3	14.6	80	SSW			2		10			0.032	0.8	Raining	The Observatory.
Zurich	28.40	721.3			54.0	12.2	90	W			1		10			0.535	13.6	Rainy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.4mm.; Thermometer, −0°.6 C.; Relative Humidity, +22 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.96	761.0	71.6	22.0	69	SW			2		0						
Constantinople			30.12	765.1	55.4	13.0	67	NNE	14.5	6.5			0			0	0		
Fao, (Persian Gulf)			29.92	760.0	88.0	31.6		NW			1		0						
Salonica					64.9	18.3		SE			1		10					Thunder storm.	
Valona			30.09	764.3	65.3	18.5		NW			2		2						
Varna			30.12	765.0	68.0	20.0		SE			3		2						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.09	764.3	44	6.7		Calm	0	0		0	2s		SE	0.30	7.6		
Chatham, N. B.			30.19	766.8	41	5.0	76	NE	1	0.4		10c	0			0	0		
Charlottetown, P. E. Island			30.16	766.1	39	3.9	74	NE	5	2.2		8c	0			0	0		
Fort Garry, Manitoba			29.60	751.8	39	3.9	97	SE	5	2.2		5k	5n	S	S	0.37	9.4		
Halifax, N. S.			30.02	762.5	41	5.0	73	E	13	5.8		5cs	2s			0	0		
Kingston, Ontario			30.10	764.5	38	3.3	91	Calm	0	0			10s			0	0		
Montreal, Quebec			30.05	763.3	44	6.7	84	NE	8	3.6		5ck	5ks	NE		0.27	6.9		
Ottawa, Ontario			30.05	763.3	47	8.3	48	N	5	2.2		8k	0	E		0.40	10.2	Clearing	
Parry Sound, Ontario			30.07	765.8	38	3.3	99	Calm	0	0			Fog			0	0	Foggy	
Port Dover, Ontario			30.08	764.0	37	2.8	81	Calm	0	0		0	0			0.03	0.8		
Port Stanley, Ontario			30.04	763.0	39	3.9	82	E	15	6.7		2k	0	NW		0	0		
Quebec, Quebec			30.12	765.0	39	3.9	74	NE	11	4.9			10n		NE	0	0		
Saugeen, Ontario			30.03	762.7	39	3.9	73	SE	2	0.9		10k	0			0.16	4.1		
Stayner, Ontario			30.05	763.3	38	3.3	95	Calm	0	0			Haze			0.05	1.3		
Sydney, C. B.			30.20	767.1	37	2.8	74	N	6	2.7		Haze	2ks		E	0	0		
Toronto, Ontario			30.09	764.3	35	1.7	89	W	3	1.3		5ck	2s		W	0.05	1.3		

Note.—The originals give the cloudiness on a scale of 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. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.94	760.5	45	7.2	92	NW	13	5.8			10ks			0.52	13.2		
Alpena, Mich.			29.98	761.5	38	3.3	80	SE	8	3.6		5ck	2s	E	SE	0	0		
Atlantic City, N. J.			29.92	760.0	47	8.3	69	NW	20	8.9		2k	0	NW		0.24	6.1		
Augusta, Ga.			29.96	761.0	69	20.6	75	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.01	762.2	49	9.4	43	N	8	3.6		0	0			0.11	2.8		
Barnegat, N. J.			29.88	758.9	46	7.8	67	NW	25	11.2		0	0			0.09	2.3		
Benton, Montana			29.71	754.6	45	7.2	76	W	12	5.4		5k	0	W		0	0		
Bismarck, Dakota			29.26	743.2	50	10.0	86	W	2	0.9			10n			0.08	2.0	Light rain	
Boston, Mass.			29.88	758.9	43	6.1	100	E	17	7.6			10n		E	2.30	58.4	Heavy rain	
Breckenridge, Minn.			29.47	748.5	44	6.7	100	SE	16	7.2			10n			0.16	4.1	Heavy rain	
Buffalo, N. Y.			30.06	763.5	34	1.1	79	SW	4	1.8		2c	0	SW		0.01	0.3		
Burlington, Vt.			30.01	762.2	47	8.3	70	N	4	1.8		2c	5s			0.16	4.1		
Cairo, Ill.			29.69	754.1	68	20.0	69	S	8	3.6		2c	2ks	W	W	0	0	Threatening	
Cape Hatteras, N. C.			29.98	761.5	59	15.0	44	NE	16	7.2		0	Haze			0	0		
Cape Henry, Va.			29.98	761.5	59	15.0	48	NW	15	6.7		5c	0	W		0.01	0.3		
Cape May, N. J.			29.95	760.7	46	7.8	76	NW	16	7.2		0	0			0.07	1.8		
Charleston, S. C.			30.00	762.0	69.5	20.8	75	NW	4	1.8		0	Haze			0	0		
Cheyenne, W. T.			29.62	752.3	42	5.6	56	NW	20	8.9		5c	0	NW		0	0		
Chicago, Ill.			29.68	753.9	51	10.6	63	SE	11	4.9		2ck	0	SE		0	0		
Cincinnati, Ohio			29.93	760.2	54	12.2	60	E	8	3.6		0	2s			0.03	0.8		
Cleveland, Ohio			30.01	762.2	43.0	6.1	75	E	8	3.6		2c	2s	NW		0	0		
Colorado Springs, Col.			29.67	753.6	51	10.6	52	N	6	2.7			10s			0	0		
Corsicana, Texas			29.73	755.1	69	20.6	84	S	14	6.3		10k	0	S		0	0		
Davenport, Iowa			29.52	749.8	52	11.1	72	SE	10	4.5		2k	2ks	SE	SE	0.01	0.3		
Denver, Col.			29.68	753.9	52	11.1	47	E	1	0.4		2k	2s	SW		0	0		
Detroit, Mich.			29.98	761.5	43	6.1	75	SE	0	4.0			10s			0	0		
Dodge City, Kansas			28.94	735.1	64	17.8	38	S	12	5.4		2c	0			0	0		
Dubuque, Iowa			29.54	750.3	51	10.6	65	SE	12	5.4			10s			0.05	1.3		
Duluth, Minn.			29.64	752.8	38	3.3	80	NE	20	8.9			10s			0	0		
Eastport, Me.			30.10	764.5	39	3.9	81	NE	20	8.9		5c	0	N		0	0		
Erie, Penn.			30.03	762.7	44	6.7	63	SE	4	1.8		0	1s			0.04	1.0		
Escanaba, Mich.			29.86	758.4	42	5.6	83	SE	12	5.4			10n			0	0	Threatening	
Fort Gibson, I. T.			29.49	749.0	74	23.3	63	S	16	7.2		2cs	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.34	745.2	55	12.8	43	Calm	0	0			10s		NW	0.34	8.6	Threatening	
Galveston, Texas			29.88	758.9	74	23.3	81	SW	12	5.4			10s		SW	0	0		
Grand Haven, Mich.			29.78	756.4	44	6.7	71	SE	16	7.2			10s		W	0	0		
Indianapolis, Ind.			29.81	757.2	55	12.8	50	SE	12	5.4		5ck	0	W		0.07	1.8		
Indianola, Texas			29.86	758.4	74	23.3	85	S	21	9.4		8k	0	S		0	0		
Jacksonville, Fla.			30.04	763.0	74	23.3	81	SW	5	2.2		0	2s		W	0	0		
Keokuk, Iowa			29.43	747.5	60	15.6	70	SE	20	8.9		2cs	0			0	0		
Key West, Fla.			30.09	764.3	81.2	27.3	70	E	7	3.1		2ck	2s	E		0	0		
Kittyhawk, N. C.			30.01	762.2	56	13.3	57	N	12	5.4		2k	0	W		0.02	0.5		
Knoxville, Tenn.			29.96	761.0	57	13.9	61	NE	8	3.6		1k	0			0	0		
La Crosse, Wis.			29.55	750.6	49	9.4	57	E	12	5.4		5cs	5ks	SE	E	0.11	2.8		
Leavenworth, Kan.			29.26	743.2	71	21.7	71	S	15	6.7		0	0			0	0		
Lexington, Ky.			29.92	760.0	54	12.2	55	S			2	8ck	0	W		0	0		
Long Branch, N. J.			29.89	759.2	47	8.3	62	NW	24	10.7		0	2s			0.07	1.8		
Louisville, Ky.			29.86	758.4	57	13.9	63	NE	4	1.8		5c	0			0	0		
Lynchburg, Va.			30.05	763.3	54	12.2	54	Calm	0	0		10k	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.84	757.9	41	5.0	74	SE	4	1.8			10s			0	0		
Memphis, Tenn.			29.79	756.4	72	22.2	71	SW	8	3.6		5cs	0			0	0		
Milwaukee, Wisconsin			29.77	756.1	40	4.4	82	SE	17	7.6			10ks		SE	0.17	4.3		
Mobile, Ala.			30.00	762.0	74	23.3	85	S	6	2.7		5k	0	SW		0	0		
Montgomery, Ala.			29.77	756.1	70.5	21.4	87	S	3	1.3			10s		W	0	0		
Morgantown, W. Virginia			30.01	762.2	53	11.7	60	N	1	0.4		5c	0	SW		0.02	0.5		
Mt. Washington, N. H.			30.01	762.2	27	−2.8	100	SE	42	10.7			Fog			0.31	7.9		
Nashville, Tenn.			29.83	757.7	68	20.0	64	SE	4	1.8		5k	0	W		0	0		
New Haven, Conn.			29.82	757.4	45	7.2	84	N	18	8.0			10ks			0.66	16.8		
New London, Conn.			29.79	756.7	46.5	8.1	88	N	13	5.8			10n		NE	0.59	15.0	Ligh[illegible]	
New Orleans, La.			29.96	761.0	73.5	23.1	88	S	3	1.3		8k	0	S		0	0		
Newport, R. I.																			
New York, N. Y.			29.91	759.7	45	7.2	68	NW	2	0.9		2k	0	W		0.17	4.3		
Norfolk, Va.			30.01	762.2	57	13.9	52	NW	8	3.6		5c	0	W		0	0		
North Platte, Neb.			29.89	759.2	57	13.9	75	N	14	6.3		5ck	5s	S	W	0	0		
Omaha, Neb.			29.16	766.1	69	20.6	75	SE	13	5.8		5c	0	W		0	0		
Oswego, N. Y.			30.04	763.0	43.1	6.2	70	W	1	0.4			10s			0.07	1.8		
Peck's Beach			29.94	760.5	48	8.9	71	NW	24	10.7		2k	0			0.03	0.8		
Pembina, D. T.			29.50	749.3	42	5.6	87	SE	8	3.6		5k	5k	SW		0.19	4.8		
Philadelphia, Penn.			29.97	761.2	46	7.8	54	N	22	9.8		2k	0	N		0.12	3.0		
Pike's Peak, C. T.			29.74	755.4	21	−6.1	85	SW	36	16.1		5k	2s	NW		0	0		
Pittsburgh, Penn.			30.03	762.7	45	7.2	60	NE	5	2.2		0	0			0	0	Smoky	
Port Huron, Mich.			30.01	762.2	43	6.1	75	SE	4	1.8		2c	2s	W		0	0		
Portland, Maine			30.02	762.5	45	7.2	76	NE	16	7.2			10s			0.11	2.8		
Portland, Or.			30.01	762.2	45	7.2	84	SW	9	4.0			10s			0.15	3.8		
Punta Rassa, Fla.			30.11	764.8	76.8	24.9	77	NE	6	2.7		Haze	Sm'e			0	0		
Rochester, N. Y.			30.02	762.5	41	5.0	83	W	8	3.6		5ck	2s	E	W	0	0		
Salt Lake City, Utah			29.73	755.1	45	7.2	38	SW	38	17.0			10s			0.58	14.7		
Sandy Hook, N. J.			29.88	758.9	45	7.2	68	NW	24	10.4		5ck	2s	N	N	0.09	2.3		
San Diego, Cal.			30.02	762.5	47	13.9	87	W	8	3.6			10s		W	0	0		
San Francisco, Cal.			30.08	764.0	50	10.0	72	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.58	751.3	48	8.9	23	SW	4	1.8		10c	0	SW		0	0		
Savannah, Georgia			30.00	762.0	74	23.3	67	SW	8	3.6		0	0			0	0		
Shreveport, La.			29.83	757.7	70	21.1	84	S	11	4.9		8k	0	SW		0	0		
Springfield, Mass.			29.85	758.0	45	7.2	81	NE	12	5.4			10s		NE	0.87	22.1	Light rain	
St. Louis, Mo.			29.59	751.6	65	18.3	67	SE	12	5.4		2c	2k	NW		0	0		
St. Marks, Fla.			30.04	763.0	72	22.2	90	W	4	1.8		0	8ks		W	0	0		
St. Paul, Minn.			29.42	747.3	45	7.2	68	E	18	8.0		8c	0	W		0.12	3.0		
St. Paul's Island, Alaska			29.86	758.4	31	−0.6	68	NW	2	0.9			10k			0	0	Snowy	
Squan Beach, N. J.			29.88	758.9	46	7.8	60	NW	18	8.0		2k	0	NW		0.20	5.1		
Toledo, Ohio			29.95	760.7	49	9.4	71	SE	10	4.5			10s		W	0	0		
Tybee Island, Ga.			30.03	762.7	74	23.3	72	NW	2	0.9		0	Sm'e			0	0		
Vicksburg, Miss.			29.93	760.2	71	21.7	75	SW	8	3.6			10s		SW	0	0		
Virginia City, Mon.			29.45	748.0	34	1.1	61	Calm	0	0		Haze	2s			0.09	2.3		
Washington, D. C.			30.03	762.7	49	9.4	42	NW	12	5.4		1cs	Haze	NW		0	0		
Wilmington, N. C.			30.02	762.5	65	18.3	35	NE	7	3.1		0	0			0	0		
Wood's Hole, Mass.			29.78	756.4	45	7.2	100	E	12	5.4			10n			2.32	58.9	Heavy rain	
Wytheville, Va.			29.79	756.7	50	10.0	64	NW	4	1.8		0	0			0	0		
Yankton, D. T.			29.27	743.4	53	11.7	50	NE	10	4.5			10s		NE	0	0		

NOTE.—The ... give the cloudin... a scale from 0 to ...

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	30.09	764 3	80	26.7	86	NE	7	3.1	.....	2k	0	NE	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	30.00	762.0	77	25.0	72	E	.....	.....	.....	5cs	0	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.82	757.4	78	25.6	78	E	7.2	3.2	.....	0	0	.....	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.21	767.3	77	25.0	9[illegible]	Calm	0	0	.....	0	0	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	30.24	768.1	.....	.....	77	25.0	76	W	7	3.1	.....	5ck	2kn	W	.....	0.01	0.3	Hazy	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.86	758.4	78	25.6	65	NNW	4.8	2.1	.....	2c	2k	NNE	SE	0	0	.....	Robert Mason.
St. Georges, Bermudas	.....	.....	29.84	757.9	70.5	21.4	87	SW	11.2	5.0	.....	2cs	0	SW	.....	0.520	13.21	.....	C. F. Allen.
Honolulu, Oahu, S. I.	.....	.....	30.12	765.0	68	20.0	76	NE	.....	.....	2	0	5ks	.....	.....	0	0	.....	E. P. Church.
Makawao, Maui, S. I.	27.84	707.1	.....	.....	62.5	16 9	88	Calm	.....	.....	0	0	6n	.....	.....	0	0	.....	F. L. Clarke.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Macpherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	.....	.....	29.90	759 4	25	-- 3.9	94	E	6	2.7	.....	8k	3s	SE	.....	0	0	.....	J. Fortescue.
St. John's, Newfoundland	.....	.....	30.06	763.5	62	16.7	83	SE	0.5	0.2	.....	0	0	.....	.....	0	0	.....	C. Partridge.
St. John's, Porto Rico, W. I	.....	.....	30.25	768.3	40	4.4	76	NE	.....	.....	.....	Haze	Haze	.....	.....	0	0	.....	John Delaney.
Elyria, Ohio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Indianola, Iowa	.....	.....	30.00	762.0	47	8.3	84	SW	8	3.6	.....	0	8s	.....	.....	0	0	.....	H. M. Redington.
	28.52	724.4	.....	.....	65	18.3	70	SE	.....	.....	.....	2c	0	NW	.....	0	0	.....	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 26° 55', W. 59° 53'	SE by E	2.5	29.96	761.0	77	25.0	91	SSW	.....	.....	3.5	.....	..8	.....	.....	Short sea.	.....	Fair	James Jorgensen, Mate.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 8, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.0	69.8	21.0		NE			3		3			0	0		Charnot.
Algiers			30.09	764.3	66.6	19.2	86	ENE			1		10			0	0		Peter.
La Calle			30.10	764.5	71.6	22.0		NW			1		2			0	0		Kuntz.
Tunis			30.13	765.4	84.9	29.4	27	SE			2		0			0	0	Sirocco	Jacques.
Sfax			30.20	767.1	72.5	22.5	62	ESE			4		1			0	0		Chauvey.
Saïda			30.07	763.7	95.0	35.0		SSE			3		1			0	0	Sirocco	Grosjean.
Tebessa			30.10	764.5	77.2	25.1		ESE			4		2			0	0		Colin.
Geriville			30.08	764.1	84.2	29.0		SSE			3		2			0	0		Bernadach.
Lagloua			30.09	764.3	82.8	28.2	32	SE			2		0			0	0		Poinsignon.
Biskra			30.04	763.1	89.8	32.1		E			2		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.00	762.0	74.5	23.6	45	NE			1		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.95	760.8	63.5	17.5	61	W			3		10			0.512	13.0		I. R. Observatory.
Eperies			29.98	761.4	63.1	17.3	69	S			1		8			0.066	1.68		Julius Mikolik.
Gratz			30.00	762.0	66.7	19.3	60	SSW			2		8			0	0		Andreas Rospini.
Hermannstadt			29.98	761.6	70.2	21.2	33	ESE			1		3			0	0		Prof. Reissenberger.
Kremsmünster			30.05	763.2	55.8	13.2	82				3		10			0.449	11.4		Prof. C. Wagner.
Lemberg			29.98	761.4	61.0	16.1	73	SE			3		9			0.063	1.6		Dr. T. Stanecki.
Nyregyhaza			30.03	762.8	69.8	21.0	68	S			2		8			0	0		Habzsuda Daniel.
Pola			30.10	764.4	64.0	17.8	78	SE			3		6cks			0	0		I. R. Hydrographic Office
Szegedin			29.99	761.8	69.4	20.8	44	S			2		6			0	0		Karl Stancel.
Trieste			30.11	764.9	65.7	18.7	69	NW			1		7			0	0		Prof. V. Farolfi.
Vienna			29.97	761.3	67.8	19.9	40	W			4		8			0.012	0.3	Thunder-storm	I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Bruss ls	29.78	756.3			60.8	16.0	86	W			1		10s		WSW	0.110	2.80	Sprinkling	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.66	753.4	44.6	7.0		SE	13	5.8			10			0.015	0.4		William Boswell.
Annanhill											2		8						William McNeil.
Ardrossan			29.54	750.3	55	12.8		SE					6					Squally	S. Call, for Dr. Robinson
Armagh Observatory			29.52	749.8	62.1	16.7		SSW	15	6.7									
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.65	753.1	61.3	16.3		SSE			4		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.53	750.0	64.0	17.8		SSW			2–3		5						J. Drever, for L'd Rosse
Bradford			29.68	753.9	60.0	15.6		SE			2		10						J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.05	763.3	82.0	27.8		NE			2		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.81	757.2	66.1	18.9		SW			2		3						H. Todd.
Cape Town, (Cape Colony)			29.31	769.9	60.0	15.6		SE			2		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.34	770.6			60.4	15.8	64	SSE	14	6.3			6						The Staff, for E. J. Stone
Cardington			29.84	757.9	63.0	17.2		SW					9						John McLaren.
Carlisle			29.61	752.1	60.6	15.9		S					10			0.02	0.5		T. Bell, for J. Cartmell
Chatham, School M. E.			29.86	758.4	60.7	15.9		W			3		10					Threatening	Q. M. Sergt. J. Conroy
Colombo, (Ceylon)			29.85	758.2	82.5	28.1		SW			4		10						Sgt. W. F. Hopkins
Dartmoor			29.89	759.2	50.5	10.3		S			6		10					Raining	R. E. Power.
Donaghadee			29.52	749.8	63	17.2		S			3		6						J. Mac Gowan, Jr.
Dover			29.92	760.0	54	12.2		WSW			3		10					Foggy	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.69	754.1	61.6	16.4		SSE	6.0	2.7			10					Misty	Thomas Mackereth.
Falmouth Observatory			29.79	756.7	57.7	14.3		SSW	23	10.3			10					Foggy	The Staff.
Fort Napier, (Natal)			29.82	757.4	85.0	29.4		E			2		3						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	85	29.4		E					5						
Galway, Queen's College			29.45	748.0	61	16.1		SW			2		2						B. G. Clare, for Prof. C.
Gibraltar, (Mediterranean)			30.01	762.2	72.5	22.5		NE			4		2						Sergt. E. G. Baker.
Glasgow Observatory			29.55	750.6	56.8	13.8		S			4		10					Threatening	James Gray.
Great Yarmouth			29.84	757.9	55	12.8		SSE			3		7					Misty	G. T. Watson.
Greenwich Royal Obs.			29.88	758.9	62.3	16.8		SW			4		10					Raining	The Staff, for G. B. Airy
Guernsey			29.92	760.0	57.5	14.2		SSW			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.66	753.4	59.6	15.3		SSW					10						F. J. Page, for L. J. Crow
Halifax, (Nova Scotia)			30.07	763.8	40.7	4.8		E			2		1						Corp'l J. Y. Thompson
Helston			29.74	755.4	58	14.4		S			4		10					Misty	Dr. W. B. Moyle.
Holyhead			29.63	752.6	55	12.8		SSW			5		10					Hazy	John Tilston.
Hull Park																			
Kew Observatory			29.87	758.7	59.8	15.4		SSW	19	8.5			10					Threatening	The Staff.
Kingstown			29.62	752.3	62	16.7		SW			4		7					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			29.78	756.4	63.3	17.4		SW			4		10						William J. Harrison.
Llandudno			29.65	753.1	58.2	14.7		SW					10					Threatening	Dr. James Nicol.
Malta, (Mediterranean)			30.14	765.5	71.8	22.1		NE			1		2k						Fred Travis, Pvt A. H.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.53	750.0	60	15.6		SW			1		10						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	80.9	27.2		E			2		3						Surg.-Maj. J. Jameson
North Shields			29.69	754.1	55	12.8		S			2		8					Misty	John Wm. Irvine.
Nottingham			29.75	755.6	64.0	17.8		SSW			3		10d		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.74	755.4	62.9	17.2		SSW			6		10					Misty	Rev. Stephen Whitty
Oxford, Radcliffe Obs.			29.79	756.9	63	17.2		SW			4		10						J. Lucas, for R. Main
Plymouth			29.81	757.2	53	11.7		SW			2		10					Drizzling	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.60	751.8	55	12.8		SW			4		8						W. Kennedy.
Saint Ann's Head			29.70	754.4	53	11.7		SSW			3		10						John C. Walker.
Saint Helier, (Jersey)			29.93	760.2	57.6	14.2		SW			3		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)			29.58	751.3	49.1	9.5		SSE	35	15.6			10					Showery	Rev. C. Clouston
Scarborough			29.73	755.1	53.3	11.8		SSE			2		10						F. Shaw.
Scutari, (Turkey)			30.08	764.0	61.0	16.1		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.72	754.9	65.1	18.4		SW			2		10			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.60	751.8	61.5	16.4		SW			6		8			0.050	1.27		Rev Francis Redford
Somerleyton, (Lowestoft)			29.86	758.4	60.6	15.9		SSW			1		10					Showery	Rev. C. J. Steward.
Stonyhurst Observatory			29.66	753.4	58.1	14.5		S			3		9					Threatening	The Staff.
Stornoway, Lewis C. (Hebr)			29.47	748.5	56	13.3		S			5		5						John Smith.
Strathfield Turgiss			29.84	757.9	58.4	14.7		SW			2		10					Drizzling	Rev Charles H. Griffith
Streatley Vicarage			29.85	758.2	62.5	16.9		SSW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.57	751.1	55	12.8		S			4		7						John Trotter.
Truro Royal Institution			29.72	754.9	58	14.4		SW			4		10					Raining	W. Newcombe.
Valencia Observatory			29.51	749.5	57.3	14.1		S	42	18.8			8						The Staff.
Wick																			
Wisbeach																			
Worthing			29.91	759.7	54.3	12.4		SSW			5		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.84	758.0	51.1	10.6	84	SE			2		10						
Fanöe			29.85	758.3	58.5	14.7	67	W			2		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.27	743.5	39.4	4.1	84	E			6		10					Raining	
Thorshavn, (Faröe)			29.50	749.2	47.7	8.7	93	SSE			2		10					Rain & Mist	
Vestervig			29.84	758.0	65.5	18.6	49	ESE			2		3						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.05	763.2	69.1	20.6	78						1c						Normal School.
Alençon			30.02	762.6	64.4	18.0	72	SW			2		8n			0.055	1.4		Normal School.
Amiens			29.99	761.7	70.9	21.6	75	SSE			8		10			0.032	0.8		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.04	763.0	66.0	18.9	73	SW			2		1		WSW	0.012	0.3		Normal School.
Besançon			30.18	766.6	68.7	20.4	55	S			3		0			0.197	5.00		Normal School.
Bourg en Bresse			30.07	763.7	73.2	22.9	48	SW			1		1		E	0.213	5.4		Normal School.
Bourges			30.08	764.1	69.8	21.0	65	SE			4		8		SSE	0	0		Normal School.
Brest			29.84	757.8	57.4	14.1	86	SW			6		10		SW	0.098	2.50	Misty	Naval Observatory.
Caen			30.00	761.9	63.5	17.5	80				2		10			0.008	0.2		Normal School
Chartres			30.02	762.6	62.1	16.7		SW			4		10			0	0		Normal School.
Chaumont			30.05	763.3	63.	17.2		WSW			2		..kn		WSW	0.157	4.0		Normal School.
Commercy			30.15	765.8	62.6	17.0	72	W			4		8		E	0.089	2.25		Normal School.
Le Mans			30.17	766.2	66.2	19.0	77	S			4		8		SW	0.028	0.7		Normal School.
Lons-Le Saulnier			30.14	765.6	67.1	19.5	60	SW			1		2		E	0	0		Normal School.
Mâcon																			
Mirecourt			30.20	767.0	59.5	15.3	80	SSW			4		8		SW	0.120	3.2		Normal School.
Orleans			30.19	766.9	71.1	21.7	72	SSW			4		8		SSW	0	0		Normal School.
Paris Observatory			30.05	763.3	63.5	17.5		SSW			3		10		SW	0.004	0.10	Raining	National Observatory.
Parthenay			30.02	762.6	66.2	19.0	65	SW			2		5		W	0	0		Normal School.
La Roche sur Yon			30.08	764.0	75.9	24.	65	SE			4		2		NW	0	0		Normal School.
Rouen			29.98	761.5	62.1	16.7	85	SSW			2		0			0.039	1.0		Normal School.
Saint Lo			30.00	762.0	63.7	17.6	82	WSW			3		10		SW	0.059	1.5		Normal School.
Villefranche			30.18	766.5	72.7	22.6	48	SE			2		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.99	634.7			60.1	15.6	58	SSW	18.6	8.33			1		SW	0.102	2.6		—. Falguère.
Montsouris Observatory			30.04	763.0	64.6	18.1	72	SW			2		10kn		SE	0.008	0.2		Marié Davy.
Perpignan	29.97	761.2			70.2	21.2	49	E	9.3	4.17			0			0	0		Dr. Flines.
Saint Maur, (near Paris)			30.05	763.3	62.6	17.0	87	WSW			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours								WSW			2		5		W	0	0		C. Marquet.
Versailles, (near Paris)			30.05	763.3	63.3	17.4	82	SW			2		10			0.020	0.53		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.01	762.2	59.0	15.0	68	SE	6.9	3.1			Fog			0 0	0 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.90	759.4	57.2	14.0	89	W			4		10			0.335	8.5	Raining	Prof. Hoh.
Berlin			29.94	760.4	60.6	15.9	68	SW			1		8			0.335	8.5		Prof. Arndt.
Breslau			29.98	761.5	59.2	15.1	62	W			0		10			0	0	Thunder-storm	Dr. P. Neugebauer.
Carlsruhe			29.86	758.5	59.4	15.2	82	SW			5		10			0.146	3.7	Thunder-storm	A. Senz.
Cassel			29.78	756.4	58.3	14.6	86	NW			2		10			0.089	2.26		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			
Hamburg			30.10	764.6	58.1	14.5	79	W					5			0.134	3.4		M. Wilhelm.
Kiel			29.92	759.9	59.5	15.3	67	NW			3		9k8			0.350	9.11	Foggy	W. Reinert.
Königsberg			29.85	758.1	60.6	15.9	69	W			4		3			0.539	13.69		Prof. G. Karsten.
Köslin			29.90	759.4	55.9	13.3	91	SE			1					0.041	1.0		Prof. E. Luther.
Leipsic			30.04	762.9	57.4	14.3		NW			4		4			0.173	4.4		Dr. Tägert.
Münster			29.94	760.5	53.6	12.0	96	S			1		10			0.957	24.3	Raining	Prof. Bruhns.
Posen			29.93	760.3	59.9	15.5	82	NW			2		5			0.110	2.8		Prof. E. Heis.
Strassburg, (in Alsace)			29.94	760.5	61.7	16.5	62	W			2		10			0.110	2.8		Dr. Magener.
Stuttgart			30.06	764.4	61.7	16.5	71	S					10			0	0		Hartwig and Tülk.
Thorn			30.04	763.1	63.9	17.7	63	W					10			0.094	2.4	Raining	Mr. Würth.
Treves, (Trier)			29.89	759.3	64.2	17.9	57	SW			4		7			0.138	3.5		Dr. Hessenbalg.
Wustrow			29.98	761.6	62.2	16.8	81	SW			8		10			0.111	2.82		Prof. Flesch.
			29.89	759.1	52.2	11.2	72	WSW			2					0.134	3.4		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.09	764.2	70.3	21.3	55	WSW	3.1	1.4			7	NE		0	0		
Mondovi			30.07	763.8	69.4	20.8	54	NNW			4		3	NW		0	0		
Genoa			30.15	765.7	66.2	19.0	72	SW	1.3	0.6			2	SE		0	0		
Pavia			30.08	764.1	72.1	22.3	51	W			2		2	SW		0	0		
Verona			30.07	763.6	72.0	22.2	63	E			1		10			0	0		
Padua			30.09	764.2	67.1	19.5	64	SE	3.8	1.7			9	W		0	0		
Parma																			
Bologna			30.15	765.9	68.4	20.2	20	ENE			4		3			0	0		
Livorno			30.15	765.7	67.6	19.8	66	W	4.3	1.9			6			0	0		
Urbino			30.12	765.1	65.7	18.7	62	NNE			2		7			0	0		
Ancona			30.10	764.6	68.0	20.0	65	SE			4		3			0	0		
Siena			30.08	764.0	69.4	20.8	62	NW	0	0			4	SW		0	0		
Rome			30.15	765.7	75.0	24.4	37	SSW	6.3	2.8			5			0	0		
Naples, O.U			30.18	766.5	74.1	23.4	62	S			2		6			0	0		
Lecce			30.17	766.3	68.7	20.4	61	E	9.9	4.4			2			0	0		
Cosenza			30.14	765.5	77.1	25.0	32	NW			1		2			0	0		
Catania, (Sicily)																			
Trapani			30.13	765.4	70.3	21.3	57	ESE			2		2			0	0		
Palermo			30.11	764.7	71.4	21.9	56	NE			2		4			0	0		
Sub-Series.																			
Naples, S. R.			30.22	767.5	71.2	21.8	70	SW			4		..6		SW	0	0		Prof. F. Brioschi

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds: the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.97	761.3	58.6	14.8		W			4								
Groningen			29.84	758.1	62.2	16.8		WNW			4								
Helder			29.90	759.4	56.3	13.5		SW			3								
Utrecht			29.89	759.1	63.7	17.6	81	WSW			3		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.84	758.1	65.8	18.8	36	S	11.2	5.0			1			0	0		
Christiania			29.98	761.6	64.8	18.[illegible]	38	SSE	9.2	4.2			7			0	0		
Tromsö			29.99	761.8	43.3	6.3	96	Calm			0		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.72	754.9			71.8	22.1	48	N	8.7	3.9			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.92	759.9	59.9	15.5	80	SW	2	1			9						Astronomical Obs.
Wilna			30.07	763.6	61.0	16.1	59	SSE	10	4.5			7						Astronomical Obs.
Dorpat			30.20	767.0	66.2	19.0	38	ESE	7	3			4						Physical Cabinet.
St. Petersburg			30.25	768.3	62.8	17.1	39	E	2	1			0						Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			30.22	767.5	67.5	19.7	35	SSE	13	6			7						
Nikolaiev			30.17	766.3	68.5	20.3	43	NE	4	2			6						Lagorio.
Kertch			30.08	763.8	66.2	19.0	65	E	10	4.5			3						Meteorological Obs.
Moscow			30.25	768.4	64.6	18.1	45	SW	4	2			7						Meteorological Obs.
Lugan			30.09	764.2	63.9	19.4	30	E	13	6			10						Ogorodnikof.
Archangel			30.50	774.6	34.0	1.2	78	Calm	0	0			10						Physical Obs.
Tiflis			30.05	763.2	70.2	21.2	46	NW	10	4.5			10					Raining	Sebastianof.
Astrakhan			30.30	769.7	67.5	19.7	31	SSE	8	3.5			2						Physical Cabinet.
Kasan			30.22	767.5	64.[illegible]	8.2	38	NE	10	4.5			5						Tschernischef.
Orenburg			30.01	762.3	60.6	15.9	82	NW	13	6			9						Meteorological Obs.
Ekaterinburg			29.98	761.5	41.9	5.5	34	NW	8	3.5			5						Bobrof.
Kasaly			30.21	767.4	58.1	14.5	79	N	8	3.5			3						Michelson.
Tashkend			30.28	769.1	66.7	19.3	39	Calm	0	0			0						Meteorological Obs.
Barnaul			29.84	757.9	57.0	13.9	37	SSW	20	9			4						Clarks.
Yeniseisk			29.45	748.0	53.[illegible]	11.7	50	S	20	9			10						Usolzef.
Irkutsk			30.02	762.6	38.8	3.8	70	Calm	0	0			10						Mossin.
Oorga			29.74	755.4	59.9	15.5	43	Calm	0	0			0						Physical Observatory.
Peking, (China)			29.82	757.4	73.9	23.3	51	Calm	0	0			3						Meteorological Obs.
Nertchinsk			29.89	759.3	48.2	9.0	46	Calm	0	0			1						
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor					36.0	2.2	87	N	4	2			0						

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.05	760.8	84.6	29.2	30	SW	6.7	3.00		3	2	SW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.17	766.4	50.0	10.0	84	SW			5		0			0	0		
Hernosand			30.19	766.8	57.9	14.4	43	S			2		0			0	0		
Stockholm			30.08	764.1	59.4	15.2	74	SE			5		2			0	0		
Wisby			30.04	762.9	64.0	17.8	44	SE			5		2			0	0		
Sub-Series.																			
Upsala			30.08	763.9	66.2	19.2	29	SE			4		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.69	728.8			72.1	22.3	43	SW			2		2			0.118	3.0		The Observatory.
Zurich	28.50	724.0			60.8	16.0	75	NW			1		8			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.1mm.; Thermometer, +0°.9 C.; Relative Humidity, —15 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.96	761.0	71.6	22.0	66	SW			2		5						
Constantinople			30.12	765.0	55.9	13.3	68	NNE	16	7			5		NE	0	0		
Fao, (Persian Gulf)			29.92	760.0	95.0	35.0		SE			1		0						
Salonica					75.6	24.2		SW			1		0						
Valona			30.12	765.0	69.8	21.0		W			2		0						
Varna			30.12	765.0	62.8	17.1		E			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.90	759.4	47	8.3		Calm	0	0			10s		S	0.09	2.3		
Chatham, N. B.			30.15	765.8	39	3.9	43	N	1	0.4		0	0			0	0		
Charlottetown, P. E. Island			30.14	765.5	38	3.3	68	NE	3	1.3		0	0			0	0		
Fort Garry, Manitoba			29.54	750.3	40	4.4	100	N	6	2.7		2k	5n	NW	NW	0.08	2.0	Clearing	
Halifax, N. S.			30.01	762.2	41	5.0	63	NE	6	2.7		0	0			0	0		
Kingston, Ontario			29.87	758.7	48	8.9	82	SE	6	2.7			10s			0.31	7.9		
Montreal, Quebec			29.98	761.5	48	8.9	72	S	10	4.5		Haze	2s			0.18	4.6		
Ottawa, Ontario			29.82	757.4	48	8.9	80	E	6	2.7			10n		E	0.05	1.3	Light rain	
Parry Sound, Ontario			29.65	753.1	49	9.4	85	E	25	11.2		2cs	5ks	SE	SE	0.09	2.3		
Port Dover, Ontario			29.62	752.3	53	11.7	61	S	14	6.3		5k	0	SW		0	0		
Port Stanley, Ontario			29.61	752.1	56	13.3	69	SW	3	1.3			10n		SW	0	0		
Quebec, Quebec			30.08	764.0	45	7.2	61	Calm	0	0			10n			0	0		
Saugeen, Ontario			29.53	750.0	54	12.2	48	SE	9	4.0			10n			0.07	1.8		
Stayner, Ontario			29.61	752.1	51	10.6	86	SE	12	5.4		10k	0	W		0.08	2.0		
Sydney, C. B.			30.11	764.8	40	4.4	52	E	11	4.9		8c	2ks	W	E	0	0		
Toronto, Ontario			29.68	753.9	50	10.0	80	E	9	4.0		5cs	0	W		0.03	0.8		

Note.—The originals give the cloudiness on a scale of 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.06	763.5	46	7.8	85	Se.	10	4.5			10s		S	0.01	0.3		
Alpena, Mich.			29.47	748.5	41	5.6	83	SE	4	1.8		2ck	5ks		W	0.01	0.3		
Atlantic City, N. J.			30.14	765.5	46	7.8	84	SE	9	4.0		8cs	0	S		0	0		
Augusta, Ga.			30.02	762.5	71	21.7	85	Calm	0	0		5cs	0	W		0	0		
Baltimore, Md.			30.08	764.0	52	11.1	78	SE	8	3.6			10s		S	0	0		
Barnegat, N. J.			30.15	765.8	45	5.0	83	E	6	2.7		0	8s		E	0	0		
Benton, Montana			29.74	755.4	36	2.2	70	W	2	0.9		0	0			0	0		
Bismarck, Dakota			29.40	746.7	43	6.1	66	NW	1	0.4			10s			0.26	6.6		
Boston, Mass.			30.13	765.3	48	8.9	56	NW	6	2.7			10s			0.10	2.5		
Breckenridge, Minn.			29.39	746.5	42	5.6	100	NW	6	2.7			10n			0.09	2.3	Light rain	
Buffalo, N. Y.			29.59	751.6	57	13.9	52	S	12	5.4		8ck	0	S		0.03	0.8		
Burlington, Vt.			30.01	762.2	51	10.6	72	S	12	5.4			10s			0	0		
Cairo, Ill.			29.65	753.1	75	23.9	64	S	16	7.2		0	2ks		SW	0	0		
Cape Hatteras, N. C.			30.12	765.0	58	14.4	81	E	4	1.8		5ck	Haze	SW		0	0		
Cape Henry, Va.			30.09	764.3	52	11.1	86	SE	21	9.4		5k	0	W		0	0		
Cape May, N. J.			30.14	765.5	47	8.3	85	SE	8	3.6			10s		SW	0	0		
Charleston, S. C.			30.08	764.0	72	22.2	90	SW	8	3.6		5cs	Haze	SW		0	0		
Cheyenne, W. T.			29.72	754.9	34	1.1	32	NW	20	8.9		0	0			0	0		
Chicago, Ill.			29.32	744.7	70	21.1	75	SW	18	8.0		5c	0	SW		0	0		
Cincinnati, Ohio			29.64	752.8	74	23.3	64	S	12	5.4		5c	0	S		0.02	0.5		
Cleveland, Ohio			29.55	750.6	70.0	21.1	62	S	11	4.9		5k	0	SW		0	0		
Colorado Springs, Col.			29.73	755.1	46	7.8	19	NE	6	2.7		2c	0	S		0	0		
Corsicana, Texas			29.74	755.4	75	23.9	80	S	12	5.4		0	Haze			0	0		
Davenport, Iowa			29.33	745.0	62	16.7	71	W	12	5.4		2c	8ks		W	0	0		
Denver, Col.			29.81	757.2	42	5.6	27	NE	3	1.3		2ck	0	W		0.11	2.8		
Detroit, Mich.			29.46	748.3	67	19.4	69	SW	13	5.8		5ck	0			0	0		
Dodge City, Kansas			29.37	746.0	54	12.2	55	NW	12	5.4		0	0			0	0		
Dubuque, Iowa			29.31	744.5	55	12.8	80	SW	12	5.4			10s			0	0		
Duluth, Minn.			29.35	745.5	37	2.8	90	S	8	3.6			10n			0.07	1.8	Light rain	
Eastport, Me.			30.13	765.3	40	4.4	64	NE	6	2.7		5c	0	N		0	0		
Erie, Penn.			29.56	759.8	63	17.2	47	SE	30	13.4			10ks			0	0		
Escanaba, Mich.			29.32	744.7	41	5.0	91	E	24	10.7		5ck	2ks	S		1.88	47.8		
Fort Gibson, I. T.			29.55	750.6	77	25.0	82	SW	17	7.6			10ks		W	0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.48	748.8	49	9.4	77	NW	1	0.4		5k	0	NW		0.04	1.0		
Galveston, Texas			29.84	757.9	75	23.9	85	S	12	5.4		0	5s		S	0	0		
Grand Haven, Mich.			29.31	744.5	66	18.9	68	SW	35	15.6		5c	Haze	NW		0	0		
Indianapolis, Ind.			29.52	749.8	74	23.3	63	S	18	8.0		2ck	0	SW		0	0		
Indianola, Texas			29.81	757.2	75	23.9	86	S	14	6.3			10s		S	0	0		
Jacksonville, Fla.			30.11	764.8	73	22.8	81	SW	4	1.8			8s		SW	0	0		
Keokuk, Iowa			29.27	743.4	72	22.2	67	SW	13	5.8		5ck	2ks	SW	SW	0	0		
Key West, Fla.			30.09	764.3	80.6	26.7	70	SE	8	3.6		2k	Haze	E		0	0		
Kittyhawk, N. C.			30.13	765.3	54	12.2	80	SE	20	8.9		5c	2s	N		0	0		
Knoxville, Tenn.			29.87	758.7	73	22.8	63	SW	8	3.6			10s		W	0	0		
La Crosse, Wis.			29.2[illegible]	742.2	51	10.6	79	NW	5	2.2			10s		NW	0	0		
Leavenworth, Kan.			29.50	749.3	61	16.1	61	NW	12	5.4		0	5s		NW	0	0		
Lexington, Ky.			29.69	754.1	73	22.8	72	SE	26	11.6		8c	0	W		0	0		
Long Branch, N. J.			30.17	766.3	44	6.7	91	SE	8	3.6			10s			0.06	1.5		
Louisville, Ky.			29.64	752.8	75	23.9	64	SE	20	8.9		Haze	Haze			0	0		
Lynchburg, Va.			30.02	762.5	57	13.9	63	N	1	0.4		10k	0	SW		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.34	745.2	39	3.9	91	NW	4	1.8			Fog			0.97	24.6	Foggy	
Memphis, Tenn.			29.79	756.7	72	22.2	71	S	4	1.8		5cs	2s		S	0	0		
Milwaukee, Wisconsin			29.22	742.2	70	21.1	71	SW	16	7.2		8cs	0	W		0	0		
Mobile, Ala.			30.02	762.5	75	23.8	85	S	5	2.2		5k	0	SW		0	0		
Montgomery, Ala.			30.[illegible]3	762.7	74	23.3	81	S	8	3.6		2c	0	SW		0	0		
Morgantown, W. Virginia			29.70	754.4	74	23.3	50	S	11	4.9		0	8s			0.02	0.5		
Mt. Washington, N. H.			30.15	765.8	30	— 1.1	100	SE	15	6.7		10s	2s		SE	0	0		
Nashville, Tenn.			29.80	756.9	78	25.6	57	S	12	5.4		5cs	0	W		0	0		
New Haven, Conn.			30.18	766.6	48	8.9	70	S	4	1.8			10s			0	0		
New London, Conn.			30.19	766.8	45	7.2	84	Calm	0	0			10s		W	0.02	0.5		
New Orleans, La.			29.97	761.2	73	22.8	85	S	3	1.3		2k	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.18	766.6	46	7.8	76	SE	4	1.8		5k	2s	W	W	0.09	2.3	Clearing	
Norfolk, Va.			30.09	764.3	56	13.3	75	SE	12	5.4		8k	Haze	SW		0	0		
North Platte, Neb.			30.18	766.6	46	7.8	76	W	25	11.2		0	8ks		NW	0.15	3.8		
Omaha, Neb.			29.40	746.7	56	13.3	93	S	4	1.8			10s		SW	0.03	0.8		
Oswego, N. Y.			29.82	757.4	52.1	11.2	70	SSE	14	6.3			10s			0.04	1.0	Threatening	
Peck's Beach			30.16	766.1	47	8.3	85	E	16	7.2		8ck	2s	W		0	0		
Pembina, D. T.			29.48	748.8	42	5.6	83	NW	4	1.8			10s			0.40	10.2		
Philadelphia, Penn.			30.13	765.3	49	9.4	71	S	9	4.0		2c	2s	W	W	0	0		
Pike's Peak, C. T.			29.71	754.5	3	—16.1	73	SW	44	19.7		5k	0	SW		0	0		
Pittsburgh, Penn.			29.67	753.6	66	18.9	45	SE	4	1.8		10k	0	W		0	0		
Port Huron, Mich.			29.46	748.3	63	17.2	67		12	5.4		8k	0	S		0.03	0.8		
Portland, Maine			30.14	765.5	47	8.3	70	NW	1	0.4			10s			0	0		
Portland, Or.			29.96	761.0	47	8.3	84	NW	4	1.8			10s			0.19	4.8		
Punta Rassa, Fla.			30.11	764.8	80.1	26.7	74	NW	2	0.9		0	Haze			0	0		
Rochester, N. Y.			29.68	753.9	56	12.2	68	SE	16	7.2		5k	5s	SE		0.23	5.8		
Salt Lake City, Utah			29.71	754.6	43	6.1	35	Calm	0	0			10s			0.27	6.9		
Sandy Hook, N. J.			30.15	765.8	44	6.7	92	SE	4	1.8		0	8s		W	0.07	1.8	Clearing	
San Diego, Cal.			30.00	762.0	55	12.8	87	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.03	762.7	54	12.2	80	W	12	5.4			10ks		W	0.14	3.5		
Santa Fe, N. M.			29.58	751.3	49	9.4	37	SW	8	3.6		2c	2s	SW	SW	0.01	0.3		
Savannah, Georgia			30.08	764.0	76	24.4	72	SW	8	3.6		5k	0	W		0	0		
Shreveport, La.			29.82	757.4	75	23.9	76	S	6	2.7		5k	2s	SW		0	0		
Springfield, Mass.			30.15	765.8	43	6.1	79	S	4	1.8			10s			0.04	1.0	Threatening	
St. Louis, Mo.			29.49	749.0	75	23.9	63	SW	20	8.9		5s	0	W		0	0		
St. Marks, Fla.			30.06	763.5	74	23.3	90	Calm	0	0		2k	0	SW		0	0		
St. Paul, Minn.			29.26	743.2	40	4.4	100	NW	8	3.6			10n		NW	0.50	12.7	Light rain	
St. Paul's Island, Alaska			29.73	755.1	34	1.1	79	S	13	5.8			10s			0.03	0.8		
Squah Beach, N. J.			30.16	766.1	44	6.7	75	SE	10	4.5			10s		E	0	0		
Toledo, Ohio			29.48	748.8	72	22.2	67	S	16	7.2		2c	Haze	W		0	0		
Tybee Island, Ga.			30.08	764.0	77	25.0	76	Calm	0	0		2c	2ks	SW		0	0		
Vicksburg, Miss.			29.94	760.5	72	22.2	81	S	8	3.6			10s		SW	0	0		
Virginia City, Mon.			29.47	748.5	28	— 2.2	77	Calm	0	0		0	0			0	0		
Washington, D. C.			30.08	764.0	52	11.1	82	SE	8	3.6			10s		S	0.01	0.3		
Wilmington, N. C.			30.10	764.5	69	20.6	75	S	12	5.4			10s		SW	0	0		
Wood's Hole, Mass.			30.18	766.6	46	7.8	76	SW	12	5.0			10s			0.15	3.8		
Wytheville, Va.			29.71	754.6	60	15.6	70	N	2	0.9		5k	0			0	0		
Yankton, D. T.			29.37	746.0	54	11.2	89	W	8	3.6		8cs	0	SW		0	0		

NOTE.—The ord[illegible] give the cloudin[illegible] a scale from 0 to [illegible]

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	83	28.3	87	NE	7	3.1		2ck	0	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.98	761.5	78	25.6	72	E				5k	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	80	26.7	74	SE	8.4	3.8		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	76	24.4	76	Calm	0	0		5cs	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.26	768.6			77	25.0	76	ESE	10	4.5		2ck	5kn	E		0.10	2.5	Hazy	W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	77	25.0	65	NE	8.4	3.8		8c	0	NNE		Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.99	761.7	66	18.9	64	NNE	15	6.7		0	1k			0.040	1.02		C. F. Allen.
Honolulu, Oahu, S. I.																			
Makawao, Maui, S. I.			30.09	764.3	66	18.9	72	NE			2	0	5ks			0	0		E. P. Church.
Cumberland, B. A.	27.86	707.6			62	16.7	88	NE			2	0	3n			0.04	1.0	Hazy	F. L. Clarke.
Ft. Chippewyan, B. A.																			
Ft. Mcrherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.71	754.6	32	0.0	100	E	6	2.7			10cs			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	66	18.9	84	E	2.0	0.9		2c	2k	ENE		0	0		C. Partridge.
St. John's, Newfoundland			30.21	767.3	38	3.3	89	NE				Haze	Haze			0	0		John Delaney.
Elyria, Ohio																			Leon M. Acuña.
Indianola, Iowa			29.54	750.3	71	21.7	63	SE	12	5.4		0	5k			0	0		H. M. Redington.
	28.57	725.7			53	11.7	86	NW					10n			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 26° 12', W. 58° 50'	S by E	3.5	29.96	761.0	78	25.6	82	SW by W			4		..k		ENE	Short sea.		Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 9, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.95	760.7	68.2	20.1		NE			2		5			0	0		Charnot.
Algiers			29.99	761.8	66.6	19.2	95	ENE			1		10			0	0		Peter.
La Calle			30.09	764.3	71.6	22.0		NW			1		2			0	0		Kuntz.
Tunis			30.15	765.7	89.2	31.8	19	SW			3		0			0	0	Sirocco	Jacques.
Sfax			30.14	765.5	77.5	25.3	50	SE			3		1			0	0		Chauvey.
Saïda			29.97	761.2	85.8	29.9		SW			2		6			0	0	Sirocco	Grosjean.
Tebessa			30.12	765.0	80.8	27.1		S			3		1			0	0		Colin.
Geriville			29.98	761.5	84.2	29.0		SE			3		7			0	0		Bernadach.
Laghouat			30.03	762.7	83.3	28.5	31	NE			1		1			0	0		Poinsignon.
Biskra			30.11	764.9	90.0	32.2		E			2		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.02	762.5	73.4	23.0	53	NE			2		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Gracow			30.08	764.1	63.1	17.3	68	W			2		10			0.287	7.3		I. R. Observatory.
Eperies			30.04	763.0	58.8	13.8	97	Calm			0		10			0.320	8.35		Julius Mikolik.
Gratz			29.95	760.6	70.0	21.1	69	SSW			2		5			0	0		Andreas Rospini.
Hermannstadt			30.00	761.9	54.1	12.3	88	NW			1		10			0.287	7.30	Raining	Prof. Reissenberger.
Kremsmünster			30.05	763.3	64.4	18.0	73	W			1		7			0	0		Prof. C. Wagner.
Leimberg			29.95	760.8	68.4	20.2	46	E			4		7			0.075	1.9		Dr. T. Stanecki.
Nyiregyhaza			30.03	762.8	57.2	14.0	98	E			2		10			0.423	10.74		Habzsuda Daniel.
Pola			30.07	763.7	65.	18.6	77	WNW			2		3cks			0	0		I. R. Hydrographic Office
Szegedin			29.98	761.6	55.8	13.2	85	E			3		10			0	0		Karl Stancel.
Trieste			30.08	763.9	66.7	19.3	72	NW			1		2			0	0		Prof. V. Farolfi.
Vienna			30.06	763.4	68.2	20.1	42	NE			2		2			0.012	0.3		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.78	756.3			65.3	18.5	66	W			1		8cs&k		WSW	0.410	10.40		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.55	750.6	54.0	12.2		S	17	7.6			5			0.350	8.9		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			29.60	751.8	54.0	12.2		SW	11	4.9			0						S. Call, for Dr. Robin
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.71	754.6	60.8	16.0		SW			6		4						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.68	753.9	58.8	14.9		WSW			3		8						J. Dreyer, for L'd Ro
Bradford																			J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.09	764.3	81.0	27.2		NE			4		6						T. H Hunt.
Bywell																			
Cambridge Observatory			29.87	758.7	62.0	16.7		SW			2		1						H. Todd.
Cape Town, (Cape Colony)			30.25	768.3	61.2	16.2		SE			5		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.30	769.6			62.6	17.0	51	S	22	9.8			1						The Staff, for E. J. Sto
Cardington			29.88	758.9	62.0	16.7		SW					6						John McLaren.
Carlisle			29.68	753.9	56.3	13.5		SW					9			0	0		T. Bell, for J. Cartm
Chatham, School M. E.			29.90	759.4	64.4	18.0		WSW			3		8						Q. M. Sergt. J. Conr
Colombo, (Ceylon)			29.86	758.4	84.0	28.9		SW			3		8						Sgt. W. F. Hopkins
Dartmoor			29.96	761.0	50.2	10.1		SW			6		8						R. E. Power.
Donaghadee			29.56	750.8	57	13.9		SW			5		10						J. Mac Gowan, Jr.
Dover			29.96	761.0	55	12.8		SW			3		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.73	755.1	62.1	16.8		SSW	9.2	4.1			6						Thomas Mackereth.
Falmouth Observatory			29.93	760.2	58.9	14.9		SW	27	12.1			6						The Staff.
Fort Napier, (Natal)			30.15	765.8	59.5	15.3		S			4		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.76	755.9	86	30.0		N					5						
Galway, Queen's College			30.07	763.8	62	16.7		W			3		1						B. G. Clare, for Prof.
Gibraltar, (Mediterranean)			30.02	762.5	72.0	22.2		ENE			3		2						Sergt. E. G. Baker.
Glasgow Observatory			29.54	750.3	54.3	12.4		WSW			2		10					Raining	James Gray.
Great Yarmouth			29.88	758.9	63	17.2		SW			3		4						G. T. Watson.
Greenwich Royal Obs.			29.92	760.0	62.7	17.1		SW			4		8						The Staff, for G. B. A
Guernsey			29.98	761.5	59	15.0		SW			2		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			F. J. Page, for L. J. Cr
Halifax, (Nova Scotia)			30.11	764.8	42.4	5.8		SE			2		9						Corp'l J. Y. Thompson
Helston			29.88	758.9	61	16.1		SSW			4		4k						Dr. W. B. Moyle.
Holyhead			29.73	755.1	56	13.3		SSW			6		4						John Tilston.
Hull Park																			
Kew Observatory			29.92	760.0	59.9	15.5		SW	20	8.9			7						The Staff.
Kingstown			29.66	753.4	58	14.4		W			4		5						George Mitchell.
Lampeter																			
Leicester Museum			29.85	758.2	60.1	15.6		SW			5		6						William J. Harrison.
Llandudno			29.73	755.1	58.0	14.4		WSW					9						Dr. James Nicol.
Malta, (Mediterranean)			30.10	764.5	70.6	21.4		NE			1		6k						Fred Travis, Pvt A. S
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.44	747.8	61	16.1		SW			1		5						William D. Penny.
Nassau, (Bahamas)			30.20	767.1	78.6	25.9		E			2		7						Surg.-Maj. J. James
North Shields																			John Wm. Irvine.
Nottingham			29.82	757.4	63.3	17.4		SSW			6		5ks&cs		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.82	757.4	58.5	14.7		SW			6		7						Rev. Stephen Whitty
Oxford, Radcliffe Obs.			29.86	758.4	62	16.7		SW			3		6						J. Lucas, for R. Mai
Plymouth			29.93	760.2	58	14.4		SW			3		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.71	754.6	58	14.4		WSW			4		5						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.98	761.5	61.2	16.2		NW			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			29.67	753.6	56.5	13.6		S	19	8.5			5					Showery	Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.96	761.0	57.0	13.9		SW			1		1						Sergt. W. H. Lyne.
Sheffield			29.76	755.9	62.9	17.2		WSW			5		6			0	0	Showery	W. F. Cooper.
Sidmouth																			
Sillotb Rectory			29.63	752.6	58.0	14.4		SW			6		8			0	0		Rev Francis Redton
Somerleyton, (Lowestoft)			29.89	759.2	62.1	16.7		SSW			1		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.71	754.6	59.8	15.4		SW			5		6					Ha y	The Staff.
Stornoway, Lews C. (Hebr).			29.36	745.7	53	11.7		S			6		10					Drizzling	John Smith.
Strathfield Turgiss			29.91	759.7	60.2	15.7		SW			1		2						Rev Charles H. Gri
Streat ey Vicarage			29.91	759.7	63.2	17.3		SW			7		7						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.43	747.5	61	16.1		SSW			5		4						John Trotter.
Truro Royal Institution			29.86	758.4	62	16.7		SW			6		7						W Newcombe.
Valencia Observatory			29.75	755.6	56.8	13.8		W	24	10.7			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.94	760.4	55.0	12.8	77	S			4		10						
Fanöe			29.84	757.9	57.4	14.1	97	SW			4		9						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.13	740.0	44.6	7.0	88	E			6		8						
Thorshavn, (Faröe)			29.38	746.2	48.9	9.4	92	SE			2		10					Misty	
Vestervig			29.83	757.6	50.4	10.2	97	Calm			0		10					Raining	

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.99	761.7	72.0	22.2	86						1s						Normal School.
Alençon			30.01	762.2	69.8	21.0	53	SW			1		5k			0	0		Normal School.
Amiens			30.02	762.5	67.6	19.8	67	SSW			8		10			0.071	1.8		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.04	763.1	67.1	19.5	46	WSW			2		5		W	0.032	0.8		Normal School.
Besançon			30.08	764.0	78.4	25.8	40	SW			2		0			0	0		Normal School.
Bourg en Bresse			30.02	762.6	81.5	27.5	31	SSW			2		0			0	0		Normal School.
Bourges			30.00	762.0	74.1	23.4	63	NW			4		8		E	0	0		Normal School.
Brest			29.95	760.7	62.4	16.9	79	WSW			3		10		SW	0.069	1.75		Naval Observatory.
Caen			30.03	762.7	66.2	19.0	57	E			2		2		SE	0.039	1.0		Normal School.
Chartres			29.99	761.7	68.5	20.3		W			1		9k			0.098	2.5		Normal School.
Chaumont			29.94	760.5	73.0	22.8		NW			6		..kn		NW	0	0		Normal School.
Commercy			30.11	764.7	73.0	22.8	45	NW			6		8		E	0	0		Normal School.
Le Mans			30.17	766.2	64.0	17.8	62	W			2		5		W	0.075	1.9		Normal School.
Lons-Le Saulnier			30.05	763.2	66.6	19.2	44	W			6		0			0	0		Normal School.
Mâcon																			
Mirecourt			30.14	765.5	66.0	18.9	62	S			2		8		S	0	0		Normal School.
Orleans			30.14	765.6	66.2	19.0	76	SSW			4		5		SSW	0.138	3.5		Normal School.
Paris Observatory			30.02	762.6	64.8	18.2		NW			2		8		W	0.120	3.06		National Observatory.
Parthenay			30.02	762.6	67.1	19.5	49	W			2		5		E	0	0		Normal School.
La Roche sur Yon			30.08	764.0	71.6	22.0	57	SW			2		2		N	0.051	1.3		Normal School.
Rouen			30.18	766.6	64.6	18.1	56	SW			2		5		W	0.079	2.0		Normal School.
Saint Lo			30.10	764.5	66.2	19.0	99	W			3		10		W	0	0		Normal School.
Villefranche			30.13	765.3	71.6	22.0	46	SE			1		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.93	633.3			66.2	19.0	76	ESE	9.3	4.17			2		SW	0	0		—. Falguère.
Montsouris Observatory			30.02	762.6	67.6	19.8	60	W			1		9k		WSW	0.126	3.2		Marié Davy.
Perpignan	29.91	759.7			67.6	19.8	73	NW	9.3	4.17			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.02	762.6	64.6	18.1	65	NNW			1		10			0.063	1.6		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.03	762.7	66.9	19.4	51	SW			1		2		WSW	0.138	3.6		C. Marquet.
Versailles, (near Paris)			30.03	762.7	67.3	19.6	58	W			3		7			0.042	1.08		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.02	762.6	60.8	16.0	81	ESE	7.0	3.4		7c	0			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.89	759.2	66.2	19.0	68	SW			2		3			0.051	1.3		Prof. Hoh.
Berlin			30.08	763.9	71.2	21.8	52	S			1		8			0	0		Prof. Arndt.
Breslau			30.15	766.8	65.8	18.8	56	E			2		8			0.508	12.9		Dr. P. Neugebauer.
Carlsruhe			29.95	760.8	76.3	24.6	54	SW			2		1			0	0		A. Senz.
Cassel			29.95	760.7	66.9	19.4	80	NW			2		10			0.170	4.32	Threatening	Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			
Hamburg			30.00	762.1	65.3	18.5	67	W					1			0	0		M. Wilhelm.
Kiel			29.97	761.1	68.2	20.1	69	SSW			5		10ks			0.017	0.43		W. Reinert.
Königsberg			29.92	759.9	66.4	19.1	73	SW			3		10			0	0		Prof. G. Karsten.
Köslin			30.06	763.4	66.2	19.0	51	SW			1					0.006	0.16		Prof. E. Luther.
Leipsic			30.20	767.0	63.7	17.6		S			2		8			0.004	0.1		Dr. Tägert.
Münster			30.02	762.4	72.9	22.7	61	S			2		7			0	0		Prof. Bruhns.
Posen			29.98	761.4	73.4	23.0	77	NW			2		5			0.059	1.5		Prof. E. Heis.
Strassburg, (in Alsace)			30.10	764.6	68.2	20.1	46	SW			5		9			0	0		Dr. Magener.
Stuttgart			29.96	761.2	76.8	24.9	46	Calm			0		2			0.098	2.50		Hartwig and Tölk.
Thorn			29.98	761.5	77.9	25.5	52	E					5			0	0		Mr. Würth.
Treves, (Trier)			30.07	763.8	67.3	19.6	46	W			3		6			0	0		Dr. Hasenbalg.
Wustrow			29.91	759.8	76.6	24.8	51	W			6		8			0.936	23.78	Thunder-showers	Prof. Flesch.
			29.98	761.4	64.2	17.9	73	SW			2					0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.05	763.2	74.5	23.6	54	SW	0	0			4	SW		0	0		
Mondovi			30.02	762.5	73.2	22.9	47	NE			2		4	SW		0	0		
Genoa			30.10	764.5	67.1	19.5	66	SW	1.8	0.8			2	W		0	0		
Pavia			30.03	762.8	74.5	23.6	59	NE			1		0			0	0		
Verona			30.01	762.3	82.2	27.9	48	E			1		5			0	0		
Padua			30.04	763.0	72.3	22.4	61	ESE	1.8	0.8			7	W		0	0		
Parma																			
Bologna			30.04	762.9	72.7	22.6	13	S			4		0			0	0		
Livorno			30.11	764.7	68.7	20.4	63	W	3.1	1.4			1			0	0		
Urbino			30.08	764.0	69.4	20.8	49	NE			2		1			0	0		
Ancona			30.07	763.8	69.1	20.6	58	SE			4		1			0	0		
Siena			30.04	763.1	73.6	23.1	49	NW	0	0			0			0	0		
Rome			30.10	764.5	75.4	24.1	26	SSW	5.6	2.5			1			0	0		
Naples, O.U.			30.10	764.6	76.8	24.9	59	SW			4		1			0	0		
Lecce			30.01	762.3	69.8	21.0	48	E	15.0	6.7			1			0	0		
Cosenza			30.07	763.6	77.4	25.2	36	NNW			2		4			0	0		
Catania, (Sicily)																			
Trapesto			30.01	762.2	73.2	22.9	45	S			2		1			0	0		
Palermo			30.06	763.4	71.8	22.1	52	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.11	764.7	74.1	23.4	49	NW			1		.c		SW	0	0		Prof. F. Brioschi

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.01	762.3	55.8	13.2		WNW			4								
Groningen			29.84	758.0	61.2	16.2		SW			4								
Helder			29.92	759.9	55.0	12.8		WSW			2								
Utrecht			29.90	759.5	66.7	19.3	68	WSW			3		8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.71	754.6	50.4	10.2	90	S	20.1	9.0			10			0	0	Raining & foggy.	
Christiania			29.87	758.7	61.2	16.2	55	SE	13.9	6.2			8			0	0		
Tromsö			30.05	763.2	45.9	7.7	98	Calm			0		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.76	755.9			64.8	18.2	49	NNW	21.0	9.4			4						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.04	763.1	65.8	18.8	59	E	4	2			9						Astronomical Obs.
Wilna			30.07	763.8	66.0	18.9	57	S	8	3.5			10						Astronomical Obs.
Dorpat			30.08	764.1	58.3	14.6	86	S-E	9	4			9						Physical Cabinet.
St. Petersburg			30.15	765.7	64.0	17.8	53	SE	7	3			9						Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			30.19	766.8	68.5	20.4	42	ESE	13	6			7						
Nikolaiev			30.04	763.0	67.1	19.5	46	NE	4	2			6						
Kertch			29.95	760.8	61.3	16.3	77	Calm	0	0			8						Lagorio.
Moscow			30.33	770.3	62.6	17.0	44	SE	4	2			5						Meteorological Obs.
Lugan			30.02	762.6	68.5	20.3	34	ESE	20	9			8						Meteorological Obs.
Archangel			30.27	768.9	53.1	11.7	63	E	4	2			0						Ogorodnikof.
Tiflis			29.90	759.4	76.8	24.9	56	SE	10	4.5			2						Physical Obs.
Astrakhan			30.26	768.5	69.2	21.0	24	E	10	4.5			7						Sebastianof.
Kasan			30.30	769.7	52.2	11.2	28	Calm	0	0			0						Physical Cabinet.
Orenburg			30.31	769.9	52.7	11.5	33	NW	10	4.5			0						Tschernischef.
Ekaterinburg			30.21	767.4	33.4	0.8	65	N	13	6			8						Meteorological Obs.
Kasaly			30.24	768.1	54.1	12.5	83	Calm	0	0			0						Bobrof.
Tashkend			30.24	768.1	70.0	21.1	32	Calm	0	0			0						Michelson.
Barnaul			29.73	755.2	53.6	12.0	62	W	8	3.5			4						Meteorological Obs.
Yeniseisk			29.66	753.4	39.7	4.3	60	N	8	3.5			10					Snowing	Marks.
Irkutsk			29.87	758.8	46.0	7.8	52	Calm	0	0			10						Usolzef.
Oorga			29.68	753.9	58.3	14.6	50	Calm	0	0			10						Mossin.
Peking, (China)			30.05	763.3	67.8	19.9	35	Calm	0	0			2						Physical Observatory.
Nertchinsk			29.71	754.6	56.3	13.5	24	NW	13	6			7						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					37.8	3.2	78	N	4	2			9						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.59	759.3	79.3	26.3	40	S	1.50	0.67		0	8			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.13	765.2	59.4	15.2	56	SW			2		0			0	0		
Hernosand			30.12	764.9	60.8	16.0	45	E			2		0			0	0		
Stockholm			29.98	761.5	61.5	16.4	55	SE			3		2			0.06	1.4		
Wisby			30.03	762.8	48.2	9.0	84	NW			2		6			0.00	0.1		
Sub-Series.																			
Upsala			29.99	761.7	63.7	17.6	46	SE			2		5		SE				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.61	726.8			70.2	21.2	56	N			2		1			0	0		The Observatory.
Zurich	28.41	721.6			77.7	25.4	49	W			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.0mm.; Thermometer, +5°.7 C.; Relative Humidity, —2 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Beirut, (Syria)																			
Constantinople			30.02	762.6	60.4	15.8	63	SE	4	2			2		N	0	0		
Fao, (Persian Gulf)			29.84	758.0	95.0	35.0		NW			3		0						
Salonica					83.8	28.8		SW			1		2					Light rain	
Valona			30.03	762.8	66.7	19.3		W			2		0						
Varna			30.02	762.5	60.8	16.0		SW			2		2						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.70	754.4	57	13.9		S	4	1.8			10s		S	0.05	1.3		
Chatham, N. B.			30.05	763.3	42	5.6	76	Calm	0	0		10c	0			0	0		
Charlottetown, P. E. Island			30.13	765.3	41	5.0	62	S	6	2.7		0	0			0	0		
Fort Garry, Manitoba			29.68	753.9	40	4.4	89	NW	7	3.1		8k	2ks	NW	NW	0	0		
Halifax, N. S.			30.04	763.0	42	5.6	83	SE	6	2.7		2cs	0			0	0		
Kingston, Ontario			29.71	754.6	49	9.4	76	S	13	5.8		8ck	2s	S	S	0.24	6.1		
Montreal, Quebec			29.68	753.9	49	9.4	89	S	22	9.8		5ck	5ks	S		0.05	1.3		
Ottawa, Ontario			29.64	752.8	48	8.9	70	E	4	1.8			10n			0.15	3.8	Threatening	
Parry Sound, Ontario			29.59	751.6	52	11.1	73	SW	12	5.4		2cs	2ks	SW	SW	0.27	6.9		
Port Dover, Ontario			29.72	754.9	50	10.0	93	SW	6	2.7		10k	0	SW		0.66	16.8		
Port Stanley, Ontario			29.71	754.6	47	8.3	96	SW	14	6.3			Fog			0.48	12.2	Foggy	
Quebec, Quebec			29.83	757.7	41	5.6	100	NE	3	1.3			10n		NE	0.40	10.2	Light rain	
Sangeen, Ontario			29.63	752.6	45	7.2	76	SW	11	4.9		8k	0	SW		0.14	3.5		
Stayner, Ontario																			
Sydney, C. B.			30.11	764.8	45	7.2	45	NE	5	2.2		0	0			0	0		
Toronto, Ontario			29.65	753.1	58	14.4	91	SW	9	4.0		8ck	8ks	SW		0.09	2.3		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.82	757.4	49	9.4	83	S	9	4.0			10s			0.19	4.8		
Alpena, Mich.			29.51	749.5	54	12.2	55	W	24	10.7		5c	0	W		0	0		
Atlantic City, N. J.			29.89	759.5	51	10.6	100	SW	2	0.9			Fog			0.01	0.3	Foggy	
Augusta, Ga.			30.04	763.0	72	22.2	76	S	2	0.9		0	0			0	0		
Baltimore, Md.			29.92	760.0	55	12.8	87	NE	2	0.9			10s			0	0		
Barnegat, N. J.			29.85	758.2	51	10.6	100	Calm	0	0			Fog			0	0	Foggy	
Benton, Montana			29.92	760.0	45	7.2	56	W	20	8.9		2k	5s	W	W	0	0		
Bismarck, Dakota			29.53	750.0	45	7.2	84	N	8	3.6			10s		N	0.01	0.3		
Boston, Mass.			29.98	761.5	45	7.2	100	E	4	1.8			Fog			0.10	2.5	Light rain	
Breckenridge, Minn.			29.69	751.8	37	2.8	90	Calm	0	0		2k	0			0.15	3.8		
Buffalo, N. Y.			29.69	754.1	48	8.9	86	SW	9	4.0		Haze	8s		W	0.22	5.6		
Burlington, Vt.			29.79	756.7	49	9.4	78	S	10	4.5			10s		S	0.30	7.6		
Cairo, Ill.			29.64	752.8	71	21.7	71	S	16	7.2			10s		S	0.28	7.1		
Cape Hatteras, N. C.			30.02	762.5	67	19.4	94	SW	20	8.9			Fog			0	0	Foggy	
Cape Henry, Va.			29.91	759.7	78	25.6	65	SW	16	7.2		Haze	Haze			0	0		
Cape May, N. J.			29.83	757.7	52	11.1	100	NW	4	1.8			Fog			0	0	Foggy	
Charleston, S. C.			30.09	764.3	75	23.9	85	SW	8	3.6		0	2s			0	0		
Cheyenne, W. T.			29.82	757.4	39	3.9	37	NW	20	8.9		0	0			0	0		
Chicago, Ill.			29.69	754.1	54	12.2	48	Calm	0	0			10s			0	0		
Cincinnati, Ohio			29.80	756.9	66	18.9	100	SW	8	3.6			10n			0.41	10.4	Light rain	
Cleveland, Ohio			29.71	754.6	65.7	18.7	76	S	11	4.9			10ks		W	0.15	3.8		
Colorado Springs, Col.			29.86	758.2	37	2.8	71	W	10	4.5		0	0			0	0		
Corsicana, Texas			29.70	754.4	74	23.3	81	S	15	6.7		10k	0	S		0	0		
Davenport, Iowa			29.72	755.0	51	10.6	72	NW	4	1.8			10s			0	0		
Denver, Col.			29.88	758.9	46	7.8	13	W	22	9.8		0	0			0	0		
Detroit, Mich.			29.65	753.1	55	12.8	70	SW	6	2.7			10s		Sw	0.32	8.1		
Dodge City, Kansas			29.50	749.3	54	12.2	67	NW	8	3.6		2c	0			0.81	20.6		
Dubuque, Iowa			29.75	755.6	49	9.4	71	S	4	1.8			10s			0	0		
Duluth, Minn.			29.55	750.6	45	7.2	76	W	4	1.8		7k	0	W		1.34	34.0		
Eastport, Me.			30.09	764.3	44	6.7	84	S	7	3.1			10s			0	0		
Erie, Penn.			29.68	753.9	67	19.4	68	S	16	7.2		7cs	3ks		SW	0.15	3.8	Rain	
Escanaba, Mich.			29.58	751.3	42	5.6	83	S	14	6.3			10ks			0	0		
Fort Gibson, I. T.			29.56	750.6	58	14.4	87	NW	24	10.7			10s		NW	0.96	24.4		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.66	753.1	46	7.8	69	Calm	0	0		0	0			0	0		
Galveston, Texas			29.83	757.7	75	23.9	85	S	12	5.4		0	5s		S	0	0		
Grand Haven, Mich.			29.67	753.6	48	8.9	71	NW	7	3.1		8cs	0	W		0.07	1.8		
Indianapolis, Ind.			29.68	753.9	62	16.7	68	SE	4	1.8			10n		SW	1.65	67.3	Light rain	
Indianola, Texas			29.81	757.2	75	23.9	85	S	12	5.4			10s		S	0	0		
Jacksonville, Fla.			30.08	764.0	79	26.1	74	SE	8	3.6		4c	0			0	0		
Keokuk, Iowa			29.68	753.9	55	12.8	80	E	2	0.9			10s		E	0	0		
Key West, Fla.			30.08	764.0	80.9	27.2	67	SE	12	5.4		0	2ks			0	0		
Kittyhawk, N. C.			29.98	761.5	70	21.1	90	SW	16	7.2		5c	Haze			0	0		
Knoxville, Tenn.			29.92	760.0	72	22.2	71	S	12	5.4		10k	0	SW		0	0		
La Crosse, Wis.			29.67	753.6	50	10.0	79	S	9	4.0			10s		S	0.10	2.5		
Leavenworth, Kan.			29.66	753.4	52	11.1	79	N	10	4.5			10n		N	0.20	5.1	Light rain	
Lexington, Ky.			29.83	757.7	70	21.1	48	SE	8	3.6			10s			0	0		
Long Branch, N. J.			29.9[illegible]	759.4	49	9.[illegible]	100	NW	12	5.4			Fog			0	0	Foggy	
Louisville, Ky.			29.77	756.1	73	22.8	67	SE	6	2.7			10n			0.85	21.6	Light rain	
Lynchburg, Va.			29.89	759.2	80	26.7	48	S	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.49	749.0	45	7.2	68	SW	8	3.6			10s		SW	0	0		
Memphis, Tenn.			29.77	756.1	73	22.8	71	S	10	4.5		5cs	5ks		SW	0	0		
Milwaukee, Wisconsin			29.68	753.9	49	9.4	77	W	6	2.7			10ks		W	0	0		
Mobile, Ala.			30.00	762.0	78	25.6	82	S	8	3.6		2k	0	SW		0	0		
Montgomery, Ala.			30.02	762.5	74.5	23.6	79	S	5	2.2		2k	0	SW		0	0		
Morgantown, W. Virginia			29.78	756.4	75	24.9	56	SW	6	2.7		10c	0	SW		0	0		
Mt. Washington, N. [illegible]			30.07	763.8	40	4.4	100	W	24	10.7			Fog			0.36	9.1		
Nashville, Tenn.			29.81	757.2	74	23.3	68	S	12	5.4		5ck	2s	SW		0	0		
New Haven, Conn.			29.92	760.0	48	8.9	92	NE	10	4.5			Fog			0.21	5.3	Misty	
New London, Conn.			29.94	760.5	49	9.4	96	NE	3	1.3			Fog			0.25	6.3	Foggy	
New Orleans, La.			29.93	760.2	75	23.9	86	SE	8	3.6		5k	0	S		0	0		
Newport, R. I.																			
New York, N. Y.			29.92	760.0	48	8.9	100	N	8	3.6			Fog			0.04	1.0	Foggy	
Norfolk, Va.			29.93	760.2	76	24.4	69	SW	12	5.4		0	0			0	0		
North Platte, Neb.			29.34	745.2	47	8.3	77	W	7	3.1		5ck	5ks		W	0	0		
Omaha, Neb.			29.66	753.4	53	11.7	73	SW	4	1.8		Haze	2s			0.04	1.0		
Oswego, N. Y.			29.70	754.1	59	15.0	73	SSE	9	4.0		4cs	4s	W		0.04	1.0		
Peck's Beach			29.87	758.7	52	11.1	100	Calm	0	0			Fog			0	0		
Pembina, D. T.			29.64	752.8	40	4.4	86	NW	12	5.4		5c	5s			0	0		
Philadelphia, Penn.			29.91	759.7	50	10.0	93	NW	1	0.4		Haze	Haze			0	0		
Pike's Peak, C. T.			29.73	755.1	-5	—20.6	100	NW	28	12.5		5k	0	W		0.19	4.8		
Pittsburgh, Penn.			29.79	756.7	65	18.3	73	SW	9	4.0			10s		NW	0.30	7.6		
Port Huron, Mich.			29.61	752.1	59	15.0	64	SW	12	5.4			10s			0.08	2.0		
Portland, Maine			30.05	763.3	44	6.7	84	S	2	0.9			10n			0.30	7.6	Light rain	
Portland, Or.			30.13	765.3	42	5.6	83	SW	2	0.9			10s			0	0		
Punta Rassa, Fla.			30.12	765.0	76.5	24.7	81	E	8	3.6		Haze	Sm'e			0	0		
Rochester, N. Y.			29.65	753.1	68	20.0	74	SW	16	7.2			10s		SW	0.15	3.8		
Salt Lake City, Utah			30.04	763.0	44	6.7	77	Calm	0	0			10s			0.39	9.9		
Sandy Hook, N. J.			29.89	759.2	47	8.3	100		9	4.0			Fog			0.01	0.3	Foggy	
San Diego, Cal.			29.93	760.2	56	13.3	87	NW	4	1.8		0	0			0	0		
San Francisco, Cal.			30.16	766.1	50	10.0	79	W	16	7.2		0	0			0	0		
Santa Fe, N. M.			29.92	760.0	41	5.0	12	NW	8	3.6		0	0			0	0		
Savannah, Georgia			30.09	764.3	79	26.1	65	SW	6	2.7		2ck	Sm'e			0	0		
Shreveport, La.			29.76	759.9	74	23.3	76	S	13	5.8		8k	0	S		0	0		
Springfield, Mass.			29.94	760.5	45	7.2	92	NE	4	1.8			10n			0.04	1.0	Fog	
St. Louis, Mo.			29.57	751.1	54	12.2	86	NE	24	10.7			10n			0.56	14.2	Heavy rain	
St. Marks, Fla.			30.07	763.8	73	22.8	90	S	4	1.8		0	0			0	0		
St. Paul, Minn.			29.57	751.1	39	3.9	91	Calm	0	0			Fog			0.13	3.3	Foggy	
St. Paul's Island, Alaska			29.46	748.3	31	— 0.6	89	N	23	10.3			10s			0.35	8.9		
Squan Beach, N. J.			29.89	759.2	49	9.4	92	NW	2	0.9			Fog			0	0	Foggy	
Toledo, Ohio			29.70	754.4	64	17.8	67	S	8	3.6		5k	5s	SE	S	0.59	15.0		
Tybee Island, Ga.			30.11	764.8	74	23.3	56	Calm	0	0		2c	2ks	SW		0	0		
Vicksburg, Miss.			29.91	759.7	73	22.8	76	SW	9	4.0		0	8s		Sw	0	0		
Virginia City, Mon.			29.72	754.9	29	— 1.7	77	SW	8	3.6		0	0			0.36	9.1		
Washington, D. C.			29.92	760.0	53	11.7	90	E	4	1.8			10s		NE	0	0		
Wilmington, N. C.			30.15	765.8	76	24.4	69	SW	10	2.5		0	0			0	0		
Wood's Hole, Mass.			29.94	760.5	46	7.8	100	SE	13	5.8			10n			0.57	14.5	Light rain	
Wytheville, Va.			29.71	754.6	65	18.3	73	S	1	0.4		5c	0	W		0	0		
Yankton, D. T.			29.68	753.9	47	8.3	77	Calm	0	0			10s		NW	0.10	2.5		

NOTE.—The original give the cloudiness a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764 3	85	29.4	79	E	8	3.6		2ck	2ks	SE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	78	25.6	74	E				0	5k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.80	757.9	77	25.0	78	E	8.4	3.8		2c	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.22	767.6	78	25.6	69	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.29	769.4			77	25.0	72	E	2	0.9		2cs	5k	E		0.01	0.3		W. S. Cameron.
Santiago de Cuba, W. I.			29.87	758.7	76	24.4	69	NE	8.4	3.8		4ck	2s	NE		0	0		Robert Mason.
St. Georges, Bermudas			30.35	770.9	65	18.3	68	N	4.7	2.1		0	0			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.8	62	16.7	73	NE			1	0	2k			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.63	752 6	29	— 1.7	89	N	12	5.4			10cs			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.07	763 8	62	16.7	88	N	0.5	0.2		2c	0	N		0.03	0.8		C. Partridge.
St. John's, Newfoundland			30.05	763.3	40	4.4	80	NE				Haze	0			0	0		John Delaney.
St. John's, Porto Rico, W. I																			Leon M. Acuña.
Elyria, Ohio			29.71	754.6	64	17.8	78	S	8	3.6			10n			0.75	19.1		H. M. Redington.
Indianola, Iowa	28.77	730.7			56	13.3	73	SE				Haze	1s			0	0		G. C. Carpenter.
[U. S. Marine Series.	**True course towards.**	**Hourly rate in knots.**														**State of ocean.**	**Direction of swell from—**		
Schooner Addie Fuller N. 24° 58', W. 58° 37'	S ½W	2	29.95	760.7	80	26.7	78	NW			2		k		SE	Long swell.	NE	Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 10, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.07	763.8	67.8	19.9		NE			5		6			0	0		Charnot.
Algiers			29.99	761.7	68.0	20.0	81	NW			2		9			0	0	Foggy	Peter.
La Calle			30.00	761.9	73.6	23.1		NW			2		2			0	0		Kuntz.
Tunis			29.98	761.6	89.6	32.0	24	SE			3		0			0	0	Sirocco	Jacques.
Sfax			30.06	763.5	78.8	26.0	54	SE			3		1			0	0		Chauvey.
Saida			30.07	763.7	82.6	28.1		NNE			2		6			0	0	Threatening	Grosjean.
Tebessa			29.99	761.7	84.4	29.1		S			3		2			0	0		Colin.
Gerlville			30.08	763.9	73.6	23.1		NNW			2		4			0	0		Bernadach.
Laghouat			30.02	762.5	82.4	28.0	27	NE			3		7			0	0		Poinsignon.
Biskra			30.01	762.2	91.6	33.1		E			2		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.06	763.4	75.6	24.2	34	SW			1		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Eperies			30.09	764.3	70.3	21.3	50	NE			2		5			0	0		I. R. Observatory.
Gratz			30.13	765.3	68.2	20.1	58	SE			1		6			0	0		Julius Mikolik.
Hermannstadt			30.00	762.0	73.4	23.0	52	SE			2		5			0	0		Andreas Rospini.
Kremsmünster			30.10	764.5	66.0	18.9	42	ENE			4		4			0	0		Prof. Reissenberger.
Lemberg			29.93	760.3	70.2	21.2	58	ENE			3		3			0	0		Prof. C. Wagner.
Nyiregyhaza			30.11	764.9	70.5	21.4	45	S			2		4			0	0		Dr. T. Stanecki.
Pola			30.14	765.5	71.6	22.0	58	Calm			0		1			0	0		Habzsuda Daniel.
Szegedin			30.08	764.0	70.9	21.6	57	SW			2		1ck			0	0		I. R. Hydrographic Office
Trieste			30.10	764.4	69.1	20.6	49	S			1		3			0.343	8.70		Karl Stancel.
Vienna			30.08	764.1	71.8	22.1	55	NW			1		0			0	0		Prof. V. Farolfi.
			30.01	762.2	73.4	23.0	46	SSE			2		1			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.96	761.0			58.0	14.8	70	WNW			1		10ks		WNW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.00	762.0	57.0	13.9		WNW	14	6.3			2			0.060	1.5		William Boswell.
Annanhill																			
Ardrossan			30.12	765.0	55	12.8		W			3		5c						William McNeil.
Armagh Observatory			30.19	766.8	55.9	13.3		W	8	3.6			8						S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.21	767.3	52.6	11.4		W			4		3						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.23	767.8	56	13.3		WSW			1		7						J. Dreyer, for L'd Rosse.
Bradford			30.13	765.3	58.5	14.7		W			4		5						J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.05	763.3	81.6	27.6		NE			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			29.18	741.1	60.0	15.6		W			1		3						H. Todd.
Cape Town, (Cape Colony)			30.03	762.7	70.0	21.1		NW			1		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.02	762.5			72.4	22.4	37	SE	4	1.8			7						The Staff, for E. J. Stone.
Cardington			30.19	766.8	61.0	16.1		NW					4						John McLaren.
Carlisle			30.13	765.3	54.0	12.2		W					8			0.10	2.5		T Bell, for J. Cartmell.
Chatham, School M. E.			30.14	765.5	60.7	15.9		WNW			3		7						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.83	757.7	84.3	29.1		SW			5		4						Sgt. W. F. Hopkins
Dartmoor			30.35	770.9	49.5	9.7		SW			2		5						R. E. Power.
Donaghadee			30.16	766.1	56	13.3		NW			3		3						J. Mac Gowan, Jr.
Dover			30.19	766.8	52	11.1		Calm			0		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.18	766.6	57.9	14.4		W	4.8	2.1			5						Thomas Mackereth.
Falmouth Observatory			30.33	770.4	56.0	13.3		WNW	16	7.2			5						The Staff.
Fort Napier, (Natal)			30.10	764.5	62.5	16.9		E			2		4						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	85	29.4		N					4						
Galway, Queen's College			30.18	766.6	64	17.8		SW			4		3						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.00	762.0	66.5	19.2		SW			5		0						Sergt. E. G. Baker.
Glasgow Observatory			30.08	764.0	53.8	12.1		NW			5		7					Squally	James Gray.
Great Yarmouth			30.14	765.5	61	16.1		NW			3		5						G. T. Watson.
Greenwich Royal Obs.			30.19	766.8	54.9	12.7		W			4		4						The Staff, for G. B. Airy.
Guernsey			30.29	769.4	57	13.9		WNW			2		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.11	764.8	55.5	13.1		NNW					5						F. J. Rice, for L. J. Croft.
Halifax, (Nova Scotia)			29.7	754.9	46.0	8.1		S			1		10					Hazy	Corp'l J. Y. Thompson.
Helston			30.27	768.8	60	15.6		NW			4		4						Dr. W. B. Moyle.
Holyhead			30.25	768.3	55	12.8		WSW			3		1						John Tilston.
Hull Park																			
Kew Observatory			30.19	766.8	61.0	16.1		WNW	13	5.8			5						The Staff.
Kingstown			30.27	768.8	55	12.8		WNW			3		6						George Mitchell.
Lampeter																			
Leicester Museum			30.20	767.1	58.0	14.4		W			4		8						William J. Harrison
Llandudno			30.23	767.8	58.8	14.9		NW					9						Dr. James Nicol.
Malta, (Mediterranean)			30.02	762.5	70.2	21.2		NE			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.24	768.1	60	15.6		SW			2		8						William D. Penny.
Nassau, (Bahamas)			30.18	766.6	78.9	26.1		E			2		7						Surg.-Maj. J. Jameson.
North Shields			30.09	764.2	58	14.4		W			5		4						John Wm. Irvine.
Nottingham			30.17	766.3	59.7	15.4		NW			4		7kd		WNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.19	766.8	59.1	15.1		W			5		5						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.18	766.6	62	16.7		NW			1		7						J. Lucas, for R. Main.
Plymouth			30.23	769.1	62	16.7		NW			3		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.34	770.6	54	12.2		WSW			4		5						W. Kennedy.
Saint Ann's Head			30.28	769.1	53	11.7		WNW			1		0						John C. Walker.
Saint Helier, (Jersey)			29.29	769.4	61.0	16.0		N			4		5						A. P. Amy.
Sandwick Manse (Orkneys			29.92	760.0	50.1	10.1		W	30	13.4			0						Rev. C. Clouston.
Scarborough			30.09	764.3	60.2	15.7		WNW			2		7						F. Shaw.
Scutari, (Turkey)			30.02	762.5	64.8	18.2		NNE			1		2						Sergt. W. H. Lyne.
Sheffield			30.14	765.5	59.7	15.4		WNW			3		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.12	765.0	60.9	16.1		SW			5		6			0.100	2.54		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.13	765.3	60.2	15.7		WNW			1		7						Rev. C. J. Steward.
Stonyhurst Observatory			29.18	766.6	53.3	11.8		W			3		7					Threatening	The Staff.
Stornoway, Lewis C. (Hebr.)			29.98	761.5	53	11.7		W			5		10					Showery	John Smith.
Strathfield Turgiss			30.23	767.8	60.0	15.6		NW			1		0						Rev Charles H. Griffith.
Streatley Vicarage			30.23	767.8	63.1	17.3		WNW			6		5						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.95	760.7	54	12.2		WNW			4		5						John Trotter.
Truro Royal Institution			30.27	768.8	60	15.6		NW			6		5						W. Newcombe.
Valencia Observatory			30.27	768.8	55.0	12.8		S	16	7.2			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.21	767.3	60.6	15.9		WSW			4		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.02	762.6	57.4	14.1	76	SW			2		10						
Fanöe			30.01	762.2	53.1	11.6	88	WSW			4		7						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.47	748.6	40.6	4.8	90	W			6		8						
Thorshavn, (Faröe)			29.71	754.5	48.2	9.0	62				6–7		5					Raining	
Vestervig			29.96	761.0	52.9	11.6	91	SW			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.95	760.7	76.8	21.9	60						1ks						Normal School.
Alençon			30.24	768.2	62.6	17.0	58	NW			3		8n			0	0		Normal School.
Amiens			30.21	767.4	65.8	18.8	70	W			8		5		W	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.25	768.4	61.3	16.3	59	WNW			2		8		WNW	0.012	0.3		Normal School.
Besançon			30.21	767.2	59.9	15.5	84	N			2		8		N	0	0		Normal School.
Bourg en Bresse			30.19	766.8	63.1	17.3	80	NW			2		10		SE	0	0		Normal School.
Bourges			30.20	767.0	55.4	13.0	90	WNW			2		10		S	0.776	19.7		Normal School.
Brest			30.28	769.0	57.7	14.3	55	NNW			3		2k		N	0	0		Naval Observatory.
Caen			30.25	768.4	60.4	15.8	71	W			2		10			0	0		Normal School.
Chartres			30.20	767.0	57.6	14.2		N			1		10			0.091	2.3		Normal School.
Chaumont			30.01	762.2	57.7	14.3		NW			2		8n		NW	0.563	14.3		Normal School.
Commercy			30.23	767.8	60.8	16.0	67	NW			4		8		E	0.847	21.50		Normal School.
Le Mans			30.18	766.5	62.2	16.8	72	N			2		8		N	0	0		Normal School.
Lons-Le Saulnier			30.15	765.9	62.6	17.0	87	N			4		8		E	0.449	11.4		Normal School.
Mâcon																			
Mirecourt			30.27	768.9	59.2	15.1	82	SW			2		10		S	0.197	5.0		Normal School.
Orleans			30.34	770.6	62.6	17.0	80	WSW			4		5		WSW	0	0		Normal School.
Paris Observatory			30.24	768.1	57.6	14.2		NW			2		10		NNW	0.005	0.14	Mist	National Observatory.
Parthenay			30.21	767.2	62.6	17.0	55	NW			2		5		S	0.098	2.5		Normal School.
La Roche sur Yon			30.27	768.8	68.[illegible]	20.1	49	NNW			6		8			0	0		Normal School.
Rouen			30.42	772.6	62.2	16.8	66	W			2		1		W	0	0		Normal School.
Saint Lô			30.33	770.3	64.8	18.2	96	NW			3		5		W	0	0		Normal School.
Villefranche			30.17	766.1	65.8	18.8	77	NNE			1		10		NW	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.96	634.0			46.9	8.3	86	NNW	24.[illegible]	10.8			5		SSE	0	0		—. Falgnère.
Montsouris Observatory			30.23	767.8	57.4	14.1	72	NW			2		10kn		NW	0.008	0.2		Marié Davy.
Perpignan	30.00	762.0			65.3	18.5	50	WNW	16.8	7.50			1		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.23	767.9	58.5	14.7	72	NW			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.24	768.0	64.4	18.0	56	N			1		10		NNE	0.047	1.2		C. Marquet.
Versailles, (near Paris)			30.23	767.9	58.6	14.8	70	NNW			2		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			30.01	762.3	60.4	15.8	87	SE	19.9	8.9			Fog			0 0	0 0	Drizzling	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different gauges.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	Winds. Direction. From—	Velocity. Miles per hour.	Meters per second.	Force. 0—10.	Clouds. Amount. Upper 0—10.	Low'r 0—10.	Direction. Upper From—	Lower. From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.85	758.1	70.7	21.5	58	S			3		6			0.315	8.0		Prof. Hoh.
Berlin			30.05	763.3	70.7	21.5	68	SW			4		8			0.067	1.7	Thunder-storm	Prof. Arndt.
Breslau			30.10	764.6	72.7	22.6	42	S			4		5			0	0		Dr. P. Neugebauer.
Carlsruhe			30.08	764.0	63.1	17.3	75	S			2		10			0	0	Showery	A. Senz.
Cassel			30.[illegible]4	763.0	60.3	15.7	76	NW			2		8			0.623	15.82	Clearing	Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichsafen			30.05	763.3	72.	22.5	59	W					6			0	0		M. Wilhelm.
Hamburg			30.14	765.5	56.3	13.5	83	SW			3		10n			0.144	3.68	Rainy	W. Reinert.
Kiel			30.04	762.9	58.5	14.7	76	SW			2		10			0.066	1.69		Prof. G. Karsten.
Königsberg			30.06	763.4	71.6	22.0	49	S			1					0.001	0.02		Prof. E. Luther.
Köslin			30.21	767.4	52.3	11.3		N			2		10			0.138	3.5		Dr. Tägert.
Leipsic			29.96	760.9	75.9	24.4	55	NNE			1		8			0.134	3.4	Thunder-storm	Prof. Bruhns.
Münster			30.11	764.7	62.6	17.0	61	NE			2		4			0	0		Prof. E. Heis.
Posen			30.00	761.9	75.4	24.1	41	S			8		5			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.10	764.5	61.0	16.1	81	N					10			0.523	13.27		Hartwig and Tülk.
Stuttgart			30.04	763.1	63.0	17.2	81	W					10			0.016	0.4	Showery	Mr. Würth.
Trier			30.07	763.7	73.6	23.1	38	SE			3		3			0	0		Dr. Rosenbalg.
Treves, (Trier)			30.08	764.0	63.5	17.5	61	E			3		10			0.011	0.27	Thunder-showers	Prof. Flesch.
Wustrow			30.08	764.1	52.0	11.1	78	WNW			3					0.016	0.4		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. 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. Upper 0—10.	Low'r 0—10.	Direction. Upper From—	Lower. From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.06	763.4	74.7	23.6	60	ENE	0	0			7	SE		0	0		
Mondovi			30.05	763.2	71.8	22.1	40	NNW			4		1	SW		0	0		
Genoa			30.06	763.4	72.0	22.2	48	SW	0.064	0.6			0			0	0		
Savia			30.04	762.9	75.7	24.3	54	NE			4		1	NE		0	0		
Verona			30.02	762.5	81.5	27.5	51	E			2		2			0	0		
Padua			30.05	763.2	73.6	23.1	51	ESE	0.130	3.3			2			0	0		
Parma																			
Bologna			30.07	763.7	72.7	22.6	17	SE			2		0			0	0		
Leghorn			30.07	763.6	70.5	21.4	64	SW	0.055	1.4			1			0	0		
Urbino			30.08	764.0	65.8	18.8	64	SE			2		0			0	0		
Ancona			30.07	763.6	71.6	22.0	48	SE			4		1			0	0		
Siena			30.01	762.2	79.3	26.3	34	SE	0	0			1			0	0		
Rome			30.07	763.7	70.9	21.6	40	SW	0.122	3.1			1			0	0		
Naples, O. U.			30.05	763.2	82.6	28.1	43	SW			2		2			0	0		
Lecce			30.07	763.7	68.9	20.5	43	ESE	0.295	7.5			0			0	0		
Cosenza			30.06	763.4	75.4	24.1	40	NW			2		3			0	0		
Catania, (Sicily)																			
Palermo			30.00	762.1	73.4	23.0	45	NE			2		1			0	0		
Sub-Series.																			
Naples, S. R.			30.00	761.9	72.3	22.4	41	NE			4		0			0	0		
			30.10	764.5	81.1	27.3	43	SE			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.20	767.0	55.0	12.8		WNW			4								
Groningen			30.03	762.8	61.7	16.5		WNW			2								
Helder			30.11	764.8	55.6	13.1		WSW			2								
Utrecht			30.09	764.3	60.6	15.9	78	W			2		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.84	757.8	50.0	10.0	87	SSW	17.0	7.6			10			0.209	5.3	Rainy & foggy	
Christiania			29.84	757.8	62.6	17.0	5	S	10.1	4.5			6			0.236	6.0		
Tromsö			29.90	759.4	46.4	8.0	96	Calm			0		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.77	756.1			66.0	18.9	30	N	37.4	16.7			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.08	763.9	72.3	22.4	47	S	9	4			4						Astronomical Obs.
Wilna			30.12	765.1	69.8	21.0	51	S	4	2			10						Astronomical Obs.
Dorpat			30.08	763.9	65.8	18.8	58	SW	7	3			9						Physical Cabinet.
St. Petersburg			30.08	764.1	56.1	13.4	82	SSE	2	1			10					Thunder storm.	Central Physical Obs.
Kuopio																			
Kieff			30.23	767.8	67.3	19.6	39	[illegible]	7	3			6						Physical Cabinet.
Nikolaiev			30.11	764.9	63.9	17.7	57	NE	20	9			7						
Kertch			30.00	762.1	55.9	13.3	87	ENE	10	4.5			9						Lagorio.
Moscow			30.32	770.1	67.3	19.6	34	SSW	4	2			3						Meteorological Obs.
Lugan			30.09	764.3	61.9	16.6	40	ESE	25	11			9						Meteorological Obs.
Archangel			30.31	769.9	44.6	7.0	71	WNW	4	2			0						Ogorodnikof.
Tiflis			29.80	757.0	81.7	27.6	35	Calm	0	0			5						Physical Obs.
Astrakhan			30.27	768.8	57.6	14.2	52	ENE	10	4.5			10						Sebastianof.
Kasan			30.30	769.7	62.5	17.1	38	NE	8	3.5			3						Physical Cabinet.
Orenburg			30.36	771.1	57.6	14.2	36	SE	8	3.5			0						Tschernischef.
Ekaterinburg			30.23	767.9	41.9	5.5	29	W	10	4.5			0						Meteorological Obs.
Kasaly			30.26	768.5	60.1	15.6	81	N	20	9			0						Bobrof.
Tashkend			30.21	767.3	71.2	21.8	33	Calm	0	0			0						Michelson.
Barnaul			30.15	765.9	27.5	− 2.5	79	NNW	4	2			6					Snowing	Meteorological Obs.
Yeniseisk			29.46	748.2	35.8	2.1	93	N	13	6			8						Marks.
Irkutsk			29.61	752.1	47.8	8.8	66	Calm	0	0			10					Raining	Usolzef.
Oorga			29.57	751.2	37.0	2.8	100	W	10	4.5			10						Mossin.
Peking, (China)			29.95	760.6	68.9	20.5	51	SW	8	3.5			4						Physical Observatory.
Nertchinsk			29.62	752.3	57.7	14.3	37	SE	10	4.5			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					34.9	1.6	80	W	4	2			0						Kurd.kof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.10	764.5	55.2	12.9	77	NE	29.8	13.33		0	9			0.327	8.3	Raining	Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.3	59.4	15.2	51	E			1		8			0.04	1.0		
Hernosand			29.93	760.2	48.6	9.2	79	E			1		10			0	0		
Stockholm			29.84	758.0	50.4	10.2	87	SW			3		10			0.00	0.1	Foggy	
Wisby			29.96	761.0	56.8	13.8	80	W			3		6			0.24	6.1		
Sub-Series.																			
Upsala			29.87	758.6	49.5	9.7	98	Calm			0		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.67	728.1			74.3	23.5	42	WSW			2		8			0	0		The Observatory.
Zurich	28.45	722.5			70.9	21.6	63	W			2		6			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.3mm.; Thermometer, +7°.9 C.; Relative Humidity, —16 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Beirut, (Syria)			29.91	759.6	69.4	20.8	71	N			2		5						
Constantinople			30.06	763.5	59.5	15.3	66	NNE	13	6			2		NE	0	0		
Fao, (Persian Gulf)			29.87	758.8	85.6	29.8		SE			3		0						
Salonica					70.9	21.6		SW			1		2						
Valona			29.99	761.8	70.3	21.3		W			3		2						
Varna			30.04	763.0	60.8	16.0		NE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.57	751.1	49	9.4		NW	5	2.2			10n		NW	1.39	35.3		
Chatham, N. B.			29.58	751.3	45	7.2	95	SW	4	1.8			Haze			0	0		
Charlottetown, P. E. Island			29.65	753.1	47	8.3	86	S	13	5.8			10s			0	0		
Fort Garry, Manitoba			29.51	757.2	37	2.8	95	NE	6	2.7		0	2s			0	0		
Halifax, N. S.			29.65	753.1	46	7.8	94	S	8	3.6			Fog			0.13	3.3	Foggy	
Kingston, Ontario			29.60	751.8	51	10.6	82	W	8	3.6			10ks			0.80	20.3		
Montreal, Quebec			29.32	744.7	60	15.6	94	SW	15	6.7			10n			1.03	26.2	Light rain	
Ottawa, Ontario			29.42	747.3	50	10.0	61	NW	8	3.6		2c	8n		NW	0.37	9.4	Light rain	
Parry Sound, Ontario			29.67	753.6	42	5.6	83	W	10	4.5		2k	2ks	W	N	0.03	0.8		
Port Dover, Ontario			29.75	755.6	47	8.3	77	W	12	5.4		0	0			0.67	17.0		
Port Stanley, Ontario			29.78	756.4	47	8.3	85	NW	10	4.5			8ks		NW	0.30	7.6	Clearing	
Quebec, Quebec			29.34	745.2	48	8.9	100	Calm	0	0			10n		W	0.64	16.3	Light rain	
Saugeen, Ontario			29.93	760.2	38	3.3	72	W	1	0.4			10s			0.22	5.6		
Stayner, Ontario			29.69	754.1	43	6.1	77	NW	11	4.9			10n		NW	0.47	11.9	Threatening	
Sydney, C. B.			29.82	757.4	41	5.0	95	SW	9	4.0			10n		SW	0	0		
Toronto, Ontario			29.70	754.4	47	8.3	70	NW	21	9.4		2ck	8ks	NW	NW	0.90	22.9		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.46	748.3	64	17.8	83	SE	4	1.8		10k	0	S		0	0		
Alpena, Mich.			29.68	753.9	48	8.9	62	NW	12	5.4		2k	5ks	NW	NW	0.01	0.3		
Atlantic City, N. J.			29.69	754.1	57	13.9	84	SW	15	6.7		2c	Haze	SW		0	0		
Augusta, Ga.			29.94	760.5	75	23.9	68	SW	9	4.0		8k	0	W		0	0		
Baltimore, Md.			29.69	754.1	72	22.2	54	W	4	1.8			10n		W	0	0	Light rain.	
Barnegat, N. J.			29.66	753.4	63	17.2	78	S	10	4.5		0	0			0	0		
Benton, Montana			29.94	760.5	42	5.6	91	NW	2	0.9			10s			0.07	1.8		
Bismarck, Dakota			29.75	755.6	45	7.2	61	W	2	0.9		0	0			0.02	0.5		
Boston, Mass.			29.54	750.3	61	16.1	82	S	6	2.7		2c	Haze			0.05	1.3		
Breckenridge, Minn.			29.82	757.4	42	5.6	83	SW	2	0.9		2k	0	NW		0	0		
Buffalo, N. Y.			29.70	754.4	39	3.9	91	SW	8	3.6		0	8ks		W	0.63	16.0		
Burlington, Vt.			29.38	746.2	61	16.1	77	S	8	3.6			10s			0.21	5.3		
Cairo, Ill.			30.09	764.3	54	12.2	79	Calm	0	0		2k	0	S		0.42	10.7		
Cape Hatteras, N. C.			29.96	761.0	71	21.7	90	SW	28	12.5		0	2s		SW	0	0		
Cape Henry, Va.			29.80	756.9	81	27.2	55	SW	19	8.5		Haze	0			0	0		
Cape May, N. J.			29.70	754.4	58	14.[illegible]	81	S	12	5.4		2c	0	W		0	0		
Charleston, S. C.			30.01	762.2	75	23.9	85	SW	12	5.4		2c	Haze	S		0	0		
Cheyenne, W. T.			29.86	758.4	41	5.0	35	S	8	3.6		0	2s			0	0		
Chicago, Ill.			29.79	756.7	52	11.1	73	W	8	3.6		0	0			0.12	3.0		
Cincinnati, Ohio			29.95	760.7	55	12.8	68	W	2	0.9		0	0			1.00	25.4		
Cleveland, Ohio			29.80	756.9	51.0	10.6	79	W	11	4.9		5k	0	W		0.93	23.6		
Colorado Springs, Col.			29.95	760.7	46	7.8	33	W	4	1.8		0	0			0	0		
Corsicana, Texas			30.13	765.3	58	14.4	76	NE	2	0.9		0	0			0.07	1.8		
Davenport, Iowa			29.89	759.2	49	9.4	85	W	8	3.6		2ck	2s		W	0.09	2.3		
Denver, Col.			29.91	759.7	48	8.9	23	S	8	3.6		0	0			0	0		
Detroit, Mich.			29.78	756.4	49	9.4	85	SW	8	3.6		2k	8s		SW	2.12	53.8		
Dodge City, Kansas			29.76	755.9	76	24.4	69	S	8	3.6		0	0			0	0		
Dubuque, Iowa			29.88	758.9	52	11.1	66	NW	4	1.8		5c	0	NW		0.02	0.5		
Duluth, Minn.			29.81	757.2	48	8.9	48	NW	16	7.2		7ck	0	NW		0	0		
Eastport, Me.			29.59	751.6	41	5.0	100	S	12	5.4			Fog			0.05	1.3	Foggy	
Erie, Penn.			29.76	755.9	47	8.3	77	SW	12	5.4		5ck	Haze			1.22	31.9		
Escanaba, Mich.			29.76	755.9	47	8.3	77	W	6	2.7		Haze	2s			0	0		
Fort Gibson, I. T.			30.06	763.5	61	16.1	74	E	1	0.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.88	758.9	44	6.7	67	Calm	0	0		8cs	0	W		0.03	0.8		
Galveston, Texas			30.08	764.0	72	22.2	71	NE	12	5.4		5ck	0	SW		0.02	0.5		
Grand Haven, Mich.			29.77	756.1	44	6.7	88	W	5	2.2			10s		NW	0.42	10.7		
Indianapolis, Ind.			29.89	759.2	56	13.3	68	SW	7	3.1		2cs	0	W		0.22	5.6		
Indianola, Texas			30.09	764.3	73	22.8	84	NE	26	11.6			10s		NE	0.13	3.3		
Jacksonville, Fla.			30.09	764.3	79	26.1	74	SW	8	3.6		0	4ks		SW	0	0		
Keokuk, Iowa			29.90	759.4	54	12.2	73	W	5	2.2		0	0			0.56	14.2		
Key West, Fla.			30.10	764.5	81.3	27.4	59	SE	10	4.5		Haze	2s			0.01	0.3		
Kittyhawk, N. C.			29.89	759.2	74	23.3	81	SW	24	10.7		0	0			0	0		
Knoxville, Tenn.			29.99	761.7	54	12.2	73	N	14	6.3			8ks		W	0.29	7.4		
La Crosse, Wis.			29.86	758.4	51	10.6	65	SW	1	0.4		2c	0			0.01	0.3		
Leavenworth, Kan.			29.84	757.9	55	12.8	68	NW	5	2.2		0	0			0.22	5.6		
Lexington, Ky.			29.98	761.5	60	15.6	60	W	12	5.4		8k	0	W		0.92	23.4		
Long Branch, N. J.			29.63	752.6	73	22.8	67	SW	15	6.7		Haze	Haze			0	0		
Louisville, Ky.			29.98	761.5	60	15.6	55	S	6	2.7		5k	0	SW		0.37	9.4		
Lynchburg, Va.			29.79	756.7	67	19.4	56	SW	4	1.8			10s		W	0.03	0.8		
Malone, N. Y.																			
Marquette, Mich.			29.75	755.6	50	10.0	58	NW	12	5.4		5c	0			0	0		
Memphis, Tenn.			30.13	763.3	57	13.9	87	NW	3	1.3		0	0			0	0		
Milwaukee, Wisconsin			29.81	757.2	48	8.9	85	N	7	3.1		8k	0	N		0.02	0.5		
Mobile, Ala.			30.05	763.3	76	24.4	81	W	2	0.9			10s		W	0	0		
Montgomery, Ala.			30.04	763.0	66	18.9	79	N	15	6.7		10cs	0	SW		0.28	7.1		
Morgantown, W. Virginia			29.85	758.2	53	11.7	86	NW	12	5.4			10s			0.18	4.6	Clearing	
Mt. Washington, N. H.			29.77	756.1	47	8.3	92	W	62	27.7		5s	8s	NW	S	0	0		
Nashville, Tenn.			30.08	764.0	59	15.0	65	W	5	2.2		0	0			0.68	17.3		
New Haven, Conn.			29.52	749.8	62	16.7	77	S	6	2.7		2c	Sm'e	NW		0	0		
New London, Conn.			29.62	752.3	61	16.1	89	SW	15	6.7		2c	0	SW		0.02	0.5		
New Orleans, La.			30.08	764.0	72	22.2	89	N	10	4.5			10n		N	0.01	0.3	Light rain.	
Newport, R. I.																			
New York, N. Y.			29.62	752.3	58	14.4	79	SW	9	4.0		2ck	Fog	W		0	0		
Norfolk, Va.			29.81	757.2	79	26.1	58	SW	18	8.0		0	0			0	0		
North Platte, Neb.			29.65	753.6	46	7.8	84	Calm	0	0		2c	2ks	W	NW	0.05	1.3		
Omaha, Neb.			29.96	761.0	51	10.6	78	NW	4	1.8		0	0			0	0		
Oswego, N. Y.			29.61	752.1	42.8	6.0	91	WNW	16	7.2			10s			1.03	26.2		
Peck's Beach			29.71	754.6	61	16.1	82	NW	22	9.8		4ck	2s	W		0	0		
Pembina, D. T.			29.75	755.6	46	7.8	84	SE	4	1.8		8k	2s			0	0		
Philadelphia, Penn.			29.64	752.8	74	23.3	59	SW	10	4.5		0	2s			0	0		
Pike's Peak, C. T.			29.93	760.2	18	− 7.8	76	W	40	17.9		0	0			0			
Pittsburgh, Penn.			29.81	757.2	53	11.7	67	NW	9	4.0		8k	0	W		0.16	4.1		
Port Huron, Mich.			29.73	755.1	50	10.0	78	W	4	1.8		0	0			0.98	24.9		
Portland, Maine			29.57	751.1	46	7.8	84	Calm	0	0			Fog			0.47	11.9	Foggy	
Portland, Or.			30.37	771.4	45	7.2	76	SW	8	3.6			10s			0.34	8.6		
Punta Rassa, Fla.			30.14	765.5	79.5	26.4	76	SE	8	3.6		2ck	2ks			0.10	2.5		
Rochester, N. Y.			29.65	753.1	49	9.4	77	W	18	8.0			10s		W	0.49	12.4		
Salt Lake City, Utah			30.03	762.7	51	10.6	65	Calm	0	0			10s			0.28	7.1		
Sandy Hook, N. J.			29.61	752.1	61	16.1	82	SW	6	2.7		2c	Haze	W		0	0		
San Diego, Cal.			29.89	759.2	61	16.1	66	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.19	766.8	55	12.8	87	NW	4	1.8		Haze	5s		NW	0	0		
Santa Fe, N. M.			29.81	757.2	51	10.6	22	E	4	1.8		0	0			0	0		
Savannah, Georgia			30.01	762.2	78	25.6	65	S	10	4.5		2c	Sm'e			0	0		
Shreveport, La.			30.15	765.8	61	16.1	82	Calm	0	0		0	0			0.14	3.5		
Springfield, Mass.			29.56	750.8	53.5	11.9	93	S	4	1.8			10s			0.02	0.5	Threatening	
St. Louis, Mo.			30.00	762.0	56	13.3	68	W	16	7.2		0	0			1.50	38.1		
St. Marks, Fla.			30.05	763.3	75	23.9	90	SW	12	5.4		0	5ks		SW	0	0		
St. Paul, Minn.			29.83	757.7	45	7.2	68	NW	3	1.3		0	0			0	0		
St. Paul's Island, Alaska			29.84	757.9	32	0.0	79	NE	3	1.3		5ck	...k	NW		0	0		
Squan Beach, N. J.			29.64	752.8	68	20.0	71	SW	15	6.7		2k	0	W		0	0		
Toledo, Ohio			29.79	756.7	55	12.8	74	SW	12	5.4		0	8s		SW	0.64	16.3		
Tybee Island, Ga.			30.02	762.5	80	26.7	70	S	14	6.3		0	Sm'e			0	0		
Vicksburg, Miss.			30.18	766.6	65	18.3	68	Calm	0	0		0	2s			0.61	15.5		
Virginia City, Mon.			29.62	752.3	30	− 1.1	89	SW	12	5.4			10n			0.08	2.0	Light snow.	
Washington, D. C.			29.71	754.6	73	22.8	56	W	12	5.4			10n		SW	0	0	Light rain.	
Wilmington, N. C.			29.97	761.2	74	23.3	76	SW	22	9.8		5k	0	SW		0	0		
Wood's Hole, Mass.			29.64	760.5	53	11.7	86	SW	18	8.0		0	Fog			0.07	1.8	Foggy	
Wytheville, Va.			29.63	760.2	56	13.3	89	W	7	3.1		10k	0			0.19	4.8		
Yankton, D. T.			29.96	761.0	49	9.4	82	SW	5	2.2		0	0			0	0		

NOTE.—The original give the cloudiness a scale from 0 to 4

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7	86	NE	6	2.7		10k	2ks	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.03	762.7	80	26.7	67	E				5k	5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.83	757.7	76	24.4	78	SE	3.6	1.6		2c	0	SE		0.28	7.1		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.22	767.6	78	25.6	86	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.			30.29	769.4	78	25.6	78	E	9	4.0		2ck	5kn	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.87	758.7	77	25.0	72	NNW	3.6	1.6		8c	5s			Blank	Blank		Robert Mason.
St. Georges, Bermudas																			C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	62	16.7	73	NE			2	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.	27.84	707.1			61	16.1	83	Calm			0	0	1n			0	0	Hazy	F. L. Clarke.
Cumberland, B. A.																			
Fort Chippewyan, B. A.																			
Fort Macpherson, B. A.																			
Fort Simpson, B. A.																			
York Factory, B. A.																			
Clifton, Jamaica, W. I.			29.79	756.7	24.5	— 4.2	100	NW	20	8.9			10s			0	0		J. Fortescue.
St. John's, Newfoundland			30.08	764.0	59	15.0	88	N	2.5	1.1		2c	2k	N		0.10	2.5		C. Partridge.
Elyria, Ohio			30.09	764.3	50	10.0	56	S				5k	5ks			0	0		John Delaney.
Indianola, Iowa			29.82	757.4	51	10.6	55	SW	8	3.6			10n			0.40	10.2		Leon M. Acuña.
	29.03	737.3			53	11.7	73	W				0	1s			0	0		H. M. Redington.
																			G. C. Carpenter.
†U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 23° 23′, W. 58° 45′	S	5.5	29.97	761.2	78	25.6	86	NE			5.5	..c	..k	NE	WNW	Long swell.	NE	Rain squalls	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 11, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.01	763.0	73.4	23.0		SE			5		2			0	0		Charnot.
Algiers			30.11	764.7	71.2	21.8	82	N			1		1			0	0		Peter.
La Calle			30.12	765.0	68.2	20.1		NE			6		3			0	0		Kuntz.
Tunis			30.15	765.7	80.6	27.0	42	E			3		0			0	0		Jacques.
Sfax			30.20	767.0	74.1	23.4	64	SE			4		1			0	0		Chauvey.
Saïda			30.06	763.5	79.0	26.1		ESE			3		2			0	0		Grosjean.
Tebessa			30.13	765.4	77.0	25.0		E			3		2			0	0		Colin.
Gerlville			30.08	764.0	75.2	24.0		E			3		2			0	0		Bernadach.
Laghouat			30.09	764.3	79.7	26.5	22	NE			4		0			0	0		Poinsignon.
Biskra			30.11	764.9	87.8	31.0		E			2		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.23	767.7	55.4	13.0	85	NE			4		10			0.339	8.6	Raining	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow											2		10			0.264	6.7		I. R. Observatory.
Sperles			30.31	769.8	51.6	10.9	81	W			5		10			0	0		Julius Mikolik.
Gratz			30.10	764.6	61.2	16.2	68	W			2		10			0.248	6.3		Andreas Rospini.
Hermannstadt			30.27	768.8	55.4	13.0	84	W			3		5			0	0		Prof. Reissenberger.
Kremsmünster			30.03	762.7	72.7	22.6	26	WNW			3		10			0.406	10.3		Prof. C. Wagner.
Lemberg			30.34	770.7	57.9	14.4	76	W			2		4			0.012	0.3		Dr. T. Stanecki.
Nyregyhaza			30.01	762.2	73.0	23.1	36	S			3		3			0.035	0.90		Habzsuda Daniel.
Pola			30.07	763.8	75.2	24.0	43	SE			1		10nis			0	0		I. R. Hydrographic Office
Szegedin			30.14	765.5	69.8	21.0	51	ESE			2		6			0	0		Karl Stancel.
Trieste			30.07	763.7	74.8	23.8	35	S			2		10			0.291	7.4	Raining	Prof. V. Farolfi.
Vienna			30.19	766.8	62.1	16.7	78	E			2		10			0.043	1.1		I. R. Central Institute.
			30.28	769.0	59.2	15.1	59	NNE											

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.23	767.8			62.6	17.0	57	WNW			1		9k		W	0.059	1.50	Clearing	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.97	761.2	55.0	12.8		SSW	19	8.5			9			0	0		William Boswell.
Annanhill																			
Ardrossan			30.09	764.3	53	11.7		SW			5		9					Raining	William McNeil.
Armagh Observatory			30.15	765.8	57.0	13.9		SSW	21	9.4			10					Raining	S. Cull, for Dr. Robin[illegible]
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			30.26	768.6	58.8	14.9		SW			6		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.23	767.8	62.0	17.0		SW			1-3		10						J. Dre[illegible]er, for L[illegible]
Bradford			30.23	767.8	57.8	14.3		SW			2		7						J. Mc Landsborough
Bridgetown, (Barbadoes)			30.00	762.0	82.0	27.8		NE			2		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.39	771.9	62.0	16.7		SW			1		3						H. Todd.
Cape Town, (Cape Colony)			29.82	757.4	75.6	24.2		W			1		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.85	758.2			81.6	27.6	28	SW	10	4.5			8						Th Staff, for E. J. Sto[illegible]
Cardington			30.41	772.4	67.0	19.4		W					3						John McLaren.
Carlisle			30.19	766.8	54.4	12.5		SW					10			0.02	0.5	Raining	T Bell, for J. Carlin[illegible]
Chatham, School M. E.			30.39	771.9	65.2	18.4		WNW			2		5						Q. M. Sergt. J. Coun[illegible]
Colombo, (Ceylon)			29.81	757.2	83.9	28.8		SW			4		7						Sgt. W. F. Hopkins
Dartmoor			30.47	773.9	52.2	11.2		SW			4		7						R. E. Power.
Donaghadee			30.14	765.5	58	14.4		SW			6		10						J. Mac Gowan, Jr.
Dover			30.44	773.2	57	13.9		SW			3		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.30	769.6	57.5	14.2		SW	3.4	1.5			10						Thomas Mackereth.
Falmouth Observatory			30.48	774.2	59.0	15.0		SW	15	6.7			3						The Staff.
Fort Napier, (Natal)			29.98	761.5	71.8	22.1		N			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone)			29.80	756.9	86	30.0		N					6						
Galway, Queen's College			30.17	766.3	60	15.6		SW			2		10						B. G. Clare, for Prof. [illegible]
Gibraltar, (Mediterranean)			29.88	758.9	64.0	17.8		ENE			6		10					Drizzling	Sergt. E. G. Baker.
Glasgow Observatory			30.05	763.3	55.1	12.8		SW			6		10					Squally	James Gray.
Great Yarmouth			30.39	771.9	60	15.6		WSW			3		4						G. T. Watson.
Greenwich Royal Obs.			30.42	772.7	67.0	19.4		WSW			3		1						The Staff, for G. B. [illegible]
Guernsey			30.50	774.7	56.5	13.6		NNE			2		0						Dr. S. E. Hosking.
Halifax, Moorside Obs.			30.20	767.1	57.5	14.2		WSW					10					Threatening	F. J. Pace, for L. J. C[illegible]
Halifax, (Nova Scotia)			29.82	757.4	55.0	12.8		NW			2		9						Corp'l J. V. Thompson
Helston			30.44	773.2	60	15.6		SW			3		2						Dr. W. B. [illegible]yle.
Holyhead			30.29	769.4	54	12.2		SW			6		10					Misty	John Tilston.
Hull Park																			
Kew Observatory			30.42	772.7	61.2	16.2		WSW	14	6.3			5						The Staff.
Kingstown			30.26	768.6	63	17.2		WSW			3		8						George Mitchell.
Lampeter																			
Leicester Museum			30.37	771.4	60.9	16.1		W			4		7						William J. Harrison.
Llandudno			30.28	769.1	59.0	15.0		W					9						Dr. James Nicol.
Malta, (Mediterranean)			30.16	766.1	68.6	20.3		NE			1		1k						Fred Travis, Pvt A. [illegible]
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.88	758.9	64	17.8		SW			4		5						William D. Penny.
Nassau, (Bahamas)			30.18	766.6	80.2	26.8		E			2		4						Surg.-Maj. J. Jamieson
North Shields			30.18	766.6	59	15.0		WSW			6		9						John Wm. Irvine.
Nottingham			30.34	770.6	67.0	19.4		WSW			4		5k		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.34	770.6	63.9	17.7		SW			6		6						Rev. Stephen Whitf[illegible]
Oxford, Radcliffe Obs.			30.39	771.9	67	19.4		WSW			1		4						J. Lucas, for R. Ma[illegible]
Plymouth			30.46	773.7	60	15.6		SW			3		2						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.34	770.6	56	13.3		SW			4		10						W. Kennedy.
Saint Ann's Head			30.39	771.9	55	12.8		SW			4		6						John C. Walker.
Saint Helier, (Jersey)			30.48	774.2	59.0	15.0		W			3		5						A. P. Amy.
Sandwick Manse (Orkneys)			29.78	756.4	55.6	13.1		SW	16	7.2			4					Showery	Rev. C. Clouston.
Scarborough			30.24	768.1	55.9	13.3		SW			4		9					Light fog	F. Shaw.
Scutari, (Turkey)			30.07	763.8	57.0	13.9		NE			2		10					Drizzling	Sergt. W. H. Lyne.
Sheffield			30.28	769.1	62.9	17.2		SW			4		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.16	766.1	54.9	12.7		SW			5		10			0.210	5.33		Rev Francis Redfo[illegible]
Somerleyton, (Lowestoft)			30.35	770.9	61.7	16.5		SSW			2		7						Rev. C. J. Steward.
Stonyhurst Observatory			30.28	769.1	53.1	11.7		SW			1		10					Raining	The Staff.
Stornoway, Lews C. (Hebr.)			29.80	756.9	57	13.9		WSW			7		10					Raining	John Smith.
Strathfield Turgiss			30.41	772.4	63.1	17.3		SW			1		0						Rev Charles H. Gri[illegible]
Streatley Vicarage			30.44	773.2	66.2	19.0		W			4		2						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.82	757.4	60	15.6		SW			5		7						John Trotter.
Truro, Royal Institution			30.41	772.4	63	17.2		S			5		3						W Newcombe.
Valencia Observatory			30.28	769.1	55.4	13.0		SSW	34	15.2								Misty	The Staff.
Wick																			
Wisbeach																			
Worthing			30.42	773.4	58.1	14.5		SW			4		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.19	766.7	56.3	13.5	45	NW			7		3						
Fanöe			30.28	769.2	52.3	11.3	78	W			4		1						
Godthaab, (Greenland)																			
Sykkisholm, (Iceland)			29.55	750.6	42.4	5.8	91	SW			6		10					Snowing	
Thorshavn, (Faröe)			29.58	751.2	44.6	7.0	94	NNE			4		5					Raining	
Vestervig			30.21	767.2	52.0	11.1	81	WNW			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.07	763.6	72.9	22.7	69						2k						Normal School.
Alençon			30.49	774.4	66.2	19.0	47	NE			1		5c			0	0		Normal School.
Amiens			30.45	773.4	65.8	18.8	63	WSW			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.47	774.0	63.1	17.3	35	WNW			2		2			0	0		Normal School.
Besançon			30.43	772.8	66.6	19.2	61	NE			3		0			0.453	11.5		Normal School.
Bourg en Bresse			30.35	770.9	67.5	19.7	57	NW			4		..ck		SE	0.055	1.4		Normal School.
Bourges			30.44	773.2	64.4	18.0	66	NE			2		5		NE	0.102	2.6		Normal School.
Brest			30.41	772.5	66.0	18.9	53	SSW			1		0			0	0		Naval Observatory.
Caen			30.48	774.2	60.8	16.0	55	N			4		0			0	0		Normal School.
Chartres			30.43	773.0	66.7	19.3		NW			1		1c		NW	0	0		Normal School.
Chaumont			30.4[illegible]	772.1	68.0	20.0		NE			2		..ck		NE	0.072	2.0		Normal School.
Commercy			30.50	774.8	62.2	16.8	64	ENE			2		5		W	0.016	0.40		Normal School.
Le Mans			30.10	766.7	61.7	16.5	64	NE			2		2		N	0	0		Normal School.
Lons-Le Saulnier			30.37	771.4	61.3	16.3	59	NE			4		2		S	0	0		Normal School.
Mâcon																			
Mirecourt			30.53	775.5	60.6	15.9	50	NE			4		8		S	0.118	3.0		Normal School.
Orleans			30.57	776.4	71.6	22.0	55	WSW			2		2		NNW	0.208	6.8		Normal School.
Paris Observatory			30.45	773.3	65.1	18.4		NW			2		5			0	0		National Observatory
Parthenay			30.41	772.3	66.2	19.0	83	NE			2		5		S	0	0		Normal School.
La Roche sur Yon			30.43	773.0	71.2	21.8	44	NE			6		5		SW	0	0		Normal School.
Rouen			30.39	771.8	68.4	20.2	39	W			4		0			0	0		Normal School.
Saint Lo			30.54	775.7	67.6	19.8	87	NW			3		2		NW	0	0		Normal School.
Villefranche			30.39	771.9	68.0	20.0	65	NNE			4		2		N	0.197	5.0		Normal School
Sub-Series.																			
Goree, (Senegambia)																			Frère Pascall.
Mont-Louis	25.09	637.3			61.0	16.1	66	ENE	10.3	4.17			2		SW	0.110	2.8		—. Falguère.
Montsouris Observatory			30.44	773.2	66.4	19.1	45	Calm			0		8k&c		NW	0	0		Marié Davy.
Perpignan	30.09	764.2			74.5	23.6	41	W	9.3	4.17			1		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.44	773.2	66.7	19.3	39	NW			1		7			0.012	0.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.43	772.8	66.0	19.4	42	NE			1		2		NNE	0	0		C. Marquet.
Versailles, (near Paris)			30.45	773.4	65.8	18.8	35	NNW			1		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.88	758.9	63.3	17.4	96	ESE	11.6	5.2			Fog			{0.016 / 0.173}	{0.4 / 4.3}		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.33	770.0	61.2	16.2	47	NW			4		4			0.437	11.1		Prof. Hoh.
Berlin			30.42	772.7	59.0	15.0	61	S			3		5			1.134	28.8		Prof. Arndt.
Breslau			30.35	770.8	58.3	14.6	64	WNW			7		8			0.161	4.1		Dr. P. Neugebauer.
Carlsruhe			30.42	772.7	62.6	17.0	53	N			1		8			2.608	66.0		A. Senz.
Cassel			30.32	770.0	62.8	17.1	48	NW			2		4			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.39	771.9	59.0	15.0	78	W					8			0.622	15.8		M. Wilhelm.
Hamburg			30.40	772.2	58.3	14.6	43	NW			4		4k			0.105	2.68		W. Reinert.
Kiel			30.31	769.6	58.8	14.9	50	NW			5		8			0	0		Prof. G. Karsten.
Königsberg			30.12	765.0	53.2	11.8	88	NW			2					0.211	5.39		Prof. E. Luther.
Köslin			30.41	772.5	52.3	11.3		W			4		2			0.783	20.9		Dr. Tügert.
Leipsic			30.39	771.9	58.8	14.9	57	NW			1		5			0	0		Prof. Bruhns.
Münster			30.35	770.9	61.2	16.2	56	NW			2		3			0	0		Prof. E. Heis.
Posen			30.37	771.3	60.4	15.8	62	NW			6–7		7			0.154	3.9		Dr. Magener.
Strassburg, (in Alsace)			30.43	772.9	62.8	17.1	48	N					4			0	0		Hartwig and Tülk.
Stuttgart			30.41	772.5	61.7	16.5	57	N					8			0.260	6.6		Mr. Würth.
Thorn			30.22	767.5	58.8	14.9	66	NW			6		7			0.205	5.2		Dr. Rosenbalg.
Treves, (Trier)			30.30	771.8	63.3	17.4	47	SE			4		2			0	0		Prof. Flesch.
Wustrow			30.32	770.1	51.8	11.0	69	WNW			3					0.008	0.2		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.00	764.3	76.8	24.9	61	SE	4.3	1.9			8	N		0.421	10.7	Showery	
Mondovi			30.08	763.9	74.7	23.7	63	NW			4		9	WSW		0	0	Showery	
Genoa			30.13	765.2	69.3	20.7	64	Calm	0	0			10			0.039	1.0		
Pavia			30.09	764.2	75.6	24.2	59	N			1		8	SW		0.020	0.5		
Verona			30.12	765.1	73.0	22.8	68	E			2		10			0	0		
Padua			30.14	765.5	61.9	16.6	70	ENE	9.8	4.4			10			0.260	6.6		
Parma																			
Bologna																			
Leghorn			30.11	764.7	64.6	18.1	65	S	4.3	1.9			9			0	0		
Urbino			30.11	764.7	69.8	21.0	75	NE			4		7			0	0		
Ancona			30.09	764.2	70.5	21.4	65	SE			4		2	S		0	0		
Siena			30.08	763.9	80.1	26.7	38	WSW	1.3	0.6			3	W		0	0		
Rome			30.14	765.6	78.4	25.8	37	SW	8.1	3.6			1			0	0		
Naples, O.U.			30.17	766.4	76.1	24.5	51	WSW			4		1			0	0		
Lecce			30.21	767.2	70.0	21.1	40	NNE	9.8	4.4			0			0	0		
Cosenza			30.15	765.7	77.4	25.2	35	NNW			1		2	NE		0	0		
Catania, (Sicily)																			
Lipposto																			
Palermo			30.13	765.3	71.6	22.0	67	SE			2		1			0	0		
Sub-Series.			30.12	765.0	70.3	21.3	68	NE			4		1			0	0		
Naples, S. R.			30.21	767.4	73.4	23.0	64	SW			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.46	773.7	60.4	15.8		NW			2								
Groningen					59.9	15.5		WSW			3								
Helder			30.39	772.0	55.4	13.0		SW			2								
Utrecht			30.37	771.4	65.3	18.5	47	W			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.05	764.3	54.7	12.6	63	SSW	19.7	8.8			10			9.295	7.5		
Christiania			29.97	761.3	64.4	18.0	35	SSE	7.2	3.2			4			0.019	0.4		
Tromsö			29.81	756.2	49.1	9.5	57	W			1		10			0	0	Raining	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.67	753.5			69.6	20.9	52	E	21.0	9.4			9						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.21	767.2	53.8	12.1	85	W	4	2			10						Astronomical Obs.
Wilna			30.04	762.9	56.3	13.5	75	WNW	20	9			9						Astronomical Obs.
Dorpat			29.79	756.7	70.2	21.2	40	SW	13	6			10						Physical Cabinet.
St. Petersburg			29.87	758.8	61.2	16.2	85	SE	7	3			9					Fog & raining	Central Physical Obs.
Kuopio																			
Kieff			30.22	767.6	61.5	16.4	60	SE	11	5			7						Physical Cabinet.
Nikolaiev			30.13	765.2	57.7	14.3	73	SE	4	2			10						
Kertch			30.10	764.5	60.6	15.9	76	N	10	4.5			8						Lagorio.
Moscow			30.27	768.8	70.7	21.5	37	WSW	8	3.5			7						Meteorological Obs.
Lugan			30.10	764.6	67.8	19.9	31	E	20	9			5						Meteorological Obs.
Archangel			30.04	762.9	52.0	11.1	84	ESE	4	2			10						Ogorodnikof.
Tiflis			29.89	759.1	84.6	29.2	42	S	4	2			1						Physical Obs.
Astrakhan			30.39	772.0	60.3	15.7	55	ENE	13	6			10						Sebastianof.
Kasan			30.25	768.4	67.5	19.7	29	SW	4	2			5						Physical Cabinet.
Orenburg			29.49	774.4	61.9	16.6	37	W	4	2			0						Tschernischef.
Ekaterinburg			30.08	764.1	57.6	14.2	33	W	17	7.5			7						Meteorological Obs.
Kasaly			30.31	769.9	57.9	14.4	87	E	13	6			2						Bobrof.
Tashkend			30.25	768.4	65.8	18.8	22	NW	13	6			0						Michelson.
Barnaul			30.19	766.8	28.9	− 1.7	46	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.89	759.2	28.6	− 1.9	76	SW	8	3.5			10					Snowing	Marks.
Irkutsk			29.83	757.6	43.5	6.4	55	SW	13	6			10						Usolzef.
Oorga			29.66	753.4	44.8	7.1	90	Calm	0	0			0						Mossin.
Peking, (China)			29.84	757.9	67.1	19.5	70	SSW	8	3.5			5						Physical Observatory.
Nertchinsk			29.26	743.1	50.0	10.0	70	SE	4	2			9						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					39.6	4.2	97	SE	8	3.5			0						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.15	765.8	64.9	18.3	66	SE	15.6	7.0		0	10			0.045	1.1		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.82	757.4	55.8	13.2	68	N			2		10			0	0		
Hernosand			29.84	757.9	58.6	14.8	58	NW			3		8			0	0		
Stockholm			29.86	758.4	56.8	13.8	65	W			3		6			0	0		
Wisby			29.97	761.3	52.5	11.4	91	SW			3		4			0.11	2.8		
Sub-Series.																			
Upsala			29.91	759.7	54.3	12.4	79	N			4		8	NW	NW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.91	734.2			61.7	16.5	55	N			4		4			0	0		The Observatory.
Zurich	28.76	730.6			6[illegible]	16.0	63	SE			2		8			1.287	32.7		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +9.4mm.; Thermometer, +0°.6 C.; Relative Humidity, —3 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.83	757.6	72.9	22.7	77	N			2		5						Prof. C. N. A. Van Dyck.
Constantinople			30.10	764.5	53.6	12.0	90	NNE	13	6			10		NE	0	0	Light rain	
Fao, (Persian Gulf)			29.89	759.2	85.3	29.6		SE			3		0						
Salonica					74.7	23.7		SW			3		0						
Valona			30.11	764.9	70.9	21.6		W			1		2						
Varna			30.04	763.0	69.8	21.0		NE			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.02	762.5	49	9.4		SW	4	1.8		0	0			0	0		
Chatham, N. B.			29.74	755.4	53	11.7	50	SW	9	4.0		0	0			0	0		
Charlottetown, P. E. Island			29.77	756.1	5[illegible]	11.1	59	W	10	4.5			8s			0	0		
Fort Garry, Manitoba			30.20	767.1	37	2.8	90	W	1	0.4		2k	0	W		0	0		
Halifax, N. S.			29.72	754.9	54	12.2	75	W	7	3.1			8s			0.01	0.3		
Kingston, Ontario			30.02	762.5	49	9.4	69	W	12	5.4		0	0			0	0		
Montreal, Quebec			29.90	759.4	50	10.0	69	W	22	9.8		0	2ks			0	0		
Ottawa, Ontario			30.02	762.5	51	10.6	49	W	6	2.7		0	0			0	0		
Parry Sound, Ontario			30.00	762.0	45	7.2	76	W	8	3.6		0	0			0	0		
Port Dover, Ontario			30.06	763.5	50	10.0	78	SW	5	2.2		0	0			0	0		
Port Stanley, Ontario			30.05	763.3	45	7.2	98	E	8	3.6		2ck	0	W		0.03	0.8		
Quebec, Quebec			29.80	756.9	51	10.6	65	SW	16	7.2		0	0			0.06	1.6		
Saugeen, Ontario			30.00	762.0	46	7.8	69	Calm	0	0		2ks	0			0	0		
Stayner, Ontario			30.03	762.7	51	10.6	72	Calm	0	0		0	0			0	0		
Sydney, C. B.			29.76	755.9	52	11.1	74	W	4	1.8			8ks		W	0	0		
Toronto, Ontario			30.04	763.0	50	10.0	79	W	9	4.0		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 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. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.90	759.4	58	14.4	60	NW	3	1.3		0	0			0	0		
Alpena, Mich.			29.94	760.5	43	6.1	75	S	1	0.4		5cs	2s	SE	S	0	0		
Atlantic City, N. J.			30.10	764.5	59	15.0	70	W	11	4.9		0	0			0.07	1.8		
Augusta, Ga.			30.17	766.3	63	17.2	67	SE	2	0.9		0	0			0.36	9.1		
Baltimore, Md.			30.10	764.5	63	17.2	51	NW	5	2.2		5ck	0	W		0.01	0.3		
Barnegat, N. J.			30.07	763.8	62	16.7	70	W	6	2.7		0	0			0	0		
Benton, Montana			30.30	769.6	41	5.0	91	SW	1	0.4		0	0			0.12	3.0		
Bismarck, Dakota			30.01	763.0	42	5.6	65	N	10	4.5		8k	0	NW		0.01	0.3		
Boston, Mass.			29.97	761.2	59	15.0	48	NW	9	4.0		0	0			0.01	0.3		
Breckenridge, Minn.			29.98	761.5	41	5.0	83	N	8	3.6		5k	0	NW		0	0		
Buffalo, N. Y.			30.06	763.5	43	6.1	91	SW	6	2.7		Haze	Fog			0	0	Foggy	
Burlington, Vt.			29.95	760.7	52	11.1	73	S	4	1.8		2k	2s	W		0	0		
Cairo, Ill.			30.06	763.5	62	16.7	61	S	8	3.6		2ck	0	W		0	0		
Cape Hatteras, N. C.			30.14	765.5	67	19.4	84	Calm	0	0		0	0			0	0		
Cape Henry, Va.			30.15	765.8	72	22.2	67	Calm	0	0		0	0			0.18	4.6		
Cape May, N. J.			30.11	764.8	55	12.8	87	NW	8	3.6		0	0			0.12	3.0		
Charleston, S. C.			30.18	766.6	71	21.7	71	E	12	5.4		0	0			0	0		
Cheyenne, W. T.			30.21	767.3	35	1.7	45	NW	20	8.9		0	0			0	0		
Chicago, Ill.			29.88	758.9	55	12.8	74	S	8	3.6			10n			0.03	0.8	Light rain	
Cincinnati, Ohio			30.07	763.8	58	14.4	75	SE	4	1.8			10s			0.16	4.1		
Cleveland, Ohio			30.04	763.0	53.2	11.8	64	SW	4	1.8		5c	Sm'e	W		0	0		
Colorado Springs, Col.			30.13	765.3	41	5.0	25	N	10	4.5		0	0			0	0		
Corsicana, Texas			29.95	760.7	66	18.9	90	S	8	3.6			10s		S	0	0		
Davenport, Iowa			29.72	754.9	58	14.4	69	S	28	12.5		5k	5s	SW	S	0	0		
Denver, Col.			30.27	768.8	42	5.6	19	NE	11	4.9		0	0			0	0		
Detroit, Mich.			30.03	762.7	49	9.4	43	W	2	0.9		2c	Sm'e			0.18	4.0		
Dodge City, Kansas			29.86	758.4	48	8.9	63	N	8	3.6		0	0			0	0		
Dubuque, Iowa			29.77	756.1	75	23.9	93	E	6	2.7			10n			0	0	Drizzling	
Duluth, Minn.			30.00	762.0	44	6.7	67	SW	4	1.8		8k	0	W		0	0		
Eastport, Me.			29.88	758.9	54	12.2	67	W	6	2.7		2c	0			0.02	0.5		
Erie, Penn.			30.03	762.7	54	12.2	73	SE	8	3.6		2c	Haze	SE		0	0		
Escanaba, Mich.			29.92	760.0	39	3.9	81	N	2	0.9			10s			0	0		
Fort Gibson, I. T.			29.90	759.4	67	19.4	60	S	11	4.9		5k	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.14	765.5	44	6.7	84	NW	10	4.5		8c	0	NW		0.71	18.0		
Galveston, Texas			30.06	763.5	75	23.9	85	S	11	4.9			10ks		S	0	0		
Grand Haven, Mich.			29.93	760.2	53	11.7	66	S	16	7.2			10s			0	0		
Indianapolis, Ind.			30.02	762.5	58	14.4	69	Calm	0	0			10s			0	0		
Indianola, Texas			30.04	763.0	74	23.3	95	S	3	1.3		5k	5s	S	S	0	0		
Jacksonville, Fla.			30.14	765.5	76	24.4	65	NE	8	3.6		0	0			0.50	12.7		
Keokuk, Iowa			29.72	754.9	58	14.4	76	S	13	5.8			10s		S	0.02	0.5		
Key West, Fla.			30.10	764.5	79.7	26.5	70	E	3	1.3		0	Haze			0	0		
Kittyhawk, N. C.			30.18	766.6	59	15.0	94	E	4	1.8		5k	0	W		0.45	11.4		
Knoxville, Tenn.			30.18	766.6	55	12.8	79	Calm	0	0		0	0			0	0		
La Crosse, Wis.			29.80	756.9	51	10.6	93	E	8	3.6			10n		E	0.45	11.4	Heavy rain	
Leavenworth, Kan.			29.80	756.9	60	15.6	70	NW	10	4.5		0	0			0.02	0.5		
Lexington, Ky.			30.12	765.0	61	16.1	71	SW	10	4.5		0	0			0	0		
Long Branch, N. J.			30.07	763.8	63	17.2	62	NW	6	2.7		0	Haze			0.04	1.0		
Louisville, Ky.			30.06	763.5	65	18.3	58	Calm	0	0		5k	Fog			0.13	3.3		
Lynchburg, Va.			30.14	765.5	64	17.8	57	NW	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.93	760.2	43	6.1	67	NW	4	1.8			10s			0	0		
Memphis, Tenn.			30.15	765.8	65	18.3	58	S	1	0.4		2cs	0			0	0		
Milwaukee, Wisconsin			29.91	759.7	49	9.4	85	NW	3	1.3			10n			0.14	3.5	Heavy rain	
Mobile, Ala.			30.15	765.8	66	18.9	64	NE	2	0.9		0	0			0	0		
Montgomery, Ala.			30.19	766.8	63	17.2	75	Calm	0	0		0	Sm'e			0	0		
Morgantown, W. Virginia			30.06	763.5	64	17.8	67	S	2	0.9		0	0			0.11	2.8		
Mt. Washington, N. H.			30.04	763.0	27	−2.8	100	NW	18	8.0			Fog			0	0		
Nashville, Tenn.			30.14	765.5	63	17.2	67	W	1	0.4		0	0			0	0		
New Haven, Conn.			30.03	762.7	62	16.7	61	N	2	0.9		[illegible]	Sm'e			0.04	1.0		
New London, Conn.			30.04	763.0	63	17.2	57	NW	6	2.7		2k	0	SW		0	0		
New Orleans, La.			30.13	765.3	71.5	21.9	83	E	1	0.4		8k	0	W		0.01	0.3		
Newport, R. I.																			
New York, N. Y.			30.07	763.8	59	15.0	67	N	5	2.2		0	0			0.01	0.3		
Norfolk, Va.			30.16	766.1	62	16.7	83	S	4	1.8			Fog			0.16	4.1	Foggy	
North Platte, Neb.			29.82	757.4	46	7.8		NW	24	10.7		5c	0	W		0	0		
Omaha, Neb.			29.63	752.6	51	10.6	79	W	16	7.2			10s		W	0.08	2.0		
Oswego, N. Y.			30.05	763.3	49	9.4	74	W	11	4.9		2cs	Haze			0	0		
Peck's Beach			30.12	765.0	59	15.0	70	NW	12	5.4		Haze	Haze			0.14	3.5		
Pembina, D. T.			30.07	763.8	39	3.9	76	Calm	0	0		2k	0			0	0		
Philadelphia, Penn.			30.10	764.5	60	15.6	55	N	12	5.4		0	0			0.01	0.3		
Pike's Peak, C. T.			30.02	762.5	11	−11.7	79	W	32	14.3		0	0			0	0		
Pittsburgh, Penn.			30.06	763.5	51	10.6	72	Calm	0	0						0	0	Dense smok	
Port Huron, Mich.			30.04	763.0	49	9.	77	SW	4	1.8		10c	0	W		0.18	4.6		
Portland, Maine			29.95	760.7	56	13.3	63	SW	6	2.7		5ck	0	SW		0	0		
Portland, Or.			30.28	769.1	45	7.2	61	Calm	0	0		8k	0			0	0		
Punta Rassa, Fla.			30.13	765.3	78.7	25.9	72	Calm	0	0		2cs	5ks	W	NW	0	0		
Rochester, N. Y.			30.02	762.5	53	11.7	66	W	9	4.0		0	0			0	0		
Salt Lake City, Utah			30.22	767.6	49	9.4	39	Calm	0	0		[illegible]	0			0	0		
Sandy Hook, N. J.			30.04	763.0	52	11.1	79	W	13	5.8		[illegible]	0			0.05	1.3		
San Diego, Cal.			29.93	760.2	61	16.1	94	S	4	1.8			10s		S	0	0		
San Francisco, Cal.			30.09	764.3	53	11.7	80	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.87	758.7	52	11.1	29	S	4	1.8		0	0			0	0		
Savannah, Georgia			30.16	766.1	71	21.7	71	NE	6	2.7		0	Sm'e			0.04	1.0		
Shreveport, La.			30.05	763.3	65	18.3	73	SE	4	1.8		8c	0	W		0	0		
Springfield, Mass.			30.01	762.2	60	15.6	65	NW	8	3.6		1k	0	NW		0.03	0.8		
St. Louis, Mo.			29.92	760.0	64	17.8	57	SW	20	8.9			10s		W	0.02	0.5		
St. Marks, Fla.			30.13	765.3	69	20.6	65	NE	8	3.6		0	0			0.05	1.3		
St. Paul, Minn.			29.77	756.1	50	10.0	78	Calm	0	0			8s			0	0		
St. Paul's Island, Alaska			29.39	746.5	34	1.1	89	NE	29	13.0			10s			0	0		
Squan Beach, N. J.			30.07	763.8	60	15.6	60	NW	7	3.1		0	0			0.25	6.3		
Toledo, Ohio			30.04	763.0	56	13.3	56	S	6	2.7		5c	2k		SW	0	0		
Tybee Island, Ga.			30.18	766.6	71	21.7	85	E	10	4.5		0	Sm'e			0	0		
Vicksburg, Miss.			30.17	766.3	64	17.8	57	SE	9	4.0		0	0			0	0		
Virginia City, Mon.			29.99	761.7	29	−1.7	77	S	2	0.9		0	0			0.36	9.1		
Washington, D. C.			30.13	765.3	60	15.6	63	S	2	0.9		Haze	Sm'e			0.02	0.5		
Wilmington, N. C.			30.19	766.8	67	19.4	74	E	1	0.4		0	Sm'e			0.07	1.8		
Wood's Hole, Mass.			30.01	762.2	58	14.4	64	NW	5	2.2		5k	0	SW		0	0		
Wytheville, Va.			29.95	760.7	55	12.8	68	W	3	1.3		0	0			0	0		
Yankton, D. T.			29.95	760.7	46	7.8	88	NW	20	8.9			10n			0.23	5.8	Light rain	

NOTE.—The ord[...] give the cloudi[...] a scale from 0 to [...]

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Bb'does, W. I.	.....	.....	30.10	764.5	84	28.9	87	NE	6	2.7	.....	5k	5s	E	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, Gd'Loupe, do	.....	.....	30.01	762.2	78	25.6	65	E	.....	.....	.....	0	2k	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.83	757.7	80	26.7	82	NE	2.4	1.1	.....	2k	0	NE	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.24	768.1	78	25.6	69	Calm	0	0	.....	2c	0	NE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.25	768.3	78	25.6	7[illegible]	E	9	4.0	.....	2ck	5kn	E	.....	0.02	0.5	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.88	758.9	78	25.6	72	NE	4.8	2.1	.....	0	2s	.....	.....	0	0	.....	Robert Mason.
St. Georges, Bermudas	.....	.....	30.17	766.3	70	21.1	80	SW	5.6	2.5	.....	8k	5k	.....	.....	0	0	.....	C. F. Allen.
Honolulu, Oahu, S. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Makawao, Maui, S. I.	.....	.....	30.09	764.3	70	21.1	79	NE	.....	.....	2	10n	7n	NE	.....	1.80	48.0	Showery	E. P. Church.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	7.6	Hazy	F. L. Clarke.
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Mc Pherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Clifton, Jamaica, W. I.	.....	.....	30.07	763.8	20.5	— 6.4	93	N	12	5.4	.....	.....	10s	.....	.....	0	0	.....	J. Fortescue.
St. John's, Newfoundland	.....	.....	30.02	762.5	64	17.8	83	N	4.0	1.8	.....	5c	2k	NE	.....	0.35	8.9	.....	C. Partridge.
St. John's, Porto Rico, W. I.	.....	.....	29.71	755.4	49.3	9.6	85	S	.....	.....	.....	5k	5s	.....	.....	0	0	.....	John Delaney.
Elyria, Ohio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuffa.
Indianola, Iowa	.....	.....	30.04	763.0	52.5	11.4	78	S	8	3.6	.....	.....	2s	.....	.....	0	0	.....	H. M. Redington.
	28.80	731.5	.....	.....	61	16.1	57	S	.....	.....	.....	0	4ks	.....	.....	0.02	0.5	.....	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 22° 25′, W. 58° 38′	S	1	29.96	761.0	81	27.2	83	ENE	.....	.....	1	..c	..k	NE	WNW	Long swell	NE	.....	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 12, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.17	766.3	66.2	19.0		NE			3		6			0	0		Charnot.
Algiers			30.13	765.2	66.6	19.2	96	NNE			1		10			0	0		Peter.
La Calle			30.10	764.5	75.4	24.1		NE			2		0			0	0		Kuntz.
Tunis			30.09	764.2	85.1	29.5	29	W			3		0			0	0		Jacques.
Sfax			30.19	766.7	74.8	23.8	70	SE			2		1			0	0		Chauvey.
Saïda			30.15	765.9	86.2	30.1		SE			4		1			0	0		Grosjean.
Tebessa			30.11	764.8	79.0	26.1		NE			3		1			0	0		Colin.
Geryville			30.15	765.7	77.4	25.2		SE			2		0			0	0		Bernadach.
Laghouat			30.12	765.0	77.9	25.5	26	E			4		2			0	0		Poinsignon.
Biskra			30.11	764.9	87.8	31.0		E			2		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Azram			30.24	768.0	64.6	18.1	38	NE			3		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Con. M. I., Hungary
Gracow			30.26	768.7	57.2	14.0	53	NE			8		9			0	0		I. R. Observatory.
Eperies			30.19	766.7	57.2	14.0	49	NW			2		9		S	0.065	1.65	Raining	Julius Mikolik.
Gratz			30.21	767.4	65.1	18.4	47	SSW			2		0			0	0		Andreas Rospini.
Hermanstadt			30.00	762.1	58.5	14.7	84	WNW			1		10			0.352	8.95	Raining	Prof. Reissenberger.
Kremsmünster			30.30	769.7	59.4	15.2	53	WNW			2		3			0	0		Prof. C. Wagner.
Lemberg			30.10	764.4	58.6	14.8	44	NE			3		7			0.213	5.4		Dr. T. Stanecki.
Nyregyhaza			30.14	765.5	62.6	17.0	45	N			4		2			0	0		Habzsuda Daniel.
Tola			30.22	767.6	64.0	17.8	61	WNW			3		1ks			0.221	5.62		I. R. Hydrographic Office
Szegedin			30.09	764.2	64.8	18.2	43	NW			4		6			0.039	1.00		Karl Stancel.
Trieste			30.22	767.6	66.7	19.3	60	W			1		3			0	0		Prof. V. Farolfi.
Vienna			30.26	768.7	64.0	17.8	36	NW			3		4			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.15	765.7			65.7	18.7	55	W			1		7c		WNW	0	0	Solar halo	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Aberdeen			30.03	762.7	67.0	19.4		WNW	19	8.5			4			0.010	0.3		William Boswell.
Annanhill																			
Ardrossan			30.20	767.1	55	12.8		WSW			2		8					Raining	William McNeil.
Armagh Observatory			30.26	768.6	59.9	15.5		SW	14	6.3			7						S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.29	769.4	61.0	16.1		W			3		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.31	769.9	61.6	16.1		WSW			1		10					Drizzling	J. Dre er, for L'd Rosse.
Bradford			30.24	768.1	61.6	16.1		W			3		3						J. Mc Landsborough.
Bridgetown, (Barbadoes)			29.94	760.5	81.0	27.6		NE			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.31	769.9	68.0	20.0		SW			1		3						H. Todd.
Cape Town, (Cape Colony)			29.87	758.7	69.8	21.0		NW			3		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.																			Th Staff, for E. J. Stone.
Cardington			30.34	770.6	72.0	22.2		W					1						John McLaren.
Carlisle			30.23	767.8	59.2	15.1		SW					10			0.08	2.0		T Bell, for J. Cartmell.
Chatham, School M. E			30.32	770.1	71.4	21.9		SW			3		2						Q. M. Sergt J. Conroy.
Colombo, (Ceylon)			29.83	757.7	80.4	26.9		SW			4		6						Sgt. W. F. Hopkins.
Dartmoor			30.44	773.2	60.0	15.6		NW			1		0						R. E. Power.
Donaghadee			30.22	767.6	65	18.3		W			5		8						J. Mac Gowan, Jr.
Dover			30.36	771.1	57	13.9		SW			3		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.30	769.6	59.8	15.4		SW	2.6	1.2			10						Thomas Mackereth.
Falmouth Observatory			30.43	772.9	57.3	14.1		SSE	15	6.7			1						The Staff.
Fort Napier, (Natal)			29.90	759.4	79.0	26.1		NE			2		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.78	756.4	85	29.4		N					5						
Galway, Queen's College			30.24	768.1	57	13.9		SW			1		10					Misty	B.G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.01	762.2	65.2	18.4		E			7		10					Levanter	Sergt. E. G. Baker.
Glasgow Observatory			30.16	766.1	57.0	13.9		W			5		10					Squally	James Gray.
Great Yarmouth			30.29	769.4	68	20.0		W			2		3					Hazy	G. T. Watson.
Greenwich Royal Obs.			30.34	770.6	72.3	22.4		W			2		1						The Staff, for G. B. Airy.
Guernsey			30.40	772.1	60	15.6		NNE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.24	768.1	59.0	15.0		WNW					10					Threatening	F. J. P. ce, for L. J. Crossley.
Halifax, (Nova Scotia)			30.11	764.8	56.4	13.6		S			2		4						Corp'l J. V. Thompson.
Helston			30.40	772.1	64	17.8		SW			2		2						Dr. W. B. Moyle.
Holyhead			30.32	770.1	55	12.8		SW			4		5					Hazy	John Tilston.
Hull Park																			
Kew Observatory			30.35	770.9	66.5	19.2		W	13	5.8			0						The Staff.
Kingstown			30.35	770.9	62	16.7		W			3		9						George Mitchell.
Lampeter																			
Leicester Museum			30.33	770.4	65.0	18.3		W			3		5						William J. Harrison
Llandudno			30.32	770.1	56.3	13.5		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.11	764.8	74.2	23.4		NW			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.03	762.7	64	17.8		W			1		8						William D. Penny.
Nassau, (Bahamas)			30.13	765.2	80	26.7		E			2		5						Surg.-Maj. J. Jameson.
North Shields			30.20	767.1	61	16.1		W			6		8						John Wm. Irvine.
Nottingham			30.31	769.9	68.8	20.4		SW			4		1k&ck		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.30	769.6	69.0	20.6		W			5		1						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.33	770.4	67	19.4		WSW			1		0						J. Lucas, for R. Main.
Plymouth			30.41	772.4	59	15.0		S			2		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.37	771.4	58	14.4		SW			3		8						W. Kennedy.
Saint Ann's Head			30.40	772.1	55	12.8		WSW			1		6						John C. Walker.
Saint Helier, (Jersey)			30.41	772.4	68.0	20.0		E			2		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.00	762.0	53.1	11.7		S	15	6.7			10					Drizzling	Rev. C. Clouston.
Scarborough			30.23	767.8	61.9	16.6		W			3		5						F. Shaw.
Scutari, (Turkey)			29.96	761.0	62.2	16.2		SW			1		1						Sergt. W. H. Lyne.
Sheffield			30.27	768.8	65.4	18.6		WNW			3		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.24	768.1	57.5	14.2		SW			6		7			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.31	769.9	71.0	21.7		SSW			1		7						Rev. C. J. Steward.
Stonyhurst Observatory			30.29	769.4	54.2	12.3		W			2		10					Threatening	The Staff.
Stornoway, Lews C. (Hebr.)			29.99	761.7	58	14.4		W			4		10						John Smith.
Strathfield Turgiss			30.36	771.1	69.7	20.9		S			1		7						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.00	762.0	55	12.8		Calm			0		8						John Trotter.
Truro Royal Institution			30.36	771.1	69	20.6		N			6		2						W Newcombe.
Valencia Observatory			30.31	770.6	56.3	13.5		SSW	22	9.8			10					Misty	The Staff.
Wick																			
Wisbeach																			
Worthing			30.36	771.1	59.8	15.4		SW			3		3						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Stations.	Corrected Inches.	Millimeters.	Reduced Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Wind From—	Miles per hour.	Meters per second.	Force 0—10.	Upper 0—10.	Lower 0—10.	Upper From—	Lower From—	Rain Inches.	Millimeters.	Weather.
Copenhagen			30.02	762.6	59.0	15.0	77	WSW			7		10					
Fanöe			30.10	764.6	52.3	11.3	88	W			6		9					
Godthaab, (Greenland)																		
Stykkisholm, (Iceland)			29.21	741.8	42.8	6.0	81	SE			6		10					Raining
Thorshavn, (Faröe)			29.83	757.6	48.9	9.4	79	S			4		10					Raining
Vestervig			30.00	762.1	51.1	10.6	93	WSW			6		10					

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.02	762.6	74.8	23.8	65						1s						Normal School.
Alençon			30.37	771.3	78.8	26.0	36	SE			1		0			0	0		Normal School.
Amiens			30.39	771.9	73.4	23.	48	W			2		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.40	772.1	67.0	19.8	34	SW			1		2			0	0		Normal School.
Besançon			30.39	772.0	69.8	21.0	30	ENE			4		0			0	0		Normal School.
Bourg en Bresse			30.33	770.4	73.2	22.9	42	N			1		2		S	0	0		Normal School.
Bourges			30.35	770.9	68.7	20.4	50	NE			4		0			0	0		Normal School.
Brest			30.31	769.9	74.5	23.5	56	SSW			1		0			0	0		Naval Observatory.
Caen			30.40	772.1	65.1	18.4	55				2		0			0	0		Normal School
Chartres			30.34	770.6	55.4	13.0		W			1		10			0	0		Normal School.
Chaumont			30.28	769.	68.7	20.4		ENE			2		8			0	0		Normal School.
Commercy			30.43	772.9	65.5	18.6	53	NW			1		2		E	0	0		Normal School.
Le Mans			30.41	764.7	70.7	21.5	86	E			2		0			0	0		Normal School.
Longs-Le Saulnier			30.31	769.8	62.6	17.0	47	NE			4		0			0	0		Normal School.
Mâcon																			
Mirecourt			30.45	773.5	63.1	17.3	41				4		8		SW	0	0		Normal School.
Orleans			30.49	774.4	73.4	23.0	44	NNW			2		2		NNW	0	0		Normal School.
Paris Observatory			30.37	771.5	70.3	21.3		NW			2		0			0	0	Misty	National Observatory
Parthenay			30.11	764.8	67.1	19.5	31	SW			2		0			0	0		Normal School.
La Roche sur Yon			30.31	769.9	77.3	25.2	31	NNE			6		0			0	0		Normal School.
Rouen			30.28	769.2	72.7	22.6	43	WSW			2		0			0	0		Normal School.
Saint Lo			30.42	773.7	61.7	16.5	95	N			2		1		NW	0	0		Normal School.
Villefranche			30.24	768.0	77.0	25.0	34	NNE			2		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.09	637.2			64.0	16.1	67	ENE	18.0	8.0			1		W	0	0		—, Faignère.
Montsouris Observatory			30.36	771.2	72.3	22.4	27	WNW			1		1kn			0	0	Misty	Marié Davy.
Perpignan					75.2	24.0	41	E	5.4	2.5			0			0	0		Dr. Fines.
Saint Maur, (near Paris)	30.98	764.0			74.1	23.4	29	NNW			1		1c		NNW	0	0		E. Renou.
Saint Pierre, (Martinique)			30.36	771.2															
Tours																0	0		C. Marquet.
Versailles, (near Paris)			30.33	770.4	73.9	23.2	34	NE			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			30.38	771.6	72.3	22.4	22	N			1		0			0	0		
			29.74	755.3	69.8	21.0	94	SW	5.1	2.3			Fog			0.012 / 0.000	0.3 / 0.2	Raining	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.32	770.1	64.4	18.0	45	W			3		7			0	0		Prof. Hoh.
Berlin			30.32	770.0	56.5	13.6	86	SW			2		10			0.051	1.3	Showery	Prof. Arndt.
Breslau			30.23	770.3	61.5	16.4	40	NW			4		9			0	0		Dr. P. Neugebauer.
Carlsruhe			30.31	770.7	66.0	18.9	39	E			1		9			0	0		A. Senz.
Cassel			30.25	768.4	69.3	20.7	52	NW			1		9			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichslafen																			M. Wilhelm.
Hamburg			30.33	77 .4	63.5	17.5	52	NE					7			0	0		W. Reinert.
Kiel			30.24	768.2	66.7	19.3	66	W			5		9ks			0.009	0.23		Prof. G. Karsten.
Königsberg			30.19	766.9	63.6	17.4	74	W			5		9			0.017	0.43		Prof. E. Luther.
Köslin			30.17	766.4	57.2	14.0	40	W			2					0.001	0.03		Dr. Tägert.
Leipsic			30.34	770.5	59.9	10.5		SW			4		10			0.043	1.1		Prof. Bruhns.
Münster			30.32	770.1	59.0	15.0	73	WSW			1		10			0	0	Rainy	Prof. E. Heis.
Pozen			30.30	769.6	69.3	20.7	58	SW			2		3			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.28	769.0	61.5	16.4	55	W			5		10			0.165	4.2		Hartwig and Tülk.
Stuttgart			30.35	771.0	65.7	18.7	45	NE					4			0	0		Mr. Würth.
Trorn			30.33	770.4	64.9	18.3	44	N					2			0	0		Dr. Rosenbalg.
Treves, (Trier)			30.19	766.8	63.5	17.5	44	WSW			4		5			0	0		Prof. Flesch.
Wusirow			30.29	769.4	69.4	20.8	42	S			2		1			0	0		E. F. Schütz.
			30.15	765.9	56.3	13.5	77	WSW			4					0.016	0.4		

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.24	768.0	67.6	19.8	63	SSE	0	0			8	F		0	0		
Mondovi			30.25	767.4	64.4	18.0	69	NW			4		10	NW		0	0		
Genoa			30.20	767.1	73.2	22.9	48	N	3.8	1.7			6	N		0	0		
Savia			30.24	768.1	70.9	21.6	41	NE			2		8	NE		0	0		
Verona			30.20	767.1	76.1	24.5	43	E			4		3			0	0		
Padua			30.22	767.5	67.5	19.7	47	SW	3.1	1.4			1			0	0		
Parma																			
Bologna			30.23	766.7	56.1	13.4	27	E E					1			0	0		
Leghorn			30.22	767.5	59.0	15.0	46	NE	17.4	7.8	4		1			0	0		
Urbino			30.27	767.9	64.8	18.2	60	NNE			4		4			0	0		
Ancona			30.14	765.4	68.0	20.0	26	SE								0	0		
Siena			30.12	765.1	75.2	24.0	53	S	9.4	4.2			4	S		0	0		
Rome			30.13	765.3	76.6	24.8	35	SE	10.5	4.7	2		10			0	0		
Naples, O.U.																			
Lecce			30.12	765.1	66.6	19.2	60	NW	21.0	9.4			0			0	0		
Cosenza			30.11	764.7	64.0	17.8	78	NNE			2		10			0.276	7.0	Raining	
Catania, (Sicily)																			
Trapesto			30.08	764.0	75.2	24.0	47	SE			2		4	SW		0	0		
Palermo			30.06	763.8	71.4	21.9	58	NE			4		7			0	0		
Sub-Series.																			
Naples, S. R.			30.17	766.4	72.1	22.3	46	SE			1		..ck		SW	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.39	771.8	58.6	14.8		WNW			2								
Groningen			30.20	767.1	66.7	19.3		W			5								
Helder			30.29	769.4	55.8	13.2		SW			4								
Utrecht			30.28	769.2	68.4	20.5	48	W			4		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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			29.94	760.4	49.6	9.8	74	NNW	5.4	2.4			10			0.264	5.7		
Christiania			29.79	756.7	57.2	14.0	71	SW	4.5	2.0			5			0.087	2.2		
Tromsö			29.68	753.8	43.3	6.3	75	Calm			0		0			0.047	1.2		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon	29.61	752.1			74.5	23.6	58	NNE	4.9	2.2			7						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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	766.6	59.4	15.2	50	W	7	3			2						Astronomical Obs.
Wilna			30.07	763.[illegible]	61.9	16.6	46	W	4	2			8						Astronomical Obs.
Dorpat			30.04	763.0	58.6	14.8	56	W	7	3			4						Physical Cabinet.
St. Petersburg			29.97	761.1	52.5	11.4	72	WNW	9	4			2						Central Physical Obs.
Kuopio																			
Kieff			30.03	762.8	68.0	20.0	56	E	2	1			6						Physical Cabinet.
Nikolaiev			29.98	761.5	73.2	22.9	44	SW	4	2			5						
Kertch			29.95	760.8	60.8	16.0	79	S	8	3.5			9						Lagorio.
Moscow			30.12	765.0	69.1	20.6	34	SW	8	3.5			6						Meteorological Obs.
Lugan			29.91	759.8	68.9	20.5	39	ESE	17	7.5			8						Meteorological Obs.
Archangel			29.60	751.7	41.0	5.0	87	SSW	25	11			10					Raining	Ogorodnikof.
Tiflis			29.95	760.8	78.4	25.8	37	S	13	6			10						Physical Obs.
Astrakhan			30.28	769.0	62.[illegible]	[illegible].1	47	E	17	7.5			2						Sebastianof.
Kasan			30.15	765.7	68.0	20.0	38	W	10	4.5			5						Physical Cabinet.
Orenburg			30.35	770.9	67.8	19.9	65	W	8	3.5			5						Tschernischef.
Ekaterinburg			29.97	761.1	50.9	10.5	77	W	20	9			10						Meteorological Obs.
Kasaly			30.30	769.6	60.3	15.7	81	E	8	3.5			0						Bobrof.
Tashkend			30.29	769.4	66.9	19.4	19	Calm	0	0			0						Michelson.
Barnaul			29.95	760.7	44.1	6.7	71	SSW	10	4.5			4						Meteorological Obs.
Yeniseisk			29.63	752.6	35.2	1.8	73	S	10	4.5			10						Marks.
Irkutsk			29.79	756.7	34.9	1.6	82	SW	10	4.5			0						Usolzef.
Oorga																			Mossin.
Peking, (China)			29.82	757.5	67.6	19.8	68	S	8	3.5			3						Physical Observatory
Nertchinsk			29.53	750.0	47.1	8.4	66	NW	8	3.5			7						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					34.9	1.6	93	E	10	4.5			9						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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	81.7	27.6	42	E	9.7	4.34		2	2	E		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.76	755.9	46.4	8.0	75	S			2		8			0	0		
Hernosand			29.69	754.0	51.1	10.6	58	SW			2		6			0	0		
Stockholm			29.80	756.9	54.3	12.4	52	SSW			3		10			0.09	2.3		
Wisby			29.95	760.8	56.5	13.6	71	SW			5		4			0.01	0.3		
Sun-Series.																			
Upsala			29.82	757.3	50.7	10.4	82	WSW			2		10					Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.87	733.4			63.3	17.4	54	N			2		6			0	0		The Observatory.
Zurich	28.70	728.9			64.4	18.0	49	NE			1		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +8.5mm.; Thermometer, +1°.4 C.; Relative Humidity, —3 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut (Syria)			29.80	757.0	72.9	22.7	74	SW			2		10						Prof. C. N. A. Van Dyck.
Constantinople			30.01	762.2	63.7	17.6	61	SE	2	1			5		N	0	0		
Fao (Persian Gulf)			29.84	757.9	84.2	29.0		SE			3		0						
Salonica					74.8	23.8		SW			1		10						
Valona			30.03	76[illegible].8	62.2	16.8		W			1		10						
Varna			30.04	763.0	60.8	16.0		NE			3		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.53	750.0	54	12.2		S	1	0.4			10s		SW	0.10	2.5		
Chatham, N. B.			30.06	763.5	53	11.7	57	Calm	0	0		0	0			0	0		
Charlottetown, P. E. Island			30.09	764.3	49	9.4	72	S	5	2.2		0	0			0	0		
Fort Garry, Manitoba			30.10	764.5	32	0.0	94	W	3	1.3		0	0			0.30	7.6		
Halifax, N. S.			30.02	762.5	56	13.3	63	SE	4	1.8		2c	0	SW		0	0		
Kingston, Ontario			29.56	750.8	51	10.6	87	S	12	5.4			10s			0.04	1.0		
Montreal, Quebec			29.70	754.4	50	10.0	80	SE	10	4.5			10n		E	0.06	1.5	Light rain	
Ottawa, Ontario			29.46	748.3	48	8.9	77	E	7	3.1			10n		S	0.07	1.8	Light rain	
Parry Sound, Ontario			29.34	745.2	47	8.3	96	E	5	2.2		.5k	5ks	SE	SE	1.02	25.9		
Port Dover, Ontario			29.50	749.3	45	7.2	76	SW	28	12.5		10k	0	SW		0.29	7.4		
Port Stanley, Ontario			29.52	749.8	4[illegible]	5.6	91	SW	40	17.9			10n		SW	0.05	1.3		
Quebec, Quebec			29.90	759.4	42	5.6	74	NE	34	15.2			10n			0	0		
Saugeen, Ontario			29.33	745.0	47	8.3	92	SW	14	6.3			10ks			0.78	19.8		
Stayner, Ontario			29.37	746.0	51	10.6	93	SE	5	2.2			10n		S	0.52	13.2	Light rain	
Sydney, C. B.			30.11	764.8	54	12.2	52	N	6	2.7		0	2ks			0	0		
Toronto, Ontario			29.43	747.5	51	10.6	83	SW	21	9.4		2ck	5n	SW		0.28	7.1		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.72	754.9	64	17.8	63	SE	15	6.7		2k	5s	S	S	0	0		
Alpena, Mich.			29.52	749.8	39	3.9	90	N	24	10.7			10n		N	2.11	53.6	Light rain...	
Atlantic City, N. J.			29.92	760.0	55	12.8	80	S	20	8.9		10cs	0	SW		0	0		
Augusta, Ga.			29.99	761.7	67	19.4	84	SE	4	1.8		2c	2s	S	SE	0	0		
Baltimore, Md.			29.81	757.2	65	18.3	59	SW	9	4.0		5cs	5s	W	W	0	0		
Barnegat, N. J.			29.93	760.2	59	15.0	73	SE	6	2.7		5cs	2s	S		0	0		
Benton, Montana			29.91	759.7	48	8.9	70	SW	16	7.2		5c	2s	SW		0	0		
Bismarck, Dakota			29.84	757.9	40	4.4	56	S	10	4.5			10s			0	0		
Boston, Mass			29.96	761.0	62	16.7	56	S	10	4.5		2cs	5s	W		0	0		
Breckenridge, Minn.			30.09	764.3	37	2.8	90	NW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.45	748.0	50	10.0	73	SW	12	5.4		2k	5ks	SW	SW	0.19	4.8		
Burlington, Vt.			29.74	755.4	53	11.7	73	S	6	2.7			10s			0	0		
Cairo, Ill.			30.18	766.6	56	13.3	56	NW	4	1.8		0	0			0	0		
Cape Hatteras, N. C.			30.02	762.5	70	21.1	75	S	12	5.4		0	0			0	0		
Cape Henry, Va.			29.98	761.5	73	22.8	59	SW	12	5.4		2c	Haze	NW		0	0		
Cape May, N. J.			29.92	760.0	55	12.8	87	S	24	10.7			8s		SE	0	0		
Charleston, S. C.			30.05	763.3	73	22.8	90	S	4	1.8		0	5ks		S	0	0		
Cheyenne, W. T.			30.00	762.0	46	7.8	14	W	16	7.2		2c	0	W		0	0		
Chicago, Ill.			29.93	760.2	46	7.8	61	NW	11	4.9		0	0			0.54	13.7		
Cincinnati, Ohio			30.00	762.0	53	11.7	61	W	12	5.4			10ks		W	0.21	5.3		
Cleveland, Ohio			29.64	752.8	45.0	7.2	76	W	24	10.7			10ks		W	0.22	5.6		
Colorado Springs, Col.			30.10	764.5	35	1.7	54	N	4	1.8		2c	0	NW		0	0		
Corsicana, Texas			30.23	767.8	53	11.7	56	N	6	2.7			10s			0.04	1.0		
Davenport, Iowa			30.08	764.0	45	7.2	84	NW	12	5.4		0	0			0.06	1.5		
Denver, Col.			30.09	764.3	43	6.1	36	Calm	0	0		5cs	0	W		0	0		
Detroit, Mich.			29.57	751.1	42	5.6	83	NW	28	12.5			10n		NW	0.28	7.1	Light rain..	
Dodge City, Kansas			29.90	759.4	50	10.0	39	S	13	5.8		0	0			0	0		
Dubuque, Iowa			30.09	764.3	45	7.2	84	E	4	1.8		5k	0	W		0.06	1.5	Clearing ...	
Duluth, Minn.			30.00	762.0	44	6.7	67	SW	4	1.8		8k	0	W		0	0		
Eastport, Me.			30.06	763.5	49	9.4	71	S	8	3.6		2c	0	W		0	0		
Erie, Penn.			29.51	749.5	49	9.4	77	SW	30	13.4			10ks		SW	0.22	5.6		
Escanaba, Mich.			29.87	758.7	43	6.1	58	N	16	7.2		5cs	Haze	NE		0	0		
Fort Gibson, I. T.			29.70	754.4	51	10.6	86	Calm	0	0		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.07	763.8	44	6.7	76	Calm	0	0		5k	0	SW		0	0		
Galveston, Texas			30.08	764.0	71	21.7	90	NE	12	5.4			10ks		SW	0.04	1.0	Threatening	
Grand Haven, Mich.			29.82	757.4	43	6.1	62	NW	25	11.2		10cs	0	N		1.41	35.8		
Indianapolis, Ind.			29.97	761.2	51	10.6	65	W	12	5.4			10s			0.01	0.3		
Indianola, Texas			30.10	764.5	69	20.6	95	N	12	5.4		5cs	5s			0	0		
Jacksonville, Fla.			30.06	763.5	74	23.3	85	SW	7	3.1			10s			0.03	0.8		
Keokuk, Iowa			30.10	764.5	53	11.7	54	NW	7	3.1		0	0			0	0		
Key West, Fla.			30.07	763.8	79.3	26.3	66	E	8	3.6		0	2ks			0	0		
Kittyhawk, N. C.			30.02	762.5	69	20.6	69	S	16	7.2		0	0			0	0		
Knoxville, Tenn.			30.05	763.3	58	14.4	58	N	12	5.4			10ks		W	0	0		
La Crosse, Wis.			30.03	762.7	47	8.3	69	Calm	0	0		2ck	0			0.87	22.1		
Leavenworth, Kan.			30.20	767.1	54	12.2	54	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.04	763.0	53	11.7	61	NW	18	8.0		10k	0	NW		0.07	1.8		
Long Branch, N. J.			29.90	759.4	53	11.7	79	S	20	8.9		2c	5s	SW	SW	0	0		
Louisville, Ky.			30.05	763.3	54	12.2	61	SW	12	5.4		0	0			0.06	1.5		
Lynchburg, Va.			29.96	761.0	65	18.3	58	S	4	1.8			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.92	760.0	40	4.4	56	NW	12	5.4		5c	0			0	0		
Memphis, Tenn.			30.21	767.3	60	15.6	65	NW	4	1.8		0	0			0	0		
Milwaukee, Wisconsin			29.93	760.2	43	6.1	58	NW	16	7.2		0	0			2.69	68.3		
Mobile, Ala.			30.05	763.3	70	21.1	79	NW	4	1.8		8k	2s			0.16	4.1		
~~Montgomery, Ala.~~			30.02	762.5	69	20.6	74	W	3	1.3		10cs	Haze	W		0	0		
Morgantown, W. Virginia			29.78	756.4	61	16.1	55	SW	22	9.8		0	8s			0.14	3.5		
Mt. Washington, N. H.			30.06	763.5	35	1.7	100	SW	47	21.0			Fog			0	0		
Nashville, Tenn.			30.14	765.5	61	16.1	44	NW	6	2.7		0	0			0.02	0.5		
New Haven, Conn.			29.94	760.5	59	15.0	64	S	8	3.6		4cs	2s	NW		0	0		
New London, Conn.			30.01	762.2	55	12.8	71	SE	11	4.9		8c	0	W		0	0		
New Orleans, La.			30.08	764.0	72.5	22.5	78	W	4	1.8		5cs	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.89	759.2	58	14.4	76	SE	5	2.2			10s			0	0		
Norfolk, Va.			29.97	761.2	71	21.7	66	SW	16	7.2		0	0			0	0		
North Platte, Neb.			29.79	756.7	47	8.3		SE	8	3.6		2c	0	W		0	0		
Omaha, Neb.			30.16	766.1	50	10.0	64	Calm	0	0		0	0			0.02	0.5		
Oswego, N. Y.			29.51	749.5	59.9	15.5	66	S	16	7.2			10s			0.10	2.5	Threatening	
Peck's Beach			29.93	760.2	55	12.8	79	S	22	9.8			10s		W	0	0		
Pembina, D. T.			30.08	764.0	39	3.9	76	E	1	0.4		0	0			0.19	4.8		
Philadelphia, Penn.			29.86	758.4	64	17.8	67	SW	24	10.7		2c	5s	W	W	0	[illegible]		
Pike's Peak, C. T.			30.05	763.3	21	— 6.1	71	W	24	10.7		2c	0	E		0	0		
Pittsburgh, Penn.			29.68	753.9	58	14.4	58	SW	20	8.9		8k	0	SW		0.13	3.3		
Port Huron, Mich.			29.42	747.3	42	5.6	91	W	24	10.7			10n		W	0.35	8.9	Ligh[illegible]	
Portland, Maine			29.99	761.7	52	11.1	73	S	6	2.7			10s		SW	0	0		
Portland, Or.			30.26	768.6	46	7.8	84	Calm	0	0		5k	5s			0.10	2.5		
Punta Rassa, Fla.			30.11	764.8	78.5	25.8	73	E	8	3.6		2k	Haze			0	0		
Rochester, N. Y.			29.46	748.3	60	15.6	65	S	10	4.5		0	5s		SW	0.01	0.3		
Salt Lake City, Utah			30.02	762.5	57	13.9	48	E	4	1.8			10s			0	0		
Sandy Hook, N. J.			29.87	758.7	60	15.6	76	S	15	6.7		8cs	Haze	SW		0	0		
San Diego, Cal.			29.93	760.2	59	15.0	87	N	4	1.8			10s			0	0		
San Francisco, Cal.			30.07	763.8	54	12.2	80	Calm	0	0		Haze	0			0	0		
Santa Fe, N. M.			29.87	758.7	55	12.8	28	NW	4	1.8		0	Haze			0	0		
Savannah, Georgia			29.95	760.7	72	22.2	85	SW	4	1.8		8ck	Fog			0	0		
Shreveport, La.			30.22	767.6	60	15.6	70	N	9	4.0		8c	2s	W		0.22	5.6		
Springfield, Mass.			29.92	760.0	57	13.9	65	SW	8	3.6			10ks		SW	0	0	Threatening	
St. Louis, Mo.			30.16	766.1	55	12.8	50	NW	14	6.3		0	0			0	0		
St. Marks, Fla.			30.09	764.3	70	21.1	95	N	1	0.4			10s			0	0		
St. Paul, Minn.			30.00	762.0	44	6.7	75	W	4	1.8		0	0			0	0		
St. Paul's Island, Alaska			29.97	761.2	31	— 0.6	78	NNW	11	4.9			10s			0	0		
Squan Beach, N. J.			29.91	759.7	50	10.0	86	S	14	6.3		2c	0	SW		0	0		
Toledo, Ohio			29.72	754.9	46	7.8	69	W	30	13.4			10s		W	0.24	6.1		
Tybee Island, Ga.			30.04	763.0	77	25.0	86	SW	4	1.8		2c	2ks	SW		0	0		
Vicksburg, Miss.			30.21	767.3	63	17.2	66	N	8	3.6			10s		N	0.68	17.3		
Virginia City, Mon.			29.76	755.9	42	5.6	83	Calm	0	0			10s			0	0		
Washington, D. C.			29.82	757.4	64	17.8	59		24	10.7		5cs	2s	W	SW	0	0		
Wilmington, N. C.			30.02	762.5	72	22.2	75	S	11	4.9		0	2ks		SW	0	0		
Wood's Hole, Mass.			30.05	763.3	55	12.8	61	S	14	6.3		5c	0	NW		0	0		
Wytheville, Va.			29.67	753.6	61	16.1	50	W	12	5.4			10s			0	0		
Yankton, D. T.			30.19	756.8	47	8.3	77	Calm	0			1ks	0	NW		0.01	0.3		

NOTE.—The orig[...] give the cloudiness [...] a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.			30.08	764.0	84	28.9	83	NE	5	2.2		5k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, Guadeloupe, do			29.92	759.7	78	25.6	69	NE				2c	2ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.80	756.9	79	26.1	82	SE	6.0	2.7		2k	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.18	766.6	79	26.1	82	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.			30.22	767.6	78	25.6	65	E	7	3.1		0	2k			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	79	26.1	78	Calm	0	0		0	2s		NE	0	0		Robert Mason.
St. Georges, Bermudas			30.11	764.8	69.5	20.8	82	Calm	0	0		0	5k			0.025	6.35		C. F. Allen.
Honolulu, Oahu, S. I.			30.09	764.3	65	18.3	74	NE			2	0	5k			0	0		E. P. Church.
Makawao, Maui, S. I.	27.84	707.1			60	15.6	94	Calm			0	0	1ks			0.30	7.6		F. L. Clarke.
Cumberland, B. A.																			
Fort Chippewyan, B. A.																			
Fort McPherson, B. A.																			
Fort Simpson, B. A.																			
York Factory, B. A.																			
Clifton, Jamaica, W. I.			30.16	766.3	22.0	— 5.6	100	N	10	4.5			10s			0	0		J. Fortescue.
St. John's, Newfoundland			30.02	762.5	62	16.7	83	N	3.0	1.3		2c	0	NNE		0	0		C. Partridge.
St. John's, Porto Rico, W. I.			30.09	764.3	56	13.3	53	W				5k	5s			0	0		John Delaney.
Elyria, Ohio																			Leon M. Acuña.
Indianola, Iowa			29.66	753.4	45	7.2	38	W	32	14.3			10n			0.25	6.3		H. M. Redington.
	29.24	742.4			49	9.4	71	NW				0	0			0	0		G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.	Observer.
Schooner Addie Fuller, N. 21° 47′, W. 58° 43′	SSW	3.5	Short sea.	WNW	Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 13, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.0	70.0	21.1		NE			2		6			0	0		Charnot.
Algiers			30.13	765.3	69.4	20.8	75	NE			1		6			0	0		Peter.
La Calle			30.08	764.1	71.8	22.1		NW			3		2			0	0		Kuntz.
Tunis			30.05	763.3	77.7	25.4	52	NE			4		2			0	0		Jacques.
Biaz			30.04	763.0	74.8	23.8	64	S			4		1			0	0		Chauvey.
Saïda			30.15	765.8	86.0	30.0		N			1		0			0	0		Grosjean.
Tebessa			30.10	764.5	75.4	24.1		NNE			2		2			0	0		Colin.
Geriville			30.15	765.8	78.8	26.0		NNE			1		0			0	0		Bernadach.
Laghouat			30.13	765.4	82.4	28.0	22	E			1		1			0	0		Poinsignon.
Biskra			30.08	763.9	89.6	32.0		SE			3		2			0	0	Sirocco	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Azram			30.10	764.4	69.8	21.0	51	SW			2		8			0.028	0.7	Thunder-storm	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Sperles			30.02	762.4	58.8	14.9	80	W			3		10			0.110	2.8		I. R. Observatory.
Gratz			30.01	762.2	55.8	13.2	85	Calm			0		10			0.012	0.30		Julius Mikolik.
Hermannstadt			30.10	764.5	66.9	19.4	56	NW			5		8			0	0		Andreas Rospini.
Kremsmünster			29.95	760.7	61.5	16.4	45	NNW			3		4			0.070	1.70		Prof. Reissenberger.
Lemberg			30.13	765.3	63.3	17.4	59	W			3		8			0.177	4.5		Prof. C. Wagner.
Ny-rekyhaza			29.83	760.1	53.6	12.0	87	W			4		10			0.008	0.2	Raining	Dr. T. Stanecki.
Pola			30.03	762.7	66.9	19.4	51	N			2		5			0.194	4.96		Habzsuda Daniel.
Szegedin			30.11	764.8	64.8	18.2	56	WNW			3		2cks			0	0		I. R. Hydrographic Office
Trieste			30.02	762.4	68.0	20.0	34	NW			3		4			0.142	3.60		Karl Stancel.
Vienna			30.12	765.2	65.7	18.7	56	NNW			1		3			0	0		Prof. V. Farolfi.
			30.08	764.1	61.7	16.5	72	W			4		8			0.138	3.5	Raining	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.08	764.1			65.3	18.5	60	N			1		9c,k,ks		NNW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Aberdeen			30.15	765.8	61.4	16.3		SE	7	3.1			0			0	0		William Boswell.
Annanhill																			
Ardrossan			30.26	768.6	67	13.9		SW			2		5						William McNeill.
Armagh Observatory			30.31	769.9	57.8	14.3		SW	8	3.6			8						S. Cali, for Dr. Rob
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.22	770.1	57.4	14.1		WNW			3		7						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.34	770.6	60.8	16.0		SW			1		8						J. Dreyer, for Ld R
Bradford			30.25	768.3	61.0	16.1		W			2		8						J. Mc Landsborough
Bridgetown, (Barbadoes)			29.94	760.5	82.0	27.8		NE			2		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.29	769.4	68.5	20.3		W			1		3						H. Todd.
Cape Town, (Cape Colony)			30.06	763.5	69.0	10.6		S			4		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.09	764.3			67.4	19.7	62	S	19	8.5			1						Th Staff, for E. J. St
Cardington			30.32	770.1	74.0	23.3		W					4						John McLaren.
Carlisle			30.27	768.8	63.4	17.4		W					4			0	0		T Bell, for J. Cart
Chatham, School M. E.			30.29	769.4	72.2	22.3		W			1		5						Q. M. Sergt. J. Co
Colombo, (Ceylon)			29.84	757.7	81.2	27.3		SW			5		4						Sgt. W. F. Hopkin
Dartmoor			30.38	771.6	65.0	18.3		NW			1		2						R. E. Power.
Donaghadee			30.28	769.1	62	16.7		NW			2		5						J. Mac Gowan, Jr.
Dover			30.31	769.9	62	16.7		WSW			2		3					Hazy	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.29	769.4	60.0	15.6		WNW					8						Thomas Mackereth.
Falmouth Observatory			30.37	771.4	60.6	15.9		SSE	8	3.6			1						The Staff.
Fort Napier, (Natal)			29.88	758.0	83.4	28.1		[illegible]			1		5						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.80	756.9	86	30.0		N					8						
Galway, Queen's College			30.28	769.1	57	13.9		SW			1		8						B.G. Clare, for Prof
Gibraltar, (Mediterranean)			30.04	763.0	70.0	21.1		ENE			5		0						Sergt. E. G. Baker.
Glasgow Observatory			30.22	767.6	56.0	13.3		WNW			4		10						James Gray.
Great Yarmouth			30.28	769.1	62	16.7		N			3		3					Hazy	G. T. Watson.
Greenwich Royal Obs.			30.30	769.6	73.1	22.8		W			1		9					Misty	The Staff, for G. B. A
Guernsey			30.24	768.1	61	16.1		NNW			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.24	768.1	60.0	15.6		WNW					10						F. J. Pace, for L. J. C
Halifax, (Nova Scotia)			29.90	759.4	49.0	9.4		SW			4		10					Raining	Corp'l J. Y. Thomp
Helston			30.33	770.4	67	19.4		S			2		0						Dr. W. B. [illegible]
Holyhead			30.32	770.1	61	16.1		SSW			3		4						John Tilston.
Hull Park																			
Kew Observatory			30.31	769.9	68.0	20.0		WNW	7	3.1			5						The Staff.
Kingstown			30.29	769.4	62	16.7		ESE			3		5						George Mitchell.
Lampeter																			
Leicester Museum			30.32	770.1	64.6	18.1		W			3		3						William J. Harrison.
Llandudno			30.32	770.1	61.1	16.2		NW					9						Dr. James Nicol.
Malta, (Mediterranean)			29.98	761.5	70.0	21.1		NE			1		4k						Fred Travis, Pvt A
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.12	765.0	66	18.9		W			2		8						William D. Penny.
Nassau, (Bahamas)			30.20	767.1	80.3	26.8		E			3		6						Surg.-Maj. J. Jame
North Shields			30.22	767.6	64	17.8		W			3		2						John Wm. Irvine.
Nottingham			30.30	769.6	66.7	19.3		WNW			3		7k		W				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.30	769.6	65.1	18.4		W			3		3					Hazy	Rev. Stephen Whi
Oxford, Radcliffe Obs.			30.26	768.6	70	21.1		WNW			1		7						J. Lucas, for R. Ma
Plymouth			30.34	770.6	62	16.7		SSW			3		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.36	771.1	58	14.4		SW			2		10					Foggy	W. Kennedy.
Saint Ann's Head			30.36	771.1	55	12.8		Calm			0		10					Foggy	John C. Walker.
Saint Helier, (Jersey)			30.32	770.1	71.0	21.7		SE			1		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.11	764.8	52.9	11.6		W	23	10.3			0						Rev. C. Clouston.
Scarborough			30.26	768.6	58.1	14.5		SE			1		6						F. Shaw.
Scutari, (Turkey)			29.84	760.5	58.2	14.6		W			1		7			Blank	Blank		Sergt. W. H. Lyne.
Sheffield			30.28	769.1	63.1	17.3		WNW			1		2			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.27	768.8	66.0	18.9		SW			5		2			0	0		Rev Francis Redfo
Somerleyton, (Lowestoft)			30.26	768.6	69.6	20.9		WNW			1		7						Rev. C. J. Steward.
Stonyhurst Observatory			30.31	769.9	56.4	13.6		W			2		10					Threatening	The Staff.
Stornoway, Lews C. (Hebr).			30.11	764.8	60	15.6		W			3		7						John Smith.
Strathfield Turgiss			30.31	769.9	75.4	24.1		NW			1		1						Rev Charles H. Gr
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.13	765.3	55	12.8		W			4		6						John Trotter.
Truro, Royal Institution			30.31	769.9	69	20.6		N			4		3						W Newcombe.
Valencia Observatory			30.34	770.6	60.7	15.9		SW	6.5	2.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.32	770.1	68.4	20.2		SW			2		4						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressure reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Stations.	Corrected Inches.	Millimeters.	Reduced Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	Force 0—10.	Up'er 0—10.	Low'r 0—10.	Upper From—	Lower From—	Rain Inches.	Millimeters.	Weather.
Copenhagen			29.97	761.2	63.0	17.2	66	NW			7		4					
Fanöe			30.09	764.2	62.0	11.1	85	W			6		1					
Godthaab, (Greenland)																		
Stykkisholm, (Iceland)			29.58	751.3	42.1	5.6	71	SW			4		10					Raining
Thorshavn, (Faröe)			29.94	760.5	50.4	10.2	60	WSW			6		5					
Vestervig			30.02	762.5	53.6	12.0	86	WNW			6		6					

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.5	75.4	24.1	61						1c						Normal School.
Alençon			30.28	769.1	75.2	24.0	27	NE			1		2c			0	0		Normal School.
Amiens			30.31	769.8	77.7	25.4	49	NW			1		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.32	770.1	69.0	20.9	43	NE			1		5		NNE	0	0		Normal School.
Besançon			30.29	769.4	73.8	23.2	44	ENE			3		0			0	0		Normal School.
Bourg en Bresse			30.24	768.1	76.1	24.5	37	N			2		2		S	0	0		Normal School.
Bourges			30.30	769.7	72.3	22.4	50	NNE			3		2		S	0	0		Normal School.
Brest			30.26	768.6	71.4	21.9	51	NE			2		0			0	0		Naval Observatory.
Caen			30.32	770.2	68.4	20.2	47	NW			1		0			0	0		Normal School
Chartres			30.26	768.5	74.3	23.5		NNE			1		1c		N	0	0		Normal School.
Chaumont			30.23	767.8	70.9	21.6		NW			2		8		NW	0	0		Normal School.
Commercy			30.32	770.2	68.7	20.	50	NW			2		5		SE	0	0		Normal School.
Le Mans			30.43	772.8	71.4	21.9	84	N			2		2		N	0	0		Normal School.
Lons-Le Saulnier			30.23	767.8	66.9	19.4	40	NNE			4		0			0	0		Normal School.
Mâcon																			
Mirecourt			30.32	770.2	64.9	18.3	11	N					8			0	0		Normal School.
Orleans			30.40	772.2	77.0	25.0	27	NW			2		2		NW	0	0		Normal School.
Paris Observatory			30.28	769.0	71.0	22.0		NNW			2		0			0	0	Misty	National Observatory
Parthenay			30.29	769.3	69.8	21.0	25	NE			6		5		E	0	0		Normal School.
La Roche sur Yon			30.26	768.5	8[illegible]	27.0	31	NE			6		2		SE	0	0		Normal School.
Rouen			30.26	768.7	75.0	24.2	46	N			2		1			0	0		Normal School.
Saint Lo			30.36	771.2	69.8	21.0	46	NNW			2		1		NW	0	0		Normal School.
Villefranche			30.27	768.8	76.1	24.5	39	N			4		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.04	636.1			63.5	17.5	59	NE	13.1	5.83			2		NNE	0	0		—. Falguère.
Montsouris Observatory			30.27	768.9	73.0	22.8	34	N			1		2c&ck		NW	0	0	Misty	Marié Davy.
Perpignan	30.01	762.3			73.4	23.0	39	ENE	5.6	2.50			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.27	768.9	75.0	23.9	36	NNE			2		1c			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.26	768.6	77.0	25.6	29	NE			2		2		N	0	0		C. Marquet.
Versailles, (near Paris)			30.28	769.0	74.8	23.8	33	N			2		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			29.89	759.2	59.0	15.0	92	N	10.5	4.7			Fog			0.358 / 0.441	9.1 / 11.2	Drizzling	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; for Beaumette, Mont-Louis Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			30.15	765.8	68.4	20.2	52	W			2		2			0	0		Prof. Höh.
Berlin			30.18	766.6	64.9	18.3	85	NW			4		6			0.40f	10.3		Prof. Arndt.
Breslau			30.15	765.8	58.3	14.0	72	WNW			5		10			0.063	1.6		Dr. P. Neugebauer.
Carlsruhe			30.19	766.9	70.7	21.5	42	NW			1		2			0	0		A. Senz.
Cassel			30.15	765.8	68.7	20.4	54	N			3		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			M. Wilhelm.
Hamburg			30.19	766.9	65.3	18.5	58	W					3			0	0		W. Reinert.
Kiel			30.18	766.6	64.4	18.0	61	W			5		8k			0.025	0.63	Rainy	Prof. G. Karsten.
Königsberg			30.13	765.4	62.4	16.9	66	WNW			4		9			0	0		Prof. E. Luther.
Koslin			29.91	759.6	51.8	11.0	85	W			2					0.124	3.04		Dr. Tägert.
Leipsic			30.19	766.9	53.2	11.8		NW			6		5			0.055	1.4		Dr. Brubns.
Münster			30.19	766.8	64.9	18.3	59	NW			2		9			0	0		Prof. E. Heis.
Posen			30.23	767.8	67.3	19.6	60	W			2		0			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			30.08	764.1	60.4	15.8	60	NW			8		6			0	0		Hartwig and Tülk.
Stuttgart			30.21	767.3	70.9	21.6	36	NE					2			0	0		Mr. Würth.
Thorn			30.17	766.3	72.1	22.3	56	N					4			0	0		Dr. Hessenbalg.
Treves, (Trier)			30.00	762.1	56.3	13.5	69	W W			4		9			0.118	3.0		Prof. Flesch.
Wustrow			30.19	766.9	71.8	22.1	46	NW			4		5			0	0		E. F. Schütz.
			30.09	764.3	53.4	11.9	86	W			2		5cs			0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.12	765.0	70.7	21.5	60	SSW	1.8	0.8			2			0	0		
Mondovi			30.08	764.3	68.0	20.0	50	E			4		0			0	0		
Genoa			30.13	765.2	70.9	21.6	57	SW	3.8	1.7			0			0	0		
Pavia			30.12	765.0	72.7	22.6	38	SE			1		0			0	0		
Verona			30.10	764.4	76.6	24.8	47	SW			4		0			0	0		
Padua			30.10	764.5	70.0	21.1	54	SSW	3.8	1.7			3			0	0		
Parma																			
Bologna			30.12	765.1	69.4	20.8	48	NW	7.4	3.3			5			0	0		
Leghorn			30.15	765.9	60.4	15.8	60	NE			4		8			0	0		
Urbino			30.14	765.5	65.8	18.8	71	NNW			4		4			0	0		
Ancona			30.07	763.8	70.0	21.1	33	ENE	4.9	2.2			7	NE		0	0		
Siena			30.06	763.5	74.8	23.8	24	N	5.6	2.5			5	NW		0	0		
Rome			30.06	763.4	72.1	22.3	26	E			6		7	NE		0	0		
Naples, O.U.																			
Lecce			30.02	762.6	66.2	19.0	42	NNW	28.0	12.5			0			0	0		
Cosenza			30.02	762.4	69.1	20.6	57	NW			2		0			0	0		
Catania, (Sicily)																			
Girgento			30.02	762.5	68.4	20.2	68	SE			2		8			0	0		
Palermo			29.99	761.8	68.5	20.3	56	NE			4		1			0	0		
Sub-Series.																			
Naples, S. R.			30.12	765.1	70.2	21.2	42	E			1		..kn			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.35	770.6	59.4	15.2		NW			2								
Groningen			30.18	766.5	63.7	17.6		NW			4								
Helder			30.26	768.5	55.8	13.2		W			2								
Utrecht			30.22	767.6	67.7	19.7	65	WNW			4		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.93	760.3	50.4	10.2	82	WNW	13.2	5.9			10			0	0		
Christiania			29.72	754.8	65.7	18.7	32	WSW	19.1	8.9			3			0	0		
Tromsö			29.61	752.0	43.5	6.4	76	S			1		5			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.65	753.1			78.3	25.7	40	ESE	11.2	5.0			6						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.93	760.1	59.0	15.0	71	WNW	9	4			10						Astronomical Obs.
Wilna			29.83	757.6	54.3	12.4	89	Calm	0	0			10					Raining	Astronomical Obs.
Dorpat			29.74	755.3	51.4	10.8	89	SSW	9	4			10						Physical Cabinet.
St. Petersburg			29.67	753.6	58.1	14.5	70	WNW	2	1			10						Central Physical Obs.
Kuopio																			
Kieff			29.87	758.6	55.8	13.2	42	NW	7	3			5						Physical Cabinet.
Nikolaiev			29.83	757.7	67.8	19.9	62	NNW	8	3.5			6						
Kertch			29.79	754.9	65.3	18.5	70	NNE	8	3.5			10						Lagorio.
Moscow			29.93	760.2	63.1	17.3	59	S	8	3.5			7						Meteorological Obs.
Lugan			29.64	752.8	69.6	20.9	43	ENE	8	3.5			9						Meteorological Obs.
Archangel			29.88	759.0	49.3	9.6	87	Calm	0	0			10					Raining	Ogorodnikof.
Tiflis			29.79	756.6	78.8	26.0	43	SE	8	3.5			8						Physical Obs.
Astrakhan			29.99	761.7	67.5	19.7	39	E	20	9			9						Sebastianof.
Kasan			30.02	762.4	65.7	18.7	30	SW	10	4.5			9						Physical Cabinet.
Orenburg			30.35	770.9	70.7	21.5	81	S	4	2			2						Tschernischef.
Ekaterinburg			29.94	760.5	65.5	18.6	29	W	20	9			5						Meteorological Obs.
Kasaly			30.26	768.7	71.8	22.1		ESE	13	6			0						Bobrof.
Tashkend			30.26	768.6	70.2	21.2	26	SW	8	3.5			0						Michelson.
Barnaul			29.95	760.6	53.2	11.8	71	WNW	4	2			4						Meteorological Obs.
Yeniseisk			29.68	75[illegible].8	28.0	— 2.2	67	NW	13	6			4						Marks.
Irkutsk			29.71	754.7	44.6	7.0	47	Calm	0	0			0						Usolzef.
Oorga			30.07	763.6	34.9	1.6	72	Calm	0	0			0						Mossin.
Peking, (China)			29.80	757.0	76.3	24.6	33	SSW	10	4.5			4						Physical Observatory
Nertchinsk			29.41	747.0	43.9	6.6	36	NW	20	9			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					35.8	2.1	80	E	13	6			10						Kurdukof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.00	761.9	84.2	29.0	40	SE	3.7	1.67		0	1			0	0		Royal Observatory
San Fernando																			The Naval Observatory

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.60	751.7	56.3	13.5	59	SW			1		8			0	0		
Hernosand			29.61	752.1	59.0	10.0	50	S			5		8			0	0		
Stockholm			29.67	753.6	58.3	14.6	60	SSW			2		10			0.03	0.7		
Wisby			29.82	757.4	55.8	13.2	82	W			2		2			0.004	0.1		
Sub-Series.																			
Upsala			29.69	754.2	52.1	11.6	73	S			2		10		WSW			Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Lernosand, Stockholm, and Wisby.

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.

Geneva	28.76	730.6			67.0	19.8	46	NNE			2		2			0	0		The Observatory.
Zurich	28.58	726.0			71.0	22.0	43	E			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.6mm.; Thermometer, +3.6 C.; Relative Humidity, —11 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			29.93	760.1	73.8	23.1	59	SW			3		5						
Fao, (Persian Gulf)			29.97	761.2	58.8	14.9	72	SSW	3.4	1.5			8		N	0	0		
Salonica			29.84	758.0	89.6	32.0		SE			3		0						
Valona					64.8	18.2		SW			2		10					Light rain	
Varna			29.99	761.8	64.6	17.8		W			2		10						
			29.96	761.0	62.6	17.0		SE			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.14	765.5	48	8.9		W	6	2.7		0	0			0.35	8.9		
Chatham, N. B.			29.68	753.9	55	12.8	77	SW	18	8.0		8k	2s	S	S	0.05	1.3		
Charlottetown, P. E. Island			29.83	757.7	54	12.2	71	SE	26	11.6			8ks		SE	0	0		
Fort Garry, Manitoba			29.98	761.5	43	6.1	87	SW	6	2.7		5k	0	W		0	0		
Halifax, N. S.			29.81	757.2	48	8.9	95	S	18	9.0			10n			0.02	0.8	Light rain	
Kingston, Ontario			30.16	766.1	42	5.6	84	SW	7	3.1		0	0			0.43	10.9		
Montreal, Quebec			29.97	761.2	40	4.4	66	W	15	6.7		2ck	2ks	W		0.41	10.4		
Ottawa, Ontario			30.01	762.2	48	8.9	59	W	9	4.0		2c	0			0.04	1.0		
Parry Sound, Ontario			30.10	764.5	38	3.3	92	W	2	0.9		2ck	5ks	NW	NW	0.62	15.7		
Port Dover, Ontario			30.16	766.1	44	6.7	76	S	7	3.1		0	0			0.04	1.0		
Port Stanley, Ontario			30.16	766.1	42	6.1	83	SW	6	2.7		0	0			0.04	1.0		
Quebec, Quebec			29.80	756.9	40	4.4	73	W	30	13.4			10n		W	0.41	10.4		
Saugeen, Ontario			30.09	764.3	42	5.6	74	SW	4	1.8			10n			0.14	3.5	Light rain	
Stayner, Ontario			30.08	764.0	46	7.8	65	NW	3	1.3			8n		W	0.16	4.1		
Sydney, C. B.			30.11	764.8	50	10.1	76	S	11	4.9		10cs	5ks		SW	0	0		
Toronto, Ontario			30.15	765.8	43	6.1	73	W	5	1.2		0	0			0.05	1.3		

Note.—The originals give the cloudiness on a scale of 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.10	764.5	53	11.7	60	NW	9	4.0		0	0			0.22	5.6		
Alpena, Mich.			30.06	763.5	46	7.8	54	W	8	3.6		2ck	0	W		0.04	1.0		
Atlantic City, N. J.			30.21	767.3	56	13.3	51	NW	2	0.9		2c	0	NW		0.10	2.5		
Augusta, Ga.			30.08	764.0	69	20.6	31	E	8	3.6		8k	0	E		0	0		
Baltimore, Md.			30.20	767.1	57	13.9	52	W	5	2.2		Haze	0			0	0		
Barnegat, N. J.			30.19	766.8	56	13.3	48	W	3	1.3		2c	0			0	0		
Benton, Montana			30.08	764.0	42	5.6	65	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.76	759.9	45	7.2	53	W	4	1.8		5c	0	W		0.05	1.3		
Boston, Mass.			30.03	762.7	53	11.7	42	NW	10	4.5		0	0			0.12	3.0		
Breckenridge, Minn.			29.87	758.7	49	9.4	90	SE	14	6.3			10s			0.10	2.5		
Buffalo, N. Y.			30.17	766.3	39	3.9	72	W	8	3.6		0	Sm'e			0.05	1.3		
Burlington, Vt.			30.3	762.7	45	7.2	68	W	8	3.6		0	2s			0.81	20.6		
Cairo, Ill.			30.18	766.6	59	15.0	59	E	4	1.8		0	0			0	0		
Cape Hatteras, N. C.			30.16	766.1	60	15.6	54	NE	37	16.5		10cs	0			0.25	6.3		
Cape Henry, Va.			30.23	767.8	59	15.0	54	E	13	5.8		0	0			0	0		
Cape May, N. J.			30.21	767.3	56	13.3	45	N	4	1.8		0	0			0.02	0.5		
Charleston, S. C.			30.09	764.3	70	21.1	79	NE	8	3.6			10ks		E	0.30	7.6		
Cheyenne, W. T.			30.03	762.7	37	2.8	52	W	4	1.8		0	0			0	0		
Chicago, Ill.			30.10	764.5	50	10.0	58	S	10	4.5			10s			0	0		
Cincinnati, Ohio			30.23	767.8	51	10.6	72	NW	4	1.8		0	Sm'e			0	0		
Cleveland, Ohio			30.19	766.8	48.4	9.1	53	S	7	3.1		0	0			0.02	0.5		
Colorado Springs, Col.			30.04	763.0	46	7.8	54	N	8	3.6		0	0			0	0		
Corsicana, Texas			30.11	764.8	56	13.3	80	E	4	1.8		2k	0	S		0	0		
Davenport, Iowa			30.07	763.8	54	12.2	54	SE	4	1.8			10s			0	0		
Denver, Col.			30.10	764.5	48	8.9	49	N	7	3.1		0	0			0	0		
Detroit, Mich.			30.17	766.3	48	8.9	56	SW	4	1.8		2c	Sm'e			0	0		
Dodge City, Kansas			29.65	753.1	59	15.0	43	S	8	3.6		0	0			0	0		
Dubuque, Iowa			30.06	763.5	51	10.6	79	S	3	1.3			10s			0	0	Light rain	
Duluth, Minn.			30.03	762.7	42	5.6	65	N	4	1.8		7ck	0	NW		0	0		
Eastport, Me.			29.82	757.4	52	11.1	66	SW	11	4.9		2k	0	SW		0.09	2.3		
Erie, Penn.			30.14	765.5	50	10.0	58	SE	4	1.8		0	Haze			0.08	2.0		
Escanaba, Mich.			30.08	764.0	40	4.4	82	N	4	1.8		2c	2s			0	0		
Fort Gibson, I. T.			30.05	763.3	60	15.6	59	SE	4	1.8		5c	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.85	758.2	50	10.0	79	Calm	0	0		5c	0	W		0	0		
Galveston, Texas			30.09	764.3	72	22.2	71	E	10	4.5		0	5s		E	0	0		
Grand Haven, Mich.			30.13	765.3	48	8.9	70	S	13	5.8		0	0			0	0		
Indianapolis, Ind.			30.19	766.8	59	15.0	50	E	1	0.4		0	Sm'e			0	0		
Indianola, Texas			30.09	764.3	70	21.1	95	NE	10	4.5		2k	0	NE		0.12	3.0		
Jacksonville, Fla.			30.02	762.5	75	23.9	72	S	1	0.4		4c	0			0.52	13.2		
Keokuk, Iowa			30.03	762.7	58	14.4	47	S	9	4.0			10s		S	0	0		
Key West, Fla.			30.02	762.5	80.0	26.7	66	SE	6	2.7		Haze	2ks			0	0		
Kittyhawk, N. C.			30.22	767.6	55	12.8	61	NE	24	10.7			10ks		NW	0	0		
Knoxville, Tenn.			30.19	766.8	53	11.7	66	NE	6	2.7		1cs	0			0	0		
La Crosse, Wis.			30.05	763.3	50	10.0	93	SE	5	2.2			10n			0.16	4.1	Heavy rain	
Leavenworth, Kan.			29.91	759.7	61	16.1	44	S	17	7.6			8s		NW	0	0	Threatening	
Lexington, Ky.			30.22	767.6	46	7.8	52	N	2	0.9		5c	0	NW		0	0		
Long Branch, N. J.			30.18	766.6	60	15.6	40	NW	8	3.6		0	0			0.38	9.7		
Louisville, Ky.			30.19	766.8	53	12.7	61	Calm	0	0		0	Fog			0	0		
Lynchburg, Va.			30.22	767.6	60	15.6	49	NW	1	0.4		5c	Haze	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.08	764.0	44	6.7	68	NW	4	1.8		0	0			0	0		
Memphis, Tenn.			30.19	766.8	58	14.4	53	N	4	1.8		2cs	Haze			0	0		
Milwaukee, Wisconsin			30.10	764.5	52	11.1	60	SW	9	4.0			10s			0	0		
Mobile, Ala.			30.12	765.0	62	16.7	66	N	5	2.2		2c	2s			0	0		
Montgomery, Ala.			30.14	765.5	61.5	16.4	53	N	4	1.8		8c	0			0	0		
Morgantown, W. Virginia			30.17	766.3	55	12.8	66	W	1	0.4		0	Haze			0	0		
Mt. Washington, N. H.			29.85	758.2	19	— 7.2	100	NW	78	34.9			Fog			0.72	18.3		
Nashville, Tenn.			30.18	766.6	60	15.6	48	Calm	0	0		2cs	0	SW		0	0		
New Haven, Conn.			30.14	765.5	54	12.2	37	NW	6	2.7		0	0			0.06	1.5		
New London, Conn.			30.13	765.3	57	13.9	30	NW	14	6.3		0	0			0.04	1.0		
New Orleans, La.			30.10	764.5	68	20.0	56	NE	8	3.6		10cs	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.17	766.3	53	11.7	42	NW	10	4.5		0	0			0.01	0.3		
Norfolk, Va.			30.24	768.1	62	16.7	36	NE	10	4.5		0	0			0.03	0.8		
North Platte, Neb.			29.58	751.3	53	11.7		Calm	0	0		0	0			0	0		
Omaha, Neb.			29.82	757.4	60	15.6	55	S	12	5.4		0	0			0	0		
Oswego, N. Y.			30.16	766.1	44	6.7	55	W	11	4.9		Haze	Haze			0.09	2.3		
Peck's Beach			30.22	767.6	53	11.7	67	S	4	1.8		Haze	Haze			0.02	0.5		
Pembina, D. T.			29.96	761.0	43	6.1	91	SE	24	10.7			10s			0.02	0.5		
Philadelphia, Penn.			30.19	766.8	55	12.8	50	NW	10	4.5		0	0			0.06	1.5		
Pike's Peak, C. T.			30.08	764.0	20	— 6.7	70	SW	26	11.6		0	0			0	0		
Pittsburgh, Penn.			30.19	766.8	46	7.8	69	Calm	0	0		0	0			0	0	Smoky	
Port Huron, Mich.			30.16	766.1	47	8.3	62	SW	8	3.6		0	0			0.03	0.8		
Portland, Maine			29.95	760.7	51	10.6	59	W	16	7.2		0	0			0	0		
Portland, Or.			30.05	763.3	47	8.3	77	Calm	0	0		8k	Haze			0	0		
Punta Rassa, Fla.			30.06	763.5	76.2	24.6	76	E	4	1.8		5cs	Sm'e	SW		0.07	1.8		
Rochester, N. Y.			30.13	765.3	46	7.8	61	W	8	3.6		0	0			0.03	0.8		
Salt Lake City, Utah			29.95	760.7	49	9.4	50	S	1	0.4		0	0			0	0		
Sandy Hook, N. J.			30.16	766.1	51	10.6	59	NW	3	1.3		0	0			0.11	2.8		
San Diego, Cal.			29.89	759.2	59	15.0	94	SW	4	1.8			10s			0	0		
San Francisco, Cal.			29.92	760.0	53	11.7	80	S	4	1.8		Haze	0			0	0		
Santa Fe, N. M.			29.78	756.4	54	12.2	38	NE	8	3.6		2c	8s	SW	SW	0	0		
Savannah, Georgia			30.04	763.0	72	22.2	85	N	6	2.7		10k	0	NW		0.90	22.9		
Shreveport, La.			30.16	766.1	57	13.9	81	E	2	0.9		0	0			0	0		
Springfield, Mass.			30.09	764.3	55	12.8	38	W	12	5.4		0	0			0.05	1.3		
St. Louis, Mo.			30.15	765.8	60	15.6	44	S	12	5.4		5c	0	SW		0	0		
St. Marks, Fla.			30.05	765.3	67	19.4	84	N	4	1.8		10cs	0			0.20	5.1		
St. Paul, Minn.			29.93	760.2	49	9.4	85	SE	12	5.4			10n		SE	0.35	8.9	Light rain	
St. Paul's Island, Alaska			29.96	761.0	31	— 0.6	68	ESE	8	3.6			0k			0	0		
Squan Beach, N. J.			30.18	766.6	55	12.8	34	NW	2	0.9		0	0			0.20	5.1		
Toledo, Ohio			30.19	766.8	52	11.1	47	SW	6	2.7		2c	0	W		0	0		
Tybee Island, Ga.			30.03	762.7	71	21.7	90	NE	10	4.5			10ks			0.55	14.0		
Vicksburg, Miss.			30.19	766.8	66	18.9	45	E	2	0.9		0	2s		E	0	0		
Virginia City, Mon.			29.76	755.9	30	3.9	63	SW	4	1.8		0	0			0.13	3.3		
Washington, D. C.			30.23	767.8	58.5	14.7	55	S	4	1.8		1c	Sm'e	W		0	0		
Wilmington, N. C.			30.15	765.8	66	18.9	54	NE	16	7.2		8c	Haze	SW		0	0		
Wood's Hole, Mass.			30.11	764.8	55	12.8	44	W	11	4.9		0	0			0	0		
Wytheville, Va.			30.01	762.2	50	10.0	51	Calm	0	0		0	0			0	0		
Yankton, D. T.			29.85	758.2	54	12.2	67	NW	10	4.5		0	0			0	0		

NOTE.—The originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	82	27.8	91	E	5	2.2		5k	2ks	S		0	0		E. Racker.
Pointe-à Pitre, Gd'Terre, do			30.01	762.2	78	25.6	69	E				5k	2ck			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.76	755.9	79	26.1	82	SE	2.4	1.1		2k	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.18	766.6	78	25.6	82	Calm	0	0		0	0			1.07	27.2		James Gall.
St. Thomas, St. T., W. I.			30.20	767.1	77	25.0	65	E	3	1.3		0	2k			0.20	5.1		W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	76	24.	76	NE	4.8	2.1		0	2s			Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.16	766.1	70.0	21.1	75	SE	6	2.7		0	2k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	64	17.8	68	NE			2	5n	5k&n	NE		0	0	Threatening	E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.21	767.3	20.5	— 6.4	93	N					10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.01	762.2	64	17.8	83	N	4.0	1.8		5c	0	NNE		0.28	7.1		C. Partridge.
St. John's, Newfoundland			30.52	775.2	43	6.1	83	S				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.30	769.6	49	9.4	52	W	4.0	1.8			0			0	0		H. M. Redington.
Indianola, Iowa	29.01	736.8			58	14.4	57	SE					10n			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 26° 40′, W. 58° 50′	S	4	29.88	758.9	79	26.1	78	ESE			4	..c				Smooth			James Jorgensen, Mate.

Note.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 14, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.20	767.0	70.0	21.1		NW			2		2			0	0		Charnot.
Algiers			30.14	765.6	72.0	22.2	78	NNE			2		2			0	0		Peter.
La Galle			30.11	764.8	66.4	19.1		NE			4		0			0	0		Kuntz.
Tunis			30.12	765.0	73.0	22.8	52	NE			4		4			0	0		Jacques.
Sfax			30.10	764.5	73.9	23.3	48	NNE			4		3			0.028	0.7		Chauvey.
Saida			30.19	766.8	73.6	23.1		NNW			2		0			0	0		Grosjean.
Tebessa			30.12	765.0	73.4	23.0		NE			3		7			1.654	42.0	Raining	Colin.
Geriville			30.15	765.8	71.6	22.0		N			2		2			0	0		Bernadach.
Laghouat			30.14	765.5	78.8	26.0	30	NE			2		1			0	0		Poinsignon.
Biskra			30.03	762.8	80.8	27.1		NE			4		10			0.276	7.0	Storming	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.05	763.2	74.7	23.7	47	NW			3		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.03	762.8	60.4	15.8	60	E			3		8			0.008	0.2		I. R. Observatory.
Eperies			29.92	760.0	61.2	16.2	61	NW			5		9		SE	0	0	Raining	Julius Mikolik.
Gratz			30.03	762.8	72.7	22.6	42	NW			5		0			0	0		Andreas Rospini.
Hermannstadt			29.88	759.0	59.7	15.4	66	NNE			3		10			0.157	4.00	Raining	Prof. Reissenberger.
Kremsmünster			30.11	764.0	65.1	18.4	56	WNW			3		3			0	0		Prof. C. Wagner.
Lemberg			29.77	756.2	60.1	15.6	64	E			4		6			0.142	3.6		Dr. T. Stanecki.
Nyiregyhaza			29.92	759.9	66.2	19.0	63	N			4		4			0	0		Habzsuda Daniel.
Pola			30.11	764.7	70.0	21.1	53	WNW			2		1k			0	0		I. R. Hydrographic Office
Szegedin			29.94	760.4	68.0	20.0	54	W			4		10			0	0		Karl Stancel.
Trieste			30.11	764.7	70.7	21.5	52	NW			1		0			0	0		Prof. V. Farolfi.
Vienna			30.05	763.2	69.4	20.8	42	WNW			4		6			0.032	0.8		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.07	763.7			65.8	18.8	62	NNE			1		4k		N	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.10	764.5	68.9	20.5		W	14	6.3			4			0	0		William Boswell.
Annanhill											2		7						William McNeil.
Ardrossan			30.16	766.1	57.5	14.2		WSW					5						S. Call, for Dr. Robinson
Armagh Observatory			30.21	767.3	64.0	17.8		SSW	11	4.9									
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.											1		0						John Hartnup, Jr.
Bidston, Liverpool Obs.			30.25	768.3	68.0	20.0		NW			1		1						J. Dreyer, for Lt. Ross
Birr Castle, (Parsonstown)			30.21	767.3	70.6	21.4		SW			1		0						J. Mc. Landsborough
Bradford			30.21	767.3	68.9	20.5		W			1		6						T. H Hunt.
Bridgetown, (Barbadoes)			29.96	761.0	83.6	28.7		SE											
Bywell											1		0						H. Todd.
Cambridge Observatory			30.26	768.6	68.5	20.3		NW			1		8						Sgt. D. E. Hunt.
Cape Town, (Cape Colony)			29.91	759.7	75.0	23.9		W					7						Th Staff, for E. J. Stone
Cape Good Hope Obs.	29.91	760.5			76.9	24.9	39	SW	9	4.0			1						John McLaren.
Cardington			30.26	768.6	74.0	23.3		NW					2			0	0		T. Bell, for J. Cartmell
Carlisle			30.22	767.6	71.0	21.7		SW			1		0						Q. M. Sergt. J. Conroy
Chatham, School M. E.			30.26	768.6	70.2	21.2		NW			3		10						Sgt. W. F. Hopkins
Colombo, (Ceylon)			29.88	758.9	80.6	27.0		SE			0		0						R. E. Power.
Dartmoor			30.33	770.4	69.0	20.6		Calm			4		5						J. Mac Gowan, Jr.
Donaghadee			30.19	766.8	64	17.8		S			0		0					Hazy	J. Costello.
Dover			30.27	768.8	61	16.1		Calm											
Dublin																			G. D. Goldney.
Durham Observatory																		Hazy	Thomas Mackereth
Eccles, (near Manchester)			30.29	769.4	69.1	20.6		WNW	4.0	1.8			0						The Staff.
Falmouth Observatory			30.28	769.1	61.5	16.4		SE	9	4.0			0						Pvt. G. Salmon.
Fort Napier, (Natal)			30.09	764.3	69.0	20.6		NE			3		8						
Freetown, (Sierra Leone.)			29.83	757.7	84.0	28.9		NE					8						B.G. Clare, for Prof. C.
Galway, Queen's College			30.16	766.1	67	19.4		SW			1		1						Sergt. E. G. Baker.
Gibraltar, (Mediterranean)			30.09	764.3	70.5	21.4		ENE			4		0						James Gray.
Glasgow Observatory			30.13	765.3	61.6	16.4		W			2		10						G. T. Watson.
Great Yarmouth			30.27	768.8	57	13.9		SE			2		3						The Staff, for G. B. A.
Greenwich Royal Obs.			30.26	768.6	75.8	24.3		WSW			1		6					Hazy	Dr. S. E. Hoskins, U.
Guernsey			30.26	768.6	65.5	18.6		NE			1		3						F. J. Page, for L. J. Cr.
Halifax, Moorside Obs.			30.18	766.6	69.5	20.8		WNW					0						Corp'l J. Y. Thompson
Halifax, (Nova Scotia)			30.31	769.9	57.4	14.1		W			2		2						Dr. W. B. Moyle.
Helston			30.26	768.6	70	21.1		E			2		0						John Tilston.
Holyhead			30.22	767.6	65	18.3		SSW			2		3						
Hull Park																			The Staff.
Kew Observatory			30.26	768.6	69.8	21.0		WNW	6	2.7			2						George Mitchell.
Kingstown			30.26	768.6	62	16.7		SSE			2		4						
Lampeter																			William J. Harrison.
Leicester Museum			30.27	768.8	68.5	20.3		W			1		0						Dr. James Nicol.
Llandudno																			Fred Travis, Pvt A. B. C.
Malta, (Mediterranean)			30.07	763.8	68.2	20.1		NE			1		8k						
Markree Castle																			
Marlborough College																			
Moville																			William D. Penny.
Nairn			30.08	764.0	64	17.8		SW			1		5						Surg.-Maj. J. Jameson
Nassau, (Bahamas)			30.10	764.5	79.9	26.6		E			4		6						John Wm. Irvine.
North Shields			30.21	767.3	67	19.4		NW			4		2						E. J. Lowe.
Nottingham			30.26	768.6	73.3	22.9		SW			3		0						
Osborne, New Barn Cottage																		Hazy	Rev. Stephen Whitty.
Oscott, St Mary's College			30.24	768.1	69.0	20.6		NNW			3		5						J. Lucas, for R. Marr
Oxford, Radcliffe Obs.			30.24	768.1	71	21.7		N			1		1						John Merrifield.
Plymouth			30.27	768.8	67	19.4		SW			2		0						
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			W. Kennedy.
Roche's Point			30.27	768.8	61	16.1		SE			2		2						John C. Walker.
Saint Ann's Head			30.26	768.6	60	15.6		Calm			0		0						A. P. Amy.
Saint Helier, (Jersey)			30.26	768.6	76.8	24.9		E			1		2						Rev. C. Clouston
Sandwick Manse (Orkneys)			30.04	763.0	54.0	12.2		WSW	17	7.6			5					Showery	F. Shaw.
Scarborough			30.25	768.3	60.0	15.6		ESE			1		0						Sergt. W. H. Lyne.
Scutari, (Turkey)			29.97	761.2	60.6	15.9		SW			1		6						W. F. Cooper.
Sheffield			30.21	767.3	71.2	21.8		N			1		2			0	0		
Sidmouth																			Rev Francis Redford
Silloth Rectory			30.22	767.6	65.9	18.8		SW			2		2			0	0		Rev. C. J. Steward.
Somerleyton, (Lowestoft)			30.20	767.1	65.3	18.5		ESE			1		0						The Staff.
Stonyhurst Observatory			30.25	768.3	65.1	18.4		W			1							Hazy	John Smith.
Stornoway, Lews C. (Hebr)			30.04	763.0	56	13.3		SW			6		10						Rev Charles H. Griffith
Strathfield Turgiss			30.26	768.6	72.8	22.7		Calm			0		0						Rev. John Slatter.
Streatley Vicarage			30.28	769.1	76.0	24.4		WNW			1		0						William Lawrence.
Sumburgh Head, (Shetland)																			
Taunton College																			John Trotter.
Thurso			30.07	763.8	59	15.0		W			2		8						W. Newcombe.
Truro, Royal Institution			30.24	768.1	76	24.4		S			1		2						The Staff.
Valencia Observatory			30.20	767.1	61.5	16.4		SSE	21	9.4			2						
Wick																			
Wisbeach																			William J. Harris.
Worthing			30.26	768.6	63.2	17.3		S			1		0						
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.07	763.7	62.2	16.8	42	NNW			2		6						
Fanöe			30.17	766.3	54.0	12.2	73	WNW			6		1						
Godthaab, (Greenland)																		Snowing	
Stykkisholm, (Iceland)			29.47	748.6	39.2	4.0	84	SE			4		10					Raining	
Thorshavn, (Faröe)			29.75	755.6	50.2	10.1	95	SW			6		10						
Vestervig			30.11	764.8	53.6	12.0	79	WNW			6		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Angelo			30.08	763.9	72.7	22.6	63						1s						Normal School.
Alençon			30.00	762.0	75.2	24.0	27	NE			1		0			0	0		Normal School.
Amiens			30.28	769.0	83.1	28.4	43	NW			3		5			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.33	770.3	70.7	21.5	46	ENE			2		5		NE	0	0		Normal School.
Bourg en Bresse			30.26	768.5	75.2	24.0	40	NE			4		0			0	0		Normal School.
Bourges			30.24	768.0	77.4	25.2	42	NNE			1		0			0	0		Normal School.
Brest			30.2[illegible]	767.0	73.4	23.0	54	NE			4		0			0	0		Normal School.
Caen			30.15	765.9	81.1	27.3	48	S			1		1		ESE	0	0		Naval Observatory.
Chartres			30.28	769.0	70.9	21.6	63	N			2		0			0	0		Normal School
Chaumont			30.21	767.3	73.4	23.0		ENE			1		0			0	0		Normal School.
Commercy			30.19	766.7	71.1	21.7		NW			2		1c		NW	0	0		Normal School.
Le Mans			30.31	769.8	66.9	19.4	51	NNW			4		0			0	0		Normal School.
Lons-Le Saulnier			30.38	771.7	71.1	21.7	48	NE			2		0			0	0		Normal School.
Mâcon			30.21	767.3	66.2	19.0	50	N			4		0			0	0		Normal School.
Mirecourt																			
Orleans			30.31	769.8	66.7	19.3	47	N			2		8			0	0		Normal School.
Paris Observatory			30.38	771.4	79.7	26.5	48	NE			2		0			0	0		Normal School.
Parthenay			30.24	768.2	72.1	22.3		E			3		2			0	0	Misty	National Observatory
La Rochelle sur Yon			30.19	766.7	71.6	22.0	65	NE			2		0			0	0		Normal School.
Rouen			30.19	766.9	80.6	27.0	38	ENE			4		0			0	0		Normal School.
Saint Lo			30.15	765.7	72.1	22.3	50	N			2		1		N	0	0		Normal School.
Villefranche			30.30	769.7	75.2	24.0	38	E			2		1		NW	0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)			30.26	768.7	78.1	25.6	45	NNE			2		0			0	0		Normal School
Mont-Louis																			Frère Pascall.
Montsouris Observatory	25.04	635.9			64.4	18.0	60	ENE	14.8	6.66			2		WNW	0	0		—. Falguère.
Perpignan			30.24	768.2	73.8	23.2	39	ENE			2		2k		E	0	0		Marié Davy.
Saint Maur, (near Paris)	30.00	762.1			75.7	24.2	37	NE	5.0	2.50			0			0	0		Dr. Fines.
Saint Pierre, (Martinique)			30.25	768.4	73.8	23.2	36	NE			2		0			0	0		E. Renou.
Tours																			
Versailles, (near Paris)			30.19	766.9	76.6	24.8	39	E			2		0			0	0		C. Marquet.
Zi-Ka-Wei, (near Shanghai			30.26	768.5	74.1	23.4	40	NNE			3		2			0	0		Dr. A. Bérigny.
			29.93	760.1	62.6	17.0	94	E	2.7	1.2		2ck	0	NNW		0 / 0	0 / 0	Lunar corona	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	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. Inches.	Millimeters.	Weather.	Observer.
Hamburg			30.14	765.6	66.2	19.0	52	W			3		8			0	0		Prof. Hoh.
Berlin			30.23	767.7	62.8	17.1	55	NW			4		6			0	0		Prof. Arndt.
Breslau			30.19	766.9	56.5	13.6	59	WNW			5		9			0	0		Dr. P. Neugebauer.
Carlsruhe			30.25	767.9	69.8	21.0	50	NW			2		1			0	0		A. Senz.
Cassel			30.16	766.0	64.0	17.8	60	NW			3		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			
Hamburg			30.20	767.0	66.2	19.0	72	W					2			0	0		M. Wilhelm.
Kiel			30.23	767.8	60.4	15.8	57	NW			4		5ks			0	0		W. Reinert.
Königsberg			30.18	766.6	60.3	15.7	55	W			5		1			0	0		Prof. G. Karsten.
Köslin			30.02	762.5	53.6	12.0	53	NW			2					0.024	0.61		Prof. E. Luther.
Leipsic			30.28	769.1	52.3	11.3		NW			4		5			0	0		Dr. Tägert.
Münster			30.20	767.1	6[illegible].6	17.0	52	WNW			4		6			0	0		Prof. Bruhns.
Posen			30.24	768.1	65.8	18.8	64	SW			2		0			0	0		Prof. E. Heis.
Strassburg, (in Alsace)			30.16	766.0	62.6	17.0	58	NW			6–7		8			0	0		Dr. Magener.
Stuttgart			30.20	767.0	70.2	21.2	46	NE					1			0	0		Hartwig and Tülk.
Thorn			30.18	766.6	68.5	20.3	50	N					5			0	0		Mr. Würth.
Trevers, (Trier)			30.05	763.3	66.9	18.9	54	WNW			5		6			0	0		Dr. [illegible]senbalg.
Wustrow			30.19	766.9	66.6	19.2	50	NE			4		0			0	0		Prof. Flesch.
			30.15	765.9	53.2	11.8	77	WNW			4		4cs			0	0		L. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. 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. Inches.	Millimeters.	Weather.	Observer.
Moncalieri																			
Rondovi			30.00	764.2	68.5	20.3	70	ENE	1.8	0.8			1			0	0		
Genoa			30.07	763.8	74.7	23.7	41	WNW			4		1			0	0		
Savia			30.15	765.7	72.3	22.4	46	SW	1.8	0.8			0			0	0		
Verona			30.08	764.0	77.7	25.4	39	NW			4		0			0	0		
Padua			30.03	762.8	82.6	28.1	51	SW			4		0			0	0		
Parma			30.05	763.2	75.4	24.1	44	S	6.3	2.8			0			0	0		
Bologna																			
Leghorn																			
Lucca																			
Ancona			30.14	765.6	73.0	22.8	43	NW	3.1	1.4			1			0	0		
Pesa			30.13	765.5	69.3	20.7	41	ESE			2		0			0	0		
Ancona			30.15	765.9	70.2	21.2	54	N			4		0			0	0		
Naples, O.U.			30.08	764.1	74.1	23.4	34	W	0	0			6	N		0	0		
Foggia			30.12	765.0	76.5	24.7	44	WSW	7.4	3.3			2	E		0	0		
Cosenza			30.12	765.0	78.1	25.6	38	SW			2		3	N.E		0	0		
Palermo, (Sicily)			30.12	765.0	68.0	20.0	52	NNW	9.8	4.4			1			0	0		
Trapani			30.11	764.9	66.2	19.0	71	NW			2		7	N		0	0		
Messina																			
Sub-Series.																			
Naples, S. R.			30.06	763.4	70.0	21.1	61	SSE			2		4	N		0	0		
			30.05	763.2	68.5	20.3	57	NE			2		10			0	0		
			30.16	766.1	77.0	25.0	41	SW			1		Haze			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.30	769.6	66.6	19.2		SE			1								
Groningen			30.20	767.1	62.8	17.1		NW			2								
Helder			30.28	769.0	60.6	15.9		WSW			1								
Utrecht			30.23	767.9	68.9	20.5	47	NNW			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.11	764.8	50.0	10.0	87	S	7.2	3.2			10			0.138	3.5	Foggy	
Christiania			29.98	761.6	63.1	17.3	32	SW	3.1	1.4			5			0	0		
Tromsö			29.79	756.6	41.0	5.0	78	S			1		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.70	754.3			68.2	20.1	61	WSW	17.7	7.8			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.92	760.0	64.8	18.2	43	NW	25	11			6						Astronomical Obs.
Wilna			29.82	757.5	58.5	14.7	47	N	10	4.5			4						Astronomical Obs.
Dorpat			29.81	757.2	59.0	15.0	38	N	9	4			3						Physical Cabinet.
St. Petersburg			29.73	755.1	52.9	11.6	62	WNW	7	3			7						Central Physical Obs.
Kuopio																			
Kieff			29.74	755.2	57.6	14.2	65	NW	7	3			9						Physical Cabinet.
Nikolaiev			29.82	757.5	59.9	15.5	78	S	4	2			10					Raining	
Kertch			29.90	759.4	63.1	17.3	72	WSW	13	6			7						Lagorio.
Moscow			29.57	751.0	59.9	15.5	66	S	8	3.5			7						Meteorological Obs.
Lugan			29.58	751.2	69.9	20.9	37	WNW	20	9			9						Meteorological Obs.
Archangel			29.68	753.9	54.1	12.3	83	SE	13	6			10						Ogorodnikof.
Tiflis			29.93	760.3	68.7	20.4	43	N	13	6			0						Physical Obs.
Astrakhan			29.82	757.3	73.9	23.3	39	W	20	9			4						Sebastianof.
Kasan			29.75	755.7	64.4	18.0	32	SE	10	4.5			10						Physical Cabinet.
Orenburg			30.02	762.4	70.0	21.1	85	SE	10	4.5			10						Tschernischef.
Ekaterinburg			30.07	763.6	57.6	13.9	55	W	8	3.5			9						Meteorological Obs.
Kasaly			30.06	763.5	76.8	24.9	77	E	8	3.5			5						Bobrof.
Tashkend			30.22	767.6	71.8	22.1	24	S	8	3.5			0						Michelson.
Barnaul			29.84	758.0	59.9	15.5	60	S	4	2			4						Meteorological Obs.
Yeniseisk			29.50	749.2	33.8	1.0	80	E	13	6			10						Marks.
Irkutsk			29.81	757.1	39.9	4.4	65	Calm	0	0			10						Usolzef.
Oorga			29.87	758.6	43.3	6.3	100	NW	4	2			0						Mossin.
Peking, (China)			29.89	759.3	69.3	20.7	48	Calm	0	0			6						Physical Observatory
Nertchinsk			29.31	744.5	42.1	5.6	68	W	31	14			9					Raining	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					32.7	0.4	85	SE	25	11			10						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.02	762.6	85.1	29.5	30	S	6.0	2.69		0	0			0	0		Royal Observatory
San Fernando																			The Naval Observatory

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.57	751.1	50.0	10.0	48	SW			3		2			0	0		
Hernosand			29.86	758.5	57.0	14.2	39	W SW			5		8			0	0		
Stockholm			29.93	760.1	59.4	15.2	38	NNW			2		8			0	0		
Wisby			30.00	761.9	53.2	11.8	69	N			1		4			0	0		
Sub-Series.																			
Upsala			29.93	760.1	61.2	16.2	42	NW			2		9	NNW	NW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.77	730.8			69.4	20.8	49	NNW			2		1			0	0		The Observatory.
Zurich	28.56	725.5			72.5	22.5	43	N			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.8mm.; Thermometer, +4°.5 C.; Relative Humidity, —17 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut (Syria)			30.00	761.6	70.7	21.5	67	NW			2		0						Prof. C. N. A. Van Dyck.
Constantinople			30.01	762.3	68.9	20.5	54	SSW	2	1			8		SW	0	0		
Fao (Persian Gulf)			29.88	759.0	95.0	35.0		NW			3		0						
Salonica					72.3	22.4		SW			1		0						
Valona			30.11	764.8	74.7	23.7		S			2		2						
Varna			30.00	762.0	64.4	18.0		E			4		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.24	768.1	54	12.2		SW	1	0.4		0	5s		SW	0	0		
Chatham, N. B.			30.22	767.6	47	8.3	41	W	13	5.8		8c	0	W		0	0		
Charlottetown, P. E. Island			30.27	768.8	48	8.9	43	E	10	4.5		0	0			0.06	1.5		
Fort Garry, Manitoba			30.24	768.1	37	2.8	97	SE	3	1.3		0	0			0.22	5.6		
Halifax, N. S.			30.21	767.3	53	11.7	53	W	4	1.8		2c	0	W		0.11	2.8		
Kingston, Ontario			30.22	767.6	40	9.4	71	E	3	1.3		8c	0	SW		0	0		
Montreal, Quebec			30.26	768.6	45	7.2	74	NE	9	4.0		5k	5ks	W		0	0		
Ottawa, Ontario			30.2	767.6	48	8.9	74	Calm	0	0		5cs	2n	S	S	0	0	Threatening	
Parry Sound, Ontario			30.18	766.6	43	6.1	84	NE	2	0.9			10n		SE	0.01	0.3		
Port Dover, Ontario			30.12	765.0	51	10.6	80	Calm	0	0		10k	0	SW		0	0		
Port Stanley, Ontario			30.11	764.8	47	8.3	78	NE	9	4.0			10n		SW	0	0	Light rain	
Quebec, Quebec			30.17	766.3	47	8.3	92	S	4	1.8		0	0			0	0		
Sangeen, Ontario			30.12	765.0	44	6.7	88	E	3	1.3			10n		W	0.16	4.1	Heavy rain	
Stayner, Ontario			30.14	765.5	48	8.9	92	Calm	0	0			10n		W	0.05	1.3	Light rain	
Sydney, C. B.			30.26	768.6	56	13.3	48	W	15	6.7		2c	0			0.40	10.2		
Toronto, Ontario			30.13	765.3	49	9.4	78	NW	6	2.7		5k	5s	W		0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.23	767.8	51	10.6	65	SE	7	3.1		10k	0	S		0	0		
Alpena, Mich.			30.10	764.5	39	3.9	90	NE	6	2.7			10n		NE	0.06	1.5	Light rain	
Atlantic City, N. J.			30.29	769.4	52	11.1	79	SE	10	4.5		1c	0	SW		0	0		
Augusta, Ga.			30.16	766.1	69	20.6	70	E	4	1.8		2k	2s	E	E	0	0		
Baltimore, Md.			30.25	768.3	56	13.3	62	SE	2	0.9		Haze	Sm'e			0	0		
Barnegat, N. J.			30.28	769.1	52	11.1	73	S	2	0.9		0	0			0	0		
Benton, Montana			29.98	761.5	50	10.0	64	S	4	1.8		0	0			0	0		
Bismarck, Dakota			30.00	762.0	48	8.9	62	N	5	2.2		0	Haze			0	0		
Boston, Mass.			30.31	769.9	59	15.0	43	NW	4	1.8		5c	0	NW		0	0		
Breckenridge, Minn.			30.06	763.5	48	8.9	90	NE	4	1.8		0	0			0.03	0.8		
Buffalo, N. Y.			30.09	764.3	54	12.2	43	NE	4	1.8		5c	2s	SW		0	0		
Burlington, Vt.			30.25	768.3	52	11.1	66	Calm	0	0		2k	5s	W		0	0		
Cairo, Ill.			30.13	765.3	61	16.1	55	S	4	1.8		0	0			0	0		
Cape Hatteras, N. C.			30.18	766.6	61	16.1	88	NE	12	5.4			10s		NE	0.01	0.3		
Cape Henry, Va.			30.24	768.1	56	13.3	81	E	11	4.9		5c	2s			0	0		
Cape May, N. J.			30.20	769.4	53	11.7	73	E	8	3.6		2cs	0	SW		0	0		
Charleston, S. C.			30.06	763.5	65	18.3	94	NE	8	3.6			10s		N	0.73	18.5	Threatening	
Cheyenne, W. T.			30.01	762.2	49	9.4	37	W	4	1.8		8c	2s	W		0.01	0.3		
Chicago, Ill.			29.98	761.5	48	8.9	77	W	12	5.4			10s			0.02	0.5		
Cincinnati, Ohio			30.06	763.5	59	15.0	54	SE	4	1.8		2c	2s			0	0		
Cleveland, Ohio			30.03	762.7	57.5	14.2	55	SE	13	5.8			10n		SW	0	0	Light rain	
Colorado Springs, Col.			30.03	762.7	48	8.9	42	NW	4	1.8		2c	2s	W		0	0		
Corsicana, Texas			30.09	764.3	66	18.9	90	S	4	1.8		Haze	5cs			0	0		
Davenport, Iowa			30.06	763.5	50	10.0	93	N	8	3.6			10s			0	0		
Denver, Col.			30.06	763.5	50	10.0	39	S	3	1.3		5k	0			0	0		
Detroit, Mich.			29.96	761.0	53	11.7	60	SE	8	3.6			10s			0.05	1.3	Threatening	
Dodge City, Kansas			29.68	753.9	70	21.1	52	NE	4	1.8		5k	0			0	0		
Dubuque, Iowa			30.02	762.5	52	11.1	73	NW	6	2.7			10s			0.14	3.5		
Duluth, Minn.			30.20	767.1	40	4.4	63	NE	4	1.8			10n			0.03	0.8	Light rain	
Eastport, Me.			30.28	769.1	55	12.8	55	NW	2	0.9		8c	0	W		0	0		
Erie, Penn.			30.04	763.0	55	12.8	50	SE	12	5.4		0	8ks			0	0		
Escanaba, Mich.			30.12	765.0	43	6.1	83	N	16	7.2			10ks		N	0	0		
Fort Gibson, I. T.			30.03	762.7	66	18.9	59	SE	5	2.2		10k	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.00	763.5	48	8.9	77	Calm	0	0		0	0			0	0		
Galveston, Texas			30.11	764.8	73	22.8	85	NE	7	3.1		0	0			0	0		
Grand Haven, Mich.			29.89	759.2	50	10.0	85	E	12	5.4			10s			0.70	17.8		
Indianapolis, Ind.			29.98	761.5	63	17.2	42	S	9	4.0		2cs	0	SW		0	0		
Indianola, Texas			30.12	765.0	75	23.9	72	SE	6	2.7		1k	0			0	0		
Jacksonville, Fla.			30.12	765.0	72	22.2	81	W	4	1.8		8k	0	SW		1.20	32.8		
Keokuk, Iowa			29.99	761.7	59	15.0	70	Calm	0	0		2c	0	NW		0	0		
Key West, Fla.			30.03	762.7	78.7	25.9	70	SE	12	5.4		2cs	8s	NE		0.35	8.9		
Kittyhawk, N. C.			30.22	767.6	55	12.8	87	NE	4	1.8		5ck	2s	N		0.09	2.3		
Knoxville, Tenn.			30.18	766.6	56	13.3	74	N	3	1.3		0	Haze			0	0		
La Crosse, Wis.			30.06	763.5	50	10.0	78	NE	1	0.4			10s			0.35	8.9		
Leavenworth, Kan.			30.15	765.8	55	12.8	79	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.12	765.0	59	15.0	59	S	14	6.3		5c	0	W		0	0		
Long Branch, N. J.			30.30	769.6	50	10.0	78	SW	1	0.4		0	0			0	0		
Louisville, Ky.			30.07	763.8	67	19.4	41	SE	3	1.3		5c	Fog			0	0		
Lynchburg, Va.			30.03	762.7	68	20.0	60	NW	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.18	766.6	40	4.4	56	N	8	3.6			10s			0	0		
Memphis, Tenn.			30.16	766.1	64	17.8	58	Calm	0	0		0	Sm'e			0	0		
Milwaukee, Wisconsin			29.99	761.7	46	7.8	92	NE	12	5.4			10ks			0.38	9.7		
Mobile, Ala.			30.14	765.5	63	17.2	67	N	4	1.8		5c	0			0	0		
Montgomery, Ala.			30.15	765.8	63	17.2	7[illegible]	NE	3	1.3		0	Haze			0	0		
Morgantown, W. Virginia			30.10	764.5	61	16.1	49	Calm	0	0		0	Haze			0	0		
Mt. Washington, N. H.			30.33	770.4	26	— 3.3	75	NW	15	6.7		5c	0	NW		0	0		
Nashville, Tenn.			30.14	765.5	62	16.7	61	E	4	1.8		0	Haze			0	0		
New Haven, Conn.			30.33	770.4	57	13.9	57	SW	1	0.4		2c	Sm'e	W		0	0		
New London, Conn.			30.35	770.9	56	13.3	57	SE	2	0.9		2c	0	W		0	0		
New Orleans, La.			30.11	764.8	72.5	22.5	65	NE	3	1.3		2cs	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.31	769.9	56	13.3	51	E	2	0.9		Haze	Fog			0	0		
Norfolk, Va.			30.25	768.3	57	13.9	75	NE	6	2.7		0	8s		W	0	0		
North Platte, Neb.			29.68	753.9	53	11.7		Calm	0	0		2ck	0	W		0	0		
Omaha, Neb.			30.00	762.0	58	14.4	64	Calm	0	0		2ck	0	W		0	0		
Oswego, N. Y.			30.17	766.3	54.1	12.3	55	SSE	5	2.2			10ks			0	0		
Peck's Beach			30.31	769.9	53	11.7	73	E	12	5.4		Haze	3s			0	0		
Pembina, D. T.			30.18	766.6	46	7.8	76	NW	4	1.8		0	0			0.03	0.8		
Philadelphia, Penn.			30.29	769.4	52	11.1	72	E	6	2.7		2ck	Sm'e			0	0		
Pike's Peak, C. T.			30.13	765.3	24	4.4	75	W	27	12.1		8c	Sm'e			0	0		
Pittsburgh, Penn.			30.11	764.8	52	11.1	66	Calm	0	0						0	0	Dense smoke	
Port Huron, Mich.			30.02	762.5	48	8.9	85	SE	5	2.2			10s		SE	0.19	4.8	Threatening	
Portland, Maine			29.95	760.7	51	10.6	59	W	16	7.2		0	0			0	0		
Portland, Or.			29.80	756.9	56	13.3	87	S	4	1.8			10s			0.17	4.3		
Punta Rassa, Fla.			30.08	764.0	72.2	22.3	81	NE	8	3.6			10s			0.70	17.8		
Rochester, N. Y.			30.13	765.3	52	11.1	53	SE	1	0.4		2c	Haze			0	0		
Salt Lake City, Utah			29.86	758.4	61	16.1	40	W	6	2.7		0	0			0	0		
Sandy Hook, N. J.			30.29	769.4	52	11.1	72	E	3	1.3		2c	0	SW		0	0		
San Diego, Cal.			29.92	760.0	59	15.0	87	E	4	1.8			10s			0	0		
San Francisco, Cal.			29.87	758.7	55	12.8	90	SE	6	2.7			10s			0	0		
Santa Fe, N. M.			29.84	757.9	60	15.6	34	SE	12	5.4		5c	0	SW		0	0		
Savannah, Georgia			30.14	765.5	67	19.4	79	NW	6	2.7			10s			0.01	0.3		
Shreveport, La.			30.14	765.5	65	18.3	68	SE	4	1.8		8c	0			0	0		
Springfield, Mass.			30.32	770.1	53	11.7	73	S	4	1.8		2ck	Haze	SW		0	0		
St. Louis, Mo.			30.05	763.3	66	18.9	45	W	8	3.6		0	0			0	0		
St. Marks, Fla.			30.08	764.0	72	22.2	81	E	6	2.7		0	0			0	0		
St. Paul, Minn.			30.03	762.7	51	10.6	78	Calm	0	0		0	2s			0.15	3.8		
St. Paul's Island, Alaska			29.11	739.4	28	— 2.2	88	ENE	74	28.6		...ks	10n			0.97	24.8		
Squan Beach, N. J.			30.29	769.4	47	8.3	85	NE	3	1.3		0	Haze			0	0		
Toledo, Ohio			29.94	760.5	60	15.6	44	S	14	6.3		8cs	2s	SW	S	0.02	0.5		
Tybee Island, Ga.			30.14	765.5	68	20.0	100	NE	14	6.3			10ks			0.34	8.6		
Vicksburg, Miss.			30.20	767.1	69	20.6	79	Calm	0	0		0	2s			0	0		
Virginia City, Mon.			29.72	754.9	44	6.7	60	E	6	2.7		0	0			0	0		
Washington, D. C.			30.27	768.8	67.5	14.2	53	SE	4	1.8		1c	Sm'e	W		0	0		
Wilmington, N. C.			30.19	766.8	60	15.6	59	NE	4	1.8			10s			0	0		
Wood's Hole, Mass.			30.35	770.9	56	13.3	57	Calm	0	0		0	0			0	0		
Wytheville, Va.			29.98	761.5	55	12.8	68	SW	1	0.4		0	0			0	0		
Yankton, D. T.			30.07	763.8	51	10.6	86	Calm	0	0		5ck	2s	NW	NW	0	0		

NOTE.—The original [illegible] give the cloudiness [illegible] a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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—13.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	30.03	762.7	80	26.7	70	E	5	2.2	.....	5ck	5ks	E	.....	0.40	10.2	.....	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	29.99	761.7	79	26.1	65	E	.....	.....	.....	5pc	5cs	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.74	755.4	71	21.7	76	SE	2.4	1.1	.....	2c	0	SE	.....	0.45	11.4	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.18	766.6	78	25.6	78	Calm	0	0	.....	1k	0	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.20	767.1	77	25.0	69	E	4	1.8	.....	2ck	2ks	E	.....	0.01	0.3	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.82	757.4	78	25.6	65	NE	6	2.7	.....	0	2s	.....	.....	0	0	.....	Robert Mason.
St. Georges, Bermudas	.....	.....	30.22	767.6	71	21.7	71	SE	7.3	3.3	.....	5k	8k	SE	.....	0	0	.....	C. F. Allen.
Honolulu, Oahu, S. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Makawao, Maui, S. I.	30.10	764.5	64	17.8	68	NE	.....	.....	2	5ck	5k	NE	.....	0	0	.....	E. P. Church.
.....	27.80	706.1	.....	.....	62.5	16.9	83	E	.....	.....	3	0	2n	.....	.....	0.10	2.5	.....	F. L. Clarke.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
York Factory, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clifton, Jamaica, W. I.	.....	.....	30.38	771.6	34.0	1.1	67	W	6	2.7	.....	0	0	.....	.....	0	0	.....	J. Fortescue.
St. John's, Newfoundland	.....	.....	30.01	762.2	62	16.7	88	N	2.0	0.9	.....	2c	2k	NNE	.....	0.62	15.7	.....	C. Partridge.
St. John's, Porto Rico, W. I.	.....	.....	30.30	769.6	52	11.1	53	W	.....	.....	.....	2c	5s	.....	.....	0.14	3.5	.....	John Delaney.
Elyria, Ohio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Indianola, Iowa	29.11	739.4	30.03	762.7	55	12.8	50	S	8	3.6	.....	.....	10n	.....	.....	0	0	.....	H. M. Redington.
												0	6ks	.....	.....	0	0	.....	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 19° 09', W. 58° 54'	S	2	29.88	758.0	77	25.0	98	ESE	.....	.....	2	.....	..k	.....	WNW	Short sea.	.....	Squally	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 15, 1875.

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.
1:38 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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.24	768.1	68.0	20.0		NE			2		0			0	0		Charnot.
Algiers			30.17	766.1	70.2	21.2	72	NNE			2		0			0	0		Peter.
La Calle			30.18	766.6	64.4	18.0		NE			2		0			0	0		Kuntz.
Tunis			30.18	766.6	76.1	24.5	57	E			4		3			0	0		Jacques.
Sfax			30.16	766.0	74.7	23.7	60	NE			4		2			0.047	1.2		Chauvey.
Gafsa			30.20	767.0	75.4	24.1		NNW			1		0			0	0		Grosjean.
Tebessa			30.14	765.5	62.6	17.0		E			4		6			0	0		Colin.
Geryville			30.16	766.0	68.0	20.0		N			2		0			0	0		Bernadach.
Laghouat			30.16	766.0	73.8	23.2	36	NE			2		4			0	0	Thunder	Poinsignon.
Biskra			30.18	766.5	78.8	26.0		E			6		6			0	0	Sand sirocco	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.09	764.2	74.3	23.5	45	NW			2		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			
Cracow																			
Eperies			30.10	764.5	64.4	18.0	54	W			3		9			0	0		I. R. Cen. M. I., Hungary
Gratz			30.04	762.9	64.4	18.0	46	Calm			0		6		S	0.020	0.51		I. R. Observatory.
Hermannstadt			30.07	763.8	70.7	21.5	68	SSE			2		0			0	0		Julius Mikolik.
Kremsmünster			29.95	761.5	63.3	17.4	49	N			3		5			0	0		Andreas Rospini.
Lemberg			30.10	764.4	66.2	19.0	60	NW			1		1			0	0		Prof. Reissenberger.
Nyiregyhaza			29.98	761.4	61.0	16.1	50	NE			4		7			0	0		Prof. C. Wagner.
Pola			30.05	763.2	69.1	20.6	50	N			1		3			0	0		Dr. T. Stanecki.
Szegedin			30.11	764.9	73.0	22.8	52	ESE			1		7cks			0	0		Habsuda Daniel.
Trieste			30.06	763.4	69.1	20.6	48	W			4		6			0	0		I. R. Hydrographic Office
Vienna			30.11	764.8	73.4	23.0	67	SE			1		7			0	0		Karl Stancel.
			30.08	764.1	73.3	22.4	40	NW			2		0			0	0		Prof. V. Farolfi.
																			I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.97	761.2			71.1	21.7	47	WSW			1		7c, k		W	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.05	763.3	55.0	12.8		W	29	13.0			2			0.030	0.8		William Boswell.
Annaghill																			
Ardrossan			30.21	767.3	56	13.3		NW			4		3						William McNeil.
Armagh Observatory			30.30	769.6	58.9	14.9		WNW	9	4.0			6						S. Call, for Dr. Robi
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.24	768.1	57.0	13.9		NW			4		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.33	770.4	59.6	15.3		W			1-2		1						J. Dreyer, for L'd R
Bradford			30.15	765.8	64.3	17.9		W			2		5						J. Mc. Landsborou
Bridgetown, (Barbadoes)			29.98	761.5	83.0	28.3		SE			2		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.13	765.3	75.1	23.9		W			1		0						H. Todd.
Cape Town, (Cape Colony)			30.00	762.0	63.0	17.2		NW			3		3						Sgt. D. E. Hunt,
Cape Good Hope Obs.	30.02	762.5			65.0	18.3	72	WNW	12	5.4			3						Th Staff, for E. J. St
Cardington			30.18	766.6	79.0	26.1		NW					2						John McLaren.
Carlisle			30.20	767.1	59.4	15.2		NW					3			0.08	2.0		T Bell, for J. Carter
Chatham, School M. E.			30.12	765.0	78.2	25.7		SW			1		2						Q. M. Sergt. J. Coup
Colombo, (Ceylon)			29.90	759.4	82.5	28.1		SE			2		5						Sgt. W. F. Hopkin
Dartmoor			30.13	765.3	70.0	21.1		NW			1		0						R. E. Power.
Donaghadee			30.25	768.3	58	14.4		WNW			4		5						J. Mac Gowan, Jr.
Dover			30.17	766.3	64	17.8		S			2		0						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			30.20	767.1	62.6	17.0		W	6.0	2.7			3						G. D. Goldney.
Falmouth Observatory			30.21	767.3	66.1	18.9		ESE	4	1.8			2						Thomas Mackerell
Fort Napier, (Natal)			29.97	761.2	79.5	26.4		W			4		6						The Staff.
Freetown, (Sierra Leone.)			29.85	758.2	87.0	30.6		N					7						Pvt. G. Salmon.
Galway, Queen's College			30.29	769.4	61	16.1		SW			1		1						
Gibraltar, (Mediterranean)			30.13	765.3	68.4	20.2		ENE			4		2					Sl't levanter.	B. G. Clare, for Prof.
Glasgow Observatory			30.17	766.3	54.2	12.3		NW			5		9					Squally	Sergt. E. G. Baker.
Great Yarmouth			30.14	765.5	72	22.2		NNE			1		3						James Gray.
Greenwich Royal Obs.			30.15	765.8	80.6	27.0		SW			1		0						G. T. Watson.
Guernsey			30.16	766.1	69	20.6		NE			1		0						The Staff, for G. B.
Halifax, Moorside Obs.			30.13	765.3	61.2	16.2		WNW					2						Dr. S. E. Hoskins.
Halifax, (Nova Scotia)			30.28	769.1	52.2	11.2		S			2		2						F. J. Page, for L. J. Co
Helston			30.18	766.6	73	22.8		N			2		0						Corp'l J. Y. Thompso
Holyhead			30.28	769.1	55	12.8		N			3		1						Dr. W. B. Neyle.
Hull Park																			John Tilston.
Kew Observatory			30.15	765.8	74.0	23.3		W	8	3.6			2						The Staff.
Kingstown			30.30	769.6	57	13.9		NNW			4		4						George Mitchell.
Lampeter																			
Leicester Museum			30.17	766.3	71.9	22.2		W			2		1						William J. Harrison
Llandudno			30.27	768.8	58.0	14.4		N					8						Dr. James Nicol.
Malta, (Mediterranean)			30.15	765.8	69.2	20.7		SE			1		4k						Fred Travis, Pvt. A.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.02	762.5	57	13.9		SW			6		5						William D. Penny.
Nassau, (Bahamas)			30.08	763.0	76.1	24.5		SE			2		10						Surg.-Maj. J. Jum
North Shields			30.13	765.3	63	17.2		WNW			4		1						John Wm. Irvine.
Nottingham			30.18	766.6	72.1	22.3		NW			3		5c		WNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.15	765.8	70.6	21.4		NNW			4		3						Rev. Stephen Whit
Oxford, Radcliffe Obs.			30.13	765.3	78	25.6		W			1		6						J. Lucas, for R. M
Plymouth			30.18	766.6	67	19.4		SSW			3		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.27	768.8	59	15.0		N			4		5						W. Kennedy.
Saint Ann's Head			30.23	767.8	61	16.1		N			4		0						John C. Walker.
Saint Helier, (Jersey)			30.17	766.3	74.8	23.8		SE			2		2						A. P. Amy.
Sandwick Manse (Orkneys)			29.92	760.0	49.0	9.4		W	43	19.2			1						Rev. C. Clouston
Scarborough			30.13	765.3	66.1	18.9		NW			2		4						F. Shaw.
Scutari, (Turkey)			30.01	762.2	63.0	17.2		SW			1		7			Blank	Blank		Sergt. W. H. Lyne
Sheffield			30.15	765.8	68.8	20.4		W			2		3			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.19	766.8	64.0	17.8		NNW			2		5			0	0		Rev Francis Rad
Somerleyton, (Lowestoft)			30.12	765.0	75.7	24.3		SSW			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.20	767.1	58.1	14.5		W			4		1					Hazy	The Staff.
Stornoway, Lewis C. (Hebr.)			30.06	763.5	49	9.4		WNW			6		5						John Smith.
Strathfield Turgiss			30.24	768.1	77.8	25.4		W			1		0						Rev Charles H. Gr
Streatley Vicarage			30.17	766.3	79.8	26.6		W			2		2						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.98	761.5	50.0	10.0		WNW			6		2						John Trotter.
Truro, Royal Institution			30.14	765.5	76	24.4		N			2		2						W. Newcombe.
Valencia Observatory			30.33	770.4	58.2	14.6		NNE	23	10.3			2						The Staff.
Wick																			
Wisbeach																			
Worthing			30.16	766.1	66.0	18.9		SSW			1		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressure reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.98	761.5	65.7	18.7	57	WNW			4		4						
Fanöe			30.00	761.9	54.3	12.4	85	W			4		7						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.93	760.2	40.1	4.5	89	W			6		8						Snowing
Thorshavn, (Faröe)			29.63	752.7	46.2	7.9	63	W			6-7		5						Raining & hailing
Vestervig			29.90	759.4	53.6	12.0	89	SW			6		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.10	764.6	73.0	22.8	68						2s						Normal School.
Alençon			30.14	765.5	78.8	26.0	46	NE			1		0			0	0		Normal School.
Amiens			30.20	767.0	77.0	25.0	68	NW			2		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.20	767.0	73.2	22.9	33	NNE			2		0			0	0		Normal School.
Besançon			30.22	767.5	77.4	25.2	39	N			3		0			0	0		Normal School.
Bourg en Bresse			30.17	766.4	79.7	26.5	44	N E			1		0			0	0		Normal School.
Bourges			30.16	766.0	74.5	23.6	45	NNE			4		0			0	0		Normal School.
Brest			30.10	764.4	80.8	27.1	50	E			1		1c		NE	0	0		Naval Observatory.
Caen			30.01	762.3	73.0	22.8	52	N			4		0			0	0		Normal School
Chartres			30.12	765.0	77.9	25.5		NE			1		0			0	0		Normal School.
Clermont			30.11	764.9	75.2	24.0		NE			1		0			0	0		Normal School.
Commercy			30.25	768.3	70.2	21.2	49	NE			2		0			0	0		Normal School.
Le Mans			30.30	769.5	75.2	24.0	53	NE			3		0			0	0		Normal School.
Lons-Le Saulnier			30.20	767.0	66.9	19.4	64	NNW			4		0			0	0		Normal School.
Mâcon																			
Mirecourt			30.27	768.8	68.5	20.3	41	N			4		0			0	0		Normal School.
Orleans			30.37	771.3	85.1	29.5	37	NE			2		2		NE	0	0		Normal School.
Paris Observatory			30.16	766.0	75.2	24.0		NW			1		0			0	0	Misty	National Observatory
Parthenay			30.16	766.0	73.4	23.0	46	NE			2		0			0	0		Normal School.
La Roche sur Yon			30.15	765.9	83.5	28.6	35	NE			4		0			0	0		Normal School.
Rouen			30.10	764.5	79.2	26.2	37	ESE			2		0			0	0		Normal School.
Saint Lo			30.13	765.4	72.1	22.3	66	NW			3		5		NW	0	0		Normal School.
Villefranche			30.24	768.1	78.4	25.8	46	NE			2		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis																			—. Falguère.
Montsouris Observatory	25.02	635.4			65.7	18.7	58	ENE	14.8	6.6			3		WNW	0	0		Marié Davy.
Perpignan			30.16	766.0	76.6	24.8	32	ENE			2		2c&ck		NE	0	0		Dr. Fines.
Saint Maur, (near Paris)	29.96	761.0			76.8	24.9	60	E	5.0	2.50			0			0	0		E. Renou.
Saint Pierre, (Martinique)			30.16	766.0	77.4	25.2	33	N			2		0			0	0		
Tours																			
Versailles, (near Paris)			29.97	761.1	80.4	26.9	34	E			2		0			0	0	Light fog	C. Marquet.
Zi-Ka-Wei, (near Shanghai)			30.17	766.4	76.6	24.8	31	E			2		3			0	0		Dr. A. Bérigny.
			29.80	759.1	63.5	17.5	84	ENE	4.0	1.8		0	8k			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	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. Inches.	Millimeters.	Weather.	Observer.
Bamberg			30.13	765.2	65.1	18.4	59	NW			2		2			0	0		Prof. Hoh.
Berlin			30.18	766.5	67.6	19.8	55	S			1		3			0	0		Prof. Arndt.
Breslau			30.17	766.4	65.1	18.4	47	WNW			5		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.14	765.6	71.4	21.9	42	NW			2		0			0	0		A. Senz.
Cassel			30.08	764.1	70.7	21.5	49	S			4		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			
Hamburg			30.14	765.6	65.3	18.5	76	W					2			0	0		M. Wilhelm.
Kiel			30.15	765.8	68.9	20.5	52	W			4		3k			0	0		W. Reinert.
Königsberg			30.11	764.9	66.4	19.1	62	W			5		1			0	0		Prof. G. Karsten.
Köslin			29.97	761.1	64.4	18.0	51	W			2					0	0		Prof. E. Luther.
Leipsic			30.23	767.8	61.0	16.1		NW			4		5			0	0		Dr. Tägert.
Münster			30.17	766.3	68.0	20.0	47	SW			2		4			0	0		Prof. Bruhns.
Posen			30.29	769.4	74.3	23.5	54	SW			2		0			0	0	Smoke haze.	Prof. E. Heis.
Strasburg, (in Alsace)			30.13	765.3	67.6	19.8	42	W					1			0	0		Dr. Magener.
Stuttgart			30.15	765.7	72.3	22.4	46	NE					1			0	0		Hartwig and Tülk.
Thorn			30.12	765.1	71.1	21.7	49	N					0			0	0		Mr. Würth.
Treves, (Trier)			30.05	763.3	69.8	21.0	42	W			3		2			0	0		Dr. Hesenbalg.
Wustrow			30.11	764.8	72.7	22.6	45	SE			4		0			0	0		Prof. Flesch.
			30.09	764.3	56.5	13.6	76	WSW			3		0			0	0		F. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. 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. Inches.	Millimeters.	Weather.	Observer.
Moncalieri																			
Mondovi			30.07	763.6	76.3	24.6	55	SW	1.8	0.8			2	E		0	0		
Genoa			30.05	763.3	74.8	23.8	44	S			2		0			0	0		
Savia			30.15	765.8	70.5	21.4	67	SW	3.8	1.7			2	SE		0	0		
Verona			30.07	763.8	78.3	25.7	36	SE			2		0			0	0		
Padua			30.05	763.2	80.8	27.1	41	SW			1		2			0	0		
Parma			30.09	764.3	74.7	23.7	37	E	12.5	5.6			9			0	0		
Bologna																			
Leghorn			30.17	766.3	72.3	22.4	63	W	2.5	1.1			1			0	0		
Urbino			30.12	765.1	74.1	23.4	52	S			2		1			0	0		
Ancona			30.11	764.9	71.2	21.8	61	SE			8		2			0	0		
Sena			30.10	764.5	75.9	24.4	36	NW	2.5	1.1			1	W		0	0		
Rome			30.15	765.9	76.5	24.7	37	SW	9.8	4.4			1			0	0		
Naples, O. U.			30.17	766.2	77.9	25.5	44	SW			2		1			0	0		
Lecce																			
Cosenza			30.16	766.0	69.8	21.0	54	WNW	12.5	5.6			0			0	0		
Catania, (Sicily)			30.15	765.7	76.0	24.8	45	S			1		7			0	0		
Lipostio																			
Palermo			30.13	765.8	74.3	23.5	51	SE			2		2	SE		0	0		
Sub-Series.																			
Naples, S. R.			30.11	764.9	70.3	21.3	59	NE			4		1			0	0		
			30.17	766.4	76.0	24.8	51	W			3					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.20	767.0	64.4	18.0		NW			3								
Groningen			30.06	763.6	70.9	21.6		W			2								
Helder			30.13	765.4	61.7	16.5		SW			4								
Utrecht			30.11	764.8	75.6	24.2	48	W			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. 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.	Weather.	Observer.
Bergen			29.71	754.6	48.2	9.0	91	SW	16.6	7.4			10			0.433	11.0	Raining	
Christiania			29.60	751.8	61.7	16.5	61	S	16.1	7.2			10			0.012	0.3		
Tromsö			29.45	747.9	42.1	5.6	88	N			1		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. 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.	Weather.	Observer.
Lisbon	29.77	756.1			73.0	22.8	47	SW	13.7	6.1			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

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

Stations.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. 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.	Weather.	Observer.
Warsaw			30.03	762.8	65.8	18.8	47	SW	4	2			3						Astronomical Obs.
Wilna			30.00	761.9	60.6	15.9	36	N	8	3.5			1						Astronomical Obs.
Dorpat			29.90	759.5	61.5	16.4	33	WSW	7	3			0						Physical Cabinet.
St. Petersburg			29.85	758.2	53.6	12.0	55	W	4	2			1						Central Physical Obs.
Kuopio																			
Kieff			29.89	759.3	50.2	10.1	87	N	9	4			10						Physical Cabinet.
Nikolaiev			29.81	757.1	53.8	12.1	85	W	8	3.5			10						
Kertch			29.78	756.4	56.1	13.7	88	SSW	17	7.5			10					Raining	Lagorio.
Moscow			29.73	755.2	55.2	12.9	70	N	13	6			8						Meteorological Obs.
Lugan			29.65	753.0	70.9	21.6	39	SSW	17	7.5			6						Meteorological Obs.
Archangel			29.82	757.3	38.8	3.8	83	WNW	13	6			8						Ogorodnikof.
Tiflis			29.88	759.0	64.8	18.2	70	NW	17	7.5			8						Physical Obs.
Astrakhan			29.94	760.5	70.0	21.1	50	SSW	4	2			10						Sebastianof.
Kasan			29.49	749.1	63.9	17.7	45	Calm	0	0			10						Physical Cabinet.
Orenburg			29.92	759.9	68.5	20.3	74	SW	13	6			10						Tschernischef.
Ekaterinburg			29.75	755.7	65.3	18.5	43	S	13	6			10					Raining	Meteorological Obs.
Kasaly			29.60	751.9	77.4	25.2	74	S	8	3.5			0						Bobrof.
Tashkend			30.03	762.8	74.1	23.4	41	N	8	3.5			0						Michelson.
Barnaul			30.09	764.2	46.2	7.9	45	N	10	4.5			0						Meteorological Obs.
Yeniseisk			29.75	755.7	34.3	1.3	79	NW	17	7.5			10					Snowing	Marks.
Irkutsk			29.63	752.7	39.9	4.4	65	Calm	0	0			0						Usolzef.
Oorga																			Mossin.
Peking, (China)			29.74	755.3	75.7	24.3	33	SW	8	3.5			4						Physical Observatory
Nertchinsk			29.59	751.6	36.5	2.5	47	NW	8	4.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					31.6 — 0.2		100	SE	13	6			10						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. 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.	Weather.	Observer.
Madrid			30.02	762.6	85.8	29.0	30	SSW	5.2	2.33		0	1			0	0		Royal Observatory
San Fernando																			The Naval Observatory

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.64	752.9	46.4	8.0	88	SSW			2		10			0.20	5.1		
Hernosand			29.53	750.1	52.3	11.3	58	S			5		8			0.26	5.6		
Stockholm			29.73	755.2	63.7	17.6	41	S			5		2			0	0		
Wisby			29.88	758.9	51.8	11.0	77	NW			2		0			0	0		
Sub-Series.																			
Upsala			29.69	754.1	68.0	20.0	39	S			2		1	NW					Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.73	729.7			70.5	21.4	49	N			2		1			0	0		The Observatory.
Zurich	28.52	724.5			73.8	23.2	50	NW			1		0			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +4.7mm.; Thermometer, +4°.9 C.; Relative Humidity, —8 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.98	761.6	73.8	23.2	64	SW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			30.04	763.1	63.3	17.4	73	S	7	3			10		NW	0.173	4.4		
Bas. (Persian Gulf)			29.85	758.2	96.0	36.0		NW			3		0						
Salonica					79.2	26.2		N			3		2						
Yaloma			30.09	764.3	70.3	21.3		W			1		0						
Yarena			30.04	763.0	62.6	17.0		NE			3		10					Thunder storm.	

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

NOTE.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.94	760.5	45	7.2		NE	4	1.8			10s		NE	0.54	13.7	Light rain	
Chatham, N. B.			30.23	767.8	53	11.7	54	N	3	1.3		8c	2s	NW		0	0		
Charlottetown, P. E. Island			30.28	769.1	52	11.1	55	S	1	0.4		2c	0			0	0		
Fort Garry, Manitoba			30.41	772.1	38	3.3	81	S	10	4.5		0	Haze			0	0		
Halifax, N. S.			30.20	767.1	47	8.3	83	SE	8	3.6		0	0			0	0		
Kingston, Ontario			29.94	760.5	45	7.2	92	NE	10	4.5			10n			0.92	23.4	Light rain	
Montreal, Quebec			29.91	759.7	44	6.7	98	NE	8	3.6		Hz, ck	8n	SE	SE	0.45	11.4	Clearing	
Ottawa, Ontario			29.94	760.5	38	3.3	70	N	17	7.6			10n		N	0.56	14.2	Threatening	
Parry Sound, Ontario			30.19	766.8	38	3.3	54	N	25	11.2		2ck	5s	E	E	0.36	9.1		
Port Dover, Ontario			30.15	765.8	44	6.7	68	NW	11	4.9		10k	0	NW		0	0		
Port Stanley, Ontario			30.16	766.1	44	6.7	85	NW	15	6.7		5k	0	N		0.03	0.8		
Quebec, Quebec			30.14	765.5	34	1.1	95	NE	43	19.2			10n		NE	0	0	Sleet	
Queen, Ontario			30.22	767.6	37	2.8	62	N	12	5.4		0	0			0.76	19.3		
Stayner, Ontario			30.16	766.1	38	3.3	79	NW	14	6.3		5k	2n	NW	NW	1.22	31.0		
Sydney, C. B.			30.35	770.9	63	17.2	44	S	5	2.2		Haze	0	W		0	0		
Toronto, Ontario			30.10	764.5	43	6.1	79	NW	19	8.5		2ck	2ks	NW	N	0.07	1.8		

NOTE.—The originals give the cloudiness on a scale of 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. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.97	761.2	56	13.3	87	S	13	5.8		5k	0	S		0.04	1.0		
Alpena, Mich.			30.34	770.6	41	5.0	41	N	10	4.5		5c	0	N		0.06	1.5		
Atlantic City, N. J.			30.04	763.0	53	11.7	100	SW	12	5.4			Fog			0	0	Foggy	
Augusta, Ga.			30.11	764.8	66	18.9	93	Calm	0	0			10s		S	0	0		
Baltimore, Md.			30.02	762.5	62	16.7	71	SW	3	1.3		0	Sm'e			0	0		
Barnegat, N. J.			30.03	762.7	55	12.8	93	S	2	0.9			10s		S	0	0		
Benton, Montana			29.82	757.4	60	15.6	49	E	8	3.6		0	0			0	0		
Bismarck, Dakota			30.13	765.3	50	10.0	64	E	16	7.2		0	0			0	0		
Boston, Mass			30.07	763.8	49	9.4	43	NE	4	1.8			Fog			0	0	Foggy	
Breckenridge, Minn			30.36	771.1	39	3.9	63	E	4	1.8		0	0			0	0		
Buffalo, N. Y.			30.08	764.0	40	4.4	82	NW	8	3.6			10s		NW	0.15	3.8		
Burlington, Vt.			29.95	760.7	50	10.0	72	S	6	2.7			10s			0.13	3.3		
Cairo, Ill.			30.17	766.1	62	16.7	61	NE	4	1.8		5c	0	W		0	0		
Cape Hatteras, N. C.			30.13	765.3	68	20.0	90	S	14	6.3		5k	5s			0	0		
Cape Henry, Va.			30.10	764.5	66	18.9	84	SW	11	4.9		0	8s		SW	0	0		
Cape May, N. J.			30.04	763.0	52	11.1	100	S	12	5.4			Fog			0	0	Foggy	
Charleston, S. C.			30.12	765.0	67	19.4	90	N	4	1.8		2c	Fog			0	0	Foggy	
Cheyenne, W. T.			30.04	763.0	41	5.0	63	W	4	1.8		0	0			0	0		
Chicago, Ill.			30.30	771.1	42	5.6	66	N	16	7.2		0	0			0	0		
Cincinnati, Ohio			30.25	768.6	61	16.1	55	NE	12	5.4			10s			0	0		
Cleveland, Ohio			30.20	767.1	43.3	6.3	79	NW	12	5.4		0	2ks		NW	0.05	1.3		
Colorado Springs, Col.			30.02	762.5	52	11.1	40	N	8	3.6		5cs	0	W		0	0		
Corsicana, Texas			30.08	764.0	67	19.4	79	S	6	2.7		2c	0	E		0	0		
Davenport, Iowa			30.40	772.1	48	8.9	42	NE	16	7.2		0	Sm'e			0	0		
Denver, Col.			30.06	763.5	51	10.6	40	S	2	0.9		2cs	0			0	0		
Detroit, Mich.			30.25	768.6	46	7.8	61	N	10	4.5		2ck	0			0.07	1.8		
Dodge City, Kansas			29.70	755.4	60	15.6	44	N	8	3.6		0	0			0	0		
Dubuque, Iowa			30.32	770.1	51	10.6	46	NE	8	3.6		0	0			0	0		
Duluth, Minn.			30.56	776.2	38	3.3	71	Calm	0	0		0	0			0	0		
Eastport, Me.			30.21	767.3	46	7.8	69	E	7	3.1		10c	0	W		0	0		
Erie, Penn.			30.12	765.0	45	7.2	75	W	12	5.4			10s			0.15	3.8		
Escanaba, Mich.			30.50	774.7	40	4.4	73	N	8	3.6		Haze	Haze			0	0		
Fort Gibson, I. T.			30.01	762.2	69	20.6	79	E	6	2.7			10ks			0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.19	766.8	51	10.6	72	E	18	8.0		0	0			0	0		
Galveston, Texas			30.11	764.8	72	22.2	90	NW	5	2.2		0	0			0	0		
Grand Haven, Mich.			30.37	771.4	46	7.8	51	NE	12	5.4		0	0			0.02	0.5		
Indianapolis, Ind.			30.28	769.1	49	9.4	64	N	12	5.4		2c	2k	W	NE	0	0		
Indianola, Texas			30.13	765.3	79	26.1	65	SE	4	1.8		0	0			0	0		
Jacksonville, Fla.			30.09	764.3	77	25.0	69	NE	8	3.6		2k	0	NE		0	0		
Keokuk, Iowa			30.32	770.1	47	8.3	77	NE	15	6.7		5ck	2ks	NW	NW	0	0		
Key West, Fla.			29.98	761.5	76.7	24.8	72	E	13	5.9		8k	2s	E		0.09	2.3		
Kittyhawk, N. C.			30.13	765.3	64	17.8	78	W	10	4.5		5c	0	W		0	0		
Knoxville, Tenn.			30.08	764.0	60	15.6	76	SW	2	0.9		0	Haze			0	0		
La Crosse, Wis.			30.46	773.7	45	7.2	54	NE	7	3.1		0	0			0	0		
Leavenworth, Kan.			30.15	765.8	55	12.8	79	NE	12	5.4			10n		NE	0.30	7.6	Light r[illegible]	
Lexington, Ky.			30.22	767.6	50	10.0	86	N	10	4.5			10s			0.10	2.5		
Long Branch, N. J.			30.05	763.3	50	10.0	100	S	4	1.8			Fog			0.01	0.3	Foggy	
Louisville, Ky.			30.23	767.8	53	11.7	80	NW	8	3.6			10s		NW	0.15	3.8		
Lynchburg, Va.			30.03	762.7	68	20.0	60	NW	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.54	775.7	39	3.9	55	N	4	1.8		0	0			0	0		
Memphis, Tenn.			30.11	764.8	67	19.4	64	NW	1	0.4		5cs	Sm'e			0	0		
Milwaukee, Wisconsin			30.43	772.9	41	5.0	48	NE	22	9.8		0	0			0.02	0.5		
Mobile, Ala.			30.09	764.3	66	18.9	64	N	9	4.0		0	0			0	0		
Montgomery, Ala.			30.12	765.0	68.5	20.3	74	Calm	0	0		2c	Haze			0	0		
Morgantown, W. Virginia			30.14	765.5	52	11.1	60	NW	11	4.9			10s			0	0		
Mt. Washington, N. H.			30.10	764.5	27	−2.8	100	SW	56	25.0			Fog			0	0		
Nashville, Tenn.			30.12	765.0	67	19.4	55	NE	4	1.8		0	0			0	0		
New Haven, Conn.			30.05	763.3	50	10.0	93	E	4	1.8			10n			0.02	0.5	Light rain	
New London, Conn.			30.08	764.0	49	9.4	96	SE	9	4.0			Fog			0	0	Foggy	
New Orleans, La.			30.08	764.0	72.5	22.5	61	N	8	3.6		2cs	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			30.05	763.5	51	10.6	93	Calm	0	0			Fog			0	0	Foggy	
Norfolk, Va.			30.11	764.8	65	18.3	81	SW	13	5.8			10s			0	0		
North Platte, Neb.			29.70	754.4	56	13.3		E	10	4.5		2ck	2ks	W	W	0.32	8.1		
Omaha, Neb.			30.24	768.1	54	12.2	73	E	8	3.6			10s		E	0.08	2.0		
Oswego, N. Y.			29.92	760.0	44	6.7	88	WNW	17	7.6			10s			0.70	20.1	Threatening	
Peck's Beach			30.06	763.5	54	12.2	100	SW	16	7.2			Fog			0	0	Foggy	
Pembina, D. T.			30.38	771.6	44	6.7	67	SE	12	5.4		Haze	0			0	0		
Philadelphia, Penn.			30.05	763.3	55	12.8	87	SW	7	3.1			10s		NE	0	0		
Pike's Peak, C. T.			30.17	766.3	27	−2.8	77	SW	18	8.0		2c	Sm'e	NE		0.03	0.8		
Pittsburgh, Penn.			30.15	765.8	47	8.3	70	NW	6	2.7			10s		NW	0.02	0.5		
Port Huron, Mich.			30.27	768.8	40	4.4	64	N	24	10.7		0	0			0.05	1.3		
Portland, Maine			30.12	765.0	49	9.4	78	S	2	0.9			10s			0	0		
Portland, Or.			29.89	759.2	53	11.7	86	SW	4	1.8			10s			0.22	5.6	Threatening	
Punta Rassa, Fla.			30. 5	763.3	70.6	21.4	9[illegible]	NE	10	4.5		5cs	5s	SW	NE	0.19	4.8		
Rochester, N. Y.			29.97	761.2	39	3.9	100	W	22	9.8			10n		W	0.48	12.2	Light [illegible]	
Salt Lake City, Utah			29.79	756.7	62	16.7	32	SW	2	0.9		0	8s			0	0		
Sandy Hook, N. J.			30.02	762.5	52	11.1	100	S	2	0.9			10n		S	0.01	0.3	Light rain	
San Diego, Cal.			29.93	760.2	61	16.1	76	S	4	1.8			10s			0	0		
San Francisco, Cal.			29.96	761.0	51	10.6	79	W	8	3.6		0	0			0.07	1.8		
Santa Fe, N. M.			29.81	757.2	58	14.4	32	E	8	3.6		2c	0	SW		0	0		
Savannah, Georgia			30.10	764.5	70	21.1	79	N	4	1.8		2c	2k		NE	0.06	1.5		
Shreveport, La.			30.10	764.5	70	21.1	79	SE	2	0.9		10cs	0	NW		0	0		
Springfield, Mass.			30.06	763.5	47	8.3	77	Calm	0	0			10n			0.06	1.5	Light rain	
St. Louis, Mo.			30.28	769.1	52	11.1	72	NE	12	5.4		2c	0	W		0	0		
St. Marks, Fla.			30.09	764.3	70	21.1	90	E	6	2.7		0	0			0.21	5.3		
St. Paul, Minn.			30.42	772.7	44	6.7	44	NE	2	0.9		0	0			0	0		
St. Paul's Island, Alaska			29.45	748.0	28	−2.2	76	NW	30	13.4			10k			0.40	10.2		
Squan Beach, N. J.			30.04	763.0	48	8.9	100	S	5	2.2		0	8s		N	0	0		
Toledo, Ohio			30.26	768.6	40	9.4	63	NW	10	4.5		0	2s			0.01	0.3		
Tybee Island, Ga.			30.12	765.0	71	21.7	85	N	10	4.5		2c	2k	NW		0	0		
Vicksburg, Miss.			30.15	765.8	70	21.1	52	Calm	0	0		0	2s			0	0		
Virginia City, Mon.			29.59	751.6	48	8.9	56	E	4	1.8		0	0			0	0		
Washington, D. C.			30.03	762.7	55	18.3	68	S	4	1.8		Haze	Sm'e			0	0		
Wilmington, N. C.			30.13	765.3	69	20.6	79	E	6	2.7		5k	5ks	NE	E	0.07	1.8		
Wood's Hole, Mass.			30.06	763.5	51	10.6	93	SE	5	2.2			Fog			0	0	Foggy	
Wytheville, Va.			29.86	758.4	61	16.1	60	W	3	1.3		0	0			0	0		
Yankton, D. T.			30.30	769.6	55	12.8	68	E	8	3.6		1cs	0	NW		0	0		

NOTE.—The origin[illegible] give the cloudiness [illegible] a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.05	763.3	80	26.7	86	N	7	3.1		2k	5ks	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.93	760.2	78	25.6	69	E				0	2k			1.04	1.0		L. V. Bigard.
Havana, Cuba, W. I.			29.72	754.9	79	26.1	81	SE	2.4	1.1		8ck	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.18	766.6	77	25.0	76	Calm	0	0		1k	0	SE		0	0		James Gall.
St. Thomas, S. T., W. I.			30.21	767.3	76	24.	7[illegible]	E	8	3.6		2ck	5kn	E		0.05	1.3		W. S. Cameron.
Santiago de Cuba, W. I.			29.78	756.4	76	24.4	74	NE	1.2	0.5		5ck	5ks	SW		0	0		Robert Mason.
St. Georges, Bermudas			30.19	766.8	71.5	21.9	78	SE	10.8	4.8		0	1k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.07	764.8	66	18.9	64	NE			2	5k	5k	NE		0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.																			
Clifton, Jamaica, W. I.			30.24	768.1	42.0	5.6	58	S				8c	0	W		0	0		J. Fortescue.
St. John's, Newfoundland			30.02	762.5	65	18.3	90	N	8	3.6		0	0			0.40	0.20		C. Partridge.
St. John's, Porto Rico, W. I.			30.46	773.7	57	13.9	41	W	1.5	0.7		0	0			0	0		John Delaney.
Elyria, Ohio																			Leon M. Acuña.
Indianola, Iowa	20.34	719.8	30.18	766.6	45	7.2	61	N	12	5.4			2ck			0	0		H. M. Redington.
					49	9.4	71	SE				0	0			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 17° 36', W. 59° 04'	SSW	4	29.87	758.7	80	26.7	82	E			4	..c	..k	E	W	Short sea.		Squally	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 6:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 16, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours																			
Akiers			30.14	765.6	70.0	21.1		NW			2		0			0	0		Charnot.
La Calle			30.08	764.1	71.6	22.0	74	NNE			1		7			0	0		Peter.
Tunis			30.06	763.5	68.0	20.0		NE			2		2			0	0		Kuntz.
Sfax			30.11	764.9	76.8	24.9	48	NE			3		2			0	0		Jacques.
Sousse			30.11	764.9	76.1	24.5	60	NE			5		2			0	0		Chauvey.
Tebessa			30.11	764.9	80.6	27.0		N			1		0			0	0		Grosjean.
Gerville			30.08	764.0	68.0	20.0		E			3		2			0	0		Colin.
Laghouat			30.07	763.7	77.2	25.1		E			3		2			0	0		Bernadach.
Biskra			30.13	765.3	72.5	22.5	36	E			1		3			0.039	1.0		Poinsignon.
			30.13	765.2	84.4	29.1		E			4		6			0	0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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.	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—	Rainfall. Inches.	Millimeters.	Weather.	Observer.
Aram																			
Buda-Pesth			29.85	758.2	80.8	27.1	41	NW			1		8			0	0		Prof. Ivan Stozir.
Cracow																			I. R. Cen. M. I., Hungary
Eperies																			
Gratz			29.98	761.5	69.4	20.8	52	W			1		5			0.039	1.0		I. R. Observatory.
Hermannstadt			29.93	760.2	71.2	21.8	45	N			3		4		S	0	0		Julius Mikolik.
Kremnitz			29.97	761.1	75.2	24.0	45	ESE			2		0			0	0		Andreas Rospini.
Lemberg			29.95	760.8	66.9	19.4	44	N W			3		5			0	0		Prof. Reissenberger.
Szegedin			30.00	762.0	70.2	21.2	58	NNW			2		2			0	0		Prof. C. Wagner.
Szekszhazn			29.87	758.8	69.8	21.0	47	W			3		4			0	0		Dr. T. Stanecki.
Pola			29.97	761.2	74.	23.0	53	E			1		3			0	0		Habzsuda Daniel.
Sagerdin			30.02	762.5	71.6	22.0	63	WNW			1		1s			0	0		I.R. Hydrographic Office
Trieste			29.92	759.9	76.3	24.6	36	NW			4		0			0	0		Karl Stancel.
Vienna			30.05	763.2	74.1	23.4	61				1		1			0	0		Prof. V. Farolé.
			29.98	761.5	76.6	24.8	32	NW			2		2			0	0		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

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

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—	Rainfall. Inches.	Millimeters.	Weather.	Observer.
Brussels	29.98	761.6			66.9	19.4	47	NE			1		7k		W	0	0	Has	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level: its altitude is 56.56 meters or 185.6 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.20	767.1	55.0	12.8		W	15	6.7			3			0	0		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.33	770.4	57.0	13.9		NNE	3	1.3									S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.30	769.6	55.5	13.1		WNW			2		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.31	769.9	60.5	15.8		NE			1		2						J. Dreyer, for Lord Rosse
Bradford																			J. Mc. Landsborough
Bridgetown, (Barbadoes)			29.98	761.5	81.0	27.2		NE			2		10						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.26	768.6	62.0	16.7		NNE			1		1						H. Todd.
Cape Town, (Cape Colony)			29.86	758.4	67.4	19.7		W			3		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.77	756.1			68.5	20.3	46	NW	8	3.6			0						Th. Staff, for E. J. Stone
Cardington			30.37	771.4	63.4	17.4		E					1						John McLaren.
Carlisle			30.26	768.6	60.9	16.1		W					2			0	0		T. Bell, for J. Cartmell
Chatham, School M. E.			30.22	767.6	62.4	16.9		SE			1		0						Q. M. Sergt. J. Conroy
Colombo, (Ceylon)			29.90	759.6	79.8	26.6		SE			1		10						Sgt. W. F. Hopkins
Dartmoor			30.26	768.6	62.0	16.7		E			1		3						R. E. Power.
Donaghadee			30.31	769.9	56	13.3		NNE			3		3						J. Mac Gowan, Jr.
Dover			30.23	767.8	56	13.3		ENE			4		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.30	769.6	63.8	17.7		WSW	2.0	0.9			4					Misty	Thomas Mackereth.
Falmouth Observatory			30.29	767.1	63.8	17.7		ESE	6	2.7			3					Hazy	The Staff.
Fort Napier, (Natal)			29.87	758.7	77.2	25.1		E			3		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.85	758.2	87.0	30.6		N					6						
Galway, Queen's College			30.08	764.0	63	17.2		W			1		3						B. G. Clare, for Prof. Cox
Gibraltar, (Mediterranean)			30.08	764.0	69.0	20.6		E			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.26	768.6	55.0	12.8		W			1		4						James Gray.
Great Yarmouth			30.28	769.1	56	13.3		NNE			3		2						G. T. Watson.
Greenwich Royal Obs.			30.23	767.8	68.4	20.2		E			1		2						The Staff, for G. B. Airy
Guernsey			30.14	765.5	58.5	14.7		NNE			3		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.								Var.					2						F. J. Page, for L. J. Crossley
Halifax, (Nova Scotia)			29.99	761.7	44.8	7.1		S			2		10					Fog & Rain	Corp'l J. Y. Thompson.
Helston			30.16	766.1	70	21.1		E			3		2						Dr. W. B. Neale.
Holyhead			30.31	769.9	54	12.2		NNW			2		0						John Tilston.
Hull Park																			
Kew Observatory			30.22	767.6	63.9	17.7		NNE	14	6.3								Hazy	The Staff.
Kingstown			30.40	772.1	56	13.3		ESE			2		1						George Mitchell.
Lampeter																			
Leicester Museum			30.27	768.8	61.0	16.1		Calm			0		0					Hazy	William J. Harrison
Llandudno			30.30	769.6	56.2	13.4		N					0						Dr. James Nicol.
Malta, (Mediterranean)			30.02	762.5	70.4	21.3		NE			1		2k						Fred Travis, Pvt. A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.18	766.6	60	15.1		WNW			1		8						William D. Penny.
Nassau, (Bahamas)			30.03	762.7	74.3	23.5		SE			1		8						Surg.-Maj. J. Jamieson
North Shields																			John Wm. Irvine.
Nottingham			30.26	768.6	65.3	18.5		SSE			2		0						E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.24	768.1	61.0	16.1		NNE			2		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.21	767.3	63	17.2		NE			1		0						J. Lucas, for R. Main.
Plymouth			30.19	766.8	68	20.0		ENE			1		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.32	770.1	57	13.9		ESE			3		2						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.11	764.8	70.6	21.4		N			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.02	762.5	49.3	9.6		NW	24	10.7			2						Rev. C. Clouston
Scarborough																			F. Shaw.
Scutari, (Turkey)			30.01	762.2	65.0	18.3		SW			1		6						Sergt. W. H. Lyne.
Sheffield			30.25	768.2	63.4	17.4		Calm			0		3			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.26	768.6	68.0	20.0		Calm			0		2			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.26	768.6	58.6	14.8		NNE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.25	768.3	59.7	15.4		W			1							Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			30.17	766.3	54	12.2		WNW			3		5						John Smith.
Strathfield Turgiss			30.22	767.6	68.0	20.0		E			1		0						Rev. Charles H. Griffith
Streatley Vicarage			30.23	767.8	70.8	21.6		WSW			1		3						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.17	766.3	53	11.7		NW			4		3						John Trotter.
Truro, Royal Institution			30.15	765.8	72	22.2		N			4		5						W. Newcombe.
Valencia Observatory			30.30	769.6	59.4	15.2		SW	45	2.0									The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.90	759.4	52.5	11.4	42	NW			9		7						
Faröe			30.08	763.9	50.0	10.0	66	NW			7		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.87	758.8	41.7	5.4	75	E			4		5						
Thorshavn, (Faröe)			30.04	763.0	47.3	8.5	58	W			4		5						
Vestervig			29.93	760.2	47.1	8.4	71	WNW			7		3						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ancenis			30.04	763.1	71.2	21.8	69						2s						Normal School.
Alençon			30.07	763.5	78.8	26.0	4	SE			3		5ck			0	0		Normal School.
Amiens			30.13	765.4	77.7	25.4	53	N			4		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.14	765.6	75.0	23.9	46	E			2		2		ENE	0	0		Normal School.
Besançon			30.12	765.0	8[illegible]	27.0	40	SE			2		0			0	0		Normal School.
Bourg en Bresse			29.98	761.42	75.7	24.3	47	S			2		10		N	0	0		Normal School.
Bonges			30.08	763.9	77.7	25.4	53	NNE			4		2		S	0	0		Normal School.
Brest			30.05	763.2	64.9	18.3	67	NE			3		10		NE	0	0	Misty	Naval Observatory.
Caen			30.11	764.9	69.4	20.8	78	N			2		2			0	0		Normal School.
Chartres			30.06	763.4	77.0	25.0		ENE			1		8c		NE	0	0		Normal School.
Chaumont			30.03	762.8	75.2	24.0		NW			2		1		NW	0	0		Normal School.
Commercy			30.17	766.4	73.8	23.2	41	ENE			4		2		S	0	0		Normal School.
Le Mans			30.04	762.9	77.9	25.5	44	E			1		2		SE	0	0		Norn al School.
Lons-Le Saulnier			30.09	764.2	69.1	20.6	55	NE			2		0			0	0		Normal School.
Mâcon																			
Mirecourt			30.22	767.5	69.[illegible]	20.[illegible]	33	NNE			4		1		NE	0	0		Normal School.
Orléans			30.23	767.8	89.0	32.0	42	NE			2		2		WSW	0	0		Normal School.
Paris Observatory			30.08	764.1	77.4	25.1		NE			2		2			0	0		National Observatory.
Perth Bay			30.02	762.5	73.	23.0	32	E			2		0			0	0		Normal School.
La Roche sur Yon			30.03	762.8	85.0	29.8	32	NE			1		0			0	0		Normal School.
Rouen			29.93	760.3	79.7	26.4	36	NNE			2		2			0	0		Normal School.
Saint Lô			29.70	756.77	60.3	15.7	98	NW			3		5		NW	0.197	5.0		Normal School.
Villefranche			30.17	766.4	80.6	27.0	43	NNE			2		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.97	634.3			66.1	19.0	57	ESE	14.8	6.6			2		SSW	0	0		—. Falguère.
Montsouris Observatory			30.09	764.2	81.1	29.7	30	NE			2		1c&ck		SW	0	0		Marié Davy.
Perpignan	29.92	760.0			74.3	23.5	59	NE	5.0	2.50			0			0	0		Dr. Flues.
Saint Maur, (near Paris)			30.08	764.1	78.8	26.0	34	NE			2		1c		W	0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.02	762.6	82.3	28.0	33	E			3		1		S	0	0		C. Marquet.
Versailles, (near Paris)			30.09	764.3	79.7	26.4	28	E			2		7			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.92	760.0	66.4	19.1	72	ENE	0.2	0.1		10ck		W		{ 0 / 0	0 / 0 }		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Hamberg			30.04	762.9	71.6	22.0	44	NW			4		5			0	0		Prof. Hoh.
Berlin			30.16	766.0	64.8	18.0	40	N			2		2			0	0		Prof. Arndt.
Breslau			30.10	764.6	63.7	17.5	62	WNW			5		8			0	0		Dr. P. Neugebauer.
Carlsruhe			30.06	763.5	75.0	24.1	43	NE			2		1			0	0		A. Senz.
Cassel			30.06	763.5	70.9	21.5	34	N			5		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			M. Wilhelm.
Hamburg			30.06	763.5	68.4	20.5	73	W			[illegible]		1			0	0		W. Reinert.
Kiel			30.17	766.3	57.7	14.3	45	WNW			5		5k			0	0		Prof. G. Karsten.
Königsberg			30.14	765.5	59.5	15.1	69	WNW			5		5			0	0		Prof. E. Luther.
Köslin			29.89	759.1	54.5	12.3	48	W			3					0	0		Dr. Tägert.
Leipsic			30.19	766.7	53.0	12.0		W			6		2			0	0		Prof. Bruhns.
Münster			30.13	765.4	63.0	17.2	33	NW			2		1			0	0		Prof. E. Heis.
Posen			30.17	766.4	67.1	19.5	42	NW			2		0			0	0	Smoke-haze	Dr. Magener.
Strasburg, (in Alsace)			30.07	763.8	63.5	17.5	50	W			6–7		0			0	0		Hartwig and Tülk.
Stuttgart			30.07	763.6	75.2	24.0	41	NE					0			0	0		Mr. Würth.
Thorn			30.02	762.4	74.3	23.5	45	N					2			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.99	761.7	61.7	16.5	32	W-W			6		1			0	0		Prof. Flesch.
Wustrow			30.06	763.4	75.4	24.1	44	NE			5		1			0	0		F. F. chütz.
			30.06	763.5	50.2	10.1	67	NW			4		3c			0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.02	762.5	77.5	25.3	49	SE	3.1	1.4			2			0	0		
Mondovi			30.00	762.1	75.0	23.9	51	N			4		1	NW		0	0		
Genoa			30.08	764.0	71.1	21.7	65	W	3.8	1.7			0			0	0		
Pavia			30.02	762.6	76.6	24.8	45	NE			1		0			0	0		
Verona			29.97	761.3	82.6	28.1	44	E			1		0			0	0		
Padua			30.00	762.0	75.7	24.3	49	SSE	2.5	1.1			0			0	0		
Parma																			
Bologna																			
Ferrara			30.09	764.3	71.6	22.0	60	SW	4.3	1.9			1			0	0		
Legnago			30.09	764.3	71.2	21.8	54	NNE			4		1			0	0		
Rovigo			30.04	762.9	73.0	22.8	50	NNW			4		1			0	0		
Ancona			30.03	762.7	74.7	23.7	43	NNW	2.5	1.1			1	W		0	0		
Sienna			30.06	763.5	80.1	26.7	34	SW	6.9	3.1			1			0	0		
Naples, G.U.			30.08	764.0	75.9	24.4	51	SW			2		1			0	0		
Lecce			30.14	765.6	71.6	22.0	54	WNW	10.5	4.7			0			0	0		
Cosenza			30.07	763.6	77.9	25.5	32	NNE			2		3	NE		0	0		
Catania, (Sicily)																			
Trapsto																			
Palermo			30.02	762.6	68.7	20.4	62	NE			4		3	SW		0	0		
Sub-Series.																			
Naples, S. R.			30.05	763.2	70.9	21.6	48	NE			2		0			0	0		
			30.11	764.8	74.3	23.5	63	W			6					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.26	768.6	62.6	17.0		NE			3								
Groningen			30.16	766.0	57.4	14.1		NW			4								
Helder			30.24	768.0	53.2	11.8		NW			2								
Utrecht			30.19	766.8	63.0	17.2	43	N			3		2						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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			29.79	756.7	45.5	7.5	65	NW	28.0	12.5			10			0	0	Raining	
Christiania			29.50	749.2	54.3	12.4	19	WNW	28.0	12.5			6			0	0		
Tromsö			29.26	743.2	38.5	3.6	98	N			7		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon	29.73	755.1			73.0	22.8	54	SW	8.7	3.9			0			0	0		

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

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

Warsaw			29.92	760.0	62.8	17.1	60	NW	9	4			10						Astronomical Obs.
Wilna			29.80	757.0	61.9	16.6	27	W	10	4.5			0						Astronomical Obs.
Dorpat			29.60	751.9	52.3	11.3	50	WSW	13	6			4						Physical Cabinet.
St. Petersburg			29.46	748.2	47.7	8.7	64	NW	16	7			7						Central Physical Obs.
Kuopio																			
Kieff			29.92	759.9	63.0	17.2	39	WNW	2	1			3						Physical Cabinet.
Nikolaiev			29.82	757.5	58.5	14.7	75	NE	8	3.5			8						
Kertch			30.06	763.5	58.5	14.7	80	W	8	3.5			7						
Moscow			29.77	756.2	66.9	19.4	38	SW	8	3.5			2						Lagorio.
Lugan			29.67	753.7	63.7	17.6	48	ESE	4	2			8						Meteorological Obs.
Archangel			29.3	750.1	53.1	11.7	61	S	13	6			10						Meteorological Obs.
Tiflis			29.87	758.8	64.0	17.8	70	N	20	9			7					Raining	Ogorodnikof.
Astrakhan			29.91	759.7	73.9	23.3	48	WNW	2	1			2						Physical Obs.
Kasan			29.67	753.5	56.5	13.6	74	N	0	0			10						Sebastianof.
Orenburg			29.70	754.4	77.2	25.1	27	W	8	3.5			5						Physical Cabinet.
Ekaterinburg			29.63	752.7	58.8	14.9	64	W	8	3.5			9						Tschernischef.
Kasaly			29.70	754.3	79.7	26.5	61	WSW	31	14			0						Meteorological Obs.
Tashkend			29.95	760.7	80.6	27.0	53	Calm	0	0			0						Bobrof.
Barnaul			30.04	763.1	54.6	12.2	34	Calm	0	0			4						Micheikon.
Yeniseisk			29.96	761.0	29.3	− 1.5	66	N	13	6			10						Meteorological Obs.
Irkutsk			29.89	759.3	35.6	2.0	71	Calm	0	0			0						Marks.
Oorga			29.67	753.7	48.9	9.4	98	Calm	0	0			0						Usolzef.
Peking, (China)			29.67	753.7	77.9	25.5	31	Calm	0	0			4						Mossin.
Nertchinsk			29.79	756.6	38.3	3.5	51	Calm	0	0			1						Physical Observatory.
Vladivostock																			Meteorological Obs.
Nikolaievsk, on the Amoor					33.8	1.0	80	SE	8	3.5			10						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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	90.3	32.4	28	W	4.7	2.11			1			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			28.80	731.5	46.0	7.8	86	NW			3		10			0	0		
Hernosand			29.07	738.3	46.4	8.0	57	W			7		10			0.05	1.2		
Stockholm			29.35	745.4	53.8	12.1	26	W			7		8			0	0		
Wisby			29.09	751.8	48.6	9.2	79	SW			5		0			0	0		
Sub-Series.																			
Upsala			29.35	745.5	52.2	11.2	44	W			6		9		W			Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.65	727.6			72.3	22.4	44	N			2		3			0	0		The Observatory.
Zurich	28.46	722.9			77.2	25.1	85	NW			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.5mm.; Thermometer, +5°.8 C.; Relative Humidity, —13 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			30.05	763.3	68.5	20.3	45	SSE	5.6	2.5			8		WNW	0	0		
Fao (Persian Gulf)			29.76	755.9	98.6	37.0		NW			3		0						
Salonica					79.2	26.2		N			3		0						
Valona			30.04	763.0	68.4	22.2		W			2		0						
Yerin			30.04	763.0	66.2	19.0		SE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.28	769.1	41	5.0		N	5	2.2		8c	0	N		0.09	2.3		
Chatham, N. B.			30.09	762.0	39	3.9	98	N	6	2.7			10s		NE	0.05	1.3	Light rain	
Charlottetown, P. E. Island			29.99	761.7	47	8.3	98	S	5	2.2			10n			0.435	11.05	Light rain	
Fort Garry, Manitoba			30.18	766.6	51	10.6	65	S	16	7.0		0	0			0	0		
Halifax, N. S.			29.91	759.7	45	7.2	95	SE	9	4.0			Fog			0.322	8.18	Foggy	
Kingston, Ontario			30.31	769.9	41	5.0	58	N	5	2.2		8c	0			0.06	1.5		
Montreal, Quebec																0.28	7.1		
Ottawa, Ontario			30.25	768.3	39	3.9	68	N	8	3.6		5c	0	N		0.03	0.8		
Parry Sound, Ontario			30.45	773.4	43	6.1	47	N	18	8.0		0	0			0	0		
Port Dover, Ontario			30.41	772.4	42	5.6	42	N	13	5.8		0	0			0	0		
Port Stanley, Ontario			30.41	772.4	42	5.6	66	NW	10	4.5		0	0			0	0		
Quebec, Quebec			30.09	764.3	38	3.3	81	NE	3	1.3			10n		NE	0.64	16.3	Clearing	
Stayner, Ontario			30.47	773.9	37	2.8	85	N	5	2.2		0	0			0	0		
Toronto, Ontario			30.12	765.0	43	6.1	89	NW	1	0.4			10n			0	0		
			30.41	772.4	46	7.8	53	N	14	6.3		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 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. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.12	765.0	43	6.1	75	NW	9	4.0			10s		NW	0	0		
Alpena, Mich.			30.52	775.2	43	6.1	39	NW	1	0.4		0	0			0	0		
Atlantic City, N. J.			30.18	766.6	48	8.9	52	NW	20	8.9		0	0			0	0		
Augusta, Ga.			30.18	766.6	63	16.7	52	NE	10	4.5		2c	2s	N	NE	0.04	1.0		
Baltimore, Md.			30.28	769.1	51	10.6	47	NW	8	3.6		0	0			0	0		
Barnegat, N. J.			30.15	765.8	49	9.4	85	NW	23	10.3		0	Haze			0.07	1.8		
Benton, Montana			29.75	755.6	58	14.4	41	SW	8	3.6			10s			0	0		
Bismarck, Dakota			29.83	757.7	55	12.8	44	S	22	9.8			10ks		S	0	0		
Boston, Mass.			29.98	761.5	46	7.8	76	NW	10	4.5			10s		NW	0.14	3.5		
Breckenridge, Minn.			30.32	770.1	46	7.8	67	SE	20	8.9		0	Haze			0	0		
Buffalo, N. Y.			30.37	771.4	41	5.0	48	N	8	3.6		0	0			0	0		
Burlington, Vt.			30.13	765.3	37	2.8	71	N	11	4.9			10s			0	0		
Cairo, Ill.			30.37	771.4	54	12.2	43	NE	8	3.6		0	0			0.01	0.3		
Cape Hatteras, N. C.			30.16	766.1	57	13.9	69	NE	28	12.5			10s		NE	0.02	0.5		
Cape Henry, Va.			30.26	768.6	58	14.4	53	N	12	5.4		2k	0	W		1.18	30.0		
Cape May, N. J.			30.21	767.3	48	8.9	56	NW	24	10.7		0	0			0.08	2.0		
Charleston, S. C.			30.16	766.1	63	17.2	83	N	20	8.9			10s		N	0	0	Threatening	
Cheyenne, W. T.			29.90	759.4	50	10.0	93	SE	20	8.9			Fog			0.02	0.5	Foggy	
Chicago, Ill.			30.53	775.4	46	7.8	62	E	4	1.8		0	0			0	0		
Cincinnati, Ohio			30.49	774.4	47	8.3	48	NE	8	3.6		0	0			0	0		
Cleveland, Ohio			30.44	773.2	43.1	6.2	62	N	8	3.6		0	0			0	0		
Colorado Springs, Col.			29.98	761.5	50	10.0	93	S	2	0.9		0	5s			0.06	1.5		
Corsicana, Texas			30.09	764.3	70	21.1	84	E	4	1.8		0	0			0	0		
Davenport, Iowa			30.51	774.9	44	6.7	45	E	6	2.7		0	0			0	0		
Denver, Col.			29.92	760.0	55	12.8	80	Calm	0	0		2ck	8s		S	0.04	1.0		
Detroit, Mich.			30.48	774.2	44	6.7	36	N	8	3.6		0	0			0	0		
Dodge City, Kansas			29.52	749.8	63	17.2	72	N	8	3.6		10k	0	N		0	0		
Dubuque, Iowa			30.49	774.4	44	6.7	68	E	4	1.8		0	0			0	0		
Duluth, Minn.			30.51	774.9	39	3.9	46	NE	4	1.8		0	0			0	0		
Eastport, Me.			29.89	759.2	40	4.4	100	Calm	0	0			Fog			0.43	10.9		
Erie, Penn.			30.38	771.6	44	6.7	60	N	8	3.6		0	0			0.04	1.0		
Escanaba, Mich.			30.67	778.7	44	6.7	67	N	2	0.9		Haze	2s			0	0		
Fort Gibson, I. T.			30.18	766.6	59	15.0	90	SE	4	1.8			10s		SE	1.04	26.4		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.04	763.0	53	11.7	70	S	24	10.7		5k	2s	SW	S	0	0		
Galveston, Texas			30.10	764.5	73	22.8	76	N	9	4.0		0	0			0	0		
Grand Haven, Mich.			30.53	775.4	47	8.3	48	NE	2	0.9		0	0			0	0		
Indianapolis, Ind.			30.48	774.2	51	10.6	33	E	8	3.6		0	0			0	0		
Indianola, Texas			30.10	764.5	76	24.4	68	Calm	0	0		0	0			0	0		
Jacksonville, Fla.			30.06	763.5	74	23.3	76	N	8	3.6		4k	0	NE		0	0		
Keokuk, Iowa			30.44	773.2	44	6.3	44	E	10	4.5		0	0			0	0		
Key West, Fla.			29.97	761.2	79.0	26.1	70	NE	7	3.1		0	5ks			0.12	3.0		
Kittyhawk, N. C.			30.23	767.8	53	11.7	68	NE	36	16.1		2c	5ks	NW	N	0	0		
Knoxville, Tenn.			30.33	770.4	51	10.6	39	NE	22	9.8		5c	0	W		0	0		
La Crosse, Wis.			30.54	775.7	47	8.3	42	SE	2	0.9		0	0			0	0		
Leavenworth, Kan.			30.31	769.9	50	10.0	77	SE	8	3.6		2c	0	NW		0.56	14.2		
Lexington, Ky.			30.47	773.9	45	7.2	45	NE	12	5.4		Haze	0			0	0		
Long Branch, N. J.			30.16	766.1	49	9.4	57	NW	25	11.2		2k	0	NW		0.08	2.0		
Louisville, Ky.			30.41	773.2	50	10.0	45	NE	18	8.0		0	0			0	0		
Lynchburg, Va.			30.31	769.9	57	13.9	36	NE	2	0.0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.56	776.2	37	2.8	62	Calm	0	0		0	0			0	0		
Memphis, Tenn.			30.27	768.8	58	14.4	53	NE	9	4.0			10s			0	0		
Milwaukee, Wisconsin			30.58	776.7	44	6.7	59	N	3	1.3		0	0			0	0		
Mobile, Ala.			30.08	764.0	69	20.6	79	N	5	2.2		2c	0			0	0		
Montgomery, Ala.			30.11	764.8	68	20.0	56	NE	9	4.0		2c	5ks			0	0		
Morgantown, W. Virginia			30.39	771.9	47	8.3	61	NW	2	0.9		0	0			0	0		
Mt. Washington, N. H.			30.00	762.0	24	− 4.4	100	NW	23	10.3			Fog			0.05	1.3		
Nashville, Tenn.			30.33	770.4	56	13.3	57	E	12	5.4		5c	0			0	0		
New Haven, Conn.			30.10	764.5	48	8.9	70	NW	13	5.8		5k	0	NW		0.16	4.1		
New London, Conn.			30.08	764.0	9	9.4	57	NW	14	6.3		2ck	2k	W	NW	0.08	2.0		
New Orleans, La.			30.07	763.8	73	22.8	72	NW	3	1.3		2k	0	NW		0	0		
Newport, R. I.																			
New York, N. Y.			30.15	765.8	47	8.3	48	N	19	8.5		5ck	0	NW		0.03	0.8		
Norfolk, Va.			30.27	768.8	54	12.2	61	NE	20	8.9		5k	0			1.07	27.2		
North Platte, Neb.			29.74	755.4	48	8.9		SE	20	8.9			Fog		SE	0.02	0.5		
Omaha, Neb.			30.31	770.6	47	8.3	35	SE	22	9.8		2c	0	W		0	0		
Oswego, N. Y.			30.30	769.6	39.5	4.2	67	N	10	4.5		4cs	0			0.07	1.8		
Peck's Beach			30.20	767.1	50	10.0	51	N	24	10.7		Haze	0			0.11	2.8		
Pembina, D. T.			30.16	766.1	53	11.7	43	SE	20	8.9		0	Haze			0	0		
Philadelphia, Penn.			30.23	767.8	48	8.9	42	N	24	10.7		0	0			0.04	1.0		
Pike's Peak, C. T.			29.98	761.5	25	− 3.9	88	SW	16	7.2			10s			0.05	1.3		
Pittsburgh, Penn.			30.39	771.9	43	6.1	59	NW	6	2.7		0	0			0	0		
Port Huron, Mich.			30.51	774.9	42	5.6	58	N	14	6.3		0	0			0	0		
Portland, Maine			29.94	760.5	48	8.9	85	NW	24	10.7			10n			0.40	12.4	Light rain	
Portland, Or.			30.18	766.6	46	7.8	76	SW	3	1.3			10s			0.27	6.9		
Punta Rassa, Fla.			30.02	762.5	73.0	22.8	81	N	11	4.9		5ck	2k	NE		0.50	12.7		
Rochester, N. Y.			30.32	770.1	42	5.6	49	NW	13	5.8		0	0			0.09	2.3		
Salt Lake City, Utah			29.65	753.1	48	8.9	42	SW	5	2.2			10s			0.25	6.3		
Sandy Hook, N. J.			30.14	765.5	47	8.3	62	NW	24	10.7		5k	0	N		0.05	1.3		
San Diego, Cal.			30.05	763.3	54	12.2	79	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.06	763.5	50	10.0	75	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.75	755.6	54	12.3	55	SW	16	7.2			10s		SW	0.17	4.3		
Savannah, Georgia			30.12	765.0	68	20.0	79	NE	20	8.9			10ks		NE	0	0		
Shreveport, La.			30.14	765.5	67	19.4	84	NE	4	1.8		8c	0	NW		0	0		
Springfield, Mass.			30.06	763.[illegible]	48	8.9	56	NW	12	5.4		5ck	5s	SW	NW	0.03	0.8		
St. Louis, Mo.			30.45	773.4	46	7.8	47	E	7	3.1		0	0			0	0		
St. Marks, Fla.			30.01	763.0	70	21.1	90	W	3	1.3		0	0			0	0		
St. Paul, Minn.			30.43	772.9	42	5.6	74	SE	20	8.9		0	0			0	0		
St. Paul's Island, Alaska			29.86	758.4	34	1.1	79	W	20	8.9		5ck	...k	W		0.07	1.8		
Squan Beach, N. J.			30.15	765.8	47	8.3	48	NW	14	6.3		0	0			0.05	1.3		
Toledo, Ohio			30.47	773.9	47	8.3	41	E	9	4.0		0	0			0	0		
Tybee Island, Ga.			30.15	765.8	67	19.4	79	N	18	8.0			10ks			0	0		
Vicksburg, Miss.			30.20	767.1	69	20.6	56	NE	6	2.7		10c	0	NE		0	0		
Virginia City, Mon.			29.53	750.0	52	11.1	53	S	4	1.8		Haze	0			0	0		
Washington, D. C.			30.31	769.9	50	10.0	59	NW	8	3.6		Haze	Sm'e			0.01	0.3		
Wilmington, N. C.			30.21	767.3	57	13.9	46	N	19	8.5		5c	5ks	SW	NE	0	0		
Wood's Hole, Mass.			30.01	762.2	48	8.9	85	NW	11	4.9			10s			0	0		
Wytheville, Va.			30.[illegible]0	764.5	45	7.2	38	NW	1	0.4		0	0			0	0		
Yankton, D. T.			30.34	770.6	48	8.9	56	SE	16	7.2		1c	0	NW		0	0		

NOTE.—The original give the cloudiness ... a scale from 0 to ...

UNITED STATES SUB-SERIES.

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—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	30.08	764.0	83	28.3	83	E	4	1.8	.....	5ck	5s	E	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	29.95	760.7	78	25.6	74	E	.....	.....	.....	2k	0	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.71	754.6	81	27.2	86	Calm	0	0	.....	8ck	0	SW	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.17	766.3	77	25.0	82	Calm	0	0	.....	0	0	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.2	767.6	78	25.6	69	E	3	1.3	.....	0	2k	.....	.....	0	0	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.82	757.4	76	24.4	81	NE	1.2	0.5	.....	.....	8n	.....	NE	0	0	Showery	Robert Mason.
St. Georges, Bermudas	.....	.....	30.16	766.1	72.5	22.5	80	SSE	9.7	4.3	.....	8cs	0	.....	.....	0	0	.....	C. F. Allen.
Honolulu, Oahu, S. I.	.....	.....	30.12	765.0	63	17.8	68	NE	.....	.....	3	5k	5kn	NE	.....	0.55	14.0	Threatening	E. P. Church.
Makawao, Maui, S. I.	27.88	708.1	.....	.....	64.0	17.8	94	E	.....	.....	2	0	4k	.....	.....	0	0	.....	F. L. Clarke.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	30.00	762.0	46.0	7.8	62	SW	12	5.4	.....	0	0	.....	.....	0	0	.....	J. Fortescue.
Clifton, Jamaica, W. I.	.....	.....	30.05	763.3	60	15.6	88	SSE	1	0.4	.....	5c	0	S	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	30.45	773.4	45	7.2	47	N	4	1.8	.....	.....	0	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	29.42	747.3	.....	.....	53	11.7	.....	SE	.....	.....	.....	0	0	.....	.....	0	0	.....	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 16° 33', W. 60° 10'	SW	5.8	29.87	758.7	67	28.3	67	ESE	.....	.....	6	.....	..k	.....	WNW	Rough	.....	Squally	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 17, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.99	761.7	66.2	19.0		NNE			3		1			0	0		Charnot.
Akfiers			30.02	762.4	68.4	20.2	80	N			2		2			0	0		Peter.
La Calle			30.03	762.8	68.0	20.0		NNE			2		2			0	0		Kuntz.
Tenia			30.04	763.0	77.5	25.3	53	E			3		3			0	0		Jacques.
Biax			30.06	763.5	72.1	22.3	62	NE			4		2			0	0		Chauvey.
Saida			29.98	761.6	70.0	20.1		NE			1		0			0	0		Groajean.
Tebessa			30.02	762.5	71.8	22.1		N			2		0			0	0		Colin.
Berriville			29.97	761.2	70.0	21.1		NE			1		0			0	0		Bernadach.
Laghouat			29.99	761.8	77.0	25.0	31	E			2		3			0	0		Poinsignon.
Biskra			30.00	761.9	86.0	30.0		E			1		1			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.91	759.7	82.8	28.2	38	NE			1		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow																			
Esperies																			
Gratz			30.04	763.1	59.9	15.5	39	W			3		0			0	0		I. R. Observatory.
Hermannstadt			29.93	760.2	66.0	18.9	38	NE			2		3			0	0		Julius Mikolik.
Kremnitz			29.91	760.5	72.5	22.5	54	SW			2		8			0	0		Andreas Rospini.
Kremsmünster			29.89	759.3	73.4	23.0	33	W			2		1			0	0		Prof. Reissenberger.
Lemberg			29.91	760.5	66.6	19.2	60	ENE			2		0			0	0		Prof. C. Wagner.
Nyiregyhaza			29.92	760.0	61.7	16.5	40	W			4		5			0.106	2.7		Dr. T. Stanecki.
Pola			29.95	760.6	70.5	21.4	59	NE			1		0			0	0		Habsauda Daniel.
Szegedin			29.96	761.0	73.8	23.2	55	WSW			1		2ks			0	0		I.R. Hydrographic Office
Trieste			29.90	759.5	79.9	26.6	70	W			4		8			0	0		Karl Stancel.
Vienna			29.97	761.2	74.1	23.4	66	NW			1		8			0	0		Prof. V. Farolé.
			29.98	761.4	69.8	21.0	34	NNE			1		1			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.81	757.2			61.7	16.5	46	ESE			1		5c, s		WSW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 185.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.91	759.7	55.0	12.8		SW	12	5.4			0			0	0		William Boswell.
Annanhill																			
Ardrossan			29.98	761.5	55	12.8		SW			2		6						William McNeil.
Armagh Observatory			29.94	760.5	60.0	15.6		S	7	3.1			9						S. Call, for Dr. Robinson.
Bambridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.97	761.2	66.6	19.2		SSE			2		2						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.97	761.2	60.4	15.8		W			1		8						J. Dre er, for Lord Rosse.
Bradford			29.95	760.7	66.1	18.9		S			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.96	761.0	81.0	27.2		NE			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.21	767.3	62.1	16.7		SE			1		7						H. Todd.
Cape Town, (Cape Colony)																			Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.94	760.5			70.4	21.3	55	NW	4	1.8			7					Foggy	Th Staff, for E. J. Stone.
Cardington			30.03	762.7	63.0	17.2		SE					1						John Mclaren.
Carlisle			29.95	760.7	60.8	16.0		W					9			0	0		T Bell, for J. Carruthers.
Chatham, School M. E			29.56	750.8	29.5	13.6		NE			3		0						Q. M. Sergt J. Cowie.
Colombo, (Ceylon)			29.92	760.0	82.9	28.3		SW			1		2						Sgt. W. F. Hopkins.
Dartmoor			30.06	763.5	58.2	14.6					2		6						R. E. Power.
Donaghadee			29.95	760.7	57	13.9		SSE			3		3						J. Mac Gowan, Jr.
Dover			30.00	762.0	56	13.3		ENE			4		2						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.98	761.5	68.0	20.0		SSE	5.4	2.4			0						G. D. Goldney.
Falmouth Observatory			29.95	760.7	57.5	14.2		ESE	19	8.5			6						Thomas Mackereth.
Fort Napier, (Natal)			29.88	758.9	76.6	24.8		E			1		1						The Staff.
Freetown, (Sierra Leone)			29.83	757.7	88.0	31.1		N					5						Pvt. G. Salmon.
Galway, Queen's College			29.88	758.9	62	16.7		W			3		5						B. G. Clare, for Prof. Cole.
Gibraltar, (Mediterranean)			29.97	761.2	75.2	24.0		E			3		3						Sergt. E. G. Baker.
Glasgow Observatory			29.95	760.7	56.1	13.4		WSW			2		8						James Gray.
Great Yarmouth			30.08	764.0	54	12.2		ESE			3		1						G. T. Watson.
Greenwich Royal Obs.			30.02	762.5	62.2	16.8		E			1		0						Th S ar, for G. B. Airy.
Guernsey			30.03	762.7	58	14.4		NE			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.91	759.7	69.0	20.6		S W					1						F. J. P ge, for Lord Dartmouth.
Halifax, (Nova Scotia)			29.90	759.4	44.4	6.9		NW			4		9						Corp'l J. Thomp
Helston			29.94	760.5	65	18.3		E			6		4ck						Dr. W. B. Avery.
Holyhead			30.10	764.5	58	14.4		NW			2		1						John Tilston.
Hull Park																			
Kew Observatory			30.01	762.2	61.4	16.3		ENE	18	8.0			10					Misty	The Staff.
Kingstown			30.00	762.0	58	14.4		ESE			2		5						George Mitchell.
Lampeter																			
Leicester Museum			30.03	762.7	62.5	16.9		SE			1		0						William J. Harrison.
Llandudno			29.96	761.0	63.3	17.4		N					2						Dr. James Nicol.
Malta, (Mediterranean)			30.01	762.2	73.0	22.8		SE			1		6k						Fred Travis, Pvt A. S. C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.84	757.9	58	14.4		SW			1		8						William D. Penny.
Nassau, (Bahamas)			29.97	761.2	77.3	25.2		W			1		4						Surg.-Maj. J. Jameson.
North Shields			29.97	761.2	56	13.3		SW			2		8						John Wm. Irvine.
Nottingham			30.02	762.5	66.4	19.1		SSE			3		1c						E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.00	762.0	62.5	16.9		SE			3		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.97	761.2	64	17.8		SE			2		0						J. Lucas, for R. Main.
Plymouth			29.94	760.5	63	17.2		ESE			4		2						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.98	761.5	58	14.4		SW			2		5						W. Kennedy.
Saint Ann's Head			29.98	761.5	59	15.0		ESE			1		0						John C. Walker.
Saint Helier, (Jersey)			29.90	759.4	66.0	17.8		E			3		0						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			30.02	762.5	55.3	12.9		SSE			4		4						F. Shaw.
Scutari, (Turkey)			30.02	762.5	68.0	20.0		SW			1		1						Sergt. W. H. Lyne.
Sheffield			29.99	761.7	64.6	18.1		S			1		0			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.97	760.2	63.2	17.3		W			1		5			0.180	4.57		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.10	764.5	57.0	13.9		ESE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.96	761.0	64.0	17.8		S			2		3						The Staff.
Stornoway, Lews C. (Hebr.)			29.82	757.4	56	13.3		SW			4		3						John Smith.
Strathfield Turgiss			29.99	761.7	69.1	20.6		SE			1		0						Rev Charles H. Grant.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.85	758.2	57	13.9		WNW			2		6						John Trotter.
Truro Royal Institution			29.92	760.0	68	20.0		E			2		4						W Newcombe.
Valencia Observatory			30.01	762.2	54.2	12.3		NW	10.6	4.7			8						The Staff.
Wick																			
Wisbeach																			
Worthing			29.97	761.2	63.9	17.7		SE			2		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressure reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

hagen			29.97	761.3	53.0	12.0	48	NW			0		5						
			30.08	764.1	50.7	10.4	70	WNW			6		1						
h, (Greenland)																			
lm, (Iceland)			29.64	752.9	43.9	6.6	98	NW			4		2						
(Farõe)			29.62	752.3	48.9	9.4	88	SW			4		6					Raining	
			30.02	762.5	51.4	10.8	68	WNW			6		6						

—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ancenis			29.18	741.2	74.3	23.5	64						2ks						Normal School.
Alençon			29.49	759.2	77.0	25.0	57	NE			2		5k			0	0		Normal School.
Amiens			29.72	755.0	78.8	26.0	36	NE			4		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Bourges			29.97	761.3	68.5	20.3	46	E			3		0			0	0		Normal School.
Bourg en Bresse			29.97	761.1	78.1	25.6	47	S			2		5		SW	0	0		Normal School.
Bourges			30.11	764.8	82.8	28.2	43	W			2		2			0	0		Normal School.
Brest			29.95	760.7	68.4	20.2		SSE			2		8		NNE	0.291	7.4		Normal School.
Caen			29.82	757.4	77.5	25.5	61	SW			2		0			0	0		Naval Observatory.
Charres																			Normal School.
Chaumont			29.90	759.1	67.1	19.5		NE			2		9ck		NE	0	0		Normal School.
Commercy			29.88	758.9	73.	22.8		SE			3		10		SE	0	0		Normal School.
Le Mans			30.01	762.3	71.6	22.0	55	E			4		10			0	0		Normal School.
Lons-Le Saulnier			29.95	761.8	67.5	19.7	53	W			4		2		W	0	0		Normal School.
Macon			29.96	760.9	67.1	19.5	50	SW			2		10		E	0	0		Normal School.
Mirecourt																			
Orleans			30.04	763.1	67.1	19.5	58	N			8		8		ENE	0	0		Normal School.
Paris Observatory			30.05	763.2	76.1	24.5	63	E			2		2		WSW	0	0		Normal School.
Parthenay			29.92	760.0	71.2	21.8		SSW			2		8			0	0		National Observatory
La Rochelle sur Yon			29.89	759.2	76.0	24.8	43	SW			2		5		S	0	0		Normal School.
Saint Lo			29.84	758.0	85.0	29.8	38	SW			2		10			0	0		Normal School.
Villefranche			29.91	759.8	73.8	23.2	43	S			6		10		S	0	0		Normal School.
Sub-Series.																0.433	11.0		Normal School.
Gorée, (Senegambia)			30.16	766.1	82.4	28.0	41	NNE			2		2			0.039	1.0		Normal School
Mont-Louis																			Frère Pascall.
Montsouris Observatory	21.89	632.1			62.1	16.7	75	E	14.9	6.66			8		SW	0.315	8.0		—. Falguère.
Perpignan			29.92	760.0	69.8	21.0	50	Calm			0		10kn			0	0		Marié Davy.
Saint Maur, (near Paris)	29.82	757.4			72.1	22.3	65	N	5.0	2.50			3		N	0	0		Dr. Fines.
Saint Pierre, (Martinique)			29.93	760.2	70.0	21.1	53	SSW			2		10			0	0		E. Renou.
Tours																			
Versailles, (near Paris)			30.28	769.0	75.7	24.3	49	SSE			1		2		W	0.035	0.9		C. Marquet.
Zi-Ka-Wei, (near Shanghai)			29.91	760.5	65.5	18.6	69	SW			2		10			0	0	Threatening	Dr. A. Bérigny.
			29.93	760.2	64.9	18.3	90	E	2.0	0.9			0			{ 0 / 0	0 / 0 }		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Bamberg			30.01	762.3	64.8	18.2	58	NW			3		2			0	0		Prof. Hoh.
Berlin			30.15	765.7	60.6	15.9	33	NW			1		2			0	0		Prof. Arndt.
Breslau			30.14	765.4	58.8	14.9	30	SW			3		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.95	760.7	70.9	21.6	46	NE			3		9			0	0	Thunder-storm	A. Senz.
Cassel			29.89	759.1	72.0	22.2	34	N			2		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			
Hamburg			29.91	759.8	70.5	21.5	66	W					5			0.496	12.6	Thunder-storm	M. Wilhelm.
Kiel			30.14	765.5	55.9	13.3	51	NW			5		4k			0	0		W. Reinert.
Königsberg			30.11	764.9	56.7	13.7	58	W			4		3			0	0		Prof. G. Karsten.
Leipsic			29.91	759.7	50.5	10.3	44	W			4					0	0		Prof. E. Luther.
Münster			30.20	767.0	50.9	10.5		W			5		5			0	0		Dr. Tägert.
Posen			30.13	765.2	57.7	14.3	41	NW			1		1			0	0		Prof. Bruhns.
Strasburg, (in Alsace)			30.08	763.9	61.9	16.6	51	NE			1		3			0	0		Prof. E. Heis.
Stuttgart			30.10	764.4	59.0	15.0	49	NW			6-7		1			0	0		Dr. Magerer.
Thorn			29.93	760.1	72.0	22.2	48	NE					2			0.639	16.23		Hartwig and Tülk.
Treves, (Trier)			29.94	760.4	72.3	22.4	48	NE					6			0	0		Mr. Würth.
Wittrow			30.00	762.0	59.0	15.0	35	WNW			6		1			0	0		Dr. Hasenbalg.
			30.09	764.2	47.8	8.8	61	W											Prof. Flesch.
											5		3ck			0	0		E. Feschütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Moncalieri			29.93	760.3	76.3	24.6	53	SSW	3.1	1.4			9	E		0	0		
Mondovi			29.92	759.9	72.3	22.4	63	SE			2		7	NW		0	0		
Genoa			30.02	762.6	70.2	21.3	61	SW	4.9	2.2			4	SE		0	0		
Verona			29.93	760.3	80.6	27.0	46	SW			1		1	SW		0	0		
Padua			29.93	759.5	85.8	29.9	49	E			2		3			0	0		
Bologna			29.93	760.1	77.4	25.2	52	SE	7.4	3.3			7			0	0		
Leghorn																			
Urbino			30.05	763.2	69.8	21.0	67	WSW	4.3	1.9			3			0	0		
Ancona			30.01	762.3	73.9	23.3	40	S			2		2			0	0		
Rome			29.98	761.5	73.8	23.2	62	SE			4		2			0	0		
Palermo			29.98	761.5	74.5	23.6	53	NW	0.7	0.3			4	W		0	0		
Naples, O.U.			30.02	762.5	78.3	25.7	50	SSW	7.4	3.3			1			0	0		
Lecce			30.05	763.2	76.3	24.6	59	SW			2		2			0	0		
Cosenza			30.08	764.0	72.7	22.6	47	NNW	7.4	3.3			1			0	0		
Catania, (Sicily)			30.03	762.7	79.2	26.2	40	N			2		8	NE		0	0		
Girgenti																			
Palermo			30.01	762.3	73.0	22.8	71	E			2		3	SW		0	0		
Sub-Series.			29.99	761.7	69.8	21.0	61	NE			2		1			0	0		
Naples, S. R.			30.08	764.1	76.3	24.6	61	WNW			4					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.07	763.6	61.5	16.4		FSE			4								
Groningen					57.0	13.9		NE			2								
Helder			30.10	764.6	55.2	12.9		ENE			2								
Utrecht			30.04	762.9	61.9	16.6	35	E			3		2						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.94	760.5	47.3	8.5	77	SSE	7.0	3.4			10			0	0		
Christiania			30.18	766.5	57.2	14.0	18	WNW	11.2	5.0			3			0	0		
Tromsö			29.57	751.1	37.4	3.0	100	E			2		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.67	753.7			72.1	22.3	52	S	6.3	2.8			1						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.97	761.1	56.8	13.8	41	WNW	18	8			4						Astronomical Obs.
Wilna			29.75	755.7	55.8	13.2	36	W	25	11			10						Astronomical Obs.
Dorpat			29.43	747.6	45.3	7.4	83	WSW	16	7			9						Physical Cabinet.
St. Petersburg			29.29	744.0	44.6	7.0	82	NW	7	3			10					Rain & graupel.	Central Physical Obs.
Kuopio																			
Kiell			29.84	757.8	62.6	17.0	32	WNW	16	7			6						Physical Cabinet.
Nikolaiev			29.92	759.9	66.0	18.9	64	SW	4	2			10						
Kertch			29.95	760.6	70.0	21.1	59	W	10	4.5			4						Lagorio.
Moscow			29.56	750.7	54.9	12.7	43	W	13	6			7						Meteorological Obs.
Lugan			29.63	752.7	67.8	19.9	41	SW	13	6			9						Meteorological Obs.
Archangel			29.49	749.0	54.9	12.7	65	SE	13	6			10						Ogorodnikof.
Tiflis			29.91	759.7	66.7	19.3	47	NW	13	6			4						Physical Obs.
Astrakhan			29.96	761.9	62.1	16.7	72	NNW	4	2			5						Sebastianof.
Kasan			29.55	750.5	66.6	19.2	47	SE	0	0			7						Physical Cabinet.
Orenburg			29.73	755.1	69.8	21.0	45	SW	17	7.5			9						Tschernischef.
Ekaterinburg			29.71	754.5	55.2	12.9	71	W	4	2			8					Raining	Meteorological Obs.
Kasaly			29.81	757.1	76.1	24.5	79	W	8	3.5			3						Bobrof.
Tashkend			29.88	758.9	80.8	27.1	71	Calm	0	0			6						Michelson.
Barnaul			29.69	754.2	66.6	19.2	58	SSW	8	3.5			3						Meteorological Obs.
Yeniseisk			29.75	755.7	45.0	7.2	63	E	4	2			1						Marks.
Irkutsk			29.98	761.6	35.6	2.0	68	Calm	0	0			0						Usolzef.
Oorga			29.89	759.2	40.3	4.6	100	Calm	0	0			0						Mossin.
Peking, (China)			29.77	756.2	77.2	25.1	30	Calm	0	0			4						Physical Observatory
Nertchinsk			29.60	751.9	53.6	12.0	39	SE	4	2			5						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					30.4	— 0.9	100	SE	10	4.5			10						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.85	758.3	85.3	29.6	20	W	20.9	9.34			1			0	0		Royal Observatory
San Fernando																			The Naval Observatory

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.42	747.2	45.7	7.6	85	N			5		10			0.16	4.1		
Hernosand			29.50	749.2	46.4	8.0	59	NNW			5		10			0	0		
Stockholm			29.60	751.7	52.3	11.3	29	NW			5		8			0	0		
Wisby			29.69	754.2	47.1	8.4	60	W			2		0			0	0		
Sub-Series.																			
Upsala			29.61	752.1	52.2	11.2	35	NW			7		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva																			
Zurich	28.52	724.3			78.3	25.7	41	SSW			2		7			0	0		The Observatory.
	28.32	719.2			76.5	24.7	49	E			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.8mm.; Thermometer, +9°.0 C.; Relative Humidity, —16 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			30.08	764.0	71.2	21.8	46	S	5.6	2.5			0			0	0		
Fao (Persian Gulf)			29.76	756.0	86.0	30.0		SW			3		0						
Salonica					80.2	26.8		N			1		0						
Valona			30.04	763.0	72.5	22.5		W			2		0						
Varna			30.04	763.0	55.4	13.0		S			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.33	770.4	55	12.8		Calm	0	0		0	0			0	0		
Chatham, N. B.			29.89	759.2	43	6.1	74	W	14	6.3		8k	2s	W	W	0.43	10.9		
Charlottetown, P. E. Island			29.89	759.2	42	5.6	80	SW	8	3.6			8ks			0.330	8.38		
Fort Garry, Manitoba			29.95	760.7	53	11.7	67	S	15	6.7		5c	2ks	S		0	0		
Halifax, N. S.			29.90	759.4	43	6.1	75	W	15	6.7			8ks		W	0.214	5.43		
Kingston, Ontario																			
Montreal, Quebec			30.33	770.4	47	8.3	73	Calm	0	0		0	0			0	0		
Ottawa, Ontario			30.23	767.8	48	8.9	54	NW	8	3.6		0	0			0.35	8.9		
Parry Sound, Ontario			30.28	769.1	51	10.6	40	NW	2	0.9		0	0			0	0		
Port Dover, Ontario			30.34	770.6	44	6.7	74	SW	2	0.9		0	0			0	0		
Port Stanley, Ontario			30.37	771.4	46	7.8	47	NW	4	1.8		8ck	0	NW		0	0		
Quebec, Quebec			30.37	771.4	46	7.8	50	NW	9	4.0		Haze	0			0	0		
Saugeen, Ontario			30.13	765.3	45	7.2	62	W	15	6.7		0	0			0.02	0.5		
Stayner, Ontario			30.36	771.1	44	6.7	45	SW	5	2.2		0	0			0	0		
Sydney, C. B.			30.31	769.9	51	10.6	46	NW	5	2.2		0	0			0	0		
Toronto, Ontario			29.92	760.0	48	8.9	75	SW	17	7.6		2k	8ks	W	SW	0.23	5.8		
			30.33	770.4	51	10.6	50	NW	8	3.6		0	2s			0	0		

Note.—The originals give the cloudiness on a scale of 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 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.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.27	768.8	51	10.6	65	Calm	0	0		0	0			0	0		
Alpena, Mich.			30.33	770.4	48	8.9	36	NW	5	2.2		0	0			0	0		
Atlantic City, N. J.			30.31	769.9	53	11.7	48	NW	9	4.0		0	0			0	0		
Augusta, Ga.			30.23	767.8	58	14.4	58	E	5	2.2		0	0			0	0		
Baltimore, Md.			30.33	770.4	54	12.2	37	N	7	3.1		0	0			0	0		
Barnegat, N. J.			30.30	769.6	53	11.7	79	NW	6	2.7		0	0			0	0		
Benton, Montana			29.92	760.0	50	10.0	100	W	8	3.6			10n			0.40	10.2	Light rain	
Bismarck, Dakota			29.63	752.6	56	13.3	62	S	17	7.6			10ks			0	0		
Boston, Mass.			30.22	767.6	52	11.1	40	NW	9	4.0		0	0			0	0		
Breckenridge, Minn.			30.08	764.0	51	10.6	53	S	20	8.9			10s			0	0		
Buffalo, N. Y.			30.35	770.9	41	5.0	65	SW	6	2.7		5cs	0	S.W		0	0		
Burlington, Vt.			30.24	768.1	42	5.6	66	S	1	0.4		0	2s			0.09	2.3		
Cairo, Ill.			30.28	769.1	53	11.7	35	NE	10	4.5		0	0			0	0		
Cape Hatteras, N. C.			30.21	767.3	56	13.3	62	NE	24	10.7		Haze	Haze			0	0		
Cape Henry, Va.			30.31	769.9	55	12.8	56	E	21	9.4		0	0			0	0		
Cape May, N. J.			30.32	770.1	53	11.7	54	N	10	4.5		0	0			0	0		
Charleston, S. C.			30.21	767.3	58	14.4	53	N	8	3.6		0	Haze			0	0		
Cheyenne, W. T.			29.86	758.4	40	4.4	56	NW	4	1.8		2c	0			0.26	6.6		
Chicago, Ill.			30.39	771.9	53	11.7	48	S	3	1.3		0	0			0	0		
Cincinnati, Ohio			30.40	772.1	50	10.0	44	E	8	3.6		0	0			0	0		
Cleveland, Ohio			30.38	771.6	45.9	7.7	69	SE	4	1.8		0	Sm'e			0	0		
Colorado Springs, Col.			29.86	758.4	49	9.4	85	N	4	1.8		0	2s			0.06	1.5		
Corsicana, Texas			30.03	762.7	65	18.3	83	E	5	2.2		5c	Haze			0	0		
Davenport, Iowa			30.38	771.6	47	8.3	54	E	4	1.8		0	Sm'e			0	0		
Denver, Col.			29.90	759.4	51	10.6	65	N	5	2.2		0	0			0.88	22.4		
Detroit, Mich.			30.39	771.9	50	10.0	38	W	5	2.2		2c	Sm'e			0	0		
Dodge City, Kansas			29.44	747.8	59	15.0	50	N	18	8.0		8k	0			0	0		
Dubuque, Iowa			30.40	772.1	45	7.2	61	SE	2	0.9		0	0			0	0		
Duluth, Minn.			30.41	769.6	40	4.4	56	Calm	0	0		0	0			0	0		
Eastport, Me.			30.05	763.3	44	6.7	67	NW	14	6.3		5k	0	NW		0.24	6.1		
Erie, Penn.			30.36	771.1	47	8.3	70	S	4	1.8		2c	Haze			0	0		
Escanaba, Mich.			30.36	771.1	46	7.8	76	Calm	0	0		5c	Haze			0	0		
Fort Gibson, I. T.			30.08	764.0	62	16.7	41	SE	8	3.6		10cs	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.72	754.9	59	15.0	76	S	24	10.7		5c	0	SW		0	0		
Galveston, Texas			30.04	763.0	74	23.3	76	Calm	0	0		0	0			0	0		
Grand Haven, Mich.			30.41	772.4	51	10.6	59	Calm	0	0		0	Haze			0	0		
Indianapolis, Ind.			30.38	771.6	52	11.1	34	E	5	2.2		0	Sm'e			0	0		
Indianola, Texas			30.04	763.0	70	21.1	79	S	5	2.2		2k	0	S		0	0		
Jacksonville, Fla.			30.11	764.7	68	20.0	56	NE	18	8.0		8ck	0			0	0		
Keokuk, Iowa			30.29	769.4	50	10.0	51	SE	11	4.9		0	0			0	0		
Key West, Fla.			29.95	760.7	78.2	25.7	69	NE	12	5.4			10ks			0	0		
Kittyhawk, N. C.			30.28	769.1	56	13.3	53	NE	22	9.8		Haze	Haze			0	0		
Knoxville, Tenn.			30.25	768.3	52	11.1	34	N	8	3.6		0	Haze			0	0		
La Crosse, Wis.			30.35	770.9	50	10.0	51	SE	9	4.0		0	0			0	0		
Leavenworth, Kan.			30.16	766.1	55	12.8	44	SE	10	4.5			10s		NW	0	0		
Lexington, Ky.			30.34	770.4	46	7.8	54	S	11	4.9		0	0			0	0		
Long Branch, N. J.			30.40	769.6	57	13.9	41	NW	8	3.6		0	0			0	0		
Louisville, Ky.			30.34	770.6	52	11.1	60	N	4	1.8		0	0			0	0		
Lynchburg, Va.			30.37	771.4	54	12.2	39	NE	6	2.7		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.31	769.9	52	11.1	41	NW	4	1.8		2c	0	NW		0	0		
Memphis, Tenn.			30.21	767.3	55	12.8	38	NE	7	3.1		2c	2s			0	0		
Milwaukee, Wisconsin			30.42	772.7	49	9.4	64	SW	5	2.2		0	Fog			0	0	Foggy	
Mobile, Ala.			30.13	765.3	70	21.1	71	E	6	2.7		5ck	2s			0.01	0.3		
Montgomery, Ala.			30.18	766.6	65.5	18.6	92	E	11	4.9		0	Haze			0	0		
Morgantown, W. Virginia			30.37	771.4	44	6.7	66	E	1	0.4		10c	Haze	NW		0	0		
Mt. Washington, N. H.			30.05	763.3	17	− 8.3	83	NW	50	22.4		5s	2s	NW	NW	0.15	3.8		
Nashville, Tenn.			30.26	768.6	59	15.0	33	NE	5	2.2		0	0			0	0		
New Haven, Conn.			30.28	769.1	53	11.7	35	NW	6	2.7		0	0			0	0		
New London, Conn.			30.29	769.4	51	10.6	52	SE	4	1.8		0	0			0	0		
New Orleans, La.			30.06	763.5	72.5	22.5	78	Calm	0	0		0	0			0.13	3.3		
Newport, R. I.																			
New York, N. Y.			30.39	769.6	50	10.0	51	NW	6	2.7		0	0			0	0		
Norfolk, Va.			30.32	770.1	55	12.8	50	NE	12	5.4		Haze	0			0	0		
North Platte, Neb.			30.38	771.6	60	15.6		SE	32	14.3			10ks		SE	0	0		
Omaha, Neb.			30.10	764.5	56	13.3	45	SE	16	7.2		0	8s		SE	0	0		
Oswego, N. Y.			30.33	770.4	43.0	6.1	58	W	10	4.5		0	Fog			0	0		
Peck's Beach			30.33	770.4	55	12.8	38	N	8	3.6		Haze	Haze			0	0		
Pembina, D. T.			29.90	759.4	58	14.4	42	SE	24	10.7		2c	0			0	0		
Philadelphia, Penn.			30.32	770.1	51	10.6	40	N	11	4.9		0	0			0	0		
Pike's Peak, C. T.			30.88	758.9	18	− 7.8	68	W	26	11.6		0	Haze			0	0		
Pittsburgh, Penn.			30.36	771.1	43	6.1	67	Calm	0	0						0	0	Dense smok	
Port Huron, Mich.			30.39	771.9	48	8.9	42	SW	3	1.3		2c	2s	NW		0	0		
Portland, Maine			30.19	766.8	49	9.4	50	W	9	4.0		0	0			0.03	0.8		
Portland, Or.			30.19	766.8	52	11.1	86	S	6	2.7			10s			0.03	0.8		
Punta Rassa, Fla.			30.01	762.2	73.1	22.9	85	N	12	5.4		Haze	2ks		NE	0.06	1.5		
Rochester, N. Y.			30.32	770.1	48	8.9	56	W	8	3.6		0	Haze			0	0		
Salt Lake City, Utah			29.93	760.2	45	7.2	76	Calm	0	0		2c	0			0.42	10.7		
Sandy Hook, N. J.			30.27	768.8	49	9.	57	NW	8	3.6		0	Haze			0	0		
San Diego, Cal.			29.98	761.5	52	11.1	73	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.05	763.3	50	10.0	80	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.68	753.9	51	10.6	10	S	8	3.6		0	0			0	0		
Savannah, Georgia			30.19	766.8	60	15.6	70	N	11	4.9		8c	0			0	0		
Shreveport, La.			30.09	764.3	64	17.8	73	ENE	2	0.9		0	0			0	0		
Springfield, Mass.			30.26	768.6	52	11.1	34	NW	4	1.8		0	Haze			0	0		
St. Louis, Mo.			30.33	770.4	52	11.1	47	E	8	3.6		0	0			0	0		
St. Marks, Fla.			30.11	764.8	64	17.8	88	E	12	5.4		5c	0	SE		0.01	0.3		
St. Paul, Minn.			30.21	767.3	53	11.7	43	S	16	7.2		0	0			0	0		
St. Paul's Island, Alaska			29.90	759.4	35	1.7	79	SSE	6	2.7		4c	2k	WSW		0	0		
Squan Beach, N. J.			30.29	769.4	55	12.8	34	NW	8	3.6		0	Haze			0	0		
Toledo, Ohio			30.40	772.1	50	10.0	51	NE	2	0.9		2c	0	W		0	0		
Tybee Island, Ga.			30.19	766.8	64	17.8	61	N	26	11.6		2c	2k	NE		0	0		
Vicksburg, Miss.			30.11	765.5	66	18.9	52	NE	2	0.9			10s		NE	0	0		
Virginia City, Mon.			29.63	752.6	35	1.7	90	W	4	1.8			10s			1.05	26.7	Threatening	
Washington, D. C.			30.36	771.1	51	10.6	48	N	4	1.8		Haze	Sm'e			0	0		
Wilmington, N. C.			30.21	768.1	57	13.9	46	NE	11	4.9		5c	0	SW		0	0		
Wood's Hole, Mass.			30.25	768.3	53	11.7	48	N	8	3.6		5c	0	SW		0	0		
Wytheville, Va.			30.11	764.8	46	7.8	54	E	2	0.9		0	0			0	0		
Yankton, D. T.			30.05	763.3	57	13.9	41	SE	15	6.7			10s			0	0		

NOTE.—The original give the cloudiness a scale from 0 to 1.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbados, W. I.	.....	.....	30.09	764.3	80	26.7	78	E	7	3.1	.....	5c	5ks	E	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, Guadeloupe, do	.....	.....	29.93	760.2	80	26.7	74	E	.....	.....	.....	2k	2ks	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.69	754.1	78	25.6	82	NW	4.8	2.1	.....	8k	0	NW	.....	0	0	Drizzling	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.14	765.5	79	26.1	82	Calm	0	0	.....	8cs	0	.....	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.21	767.3	77	25.0	82	S	7	3.1	.....	2k	5kn	S	.....	0.05	1.3	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.77	756.1	76	24.4	76	NE	3.6	1.6	.....	.....	8n	.....	ESE	0	0	Showery	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Georges, Bermudas	.....	.....	30.06	763.5	72.5	22.5	78	SE	9.6	4.3	.....	10c	0	SE	.....	0	0	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu, Oahu, S. I.	.....	.....	30.20	767.1	64	17.8	68	NE	.....	.....	3	7c	5ck	NE	.....	0	0	Threatening	E. P. Church.
Makawao, Maui, S. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.50	63.5	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
York Factory, B. A.	.....	.....	29.76	755.9	5.0	—15.0	79	S	16	7.2	.....	6ck	Haze	SW	.....	0	0	Hazy	J. Fortescue.
Clifton, Jamaica, W. I.	.....	.....	30.03	762.7	65	18.3	78	SSE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	30.38	771.6	46	7.8	91	NW	.....	.....	.....	.....	0	.....	.....	0	0	.....	I. M. Redington.
Indianola, Iowa	29.27	743.4	.....	.....	57	13.9	93	SE	.....	.....	.....	1c	0	SW	.....	0	0	.....	J. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Ad-He-Valle, St. Pierre, Martinique	.....	0	29.83	757.7	82	27.8	83	E	.....	.....	1	.....	..k	.....	.....	Smooth	.....	Overcast	James Jorgensen, Mate
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 18, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.94	760.4	71.6	22.0		S			2		0			0	0		Charnot.
Algiers			29.95	760.8	70.9	21.6	82	NE			1		1			0	0		Peter.
La Calle			30.00	762.0	75.4	24.1		SSE			1		2			0	0		Kuntz.
Tunis			30.01	762.3	79.0	26.1	43	E			4		0			0	0		Jacques.
Sfax			30.06	763.5	72.7	22.6	60	ESE			3		2			0	0		Chauvey.
Saida			29.98	761.6	78.8	26.0		NW			1		1			0	0		Grosjean.
Tebessa			30.04	763.0	73.4	23.0		E			2		2			0	0		Colin.
Gerlville			30.03	762.7	77.0	25.0		ESE			2		2			0	0		Bernadach.
Laghouat			30.04	763.0	83.3	28.5	21	S			1		0			0	0		Poinsignon.
Biskra			30.06	763.4	86.2	30.1		E			3		1			0	0	Lt. sandfall	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.83	757.7	79.2	26.2	41	SW			3		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.89	759.1	68.9	20.5	65	NE			2		10			0.016	0.4		I. R. Observatory.
Eperies			29.85	758.3	70.3	21.3	47	SE			3		10			0	0		Julius Mikolik.
Gratz			29.82	757.4	71.8	22.1	67	ESE			2		5			0	0		Andreas Rospini.
Hermannstadt			29.87	758.8	74.8	23.8	43	SE			3		6			0.014	0.35		Prof. Reissenberger.
Kremsmünster			29.81	757.2	60.8	16.0	75	NW			1		10			0.197	5.0		Prof. C. Wagner.
Lemberg			29.90	759.5	65.3	18.5	33	NE			3		1			0	0		Dr. T. Stanecki.
Nyregyhaza			29.95	760.8	61.9	16.6	83	NE			1		10			0.187	4.74	Thunder-storm	Habsuda Daniel.
Pola			29.96	761.0	70.9	21.6	70	SSE			3		2k8			0	0		I.R. Hydrographic Of'ce
Szegedin			29.80	757.0	82.0	27.8	39	Calm			0		6			0	0		Karl Stancel.
Trieste			29.93	760.2	73.8	23.2	67	W			1		4			0.094	2.4		Prof. V. Farolfi.
Vienna			29.83	757.7	68.2	20.1	60	SE			1		6			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.38	746.2			72.5	22.5	58	SW			3		10k, n		SW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.38	746.2	50.0	10.0		SSE	10	4.5			9			0.060	1.52	Raining	William Boswell.
Annanhill																			
Ardrossan			29.44	747.8	53	11.7		W			2		6						William McNeil.
Armagh Observatory			29.52	749.8	52.0	11.1		W	8	3.6			7						S. Cal., for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.53	750.0	53.8	12.1		W			4		4						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.58	751.3	52.8	11.6		WSW			1-3		8					Showery	J. Dreyer, for L'd Rosse.
Bradford			29.49	749.0	52.3	11.3		W			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.04	763.0	82.6	28.1		NE			4		5						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.55	750.6	60.0	15.6		W			2		10					Thunder-showers	H. Todd.
Cape Town, (Cape Colony)			30.01	762.2	64.8	18.2		NW			4		2						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.05	763.3			64.7	18.2	69	S	25	11.2			1						The Staff, for E. J. Stone.
Cardington			29.59	751.6	61.0	16.1		W					10						John McLaren.
Carlisle			29.46	748.3	54.5	12.5		SW					3			0.20	5.1		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.56	750.8	65.2	18.4		NW			2		5						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.92	760.0	84.2	29.0		SE			1		2						Sgt. W. F. Hopkins.
Dartmoor			29.81	757.2	49.8	9.9		NW			6		8						R. E. Power.
Donaghadee			30.48	748.8	54	12.2		NNW			3		7						J. Mac Gowan, Jr.
Dover			30.57	751.1	58	14.4		WSW			4		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.52	749.8	52.0	11.1		W	2.6	1.2			10						Thomas Mackereth
Falmouth Observatory			29.74	755.4	56.8	13.8		W	27	12.1			8						The Staff.
Fort Napier, (Natal)			29.90	759.4	76.0	24.4		E			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	88.0	31.1		N					6						
Galway, Queen's College			29.56	750.8	53	11.7		W			4		10					Hailing	B. G. Clare for Prof. Carr.
Gibraltar, (Mediterranean)			29.94	760.5	74.0	23.3		ENE			2		3						Sergt. E. G. Baker.
Glasgow Observatory			29.43	747.5	51.4	10.8		WSW			3		8						James Gray.
Great Yarmouth			29.50	749.3	64	17.8		W			2		6						G. T. Watson.
Greenwich Royal Obs.			29.58	751.3	61.4	16.3		W			5		10						The Staff, for G. B. Airy.
Guernsey			29.77	756.1	53	11.7		WSW			3		10						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.50	749.3	51.0	10.6		WNW					10					Raining	F. J. Dove, for L. J. Crossley.
Halifax, (Nova Scotia)			30.33	770.4	49.6	9.8		SE			2		10						Corp'l J. C. Thompson.
Helston			29.74	755.4	60	15.6		W			6		4						Dr. W. B. Doyle.
Holyhead			29.96	761.0	54.4	12.4		SW			4		3						John Tilston.
Hull Park																			
Kew Observatory			29.60	751.8	57.6	14.2		W	14	6.3			10					Raining	The Staff.
Kingstown			29.58	751.3	55	12.8		W			4		5					Thunder-storm	George Mitchell.
Lampeter																			
Leicester Museum			29.56	750.8	56.0	13.3		W			3		10					Rainy	William J. Harrison.
Llandudno			29.54	750.3	59.5	15.3		W					2						Dr. James Nicol.
Malta, (Mediterranean)			30.00	762.0	68.0	20.0		NE			1		10						Fred Travis, Pvt. A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.34	745.2	50	15.0		W			1		8						William D. Penny.
Nassau, (Bahamas)			30.04	763.0	74.8	23.8		NE			4		7						Surg.-Maj. J. Jamieson.
North Shields			29.47	748.5	53	11.7		W			1		9					Raining	John Wm. Irvine.
Nottingham			29.56	750.8	49.7	9.8		WNW			4		10n		NW			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.57	751.1	53.0	11.7		W			5		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.60	751.8	61	16.1		WSW			2		10			Blank	Blank		J. Lucas, for R. Main.
Plymouth			29.71	754.6	60	15.6		W			4		5						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.64	752.8	52	11.1		NW			5		8						W. Kennedy.
Saint Ann's Head			29.64	752.8	52	11.1		W			4		5						John C. Walker.
Saint Helier, (Jersey)			29.77	756.1	57.6	14.2		W			5		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			29.51	749.5	52.0	11.1		WSW			1		10						F. Shaw.
Scutari, (Turkey)			30.03	762.7	74.2	23.4		SW			1		1						Sergt. W. H. Lyne.
Sheffield			29.53	750.0	53.1	11.7		WNW			2		10			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.47	748.5	59.3	15.2		W			6		6			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.54	750.3	66.4	19.1		SSW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.51	749.5	52.7	11.5		W			3		8					Threatening	The Staff.
Stornoway, Lewis C. (Heb.)			29.40	749.3	51	10.6		NW			2		7					Threatening	John Smith.
Strathfield Turgiss			29.62	752.3	60.6	15.9		W			1		9						Rev. Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.39	746.5	55	12.8		NNE			1		4						John Trotter.
Truro, Royal Institution			29.75	755.6	60	15.6		W			6		5						W. Newcombe.
Valencia Observatory			29.67	753.6	52.2	11.2		W	21	10.3			9						The Staff.
Wick																			
Wisbeach																			
Worthing			29.62	752.3	59.2	15.1		W			2		10					Raining	William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.80	756.9	54.1	12.3	58	S			4		2						
Fanöe			29.64	752.8	61.0	16.1	55	SE			6		2						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.45	748.0	42.8	6.0	85	Calm			0		8						
Thorshavn, (Faröe)			29.35	745.5	50.4	10.2	67	SW			2		2						
Vestervig			29.67	753.7	59.7	15.4	40	SE			7		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ancelo			29.91	760.4	75.(	23.9	62						1ck						Normal School.
Alençon			29.75	755.7	59.7	15.4	81	W			3		10			0	0		Normal School.
Amiens			29.64	752.8	8?.2	26.8	60	SW			1		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.71	751.6	69.8	21.(	63	WSW			3		10		WSW	0	0		Normal School.
Besançon			29.85	758.2	75.(	23.9	53	S			2		2		SW	0.169	4.3		Normal School.
Bourg en Bresse			29.86	758.4	68.(	20.(	71	S			6		2		N	0	0		Normal School.
Bourges			29.85	758.1	65.1	18.4	81	W			6		10		NE	0.197	5.0		Normal School.
Brest			29.78	756.5	60.(	15.9	68	W			3		10		WNW	0	0		Naval Observatory.
Caen			29.7.	756 1	58.3	14.(	84	SW			4		8		W	0	0		Normal School.
Chartres			29.70	754 3	65.3	18.5		SW			4		10			0	0		Normal School.
Chaumont			29.75	755 7	71.(	22.(		W			3				W	0.197	5.0		Normal School.
Commercy			29.80	756 0	72.(	22.2	62	W			6		5		NE	0.541	13.75		Normal School.
Le Mans			29.89	759 2	62.1	16.7	87	W			1		2		W	0.083	2.1		Normal School.
Lons-Le Saulnier			29.76	755.9	60.1	20.(	43	W			4		10		E	0.110	2.8		Normal School.
Mâcon																			
Mirecourt			29.80	759.2	66.?	19.1	70	SSW			10		5		S	0.965	24.5		Normal School.
Orleans			29.81	757.1	67.1	19.7	82	S			4		5		WSW	0.071	1.8		Normal School.
Paris Observatory			29.69	751.2	68.(	20.(		SW			3		10		SW	0.088	2.20		National Observatory
Parthenay			29.83	757.6	66.2	19.0	82	SW			6		8		S	0	0		Normal School.
La Roche sur Yon			29.84	758.0	66.2	19.(	63	S			4		5		NE	0	0		Normal School.
Rouen			29.72	754.8	58.?	14.?	98	SW			4		5			0	0		Normal School.
Saint Lo			29.79	756.6	53.?	11.8	90	NW			3		5		NW	0.110	2.8		Normal School.
Villefranche			29.85	758.1	74.(	23.(	48	SE			8		5		S	0.165	4.2		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.83	630.6			65.7	18.7	42	SW	28.0	12.50			6		SSW	0.433	11.0		—. Falguère.
Montsouris Observatory			29.67	753.5	70.7	21.7	67	SW			4		10k, kn		SW	0.091	2.3		Marié Davy.
Perpignan	29.79	756.6			72.7	22.(	67	SW	3.7	1.67			8		WSW	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.71	754.5	68.(	20.(	76	SSW			3		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.78	756.4	63.3	17.4	76	WSW			3		1		W	0.024	0.6		C. Marquet.
Versailles, (near Paris)			29.70	754.4	68.8	20.2	71	SW			4		10			0.127	3.22	Stormy	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.93	760.2	69.1	20.(	90	ESE	6.3	2.8			10kn		W	{ 0 / 0	0 / 0 }	Fog	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected. Inches.	Barometer. Corrected. Millimeters.	Barometer. Reduced. Inches.	Barometer. Reduced. Millimeters.	Fahrenheit.	Centigrade.	Rel. humidity. Per cent.	Wind from—	Miles per hour.	Meters per second.	Force 0—10.	Clouds Up'er 0—10.	Clouds Low'r 0—10.	Upper from—	Lower from—	Rain Inches.	Rain Millimeters.	Weather.	Observer.
Bamberg			29.56	750.9	62.6	17.0	80	SW			3		6			0.067	1.7		Prof. Hoh.
Berlin			29.80	756.9	70.7	21.5	33	SE			1		1			0	0		Prof. Arndt.
Breslau			29.92	759.7	68.	20.1	33	SW			5		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.69	754.2	76.(	24.8	55	SW			5		5			0.570	14.7	Thunde-rstorm..	A. Senz.
Cassel			29.64	752.9	65.8	18.8	65	N			5		6			0.169	4.30		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.82	767.4	68.(	20.0	72	S					7			0.114	2.9	Thunder-storm..	M. Wilhelm.
Hamburg			29.68	753.9	66.7	19.3	37	SE			4		5k			0	0	Squally	W. Reinert.
Kiel			29.75	755.6	63.5	17.5	45	ESE			5		4			0	0		Prof. G. Karsten.
Königsberg			29.90	759.5	67.?	19.(	30	S			1					0	0		Prof. E. Luther.
Köslin			30.03	762.7	61.4	18.(		S			4		2			0	0		Dr. Tägert.
Leipsic			29.75	755.6	72.7	22.6	48	S			1		7			0	0		Prof. Bruhns.
Münster			29.57	751.1	77.(	25.0	61	SW			2		3			0.094	2.4		Prof. E. Heis.
Posen			29.90	759.4	67.3	19.6	20	S			6-7		0			0	0		Dr. Magener.
Strasburg, (in Alsace)			29.71	754.5	77.?	25.1	51	SW					7			0.047	1.20		Hartwig and Tülk.
Stuttgart			29.69	754.1	76.7	24.8	46	W					5			0.091	2.3		Mr. Würth.
Thorn			29.90	759.5	65.1	18.4	34	SE					1			0	0		Dr. [illegible]senbalg.
Treves, (Trier)																			Prof. Flesch.
Wustrow			29.78	756.4	58.(	14.8	42	SSE			2		3c			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations.	Barometer. Corrected. Inches.	Barometer. Corrected. Millimeters.	Barometer. Reduced. Inches.	Barometer. Reduced. Millimeters.	Fahrenheit.	Centigrade.	Rel. humidity. Per cent.	Wind from—	Miles per hour.	Meters per second.	Force 0—10.	Clouds Up'er 0—10.	Clouds Low'r 0—10.	Upper from—	Lower from—	Rain Inches.	Rain Millimeters.	Weather.	Observer.
Moncalieri			29.92	759.9	73.4	23.0	57	ESE	3.8	1.7			9	W		0	0		
Mondovi			29.92	759.9	70.3	21.3	56	E			4		10	WSW		0	0		
Genoa			29.99	761.7	71.6	22.0	66	S	9.4	4.2			4	SE		0	0		
Pavia			29.92	760.0	76.5	24.7	48	W			1		7	SW		0	0		
Verona			29.93	760 1	82.6	28.1	54	E			2		10			0	0		
Padua			29.90	759.5	74.3	23.5	60	S	1.8	0.8			5			0	0		
Parma																			
Bologna																			
Leghorn			30.01	762.3	72.9	?2.7	56	WSW	2.0	1.0			7			0	0		
Urbino			30.15	765.8	75.0	23.9	33	WSW			4		3			0	0		
Ancona			29.95	760.8	75.9	24.4	62	[illegible]			8		0			0	0		
Siena			29.95	760.7	80.1	26.7	26	WSW	0.7	0.3			4	W		0	0		
Rome			30.02	762.6	78.4	25.8	39	W	6.3	2.8			1			0	0		
Naples, O.U.			30.03	762.7	78.3	25.7	45	SW			2		1			0	0		
Lecce			30.07	763.8	75.2	24.0	40	SE	7.4	3.3?			0			0	0		
Cosenza			30.05	763.2	80.6	27.0	35	WNW			1		4	SE		0	0		
Catania, (Sicily)																			
Riposto			30.03	762.8	72.1	22.4	75	SE			2		3	N		0	0		
Palermo			29.98	761.6	71.8	22.1	67	NE			2		6			0	0		
Sub-Series.																			
Naples, S. R.			30.09	764.3	76.5	24.7	51	SW			3					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.50	750.9	68.4	20.2		WSW			3								
Groningen			29.55	750.6	67.5	19.7		S			2								
Helder			29.54	750.3	68.9	20.5		S			4								
Utrecht			29.52	749.9	73.0	23.1	55	S			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.63	752.6	51.4	10.8	61	S	13.7	6.1			10			0.402	10.2		
Christiania			29.71	754.6	60.4	15.8	37	SSE	7.2	3.2			3			0	0		
Tromsö			29.61	752.2	39.2	4.0	95				6		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.68	753.8			68.5	20.3	55	N	23.4	10.0			4						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.93	760.1	63.1	17.3	43	E	4	2			1						Astronomical Obs.
Wilna			29.92	759.9	61.2	16.2	28	WNW	10	4.5			1						Astronomical Obs.
Dorpat			29.82	757.3	52.3	11.3	41	NW	13	6			7						Physical Cabinet.
St. Petersburg			29.65	753.2	44.8	7.1	80	WNW	20	9			6						Central Physical Obs.
Kuopio																			
Kieff			30.00	762.1	61.7	16.5	35	NW	7	3			1						Physical Cabinet.
Nikolaiev			30.07	763.7	73.6	23.1	34	W	4	2			3						
Kertch			30.08	764.0	62.1	16.7	75	S	20	9			3						Lagorio.
Moscow			29.62	752.4	47.7	8.7	69	W	10	4.5			8						Meteorological Obs.
Lugan			29.81	757.1	68.2	20.1	25	WSW	20	9			1						Meteorological Obs.
Archangel			29.44	747.7	43.9	6.6	94	WNW	4	2			10					Raining	Ogorodnikof.
Tiflis			30.03	762.7	77.2	25.1	30	E	7	3			4						Physical Obs.
Astrakhan			30.04	763.1	70.2	21.2	52	W	17	7.5			5						Sebasthanof.
Kasan			29.51	749.5	50.5	10.3	70	SW	4	2			10						Physical Cabinet.
Orenburg			29.76	755.9	58.5	14.7	69	SW	8	3.5			9						Physical Cabinet.
Ekaterinburg			29.63	752.5	54.5	12.5	96	SE	8	3.5			10					Raining	Tschernischef.
Kasaly			29.85	758.1	71.8	22.1	82	W	8	3.5			1						Meteorological Obs.
Tashkend			29.92	759.8	85.6	29.8	73	Calm	0	0			4						Bobrof.
Barnaul			29.52	749.9	70.0	21.1	43	NW	8	3.5			5					Raining	Micheison.
Yeniseisk			29.68	753.8	54.7	12.6	50	E	4	2			5						Meteorological Obs.
Irkutsk			29.74	755.5	45.3	7.4	49	NE	10	4.5			7					Foggy	Marks.
Oorga																			Usolzef.
Peking, (China)			29.74	755.4	74.7	23.7	28	SSW	10	4.5			0						Mossin.
Nertchinsk			29.69	754.2	46.4	8.0	33	NNW	4	2			6						Physical Observatory.
Vladivostock																			Meteorological Obs.
Nikolaievsk, on the Amoor					30.4	— 0.9	84	SE	8	3.5			0						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.80	757.0	83.3	28.5	17	SW	11.6	5.17		2	1			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.71	754.6	49.3	9.6	59	SW			3		6			0	0		
Hernosand			29.70	754.4	47.1	8.4	48	S			5		2			0	0		
Stockholm			29.76	755.9	54.1	12.3	49	SE			3		4			0	0		
Wisby			29.85	758.3	58.6	14.8	41	SW			3		0			0	0		
Sub-Series.																			
Upsala			29.75	755.6	57.6	14.2	37	S			2		8	W	WSW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a.m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.45	722.5			73.6	23.1	43	SSW			4		3			0	0		The Observatory.
Zurich	28.22	716.7			74.5	23.5	51	W			1		3			0.09	2.3		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.7mm.; Thermometer, +6°.2 C.; Relative Humidity, —14 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.93	760.2	73.8	23.2	68	E			2		0						
Constantinople			30.09	764.3	76.1	24.5	34	SSE	4.5	2			0			0	0		Prof. C. N. A. Van Dyck.
Bao, (Persian Gulf)			29.89	759.3	84.2	29.0		SE			4		10						
Salonica					70.2	26.2		SW			2		0						
Valona			30.06	763.5	78.1	25.6		SW			3		0						
Varna			30.04	763.0	71.6	22.0		S			1		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.32	770.4	57	13.3		Calm	0	0		0	0			0	0		
Chatham, N. B.			30.36	771.1	49	9.4	63	Calm	0	0		5c	0	W		0	0		
Charlottetown, P. E. Island			30.38	771.6	45	7.2	63	N	3	1.3			8s			0	0		
Fort Garry, Manitoba			29.89	759.2	58	13.9	70	S	14	6.3		0	2ks		S	0	0		
Halifax, N. S.			30.23	767.8	48	8.9	56	NE	7	3.1		8cs	0			0	0		
Kingston, Ontario			30.30	769.6	48	8.9	71	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.30	769.6	50	10.0	64	NE	7	3.1		0	Sm'e			0	0		
Ottawa, Ontario			30.29	769.4	48	8.9	43	N	4	1.8		2ck	0	N		0	0		
Parry Sound, Ontario			30.26	768.6	49	9.4	57	S	3	1.3		0	0			0	0		
Port Dover, Ontario			30.25	768.3	46	7.8	54	Calm	0	0		0	0			0	0		
Port Stanley, Ontario			30.25	768.3	47	8.3	61	NW	3	1.3		0	0			0	0		
Quebec, Quebec			30.33	770.4	51	10.6	59	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.23	767.8	54	12.2	55	W	3	1.3		2ck	2s	N		0	0		
Stayner, Ontario			30.25	768.3	47	8.3	58	Calm	0	0		5k	0	N		0	0		
Sydney, C. B.			30.37	771.4	47	8.3	65	NW	4	1.8		8k	2s	W	W	0	0		
Toronto, Ontario			30.25	768.3	54	12.2	48	SE	3	1.3		2ck	Sm'e	N		0	0		

Note.—The originals give the cloudiness on a scale of 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 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.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.25	768.3	53	11.7	67	Calm	0	0		2cs	0	S		0	0		
Alpena, Mich.			30.22	767.6	47	8.3	55	W	2	0.9		5cs	Sm'e			0	0		
Atlantic City, N. J.			30.20	767.1	54	12.2	61	N	9	4.0		0	0			0	0		
Augusta, Ga.			30.19	766.8	57	13.9	63	Calm	0	0		2k	0	W		0	0		
Baltimore, Md.			30.20	767.1	53	11.7	48	N	4	1.8		5ck	Haze	W		0	0		
Barnegat, N. J.			30.21	767.3	58	14.4	81	W	3	1.3		Haze	0			0	0		
Benton, Montana			30.00	762.0	47	8.3	70	E	4	1.8		0	0			0.13	3.3		
Bismarck, Dakota			29.67	753.6	56	13.3	62	SW	3	1.3		10c	0	S		0.03	0.8		
Boston, Mass.			30.26	768.6	54	12.2	61	E	4	1.8		2c	Haze			0	0		
Breckenridge, Minn.			29.98	761.5	55	12.8	43	SE	20	8.9		5k	0	SE		0	0		
Buffalo, N. Y.			30.26	768.6	46	7.8	57	SW	4	1.8		0	1ks			0	0		
Burlington, Vt.			30.31	769.9	48	8.9	70	E	3	1.3		2k	0			0	0		
Cairo, Ill.			30.23	767.8	53	11.7	40	E	5	2.2		2c	0			0	0		
Cape Hatteras, N. C.			30.08	764.0	54	12.2	49	NE	27	12.1		0	0			0	0		
Cape Henry, Va.			30.17	766.3	58	14.4	42	NE	19	8.5		Haze	Haze			0	0		
Cape May, N. J.			30.20	767.1	51	10.6	59	NE	6	2.7		0	0			0	0		
Charleston, S. C.			30.21	767.3	58	14.4	53	N	8	3.6		0	Haze			0	0		
Cheyenne, W. T.			30.03	762.7	42	5.6	75	Calm	0	0		0	0			0	0		
Chicago, Ill.			30.27	768.8	55	12.8	38	SW	2	0.9		0	0			0	0		
Cincinnati, Ohio			30.28	769.1	52	11.1	60	N	1	0.4			10s			0	0		
Cleveland, Ohio			30.24	768.1	50.7	10.4	52	E	4	1.8		0	Sm'e			0	0		
Colorado Springs, Col.			30.03	762.7	50	10.0	72	N	4	1.8		0	0			0	0		
Corsicana, Texas			30.04	763.0	66	18.9	90	S	6	2.7		2c	2s			0	0		
Davenport, Iowa			30.26	768.6	55	12.8	56	SE	1	0.4		2c	0			0	0		
Denver, Col.			30.08	764.0	51	10.6	72	S	2	0.9		0	0			0	0		
Detroit, Mich.			30.25	768.3	50	10.0	64	NE	4	1.8			10s			0	0		
Dodge City, Kansas			29.69	754.1	53	11.7	73	E	10	4.5			1m			0.45	11.4	Light rain	
Dubuque, Iowa			30.29	769.4	56	13.3	57	SE	4	1.8		0	0			0	0		
Duluth, Minn.			30.21	767.3	43	6.1	66	SW	4	1.8		0	0			0	0		
Eastport, Me.			30.33	770.4	43	6.1	75	NE	10	4.5		10c	0			0	0		
Erie, Penn.			30.22	767.6	55	12.8	33	W	4	1.8		0	Haze			0	0		
Escanaba, Mich.			30.22	767.6	51	10.6	72	SW	4	1.8		5cs	Haze			0	0		
Fort Gibson, I. T.			30.04	763.0	65	18.3	48	SE	6	2.7		10cs	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.88	758.9	55	12.8	81	NW	6	2.7		0	0			0.11	2.8		
Galveston, Texas			30.07	763.8	76	24.4	72	SE	5	2.2		2k	0			0	0		
Grand Haven, Mich.			30.28	769.1	55	12.8	50	Calm	0	0		8c	Haze			0	0		
Indianapolis, Ind.			30.26	768.6	53	11.7	48	NE	1	0.4		Haze	Sm'e			0	0		
Indianola, Texas			30.05	763.5	75	23.9	76	SE	6	2.7		5ck	0			0	0		
Jacksonville, Fla.			30.17	766.3	66	18.9	60	N	4	1.8		0	0			0	0		
Keokuk, Iowa			30.18	766.6	55	12.8	44	SE	11	4.9		0	0			0	0		
Key West, Fla.			30.02	762.5	76.0	24.4	65	NE	14	6.3		0	Haze			0	0		
Kittyhawk, N. C.			30.11	764.7	53	11.7	59	NE	32	14.3		0	0			0	0		
Knoxville, Tenn.			30.19	766.8	53	11.7	54	NE	3	1.3		Haze	Haze			0	0		
La Crosse, Wis.			30.25	768.3	55	12.8	55	S	4	1.8		0	0			0	0		
Leavenworth, Kan.			30.06	763.5	61	16.1	45	SE	1	0.4		0	8s			0	0		
Lexington, Ky.			30.17	768.8	52	11.1	53	Calm	0	0		5c	0	W		0	0		
Long Branch, N. J.			30.24	768.1	49	9.4	85	N	5	2.2		Haze	Haze			0	0		
Louisville, Ky.			30.26	768.6	54	12.2	55	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.21	767.3	54	12.2	49	NW	1	0.4		5c	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.21	767.3	46	7.8	54	NW	4	1.8		5cs	Haze			0	0		
Memphis, Tenn.			30.16	766.1	61	16.1	40	NE	6	2.7		5cs	Haze			0	0		
Milwaukee, Wisconsin			30.29	769.4	52	11.1	47	W	7	3.1		0	0			0	0		
Mobile, Ala.			30.15	765.8	71	21.7	67	E	7	3.1		8ck	0			0	0		
Montgomery, Ala.			30.18	766.6	65	18.3	54	SE	3	1.3		8c	Haze	W		0	0		
Morgantown, W. Virginia			30.21	767.3	52	11.1	52	NW	5	2.2		0	5s			0	0		
Mt. Washington, N. H.			30.31	769.9	26	— 3.3	75	NE	12	5.4		2c	0	NE		0	0		
Nashville, Tenn.			30.21	767.3	59	15.0	44	Calm	0	0		0	0			0	0		
New Haven, Conn.			30.25	768.3	53	11.7	42	NE	14	6.3		6c	0	S		0	0		
New London, Conn.			30.26	768.6	52	11.1	66	N	7	3.1		2c	Haze	SW		0	0		
New Orleans, La.			30.12	765.0	71	21.7	75	SE	8	3.6			10ks		SE	0.11	2.8		
Newport, R. I.																			
New York, N. Y.			30.21	768.1	51	10.6	59	NE	8	3.6		2ck	Sm'e	SW		0	0		
Norfolk, Va.			30.18	766.6	59	15.0	57	NE	12	5.4		Haze	0			0	0		
North Platte, Neb.			29.70	754.4	48	8.9		W	6	2.7			Fog			0.68	17.3	Foggy	
Omaha, Neb.			30.00	762.0	57	13.9	52	SE	13	5.8		2cs	8n		S	0	0		
Oswego, N. Y.			30.28	769.1	53.1	11.8	48	SSE	3	1.3		0	8ks			0	0		
Peck's Beach			30.22	767.6	56	13.3	45	NE	8	3.6		Haze	0			0	0		
Pembina, D. T.			29.86	758.4	59	15.0	48	SE	24	10.7		5c	0			0	0		
Philadelphia, Penn.			30.23	767.8	51	10.6	85	E	5	2.2		2ck	2s	E	E	0	0		
Pike's Peak, C. T.			30.04	763.0	20	— 6.7	69	SW	20	8.9		0	8ks			0	0		
Pittsburgh, Penn.			30.23	767.8	46	7.8	61	NE	2	0.9		1ck	Sm'e	NW		0	0		
Port Huron, Mich.			30.26	768.6	44	6.7	75	NW	6	2.7			10s		NW	0	0		
Portland, Maine			30.33	770.4	46	7.8	69	NE	8	3.6		0	0			0	0		
Portland, Or.			30.26	768.6	41	5.0	82	Calm	0	0		8k	Haze			0.18	4.6		
Punta Rassa, Fla.			30.10	764.5	68.5	20.3	73	N	14	6.3		0	Haze			0	0		
Rochester, N. Y.			30.26	768.6	50	10.0	58	SW	8	3.6		0	5ks		SW	0	0		
Salt Lake City, Utah			29.96	761.0	43	6.1	58	N	1	0.4		0	0			0	0		
Sandy Hook, N. J.			30.21	767.3	49	9.4	77	NE	9	4.0		5c	Haze			0	0		
San Diego, Cal.			29.92	760.0	55	12.8	79	N	4	1.8		0	2ks			0	0		
San Francisco, Cal.			29.95	760.7	50	10.0	86	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.77	756.1	49	9.4	24	N	7	3.1		0	0			0	0		
Savannah, Georgia			30.20	767.1	61	16.1	70	NE	5	2.2		6	Sm'e			0	0		
Shreveport, La.			30.11	764.8	68	20.0	90	S	3	1.3			10s			0	0		
Springfield, Mass.			30.26	768.6	55	12.8	50	N	8	3.6		8c	0	S		0	0		
St. Louis, Mo.			30.25	768.3	58	14.4	36	SE	4	1.8		2c	0			0	0		
St. Marks, Fla.			30.17	766.3	61	16.1	66	NE	4	1.8		5c	0	W		0	0		
St. Paul, Minn.			30.13	765.3	53	11.7	48	SE	4	1.8		0	0			0	0		
St. Paul's Island, Alaska			29.80	756.9	33	0.6	80	S	17	7.6		10ks	...k	SSW		0	0		
Squan Beach, N. J.			30.21	767.3	51	10.6	77	E	2	0.9		0	Haze			0	0		
Toledo, Ohio			30.24	768.1	49	9.4	57	NW	5	2.2		8c	0	N		0	0		
Tybee Island, Ga.			30.22	767.6	63	17.2	78	NE	12	5.4		2c	Haze	SE		0	0		
Vicksburg, Miss.			30.17	766.3	65	18.3	83	SE	8	3.6		10c	0	NW		0	0		
Virginia City, Mon.			29.70	754.4	38	3.3	80	E	4	1.8		0	0			0.10	2.5		
Washington, D. C.			30.21	767.3	50	10.0	71	N	4	1.8		2ck	5cs	SW	W	0	0		
Wilmington, N. C.			30.18	766.6	53	11.7	42	N	7	3.1		2cs	Haze	SW		0	0		
Wood's Hole, Mass.			30.22	767.6	54	12.2	43	NW	5	2.2		5c	5s	NW		0	0		
Wytheville, Va.			30.00	762.0	42	5.6	65	N	1	0.4		0	0			0	0		
Yankton, D. T.			30.04	763.0	58	14.4	70	SE	2	0.9		2cs	0	W		0.36	9.1		

NOTE.—The observers give the cloudiness on a scale from 0 to 10.

UNITED STATES SUB-SERIES.

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—13.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.05	763.3	80	26.7	78	NE	7	3.1		5ck	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.92	760.0	79	26.1	78	E				5k	5n	E		0.47	11.9	Foggy	L. V. Bigard.
Havana, Cuba, W. I.			29.72	754.9	76	24.4	78	NE	7.2	3.2		8k	8n	NE		0.21	5.3		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.12	765.0	79	26.1	74	Calm	0	0		1c	0			0	0		James Gall.
St. Thomas, St. T., W. I.			30.2[illegible]	767.6	79	26.1	78	SSE	8	3.6		2ck	5kn	S		0	0	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.70	755.9	76	24.4	81	Calm	0	0			4n		S	Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.97	761.2	73	22.8	81	SE	10	4.5			10k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.21	767.3	64	17.8	68	NE			3	5ck	5k	NE		0	0		E. P. Church.
Makawao, Maui, S. I.	27.92	709.2			63.5	17.5	88	E			3	2c	4n	SW		0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.08	764.0	32.0	0.0	100	NE	25	11.2			10n			0	0	Heavy rain	J. Fortescue
Clifton, Jamaica, W. I.			30.00	762.0	65	18.3	83	S				0	8k			0	0	Showery	C. Partridge.
St. John's, Newfoundland																			John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.20	767.1	53	11.7	54	S	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.22	742.2			57	13.9	57	SE				4ck	0	NW		0	0		G. C. Carpenter.

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

Note.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 19, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.92	760.0	75.4	24.1		S			2		0			0	0		Charnot.
Algiers			29.80	759.3	82.4	28.0	58	N			1		3			0	0		Peter.
La Calle			29.92	760.0															Kuntz.
Tunis			29.92	760.0	83.3	28.5	42	E			4		0			0	0		Jacques.
Sfax			30.04	763.0	72.7	22.6	69	S			5		1			0	0		Chauvey.
Saida			29.99	761.7	86.0	30.0		W			2		0			0	0		Grosjean.
Tebessa			30.01	762.2	78.8	26.0		SSE			4		0			0	0		Colin.
Geryville			30.04	763.0	80.6	27.0		NNW			3		5			0	0		Bernadach.
Laghouat			30.02	762.5	86.0	30.0	30	S			3		0			0	0	Threatening	Poinsignon.
Biskra			30.01	762.2	89.6	32.0		E			4		2			0	0	Sand-fall	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.82	757.4	79.0	26.1	31	SW			5		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.78	756.4	72.5	22.5	50	NE			2		5			0.004	0.1		I. R. Observatory.
Speries			29.80	756.8	65.5	18.6	71	Calm			0		6			0.020	0.50		Julius Mikolik.
Gratz			29.79	756.7	75.9	24.4	48	S			5		5			0	0		Andreas Rospini.
Hermannstadt			29.86	758.5	71.4	21.9	57	SE			2		5			0.071	1.80	Raining	Prof. Reissenberger.
Kremsmünster			29.78	756.4	66.6	19.2	63	E			1		7			0.409	10.4		Prof. C. Wagner.
Lemberg			29.73	755.1	76.1	24.5	49	SW			4		6			0	0		Dr. T. Stanecki.
Pyrgyhazn			29.83	757.6	78.8	26.0	64	SW			3		4			0	0		Habzsuda Daniel.
Pola			29.92	760.0	70.2	21.2	77	SE			3		5cks			0	0		I. R. Hydrographic Office
Szegedin			29.81	757.2	60.0	28.0	30	S			2		5			0	0		Karl Stancel.
Trieste			29.80	759.2	78.6	25.9	52	WSW			1		7			0	0		Prof. V. Farlin.
Vienna			29.81	757.2	65.8	18.8	76	NE			1		9			0.028	0.7	Raining	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.51	749.6			58.1	14.5	61	W			3		7k		SW	0.197	5.00		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.35	745.5	52.0	11.1		WSW	12	5.4			4			0.420	10.67		William Boswell.
Annanhill																			
Ardrossan			29.43	748.8	52	11.1		WNW			2		5						William McNeil.
Armagh Observatory			29.56	750.8	54.4	12.4		W	9	4.0			6					Showery	S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.58	751.3	50.3	10.2		W			6		5						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.64	752.8	53.3	11.8		NW			1-2		4					Showery	J. Dreyer, for L'd Rosse
Bradford			29.52	749.8	53.6	12.0		SW			1		4						J. Mc. Landsborough
Bridgetown, (Barbadoes)			30.01	762.2	81.0	27.2		NE			3		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.61	752.1	56.0	13.3		SW			2		3					Foggy	H. Todd.
Cape Town, (Cape Colony)			30.01	762.2	76.8	24.9		W			3		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.05	763.3			76.1	24.5	47	WSW	4	1.8			0						The Staff, for E. J. Stone
Cardington			29.67	753.6	52.4	11.3		NW					6						John McLaren.
Carlisle			29.52	749.8	54.2	11.2		W					8			0	0	Showery	T. Bell, for J. Cartmell
Chatham, School M. E.			29.62	752.3	58.2	11.2		W			5		8						Q. M. Sergt. J. Conroy
Colombo, (Ceylon)			29.92	760.0	78.2	25.7		SW			3		10						Sgt. W. F. Hopkins
Dartmoor			29.83	757.7	48.2	9.0		NW			5		6						R. E. Power.
Donaghadee			29.53	750.0	55	12.8		NW			5		5						J. Mac Gowan, Jr.
Dover			29.59	751.6	52	11.1		SW			4		7						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.58	751.3	53.7	12.1		W	7.8	3.5			5					Squally	Thomas Mackereth.
Falmouth Observatory			29.79	756.7	54.4	12.4		WNW	24	10.7			5						The Staff.
Fort Napier, (Natal)			30.03	762.7	68.4	20.2		E			2		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.82	757.4	92.0	33.3		E					7						
Galway, Queen's College			29.60	751.8	53	11.7		SW			6		8						B. G. Clare, for Prof. Cu
Gibraltar, (Mediterranean)			29.84	757.9	75.0	23.9		WSW			5		2						Sergt. E. G. Baker.
Glasgow Observatory			29.44	747.8	52.8	11.6		NW			4		8						James Gray.
Great Yarmouth			29.51	749.5	52	11.1		W			4		6						G. T. Watson.
Greenwich Royal Obs.			29.66	753.4	57.7	14.3		WSW			4		7					Showery	The Staff, for G. B. Airy
Guernsey			29.81	757.2	56.5	13.6		WSW			3		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.48	748.8	51.6	10.9		WNW					5					Rain & hail.	F. J. Rice, for L. J. Cro
Halifax, (Nova Scotia)			30.04	763.0	47.8	8.8		S			2		10					Fog & rain	Corp'l J. Thompson
Helston			29.76	755.9	58	14.4		W			6		4k						Dr. W. B. Avie.
Holyhead			29.96	761.0	55	12.8		SW			4		1						John Tilston.
Hull Park																			
Kew Observatory			29.55	750.6	53.6	13.5		W	16	7.2			8						The Staff.
Kingstown			29.61	752.1	55	12.8		W			4		5					Showery	George Mitchell.
Lampeter																			
Leicester Museum			29.63	752.6	51.5	10.9		W			4		9					Rain & hail	William J. Harrison
Llandudno																			Dr. James Nicol.
Malta, (Mediterranean)			29.94	760.5	70.0	21.1		NE			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.34	745.2	56	13.3		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.19	766.9	73.8	23.2		N			5		6						Surg.-Maj. J. Jameson
North Shields			29.47	748.5	53	11.7		W			4		8						John Wm. Irvine.
Nottingham			29.62	752.3	51.9	11.1		WNW			4		10ks		W			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.60	751.8	57.0	13.9		W			4		8						Rev. Stephen Whitty
Oxford, Radcliffe Obs.			29.63	752.6	56	13.3		W			1		8						J. Lucas, for R. Main
Plymouth			29.75	755.6	56	13.3		W			4		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.70	754.4	54	12.2		W			4		5						W. Kennedy.
Saint Ann's Head			29.70	754.4	51	10.6		W			3		6						John C. Walker.
Saint Helier, (Jersey)			29.80	756.9	58.8	14.9		W			5		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.51	749.5	53.3	11.8		WSW			2		7						F. Shaw.
Scutari, (Turkey)			29.97	761.2	69.0	20.6		SW			1		1						Sergt. W. H. Lynch
Sheffield			29.55	750.6	55.5	13.1		WNW			4		3			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.50	749.3	53.1	11.7		SW			5		3			0.150	3.81		Rev Francis Redford
Somerleyton, (Lowestoft)			29.66	753.4	50.3	10.2		WSW			2		10					Squally	Rev. C. J. Steward.
Stonyhurst Observatory			29.54	750.3	50.9	10.5		W			4		10					Threatening	The Staff.
Stornoway, Lewis C. (Hebr)			29.33	745.0	51	10.6		W			4		7						John Smith.
Strathfield Turgiss			29.66	753.4	57.2	14.0		NW			1-2		8						Rev Charles H. Grimb
Streatley Vicarage			29.66	753.4	63.0	17.2		WNW			8		5						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.29	744.0	51	10.6		WNW			5		4						John Trotter.
Truro, Royal Institution			29.75	755.6	60	15.6		W			6		5						W. Newcombe.
Valencia Observatory			29.71	754.6	54.9	12.7		WSW	22	9.8			4						The Staff.
Wick																			
Wisbeach																			
Worthing			29.69	754.1	51.9	11.1		W			4		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.57	751.1	60.6	15.9	49	W3W			4		8						
Fanöe			29.54	750.3	52.3	11.3	77	WSW			6		7						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			29.20	741.7	41.7	5.4	72	Calm			0		2						
Thorshavn, (Faröe)			29.10	739.1	48.9	9.4	67	W			4-6		5					Raining	
Vestervig			29.45	748.1	51.8	11.0	77	SW			6		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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.	Barometer, 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 24 hours: Inches.	Millimeters.	Weather.	Observer.
Ajaccio	......	......	29.87	758.7	72.0	22.2	56	......	......	......	......	......	5ks	......	......	......	......	......	Normal School.
Alençon	......	......	29.84	757.9	59.7	15.4	59	SW	......	......	4	......	10	......	......	0.106	2.7	......	Normal School.
Amiens	......	......	29.72	754.8	60.1	15.6	52	SSW	......	......	8	......	5	......	SSW	0	0	......	Normal School.
Beaumette, (near Angers)	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	Beaumette Observatory.
Beauvais	......	......	29.82	757.4	57.4	14.1	58	W	......	......	3	......	8	......	W	0.188	3.5	......	Normal School.
Besançon	......	......	29.97	761.3	58.3	14.6	76	S	......	......	2	......	8	......	SW	0.582	13.5	......	Normal School.
Bourg en Bresse	......	......	29.98	761.6	57.4	14.1	84	E	......	......	2	......	10	......	E	0	0	......	Normal School.
Bourges	......	......	29.92	759.9	60.4	15.8	81	SW	......	......	4	......	10	......	S	0.067	1.7	......	Normal School.
Brest	......	......	29.80	756.8	61.3	16.3	59	WNW	......	......	3	......	5	......	WNW	0.150	3.76	......	Naval Observatory.
Caen	......	......	29.81	757.1	60.1	15.6	68	W	......	......	4	......	5	......	W	0.024	0.6	......	Normal School
Chartres	......	......	29.79	756.6	62.4	16.9	......	W	......	......	4	......	5kn	......	W	0.142	3.6	......	Normal School.
Chaumont	......	......	29.82	757.3	58.6	14.8	......	SW	......	......	6	......	..kn	......	SW	0.118	3.0	......	Normal School.
Commercy	......	......	29.88	759.[illegible]	61.2	16.2	66	WNW	......	......	8	......	8	......	NE	0.256	6.50	......	Normal School.
Le Mans	......	......	29.96	761.0	59.7	15.4	53	SW	......	......	2	......	5	......	SW	0.161	4.3	......	Normal School.
Lons-Le Saulnier	......	......	29.93	760.2	62.2	16.8	68	SW	......	......	4	......	10	......	E	0.394	10.0	......	Normal School.
Mâcon	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	
Mirecourt	......	......	29.94	760.4	57.7	14.3	76	SW	......	......	4	......	10	......	SE	0.409	10.4	......	Normal School.
Orleans	......	......	29.96	760.9	71.0	22.0	65	WSW	......	......	4	......	5	......	WSW	0.043	1.2	......	Normal School.
Paris Observatory	......	......	29.88	759.0	62.2	16.8	87	SW	......	......	2	......	10	......	......	0	0	......	National Observatory
Parthenay	......	......	29.79	756.6	6[illegible].3	15.7	......	[illegible]W	......	......	3	......	8	......	W	0.164	4.10	......	Normal School.
La Roche sur Yon	......	......	29.84	758.0	64.0	17.8	55	SW	......	......	2	......	5	......	NE	0.134	3.4	......	Normal School.
Rouen	......	......	29.79	756.7	59.7	15.4	47	WSW	......	......	6	......	10	......	W	0.042	1.2	......	Normal School.
Saint Lo	......	......	29.96	761.0	60.1	15.6	53	W	......	......	6	......	5	......	NW	0.079	2.0	......	Normal School.
Villefranche	......	......	30.12	765.1	7[illegible].4	23.0	44	NNE	......	......	1	......	10	......	W	0.630	16.0	......	Normal School
Sub-Series.																			
Gorée, (Senegambia)	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	Frère Pascall.
Mont-Louis	24.74	628.3	......	......	50.0	10.0	96	ENE	11.[illegible]	5.00	......	......	10	......	SW	0.012	0.3	......	—. Falguère.
Montsouris Observatory	......	......	29.78	756.4	58.0	14.8	43	W	......	......	4	......	5k,kn	......	WSW	0.165	4.2	......	Marié Davy.
Perpignan	29.78	756.5	......	......	65.[illegible]	18.5	6[illegible]	W	5.[illegible]	2.50	......	......	10	......	......	0	0	......	Dr. Fines.
Saint Maur, (near Paris)	......	......	29.79	756.7	61.0	16.1	44	WSW	......	......	3	......	5	......	......	0.217	5.5	......	E. Renou.
Saint Pierre, (Martinique)	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	
Tours	......	......	29.85	758.1	64.0	17.8	56	W	......	......	2	......	8	......	W	0.102	2.6	......	C. Marquet.
Versailles, (near Paris)	......	......	29.79	756.6	60.4	15.8	59	SW	......	......	3	......	7	......	......	0.527	13.30	......	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	......	......	29.87	758.8	68.0	20.0	93	ENE	3.4	1.5	......	..e	..ks	W	W	{ 0 / 0	0 / 0 }	Light fog....	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer, corrected: Inches.	Millimeters.	Reduced to sea-level: Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Wind from—	Miles per hour.	Meters per second.	Force 0—10.	Clouds Up'er 0—10.	Low'r 0—10.	Upper From—	Lower From—	Rain-fall Inches.	Millimeters.	Weather.	Observer.
Bamberg	......	......	29.75	755.6	62.6	17.0	58	W	......	......	2	......	8	......	......	0.094	2.4	......	Prof. Hoh.
Berlin	......	......	29.79	756.6	67.0	19.8	46	S	......	......	5	......	6	......	......	0	0	......	Prof. Arndt.
Breslau	......	......	29.82	757.5	75.0	23.9	43	S	......	......	2	......	8	......	......	0.016	0.4	Rainy......	Dr. P. Neugebauer.
Carlsruhe	......	......	29.84	758.0	57.4	14.1	66	SW	......	......	5	......	10	......	......	0.472	12.0	Raining......	A. Senz.
Cassel	......	......	29.67	753.7	64.2	17.9	67	W	......	......	2	......	5	......	......	0.125	3.18	......	Dr. H. Möhl.
Cologne	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	Dr. Garthe.
Emden	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	Prof. Prestel.
Frankfort on the Main	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	Physical Society.
Friedrichshafen	......	......	29.87	758.7	59.0	15.0	84	NW	......	......	......	......	10	......	......	0.886	22.5	Raining......	M. Wilhelm.
Hamburg	......	......	29.67	753.5	58.6	14.8	58	WSW	......	......	6	......	9ks	......	......	0.036	0.92	......	W. Reinert.
Kiel	......	......	29.63	752.5	55.0	12.8	77	W	......	......	4	......	9	......	......	0.004	0.10	......	Prof. G. Karsten.
Königsberg	......	......	29.69	754.0	59.5	15.3	71	W	......	......	2	......	......	......	......	0.228	5.80	Thunder-storm..	Prof. E. Luther.
Köslin	......	......	29.88	758.9	57.2	14.0	......	N[illegible]	......	......	2	......	8	......	......	0.001	0.02	......	Dr. Tägert.
Leipsic	......	......	29.78	756.3	67.0	19.8	39	SW	......	......	4	......	7	......	......	0	0	......	Prof. Bruhns.
Münster	......	......	29.69	754.2	60.6	15.9	65	SW	......	......	4	......	3	......	......	0.043	1.1	......	Prof. E. Heis.
Posen	......	......	29.77	756.2	69.8	21.0	55	W	......	......	6–7	......	10	......	......	0.001	0.03	......	Dr. Magener.
Strassburg, (in Alsace)	......	......	29.87	758.6	57.7	14.3	74	S	......	......	......	......	10	......	......	0.123	3.12	......	Hartwig and Tülk.
Stuttgart	......	......	29.85	758.3	56.7	13.7	77	W	......	......	......	......	10	......	......	0.007	0.19	Light rain....	Mr. Würth.
Thorn	......	......	29.71	754.7	7[illegible].7	22.6	48	W	......	......	4	......	6	......	......	0	0	......	Dr. H[illegible]senbalg.
Treves, (Trier)	......	......	29.72	755.0	62.6	17.0	54	SW	......	......	8	......	10	......	......	0.090	2.28	......	Prof. Flesch.
Wustrow	......	......	29.66	753.3	54.0	12.2	56	W	......	......	2	......	4k	......	......	0	0	......	E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations.	Barometer, corrected: Inches.	Millimeters.	Reduced to sea-level: Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Wind from—	Miles per hour.	Meters per second.	Force 0—10.	Clouds Up'er 0—10.	Low'r 0—10.	Upper From—	Lower From—	Rain-fall Inches.	Millimeters.	Weather.	Observer.
Moncalieri	......	......	29.80	757.0	73.2	22.9	51	E	3.1	1.4	......	......	9	W	......	0.008	0.2	......	
Mondovi	......	......	29.80	756.9	70.7	21.5	61	SSE	......	......	4	......	2	WSW	......	0	0	......	
Genoa	......	......	29.93	760 1	72.5	22.5	65	SE	11.2	5.0	......	......	2	E	......	0	0	......	
Pavia	......	......	29.83	757.6	75.4	24.1	43	NE	......	......	1	......	2	SW	......	0	0	......	
Verona	......	......	29.82	757.3	82.4	28.0	64	E	......	......	1	......	10	......	......	0	0	......	
Padua	......	......	29.85	758.3	74.7	23.7	54	ESE	2.5	1.1	......	......	9	......	......	0	0	......	
Parma	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	
Bologna	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	
Leghorn	......	......	29.95	760.7	71.2	21.8	69	[illegible]	14.1	6.3	......	......	4	......	......	0	0	......	
Urbino	......	......	29.94	760.4	73.4	23.0	38	SW	......	......	2	......	4	......	......	0	0	......	
Ancona	......	......	29.93	760.2	77.4	25.2	59	SE	......	......	4	......	2	......	......	0	0	......	
Siena	......	......	29.93	760.1	77.0	25.0	35	WSW	8.8	1.7	......	......	3	NW	......	0	0	......	
Rome	......	......	29.98	761.6	78.4	25.8	30	WSW	6.9	3.1	......	......	1	......	......	0	0	......	
Naples, O.U.	......	......	29.98	761.6	80.6	27.0	40	SW	......	......	2	......	1	......	......	0	0	......	
Lecce	......	......	30.02	762.5	74.1	23.4	30	SSW	11.9	5.3	......	......	8	......	......	0	0	......	
Cosenza	......	......	30.00	762.1	71.1	21.7	76	E	......	......	1	......	8	......	......	0	0	......	
Catania, (Sicily)	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	
Riposto	......	......	29.97	761.3	76.1	24.5	51	E	......	......	2	......	4	W	......	0	0	......	
Palermo	......	......	29.95	760.6	71.8	22.1	71	NE	......	......	2	......	8	......	......	0	0	......	
Sub-Series.																			
Naples, S. R.	......	......	30.03	762.8	79.2	26.2	41	ENE	......	......	3	......	......	......	......	0	0	......	Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.71	754.7	54.0	12.2		W			4								
Groningen			29.57	751.0	54.3	12.4		WSW			5								
Helder			29.61	752.1	54.3	12.4		SW			4								
Utrecht			29.63	752.6	55.9	13.3	64	SW					8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

NORWEGIAN SERIES.

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

Stations.	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.	Weather.	Observer.
Bergen			29.14	740.2	46.4	8.0	86	S SW	12.3	5.5			10			1.220	31.0	Raining	
Christiania			29.25	743.0	54.1	12.3	69	S	17.7	7.9			8			0	0		
Tromsö			29.44	747.7	45.0	7.2	77	SW			2		5			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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.	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.	Weather.	Observer.
Lisbon	29.72	755.0			65.3	18.5	51	N	28.0	12.8			3						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

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

Stations.	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.	Weather.	Observer.
Warsaw			29.68	753.9	75.2	24.0	51	W	13	6			10						Astronomical Obs.
Wilna			29.75	755.6	62.1	16.7	66	S	4	3			10						Astronomical Obs.
Dorpat			29.75	755.7	70.2	21.2	31	S	9	4			4						Physical Cabinet.
St. Petersburg			29.84	757.9	56.7	13.7	46	Calm	0	0			1						Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			29.95	760.8	71.9	21.7	58	ESE	7	3			9						
Nikolaiev			30.06	763.4	64.2	17.9	57	S	10	4.5			9						Lagorio.
Kertch			29.91	759.8	68.0	20.0	63	SE	10	4.5			6						Meteorological Obs.
Moscow			29.90	759.5	56.3	13.5	38	WNW	10	4.5			5						Meteorological Obs.
Lugan			29.95	760.7	70.0	21.1	22	WSW	17	7.5			1						Ogorodnikof.
Archangel			29.75	755.6	32.4	0.2	96	WNW	20	9			10						Physical Obs.
Tiflis			30.00	762.1	79.2	26.2	28	S	2	1			3						Physical Obs.
Astrakhan			30.15	765.9	70.2	21.1	27	WSW	13	6			2						Sebastianof.
Kasan			29.61	752.0	52.7	11.5	53	SW	6	2.5			8						Physical Cabinet.
Orenburg																			Tschernischef.
Ekaterinburg			29.64	752.8	56.7	13.7	50	NW	4	2			6						Meteorological Obs.
Kasaly			29.91	759.8	71.6	22.0	82	WSW	13	6			0						Bobrof.
Tashkend			29.91	759.7	82.6	28.1	65	Calm	0	0			7						Michelson.
Barnaul			29.76	755.8	67.5	19.7	71	SE	8	3.5			3						Meteorological Obs.
Yeniseisk			29.76	755.8	56.7	13.7	42	N	4	2			0						Marks.
Irkutsk			29.65	753.2	46.8	8.2	53	Calm	0	0			10					Foggy	Usolzef.
Oorga			29.63	752.7	52.7	11.5	100	Calm	0	0			0						Mossin.
Peking, (China)			29.69	754.1	76.1	24.5	27	NE	8	3.5			6						Physical Observatory
Nertchinsk			29.70	754.4	47.1	8.4	54	Calm	0	0			5						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					31.8	— 0.1	81	SE	4	2			0						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	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.	Weather.	Observer.
Madrid			29.82	757.4	77.9	25.5	28	NW	17.9	8.00		2	4	NW		0	0		Royal Observatory
San Fernando																			The Naval Observatory

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.58	751.3	52.9	11.6	69	SW			2		6			0	0		
Hernosand			29.41	747.1	48.4	9.1	65	S.			5		4			0.14	3.6		
Stockholm			29.41	747.1	50.7	10.4	57	S E			3		10			0.16	4.0	Light rain	
Wisby			29.69	754.0	57.6	14.2	69	W			1		4			0	0		
Sub-Series.																			
Upsala			29.40	746.8	56.7	13.7	51	S			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.52	724.5			54.0	12.2	93	SSW			2		10			0.39	10.0	Raining	The Observatory.
Zurich	28.28	718.3			52.3	11.3	90	W			1		10			0.27	6.8	Rainy	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.8mm.; Thermometer, —4°.8 C.; Relative Humidity, +36 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.92	759.9	74.5	23.6	67	N			2		0						Prof. C. N. A. Van Dyck.
Constantinople			30.04	763.1	75.9	24.4	33	E	8.9	4			0			0	0		
Bas. (Persian Gulf)			29.90	759.4	86.0	30.0		SE			3		10						
Salonica					82.8	28.2		SW			2		0						
Valona			30.00	761.9	82.0	27.8		SW			3		5						
Varna			29.99	761.7	71.6	22.0		NE			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.14	765.5	48	8.9		Calm	0	0			10s		S	0	0		
Chatham, N. B.			30.18	766.6	38	3.3	95	N	13	5.8			10s		NE	0.12	3.0	Light rain	
Charlottetown, P. E. Island			30.13	765.3	44	6.7	94	E	6	2.7			10n			0.850	21.59	Light rain	
Fort Garry, Manitoba			29.97	761.2	49	9.4	93	W	2	0.9		0	0			0	0		
Halifax, N. S.			29.95	760.7	49	9.4	100	SE	12	5.4			10n			1.913	48.56	Heavy rain	
Kingston, Ontario			30.14	765.5	50	10.0	86	NE	1	0.4		10cs	0			0	0		
Montreal, Quebec			30.05	763.3	48	8.9	67	NE	10	4.5			10n		NE	0.04	1.0		
Ottawa, Ontario			30.09	764.3	47	8.3	77	N	2	0.9		2k	8s	N	N	0	0	Threatening	
Parry Sound, Ontario			30.10	764.5	55	12.8	50	W	5	2.2		0	2s		N	0	0		
Port Dover, Ontario			30.12	765.0	50	10.0	72	NW	3	1.3		0	0			0	0		
Port Stanley, Ontario			30.10	764.5	50	10.0	66	E	6	2.7		5k	0	E		0	0		
Quebec, Quebec			30.05	763.3	45	7.2	61	NE	18	8.0			10n		NE	0	0		
Saugeen, Ontario			30.09	764.3	51	10.6	59	W	1	0.8		0	0			0	0		
Stayner, Ontario			30.08	764.0	56	13.3	65	Calm	0	0		0	0			0	0		
Sydney, C. B.			30.30	769.6	42	5.6	99	E	3	1.3			Fog			0.09	2.3	Foggy	
Toronto, Ontario			30.13	765.3	48	8.9	56	SW	1	0.8		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.05	763.3	48	8.9	100	Calm	0	0			10n			0.08	2.0	Light rain	
Alpena, Mich.			30.03	762.7	49	9.4	57	SE	5	2.2			10s		SE	0	0		
Atlantic City, N. J.			30.14	765.5	52	11.1	79	SW	11	4.9		...cs	Haze			0	0		
Augusta, Ga.			30.21	767.3	62	16.7	56	SE	6	2.7		0	0			0	0		
Baltimore, Md.			30.14	765.5	54	12.2	60	SW	3	1.3		2ck	Haze	W		0	0		
Barnegat, N. J.			30.12	765.0	52	11.1	79	SE	2	0.9		0	8s		SE	0	0		
Benton, Montana			30.07	763.8	44	6.7	67	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.72	754.9	55	12.8	68	S	4	1.8		8k	0	S		0	0		
Boston, Mass.			30.01	762.2	46	7.8	92	NW	6	2.7			10n		NW	0.06	1.5	Light rain	
Breckenridge, Minn.			29.95	760.7	54	12.2	86	S	4	1.8		0	0			0	0		
Buffalo, N. Y.			30.10	764.5	47	8.3	62	S	4	1.8		2c	Sm'e			0	0		
Burlington, Vt.			30.00	762.0	45	7.2	84	N	7	2.7			10n			0.12	3.0	Light rain	
Cairo, Ill.			30.17	766.3	55	12.8	68	Calm	0	0		2c	0	NW		0	0		
Cape Hatteras, N. C.			30.24	768.1	57	13.9	62	Calm	0	0		0	Haze			0	0		
Cape Henry, Va.			30.22	767.6	57	13.9	58	W	12	5.4		Haze	Haze			0	0		
Cape May, N. J.			30.15	765.8	51	10.6	72	SW	16	7.2		Haze	0			0	0		
Charleston, S. C.			30.26	768.6	65	18.3	57	N	4	1.8		8cs	2s	N	N	0	0		
Cheyenne, W. T.			30.02	762.5	48	8.9	71	W	1	0.4		8c	Haze			0	0		
Chicago, Ill.			30.10	764.5	55	12.8	50	SW	7	3.1		0	0			0	0		
Cincinnati, Ohio			30.19	766.9	52	11.1	71	W	2	0.9		0	Sm'e			0	0		
Cleveland, Ohio			30.06	764.5	56.5	13.6	40	S	5	2.2			8ks		SW	0	0		
Colorado Springs, Col.			30.02	762.5	46	7.8	84	N	2	0.9		2c	2s	W		0	0		
Corsicana, Texas			30.07	763.8	69	20.6	90	SW	9	4.0			10s		S	0	0		
Davenport, Iowa			30.17	766.3	57	13.9	46	Calm	0	0		5c	Sm'e			0	0		
Denver, Col.			30.07	763.8	53	11.7	61	Calm	0	0		5ck	0	SW		0	0		
Detroit, Mich.			30.05	763.3	55	12.8	38	NW	6	2.7			10s			0	0		
Dodge City, Kansas			29.66	753.4	62	16.7	77	SE	4	1.8		5k	0			0	0		
Dubuque, Iowa			30.12	765.0	54	12.2	67	SE	2	0.9		2cs	0			0	0		
Duluth, Minn.			30.01	762.2	47	8.3	55	Calm	0	0		2c	Sm'e			0	0		
Eastport, Me.			29.97	761.2	42	5.6	100	NE	22	9.8			10s			0.37	9.4		
Erie, Penn.			30.08	764.0	58	14.4	47	NE	4	1.8		2k	Haze			0	0		
Escanaba, Mich.			30.06	763.5	46	7.8	76	N	4	1.8		5cs	Haze			0	0		
Fort Gibson, I. T.			30.00	762.0	68	20.0	79	SE	6	2.7		6k	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.84	757.9	61	16.1	71	SE	4	1.8		0	0			0	0		
Galveston, Texas			30.10	764.5	77	25.0	72	S	5	2.2		2c	0			0	0		
Grand Haven, Mich.			30.08	764.0	52	11.1	40	SW	6	2.7		5c	Haze	NE		0	0		
Indianapolis, Ind.			30.15	765.8	57	13.9	52	Calm	0	0		2cs	Sm'e			0	0		
Indianola, Texas			30.10	764.5	77	25.0	77	S	6	2.7		Haze	5ks		S	0	0		
Jacksonville, Fla.			30.26	768.6	68	20.0	64	E	1	0.4		0	0			0	0		
Keokuk, Iowa			30.07	763.8	57	13.9	52	SE	2	0.9			10s		SE	0	0		
Key West, Fla.			30.10	764.5	74.0	23.3	72	NE	24	10.7		2c	5s	W		0.18	4.6		
Kittyhawk, N. C.			30.26	768.6	53	11.7	59	SW	9	4.0		Haze	0			0	0		
Knoxville, Tenn.			30.23	767.8	50	10.0	58	Calm	0	0		2c	Haze	NW		0	0		
La Crosse, Wis.			30.08	764.0	57	13.9	63	S	6	2.7		2c	Haze			0	0		
Leavenworth, Kan.			30.05	763.3	57	13.9	87	Calm	0	0		0	Fog			0.10	2.5	Foggy	
Lexington, Ky.			30.18	766.6	60	15.6	44	SW	6	2.7		0	0			0	0		
Long Branch, N. J.			30.13	765.3	50	10.0	71	S	5	2.2			10s			0.01	0.3		
Louisville, Ky.			30.14	765.5	65	18.3	49	Calm	0	0		0	Fog			0	0		
Lynchburg, Va.			30.22	767.6	52	11.1	66	NW	1	0.4		2ck	Haze			0.02	0.5		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	46	7.8	62	Calm	0	0		5cs	Haze			0	0		
Memphis, Tenn.			30.15	765.8	60	15.6	59	SE	3	1.3			10s			0	0		
Milwaukee, Wisconsin			30.08	764.0	60	15.6	34	W	14	6.3		Haze	Haze			0	0		
Mobile, Ala.			30.19	766.8	68	20.0	79	S	2	0.9			10s			0	0		
Montgomery, Ala.			30.20	767.1	65	18.3	81	SW	2	0.9		5k	Haze	NW		0	0		
Morgantown, W. Virginia			30.14	765.5	53	11.7	47	S	1	0.4		0	Sm'e			0	0		
Mt. Washington, N. H.			29.96	761.0	25	— 3.9	100	NE	16	7.2			Fog			0	0		
Nashville, Tenn.			30.20	767.1	58	14.4	64	Calm	0	0		5k	5s	W		0	0		
New Haven, Conn.			30.10	764.5	49	9.4	77	W	6	2.7			10s			0.25	6.3		
New London, Conn.			30.10	764.5	46	7.8	88	W	4	1.8			10n		W	0.53	13.5	Light rain	
New Orleans, La.			30.15	765.8	68.5	20.3	82	SE	2	0.9			10ks		SE	0.10	2.5		
Newport, R. I.																			
New York, N. Y.			30.12	765.0	48	8.9	70	E	3	1.3			10s			0.01	0.3		
Norfolk, Va.			30.23	767.8	55	12.8	56	SW	13	5.8		Haze	0			0	0		
North Platte, Neb.			29.53	750.0	58	14.4		Calm	0	0		2c	0			0	0		
Omaha, Neb.			30.02	762.5	57	13.9	97	Calm	0	0		0	Fog			0.02	0.5	Foggy	
Oswego, N. Y.			30.10	764.5	46	7.8	64	N	6	2.7			10s			0	0		
Peck's Beach			30.15	765.8	54	12.2	68	SW	24	10.7			10s			0	0		
Pembina, D. T.			29.93	760.2	55	12.8	74	S	4	1.8		0	0			0	0		
Philadelphia, Penn.			30.12	765.0	50	10.0	64	W	11	4.9		Haze	0			0	0		
Pike's Peak, C. T.			30.12	765.0	24	— 4.4	74	SW	8	3.6		2k	Haze	NE		0	0		
Pittsburgh, Penn.			30.15	765.8	46	7.8	68	Calm	0	0						0	0	Dense smoke	
Port Huron, Mich.			30.08	764.0	49	9.4	77	Calm	0	0		2c	5s	N		0	0		
Portland, Maine			29.98	761.5	44	6.7	92	NE	11	4.9			10n			0.05	1.3	Light rain	
Portland, Or.			30.12	765.0	43	6.1	70	Calm	0	0		5k	5ks			0	0		
Punta Rassa, Fla.			30.18	766.6	70.6	21.4	52	NE	15	6.7		2c	Haze	NW		0	0		
Rochester, N. Y.			30.08	764.0	49	9.4	57	W	4	1.8			10s		W	0	0		
Salt Lake City, Utah			29.90	759.4	59	15.0	54	S	2	0.9			10s			0	0		
Sandy Hook, N. J.			30.11	764.8	49	9.4	85	SE	1	0.4			10s		SE	0.02	0.5		
San Diego, Cal.			29.99	761.7	60	15.6	76	SE	8	3.6			10s			0	0		
San Francisco, Cal.			29.95	760.7	51	10.6	86	SW	10	4.5			10s			0	0		
Santa Fe, N. M.			29.79	756.7	49	9.4	37	S	8	3.6		5c	0	SW		0	0		
Savannah, Georgia			30.24	768.1	66	18.9	64	W	3	1.3		5ck	Sm'e			0	0		
Shreveport, La.			30.12	765.0	69	20.6	90	SE	4	1.8			10s			0	0		
Springfield, Mass.			30.06	763.5	48	8.9	77	W	4	1.8			10n			0.20	5.1	Light rain	
St. Louis, Mo.			30.15	765.8	60	15.6	49	S	1	0.4		10cs	0			0	0		
St. Marks, Fla.			30.22	767.6	64	17.8	73	NE	3	1.3		0	0			0	0		
St. Paul, Minn.			29.99	761.7	56	13.3	62	SE	4	1.8		10ck	Haze	W		0	0		
St. Paul's Island, Alaska			29.86	758.4	34	1.1	79	WNW	13	5.8		...ks	10k			0.12	3.0		
Squan Branch, N. J.			30.13	765.3	50	10.0	77	S	6	2.7			10s		S	0	0		
Toledo, Ohio			30.07	763.8	61	16.1	35	SW	12	5.4		Haze	5s		NW	0	0		
Tybee Island, Ga.			30.27	768.8	68	20.0	68	NE	4	1.8		0	Sm'e			0	0		
Vicksburg, Miss.			30.23	767.8	62	16.7	94	S	3	1.3			10s		S	0.26	6.6	Threatening	
Virginia City, Mon.			29.70	754.4	41	5.0	74	E	8	3.6		0	0			0.08	2.0		
Washington, D. C.			30.17	766.3	59.5	15.3	64	Calm	0	0		2k	5s	W		0	0		
Wilmington, N. C.			30.27	768.8	60	15.6	70	SE	2	0.9		2k	Haze	N		0	0		
Wood's Hole, Mass.			30.06	763.5	44	6.7	84	NW	12	5.4			10n			0.14	3.5	Light rain	
Wytheville, Va.			30.04	763.0	46	7.8	61	W	2	0.9		0	Sm'e			0	0		
Yankton, D. T.			30.00	762.0	60	15.6	76	Calm	0	0		1cs	0	NW		0	0		

NOTE.—The ... give the cloudi... a scale from 0 to 1.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.05	763.3	81	27.2	87	NE	7	3.1		3k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.98	761.5	79	26.1	78	E				2c	2ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.80	756.9	77	25.0	72	E	6	2.7		8c	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.18	766.6	78	25.6	82	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.			30.17	766.3	79	26.1	74	E	10	4.5		5ck	5kn	E		0	0	Hazy	W. S. Cameron.
Santiago de Cuba, W. I.			29.83	757.7	76	24.4	72	N	2.4	1.1		8c	0	SW		Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.09	764.3	73	22.8	85	SSW	5.8	2.6			10n			0.630	16.0		C. F. Allen.
Honolulu, Oahu, S. I.			30.19	766.8	65	18.3	75	NE			2	5c	5k	NE		0	0		E. P. Church.
Makawao, Maui, S. I.	29.80	708.4			60.5	15.9	83	E			4	0	2ks			0.33	8.4	Stormy	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.09	761.7	32.0	0.0	100	E	10	4.5			10s			0.88	22.4		J. Fortescue.
Clifton, Jamaica, W. I.			29.98	761.5	66	18.9	84	S				0	9k			1.09	27.7		C. Partridge.
St. John's, Newfoundland																			John Delaney.
St. John's, Porto Rico, W. I.									4	1.8									Leon M. Acuña.
Elyria, Ohio			30.08	764.0	54	12.2	86	SW					10s			0	0		H. M. Redington.
Indianola, Iowa	29.12	739.6			64	17.8	66	SE				0	7ns			0	0		G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 20, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.88	758.9	68.0	20.0		WNW			3		6			0	0		Charnot.
Algiers			29.93	760 2	72.7	22.6	77	N			2		4			0	0		Peter.
La Calle					73.4	23.0													Kuntz.
Philippeville			29.98	761.4	83.7	28.7		E			4		2			0	0		Jacques.
Sétif			30.02	762.5	75.0	23.9	48	SE			4		1			0	0		Chauvey.
Tebessa			29.97	761.1	80.0	30.0	67	SSE			2		0			0.039	1.0	Stormy	Grosjean.
Teniet			29.98	761.4	80.6	27.0		W			4		0			0	0		Colin.
Laghouat			30.03	762.8	78.8	26.0		NE			1		0			0.394	10.0	Stormy	Bernadach.
Biskra			30.01	762.2	84.2	29.0	31	N			2		0			0.197	5.0	Threatening	Poinsignon.
			29.98	761.6	89.6	32.0		E			0		6			0	0	Sand-fall	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.04	763.0	66.9	19.4	50	Calm			0		7			0	0		Prof. Ivan Stozir.
Buda-Ofen																			I. R. Cen. M. I., Hungary
Cracow			30.04	763.1	61.7	16.5	72	W			3		10			0.020	0.5		I. R. Observatory.
Gperles			29.98	761.6	57.9	14.4	70	Calm			0		5			0.077	1.95		Julius Mikolik.
Gratz			30.07	763.8	60.6	15.9	77	S			2		10			0.728	18.5		Andreas Rospini.
Hermannstadt			29.94	760.4	64.4	18.0	68	WSW			1		10			0.177	4.50	Raining	Prof. Reissenberger.
Kremsmünster			30.04	763.0	60.4	15.8	64	E			1		3			0	0		Prof. C. Wagner.
Lemberg			30.32	770.0	63.3	17.4	57	E			4		0			0	0		Dr. T. Stanecki.
Krakau			29.93	760.2	68.0	20.0	72	SW			3		6			0	0		Habzsuda Daniel.
Pola			29.98	761.6	73.8	23.2	64	S			2		2ks			0	0		I.R. Hydrographic Office
Rovereddo			29.94	760 5	72.7	22.6	50	NW			2		4			0	0		Karl Stancel.
Trieste			29.99	761.7	72.9	22.7	59	NW			1		10			0	0		Prof. V. Farelli.
Vienna			30.04	763.0	63.1	17.3	56	W			2		8			0.020	0.5		I.R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.74	755.3			62.1	16.7	54	SW			3		9k, ck		SW	0	0	Solar halo	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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—	Wind. Velocity. Miles per hour.	Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Low'r. 0—10.	Clouds. Direction. Upper. From—	Lower. From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Aberdeen			29.41	747.0	52.4	11.3		SSE	22	9.8			5			0.90	22.86		William Boswell.
Annanhill																			
Ardrossan			29.35	745.5	55	12.8		SW			3		4						William McNeil.
Armagh Observatory			29.40	746.7	56.0	13.3		WSW	11	4.9			8					Squally	S. Cal, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.48	748.8	57.9	14.4		SW			4		6						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.50	749.3	58.7	14.8		WSW			4-5		6					Showery	J. Dreyer, for L'd Rosse.
Bradford			29.47	748.5	52.6	11.4		SW			4		10					Raining	J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.05	763.3	83.0	28.3		NE			2		6						T. H Hunt.
Bywell																			
Cambridge Observatory			29.69	754.1	54.0	12.2		S			3		10					Raining	H. Todd.
Cape Town, (Cape Colony)			29.84	757.9	77.0	25.0		W			3		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.85	758.2			77.9	25.5	38	WNW	15	6.7			4						Th Staff, for E. J. Stone.
Cardington			29.68	753.9	59.0	15.0		SW					10					Raining	John McLaren.
Carlisle			29.47	748.5	58.2	14.6		S					8			0.11	2.8		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.78	756.4	53.0	11.7		WSW			4		10						Q. M. Sergt J. Conroy.
Colombo, (Ceylon)			29.90	759.4	80.5	26.9		SE			1		7						Sgt. W. F. Hopkins.
Dartmoor			29.80	756.9	50.8	10.4		W			7		10					Fog & rain	R. E. Power.
Donaghadee			29.36	745.7	55	12.8		W			3		10						J. Mac Gowan, Jr.
Dover			29.85	758.2	54	12.2		SW			5		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.51	749.5	54.5	12.5		SW	4.2	1.9			9						Thomas Mackereth.
Falmouth Observatory			29.76	755.9	56.1	13.4		SW	34	15.2			10					Raining	The Staff.
Fort Napier, (Natal)			29.95	760.7	73.0	22.8		E			3		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.81	757.2	87.0	30.6		N					6						
Galway, Queen's College			29.60	751.8	53	11.7		SW			6		8						B. G. Clare, for Prof. Cur
Gibraltar, (Mediterranean)			29.89	759.2	66.0	18.9		ENE			4		8						Sergt. E. G. Baker.
Glasgow Observatory			29.35	745.5	53.4	11.9		W			3		6						James Gray.
Great Yarmouth			29.74	755.4	55	12.8		SW			4		5					Rainy	G. T. Watson.
Greenwich Royal Obs.			29.76	755.9	52.9	11.6		SW			5		10			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			29.86	758.4	59	15.0		SW			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.46	748.3	54.1	12.3		SW					10					Raining	F. J. P..e, for L. J. Crossley.
Halifax, (Nova Scotia)			30.21	767.3	46.8	8.2		SW			2		10			Blank	Blank		Corp'l J. .. Thompson.
Helston			29.73	755.1	59	15.0		SW			6		10					Showery	Dr. W. B. ..vle.
Holyhead			29.95	760.7	54	12.2		SW			5		10					Showery	John Tilston.
Hull Park																			
Kew Observatory			29.75	755.6	52.6	11.4		SW	25	11.2			10						The Staff.
Kingstown			29.47	748.5	54	12.2		W			4		6					Showery	George Mitchell.
Lampeter																			
Leicester Museum			29.62	752.3	52.5	11.4		SW			7		10					Raining.	William J. Harrison.
Llandudno			29.51	749.5	51.8	11.0		SW					10					Showery	Dr. James Nicol.
Malta, (Mediterranean)			30.00	762.0	72.0	22.2		NE			1		1k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.31	744.5	60	15.6		W			1		10						William D. Penny.
Nassau, (Bahamas)			30.19	766.9	75.2	24.0		NE			5		6						Surg.-Maj. J. Jameson.
North Shields			29.46	748.3	54	12.2		SW			5		9						John Wm. Irvine.
Nottingham			29.58	751.3	56.3	13.5		SSW			6		10d		SSW			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.58	751.3	55.2	12.9		SSW			6		9					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.64	752.8	53	11.7		SW			5		10					Raining	J. Lucas, for R. Main.
Plymouth			29.74	755.4	57	13.9		SW			5		10					Squally	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.58	751.3	55	12.8		WSW			4		5						W. Kennedy.
Saint Ann's Head			29.64	752.8	54	12.2		WSW			4		5						John C. Walker.
Saint Helier, (Jersey)			29.89	759.2	58.6	14.8		W			6		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			29.53	750.0	51.3	10.7		S			5		10					Raining	F. Shaw.
Scutari, (Turkey)			29.93	760.2	68.2	20.1		SW			1		3						Sergt. W. H. Lyne.
Sheffield			29.58	751.3	54.6	12.6		SW			3		10			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.41	747.0	60.0	15.6		SW			6		7			0.040	1.02		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.76	755.9	54.1	12.3		SSW			3		10					Raining	Rev. C. J. Steward.
Stonyhurst Observatory			29.49	749.0	51.7	10.9		SW			3		8					Threatening	The Staff.
Stornoway, Lews C. (Hebr)			29.25	742.9	52	11.1		SSW			6		10					Showery	John Smith.
Strathfield Turgiss			29.76	755.9	55.3	12.9		W			1		10					Raining	Rev Charles H. Griffith.
Streatley Vicarage			29.72	754.9	54.2	12.3		SSW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.30	744.2	56	13.3		SW			2		7						John Trotter.
Truro, Royal Institution			29.74	755.4	59	15.0		W			6		10					Raining	W. Newcombe.
Valencia Observatory			29.56	750.8	57	13.9		SW	30	13.4			3						The Staff.
Wick																			
Wisbeach																			
Worthing			29.80	756.9	53.6	12.0		SW			6		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Stations.	Corr. Inches	Corr. mm	Red. Inches	Red. mm	Fahr.	Cent.	Per cent	Wind From—	Miles per hour	Meters per second	Force 0—10	Up'er 0—10	Low'r 0—10	Upper From—	Lower From—	Rain Inches	Rain mm	Weather
Copenhagen			29.83	757.6	56.3	13.5	57	SW			4		7					
Fanöe																		
Godthaab, (Greenland)																		
Stykkisholm, (Iceland)			28.90	734.0	42.4	5.8	70	E			0		5					
Thorshavn, (Faröe)			29.16	740.7	52.5	11.4	70	WSW			2		6					
Vestervig			29.73	755.1	53.6	12.0	78	SW			6		3					

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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.	Barometer. 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. Upper 0—10.	Low'r 0—10.	Direction. Upper From—	Lower From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Ajaccio			29.91	759.8	75.0	23.9	66						1s						Normal School.
Alençon			29.97	761.3	63.3	17.4	55	SW			3		8ck			0	0		Normal School.
Amiens			29.97	761.3	68.0	20.0	41	SW			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.98	761.6	64.2	17.9	37	SW			4		8		SW	0.157	4.0		Normal School.
Besançon			30.10	764.5	65.5	18.6	60	SSE			2		2		SW	0.559	14.2		Normal School.
Bourg en Bresse			30.11	764.7	69.8	21.	48	NW			2		2		NE	0	0		Normal School.
Bourges			30.01	763.1	65.5	18.6	77	WSW			4		5		S	0.252	6.4		Normal School.
Brest			29.85	758.3	63.9	17.7	70	SW			4		10		W-W	0	0	Mist	Naval Observatory.
Caen			29.94	760.4	63.3	17.4	72	S			4		10			0.098	2.5		Normal School.
Chartres			29.91	759.6	63.9	17.7		SW			4		2c		[illegible]	0	0		Normal School.
Chaumont			29.99	761.8	66.9	19.4		SSW			3		[illegible]		SSW	0.098	2.5		Normal School.
Commercy			30.10	764.6	63.0	17.2	55	WSW			4		8		NE	0.157	4.00		Normal School.
Le Mans			30.14	765.4	62.4	16.9	46	SW			4		2		SW	0.024	0.6		Normal School.
Lons-Le Saulnier			30.08	764.0	65.5	18.6	62	SSW			1		2		E	0.457	11.6		Normal School.
Mâcon																			
Mirecourt			30.17	760.2	61.3	16.3	59	S			1		8		N	0.165	4.2		Normal School.
Orleans			30.14	765.5	78.8	26.0	43	W			2		2		WSW	0	0		Normal School.
Paris Observatory			29.97	761.2	66.4	19.1	...	S			2		8		SW	0.008	0.20		National Observatory
Parthenay			30.02	762.4	63.0	17.2	63	SW			6		5		SW	0.335	8.5		Normal School.
La Roche sur Yon			30.04	763.1	64.0	17.8	52	S			4		2		N	0	0		Normal School.
Rouen			29.93	760.3	65.1	18.4	43	SSW			2		2 ●			0	0		Normal School.
Saint Lo			29.98	760.1	65.3	18.5	63	W			6		5		NW	0.126	3.2		Normal School.
Villefranche			30.11	761.8	68.9	20.5	52	SSW			1		5		SW	0.079	2.0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.88	631.9			55.0	12.8	78	E	13.0	5.83			4		SW	0	0		—. Faigtère.
Montsouris Observatory			29.97	761.2	66.7	19.3	36	SW			4		3c, ck		WSW	0.016	0.4		Marié Davy.
Perpignan	29.90	759.4			75.2	24.0	39	SE	3.7	1.07			1		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.98	761.4	67.5	19.7	37	SW			3		3			0.035	0.9		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.01	762.3	66.2	19.0	37	W			3		2		W	[illegible]	0		C. Marquet.
Versailles, (near Paris)			29.98	761.4	64.8	18.2	40	WSW			3		7			0.063	0.16		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.88	759.0	67.1	19.5	92	SE	6.9	3.1		0	0			{ 0 / 0	0 / 0 }		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Corrected Inches.	Millimeters.	Reduced Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Direction From—	Miles per hour.	Meters per second.	Force 0—10.	Upper 0—10.	Low'r 0—10.	Upper From—	Lower From—	Rain Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.95	760.7	61.2	16.2	42	W			2		3			0	0		Prof. Hoh.
Berlin			30.06	763.4	65.3	18.5	38	W			4		4			0	0		Prof. Arndt.
Breslau			30.11	764.7	62.4	16.9	30	WSW			4		6			0.276	7.0		Dr. P. Neugebauer.
Carlsruhe			30.01	762.3	64.8	18.2	54	SW			3		9			0.158	4.0		A. Senz.
Cassel			29.52	760.0	63.5	17.5	40	SW			4		2			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.06	763.4	60.8	16.6	69	-					3			0	0		M. Wilhelm.
Hamburg			29.93	760.2	61.2	16.2	50	SW			5		6ks			0.025	0.65		W. Reinert.
Kiel			29.91	759.7	59.5	15.3	53	SW			3		8			0	0		Prof. G. Karsten.
Königsberg			29.94	760.5	59.4	15.0	56	W			2					0.378	9.6		Prof. E. Luther.
Köslin			30.14	765.6	57.2	14.0		NW			4		2			0	0		Dr. Tägert.
Leipsic			30.04	762.9	64.9	18.3	31	SW			3		3			0	0		Prof. Bruhns.
Münster			29.96	761.0	66.9	19.4	42	SW			2		0			0.165	4.2		Prof. E. Heis.
Posen			30.14	765.5	63.1	17.3	40	W			5		5			0.114	2.9		Dr. Magenor.
Strassburg, (in Alsace)			30.03	762.8	66.0	18.9	44	SW					9			0	0		Hartwig and Tölk.
Stuttgart			29.99	761.8	62.6	17.0	70	NE					6			0.043	1.1		Mr. Würth.
Thorn			30.00	761.9	62.6	17.0	40	W			5		6			0.472	12.0		Dr. [illegible]senbalg.
Treves, (Trier)			29.96	761.0	63.7	17.6	44	W			9		10			0	0		Prof. Flesch.
Wustrow			29.93	760.2	52.9	11.6	64	W			3		6s			0.070	0.43		E. Fritschütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations.	Corrected Inches.	Millimeters.	Reduced Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Direction From—	Miles per hour.	Meters per second.	Force 0—10.	Upper 0—10.	Low'r 0—10.	Upper From—	Lower From—	Rain Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.93	760.3	73.8	23.2	47	S	1.8	0.8			3	N		0	0		
Mondovi			29.92	760.0	69.8	21.0	53	SE			2		5			0	0		
Genoa			30.00	761.9	73.4	23.0	63	SE	5.6	2.5			2	SE		0	0		
Pavia			29.93	760.3	75.9	24.4	48	WNW			1		4	SW		0	0	Showery	
Verona			29.89	759.3	82.4	28.0	44	S			2		3			0	0		
Padua			29.93	760.2	75.6	24.2	44	SW	4.3	1.9			8			0	0		
Parma																			
Bologna																			
Leghorn			29.99	761.7	74.5	23.6	57	SW	4.3	1.9			3			0	0		
Urbino			29.97	761.1	74.3	23.5	39	SE			2		3			0	0		
Ancona			29.97	761.3	75.6	24.2	51	SE			4		2	S		0	0		
Siena			29.96	761.0	74.3	23.5	47	SSE	0	0			8	W		0	0		
Rome			30.03	762.7	79.5	26.4	43	S	6.3	2.8			4			0	0		
Naples, O.U.			30.02	762.4	81.3	27.4	35	S			2		1			0	0		
Lecce			29.99	761.8	75.9	24.4	57	NE	4.9	2.2			0			0	0		
Cosenza			30.02	762.4	83.7	28.7	42	E			2		4	NE		0	0		
Catania, (Sicily)																			
Riposto			29.99	761.7	73.9	23.3	71	SE			2		2	W		0	0		
Palermo			29.90	761.0	72.3	22.4	72	NE			4		0			0	0		
Sub-Series.																			
Naples, S. R.			30.07	763.6	79.9	26.6	43	WNW			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.92	759.9	60.8	16.0		WSW			4								
Groningen			29.83	757.6	59.0	15.0		SW											
Helder			29.85	758.2	56.1	13.4		SSW			5								
Utrecht			29.87	758.6	62.4	16.9	48	SSW			4		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.45	748.0	50.5	10.3	71	S	30.9	13.8			10			0.059	1.5		
Christiania			29.56	750.7	50.0	10.0	76	SSW	15.7	7.0			6			0.420	10.9		
Tromsö			29.26	743.3	46.9	8.3	86	Calm			0		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.60	751.7			69.4	20.8	47	NNW	15.0	6.7			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.96	760.9	63.0	17.2	52	W	13	6			6						Astronomical Obs.
Wilna			29.87	758.6	52.3	11.3	78	WNW	10	4.5			10						Astronomical Obs.
Dorpat			29.76	755.8	47.8	8.8	89	WNW	7	3			10					Raining	Physical Cabinet.
St. Petersburg			29.57	753.5	49.3	9.6	84	NW	4	2			10						Central Physical Obs.
Kuopio																			
Kieff			29.82	757.3	82.6	28.1	44	SSW	7	3			5						Physical Cabinet.
Nikolaiev			30.04	763.0	72.1	22.3	44	S	10	4.5			0						
Kertch			30.07	763.7	73.8	23.2	57	E	8	3.5			0						Lagorio.
Moscow			29.85	758.3	72.0	22.2	41	SW	10	4.5			7						Meteorological Obs.
Lugan			29.95	760.8	75.4	24.1	31	SSW	10	4.5			3						Meteorological Obs.
Archangel			29.91	759.6	47.8	8.8	71	NNE	4	2			5						Ogorodnikof.
Tiflis			30.04	762.9	80.6	27.0	51	S	13	6			2						Physical Obs.
Astrakhan			30.21	767.4	73.4	23.0	27	SW	10	4.5			2						Sebastianof.
Kasan			29.84	757.9	57.9	14.5	42	WNW	0	0			8						Physical Cabinet.
Orenburg			29.97	760.1	54.9	12.7	41	NE	8	3.5			8						Tschernischef.
Ekaterinburg			29.65	753.2	50.9	10.5	60	SW	8	3.5			3						Meteorological Obs.
Kasaly			29.95	760.6	67.8	19.9	57	W	31	14			0						Bobrof.
Tashkend			30.00	762.0	80.4	26.9	26	NW	20	9			8						Michelson.
Barnaul			29.86	758.5	69.3	20.7	44	SW	8	3.5			1						Meteorological Obs.
Yeniseisk			29.71	754.7	64.0	17.8	47	NE	4	2			0						Marks.
Irkutsk			29.71	754.7	52.9	11.6	47	Calm	0	0			0						Usolzef.
Oorga			29.71	754.7	39.0	3.9	100	WNW	31	14			10						Mossin.
Peking, (China)			29.78	756.4	67.3	19.6	35	SE	10	4.5			7						Physical Observatory.
Nertchinsk			29.60	751.8	52.7	11.5	41	WSW	8	3.5			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					30.0	— 1.1	100	SE	20	9			2						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.85	758.2	80.2	26.8	41	SE	9.7	4.34			4			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.41	746.9	44.6	7.0	85	SSW			1		8			0.20	5.1		
Hernosand			29.40	746.7	55.8	13.2	45	SW			2		6			0.00	0.1		
Stockholm			29.58	751.3	55.6	13.1	40	SSW			5		4			0	0		
Wisby			29.70	755.8	54.3	12.4	57	W			3		2			0	0		
Sub-Series.																			
Upsala			29.57	751.1	57.9	14.4	41	WSW			6		5		W				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.62	727.0			63.1	17.3	44	N			2		4			0.66	16.8		The Observatory.
Zurich	28.42	721.0			64.4	18.0	58	NE			1		4			0.86	21.8		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.7mm.; Thermometer, +0°.1 C.; Relative Humidity, —13 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)			29.88	758.9	75.0	23.9	67	NE			1		5						Prof. C. N. A. Van Dyck
Constantinople			30.00	762.0	74.8	23.8	70	N	8.9	4			0			0	0		
Fao, (Persian Gulf)			29.84	758.0	97.5	36.4		NW			4		10						
Salonica					86.2	30.1		NW			1		0						
Valona			30.04	762.9	73.0	23.1		W			2		0						
Varna			30.00	762.0	73.4	23.0		NE			3		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.83	757.7	46	7.8		SE	1	0.4			10s		SE	0.17	4.3	Light rain	
Chatham, N. B.			30.06	765.5	44	6.7	91	S	6	2.7			8s		S	0.08	2.0		
Charlottetown, P. E. Island			30.16	766.1	45	7.2	80	S	14	6.3		0	0			0.200	5.08		
Fort Garry, Manitoba			29.92	760.0	49	9.4	80	W	5	2.2		2k	2ks	W	W	0	0		
Halifax, N. S.			30.13	765.3	44	6.7	92	SW	12	5.4			8n			0.060	1.52		
Kingston, Ontario			29.82	757.4	46	7.8	92	Calm	0	0		10cs	0	W		0.06	1.5	Clearing	
Montreal, Quebec			29.76	755.9	46	7.8	93	SW	10	4.5			10n		SW	0.71	18.0	Light rain	
Ottawa, Ontario			29.73	755.1	48	8.9	81	S	5	2.2		5k	2s	SW	SW	0.17	4.3	Clearing	
Parry Sound, Ontario			29.77	756.1	50	10.0	57	W	5	2.2		2cs	5ks	NW	NW	0	0		
Port Dover, Ontario			29.83	757.7	58	14.4	47	W	10	4.5		5k	0	W		0	0		
Port Stanley, Ontario			29.87	758.7	55	12.8	67	SW	10	4.5		Haze	0			0	0		
Quebec, Quebec			29.87	758.7	45	7.2	84	SE	5	2.2			10n		SE	0.16	4.1	Light rain	
Saugeen, Ontario			29.83	757.7	47	8.3	74	SW	1	0.4		2ks	Sm'e			0	0		
Stayner, Ontario			29.78	756.4	51	10.6	59	N	3	1.3		5ck	0	NW		0	0		
Sydney, C. B.			30.19	766.8	56	13.3	69	W	11	4.9		0	2ks		W	0.20	5.1		
Toronto, Ontario			29.78	756.4	57	13.9	52	W	10	4.5		2ck	8ks	W	NW	0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.86	758.4	52	11.1	79	S	9	4.0		5k	5ks	S	S	0.09	2.3		
Alpena, Mich.			29.78	756.4	58	14.4	41	NW	10	4.5		0	Sm'e			0	0		
Atlantic City, N. J.			30.09	764.3	56	13.3	80	SW	12	5.4		10cs	Haze	SW		0.05	1.3		
Augusta, Ga.			30.24	768.1	66	18.9	73	SE	2	0.9		2cs	2ks	S	SE	0	0		
Baltimore, Md.			30.09	764.3	61	16.1	50	SW	12	5.4		5c	Haze			0	0		
Barnegat, N. J.			30.04	763.0	55	12.8	79	S	8	3.6		10k	0			0	0		
Benton, Montana			30.04	763.0	48	8.9	70	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.83	757.7	50	10.0	64	NW	2	0.9		2c	0			0.58	14.7		
Boston, Mass.			29.97	761.2	57	13.9	69	SW	15	6.7		0	2s			0.23	5.8		
Breckenridge, Minn.			29.84	757.9	58	14.4	70	Calm	0	0		8k	0	NW		0	0		
Buffalo, N. Y.			29.79	756.7	44.5	6.9	76	SW	12	5.4			10s		SW	0	0		
Burlington, Vt.			29.78	756.4	50	10.0	72	S	6	2.7			10s			0.54	13.7		
Cairo, Ill.			30.08	764.0	62	16.7	88	S	8	3.6		2c	2ks	W	SW	0	0		
Cape Hatteras, N. C.			30.30	769.6	68	20.0	74	SW	12	5.4		2k	Haze	SW		0	0		
Cape Henry, Va.			30.23	767.8	68	20.0	67	SW	16	7.2		Haze	Haze			0.01	0.3		
Cape May, N. J.			30.12	765.0	59	15.0	76	SW	20	8.9			10s		E	0	0		
Charleston, S. C.			30.30	769.6	71	21.7	75	S	8	6.3		2c	Haze			0	0		
Cheyenne, W. T.			30.00	762.0	48	8.9	71	SW	4	1.8		0	0			0	0		
Chicago, Ill.			29.93	760.2	63	17.2	52	SW	6	2.7		2c	0			0	0		
Cincinnati, Ohio			30.08	764.0	61	16.1	55	S	2	0.9		0	0			0	0		
Cleveland, Ohio			29.92	760.0	66	18.9	32	SW	21	9.4		2k	8s	W		0	0		
Colorado Springs, Col.			30.01	762.2	50	10.0	72	N	2	0.9		0	0			0	0		
Corsicana, Texas			30.02	762.5	70	21.1	90	S	12	5.4			10s		S	0	0		
Davenport, Iowa			29.93	760.2	64	17.8	73	SW	1	0.4		5ck	5s	W		0	0		
Denver, Col.			30.06	763.5	51	10.6	59	Calm	0	0		0	0			0	0		
Detroit, Mich.			29.88	758.9	65	18.3	39	W	10	4.5		5ck	Haze	NW		0	0		
Dodge City, Kansas			29.53	750.0	66	18.9	23	N	10	4.5		0	0			0.21	5.3		
Dubuque, Iowa			29.96	761.0	61	16.1	77	S	2	0.9		0	2s			0	0		
Duluth, Minn.			29.84	757.9	57	13.9	75	Calm	0	0		5cs	5ks			0	0		
Eastport, Me.			30.07	763.8	44	6.7	92	S	12	5.4			10s		S	0.09	2.3		
Erie, Penn.			29.83	757.7	62	16.7	41	SW	32	14.3		6c	Haze	SW		0	0		
Escanaba, Mich.			29.84	757.9	54	12.2	79	SW	1	0.4		Haze	Haze			0	0		
Fort Gibson, I. T.			29.98	761.5	66	18.9	84	N	2	0.9			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.86	758.4	60	15.6	77	W	2	0.9		2k	5s	NW	W	0	0		
Galveston, Texas			30.07	763.8	76	24.4	72	S	7	3.1		1c	2ks	W	S	0	0		
Grand Haven, Mich.			29.92	760.0	55	12.8	61	W	10	4.5		Haze	Sm'e			0	0		
Indianapolis, Ind.			30.02	762.5	62	16.7	45	S	4	1.8		0	Sm'e			0	0		
Indianola, Texas			30.07	763.8	76	24.4	81	S	8	3.6		2c	2ks		S	0	0		
Jacksonville, Fla.			30.30	769.6	73	22.8	63	SE	5	2.2		2k	0	N		0	0		
Keokuk, Iowa			29.89	759.2	70	21.1	66	SW	7	3.1		0	0			0	0		
Key West, Fla.			30.13	765.3	73.6	23.1	64	NE	14	6.3		5k	Haze	NE		0	0		
Kittyhawk, N. C.			30.31	769.9	66	18.9	78	SW	16	7.2		Sm'e	Sm'e			0	0		
Knoxville, Tenn.			30.22	767.6	55	12.8	68	NE	3	1.3		8ck	Haze	SW		0	0		
La Crosse, Wis.			29.91	759.7	64	17.8	73	S	8	3.6			10s		S	0	0		
Leavenworth, Kan.			29.89	759.2	65	18.3	83	S	1	0.4			10s		W	0	0		
Lexington, Ky.			30.11	764.8	63	17.2	52	SW	11	4.9		5ck	0	W		0	0		
Long Branch, N. J.			30.01	762.2	62	16.7	61	SW	18	8.0		Haze	Haze			0.02	0.5		
Louisville, Ky.			30.09	764.3	64	17.8	37	SE	2	0.9		5k	0	SW		0	0		
Lynchburg, Va.			30.18	766.6	62	16.7	46	SW	2	0.9		10c	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.82	757.4	57	13.9	52	Calm	0	0		0	Haze			0	0		
Memphis, Tenn.			30.12	765.0	65	18.3	94	SE	6	2.7			10n			0.44	11.2	Light rain	
Milwaukee, Wisconsin			29.96	759.4	65	18.3	63	W	10	4.5		8ck	0	N		0	0		
Mobile, Ala.			30.20	767.1	73	22.8	63	S	6	2.7		0	0			0	0		
Montgomery, Ala.			30.24	768.1	72	22.2	58	Calm	0	0		5cs	Haze			0	0		
Morgantown, W. Virginia			30.04	763.0	65	18.3	51	SW	15	6.7		0	Haze			0	0		
Mt. Washington, N.			29.97	761.2	29	— 1.7	100	W	27	12.1			Fog			0.03	0.8		
Nashville, Tenn.			30.13	765.3	66	18.9	68	S	4	1.8		10k	0	W		0	0		
New Haven, Conn.			29.98	761.5	62	16.7	61	S	7	3.1		2c	2s	NW		0.03	0.8		
New London, Conn.			30.02	762.5	58	14.4	70	SW	11	4.9		5c	Haze	SW		0.04	1.0		
New Orleans, La.			30.16	766.1	71	21.7	71	SE	4	1.8		2ck	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.00	762.0	59	15.0	54	SW	19	8.5		5c	Haze	SW		0.03	0.8		
Norfolk, Va.			30.24	768.1	66	18.9	74	SW	16	7.2		0	Haze			0	0		
North Platte, Neb.			29.58	751.3	62	16.7		Calm	0	0		5ck	2ks	W	W	0.16	4.1		
Omaha, Neb.			29.88	758.9	63	17.2	78	Calm	0	0		8c	0	W		0	0		
Oswego, N. Y.			29.72	754.9	54.5	12.5	68	S	8	3.6			10s			0.02	0.5	Threatening	
Peck's Beach			30.13	765.3	59	15.0	76	SW	18	8.0			10s			0	0		
Pembina, D. T.			29.89	759.2	58	14.4	69	NW	8	3.6		8k	2s	NW		0	0		
Philadelphia, Penn.			30.05	763.3	61	16.1	59	W	21	9.4		2k	Sm'e			0	0		
Pike's Peak, C. T.			30.12	765.0	25	— 3.9	75	N	14	6.3		0	2s			0.02	0.5		
Pittsburgh, Penn.			29.98	761.5	64	17.8	34	SW	11	4.9		0	0			0.01	0.3	Smoky	
Port Huron, Mich.			29.83	757.7	62	16.7	41	W	15	6.7		Haze	0			0	0		
Portland, Maine			29.97	761.2	52	11.1	73	S	13	5.8		10cs	0	SW		0.04	1.0		
Portland, Or.			30.03	762.7	52	11.1	79	SE	2	0.9		5k	5ks			0.01	0.3		
Punta Rassa, Fla.			30.21	767.3	67.0	19.4	65	N	12	5.4			10s			0	0		
Rochester, N. Y.			29.71	754.6	57	13.9	57	SW	16	7.2			10s		NW	0.01	0.3		
Salt Lake City, Utah			29.92	760.0	55	12.8	44	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.98	761.5	61	16.1	55	SW	23	10.3		8c	Haze	W		0	0		
San Diego, Cal.			30.02	762.5	61	16.1	70	E	4	1.8			10s			0	0		
San Francisco, Cal.			29.95	760.7	50	10.0	79	SW	6	2.7		0	0			0	0		
Santa Fe, N. M.			29.79	756.7	54	12.2	32	E	12	5.4		5c	0	SW		0	0		
Savannah, Georgia			30.30	769.6	69	20.6	64	SW	8	3.6		5k	Sm'e	SW		0	0		
Shreveport, La.			30.09	764.3	69	20.6	90	SSE	3	1.3		8c	0			0	0		
Springfield, Mass.			29.97	761.2	53.5	12.0	76	SW	4	1.8		5ck	5ks		SW	0.07	1.8		
St. Louis, Mo.			30.01	762.2	65	18.3	67	S	5	2.2		0	0			0	0		
St. Marks, Fla.			30.26	768.6	72	22.2	71	SE	10	4.5		2c	0	W		0	0		
St. Paul, Minn.			29.80	756.9	61	16.1	70	SE	1	0.4		5c	Haze	NW		0	0		
St. Paul's Island, Alaska			29.96	761.0	28	— 2.2	76	NNW	22	9.8			10k			0.06	1.5		
Squan Beach, N. J.			30.04	763.0	51	10.6	78	S	6	2.7		Haze	Haze			0	0		
Toledo, Ohio			29.94	760.5	66	18.9	36	SW	16	7.2		Haze	Haze			0	0		
Tybee Island, Ga.			30.32	770.1	74	23.3	72	Calm	0	0		5k	0	SW		0	0		
Vicksburg, Miss.			30.21	767.3	66	18.9	78	SE	6	2.7			10s		SE	0	0		
Virginia City, Mon.			29.76	755.9	44	6.7	67	S	2	0.9		0	0			0	0		
Washington, D. C.			30.10	764.5	62	16.7	52	S	9	4.0		2c	8s	W		0	0		
Wilmington, N. C.			30.30	769.6	69	20.6	70	SW	11	4.9		2cs	Haze	SW		0	0		
Wood's Hole, Mass.			30.05	763.3	53	11.7	72	SW	28	12.5		6	8s			0.06	1.5		
Wytheville, Va.			30.2	762.5	53	11.7	48	NW	1	0.4		0	0			0	0		
Yankton, D. T.			29.89	759.2	60	15.6	76	Calm	0	0			10s		NW	0	0		

NOTE.—The original give the cloudiness a scale from 0 to 10.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	84	28.9	83	NE	5	2.2		5k	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	79	26.1	78	E				2k	5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.81	757.2	75	23.9	72	NE	12	5.4			10n		E	0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	77	25.0	90	Calm	0	0			8n			0.20	5.1	Raining	James Gall.
St. Thomas, St. T., W. I.			30.29	769.4	79	26.1	65	ESE	13	5.8		5ck	2kn	SE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	75	23.9	76	Calm	0	0			8n		NE	0	0	Showery	Robert Mason.
St. Georges, Bermudas			30.19	766.8	69	20.6	92	NW	6	2.7			10n			2.050	52.07		C. F. Allen.
Honolulu, Oahu, S. I.			30.18	766.6	63	17.2	73	NE			2	5k	5ks	NE		0	0		E. P. Church.
Makawao, Maui, S. I.																0.12	3.0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.91	759.7	38.0	3.3	82	W	6	2.7		1c	0	W		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.02	762.5	65	18.3	88	S	3	1.3			10n			0.26	6.6	Raining	C. Partridge.
St. John's, Newfoundland																			John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.93	760.2	65	18.3	35	SW	16	7.2		0	2s			0	0		H. M. Redington.
Indianola, Iowa	29.02	737.1			73	22.8	71	SE				2cs	0	W		0	0		G. C. Carpenter.

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

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 21, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.84	757.8	69.8	21.0		NE			2		9			0	0	Thunder	Charnot.
Algiers			29.88	758.9	75.6	24.2	74	NNW			3		4			0.024	0.6		Peter.
La Calle					82.4	28.0		W			5		6			0	0	Sirocco	Kuntz.
Tunis			30.05	763.2	83.7	28.7	40	SW			3		10			0	0		Jacques.
Sfax			30.06	763.5	74.7	23.7	69	ESE			4		2			0	0		Chauvey.
Biskra			30.00	761.9	80.6	27.0		WSW			2		6			0.039	1.0	Stormy	Grosjean.
Tebessa			30.06	763.4	80.6	27.0		E			4		9			0.039	1.0		Colin.
Orleville			30.03	762.7	75.2	24.0		ESE			4		5			0	0		Bornadach.
Lambessa			30.04	763.0	82.4	28.0	27	SE			4		3			0.197	5.0		Poinsignon.
Daikern			30.04	763.0	91.4	33.0		E			4		6			0	0	Sand-fall	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.00	762.1	78.3	25.7	48	SW			3		5			0	0		Prof. Ivan Stozir.
Ofen-Pesth																			I. R. Cen. M. I., Hungary
Krakow			30.07	763.7	69.4	20.8	78	NE			2		4			0	0		I. R. Observatory.
Lberles			30.02	762.5	67.5	19.7	50	N			3		8		S	0	0		Julius Mikolik.
Gratz			30.00	762.0	69.6	20.9	66	SW			2		0			0	0		Andreas Rospini.
Hermannstadt			29.95	760.6	75.2	24.0	44	SW			1		5			0.126	3.20		Prof. Reissenberger.
Lemberg			29.97	761.1	68.0	20.0	52	NNE			2		1			0	0		Prof. C. Wagner.
Przemyslanza			30.08	763.9	59.0	15.0	72	S			3		10			0.016	0.4		Dr. T. Stanecki.
Kolozsvar			30.02	762.4	72.7	22.6	59	NW			1		1			0	0		Habzsuda Daniel.
Zagrabia			30.01	762.3	72.0	22.2	71	WNW			1		1k			0	0		I.R. Hydrographic Of'ce
Pisino			30.01	762.2	74.5	23.6	71	NE			3		4			0	0		Karl Stancel.
Trieste			30.01	762.2	74.5	23.6	52	NW			1		4			0	0		Prof. V. Farolfi.
Vienna			29.98	761.6	73.9	23.3	42	SE			1		1			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.63	752.7			70.3	21.3	46	S			2		1c		SSE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.54	750.3	55.0	12.8		SSE	20	8.9			3			0	0		William Boswell.
Annanhill											4		8					Raining	William McNeil.
Ardrossan			29.41	747.0	55	12.8		SSE					10					Squally	S. Call, for Dr. Robinson.
Armagh Observatory			29.26	743.2	55.0	12.8		SSE	32	14.3									
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.48	748.8	60.8	16.0		SSE			4		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.20	741.7	49.8	9.9		SSW			1		10					Raining	J. Dreyer, for L'd Rosse.
Bradford			29.53	750.0	60.5	15.8		SSE			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.01	762.2	84.0	28.9		NE			3		8						T. H Hunt.
Bywell																			
Cambridge Observatory			29.64	752.8	66.0	18.9		S			1		4					Rainy	H. Todd.
Cape Town, (Cape Colony)																			Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.08	764.0			56.0	13.3	96	WNW	7	3.1			10						The Staff, for E. J. Stone.
Cardington			29.66	753.4	66.0	18.9		SSE					9						John McLaren.
Carlisle			29.50	749.3	62.1	16.7		S					10			0.04	1.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.68	753.9	70.0	21.1		SW			3		9						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759.2	82.5	28.1		SE			1		3						Sgt. W. F. Hopkins
Dartmoor			29.65	753.1	49	9.4		SE			7		10					Fog & rain	R. E. Power.
Donaghadee			29.35	745.5	52	11.1		S			7		10						J. Mac Gowan, Jr.
Dover			29.73	755.1	63	17.2		SSE			1		3						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.53	750.0	61.3	16.3		SSE	7.4	3.3			10					Squally	Thomas Mackereth.
Falmouth Observatory			29.50	749.3	54.9	12.7		SSE	27	12.1			9					Squally	The Staff.
Fort Napier, (Natal)			29.85	758.2	75.0	23.9		E			2		4						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.87	757.7	86.0	30.0		N					9						
Galway, Queen's College			29.12	739.6	57	13.9		SSW			2		10					Raining	B. G. Clare, for Prof. Carr.
Gibraltar, (Mediterranean)			29.95	760.7	62.3	16.8		ENE			2		10						Sergt. E. G. Baker.
Glasgow Observatory			29.42	747.3	58.6	14.8		S			6		10					Squally	James Gray.
Great Yarmouth			29.76	755.9	57	13.9		SSE			3		4						G. T. Watson.
Greenwich Royal Obs.			29.66	753.4	68.0	20.0		SSE			7		6			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			29.61	752.1	62	16.7		SE			5		8					Squally	Dr. S. E. Hosking.
Halifax, Moorside Obs.			29.51	749.5	61.3	16.3		SSE					9					Squally	F. J. Page, for L. J. Crosby.
Halifax, (Nova Scotia)			29.73	755.1	52.3	11.3		NW			3		9						Corp'l J. V. Thompson.
Helston			29.50	749.3	61	16.1		SSE			6		6					Showery	Dr. W. B. Doyle.
Holyhead			29.94	760.5	54	12.2		S			6		4					Rainy	John Tilston.
Kew Park																			
Kew Observatory			29.67	753.6	67.1	19.5		SSE	28	12.5			8						The Staff.
Kingstown			29.35	745.5	54	12.2		SSE			6		10					Raining	George Mitchell.
Lampeter																			
Leicester Museum			29.61	752.1	63.0	17.2		S			6		10						William J. Harrison
Llandudno			29.39	746.5	59.5	15.3		SW					1½					Showery	Dr. James Nicol.
Malta, (Mediterranean)			30.01	762.2	72.6	22.6		NE			1		6k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.39	746.5	67	19.4		SW			2		10						William D. Penny.
Nassau, (Bahamas)			30.12	765.0	74.8	23.8		E			4		10						Surg.-Maj. J. Jamieson.
North Shields			29.55	750.6	58	14.4		S			3		8						John Wm. Irvine.
Nottingham			29.61	752.1	67.0	19.4		SSE			5		5k, d		SSE	Blank	Blank		E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.56	750.8	65.0	18.3		SSE			6		7						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.60	751.8	67	19.4		SE			5		7						J. Lucas, for R. Main.
Plymouth			29.55	750.6	54	12.2		SE			4		10					Showery	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.26	743.2	55	12.8		S			7		10					Raining	W. Kennedy.
Saint Ann's Head			29.39	746.5	53	11.7		SSE			5		10						John C. Walker.
Saint Helier, (Jersey)			29.72	754.9	63.0	17.2		SSW			5		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			29.61	752.1	60.3	15.7		SSE			4		8						F. Shaw.
Scutari, (Turkey)			29.95	760.7	66.6	19.2		NE			2		4						Sergt. W. H. Lyne.
Sheffield			29.50	749.3	63.8	17.7		SSW			3		9			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.46	748.3	60.2	15.6		SW			5		8			0.085	2.16		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.86	758.4	62.3	16.8		ESE			2		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.52	749.8	58.9	14.9		SE			5		10					Threatening	The Staff.
Stornoway, Lews C. (Hebr)			29.26	743.2	54	12.2		S			3		10						John Smith.
Strathfield Turgiss			29.76	755.9	55.5	13.1		S			1-2		10					Raining	Rev Charles H. Griffith.
Streatley Vicarage			29.63	752.6	65.3	18.5		S			8		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.40	746.7	53	11.7		S			5		4						John Trotter.
Truro, Royal Institution			29.59	749.3	61	16.1		W			5		4						W Newcombe.
Valencia Observatory			29.19	741.4	52.3	11.3		S	30	13.4			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.67	753.6	59.2	15.1		SSE			4		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.94	760.4	61.5	16.4	68	S			4		3						
Faröe			29.88	759.0	57.9	14.4	78	SW			2		1						
Godthaab, (Greenland)																			
Stykkisholm, (Iceland)			28.93	734.9	42.1	5.6	69	NE			7		5						
Thorshavn, (Faröe)			29.31	744.4	53.1	11.7	83	S			6		3					Raining	
Vestervig			29.85	758.3	57.9	14.4	78	SW			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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.	Barometer. 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 24 hours. Inches.	Millimeters.	Weather	Observer.
Ajaccio			29.91	759.7	78.4	25.8	80						1cs						Normal School.
Alençon			30.00	762.1	62.6	17.0	76	SW					8n			0	0		Normal School.
Amiens			29.93	760.1	68.7	20.4	54	WSW			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory
Beauvais			29.92	759.9	72.3	22.4	42	SSE			6		2		S	0	0		Normal School.
Besançon			30.01	762.3	75.2	24.0	39	SW			3		0			0	0		Normal School.
Bourg en Bresse			29.99	761.7	76.5	24.7	39	SW			4		0			0	0		Normal School.
Bourges			29.84	757.9	75.9	24.4	58	SW			2		5		SE	0	0		Normal School.
Brest			29.57	751.1	62.4	16.9	72	S			6		5		SW	..	0		Naval Observatory.
Caen			29.72	755.0	64.4	18.0	84	ESE			6		10			0	0		Normal School.
Chartres			29.74	755.4	78.8	26.0		S			6		9k		S	0	0		Normal School.
Chaumont			29.86	758.4	72.3	22.4		SE			6		1		SSE	0	0		Normal School.
Commercy			29.98	761.6	69.4	20.8	44	ESE			6		0			0	0		Normal School.
Le Mans			29.92	759.9	67.5	19.7	67	SW			2		8		SW	0	0		Normal School.
Lons-Le Saulnier			29.95	760.7	74.3	23.5	37	SW			1		2		E	0	0		Normal School.
Mâcon																			
Mirecourt			30.04	763.0	66.7	19.3	57	SE			2		1		NW	0	0		Normal School.
Orleans			29.93	760.2	77.0	25.0	37	E			4		2		NE	0	0		Normal School.
Paris Observatory			29.76	755.9	76.5	24.7		SE			3		2			0	0		National Observatory
Parthenay			29.79	756.7	68.0	20.0	62	S			6		5		S	0	0		Normal School.
La Roche sur Yon			29.78	756.3	67.6	19.8	68	SW			6		2		NE	0	0		Normal School.
Rouen			29.73	755.1	78.4	25.8	30	SSE			4		5		S	0	0		Normal School.
Saint Lo			29.73	755.1	67.1	19.5	51	S			6		1		NW	0.142	3.6		Normal School.
Villefranche			29.96	761.0	76.1	24.5	39	SE			4		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.85	631.2			65.5	18.6	48	SSW	22.4	10.00			5		SSW	0	0		—. Falguère.
Montsouris Observatory			29.78	756.3	70.0	26.1	35	SE			2		5c, ck		SW	0	0		Marié Davy.
Perpignan	29.74	755.3			72.9	22.7	47	ENE	9.3	4.17			4			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.78	756.5	78.8	26.0	36	SE			3		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.79	756.6	75.6	24.2	44	WSW			3		8		SSW	0	0		C. Marquet.
Versailles, (near Paris)			29.78	756.5	76.6	24.8	42	S			6		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.88	759.0	66.3	19.3	83	SE	7.8	3.5		5cs	0	S		{ 0 / 0	0 / 0 }		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Corrected Inches.	Millimeters.	Reduced Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Wind From—	Miles per hour.	Meters per second.	Force.	Clouds Up'er	Low'r	Upper From—	Lower From—	Rain Inches.	Millimeters.	Weather	Observer.
Bamberg			29.91	759.6	67.1	19.5	49	SW			3		2			0	0		Prof. Hoh.
Berlin			30.10	764.6	58.6	14.8	85	[illegible]			1		10			0	0		Prof. Arndt.
Breslau			30.08	764.0	69.0	20.9	31	W			1		8			0	0		Dr. P. Neugebauer.
Carlsruhe			29.93	760.1	72.3	22.4	41	ENE			2		0			0	0		A. Senz.
Cassel			29.85	758.1	70.9	21.6	40	SE			2		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.98	761.4	66.	19.0	72	W					0			0	0		M. Wilhelm.
Hamburg			29.97	761.2	64.6	17.8	64	SW			3		6k			0.109	2.78		W. Reinert.
Kiel			29.80	758.4	61.9	16.6	72	SW			3		7			0.051	1.30		Prof. G. Karsten.
Königsberg			30.09	764.3	68.5	20.3	43	SW								0.001	0.03		Prof. E. Luther.
Köslin			30.20	767.0	70.3	21.3		SW			3		5			0	0		Dr. Tägert.
Leipsic			30.00	762.1	72.0	22.2	38	SW			1		8			0	0		Prof. Bruhns.
Münster			29.97	761.1	69.4	20.8	23	SW			2		0			0.055	1.4		Prof. E. Heis.
Posen			30.10	764.5	71.2	21.8	26	SW			2		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.93	760.2	71.2	21.8	41	Calm					0			0	0		Hartwig and Tülk.
Stuttgart			29.94	760.4	72.5	22.5	47	S					0			0	0		Mr. Würth.
Thorn			30.09	764.2	70.3	21.3	30	S			5		7			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.87	758.7	73.0	22.8	41	SE			5		0			0	0		Prof. Flesch.
Wustrow			29.99	761.7	57.9	14.4	61	WSW			3		5ks			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations.	Corrected Inches.	Millimeters.	Reduced Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	Wind From—	Miles per hour.	Meters per second.	Force.	Clouds Up'er	Low'r	Upper From—	Lower From—	Rain Inches.	Millimeters.	Weather	Observer.
Moncalieri			30.02	762.5	74.5	23.6	47	SSE	1.3	0.6			2	F		0	0		
Mondovi			30.00	762.1	70.0	21.1	46	NNW			4		0	N		0	0		
Genoa			30.03	762.7	73.0	22.8	43	SW	1.8	0.8			0			0	0		
Pavia			30.02	762.4	74.8	23.8	48	NE			1		0			0	0		
Verona			29.98	761.6	78.3	25.7	70	SE			2		0			0	0		
Padua			29.99	761.8	74.3	23.5	51	SE	3.8	1.7			0			0	0		
Parma																			
Modena			30.02	762.4	75.9	24.4	60	NE	5.6	2.5			6			0	0		
Leghorn			30.02	762.4	72.9	22.7	50	NW	3.8	1.7			3			0	0		
Urbino			30.00	762.1	69.3	20.7	67	NE			2		2			0	0		
Ancona			30.02	762.5	71.2	21.8	79	SE			4		1			0	0		
Siena			29.98	761.5	74.1	23.4	32	SW	0	0			4	W		0	0		
Rome			30.01	762.3	81.3	27.4	37	WSW	4.3	1.9			3			0	0		
Naples, O.U.			30.05	763.3	81.0	27.7	42	SW			1		3			0	0		
Lecce			30.03	762.8	75.2	24.0	44	N	12.5	5.6			0			0	0		
Cosenza			29.97	761.3	82.4	28.0	46	SE			1		6			0	0		
Catania, (Sicily)																			
Riposto			30.00	762.0	76.1	24.5	59	NE			2		0	S		0	0		
Palermo			29.95	760.8	75.2	24.0	58	NE			2		4			0	0		
Sub-Series.																			
Naples, S. R.			30.07	763.6	81.1	27.3	62	W			1		..0		W	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.83	757.7	66.2	19.0		SSE			3								
Groningen			29.84	758.0	63.5	17.5		S			2								
Helder			29.85	758.1	62.8	17.1		S			2								
Utrecht			29.83	757.7	70.5	21.4	53	SSW			3		5						

NOTE.—The originals give the pressure of the wind in *kilograms per square meter*, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

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. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.69	754.2	55.4	13.0	66	SSE	13.7	6.1			10			0.256	6.5		
Christiania			29.85	758.2	59.2	15.1	54	S	9.8	4.4			5			0.016	0.4		
Tromsö			29.70	754.4	48.6	9.2	91	SW			2		10			0	0		

NOTE.—The originals give the velocity of the wind in *meters per second and its force on a scale of 0 to 6*; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.66	753.4			64.2	17.9	73	SW	17.4	7.8			9						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is *102.3 meters, or 335.5 feet.*

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.10	764.4	67.3	19.6	47	SE	4	2			4						Astronomical Obs.
Wilna			30.14	765.5	63.1	17.3	38	WNW	4	2			7						Astronomical Obs.
Dorpat			30.00	762.1	68.5	14.7	52	W	11	5			10						Physical Cabinet.
St. Petersburg			29.89	759.1	52.5	11.4	66	WNW	7	3			9						Central Physical Obs.
Kuopio																			
Kieff			30.15	765.7	64.2	17.9	51	NNE	7	3			7						Physical Cabinet.
Nikolaiev			30.01	763.0	80.4	26.9	35	SE	4	2			0						
Kertch			30.01	762.2	74.1	23.4	68	NE	15	6			0						Lagorio.
Moscow			29.98	761.4	63.0	17.2	37	NNW	13	6			2						Meteorological Obs.
Lugan			29.85	758.1	83.5	28.6	31	SW	17	7.5			7					Thunder-storm	Meteorological Obs.
Archangel			29.67	753.7	44.2	6.8	94	S	10	4.5			10					Raining	Ogorodnikof.
Tiflis			29.97	761.3	81.7	27.6	29	SW	4	2			7						Physical Obs.
Astrakhan			30.18	766.5	74.7	23.7	31	SE	8	3.5			2						Sebastianof.
Kasan			29.72	754.9	66.0	18.9	38	WSW	0	0			10						Physical Cabinet.
Orenburg			29.95	760.6	70.2	21.2	73	E	10	4.5			1						Tschernischef.
Ekaterinburg			29.73	755.1	53.1	11.7	52	W	13	6			8						Meteorological Obs.
Kasaly			30.00	762.1	64.6	18.1	91	W	20	9			5						Bobrof.
Tashkend			30.19	766.9	71.2	21.8	41	N	8	3.5			6						Michelson.
Barnaul			29.65	753.2	69.3	20.7	55	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.59	751.5	63.3	17.4	44	NE	8	3.5			0						Marks.
Irkutsk			29.66	753.3	59.5	15.3	41	Calm	0	0			0						Usolzef.
Oorga			29.91	759.8	42.4	5.8	100	Calm	0	0			0						Mossin.
Peking, (China)			29.67	753.5	72.5	22.5	52	Calm	0	0			5						Physical Observatory
Nertchinsk			29.74	755.3	45.2	7.9	72	Calm	0	0			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					32.2	0.1	98	SE	10	4.5			10						Kurd.kof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.87	758.8	72.3	22.4	59	S	7.4	3.33			0			0.016	0.4		Royal Observatory.
San Fernando																			The Naval Observatory

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.72	755.0	59.0	15.0	56	NW			2		8			0	0		
Hernosand			29.78	756.4	60.1	15.6	49	SW			1		6			0	0		
Stockholm			29.89	759.1	59.4	15.2	56	WSW			3		6			0	0		
Wisby			30.01	762.3	56.8	13.8	62	WNW			2		6			0	0		
Sub-Series.																			
Upsala			29.89	759.2	61.5	16.4	49	W			4		5		W				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.56	725.4			65.8	18.8	49	N			2		0			0	0		The Observatory.
Zurich	28.35	720.2			75.6	24.2	49	NE			1		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.1mm.; Thermometer, +1°.4 C.; Relative Humidity, —8 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)			29.85	758.2	78.1	25.6	68	W			2		5						Prof. C. N. A. Van Dyck
Constantinople			30.02	762.4	64.2	17.9	67	NNE	11.2	5			5		SE	0	0		
Fao, (Persian Gulf)			29.84	758.0	89.6	32.0		SE			3		5						
Salonica					83.3	28.5		SE			0		5					Thunder-storm.	
Valona			30.01	762.2	76.6	24.8		W			2		2						
Varna			30.04	763.0	73.4	23.0		SE			3		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.94	760.5	56	13.3		Calm	0	0		0	2s		SW	0	0		
Chatham, N. B.			29.56	750.8	47	8.3	88	NW	10	4.5			8s		NW	0.21	5.3		
Charlottetown, P. E. Island			29.63	752.6	49	9.4	90	S	13	5.8			10n			0.90	22.9		
Fort Garry, Man.			29.96	761.0	47	8.3	96	Calm	0	0		0	0			0	0		
Halifax, N. S.			29.62	752.3	51	1[illegible]	85	SW	18	8.0			5ks		W	0.483	12.27		
Kingston, Ontario			29.95	760.7	52	11.1	80	Calm	0	0		Haze	0			0	0		
Montreal, Quebec			29.95	760.7	57	13.9	65	NE	4	1.8		0	2ks			0.10	2.5		
Ottawa, Ontario			29.93	760.2	47	8.3	49	N	3	1.3		2c	Sm'e			0	0		
Parry Sound, Ontario			29.90	759.4	57	13.9	63	SE	2	0.9		0	0			0	0		
Port Dover, Ontario			29.94	760.5	56	13.3	81	S	6	2.7		8k	0	SW		0	0		
Port Stanley, Ontario			29.94	760.5	55	12.8	82	E	6	2.7			10ks		SW	0	0		
Quebec, Quebec			29.95	760.7	48	8.9	78	W	4	1.8		0	0			0.13	3.8		
Saugeen, Ontario			29.87	758.7	57	13.9	87	alm	0	0		0	Sm'e			0	0		
Stayner, Ontario			29.89	759.2	59	15.0	73	Calm	0	0		0	0			0	0		
Sydney, C. B.			29.72	754.9	45	7.2	97	SW	11	4.9			10n		SW	0.20	5.1		
Toronto, Ontario			29.91	759.7	60	15.6	54	S	3	1.3		5ks	Haze			0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.94	760.5	57	13.9	75	Calm	0	0		5k	Haze	W		0.07	1.8		
Alpena, Mich.			29.84	757.9	55	12.8	73	SW	4	1.8		5ck	Sm'e	SW		0	0		
Atlantic City, N. J.			30.04	763.0	61	16.1	82	SW	7	3.1		0	Haze			0	0		
Augusta, Ga.			30.19	766.9	67	19.4	74	Calm	0	0		0	2ks			0	0		
Baltimore, Md.			30.04	763.0	72	22.2	41	W	4	1.8		Haze	Sm'e			0	0		
Barnegat, N. J.			30.01	762.2	69	20.6	65	SW	5	2.2		Haze	0			0	0		
Benton, Montana			29.90	759.4	64	17.8	52	N	1	0.4		0	0			0	0		
Bismarck, Dakota			29.78	756.4	59	15.0	48	NE	1	0.4		0	0			0	0		
Boston, Mass.			29.95	760.7	64	17.8	43	NW	3	1.3		2ck	5ks		N	0	0		
Breckenridge, Minn.			29.91	759.7	54	12.2	62	N	2	0.9		0	0			0	0		
Buffalo, N. Y.			29.93	760.2	52	11.1	73	SW	8	3.6		1ck	Sm'e	SW		0	0		
Burlington, Vt.			29.96	761.0	52	11.1	73	S	1	0.4		0	2s			0.43	10.9		
Cairo, Ill.			29.94	760.5	67	19.4	90	S	8	3.6			10s		S	0.30	7.6	Threatening	
Cape Hatteras, N. C.			30.20	767.1	69	20.6	79	SW	10	4.5		0	Haze			0	0		
Cape Henry, Va.			30.12	765.0	71	21.7	75	SW	17	7.6		Haze	Haze			0	0		
Cape May, N. J.			30.05	763.3	60	15.6	82	SW	8	3.6		0	Sm'e			0	0		
Charleston, S. C.			30.21	767.3	70	21.1	79	S	1	0.4		0	Haze			0	0		
Cheyenne, W. T.			29.98	761.5	46	7.8	60	SW	2	0.9		0	0			0	0		
Chicago, Ill.			29.80	756.9	67	19.4	69	SW	7	3.1		2k	0			0.05	1.3		
Cincinnati, Ohio			30.01	762.2	67	19.4	69	S	8	3.6			10s			0	0		
Cleveland, Ohio			29.92	760.0	67.2	19.6	64	S	10	4.5		2ck	8ks	SW		0	0		
Colorado Springs, Col.			29.97	761.2	49	9.4	64	N	6	2.7		5cs	0	W		0	0		
Corsicana, Texas			29.97	761.2	71	21.7	85	S	10	4.5		5k	0	S		0	0		
Davenport, Iowa			29.82	757.4	71	21.7	83	S	1	0.4		5ck	5s			0	0		
Denver, Col.			30.02	762.5	52	11.1	53	S	4	1.8		0	0			0	0		
Detroit, Mich.			29.89	759.2	65	18.3	73	SW	4	1.8			10s			0	0		
Dodge City, Kansas			29.56	758.4	66	18.9	65	SW	4	1.8		0	0			0	0		
Dubuque, Iowa			29.82	757.4	67	19.4	64	Calm	0	0		5ck	0	SW		0.02	0.5		
Duluth, Minn.			29.81	757.2	62	16.7	61	Calm	0	0		Haze	Sm'e			0	0		
Eastport, Me.			29.80	756.9	51	10.6	65	NW	18	8.0		10k	0	NW		0.04	1.0		
Erie, Penn.			29.90	759.4	70	21.1	56	S	12	5.4		2c	Haze			0	0		
Escanaba, Mich.			29.86	758.4	53	11.7	79	N	4	1.8			10ks			0.11	2.8		
Fort Gibson, I. T.			29.90	759.4	65	18.3	92	S	4	1.8		2ck	2ks	W	S	0.70	17.8	Clearing	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.9	759.4	60	15.6	70	Calm	0	0		0	0			0	0		
Galveston, Texas			30.03	762.7	77	25.0	72	S	8	3.6		2ck	0	W		0	0		
Grand Haven, Mich.			29.88	758.9	62	16.7	75	SW	15	6.7		2c	2s	W	W	0	0		
Indianapolis, Ind.			29.92	760.0	67	19.4	79	S	6	2.7		2k	8s			0.05	1.3	Clearing	
Indianola, Texas			30.01	762.2	77	25.0	77	S	8	3.6		5k	0	S		0	0		
Jacksonville, Fla.			30.17	766.3	75	23.9	76	NE	8	3.6		4k	0			0	0		
Keokuk, Iowa			29.80	756.9	62	16.7	88	N	4	1.8			10n		N	3.28	83.3	Light ra	
Key West, Fla.			30.00	762.0	72.0	22.2	90	E	12	5.4			10n			0.13	3.3	Heavy rain	
Kittyhawk, N. C.			30.17	766.3	69	20.6	71	W	16	7.2		Haze	Haze			0	0		
Knoxville, Tenn.			30.13	765.3	59	15.0	87	Calm	0	0		2c	Haze	SW		0	0		
La Crosse, Wis.			29.81	757.2	62	16.7	77	N	3	1.3		2c	Haze			0.05	1.3		
Leavenworth, Kan.			29.86	758.4	63	17.2	83	Calm	0	0		0	2s		NW	0.54	13.7		
Lexington, Ky.			30.06	763.5	63	17.2	72	S	10	4.5			10s			0	0	Threatening	
Long Branch, N. J.			29.99	761.7	72	22.2	50	SW	10	4.5		0	Haze			0	0		
Louisville, Ky.			29.99	761.7	68	20.0	60	SE	4	1.8			10s			0	0		
Lynchburg, Va.			30.00	764.3	70	21.1	57	W	4	1.8		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.82	757.4	60	15.6	82	NW	8	3.6			10s		NW	0.13	3.3		
Memphis, Tenn.			30.02	762.5	69	20.6	84	SW	8	3.6			10s		S	0.47	11.9		
Milwaukee, Wisconsin			29.80	756.9	70	21.1	61	W	4	1.8		8ck	0	E		0	0		
Mobile, Ala.			30.15	765.8	68	20.0	79	S	4	1.8		0	0			0	0		
Montgomery, Ala.			30.18	766.6	68	20.0	62	SE	8	3.6		5k	Haze	SE		0	0		
Morgantown, W. Virginia			30.04	763.0	72	22.2	57	S	10	4.5		2c	0	W		0	0		
Mt. Washington, N. H.			29.98	761.5	27	— 2.8	100	NW	32	14.3			Fog			0.45	11.4		
Nashville, Tenn.			30.04	763.0	70	21.1	65	S	8	3.6		5k	5s	S		0.38	9.7		
New Haven, Conn.			29.97	761.2	65	18.3	53	N	4	1.8		8ck	Sm'e	NW		0.01	0.3		
New London, Conn.			29.98	761.5	59	15.0	76	Calm	0	0			10ks		W	0	0		
New Orleans, La.			30.09	764.3	71.5	22.0	73	SE	4	1.8		2cs	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.98	761.5	64	17.8	42	SW	8	3.6		0	Sm'e			0	0		
Norfolk, Va.			30.14	765.5	70.5	21.4	68	SW	16	7.2		Haze	0			0	0		
North Platte, Neb.			29.55	750.6	62	16.7	82	Calm	0	0		0	0			0	0		
Omaha, Neb.			29.84	757.9	61	16.1	88	W	3	1.3		2c	0			0.05	1.3		
Oswego, N. Y.			29.93	760.2	60.2	15.9	66	S	2	0.9		Haze	4s			0	0		
Peck's Beach			30.05	763.3	69	20.6	60	W	16	7.2		Haze	Haze			0	0		
Pembina, D. T.			29.90	759.4	54	12.2	73	Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.03	762.7	65	18.3	53	SW	3	1.3		Haze	0			0	0		
Pike's Peak, C. T.			30.12	765.0	25	— 3.9	75	S	18	8.0		2k	Haze	N		0.01	0.3		
Pittsburgh, Penn.			30.00	76 .0	67	19.4	60	S	12	5.4		2c	5s	NW	NW	0	0		
Port Huron, Mich.			29.89	759.2	62	16.7	77	S	5	2.2			10s		S	0.02	0.5		
Portland, Maine			29.96	761.0	54	12.2	61	NW	8	3.6		8ks	Haze	SW		0.06	1.5		
Portland, Or.			30.22	767.6	45	7.2	76	E	3	1.3		5k	Haze			0.11	2.8		
Punta Rassa, Fla.			30.08	764.0	69.9	20.5	75	NE	16	7.2			10s		NE	0	0		
Rochester, N. Y.			29.89	759.2	66	18.9	54	W	10	4.5		Haze	Sm'e			0	0		
Salt Lake City, Utah			29.78	756.4	50	15.0	43	SE	4	1.8			10s			0	0		
Sandy Hook, N. J.			29.97	761.2	64	17.8	57	W	9	3.6		0	Haze			0	0		
San Diego, Cal.			29.99	761.7	60	15.6	70	W	4	1.8			10s		W	0	0		
San Francisco, Cal.			29.97	761.2	51	10.6	86	W	12	5.4		Haze	Haze			0	0		
Santa Fe, N. M.			29.73	755.1	56	13.3	40	SE	4	1.8			10s		S	0	0		
Savannah, Georgia			30.20	767.1	70	21.1	75	S	1	0.4		0	Sm'e			0	0		
Shreveport, La.			30.07	763.8	70	21.1	79	Calm	0	0		5ck	5s	NW	S	0	0		
Springfield, Mass.			29.97	761.2	62	16.7	66	S	1	0.4		1ck	Sm'e			0.03	0.8		
St. Louis, Mo.			29.87	758.7	67	19.4	83	S	12	5.4			10s		SW	0.32	8.1		
St. Marks, Fla.			30.17	766.3	68	20.0	69	E	8	3.6		0	0			0	0		
St. Paul, Minn.			29.79	756.7	57	13.9	93	Calm	0	0			Fog			0.10	2.5	Foggy	
St. Paul's Island, Alaska			29.83	757.7	28	— 2.2	76	NW	21	9.4		0	10k			0	0	Light snow	
Squan Branch, N. J.			30.01	762.2	70	21.1	45	W	3	1.3		Haze	Haze			0	0		
Toledo, Ohio			29.92	760.0	66	18.9	78	S	10	4.5			10n		SW	0	0	Light rain	
Tybee Island, Ga.			30.20	767.1	76	24.4	65	Calm	0	0		0	Sm'e			0	0		
Vicksburg, Miss.			30.13	765.3	71	21.7	75	S	6	2.7			10s		S	0.01	0.3		
Virginia City, Mon.			29.65	753.1	48	8.9	63	S	2	0.9		0	0			0	0		
Washington, D. C.			30.07	763.8	64.5	18.1	62	S	2	0.9		Haze	Sm'e			0	0		
Wilmington, N. C.			30.22	767.6	71	21.7	67	W	8	3.6		0	0			0	0		
Wood's Hole, Mass.			29.97	761.2	60	15.6	70	NW	4	1.8		5k	Sm'e	SW		0	0		
Wytheville, Va.			29.92	760.0	64	17.8	62	W	3	1.3		0				0	0		
Yankton, D. T.			29.95	760.7	60	14.6	76	NW	2	0.9		0				0	0		

NOTE.—The original give the cloudiness on a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	86	30.0	75	E	6	2.7		5c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762 0	79	26.1	74	E				0	8ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.69	754.1	73	22.8	85	SE	6	2.7			10n		SE	1.49	37.8		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.17	766.3	77	25.0	86	Calm	0	0			10n			2.40	61.0	Raining	James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	79	26.1	69	E	13	5.8		0	2k			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	76	24.4	86	NW	1.2	0.5			8n		S	0	0	Showery	Robert Mason.
St. Georges, Bermudas			30.16	766.1	71	21.7	90	S	3	1.3			10kn			0.410	1 .41		C. F. Allen.
Honolulu, Oahu, S. I.			30.18	766.6	64	17.8	73	NE			2	5k	5ks	NE		0	0		E. P. Church.
Makawao, Maui, S. I.	27.52	709.2			62	16.7	88	E			3	0	6n			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.01	759.7	31.0	— 0.6	100	E	6	2.7			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.02	762.5	63	17.2	83	S	8	3.6			10n			1.56	39.6	Raining	C. Partridge.
St. John's, Newfoundland																			John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.94	760.5	67	19.4	69	SW	12	5.4		0	8ck			0	0		H. M. Redington.
Indianola, Iowa	28.91	734.3			62	16.7	88	NW					9ns			0.05	1.3		G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 22, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.98	761.5	69.8	21.0		NE			2		6			0.118	3.0	Thunder	Charnot.
Algiers			30.02	762.5	73.0	22.8	82	NE			4		3			0	0		Peter.
La Calle			30.03	762.8	77.0	25.0		ENE			2		1			0	0		Kuntz.
Bône			30.07	763.7	85.6	29.8	39	ESE			2		0			0	0		Jacques.
Biskra			30.12	765.0	75.2	24.0	66	ESE			3		1			0	0		Chauvey.
Tebessa			29.99	761.8	77.0	25.0		NE			2		6			0	0		Grosjean.
Sétif			30.07	763.7	77.2	25.1		E			2		0			0	0		Colin.
Laghouat			30.00	762.0	69.8	21.0		ESE			6		7			0.039	1.0	Threatening	Bernadach.
Biskra			30.00	762.0	78.8	26.0	24	E			4		10			0	0		Poinsignon.
			30.09	764.2	89.6	32.0		E			3		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.99	761.8	84.4	29.1	39	SW			2		2			0	0		Prof. Ivan Stozir.
Ofen-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.13	765.2	70.9	21.6	77	NE			2		7			0	0		I. R. Observatory.
Gorlitz			30.06	763.4	66.9	19.4	56	N			2		2		S	0.118	3.00		Julius Mikolik.
Gratz			30.01	762.3	75.7	24.3	61	SE			2		2			0	0		Andreas Rospini.
Hermannstadt			29.95	760.6	72.0	22.2	52	SE			1		8			0.350	8.90	Raining	Prof. Roissenberger.
Kremsmünster			30.04	762.9	72.3	22.4	52	NE			1		0			0	0		Prof. C. Wagner.
Lemberg			30.09	764.3	62.2	16.8	73	E			3		7			0.138	3.5		Dr. T. Stanecki.
Kyregyhaza			30.08	763.9	67.3	19.6	69	NE			3		6			0	0		Habzsuda Daniel.
Pola			30.05	763.3	72.1	22.3	75	WNW			2		1k			0	0		I.R. Hydrographic Office
Salzburg			30.02	762.6	80.2	26.8	90	SE			2		8			0.282	7.15		Karl Stancel.
Triesse			30.07	763.7	73.9	23.3	68	NW			1		1			0	0		Prof. V. Farolfi.
Vienna			30.03	762.7	77.0	25.0	70	NE			1		5			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.82	757.5			67.6	19.8	46	SW			2		4k		SW	0.020	0.50		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.55	750.6	55.9	13.3		S	31	13.9			4			0.120	3.05		William Boswell.
Annanhill																			
Ardrossan			29.54	750.3	56	13.3		SSW			4		5					Showery	William McNeil.
Armagh Observatory			29.50	749.3	52.7	11.5		S	16	7.2			6					Squally	S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.69	754.1	55.5	10.3		SW			3		9						John Hartnup, Jr.
Birr Castle, (Parsonstown).			29.55	750.6	52.6	11.4		SW			3–5		10					Drizzling	J. Dreyer, for L'd Rosse.
Bradford			29.68	753.9	57.0	13.0		SW			1		5						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.01	762.2	83.0	28.3		NE			4		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.85	758.2	63.0	17.2		SSW			3		3					Showery	H. Todd.
Cape Town, (Cape Colony)			30.06	763.5	58.4	14.7		SE			6		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.13	765.3			57.0	13.9	82	SSE	28	12.5			10						The Staff, for E. J. Stone.
Cardington			29.84	757.9	56.4	13.6		SW					9					Showery	John McLaren.
Carlisle			29.65	753 1	60.2	15.7		S					8			0.09	2.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.87	758.7	63.2	17.3		WSW			4		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759.2	82.6	28.1		SE			1		6						Sgt. W. F. Hopkins.
Dartmoor			29.91	759.7	50.2	10.1		SW			8		10						R. E. Power.
Donaghadee			29.53	750.0	55	12.8		SW			6		6						J. Mac Gowan, Jr.
Dover			29.96	761.0	59	15.0		SW			3		3						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.71	754.6	56.0	13.[illegible]		S	2.4	1.1			4					Squally	Thomas Mackereth.
Falmouth Observatory			29.83	757.7	58.9	14.9		SSW	31	13.9			9					Squally	The Staff.
Fort Napier, (Natal)			29.95	760.7	75.0	23.9		NE			3		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.82	757.4	87.0	30.6		N					9						
Galway, Queen's College			29.51	749.5	55	12.8		SW			6		5					Rainy	B. G. Clare, for Prof. Curley.
Gibraltar, (Mediterranean)			30.02	762.5	76.5	24.7		E			2		5						Sergt. E. G. Baker.
Glasgow Observatory			29.52	749.8	55.4	13.[illegible]		S			4		8						James Gray.
Great Yarmouth			29.88	758.9	60	15.[illegible]		SSE			5		3						G. T. Watson.
Greenwich Royal Obs.			29.91	759.7	60.0	15.6		SW			6		9					Showery	The Staff, for G. B. Airy.
Guernsey			29.94	760.5	62	16.7		SSW			4		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.74	755.4	54.6	12.[illegible]		SW					9					Showery	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.77	756.1	60.1	15.6		NW			1		9						Corp'l J. [illegible] Thompson.
Helston			29.80	756.9	62	16.7		S			4		6						Dr. W. B. Moyle.
Holyhead			29.95	761.0	57	13.9		SSW			6		2			Blank	Blank		John Tilston.
Hull Park																			
Kew Observatory			29.70	754.4	60.5	15.8		SSW	28	12.5			8						The Staff.
Kingstown			29.63	752.6	55	12.8		SW			3		7					Showery	George Mitchell.
Lampeter																			
Leicester Museum			29.80	756.9	59.8	15.4		SW			6		7						William J. Harrison.
Llandudno			29.69	754.1	59.9	15.5		SW					4						Dr. James Nicol.
Malta, (Mediterranean)			30.04	763.0	73.6	23.1		NE			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.42	747.3	62	16.7		SSW			4		2						William D. Penny.
Nassau, (Bahamas)			30.04	763.0	72.8	22.7		E			3		10						Surg.-Maj. J. Jameson.
North Shields			29.67	753.6	59	15.0		SSW			5		5						John Wm. Irvine.
Nottingham			29.76	755.9	64.0	17.8		SSW			5		7k		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.76	755.9	57.0	13.9		S			6		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.82	757.4	61	16.1		SSW			6		9						J. Lucas, for R. Main.
Plymouth			29.85	758.2	60	15.6		S			5		5						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.63	752.6	54	12.2		SW			5		5						W. Kennedy.
Saint Ann's Head			29.71	754.6	53	11.7		SW			4		9					Squally	John C. Walker.
Saint Helier, (Jersey)			29.95	760.7	59.4	15.2		SW			6		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			29.72	754.9	61.0	16.1		SW			3		8						F. Shaw.
Scutari, (Turkey)			29.96	761.0	72.0	22 2		NE			2		6						Sergt. W. H. Lyne.
Sheffield			29.73	755.1	62/7	17.1		SW			3		5			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.64	752.8	59.0	15.0		SW			6		4			0.115	2.92		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.90	759.4	62.1	16.7		SSW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.70	754.4	52.9	11.6		SW			2		8					Hazy	The Staff.
Stornoway, Lews C. (Hebr).			29.30	744 2	51	10.6		SW			7		7						John Smith.
Strathfield Turgiss			29.89	759.2	62	16.7		S			1–2		4						Rev Charles H. Griffith.
Streatley Vicarage			29.88	758.9	61.2	16.2		WSW			8		8						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.40	746.7	58	14.4		SSW			5		5						John Trotter.
Truro, Royal Institution			29.79	756.7	61	16.1		SW			7		8					Rainy	W. Newcombe.
Valencia Observatory			29.58	751.3	52	11.1		SW	32	14.3			5						The Staff.
Wick																			
Wisbeach																			
Worthing			29.93	760.2	59.5	15.3		SW			4		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Stations.	Corr. Inches	Corr. mm	Red. Inches	Red. mm	Fahr.	Cent.	Rel. Hum.	Wind From—	Miles per hour	Meters per second	Force	Clouds Up'er	Clouds Low'r	Dir. Upper	Dir. Lower	Rain Inches	Rain mm	Weather
Copenhagen			29.97	761.3	60.2	1[illegible]	54	S			2		6					
Fanöe			29.97	761.3	56.8	13.8	80	WSW			2		1					
Godthaab, (Greenland)			29.73	55.1	25.9	−3.4		ENE			6		0					
Stykkisholm, (Iceland)			28.66	727.9	41.4	5.2	94	NE			9		8					Raining
Thorshavn, (Faröe)			29.22	742.2	50.5	10.3	76	S			6–7		7					Raining
Vestervig			29.93	760.2	57.4	14.1	77	WSW			4		0					

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio			30.00	762.0	77.5	25.3	61						1ks						Normal School.
Alençon			29.92	762.5	66.9	19.4	65	SW			3		8kn			0	0		Normal School.
Amiens			30.08	764.1	76.0	24.8	67	WSW			2		8		WSW	0	0		Normal School.
Beaumette, (near Angers)			30.04	762.9	70.5	21.2	39	SSW	23.3	10.4			10		SSW	0	0		Beaumette Observatory
Beauvais			30.07	763.6	69.8	21.0	44	SSW			6		8		SW	0	0		Normal School.
Besançon			30.17	766.2	74.5	23.6	59	NE			4		2		SW	0	0		Normal School.
Bourg en Bresse			30.14	765.4	80.4	26.9	42	W			2		0			0	0		Normal School.
Brest			30.1[illegible]	765.9	65.7	18.7	75	S			2		10		N	0.480	12.2		Normal School.
Caen			29.91	759.6	62.8	17.1	66	SW			6		8		SW	0	0		Naval Observatory.
Chartres			30.02	762.4	61.3	16.3	80	S			2		10			0.028	0.7		Normal School.
Chaumont			30.05	763.3	71.6	22.0		SW			3		7k		SW	0	0		Normal School.
Commercy			30.09	764.2	58.8	14.9		WSW			1		[illegible]n		W 3W	0.020	0.5		Normal School.
Le Havre			30.19	766.9	58.3	14.6	82	WNW			2		10			0.018	0.45		Normal School.
Lons-Le Saulnier			30.19	766.7	66.2	19.0	66	WSW			4		8		SW	0.020	0.5		Normal School.
Mâcon			30.11	764.7	73.0	23.1	47	WSW			1		2		NW	0	0		Normal School.
Mirecourt																			
Orléans			30.24	768.0	63.5	17.5	75	N			2		10		S	0	0		Normal School.
Paris Observatory			30.21	767.2	75.2	24.0	49	W			4		5		WSW	0	0		Normal School.
Parthenay			30.05	763.3	7[illegible].3	21.3		S			4		8			0	0		National Observatory
La Rochelle sur Yon			29.97	761.3	65.3	18.5	57	SW			2		8		SW	0	0		Normal School.
Rouen			30.09	764.3	63.3	17.4	43	SW			4		5		NE	0	0		Normal School.
Saint Lo			30.04	763.1	70.0	21.1	49	S			4		5		S	0	0		Normal School.
Villefranche			30.05	763.2	66.2	19.0	49	SW			2		5		NW	0.150	3.8		Normal School.
Sub-Series.																			
Gorée, (Senegambia)			30.13	765.3	78.8	26.0	58	E			1		2			0	0		Normal School.
Mont-Louis																			Frère Pascall.
Montsouris Observatory	24.93	634.0			65.5	18.6	48	S	18.0	8.33			8		SSW	0	0		—. Falguère.
Perpignan			30.05	763.2	70.7	21.4	43	SW			4		10k, kn		SW	0	0		Marié Davy.
Saint Maur, (near Paris)	29.93	760.3			73.2	22.9	58	E	7.5	3.33			3		SE	0	0		Dr. Fines.
Saint Pierre, (Martinique)			30.06	763.5	68.5	20.3	49	SSW			2		10			0	0		E. Renou.
Tours															SW				
Versailles, (near Paris)			30.08	764.0	67.6	19.8	46	SW			2		10			0	0		C. Marquet.
Zi-Ka-Wei, (near Shanghai)			30.09	763.4	70.5	21.4	51	SW			2		7			0	0		Dr. A. Bérigny.
			29.78	756.1	70.7	21.5	88	SE	6.9	3.1						0 / 0	0 / 0	Fog	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind force for Montsouris in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Bamberg			29.80	759.1	71.6	22.0	48	SW			3		2			0	0		Prof. Hoh.
Berlin			30.[illegible]7	763.7	70.7	26.5	32	S			3		3			0.035	0.9		Prof. Arndt.
Breslau			30.18	766.6	73.6	23.1	33	S			2		1			0	0		Dr. P. Neugebauer.
Carlsruhe			30.04	763.0	75.2	24.0	52	NE			1		9			0	0		A. Senz.
Cassel			29.90	759.5	7[illegible].3	22.4	71	N			2		8			0.136	3.45		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Dresden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.05	763.2	69.8	21.0	69	W					2			0.122	3.1		M. Wilhelm.
Hamburg			30.94	763.1	65.3	18.5	75	WNW			1		10			0.013	0.30		W. Reinert.
Kiel			29.99	761.7	67.8	19.9	55	W			3		10			0	0		Prof. G. Karsten.
Königsberg			30.14	765.6	74.1	23.4	40	S			1					0	0		Prof. E. Luther.
Köslin			30.25	768.3	70.1	24.5		S			3		3			0	0		Dr. Tägert.
Leipsic			30.01	762.3	82.8	28.2	35	SW			2		2			0	0		Prof. Bruhns.
Munster			30.06	763.4	62.6	17.0	83	SW			2		3			0	0		Prof. E. Heis.
Posen			30.13	765.3	75.7	24.3	40	SE			1		1			0	0		Dr. Magener.
Strasburg, (in Alsace)			30.07	763.7	73.0	22.8	54	N					4			0.133	3.38		Hartwig and Tülk.
Stuttgart			30.01	762.3	77.5	25.3	53	E					2			0	0		Mr. Würth.
Trier			30.15	765.7	75.2	24.0	31	SE			2		1			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.07	763.7	61.0	16.1	76	SW			6		10			0.102	2.59		Prof. Flesch.
Wusterow			30.02	762.4	59.2	15.2	63	WSW			2		5			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Moncalieri			30.06	763.5	77.9	25.5	45	WSW	1.3	0.6			1			0	0		
Mondovi			30.03	762.7	75.7	24.3		NW			8		0	W		0	0		
Genoa			30.10	764.4	74.3	23.5	57	SW	3.1	1.4			0			0	0		
Pavia			30.05	763.2	80.6	27.0	41	SW			1		0			0	0		
Verona			30.04	763.1	78.8	26.0	52	E			1		0			0	0		
Udina			30.03	762.7	78.8	26.0	43	NNW	4.3	1.9			0			0	0		
Parma																			
Modena																			
Leghorn			30.06	763.4	83.5	28.6	34	NW	2.5	1.1			0			0	0		
Urbino			30.12	765.0	73.8	23.2	61	NW	4.3	1.9			1			0	0		
Ancona			30.08	764.1	75.0	24.2	37	N			2		1			0	0		
Rieti			30.08	764.0	74.1	23.4	62	NNW			2		1			0	0		
Rome			30.02	762.6	81.0	27.7	30	SE	0	0			4	N		0	0		
Naples, O.U.			30.07	763.6	81.7	27.6	45	SSW	6.3	2.8			1			0	0		
Lecce			30.07	763.7	81.7	27.6	37	SW			1		2			0	0		
Cosenza			30.06	763.5	74.3	23.5	53	NNW	13.7	6.1			0			0	0		
Catania, (Sicily)			30.02	762.4	82.4	28.0	44	NW			1		0	SW		0	0		
Trapani																			
Palermo			30.04	763.0	73.6	23.1	53	ESE			2		3	W		0	0		
Sub-Series.			30.02	762.4	73.9	23.3	63	NE			4		1			0	0		
Naples, S. R.			30.10	764.6	81.7	27.6	81	NW			3					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.03	762.7	61.7	16.5		NW			3								
Groningen			29.96	760.9	65.3	18.5		SW			4								
Helder			29.99	761.7	61.5	16.4		SW			4								
Utrecht			29.96	760.9	71.6	22.0	63	SW			3		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.69	754.2	59.0	15.0	68	SW	19.9	8.9			10			0.205	5.2		
Christiania			29.90	759.5	59.4	15.2	74	WSW	2.9	1.3			9			0	0		
Tromsö			29.96	760.9	50.4	10.2	76	Calm			0		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.78	756.5			69.3	20.7	37	NE		6.1			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.15	765.7	70.3	21.3	41	ESE	4	2			3						Astronomical Obs.
Wilna			30.17	766.3	68.2	20.1	38	Calm	0	0			5						Astronomical Obs.
Dorpat			30.11	764.7	61.9	16.6	50	WNW	4	2			5						Physical Cabinet.
St. Petersburg			30.00	762.0	54.1	12.3	65	NW	11	5			2						Central Physical Obs.
Kuopio																			
Kieff			30.16	766.0	68.0	20.0	40	NNE	9	4			2						Physical Cabinet.
Nikolaiev			30.07	763.8	81.5	27.5	38	NE	4	2			4						
Kertch			29.96	761.0	78.3	25.7	54	NNE	10	4.5			2						Lagorio.
Moscow			30.02	762.6	55.2	12.9	67	NW	17	7.5			7						Meteorological Obs.
Lugan			29.89	759.2	73.6	23.1	38	N	10	4.5			1						Meteorological Obs.
Archangel			29.98	761.5	55.6	13.1	72	Calm	0	0			7						Ogorodnikof.
Tiflis			29.84	757.8	82.4	28.0	33	S	4	2			8						Physical Obs.
Astrakhan			30.02	762.5	81.5	27.5	33	SE	10	4.5			0						Sebastianof.
Kasan			29.84	757.8	61.7	16.5	43	W	10	4.5			8						Physical Cabinet.
Orenburg			29.93	760.3	65.7	18.7	44	W	10	4.5			4						Tschernischef.
Ekaterinburg			29.79	756.6	55.4	13.0	52	W	4	2			7						Meteorological Obs.
Kasaly			29.97	761.1	78.3	25.6	77	SW	7.8	3.5			2						Bobrof.
Tashkend			30.15	765.8	79.5	26.4	32	Calm	0	0			0						Michelson.
Barnaul			29.78	756.4	53.1	11.2	60	W-W	8	3.5			4						Meteorological Obs.
Yeniseisk			29.36	745.7	58.5	14.7	61	NE	10	4.5			9						Marks.
Irkutsk			29.46	748.3	58.6	14.8	47	Calm	0	0			10					Smoky, hazy	Usolzef.
Oorga			29.67	753.5	56.5	12.6	92	Calm	0	0			8						Mossin.
Peking, (China)			29.81	757.1	71.1	21.7	33	SW	8	3.5			0						Physical Observatory
Nertchinsk			29.63	752.6	52.5	11.4	40	Calm	0	0			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					33.1	0.6	78	SE	8	3.5			0						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.01	762.2	76.8	24.9	47	W	11.9	5.34			5			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.05	763.3	57.0	14.4	48	SW			2		2			0	0		
Hernosand			29.97	761.2	59.9	15.5	51	S			2		4			0	0		
Stockholm			30.00	761.9	67.5	19.7	45	SW			3		4			0	0		
Wisby			30.09	764.2	59.4	15.2	56	W			3		0			0	0		
Sub-Series.																			
Upsala			30.00	762.0	68.9	20.5	46	SSW			4		8	W	WSW				Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.67	728.1			70.0	26.1	39	WSW			2		4			0	0		The Observatory.
Zurich	28.45	722.6			81.9	27.7	40	N			1		2			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +2.7mm.; Thermometer, +8°.6 C.; Relative Humidity, —17 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)			29.85	758.2	75.0	24.5	81	NW			1		0						Prof. C. N. A. Van Dyck.
Constantinople			30.03	762.8	70.3	21.3	46	NNE	12.3	5.5			8		NW	0	0		
Fao, (Persian Gulf)			29.85	758.2	91.4	33.0		SE			3		0						
Salonica					83.3	28.5		NW			1		0						
Valona			30.04	763.0	76.3	24.6		W			2		2						
Varna			30.04	763.0	78.0	26.0		NE			2		0						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

NOTE.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.92	760.0	57	13.9		SW	6	2.7			1os		SW	0	0		
Chatham, N. B.			29.73	755.1	52	11.1	74	SW	5	2.2		5 k	5ks	W	W	0	0		
Charlottetown, P. E. Island			29.76	755.9	53	11.7	69	SW	4	1.8			8s			0	0		
Fort Garry, Manitoba			29.80	756.9	53	11.7	86	S	3	1.3		0	Haze			0	0		
Halifax, N. S.			29.74	755.4	57	13.9	63	W	12	5.4		5cs	0			0	0		
Kingston, Ontario			29.91	759.7	56	13.3	84	Calm	0	0		Haze	0			0	0		
Montreal, Quebec			29.81	757.2	65	18.3	75	SW	13	5.8		5ck	Sm'e	NW		0	0		
Ottawa, Ontario			29.85	758.2	58	14.4	51	Calm	0	0		0	Sm'e			0	0		
Parry Sound, Ontario			29.91	759.7	58	14.4	70	Calm	0	0		Haze	Sm'e			0	0		
Port Dover, Ontario			29.92	760.0	55	12.8	100	S	6	2.7			Fog			0.05	1.3	Foggy.	
Port Stanley, Ontario			29.95	760.7	53	11.7	95	SW	6	2.7			Fog			0.07	1.8	Foggy	
Quebec, Quebec			29.81	757.2	60	15.6	60	SW	3	1.3			10n		SW	0	0		
Saugeen, Ontario			29.92	760.0	48	8.9	82	Calm	0	0			Fog			0.04	1.0	Foggy	
Stayner, Ontario			29.91	759.7	57	13.9	87	NW	1	0.4		Haze	Haze			0.03	0.8		
Sydney, C. B.			29.76	755.9	51	10.6	70	W	11	4.9		8cs	2ks	NW	W	0.12	3.0		
Toronto, Ontario			29.90	759.4	63	17.2	82	Calm	0	0		0	0			0.12	3.0		

NOTE.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.87	758.7	64	17.8	89	NW	1	0.4		10k	0	W		0.28	7.1		
Alpena, Mich.			29.88	758.9	57	13.9	75	Calm	0	0		0	Sm'e			0	0		
Atlantic City, N. J.			29.95	760.7	64	17.8	83	SW	6	2.7			10s		SW	0	0		
Augusta, Ga.			30.05	762.3	65	18.3	84	Calm	0	0		5cs	0	SW		0	0		
Baltimore, Md.			29.98	761.5	74	23.3	59	SW	3	1.3		2ck	2s	W		0	0		
Barnegat, N. J.			29.95	760.7	67	19.4	79	SW	3	1.3			10ks		N	0	0		
Benton, Montana			29.99	761.7	50	10.0	38	SW	4	1.8			10s			0.01	0.3		
Bismarck, Dakota			29.54	750.3	64	17.8	47	S	4	1.8		5k	0	S		0	0		
Boston, Mass.			29.87	758.7	58	14.4	93	W	4	1.8			10n		NW	0.32	8.1	Light rain	
Breckenridge, Minn.			29.82	757.4	56	13.3	73	SE	2	0.9		0	0			0	0		
Buffalo, N. Y.			29.91	759.7	55.5	13.1	93	SW	4	1.8			Fog			0.08	2.0	Foggy	
Burlington, Vt.			29.86	758.4	60	15.6	71	S	4	1.8		0	10s			0	0		
Cairo, Ill.			29.92	760.0	63	17.2	88	SW	4	1.8			8s		SW	0.54	13.7		
Cape Hatteras, N. C.			30.10	764.5	70	21.1	79	W	8	3.6		5c	Haze			0	0		
Cape Henry, Va.			30.05	763.3	76	24.4	52	SW	16	7.2		2c	Haze	W		0	0		
Cape May, N. J.			29.98	761.5	64	17.8	83	W	10	4.5		5c	Haze	W		0	0		
Charleston, S. C.			30.07	763.8	69	20.6	84	N	4	1.8		5c	2s			0	0		
Cheyenne, W. T.			29.83	757.7	50	10.0	53	W	8	3.6		10c	Haze			0	0		
Chicago, Ill.			29.83	757.7	63	17.2	83	SE	4	1.8		0	0			0.21	5.3		
Cincinnati, Ohio			29.94	760.5	66	18.9	83	SE	2	0.9			10s			0.44	11.2		
Cleveland, Ohio			29.92	760.0	64.6	18.1	81	SW	10	4.5			10ks			0.06	1.5	Clearing	
Colorado Springs, Col.			29.84	757.9	46	7.8	84	N	4	1.8		2c	5ks	SE		0	0		
Corsicana, Texas			29.89	759.2	72	22.2	85	S	4	1.8		5k	0	S		0	0		
Davenport, Iowa			29.78	756.4	63	17.2	94	NE	4	1.8			10s			0.28	7.1		
Denver, Col.			29.85	758.2	56	13.3	51	Calm	0	0		10cs	0	SW		0	0		
Detroit, Mich.			29.87	758.7	64	17.8	94	S	3	1.3		0	10ks		S	1.01	25.7		
Dodge City, Kansas			28.45	748.0	64	17.8	62	W	4	1.8		10k	0	W		0	0		
Dubuque, Iowa			29.82	757.4	62	16.7	88	N	2	0.9			10s			0.03	0.8	Threatening	
Duluth, Minn.			29.89	759.2	46	7.8	85	Calm	0	0		Haze	Fog			0	0	Foggy	
Eastport, Me.			29.82	757.4	53	11.7	67	SW	4	1.8		10c	0	NW		0	0		
Erie, Penn.			29.88	758.9	66	18.9	78	SW	8	3.6			10ks			0.46	11.7		
Escanaba, Mich.			29.92	760.0	56	13.3	87	N	2	0.9		Haze	Haze			0	0		
Fort Gibson, I. T.			29.84	757.9	65	18.3	80	E	13	5.8			10ks		NE	0.12	3.0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.67	753.6	62	16.7	51	SE	14	6.3		2k	0	W		0	0		
Galveston, Texas			29.92	760.0	77	25.0	72	SE	5	2.2		0	2ks		SE	0	0		
Grand Haven, Mich.			29.86	758.4	68	20.0	79	Calm	0	0		Haze	Haze			0	0		
Indianapolis, Ind.			29.87	758.7	65	18.3	83	SE	5	2.2			10s		SW	0.09	2.3		
Indianola, Texas			29.92	760.0	77	25.0	77	S	10	4.5		5k	0	S		0	0		
Jacksonville, Fla.			29.99	761.7	71	25.6	90	E	8	3.6			10n			0.02	0.5	Light rain	
Keokuk, Iowa			29.74	755.4	67	19.4	79	W	3	1.3		2ck	2ks	NW	N	0.95	24.2		
Key West, Fla.			29.84	757.9	76.1	24.5	82	S	12	5.4		5k	0	S		1.48	37.6		
Kittyhawk, N. C.			30.08	764.0	67	19.4	84	W	16	7.2		5ck	Haze	W		0	0		
Knoxville, Tenn.			30.00	762.0	63	17.2	78	N	3	1.3		5cs	Haze			0	0		
La Crosse, Wis.			29.84	757.9	62	16.7	83	N	2	0.9		Haze	Haze			0	0		
Leavenworth, Kan.			29.77	756.1	68	20.0	68	Calm	0	0		0	0			0.01	0.3		
Lexington, Ky.			29.95	760.7	65	18.3	78	S	10	4.5		5k	5s	SW		0.19	4.8		
Long Branch, N. J.			29.94	760.5	72	22.2	67	SW	2	0.9		10c	0	SW		0	0		
Louisville, Ky.			29.90	759.4	40	4.4	75	Calm	0	0		5k	2s	SW	SW	0.56	14.2		
Lynchburg, Va.			30.01	762.2	71	21.7	58	SW	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.90	759.4	49	9.4	78	Calm	0	0		0	Haze			0	0		
Memphis, Tenn.			29.93	760.2	72	22.2	81	S	4	1.8		5k	0	SW		0.25	6.3		
Milwaukee, Wisconsin			29.91	759.7	47	8.3	100	NE	3	1.3			Fog			0.01	0.3	Foggy	
Mobile, Ala.			30.01	762.2	68	20.0	79	N	6	2.7		0	0			0	0		
Montgomery, Ala.			30.03	762.7	72	22.2	65	Calm	0	0		2cs	Haze			0	0		
Morgantown, W. Virginia			29.96	761.0	73	22.8	62	S	1	0.4		8c	0	SW		0.19	4.8		
Mt. Washington, N. H.			30.12	765.0	41	5.0	74	NW	12	5.4		2k	Haze	N		0	0		
Nashville, Tenn.			29.95	760.7	68	20.0	84	Calm	0	0		0	10ks		W	0.03	0.8		
New Haven, Conn.			29.93	760.2	62	16.7	83	N	5	2.2			10n			0.05	1.3	Light rain	
New London, Conn.			29.95	760.7	61	16.1	85	N	2	0.9			10n			0.04	1.0	Light rain	
New Orleans, La.			29.97	761.2	71	21.7	75	Calm	0	0		2c	0	W		0	0		
Newport, R. I.																			
New York, N. Y.			29.93	760.2	71	21.7	58	NW	3	1.3			10s			0	0		
Norfolk, Va.			30.05	763.3	74	23.3	55	SW	13	5.8		0	Haze			0	0		
North Platte, Neb.			29.37	746.0	62	16.7	82	S	2	0.9		10cs	2s		W	0	0		
Omaha, Neb.			29.79	756.7	60	15.6	70	Calm	0	0		2ck	0	NW		0	0		
Oswego, N. Y.			29.90	759.4	64	17.8	80	WNW	12	5.4		0	Haze			0	0		
Peck's Beach			29.99	761.7	67	19.4	78	W	12	5.4			10s			0	0		
Pembina, D. T.			29.75	755.6	60	15.6	60	SE	8	3.6		0	0			0	0		
Philadelphia, Penn.			29.96	761.0	73	22.8	58	NW	4	1.8		2c	2s	W	W	0	0		
Pike's Peak, C. T.			29.92	760.0	22	— 5.6	86	SW	8	3.6		2c	0	S		0.02	0.5		
Pittsburgh, Penn.			29.94	760.5	68	20.0	64	SW	11	4.9		2k	5s	W	W	0	0		
Port Huron, Mich.			29.89	759.2	61	16.1	100	Calm	0	0			Fog			0.17	4.3	Foggy	
Portland, Maine			29.85	757.9	55	12.8	74	Calm	0	0		8ks	Haze			0	0		
Portland, Or.			30.17	766.3	42	5.6	74	Calm	0	0		5k	Haze			0	0		
Punta Rassa, Fla.			29.88	758.9	71.5	22.0	92	NE	12	5.4			10s			0.10	4.8		
Rochester, N. Y.			29.87	758.7	57	13.9	79	W	12	5.4		2c	Haze	NW		0.19	4.8		
Salt Lake City, Utah			29.82	757.4	54	12.2	86	SW	4	1.8			10n			0.48	12.2	Light rain	
Sandy Hook, N. J.			29.92	760.0	63	17.2	78	W	10	4.5		10k	Haze	NW		0	0		
San Diego, Cal.			29.94	760.5	61	16.1	76	S	8	3.6			10s		S	0	0		
San Francisco, Cal.			29.96	761.0	50	10.0	79	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.62	752.3	55	12.8	39	SW	4	1.8		0	5s		SW	0.07	1.8		
Savannah, Georgia			30.04	763.0	71	21.7	79	NE	4	1.8			10ks		E	0	0		
Shreveport, La.			29.93	760.2	74	23.3	81	S	7	3.1		2c	0			0	0		
Springfield, Mass.			29.90	759.4	63	17.2	88	Calm	0	0			10n			0.07	1.8	Light rain	
St. Louis, Mo.			29.85	757.9	63	17.2	77	W	6	2.7			10s			0.05	1.3		
St. Marks, Fla.			29.98	761.5	68	20.0	79	E	8	3.6		8cs	0	S		0	0		
St. Paul, Minn.			29.75	755.6	64	17.8	67	Calm	0	0		0	Haze			0	0		
St. Paul's Island, Alaska			29.86	758.4	37	2.8	68	NW	18	8.0		0	10k			0.02	0.5	Light snow	
Squan Beach, N. J.			29.95	760.7	70	21.1	65	N	2	0.9		5k	5s	W		0	0		
Toledo, Ohio			29.90	759.4	69	10.6	79	SW	6	2.7		5cs	0	SW		0.06	1.5		
Tybee Island, Ga.			30.06	763.5	70	21.1	95	NE	14	6.3		8k	2d	SE		0	0		
Vicksburg, Miss.			30.02	762.5	70	21.1	84	S	3	1.3			10s		S	0	0		
Virginia City, Mon.			29.70	754.4	42	5.6	83	Calm	0	0			10s			0.33	8.4		
Washington, D. C.			30.00	762.0	75.5	24.2	69	Calm	0	0		2k	5s	W		0	0		
Wilmington, N. C.			30.11	764.8	66	18.9	84	S	3	1.3		10c	Haze	SW		0	0		
Wood's Hole, Mass.			29.93	760.2	54	12.2	93	NW	3	1.3			10			0.02	0.5	Light rain	
Wytheville, Va.			29.82	757.4	63	17.2	78	NW	1	0.4		2c	0	W		0.10	2.5		
Yankton, D. T.			29.82	757.4	57	13.9	69	NE	3	1.3		0	0			0	0		

NOTE.—The original give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7	90	E	8	3.6			10n			0.15	2.8	Light rain	E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	80	26.7	70	E				2k	0			0.05	1.3		L. V. Bigard.
Havana, Cuba, W. I.			29.60	751.8	77	25.0	90	SE	3.6	1.6			10n		S	0.44	11.2		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.16	766.1	79	26.1	86	SE	5	2.2			10n			0.30	7.6		James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	78	25.6	72	E	10	4.5		5cs	2k	E		0.07	1.8		W. S. Cameron.
Santiago de Cuba, W. I.			29.76	756.1	79	26.1	82	Calm	0	0			10n		S	0	0	Showery	Robert Mason.
St. Georges, Bermudas			30.12	765.0	72.5	22.5	83	WNW	3.6	1.6		0	5k			0.410	10.41		C. F. Allen.
Honolulu, Oahu, S. I.			30.19	766.8	69	20.6	75	NE			2	c, ck	5k	NE		0	0		E. P. Church.
Makawao, Maui, S. I.	27.86	707.6			59.5	15.3	81	E			1	2ck	2n	N		0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.94	760.5	31.0	— 0.6	100	E	6	2.7			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.00	762.0	66	18.9	94	S	10	4.5			10n			0.81	20.6	Raining	C. Partridge.
St. John's, Newfoundland																			John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.92	760.0	64	17.8	83	SW	8	3.6		0	2ks			0.02	0.5		H. M. Redington.
Indianola, Iowa	28.91	734.3			68	20.0	83	NE				0	0			0.11	2.8		G. C. Carpenter.

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

Note.—The altitude of the barometer at Makawao is 2.205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 23, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.14	765.5	71.8	22.1		NE			2		0			0	0		Charnot.
Algiers			30.10	764.4	75.2	24.0	73	NE			1		10			0	0	Foggy	Peter.
La Galle			30.11	764.7	73.0	23.1		NE			2		1			0	0		Kuntz.
Tunis			30.11	764.8	83.7	28.7	39	E			4		0			0	0		Jacques.
Sfax			30.10	766.1	75.7	24.3	65	ESE			3		1			0	0		Chauvey.
Saida			30.12	765.0	82.4	28.0		NE			2		0			0	0		Grosjean.
Tebessa			30.14	765.5	78.8	26.0		NE			1		0			0	0		Colin.
Geriville			30.09	764.3	75.4	24.1		E			4		7			0.030	1.0		Bernadach.
Laghouat			30.09	764.2	80.6	27.0	22	NE			4		3			0	0		Poinsignon.
Biskra			30.09	764.2	94.1	34.5		E			3		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.09	764.3	81.3	27.4	39	Calm			0		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.07	763.6	75.7	24.3	45	SW			1		0			0	0		I. R. Observatory.
Speries			30.10	764.5	72.5	22.5	43	NE			1		4			0	0		Julius Mikolik.
Gratz			30.06	763.4	77.2	25.1	57	S			2		2			0	0		Andreas Rospini.
Hermannstadt			30.06	763.5	67.3	19.6	66	ESE			1		2			0.289	7.35		Prof. Reissenberger.
Kremsmünster			30.11	764.9	72.7	22.6	57	NNW			3		3			0.228	5.8		Prof. C. Wagner.
Lemberg			30.11	764.8	72.3	22.4	43	E			3		5			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.11	764.9	75.9	24.4	56	NW			1		4			0	0		Habsauda Daniel.
Pola			30.07	763.8	77.0	25.0	59	WNW			1		2ck			0	0		I.R. Hydrographic Of'ce
Sebegedin			30.06	763.5	75.2	24.0	46	E			1		6			0	0		Karl Stancel.
Trieste			30.07	763.7	82.4	28.0	55	NNW			1		0			0.001	2.3		Prof. V. Farolfi.
Vienna			30.11	764.4	79.5	26.4	36	ENE			1		1			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.04	763.0			64.4	18.0	53	W			3		8k		WSW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.75	755.6	56.1	13.4		SSW	18	8.0			3			0	0		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			29.96	761.0	54.0	12.2		SW	19	8.5									S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.03	762.7	56.0	13.3		W			6								John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.08	764.0	56.0	13.3		WSW			3–4		7						J. Dreyer, for L'd Rosse
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	84.0	28.9		NE			4		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.19	766.8	62.0	16.7		SSW			3		2						H. Todd.
Cape Town, (Cape Colony)			29.90	759.4	67.2	19.6		SE			6		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.97	761.2			66.0	18.9	46	SSE	18	8.0			1						Th. Staff, for E. J. Stone.
Cardington			30.16	766.1	64.0	17.8		SW					3						John McLaren.
Carlisle			29.95	760.7	59.1	15.1		SW					4			0.04	1.0		T. Bell, for J. Carlisle.
Chatham, School M. E.			30.15	765.8	64.2	17.9		W			3		3						T. Bell, for J. Conroy.
Colombo, (Ceylon)			29.91	759.7	81.0	27.2		SW			2		7						Q. M. Sergt. J. Conroy.
Dartmoor			30.25	768.3	53.0	11.7		W			2		7						Sgt. W. F. Hopkins.
Donaghadee			29.94	760.5	53	11.7		WSW			6		5						R. E. Power.
Dover			30.23	767.8	57	13.9		SW			4		5						J. Mac Gowan, Jr.
Dublin																			J. Costello.
Durham Observatory																			
Eccles, (near Manchester)			30.04	763.0	58.6	14.8		WSW	8.8	3.9			3					Squally.	G. D. Goldney.
Falmouth Observatory			30.28	769.1	59.0	15.0		SW	22	9.8			8						Thomas Mackereth.
Fort Napier, (Natal)			30.00	762.0	68.2	20.1		E			3		0						The Staff.
Freetown, (Sierra Leone.)			29.83	757.7	88.0	31.1		N					7						Pvt. G. Salmon.
Galway, Queen's College			30.11	764.8	56	13.3		SW			6		3						
Gibraltar, (Mediterranean)			30.29	764.3	76.4	24.7		NE			4		0						B. G. Clare, for Prof. Cur.
Glasgow Observatory			29.80	756.9	49.9	9.9		WSW			2		10					Raining	Sergt. E. G. Baker.
Great Yarmouth			30.12	765.0	62	16.7		WSW			5		4						James Gray.
Greenwich Royal Obs.			30.19	766.8	62.1	16.7		WSW			4		9						G. T. Watson.
Guernsey			30.32	770.1	58.5	14.7		WSW			3		4						The Staff, for G. B. Airy.
Halifax, Moorside Obs.								W					7						Dr. S. E. Hoskins, for Lieut.
Halifax, (Nova Scotia)			29.68	753.9	51.4	10.8		NE			4		3						F. J. Page, for L. J. Crowe.
Helston			30.22	767.6	61	16.1		SW			4		6k						Corp'l J. V. Thompson.
Holyhead			30.01	762.2	57	13.9		SW			6		2						Dr. W. B. Mavle.
Hull Park																			John Tilston.
Kew Observatory			30.20	767.1	59.5	15.3		W	15	6.7			8						The Staff.
Kingstown			30.04	763.0	56	13.3		W			4		5					Showery	George Mitchell.
Lampeter																			
Leicester Museum			30.11	764.8	57.6	14.2		W			4		9					Threatening	William J. Harrison
Llandudno			30.10	764.5	60.9	16.1		SW					3						Dr. James Nicol.
Malta, (Mediterranean)			30.03	762.7	75.4	24.1		NW			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.68	753.9	59	15.0		SSW			1		8						William D. Penny.
Nassau, (Bahamas)			30.01	762.2	75.8	24.3		S			3		10						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.10	764.5	61.6	16.4		WSW			5		5k, ks		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.08	764.0	60.1	15.6		SW			5		8						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.14	765.2	61	16.1		WSW			5		5						J. Lucas, for R. Main.
Plymouth			30.24	768.1	60.5	15.8		SW			4		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.14	765.5	55	12.8		WNW			5		5						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.29	769.4	60.5	15.8		W			3		2						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.93	760.2	73.4	23.0		NNE			2		5						Sergt. W. H. Lyne.
Sheffield			30.03	762.7	59.4	15.2		W			4		4			Blank	Blank		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.96	761.0	59.9	15.5		W			6		4			0.080	2.03		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.13	765.3	63.5	17.5		SSW			3		8						Rev. C. J. Steward.
Stonyhurst Observatory			30.03	762.7	53.8	12.1		SW			4		6						The Staff.
Stornoway, Lews C. (Hebr.)			29.59	751.6	53	11.7		WSW			4		10					Showery	John Smith.
Strathfield Turgiss			30.17	766.3	61.8	16.6		W			1		5						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.54	750.6	60	15.6		SW			4		6						John Trotter.
Truro, Royal Institution			30.21	767.3	62	16.7		W			7		4						W Newcombe.
Valencia Observatory			30.15	765.8	55.2	12.9		WSW	29	13.0			2						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.09	764.3	62.8	17.1	69	S			2		9						
Fanöe			30.09	764.3	56.3	13.5	82	WSW			4		8						
Godthaab, (Greenland)			29.63	752.7	28.2	— 2.1	61	NE			4		0						
Stykkisholm, (Iceland)			29.99	738.9	50.2	10.1	63	NW			2		0						
Thorshavn, (Faröe)			29.49	749.1	52.0	11.1	68	SSW			6		3						
Vestervig			30.01	762.3	57.2	14.0	69	SW			6		8						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.05	763.3	80.6	27.0	62						1ks						Normal School.
Alençon			30.30	769.6	66.2	19.0	49	SW			3		8n			0	0		Normal School.
Amiens			30.29	769.4	64.0	17.8	82	WSW			3		5		WSW	0.276	7.0		Normal School.
Beaumette, (near Angers)			30.29	769.3	69.3	20.7	44	W	4.5	2.0			10		W	0	0		Beaumette Observatory.
Beauvais			30.34	770.6	68.7	20.4	46	W			2		8		W	0	0		Normal School.
Besançon			30.33	770.4	70.9	21.6	65	N			2		8		NE	0.346	8.8		Normal School.
Bourg en Bresse			30.26	768.6	69.3	20.7	72	N			2		2		NE	0.709	18.0	Raining	Normal School.
Bourges			30.32	770.1	65.1	18.4	74	W			2		10cn		S	0	0		Normal School.
Brest			29.88	759.0	66.7	19.3	56	W			2		5		W	0.069	1.75		Naval Observatory.
Caen			30.33	770.3	58.6	14.8	91	W			2		10			0	0		Normal School.
Chartres			30.27	768.8	71.6	22.0		SW			2		6k		SW	0	0		Normal School.
Chaumont			30.23	767.8	67.8	19.9		WSW			1		..c		WSW	0.118	3.0		Normal School.
Commercy			30.36	771.2	67.3	19.6	53	W			4		5		NE	0.075	1.90		Normal School.
Le Mans			30.45	773.5	67.5	19.7	65	WSW			3		8		WSW	0	0		Normal School.
Lons-Le Saulnier			30.30	769.6	70.7	21.5	65	N			1		5		NW	0.594	15.1		Normal School.
Mâcon																			
Mirecourt			30.41	772.5	68.0	20.0	59	NW			2		1		SE	0.165	4.2		Normal School.
Orleans			30.40	773.7	88.7	31.5	38	WSW			2		2		SW	0	0		Normal School.
Paris Observatory			30.28	769.2	70.0	21.1		SW			3		5		SW	0	0		National Observatory
Parthenay			30.29	769.4	66.2	19.0	55	W			2		5		SW	0	0		Normal School.
La Roche sur Yon			30.31	769.8	69.4	20.8	48	S			2		2		N	0	0		Normal School.
Rouen			30.30	769.7	68.4	20.2	49	W			3		1		S	0	0		Normal School.
Saint Lo			30.37	771.4	61.2	16.2	81	NW			2		10		SE	0.157	4.0		Normal School.
Villefranche			30.35	770.5	81.5	27.5	70	E			4		10		N	0.315	8.0		Normal School
Sub-Series.																			
Goréo, (Senegambia)					51.4	10.8	90	NNE	13.0	5.83			10		NNE	0.232	5.9		Frère Pascall.
Mont-Louis	25.12	638.0			74.8	23.8	40	WSW			2		8k			0	0		—. Faiguère.
Montsouris Observatory			30.28	769.1	68.4	20.2	78	WSW	7.5	3.33			8			0.150	3.8		Marié Davy.
Perpignan	30.08	764.1			71.4	21.9	39	W			2		9			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.29	769.3															E. Renou.
Saint Pierre, (Martinique)					72.7	22.6	40	NW			1		5		W	0	0		C. Marquet.
Tours			30.30	769.5	68.4	20.2	51	W			2		8			0	0		Dr. A. Bérigny.
Versailles, (near Paris)			29.90	759.4	65.1	18.4	63	NNE	5.1	2.3		0	0			0 / 0	0 / 0		H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai)			29.96	761.0															

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at ZiKa--Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.07	763.8	70.2	21.2	59	W			3		7			0.472	12.0		Prof. Hoh.
Berlin			30.21	767.3	73.2	22.9	57	SW			3		7			0.087	2.2		Prof. Arndt.
Breslau			30.20	767.0	77.2	25.1	43	NW			5		1			0.169	4.3		Dr. P. Neugebauer.
Carlsruhe			30.22	767.5	70.[illegible]	21.4	63	SW			1		9			0.173	4.4		A. Senz.
Cassel			30.07	763.8	72.5	22.5	55	NW			4		6			0.090	2.28		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.24	768.2	64.4	18.0	85	NW					10			0.118	3.0	Light rain	M. Wilhelm.
Hamburg			30.14	765.6	65.8	18.8	67	S			1		8ks			0.059	1.40		W. Reinert.
Kiel			30.10	764.4	65.3	18.5	63	W			3		10			0	0		Prof. G. Karsten.
Königsberg			30.11	764.9	77.0	25.0	41	SW			1					0	0		Prof. E. Luther.
Köslin			30.30	769.6	64,	18.0		NW			2		5			0	0		Dr. Tägert.
Leipsic			30.17	766.3	74.5	23.6	52	WNW			1		7			0.138	3.5		Prof. Bruhns.
Münster			30.17	766.4	70.7	21.5	56	SW			2		0			0	0		Prof. E. Heis.
Posen			30.17	766.2	77.0	25.0	49	W			5		10			0.024	0.6		Dr. Magener.
Strassburg, (in Alsace)			30.25	768.4	69.4	20.8	57	NW					9			0	0		Hartwig and Tülk.
Stuttgart			30.21	767.4	69.4	20.8	70	W					9			0.327	8.3	Light rain	Mr. Würth.
Thorn			30.13	765.3	78.1	25.6	36	S			4		4			0	0		Dr. Hesenbalg.
Treves, (Trier)			30.19	766.8	70.0	21.1	48	W			7		3			0	0		Prof. Flesch.
Wustrow			30.14	765.6	57.7	14.3	86	NW			3		78			0.102	2.59		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.06	763.5	81.9	27.7	48	SW	2.5	1.1			3	NE		0	0		
Mondovi			30.05	763.3	79.2	26.2	38	WNW			2		0	SW		0	0		
Genoa			30.11	764.9	74.8	23.8	68	SW	1.8	0.8			0			0	0		
Pavia			30.06	763.5	81.5	27.5	44	NE			1		1	NE		0	0		
Verona			30.07	763.6	87.1	30.6	32	E			1		0			0	0		
Padua			30.05	763.2	81.5	27.5	40	SW	1.8	0.8			0			0	0		
Parma																			
Modena			30.07	763.8	84.2	29.0	30	E	6.9	3.1			2			0	0		
Leghorn			30.10	764.6	74.8	23.8	71	W	4.3	1.9			1			0	0		
Urbino			30.08	764.1	76.3	24.6	48	NE			2		0			0	0		
Ancona			30.10	764.4	75.9	24.4	65	NE			2		0			0	0		
Siena			30.04	763.1	82.6	28.1	31	NNW	0	0			2	E		0	0		
Rome			30.07	763.7	84.6	29.2	42	SW	7.4	3.3			0			0	0		
Naples, O.U			30.07	763.7	85.6	29.8	44	SE			2		1	N		0	0		
Lecce			30.00	762.0	75.9	24.4	51	NNW	15.0	6.7			0			0	0		
Cosenza			30.04	763.0	82.0	27.8	41	WNW			1		8			0	0		
Catania, (Sicily)																			
Riposto			30.00	762.0	75.7	24.3	62	ESE			2		1	SE		0	0		
Palermo			30.03	762.8	75.0	23.9	60	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.11	764.8	84.0	29.2	52	ESE			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.27	768.8	59.0	15.0		WNW			4								
Groningen			30.13	765.3	62.4	16.9		W			5								
Helder			30.16	766.0	57.9	14.4		SW			5								
Utrecht			30.18	766.6	66.6	19.2	50	W			5		2						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.84	758.0	57.2	14.0	69	S	24.6	11.0			3			0.070	2.0		
Christiania			29.96	761.2	62.6	17.0	61	SSW			2		5			0.012	0.3		
Tromsö			29.95	766.6	53.6	12.0	93	Calm			0		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.84	757.4			73.6	23.3	41	NNE	16.1	7.2			1						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.14	765.6	74.1	23.4	46	S	4	2			0						Astronomical Obs.
Wilna			30.15	765.9	74.8	23.8	33	W	4	2			8						Astronomical Obs.
Dorpat			30.16	766.1	68.7	20.4	37	ENE	7	3			1						Physical Cabinet.
St. Petersburg			30.21	767.2	52.7	11.5	59	E	2	1			1						Central Physical Obs.
Kuopio																			
Kieff			30.15	765.9	72.3	22.4	41	N	4	2			4						Physical Cabinet.
Nikolaiev			30.09	764.3	80.1	26.7	33	NE	8	3.5			0						
Kertch			29.98	761.4	69.6	20.9	60	NNE	17	7.5			1						Lagorio.
Moscow			30.03	762.8	59.5	15.3	49	N	10	4.5			7						Meteorological Obs.
Lugan			29.86	758.4	75.0	23.9	25	N	10	4.5			6						Meteorological Obs.
Archangel			30.32	770.1	48.6	9.2	84	WNW	13	6			2						Ogorodnikof.
Tiflis			29.71	754.7	85.3	29.6	31	SE	8	3.5			4						Physical Obs.
Astrakhan			29.83	757.6	78.4	25.8	55	SSW	2	1			8						Sebastianof.
Kasan			29.87	758.6	58.8	14.9	58	S	8	3.5			6						Physical Cabinet.
Orenburg			30.07	763.8	66.7	19.3	35	Calm	0	0			5						Tschernischef.
Ekaterinburg			29.97	761.2	58.3	14.6	51	N	4	2			8						Meteorological Obs.
Kasaly			30.05	763.2	73.4	23.0	84	Calm	0	0			0						Bobrof.
Tashkend			29.90	759.7	84.4	29.1	28	Calm	0	0			2						Michelson.
Barnaul			29.73	755.2	54.7	12.6	62	SW	8	3.5			4						Meteorological Obs.
Yeniseisk			29.39	746.4	54.0	12.2	67	NE	13	6			4						Marks.
Irkutsk			29.48	748.7	48.9	9.4	75	Calm	0	0			10						Usolzef.
Oorga			29.36	745.8	47.5	8.6	100	W	20	9			10						Mossin.
Peking, (China)			29.72	754.9	76.1	24.5	33	SW	8	3.5			0						Physical Observatory
Nertchinsk			29.23	742.5	65.1	18.4	32	Calm	0	0			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					33.8	1.0	92	SE	10	4.5			5						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.04	763.0	85.3	29.6	32	SW	5.2	2.33		1	3	SW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.10	764.5	55.7	13.2	66	SW			1		8			0	0		
Hernosand			30.02	762.5	46.4	8.0	81	*ESE			1		10			0.05	1.2		
Stockholm			30.03	762.7	54.0	12.2	56	S			1		6			0	0		
Wisby			30.08	764.0	55.0	12.8	82	W			2		10			0	0		
Sub-Series.																			
Upsala			30.04	762.9	64.0	17.8	69	WSW			2		5		WSW				Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.84	732.6			70.9	21.6	68	S			2		9			0.15	3.7		The Observatory.
Zurich	28.63	727.1			69.3	20.7	79	W			1		8			0.46	11.6	Rainy	The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +7.2mm.; Thermometer, +4°.0 C.; Relative Humidity, +7 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			30.00	762.0	67.5	19.7	65	NNE	13.4	6			5		S	0	0		
Fao, (Persian Gulf)			29.82	757.5	88.5	30.3		SE			4		10						
Salonica					78.1	25.6		SW			1		5			Blank	Blank		
Valona			29.98	761.4	76.6	24.8		W			2		0						
Varna			30.04	763.0	77.0	25.0		SE			4		5						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

NOTE.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.05	763.3	64	17.8		N	3	1.3		0	0			0	0		
Chatham, N. B.			29.79	756.7	46	7.8	49	NW	20	8.9		2k	0	NW		0.04	1.0		
Charlottetown, P. E. Island			29.71	754.6	45	7.2	55	N	21	9.4			8ks			0.050	1.27		
Fort Garry, Manitoba			29.77	756.1	51	10.6	93	NE	4	1.8			10n			0.432	10.97		
Halifax, N. S.			29.59	751.6	52	11.1	69	NW	18	8.0			2ks		NW	0	0		
Kingston, Ontario			30.00	762.0	61	16.1	80	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.02	762.5	56	13.3	52	NE	4	1.8		0	0			0	0		
Ottawa, Ontario			29.99	761.7	61	16.1	63	NE	6	2.7		0	0			0	0		
Parry Sound, Ontario			29.98	761.5	60	15.6	77	S	1	0.4		0	Sm'e			0	0		
Port Dover, Ontario			29.96	761.0	59	15.0	88	Calm	0	0		5k	0	SW		0	0		
Port Stanley, Ontario			29.95	760.7	60	15.6	96	E	1	0.4		2k	0			0	0		
Quebec, Quebec			29.99	761.7	50	10.0	58	NE	4	1.8		8c	0	NE		0	0		
Saugeen, Ontario			29.94	760.5	61	16.1	66	NE	3	1.3		2cs	0			0	0		
Stayner, Ontario																			
Sydney, C. B.			29.54	750.3	46	7.8	86	NE	7	3.1			10n		NW	0	0	Threatening	
Toronto, Ontario			29.96	761.0	67	19.4	78	NE	3	1.3		0	0			0	0		

NOTE.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.92	760.0	71	21.7	75	Calm	0	0		2k	Haze	W		0.01	0.3		
Alpena, Mich.			29.91	759.7	49	9.4	92	Calm	0	0		0	Fog			0	0		
Atlantic City, N. J.			29.95	760.7	67	19.4	84	Calm	0	0		10cs	Haze	SW		0	0		
Augusta, Ga.			29.93	760.2	72	22.2	80	E	7	3.1			10s		E	0	0		
Baltimore, Md.			29.95	760.7	72	22.2	67	W	4	1.8		5ck	Haze	W		0	0		
Barnegat, N. J.			29.94	760.5	72	22.2	63	S	2	0.9		5k	0			0	0		
Benton, Montana			29.91	759.7	57	13.9	30	SW	16	7.2		5ck	2s	SW		0	0		
Bismarck, Dakota			29.68	753.9	55	12.8	86	NW	4	1.8			10s		N	0.63	16.0		
Boston, Mass.			29.88	758.9	74	23.3	41	NW	7	3.1		0	0			0	0		
Breckenridge, Minn.			29.66	753.4	64	17.8	68	S	12	5.4		5k	2s	SE		0	0		
Buffalo, N. Y.			29.92	760.0	65	18.3	73	Calm	0	0		1cs	Sm'e			0	0		
Burlington, Vt.			30.01	762.2	59	15.0	70	N	9	4.0		0	2s			0	0		
Cairo, Ill.			29.87	758.7	65	18.3	94	S	4	1.8			10s		SW	0.22	5.6		
Cape Hatteras, N. C.			30.04	763.0	75	23.9	85	Calm	0	0		8k	0	SW		0	0		
Cape Henry, Va.			30.00	762.0	76	24.4	68	W	11	4.9		2c	Haze			0	0		
Cape May, N. J.			29.96	761.0	68	20.0	74	W	8	3.6		2k	Sm'e	W		0	0		
Charleston, S. C.			29.93	760.2	69	20.6	95	NE	12	5.4			10n		N	1.29	32.8	Light rain	
Cheyenne, W. T.			29.94	760.5	48	8.9	92	NW	8	3.6			10n		NW	0.43	10.9	Light rain	
Chicago, Ill.			29.86	758.4	55	12.8	80	NE	3	1.3			10n			0	0	Light rain	
Cincinnati, Ohio			29.94	760.5	67	19.4	74	NW	3	1.3			10n			0.20	5.1	Light rain	
Cleveland, Ohio			29.90	759.4	68.9	20.5	70	S	4	1.8		2c	Haze			0	0		
Colorado Springs, Col.			29.92	760.0	51	10.6	72	NW	4	1.8		0	2ks			0.08	2.0		
Corsicana, Texas			29.89	759.2	70	21.1	85	N	2	0.9		2cs	5ks			0	0		
Davenport, Iowa			29.83	757.7	61	16.1	94	NE	4	1.8			Fog			0	0	Foggy	
Denver, Col.			29.99	761.7	52	11.1	73	Calm	0	0		2cs	5s			0.07	1.8		
Detroit, Mich.			29.89	759.2	65	18.3	86	E	2	0.9		2c	Haze			0	0		
Dodge City, Kansas			29.48	748.8	59	15.0	94	N	3	1.3		8k	0	W		0.07	1.8	Threatening	
Dubuque, Iowa			29.83	757.7	63	17.2	78	Calm	0	0		5cs	0			0	0		
Duluth, Minn.			29.79	756.7	50	10.0	85	Calm	0	0		5c	Haze	NE		0	0		
Eastport, Me.			29.85	758.2	50	10.0	51	N	14	7.2		0	0			0	0		
Erie, Penn.			29.90	759.4	68	20.0	74	Calm	0	0		2ck	Haze			0	0		
Escanaba, Mich.			29.86	758.4	60	15.6	82	S	8	3.6		Haze	5cs			0	0		
Fort Gibson, I. T.			29.72	754.9	68	20.0	84	E	4	1.8		8ck	0	W		0.03	0.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.70	754.4	61	16.1	82	N	7	3.1		5cs	1s	NW	N	0	0		
Galveston, Texas			29.88	758.9	76	24.4	76	S	4	1.8		5c	2ks	SW	S	0	0		
Grand Haven, Mich.			29.86	758.4	72	22.2	71	S	3	1.3		0	0			0.03	0.8		
Indianapolis, Ind.			29.88	758.9	63	17.2	88	SE	6	2.7			10n		S	0.27	6.9	Light rain	
Indianola, Texas			29.87	758.7	77	25.0	77	SE	8	3.6		5c	0	SW		0	0		
Jacksonville, Fla.			29.85	758.2	73	22.8	90	NE	4	1.8			10s			0.71	18.0		
Keokuk, Iowa			29.76	755.9	64	17.8	78	SE	3	1.3		2cs	2ks	NW		0	0		
Key West, Fla.			29.85	758.2	76.0	24.4	86	S	12	5.4			10n			0.25	6.3	Light rain	
Kittyhawk, N. C.			30.03	762.7	71	21.7	90	W	8	3.6		2c	Haze	S		0	0		
Knoxville, Tenn.			29.96	761.0	63	17.2	73	W	2	0.9		5c	Haze			0	0		
La Crosse, Wis.			29.82	757.4	67	19.4	74	SE	4	1.8		0	0			0.01	0.3		
Leavenworth, Kan.			29.75	755.6	68	20.0	79	Calm	0	0		5c	0			0	0		
Lexington, Ky.			29.92	760.0	66	18.9	79	SW	3	1.3			10s			0	0		
Long Branch, N. J.			29.95	760.7	76	24.4	64	SW	4	1.8		2c	Haze			0	0		
Louisville, Ky.			29.90	759.4	68	20.0	79	E	2	0.9			10s			0.37	9.4	Threatening	
Lynchburg, Va.			29.97	761.2	72	22.2	58	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.85	757.9	54	12.2	61	SE	4	1.8		0	0			0	0		
Memphis, Tenn.			29.92	760.0	66	18.9	90	SE	1	0.4			10n			0.31	7.9	Light rain	
Milwaukee, Wisconsin			29.87	758.7	51	10.6	100	E	6	2.7			Fog			0	0	Foggy	
Mobile, Ala.			29.91	759.7	73	22.8	58	W	2	0.9		2ck	0	W		0	0		
Montgomery, Ala.			29.95	760.7	75	23.9	68	SE	3	1.3		2k	Haze	SE		0	0		
Morgantown, W. Virginia			29.90	759.4	75	23.9	63	NE	1	0.4		2c	0	NW		0	0		
Mt. Washington, N. H.			30.04	763.0	40	4.4	21	NW	50	22.4		0	0			0	0		
Nashville, Tenn.			29.89	759.2	68	20.0	84	E	4	1.8		0	10ks		SW	0.06	1.5		
New Haven, Conn.			29.94	760.5	76	24.4	60	Calm	0	0		2cs	Sm'e	NW		0.13	3.3		
New London, Conn.			29.94	760.5	71	21.7	71	Calm	0	0		0	Haze			0.06	1.5		
New Orleans, La.			29.91	759.7	75	23.9	92	NW	6	2.7		5cs	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.95	760.7	72	22.2	67	Calm	0	0		2c	Sm'e			0	0		
Norfolk, Va.			30.01	762.2	76	24.4	69	SW	4	1.8		5c	Haze			0	0		
North Platte, Neb.			29.42	747.3	58	14.4	81	Calm	0	0		8c	2ks	SE	SE	0.06	1.5		
Omaha, Neb.			29.72	754.9	64	17.8	78	Calm	0	0		0	0			0	0		
Oswego, N. Y.			29.98	761.5	54	12.2	86	NW	4	1.8			Fog			0	0		
Peck's Beach			29.96	761.0	71	21.7	75	NW	4	1.8		2k	5ks			0	0		
Pembina, D. T.			29.73	755.1	52	11.1	86	N	10	4.5		10k	0			0	0		
Philadelphia, Penn.			29.95	760.7	73	22.8	80	N	8	3.6		2k	8s	W	N	0.01	0.3		
Pike's Peak, C. T.			29.96	761.0	23	−5.0	100	SW	10	4.5			Fog			0.05	1.3		
Pittsburgh, Penn.			29.91	759.7	68	20.0	64	Calm	0	0		2ck	5s	NW	W	0	0		
Port Huron, Mich.			29.94	760.5	52	11.1	93	NE	6	2.7		0	0			0	0		
Portland, Maine			29.99	759.4	68	20.0	26	NE	11	4.9		2c	0	NW		0	0		
Portland, Or.			30.17	766.3	51	10.6	49	Calm	0	0			10s			0	0		
Punta Rassa, Fla.			29.87	758.7	76	24.4	81	SE	8	3.6		5cs	2ks	SW	SW	0	0		
Rochester, N. Y.			29.94	760.5	68	20.0	69	W	3	1.3		0	Haze			0	0		
Salt Lake City, Utah			29.96	761.0	52	11.1	53	S	6	2.7		0	0			0.82	20.8		
Sandy Hook, N. J.			29.94	760.5	65	18.3	83	W	4	1.8		8c	Haze	NW		0	0		
San Diego, Cal.			29.90	759.4	58	14.4	76	Calm	0	0		0	2s		N	0	0		
San Francisco, Cal.			29.97	761.2	53	11.7	80	SW	4	1.8		Haze	0			0	0		
Santa Fe, N. M.			29.67	753.6	52	11.1	35	NE	4	1.8		8c	0	SW		0	0		
Savannah, Georgia			29.88	758.9	69	20.6	95	SE	7	3.1			10n		NE	0.30	7.6	Light rain	
Shreveport, La.			29.92	760.0	71	21.7	85	Calm	0	0		5cs	0			0	0		
Springfield, Mass.			29.92	760.0	75	23.9	68	SW	4	1.8		0	Sm'e			0.01	0.3		
St. Louis, Mo.			29.82	757.4	65	18.3	83	SW	7	3.1		0	5ks		SW	0.22	5.6		
St. Marks, Fla.			29.87	758.7	70	21.1	90	NE	10	4.5			10s		NE	0.11	2.8		
St. Paul, Minn.			29.73	755.1	65	18.3	78	SE	8	3.6		0	0			0	0		
St. Paul's Island, Alaska			29.99	761.7	33	0.1	70	WNW	10	4.5		0	5k			0.02	0.5		
Squan Beach, N. J.			29.94	760.5	75	23.9	56	NW	3	1.3		Haze	Sm'e			0	0		
Toledo, Ohio			29.92	760.0	70	21.1	75	S	4	1.8		5c	0			0	0		
Tybee Island, Ga.			29.90	759.4	69	20.6	100	NE	10	4.5			10n			0.69	17.5	Threatening	
Vicksburg, Miss.			29.96	761.0	75	23.9	69	S	1	0.4		0	2s		S	0	0		
Virginia City, Mon.			29.75	755.6	42	5.6	57	Calm	0	0		0	0			0	0		
Washington, D. C.			29.97	761.2	70	21.1	75	Calm	0	0		Haze	Sm'e			0	0		
Wilmington, N. C.			30.02	762.5	71	21.7	85	E	8	3.6			10s		SE	0	0		
Wood's Hole, Mass.			29.92	760.0	63	17.2	67	Calm	0	0		0	Sm'e			0.04	1.0		
Wytheville, Va.			29.76	755.9	60	15.6	76	Calm	0	0		0	0			0.10	2.5		
Yankton, D. T.			29.75	755.6	63	17.2	67	Calm	0	0		0	0			0	0		

NOTE.—The 'original's give the cloudiness 1 7 a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	84	28.9	70	NE	6	2.7		5c	5ks	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.97	761.2	82	27.8	70	E				2k	2ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.60	751.8	79	26.1	90	SW	3.6	1.6		2k	0	SW		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.19	766.8	80	26.7	91	SE	5	2.2		2k	2s	SE		0.20	5.1		James Gall.
St. Thomas, St. T., W. I.			30.25	768.3	79	26.1	69	SSE	9	4.0		2ck	5kn	SE		0	0	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.79	756.7	79	26.1	78	SE	7.2	3.2			8n		SE	Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.07	763.8	73	22.8	85	W	2.4	1.1		10s	5k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.17	766.3	66	18.9	68	NE			2	0	5k			0	0		E. P. Church.
Makawao, Maui, S. I.	27.88	708.1			60	15.6	81	Calm			0	0	1ks			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.09	754.1	38.0	3.3	90	S	6	2.7			10s			0.45	11.4		J. Fortescue.
Clifton, Jamaica, W. I.			30.00	762.0	67	19.4	94	S	7	3.1		0	10k			1.18	30.0		C. Partridge.
St. John's, Newfoundland			29.72	754.9	53.5	11.9	79	E				Haze	Haze			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.91	759.7	67.5	19.7	82	S	4	1.8		0	0			0.51	13.0		H. M. Redington.
Indianola, Iowa	28.84	732.5			68	20.0	84	SE				0	0			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 24, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.18	766.6	69.8	21.0		NE			4		6			0.079	2.0		Charnot.
Algiers			30.13	765.2	70.5	21.4	89	WNW			1		10			0	0		Peter.
La Calle			30.12	765.0	78.8	26.0		W			1		2			0	0		Kuntz.
Tunis			30.13	765.4	84.7	29.3	32	NNE			3		5			0	0		Jacques.
Sfax			30.15	765.7	81.0	27.2	47	E			4		2			0	0		Chauvey.
Salda			30.14	765.5	82.8	28.2		ESE			3		6			0.236	6.0	Stormy	Grosjean.
Tebessa			30.12	765.0	78.8	26.0		NNE			3		5			0	0		Colin.
Gerville			30.12	765.0	73.6	23.1		ESE			4		5			0	0		Bernadach.
Laghouat			30.11	764.8	70.2	21.2	40	E			4		10			0	0		Poinsignon.
Biskra			30.11	764.9	75.2	24.0		NE			3		6			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.19	766.9	77.0	25.0	50	NE			4		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.23	767.9	68.9	20.5	51	WSW			3		10			0.146	3.7		I. R. Observatory.
Eperies			30.16	766.1	69.8	21.0	55	N			3		9		S	0	0		Julius Mikolik.
Gratz			30.24	768.0	66.7	19.3	69	NW			2		10			0.327	8.3		Andreas Rospini.
Hermannstadt			30.09	764.2	73.8	23.2	48	SE			1		1			0	0		Prof. Reissenberger.
Kremsmünster			30.27	768.8	68.7	20.4	66	SSW			2		2			0	0		Prof. C. Wagner.
Lemberg			30.08	764.1	67.6	19.8	60	NE			4		8			0	0		Dr. T. Stanecki.
Nytrekyhaza			30.13	765.2	77.0	25.0	67	NE			3		5			0	0		Habzsuda Daniel.
Pola			30.17	766.2	79.5	26.4	36	E			4		3cks			0	0		I.R. Hydrographic Office
Szegedin			30.10	764.5	80.2	26.8	47	W			2		7			0	0		Karl Stancel.
Trieste			30.19	766.8	77.2	25.1	41	ENE			3		10			0	0		Prof. V. Farolfi.
Vienna			30.22	767.6	73.0	22.8	52	NW			2		4			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.22	767.5			61.7	16.5	49	NW			1		2c,cs,k		W	0	0	Hazy	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.96	761.0	53.0	11.7		SSW	22	9.8			5 1			0.070	1.78		William Boswell.
Annanhill																			
Ardrossan			30.10	764.5	54	12.2		SW			4		8					Rainy	William McNeil.
Armagh Observatory			30.17	766.3	63.0	17.2		SW	25	11.2								Squally	S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.29	769.4	62.0	16.7		SW			5		3						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.27	768.8	63.8	17.7		SW			3-4		8						J. Dreyer, for L'd Rosse
Bradford			30.24	768.1	62.8	17.1		SW			2		6						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	83.0	28.3		NE			2		4						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.38	771.6	65.0	18.3		SW			1		2						H. Todd.
Cape Town, (Cape Colony)																			Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.96	761.0			66.8	19.3	60	S	23	10.3			1						The Staff, for E. J. Stone.
Cardington			30.41	772.4	68.0	20.0		SW					3						John McLaren.
Carlisle			30.20	767.1	54.7	12.6		SW					10			0.17	7.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.41	772.4	67.2	19.6		WSW			1		4						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759.2	81.8	27.7		SE			2		5						Sgt. W. F. Hopkins
Dartmoor			30.50	749.3	54.0	12.2		SW			3		9						R. E. Power.
Donaghadee			30.15	765.8	64	17.8		W			6		10						J. Mac Gowan, Jr.
Dover			30.44	773.2	57	13.9		SW			3		1						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.29	769.4	64.8	18.2		SW	11.6	5.2			3						Thomas Mackereth.
Falmouth Observatory			30.48	774.2	61.4	16.2		SW	15	6.7			1						The Staff.
Fort Napier, (Natal)			29.90	759.4	77.6	25.3		E			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	88.0	31.1		N					7						
Galway, Queen's College			30.21	767.3	56	13.3		SSW			7		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.08	764.0	72.5	22.5		ENE			5		6					Sl't levanter	Sergt. E. G. Baker.
Glasgow Observatory			30.06	763.5	54.0	12.2		SW			5		10					Squally	James Gray.
Great Yarmouth			30.37	771.4	63	17.2		WSW			3		3						G. T. Watson.
Greenwich Royal Obs.			30.41	772.4	69.3	20.7		SW			1		1						The Staff, for G. B. Airy.
Guernsey			30.48	774.2	57.5	14.2		SSE			1		6						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.28	769.1	62.5	16.9		WSW					5						F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)			30.04	753.0	61.6	16.4		W			1		3						Corp'l J. Y. Thompson.
Helston			30.43	772.9	62	16.7		SW			2		4						Dr. W. B. Mavle.
Holyhead			30.03	762.7	58	14.4		SSW			3		6						John Tilston.
Hull Park																			
Kew Observatory			30.40	772.1	63.6	17.6		SW	12	5.4			4						The Staff.
Kingstown			30.31	769.9	63	17.2		W			3		5						George Mitchell.
Lampeter																			
Leicester Museum			30.32	770.1	61.6	16.4		W			2		5						William J. Harrison
Llandudno			30.31	769.9	63.0	17.2		WSW					2						Dr. James Nicol.
Malta, (Mediterranean)			30.4	763.0	76.8	24.9		NE			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.86	758.4	59	15.0		SW			3		10						William D. Penny.
Nassau, (Bahamas)			30.03	762.7	76.8	24.8		S			4		8						Surg.-Maj. J. Jameson
North Shields			30.18	766.6	60	15.6		SW			5		7						John Wm. Irvine.
Nottingham			30.35	770.9	66.0	18.9		WSW			5		7k		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.35	770.4	62.7	17.1		SW			5		8						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.37	771.4	64	17.8		SW			1		5						J. Lucas, for R. Main.
Plymouth			30.46	773.7	61	16.1		SE			3		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.37	771.4	58	14.4		W			4		5						W. Kennedy.
Saint Ann's Head			30.40	772.1	56	13.3		SW			2		2						John C. Walker.
Saint Helier, (Jersey)			30.48	774.2	60.8	16.0		WSW			3		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			30.25	768.3	62.9	17.2		WSW			3		7						F. Shaw.
Scutari, (Turkey)			30.00	762.0	75.4	24.1		ENE			3		1						Sergt. W. H. Lyne.
Sheffield			30.29	769.4	65	18.3		W			4		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.19	766.8	57.1	13.9		SW			6		10			0.200	5.08		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.35	770.9	60.0	15.6		SSW			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			30.28	769.1	61.7	16.5		SW			3		6						The Staff.
Stornoway, Lewis C. (Hebr.)			29.76	755.9	51	10.6		WSW			6		10					Showery	John Smith.
Strathfield Turgiss			30.42	772.7	66	18.9		W			1		4						Rev. Charles H. Griffith.
Streatley Vicarage			30.42	772.7	63.8	17.7		WSW			1		6						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.80	756.9	54	12.2		SSW			5		9						John Trotter.
Truro, Royal Institution			30.41	772.4	62	16.7		W			2		5						W. Newcombe.
Valencia Observatory			30.33	770.4	58.8	14.9		SSW	33	14.8			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.43	772.9	59.7	15.4		SW			3		3						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.18	766.5	59.4	15.2	45	WNW			4		6						
Fanöe			30.26	768.6	53.6	12.0	71	W			4		7						
Godthaab, (Greenland)			29.83	757.7	33.1	0.6	64	N			2		10						
Stykkisholm, (Iceland)			29.46	748.3	45.0	7.2	80	N			2		0						
Thorshavn, (Faröe)			29.51	749.6	47.5	8.6	93	SE			4–6		10					Raining	
Vestervig			30.16	766.0	54.0	12.2	76	W			6		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.01	762.2	80.8	27.1	60						2ck						Normal School.
Alengon			30.44	773.1	66.9	19.4	46	NE			1		0			0	0		Normal School.
Amiens			30.46	773.6	70.2	21.2	46	NW			6		5		NW	0.016	0.4		Normal School.
Beaumette, (near Angers)			30.43	773.0	68.2	20.1	27	NE	4.0	1.8			2		N	0	0		Beaumette Observatory
Beauvais			30.46	773.6	64.0	17.8	46	NW			1		0			0	0		Normal School.
Besançon			30.39	772.0	89.6	32.0	48	NE			2		0			0	0		Normal School.
Bourg en Bresse			30.33	770.3	68.0	20.0	71	N			4		0			0	0		Normal School.
Bourges			30.43	773.0	68.7	20.4	64	NNE			4		0			0	0		Normal School.
Brest			30.42	772.6	70.0	21.1	69	WNW			2		5		NW	0	0		Naval Observatory.
Caen			30.47	773.9	61.9	16.6	72	WNW			2		1			0.010	2.8		Normal School.
Chartres			30.40	77 .2	68.0	20.0		N			2		0			0	0		Normal School.
Chaumont			30.35	771.0	68.2	20.1		N			2		..cs		N	0	0		Normal School.
Commercy			30.48	774.1	66.6	19.2	54	NNW			4		2		NE	0	0		Normal School.
Le Mans			30.58	776.7	63.9	17.7	65	NE			2		0			0	0		Normal School.
Lons-Le Saulnier			30.34	770.7	70.7	21.5	61	NNE			2		0			0	0		Normal School.
Mâcon			30.50	774.6	68.0	20.0	53	N			2		2		S	0	0		Normal School.
Mirecourt			30.58	776.7	82.4	28.0	40	NNE			3		0			0	0		Normal School.
Orleans			30.43	773.0	66.4	19.1		NNW			1		0			0	0	Misty	National Observatory
Paris Observatory			30.36	771.1	67.1	19.5	44	NE			6		0			0	0		Normal School.
Parthenay			30.42	772.7	74.8	23.8	40	NE			8		0			0	0		Normal School.
La Roche sur Yon			30.41	772.4	66.9	19.4	50	W			2		0			0	0		Normal School.
Rouen			30.51	774.9	66.2	19.0	64	NW			8		5		E	0	0		Normal School.
Saint Lo			30.39	771.8	73.4	23.0	59	NNW			4		0			0	0		Normal School.
Villefranche																			
Sub-Series.																			Frère Pascall.
Gorée, (Senegambia)																			—. Falguère.
Mont-Louis	25.13	638.2			58.3	14.6	66	NNW	20.0	9.17			1		NE	0.260	6.6		Marié Davy.
Montsouris Observatory			30.42	772.6	65.5	18.6	38	NNE			1		0			0	0	Misty	Dr. Fines.
Perpignan	30.07	763.8			80.2	26.8	28	WNW	11.2	5.00			1			0	0		E. Renou.
Saint Maur, (near Paris)			30.53	772.9	66.4	19.1	38	N			2		1c		N	0	0		
Saint Pierre, (Martinique)																			C. Marquet.
Tours			30.40	772.1	71.2	21.8	43	NNE			1		0			0	0		Dr. A. Bérigny.
Versailles, (near Paris)			30.43	773.0	67.6	19.8	41	NNE			1		0			0	0		
Zi-Ka-Wei, (near Shanghai)			29.91	759.6	69.4	20.8	57	SE	16.3	7.3		0	0			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at ZiKa--Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.26	768.7	67.1	19.5	48	W			2		3			0	0		Prof. Holl.
Berlin			30.38	771.6	68.9	20.5	50	SW			4		6			0	0		Prof. Arndt.
Breslau			30.36	771.1	66.6	19.2	46	NW			5		8			0	0		Dr. P. Neugebauer.
Carlsruhe			30.34	770.7	71.[illegible]	21.8	43	NW			3		2			0	0		A. Senz.
Cassel			30.24	768.2	68.4	20.2	42	NW			4		2			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.34	770.7	68.9	20.5	55	N					3			0	0		M. Wilhelm.
Hamburg			30.33	770.4	62.4	16.9	45	WNW			2		3k			0.017	0.43		W. Reinert.
Kiel			30.27	768.8	58.8	14.9	74	W			5		8			0.142	3.56		Prof. G. Karsten.
Königsberg			29.19	766.9	55.0	12.8	55	NW			3					0.163	4.15		Prof. E. Luther.
Köslin			30.45	773.3	56.8	13.8		NW			3		3			0.031	0.8		Dr. Tägert.
Leipsic			30.37	771.5	70.2	21.2	40	W			4		6			0	0		Prof. Bruhns.
Münster			30.38	771.7	66.6	19.2	53	SW			2		10			0	0		Prof. E. Reis.
Posen			30.32	770.0	68.5	20.3	38	W			6-7		9			0	0		Dr. Magcuer.
Strassburg, (in Alsace)			30.36	771.2	71.2	21.8	36	N					1			0	0		Hartwig and Tülk.
Stuttgart			30.35	771.0	70.7	21.5	43	E					4			0	0		Mr. Würth.
Thorn			30.24	768.2	66.7	19.3	33	W			5		6			0.138	3.5		Dr. Hensenbalg.
Treves, (Trier)			30.34	770.6	68.7	20.4	39	W			6		1			0	0		Prof. Flesch.
Wustrow			30.30	769.7	52.2	11.2	71	WSW			2		3ks			0.117	2.98		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.24	768.1	72.1	23.3	65	SW	1.3	0.6			8	E		0	0		
Mondovi			30.26	768.7	77.3	19.6	71	NW			8		9	NW		0.020	0.5		
Genoa			30.17	766.3	78.8	26.0	52	NW	5.6	2.5			0			0.075	1.9		
Pavia			30.23	767.7	73.4	23.0	65	NE			1		1	NE		0.165	4.2		
Verona			30.17	766.3	84.6	29.2	51	E			1		10			0	0		
Padua			30.18	766.6	80.8	27.1	39	SE	5.6	2.5			10	W		0	0		
Parma																			
Modena			30.21	767.3	78.3	25.7	58	NE	6.9	3.1			8			0	0		
Leghorn			30.14	765.5	84.9	29.4	27	NE	8.7	3.9			4			0	0		
Urbino			30.18	766.5	72.1	22.3	47	NE			4		1			0	0		
Ancona			30.20	767.0	76.6	24.8	62	NNW			4		0			0	0		
Siena			30.11	764.8	81.0	27.2	32	E	7.4	3.3			3	E		0	0		
Rome			30.10	764.5	86.0	30.0	36	SW	4.9	2.2			2			0	0		
Naples, O. U.			30.11	764.7	85.5	29.7	28	NE			4		0			0	0		
Lecce			30.10	764.5	73.4	23.0	50	N	18.6	8.3			1			0	0		
Cosenza			30.09	764.3	79.3	26.3	45	WNW			1		5	SW		0	0		
Catania, (Sicily)																			
Hippato			30.07	763.8	72.5	22.5	68	NE			4		1			0	0		
Palermo			30.04	763.1	75.9	24.4	75	NE			2		1			0	0		
Sub-Series.																			
Naples, S. R.			30.14	765.6	85.6	29.8	38	WSW			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.47	773.8	57.0	13.9		NW			3								
Groningen			30.32	770.1	59.7	15.4		WNW			4								
Helder			30.38	771.6	56.5	13.6		W3W			2								
Utrecht			30.37	771.4	66.0	18.9	53	W			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.98	761.5	54.3	12.4	72	SSW	26.4	11.8			10			0.327	8.3		
Christiania			29.89	759.1	59.7	15.4	33	NW	14.1	6.3			6			0	0		
Tromsö			29.85	758.3	54.0	12.2	83	Calm			0		2			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.74	755.3			82.2	27.9	39	NE	12.5	5.6		1	1						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.19	766.7	66.6	19.2	51	W	13	6			8						Astronomical Obs.
Wilna			30.01	762.2	65.7	18.7	60	Calm	0	0			9						Astronomical Obs.
Dorpat			29.98	761.5	57.6	14.2	84	SSW	7	3			10					Raining	Physical Cabinet.
St. Petersburg			30.00	761.9	67.8	19.9	40	SE	4	2			3						Central Physical Obs.
Kuopio																			
Kieff			30.07	763.6	68.9	20.5	52	NNE	4	2			10						Physical Cabinet.
Nikolaiev			30.07	763.7	77.2	25.1	37	NW	4	2			7						
Kertch			30.03	762.8	72.3	22.4	48	NNE	10	4.5			2						Lagorio.
Moscow			29.97	761.3	62.4	16.9	53	NW	8	3.5			6						Meteorological Obs.
Lugan			29.84	757.9	67.5	19.7	29	N	10	4.5			5						Meteorological Obs.
Archangel			30.24	768.0	56.3	13.5	63	Calm	0	0			0						Ogorodnikof.
Tiflis			29.79	756.7	75.2	24.0	40	NNW	20	9			5						Physical Obs.
Astrakhan			29.84	758.0	76.5	24.7	31	W	10	4.5			8						Sebastianof.
Kasan			29.79	756.7	57.0	13.9	72	E	10	4.5			8						Physical Cabinet.
Orenburg			29.75	755.6	69.6	20.8	38	W	10	4.5			9						Tscherniscfef.
Ekaterinburg			30.00	762.1	66.7	19.3	32	E	4	2			2						Meteorological Obs.
Kasaly			29.80	756.8	80.4	26.9	66	NE	20	9			3						Bobrof.
Tashkend			29.76	755.9	83.1	28.4	66	Calm	0	0			0						Michelson.
Barnaul			29.80	756.8	59.2	15.1	38	WNW	8	3.5			4						Meteorological Obs.
Yeniseisk			29.57	751.0	59.9	15.5	58	NE	8	3.5			2						Marks.
Irkutsk			29.54	750.3	50.4	10.2	71	Calm	0	0			0						Usolzef.
Oorga			29.51	749.6	45.1	7.3	100	Calm	0	0			10						Mossin.
Peking, (China)			29.61	752.0	70.0	21.1	55	SW	8	3.5			4						Physical Observatory
Nertchinsk			28.92	734.5	42.1	5.6	89	SSW	8	3.5			10					Raining	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					40.3	4.6	82	SE	13	6			10						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.19	768.8	71.4	21.9	56	E	9.4	4.34			8			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.90	759.5	46.8	8.2	98	SE			2		10			0.08	2.1	Raining	
Hernosand			29.82	757.4	43.2	6.2	94	Calm			0		10			0	0		
Stockholm			29.88	758.9	57.2	14.0	51	WSW			5		8			0	0		
Wisby			30.04	763.0	53.6	12.0	69	W			3		2			0.13	3.3		
Sub-Series.																			
Upsala			29.87	758.8	58.6	14.8	50	SW			4		7		W				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.12	739.6			68.2	20.1	56	NNE			4		2			0	0		The Observatory.
Zurich	28.71	729.3			72.1	22.3	56	NE			2		2			0.84	21.3		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +8.1mm.; Thermometer, +2°.3 C.; Relative Humidity, +0 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			29.69	754.0	78.4	25.8	70	SW			3		5						
Fao, (Persian Gulf)			30.07	763.6	71.2	21.8	40	NNE	19.0	8.5			0			0	0		
Salonica			29.84	758.0	86.0	30.0		SE			3		10						
Valona					81.0	27.2		SE			1		5						
Varna			30.07	763.8	81.5	27.5		SW			2		2						
			30.12	765.0	80.6	27.0		E			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.95	760.7	69	20.6		Calm	0	0		..es	0	W		0	0		
Chatham, N. B.			29.91	759.7	57	13.9	57	SW	3	1.3		0	0			0	0		
Charlottetown, P. E. Island			29.99	761.7	50	10.0	72	S	5	2.2		0	0			0	0		
Fort Garry, Manitoba			29.79	756.7	56	13.3	81	W	8	3.6		5k	5n	W	W	0	0		
Halifax, N. S.			29.92	760.0	58	14.4	54	W	8	3.6		0	0			0	0		
Kingston, Ontario			29.97	761.2	64	17.8	81	S	2	0.9		8c	0			0	0		
Montreal, Quebec			29.89	759.2	65	18.3	62	SW	5	2.2		0	0			0	0		
Ottawa, Ontario			29.87	758.7	61	16.1	58	W	4	1.8		2c	0			0	0		
Parry Sound, Ontario			29.86	758.4	69	20.6	72	S	7	3.1		0	*2ks			0	0		
Port Dover, Ontario			29.90	759.4	60	15.6	94	S	2	0.9			10n			0.13	3.3	Light rain	
Port Stanley, Ontario			29.91	759.7	60	15.6	94	E	10	4.5			10n		SW	0.03	0.8		
Quebec, Quebec			29.91	759.7	61	16.1	50	Calm	0	0		0	0			0	0		
Saugeen, Ontario			29.86	758.4	65	18.3	86	SW	1	0.4			10n		E	0	0		
Stayner, Ontario			29.87	758.7	65	18.3	86	SE	1	0.4			8n			0	0		
Sydney, C. B.			29.98	761.5	55	12.8	62	N	2	0.9		8k	0	N		0.07	1.8		
Toronto, Ontario			29.91	759.7	60	15.6	86	Calm	0	0		5c8	5n	SW	SW	0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.94	760.5	69	20.6	65	SE	8	3.6		10k	0	S		0	0		
Alpena, Mich.			29.80	756.9	57	13.9	80	Calm	0	0			10ks		SW	0	0		
Atlantic City, N. J.			30.02	762.5	60	15.6	87	S	3	1.3		8c	0	S		0	0		
Augusta, Ga.			29.89	759.2	70	21.1	90	N	6	2.7			10s		N	0.05	1.3		
Baltimore, Md.			29.98	761.5	70	21.1	84	SE	3	1.3		Haze	8s			0	0		
Barnegat, N. J.			30.00	76[illegible].0	67	19.4	69	S	3	1.3		5c	Haze	SW		0	0		
Benton, Montana			30.13	765.3	54	12.2	52	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.76	75.59	55	12.8	80	NW	9	4.0			10s		N	0	0		
Boston, Mass.			30.02	762.5	69	20.6	47	SW	6	2.7		0	0			0	0		
Breckenridge, Minn.			29.81	757.2	59	15.0	68	NW	3	1.3		0	Haze			0.01	0.3		
Buffalo, N. Y.			29.91	759.7	60	15.6	64	SW	4	1.8			10n		SW	0.04	1.0	Light rain	
Burlington, Vt.			29.89	759.2	64	17.8	67	S	4	1.8		2c	0			0	0		
Cairo, Ill.			29.87	758.7	68	20.0	90	Calm	0	0		2c	0	SW		0	0		
Cape Hatteras, N. C.			29.96	761.0	70	21.1	95	SE	6	2.7			10ks			1.23	31.2	Threatening	
Cape Henry, Va.			30.00	762.0	76	24.4	68	S	7	3.0			10s		SE	0	0		
Cape May, N. J.			30.01	762.2	59	15.0	87	S	5	2.2		8cs	0	NW		0	0		
Charleston, S. C.			29.85	758.2	70	21.1	95	E	4	1.8			10n		E	3.53	89.7	Light rain	
Cheyenne, W. T.			30.03	762.7	46	7.8	77	NW	8	3.6		0	0			0.36	9.1		
Chicago, Ill.			29.81	757.2	56	13.3	81	NE	2	0.9		0	Fog			0	0	Foggy	
Cincinnati, Ohio			29.84	757.9	71	21.7	76	E	3	1.3		0	0			0.10	2.5		
Cleveland, Ohio			29.86	758.4	65.2	18.4	86	SE	4	1.8			10ks		SW	0.36	9.1	Threatening	
Colorado Springs, Col.			29.99	761.7	52	11.2	62	N	3	1.1		5ck	5ks	NW		0.01	0.3		
Corsicana, Texas			29.92	760.0	72	22.2	80	NW	3	1.3		2cs	2k			0	0		
Davenport, Iowa			29.82	757.4	64	17.8	80	Calm	0	0		0	Haze			0	0		
Denver, Col.			30.07	763.3	51	10.6	72	S	2	0.9		0	0			0.01	0.3		
Detroit, Mich.			29.82	757.4	64	17.8	89	E	2	0.9		0	10ks		E	0.01	0.3		
Dodge City, Kansas			29.53	750.0	66	18.9	68	NW	4	1.8		0	0			0	0		
Dubuque, Iowa			29.80	756.9	67	19.4	74	N	2	0.9		2cs	0			0	0		
Duluth, Minn.			29.72	754.9	60	15.6	82	Calm	0	0		5ck	Haze			0	0		
Eastport, Me.			29.79	761.7	57	13.9	57	S	5	2.2		1c	0			0	0		
Erie, Penn.			29.86	758.4	70	21.1	71	SE	8	3.6			10ks		S	0.55	14.0		
Escanaba, Mich.			29.76	755.9	60	15.6	82	S	8	3.6		2cs	Haze			0	0		
Fort Gibson, I. T.			29.83	757.7	72	22.2	80	E	3	1.3		10cs	0	W		0.01	0.3		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.85	758.2	58	14.4	82	Calm	0	0		0	0			0	0		
Galveston, Texas			29.95	760.7	76	24.4	76	Calm	0	0		0	0			0	0		
Grand Haven, Mich.			29.81	757.2	66	18.9	78	W	1	0.4		5ck	Haze	W		0	0		
Indianapolis, Ind.			29.81	757.2	66	20.0	84	S	4	1.8			10s			0.04	1.0		
Indianola, Texas			29.96	761.0	78	25.6	73	Calm	0	0		5k	0	S		0	0		
Jacksonville, Fla.			29.87	758.7	71	21.7	90	NW	4	1.8			10s			1.06	26.9		
Keokuk, Iowa			29.75	755.6	72	22.2	71	S	1	0.4		0	0			0	0		
Key West, Fla.			29.91	759.7	78.1	25.7	78	W	18	8.0		5k	Haze	W		0.01	0.3		
Kittyhawk, N. C.			29.98	761.5	64	17.8	88	SE	6	2.7			10s			0	0		
Knoxville, Tenn.			29.90	759.4	68	20.0	79	Calm	0	0		8cs	0			0	0		
La Crosse, Wis.			29.76	755.9	70	21.1	75	S	6	2.7		Haze	Haze			0	0		
Leavenworth, Kan.			29.81	757.2	69	20.6	75	Calm	0	0		0	2ks			0.08	2.0		
Lexington, Ky.			29.88	758.9	71	21.7	71	W	5	2.2		0	2s			0	0		
Long Branch, N. J.			30.01	762.2	57	13.9	07	NE	5	2.2		Haze	Haze			0	0		
Louisville, Ky.			29.86	757.4	76	24.4	76	SE	3	1.3		0	0			0.07	1.8		
Lynchburg, Va.			29.95	760.7	66	18.9	89	S	2	0.9			10n			0.08	2.0	Light rain	
Malone, N. Y.																			
Marquette, Mich.			29.68	753.9	71	21.7	58	SW	8	3.6		2s	0	SW		0	0		
Memphis, Tenn.			29.92	760.0	68	20.0	95	NW	1	0.4			10s			0.96	24.4		
Milwaukee, Wisconsin			29.82	757.4	53	11.7	79	E	7	3.1			Fog			0	0	Foggy	
Mobile, Ala.			29.9[illegible]	759.4	76	24.4	64	NW	8	3.6		0	0			0	0		
Montgomery, Ala.			29.94	760.5	76	24.4	68	SE	5	2.2		0	Haze			0	0		
Morgantown, W. Virginia			29.81	759.7	71	21.7	66	Calm	0	0		2c	0	S		0	0		
Mt. Washington, N. H.			30.27	768.8	50	10.0	65	NW	36	16.1		5c	Haze	N		0	0		
Nashville, Tenn.			29.80	758.9	70	21.1	84	Calm	0	0			10ks		SW	0	0		
New Haven, Conn.			30.02	760.5	65	18.3	73	NE	2	0.9		2cs	Sm'e	SW		0	0		
New London, Conn.			30.05	763.3	58	14.4	88	SE	4	1.8		8ck	Haze	NW		0	0		
New Orleans, La.			29.97	761.2	76	24.4	73	NW	8	3.6		0	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			30.02	762.5	62	16.7	77	E	7	3.1		Haze	Haze			0	0		
Norfolk, Va.			30.00	762.0	71	21.7	80	SE	5	2.2			10s			0	0		
North Platte, Neb.			29.47	748.5	63	17.2	77	Calm	0	0		0	0			0	0		
Omaha, Neb.			29.77	756.1	70	21.1	65	Calm	0	0		5ck	0	NW		0	0		
Oswego, N. Y.			29.92	760.0	65	18.3	75	W	10	4.5			10n			0	0	Light rain	
Peck's Beach			30.04	763.0	61	16.1	82	S	8	3.6			10s			0	0		
Pembina, D. T.			29.79	756.7	59	15.0	53	NW	8	3.6		8c	0			0	0		
Philadelphia, Penn.			29.99	761.7	71	21.7	80	SW	4	1.8		2c	Sm'e	SW		0	0		
Pike's Peak, C. T.			30.03	762.7	24	— 4.4	87	N	8	3.6			Fog			0.12	3.0		
Pittsburgh, Penn.			29.96	761.0	69	20.6	60	NE	1	0.4						0.38	9.7	Dense smoke	
Port Huron, Mich.			29.85	758.2	63	17.2	88	SE	8	3.6			10n		SE	0.08	2.0	Light rain	
Portland, Maine			30.02	762.5	52	11.1	55	SW	10	4.5		0	Haze			0	0		
Portland, Or.			30.18	766.6	52	11.1	72	SE	2	0.9		5k	2ks			0	0		
Punta Rassa, Fla.			29.95	760.7	76.5	24.7	74	W	12	5.4			10.s		W	0	0		
Rochester, N. Y.			29.90	759.4	68	20.0	79	W	4	1.8			10s		W	0.02	0.5		
Salt Lake City, Utah			30.05	763.3	51	10.6	59	W	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.99	761.7	60	15.6	88	E	6	2.7		Haze	Haze			0	0		
San Diego, Cal.			29.94	760.5	60	15.6	94	Calm	0	0			10s			0	0		
San Francisco, Cal.			29.90	759.5	55	12.8	74	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.75	755.6	51	10.6	46	N	8	3.6			10s		NW	0	0		
Savannah, Georgia			29.86	758.4	70	21.1	95	NW	6	2.7			10n			0.68	17.3	Light rain	
Shreveport, La.			29.96	761.0	73	22.8	85	W	4	1.8		5c	0			0	0		
Springfield, Mass.			30.02	762.5	65	18.3	78	S	4	1.8		8c	Sm'e			0	0		
St. Louis, Mo.			29.84	757.9	70	21.1	79	W	6	2.7		0	0			0	0		
St. Marks, Fla.			29.93	760.2	72	22.2	81	N	6	2.7		0	0			0	0		
St. Paul, Minn.			29.68	753.9	71	21.7	67	S	2	0.9		0	2ks			0	0		
St. Paul's Island, Alaska			30.10	764.5	33	0.6	70	E	8	3.1		0	[illegible]k			0	0		
Squan Beach, N. J.			29.99	761.7	56	13.3	93	S	2	0.9		2c	Sm'e	S		0	0		
Toledo, Ohio			29.84	757.0	68	20.0	84	SE	4	1.8			10s		SW	0.01	0.3	Threatening	
Tybee Island, Ga.			29.86	758.4	70	21.1	95	NW	6	2.7			10s			0.44	11.2		
Vicksburg, Miss.			30.00	762.0	77	25.0	69	Calm	0	0		0	0			0	0		
Virginia City, Mon.			29.80	756.9	45	7.2	60	NE	8	3.6		0	0			0	0		
Washington, D. C.			29.98	761.5	71	21.7	77	S	4	1.8			10s		S	0	0		
Wilmington, N. C.			29.90	759.4	74	23.3	85	SE	2	0.9			10s		S	0.43	10.9		
Wood's Hole, Mass.			30.08	764.0	59	15.0	48	S	17	7.6		0	0			0	0		
Wytheville, Va.			29.71	754.6	64	17.8	78	Calm	0	0			10s			0	0		
Yankton, D. T.			29.85	758.2	63	17.2	72	W	2	0.9		2cs	0	W		0	0		

NOTE.—The originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	80	26.7	86	N	5	2.2		3k	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.02	762.5	81	27.2	70	SE				2cs	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.71	754.6	80	26.7	82	SW	3.6	1.6		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	80	26.7	82	SE	2	0.9			10s			0.20	5.1		James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	79	26.1	78	ESE	12	5.4		2ck	5k	E		0	0	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	75	23.9	81	Calm	0	0		4ck	4ks	E		Blank	Blank	Clearing	Robert Mason.
St. Georges, Bermudas			30.08	764.0	73.5	23.1	83	N	3.3	1.5		10ck	1k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.18	766.6	63	17.2	68	NE			2	0	5k			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.30	746.5	39.5	4.2	90	W	2	0.9			10n			0	0	Showery	J. Fortescue.
Clifton, Jamaica, W. I.			30.00	762.0	67	19.4	94	SSE	4	1.8		0	5k			0	0		C. Partridge.
St. John's, Newfoundland			29.94	760.5	42	5.6	100	N				Haze	Haze			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.88	758.9	64	17.8	100	S	4	1.8			10n			0.64	16.3		H. M. Redington.
Indianola, Iowa	28.85	732.8			78	25.6	63	NE				0	0			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 25, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.05	763.3	71.6	22.0		NE			3		6			0	0		Charnot.
Algiers			30.05	763.2	70.5	21.4	85	N			1		4			0	0	Foggy	Peter.
La Calle																			Kuntz.
Tunis			30.10	764.6	80.6	27.0	48	E			3		3			0	0		Jacques.
Sfax			30.15	765.9	78.4	25.8	62	SE			2		4			0	0		Chauvey.
Saida			30.14	765.5	82.4	28.0		SSE			2		0			0	0		Grosjean.
Tebessa			30.13	765.4	78.8	26.0		N			3		7			0	0	Threatening	Colin.
Geriville			30.12	765.0	82.4	28.0		S			3		9			0	0	Threatening	Bernadach.
Laghouat			30.11	764.8	78.8	26.0	36	NE			3		8			0	0		Poinsignon.
Biskra			30.11	764.7	87.8	31.0		E			3		7			0	0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.11	764.8	80.8	27.1	43	NW			4		5			0.008	0.2	Raining	Prof. Ivan Stozir.
Ofen-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.14	765.5	67.6	19.8	50	NE			1		10			0	0		I. R. Observatory.
Eperies			30.08	764.1	68.9	20.5	52	W			2		8			0	0		Julius Mikolik.
Gratz			30.10	764.6	73.2	22.9	61	SE			2		0			0	0		Andreas Rospini.
Hermannstadt			29.99	761.7	73.4	23.0	49	N			3		5			0	0		Prof. Reissenberger.
Kremsmünster			30.12	765.0	69.4	20.8	52	W			2		2			0	0		Prof. C. Wagner.
Lemberg			30.07	763.6	65.1	18.4	37	NE			4		4			0	0		Dr. T. Stanecki.
Kiriegyhaza			30.11	764.9	70.9	21.6	62	N			2		4			0	0		Habzauda Daniel.
Pola			30.12	765.0	77.2	25.1	55	WNW			2		1k			0	0		I.R. Hydrographic Of'ce
Szegedin			30.09	764.3	75.2	24.0	39	E			2		4			0	0		Karl Stancel.
Trieste			30.11	764.8	77.5	25.3	50	NW			1		3			0	0		Prof. V. Farolfi.
Vienna			30.10	764.6	81.7	27.6	39	W			2		5			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.05	763.3			67.6	19.8	50	WNW					5k		WSW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.10	764.5	59.0	15.0		WNW	29	13.0			4			0.015	0.38		William Boswell.
Annanhill																			
Ardrossan			30.27	768.8	56	13.3		WNW			3		7						William McNell.
Armagh Observatory			30.37	771.4	55.2	12.9		WSW	5	2.2			10						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.33	770.3	55.1	12.8		W			5		5						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.40	772.1	59.4	15.2		WSW			1		9						J. Dreyer, for L'd Rosse
Bradford			30.26	768.6	58.2	14.6		NW			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	84.0	29		NE			4		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.29	769.4	64.0	17.8		NNW			1		7						H. Todd.
Cape Town, (Cape Colony)			29.81	757.2	56.2	13.4		NW			4		9					Showery	Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.83	757.7			57.0	13.9	90	N	12	5.4			10						The Staff, for E. J. Stone.
Cardington			30.32	770.1	66.0	18.9		W					9						John McLaren.
Carlisle			30.25	768.3	54.1	12.3		W					7			0.017	4.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.37	771.4	64.2	17.9		NNW			2		8					Threatening	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.90	759.4	82.2	27.9		SE			2		3						Sgt. W. F. Hopkins
Dartmoor			30.41	772.4	57.2	14.0		NW			3		5						R. E. Power.
Donaghadee			30.33	770.4	61	16.1		W			4		7						J. Mac Gowan, Jr.
Dover			30.29	769.4	60	15.6		WNW			2		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.30	769.6	56.7	13.7		W	5.4	2.4			6						Thomas Mackereth.
Falmouth Observatory			30.40	772.1	60.2	15.7		NNW	12	5.4			9					Misty	The Staff.
Fort Napier, (Natal)			29.84	757.9	74.5	23.6		N			5		0					Hazy	Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.82	757.7	85.0	29.4		N					10						
Galway, Queen's College			30.34	770.6	62	16.7		W			1		10						B. G. Clare, for Prof. Cur.
Gibraltar, (Mediterranean)			30.02	762.5	69.5	20.8		ENE			5		6						Sergt. E. G. Baker.
Glasgow Observatory			30.22	767.6	54.8	12.7		W			2		8						James Gray.
Great Yarmouth			30.27	768.8	59	15.0		NNE			4		4						G. T. Watson.
Greenwich Royal Obs.			30.30	769.6	65.4	18.6		W			2		9						The Staff, for G. B. Airy.
Guernsey			29.38	771.6	58	14.4		WNW			2		3						Dr. S. E. Hoskins, Hon.
Halifax, Moorside Obs.			30.29	769.4	56.1	13.4		WNW					6						F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)			29.77	756.1	57.3	14.1		NW			1		6						Corp'l J. V. Thompson.
Helston			30.28	769.1	63	17.2		WNW			4		8k						Dr. W. B. Doyle.
Holyhead			30.04	763.0	57	13.9		WNW			2		5						John Tilston.
Hull Park																			
Kew Observatory			30.30	769.6	65.4	18.6		W	9	4.0			6						The Staff.
Kingstown			30.43	772.9	58	14.4		WNW			3		8						George Mitchell.
Lampeter																			
Leicester Museum			30.32	770.1	62.0	16.7		W			3		4						William J. Harrison
Llandudno			30.37	771.4	59.9	15.5		W					5						Dr. James Nicol.
Malta, (Mediterranean)			30.09	764.3	76.8	24.9		NE			1		4k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.12	765.0	59	15.0		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.02	762.5	75.8	24.2		SW			3		6						Surg.-Maj. J. Jamieson.
North Shields			30.20	767.1	61	16.1		NW			3		6						John Wm. Irvine.
Nottingham			30.31	769.9	65.3	18.5		WNW			5		5k		WNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.30	769.6	61.8	16.6		NW			4		2						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.28	769.1	64	17.8		NW			1		10						J. Lucas, for R. Main.
Plymouth			30.36	771.1	66.5	19.2		NNW			2		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.38	771.6	61	16.1		W			3		5						W. Kennedy.
Saint Ann's Head			30.47	773.9	55	12.8		WNW			1		5						John C. Walker.
Saint Helier, (Jersey)			30.36	771.1	65.2	18.4		N			2		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			30.23	767.8	60.0	15.6		NNW			2		7						F. Shaw.
Scutari, (Turkey)			29.97	761.2	74.8	23.8		NE			4		1						Sergt. W. H. Lyne.
Sheffield			30.28	769.1	62	16.7		WNW			3		5			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.27	768.8	63.0	17.2		SW			4		3			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.26	768.6	63.7	17.6		WNW			2		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.30	769.6	55.0	12.8		W			4		6					Squally	The Staff.
Stornoway, Lews C. (Hebr)			30.14	765.5	54	12.2		W			5		10						John Smith.
Strathfield Turgiss			30.31	769.3	64.3	17.9		NW			1		3						Rev Charles H. Griffith
Streatley Vicarage			30.32	770.1	66.5	19.2		WNW			4		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.05	763.3	53	11.7		WNW			7		7						John Trotter.
Truro, Royal Institution			30.36	771.1	63	17.2		NW			6		10						W Newcombe.
Valencia Observatory			30.41	772.4	57.6	14.2		WNW	13	5.8			3						The Staff.
Wick																			
Wisbeach																			
Worthing			30.28	769.1	66.4	19.1		WSW			2		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.93	760.2	57.7	14.3	62	NW			4		9					Raining	
Fanöe			30.06	763.5	54.0	12.2	74	WNW			4		5						
Godthaab, (Greenland)			29.96	761.0	32.5	0.3	74	NE			2		10						
Stykkisholm, (Iceland)			30.00	761.9	46.2	7.9	85	E			2		5						
Thorshavn, (Faröe)			29.85	758.1	53.1	11.7	64	NNW			6		5						
Vestervig			29.95	760.8	53.8	12.1	75	W			6		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio			29.85	758.2	78.8	26.0	53						5ks						Normal School.
Alençon			30.31	769.8	69.8	21.0	47	NE			2		2c			0	0		Normal School.
Amiens			30.32	770.1	74.1	23.4	45	NW			6		0			0	0		Normal School.
Beaumette, (near Angers)			30.26	768.7	71.6	22.0	39	NE	9.4	4.2			2		NNW	0	0		Beaumette Observatory
Besançon			30.33	770.4	67.5	19.7	45	W			1		2		WNW	0	0		Normal School.
Bourg en Bresse			30.29	769.4	75.2	24.0	46	NNE			3		2			0	0		Normal School.
Bourges			30.25	768.3	75.2	24.0	82	NE			1		0			0	0		Normal School.
Brest			30.27	768.9	70.2	21.2	57	NNE			2		0			0	0		Normal School.
Caen			30.33	770.3	61.0	16.1	81	NNE			3		1		NNE	0	0		Naval Observatory.
Chartres			30.35	770.9	62.8	17.1	79	NW			2		5			0	0		Normal School.
Chaumont			30.27	768.9	71.6	22.0		NNE			1		1c		N	0	0		Normal School.
Commercy			30.22	767.6	70.0	21.6		WNW			2		0			0	0		Normal School.
Le Mans			30.33	770.4	68.7	20.4	46	NNE			4		2		NE	0	0		Normal School.
Lons-Le Saulnier			30.46	773.6	67.3	19.6	58	NE			3		2		NE	0	0		Normal School.
Mâcon			30.26	768.7	71.4	21.9	55	NW			1		0			0	0		Normal School.
Mirecourt																			
Orleans			30.43	772.8	68.9	20.5	49	N			2		2		S	0	0		Normal School.
Paris Observatory			30.03	762.7	77.0	25.0	43	N			3		2		NNE	0	0		Normal School.
Parthenay			30.30	769.5	68.7	20.4		NNW			2		2			0	0		National Observatory
Le Roche sur Yon			30.28	769.2	68.0	20.0	30	NE			6		0			0	0		Normal School.
Rouen			30.33	770.3	76.3	24.6	33	N			4		0			0	0		Normal School.
Saint Lo			30.33	770.4	71.4	21.9	53	W			2		0			0	0		Normal School.
Villefranche			30.37	771.5	67.3	19.6	59	SW			2		5		E	0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)			30.28	769.2	77.0	25.0	68	N			2		0			0	0		Normal School.
Mont-Louis																			Frère Pascall.
Montsouris Observatory	25.10	637.5			59.0	15.0	72	ENE	9.3	4.17			8		NE	0	0		—. Falguère.
Perpignan			30.29	769.3	69.4	20.8	37	NNW			2		4cs		WNW	0	0	Misty	Marié Davy.
Saint Maur, (near Paris)	30.03	762.7			82.4	28.0	40	ENE	5.6	2.50			4		WNW	0	0		Dr. Finot.
Saint Pierre, (Martinique)			30.29	769.4	71.4	21.9	40	N			2		1c		N	0	0		E. Renou.
Tours																			
Versailles, (near Paris)			30.27	768.8	74.7	23.7	37	NNE			2		1		WNW	0	0		C. Marquet.
Zi-Ka-Wei, (near Shanghai)			30.32	770.0	70.2	21.2	41	NE			2		5			0	0		Dr. A. Bérigny.
			29.82	757.4	72.9	22.7	70	SE	12.3	5.5		0	0			0 0	0 0	Lightning in W.	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at ZiKa--Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Bamberg			30.18	766.5	68.5	20.3	48	W			4		1			0	0		Prof. Hoh.
Berlin			30.18	766.6	69.	20.8	46	SW			4		7			0	0		Prof. Arndt.
Breslau			30.19	766.9	68.0	20.0	38	WSW			3		6			0	0		Dr. P. Neugebauer.
Carlsruhe			30.17	766.4	74.1	23.4	42	NW			1		1			0	0		A. Senz.
Cassel			30.01	762.2	73.9	22.3	40	NW			2		6			0.079	1.82		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.20	767.0	68.0	20.0	72	W					3			0	0		M. Wilhelm.
Hamburg			30.15	765.8	58.1	14.5	78	W			4		10			0.022	0.56		W. Reinert.
Kiel			30.10	764.5	59.9	15.5	64	W			5		8			0	0		Prof. G. Karsten.
Königsberg			30.04	763.0	51.8	11.0	76	SW			1					0.007	0.18		Prof. E. Luther.
Köslin			30.22	767.6	55.4	13.0		SW			2		10			0.001	0.02		Dr. Tägert.
Leipsic			30.17	766.2	70.7	21.5	39	WSW			2		4			0	0		Prof. Bruhns.
Münster			30.21	767.4	67.1	19.5	61	W			2		5			0	0		Prof. E. Heis.
Posen			30.15	765.9	67.8	19.9	42	W			6-7		9			0.021	0.6		Dr. Magener.
Strasburg, (in Alsace)			30.21	767.3	73.9	23.3	41	W					1			0	0		Hartwig and Tölk.
Stuttgart			30.16	766.1	74.8	23.8	45	NE					3			0	0		Mr. Würth.
Thorn			30.10	764.5	63.7	17.6	48	W			4		8			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.17	766.4	72.5	22.5	35	NW			5		1			0	0		Prof. Flesch.
Wustrow			30.08	764.0	52.3	11.3	32	SW			4		3cs			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Moncalieri			30.13	765.4	78.1	25.6	50	SE	3.1	1.4			1			0	0		
Mondovi			30.12	765.1	75.0	23.9	38	SE			2		0			0	0		
Genoa			30.12	765.0	79.5	26.4	47	SW	2.5	1.1			2	E		0	0		
Pavia			30.13	765.2	80.2	26.8	44	ESE			1		0			0	0		
Verona			30.08	764.0	85.1	29.5	38	E			1		4			0	0		
Udine			30.40	764.6	80.2	26.8	41	WSW	2.5	1.1			3	N		0	0		
Parma																			
Modena			30.13	765.4	80.2	26.8	41	NE	4.9	2.2			2			0	0		
Leghorn			30.11	764.7	78.3	25.7	45	NNW	7.4	3.3			2			0	0		
Urbino			29.98	761.5	71.6	23.0	53	NNE			2		1			0	0		
Ancona			30.15	765.7	75.6	24.2	72	NW			4		2			0	0		
Siena			30.07	763.6	81.0	27.2	31	WSW	3.1	1.4			4	E		0	0		
Rome			30.10	764.6	82.2	27.9	34	SW	8.1	3.6			2			0	0		
Naples, O. U.			30.08	764.1	85.1	29.5	31	SW			2		2			0	0		
Lecce			30.10	764.5	75.9	24.4	49	N	18.6	8.3			0			0	0		
Cosenza			30.07	763.7	82.8	28.2	39	SE			1		5			0	0		
Catania, (Sicily)																			
Girgento			30.02	762.6	76.6	24.8	50	E			2		6			0	0		
Palermo			30.04	763.1	76.8	24.9	52	NE			2		9			0	0		
Sub-Series.																			
Naples, S. R.			30.14	765.6	83.8	28.8	43	W			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.33	770.3	58.8	14.9		NW			4								
Groningen			30.15	765.7	57.2	14.0		NW			3								
Helder			30.23	767.8	54.7	12.6		WNW			4								
Utrecht			30.21	767.2	60.6	15.9	69	WNW			3		10						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.74	755.3	48.6	9.2	86	SW	14.1	6.3			10			1.024	26.0	Raining	
Christiania			29.67	753.7	54.5	12.5	67		2.5	1.1			8			0.008	0.2		
Tromsö			29.78	756.4	53.6	12.0	85	NW			2		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.65	753.0			82.8	28.2	39	NNE	12.5	5.6			2			Blank	Blank		

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.08	764.1	62.8	17.1	44	WNW	13	6			10						Astronomical Obs.
Wilna			30.02	762.4	60.6	15.9	38	W	8	3.5			9						Astronomical Obs.
Dorpat			29.92	760.0	58.6	14.8	57	W	2	1			9						Physical Cabinet.
St. Petersburg			29.85	758.1	54.1	12.4	82	NW	9	4			4						Central Physical Obs.
Kuopio																			
Kieff			30.00	762.0	63.7	17.6	43	NW	22	10			5						Physical Cabinet.
Nikolaiev			30.00	761.9	71.7	21.7	33	NW	10	4.5			3						
Kertch			29.90	759.4	76.6	24.8	44	WSW	17	7.5			5						Lagorio.
Moscow			29.77	756.1	63.1	17.3	58	NW	10	4.5			8						Meteorological Obs.
Lugan			29.65	753.2	69.8	21.0	44	W SW	13	6			9					Thunder-storm	Meteorological Obs.
Archangel			29.98	761.5	56.3	13.5	77	WNW	13	6			0						Ogorodnikof.
Tiflis			29.82	757.5	79.3	26.3	35	NE	8	3.5			3						Physical Obs.
Astrakhan			29.91	759.8	76.5	24.7	21	SW	13	6			6						Sebastianof.
Kasan			29.32	744.8	54.5	12.5	82	N	8	3.5			8					Raining	Physical Cabinet.
Orenburg			29.69	754.2	66.0	18.9	57	S	8	3.5			5						Tscherniscbef.
Ekaterinburg			29.59	751.5	59.9	15.5	84	E	4	2			8						Meteorological Obs.
Kasaly			29.74	755.3	88.7	31.5	69	W	8	3.5			4						Bobrof.
Tashkend			29.76	755.9	80.2	26.8	68	Calm	0	0			5						Michelson.
Barnaul			29.95	760.8	56.8	13.8	50	NE	8	3.5			2						Meteorological Obs.
Yeniseisk			29.66	753.3	62.4	16.9	55	SW	10	4.5			6						Marks.
Irkutsk			29.69	754.2	50.7	10.4	66	Calm	0	0			0						Usolzef.
Oorga			29.84	757.8	40.6	4.8	84	Calm	0	0			5						Mossin.
Peking, (China)			29.57	751.1	76.3	24.6	53	SW	8	3.5			1						Physical Observatory.
Nertchinsk			29.34	745.2	41.7	5.4	82	NW	13	6			10					Raining	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					38.1	3.4	83	SE	25	11			5						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.06	763.4	82.0	27.8	33	E	4.5	2.00			1			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.84	757.9	51.8	11.0	82	S			2		2			0.14	3.5		
Hernosand			29.76	756.0	52.0	11.1	69	NE			2		2			0	0		
Stockholm			29.74	755.4	56.7	13.7	59	S			3		8			0.10	2.6		
Wisby			29.87	758.7	53.2	11.8	81	SW			3		10			0.06	1.6		
Sub-Series.																			
Upsala			29.75	755.7	50.5	13.6	61	SSW			4		10		SSW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.80	731.5			70.2	21.2	57	N			2		1			0	0		The Observatory.
Zurich	28.59	726.2			74.7	23.7	45	NW			1		8			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +6.0mm.; Thermometer, +3°.3 C.; Relative Humidity, +7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)			29.71	754.6	73.9	23.3	75	NW			1		10					Rain	Prof. C. N. A. Van Dyck.
Constantinople			30.07	763.7	69.1	20.6	53	N	26.8	12			0			0	0		
Bo. (Persian Gulf)			29.84	757.8	86.0	30.0		SE			3		0			Blank	Blank		
Salonica					82.8	28.2		SE			1		2			Blank	Blank		
Valona			30.06	763.5	83.1	28.4		SW			2		2						
Varna			30.08	764.0	71.6	22.0		SE			4		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.80	756.9	62	16.7		SW	4	1.8			8s		SW	0.17	4.3		
Chatham, N. B.			29.61	752.1	58	14.4	77	SW	8	3.6		8cs	2ks	W	W	0	0		
Charlottetown, P. E. Island			29.66	753.4	56	13.3	74	S	5	2.2			8ks			0	0		
Fort Garry, Manitoba			29.99	761.7	44	6.7	79	Calm	0	0		2c	0	W		0	0		
Halifax, N. S.			29.66	753.4	54	12.2	91	W	4	1.8			8n			0	0		
Kingston, Ontario			29.81	757.2	60	15.6	97	Calm	0	0			Fog			0.15	3.8	Foggy	
Montreal, Quebec			29.69	754.1	68	20.0	81	SW	15	6.7		5ck	Sm'e	W		0	0		
Ottawa, Ontario			29.72	754.9	66	18.9	79	S	8	3.6		8ck	0	SW		0	0		
Barry Sound, Ontario			29.76	755.9	57	13.9	87	W	4	1.8		2k	2s	W	W	0	0		
Port Dover, Ontario			29.79	756.7	62	16.7	88	S	2	0.9		2k	0	NW		0.08	2.0		
Port Stanley, Ontario			29.78	756.4	66	18.9	84	E	3	1.3		0	0			0.01	0.3		
Quebec, Quebec			29.65	753.1	63	17.2	89	SW	6	2.7			10n		SW	0.10	4.8	Light rain	
Saugeen, Ontario			29.79	756.7	51	10.6	93	Calm	0	0			Fog			0	0	Foggy	
Stayner, Ontario			29.72	754.9	68	20.0	79	NW	4	1.8		0	0			0	0		
Sydney, C. B.			29.70	754.4	66	18.9	56	SW	8	3.6		0	Haze			0.02	0.8		
Toronto, Ontario			29.77	756.1	63	17.2	78	SW	3	1.3		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.79	756.7	68	20.0	84	SE	5	2.2			10ks		S	0.56	14.2		
Alpena, Mich.			29.77	756.1	65	18.3	73	NW	9	4.0		0	Sm'e			0	0		
Atlantic City, N. J.			29.82	757.4	58	14.4	100	SE	6	2.7			Fog			0	0	Foggy	
Augusta, Ga.			29.78	756.4	72	22.2	80	NW	3	1.3		5k	0	NW		0	0		
Baltimore, Md.			29.78	756.4	69	20.6	90	SE	5	2.2			10n		E	0.58	14.7	Light rain	
Barnegat, N. J.			29.84	757.9	60	15.6	70	SE	2	0.9			Fog			0	0	Foggy	
Benton, Montana			29.89	759.2	58	14.4	69	Calm	0	0		2c	0	N		0.02	0.5		
Bismarck, Dakota			29.74	755.4	55	12.8	44	S	14	6.3		8k	0	S		0	0		
Boston, Mass.			29.82	757.4	72	22.2	71	W	6	2.7		5c	2s	NW		0	0		
Breckenridge, Minn.			30.00	762.0	53	11.7	59	Calm	0	0		0	0			0	0		
Buffalo, N. Y.			29.74	755.4	62	16.7	83	W	8	3.6		1k	2s	NW	W	0.15	3.8		
Burlington, Vt.			29.73	755.1	72	22.2	71	S	3	1.3		2c	0			0	0		
Cairo, Ill.			29.87	758.7	70	21.1	90	Calm	0	0		2c	0			0.02	0.5		
Cape Hatteras, N. C.			29.73	755.1	70	21.1	95	SE	6	2.7			10n		SW	0.82	20.8	Misty	
Cape Henry, Va.			29.77	756.1	64.5	18.1	97	SE	6	2.7			10n			0.26	6.6	Light rain	
Cape May, N. J.			29.80	756.9	59	15.0	100	SE	8	3.6			Fog			0.09	2.3	Foggy	
Charleston, S. C.			29.79	756.7	70	21.1	90	NW	8	3.6		5k	2ks	W	NW	0.13	3.3		
Cheyenne, W. T.			30.03	760.7	55	12.8	68	SE	1	0.4			Fog			0	0	Foggy	
Chicago, Ill.			29.78	756.4	64	17.8	78	NW	9	4.0		0	0			0	0		
Cincinnati, Ohio			29.80	756.9	71	21.7	71	N	4	1.8		0	0			0.14	3.5		
Cleveland, Ohio			29.76	755.9	62.3	16.9	88	S	1	0.4		0	0			0.39	9.9		
Colorado Springs, Col.			30.03	762.7	56	13.3	75	NW	1	0.4		0	5ks			0.10	2.5		
Corsicana, Texas			29.90	759.4	68	20.0	79	S	1	0.4		2cs	5k			0	0		
Davenport, Iowa			29.86	758.4	69	20.6	70	Calm	0	0		0	Sm'e			0	0		
Denver, Col.			30.07	763.8	56	13.3	75	Calm	0	0		2cs	0			0	0		
Detroit, Mich.			29.73	755.1	69	20.6	79	N	5	2.2		0	Haze			0	0		
Dodge City, Kansas			29.57	751.1	70	21.1	66	E	2	0.9		5k	0			0.04	1.0		
Dubuque, Iowa			29.86	758.4	68	20.0	69	NW	6	2.7		0	0			0	0		
Duluth, Minn.			29.98	761.5	61	16.1	30	SW	16	7.2		0	Sm'e			0	0		
Eastport, Me.			29.73	755.1	45	7.2	92	Calm	0	0			10n			0	0	Heavy rain	
Erie, Penn.			29.73	755.1	66	18.9	78	Calm	0	0		0	Haze			0.34	8.6		
Escanaba, Mich.			29.88	758.9	58	14.4	81	N	12	5.4		Haze	2s			0.20	5.1		
Fort Gibson, I. T.			29.85	758.2	73	22.8	81	Calm	0	0		5ck	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.90	759.4	58	14.4	58	SE	14	6.3		0	0			0	0		
Galveston, Texas			29.93	760.2	77	25.0	72	S	4	1.8		10ks	0			0	0		
Grand Haven, Mich.			29.91	759.7	61	16.1	82	W	5	2.2		0	Fog			0	0		
Indianapolis, Ind.			29.79	756.7	71	21.7	71	Calm	0	0		0	Sm'e			0.09	2.3		
Indianola, Texas			29.99	761.7	74	23.3	90	W	6	2.7		5ck	5k	W	SW	0	0		
Jacksonville, Fla.			29.84	757.9	72	22.2	81	SW	6	2.7		4k	0	SW		0.14	3.5		
Keokuk, Iowa			29.81	757.2	74	23.3	55	N	4	1.8		0	0			0	0		
Key West, Fla.			29.94	760.5	77.7	25.4	73	NW	7	3.1		2k	0	W		0.04	1.0		
Kittyhawk, N. C.			29.76	755.9	64	17.8	100	N	12	5.4			Fog			0.68	17.3	Foggy	
Knoxville, Tenn.			29.83	757.7	67	19.4	84	SW	3	1.3		1k	0			0.03	0.8		
La Crosse, Wis.			29.93	760.5	67	19.4	50	N	8	3.6		Haze	Haze			0	0		
Leavenworth, Kan.			29.86	758.4	69	20.6	75	NW	1	0.4		0	0			0	0		
Lexington, Ky.			29.84	757.9	69	20.6	80	NW	6	2.7		5c	0			0	0		
Long Branch, N. J.			29.84	757.9	54	12.2	100	S	4	1.8			Fog			0	0	Foggy	
Louisville, Ky.			29.81	757.2	74	23.3	68	Calm	0	0		0	0			0.54	13.7		
Lynchburg, Va.			29.75	755.6	74	23.3	72	E	3	1.3		5k	0	NE		0.73	18.5		
Malone, N. Y.																			
Marquette, Mich.			29.91	759.7	60	15.6	44	NW	12	5.4		0	0			0.05	1.3		
Memphis, Tenn.			29.90	759.4	77	25.0	69	SW	4	1.8		0	Haze			0	0		
Milwaukee, Wisconsin			29.84	757.9	67	19.4	79	N	7	3.1		0	Fog			0	0		
Mobile, Ala.			29.93	760.2	76	24.4	69	NW	5	2.2		0	0			0	0		
Montgomery, Ala.			29.90	759.4	75	23.9	72	W	2	0.9		2cs	Haze			0	0		
Morgantown, W. Virginia			29.72	754.9	73	22.8	67	Calm	0	0		5c	Haze	W		0	0		
Mt. Washington, N. H.			30.08	764.0	50	10.0	100	NW	36	16.1			Fog			0.02	0.5		
Nashville, Tenn.			29.85	758.2	75	23.9	68	W	6	2.7		5ck	0	W		0	0		
New Haven, Conn.			29.89	759.2	64	17.8	94	S	1	0.4			Fog			0	0	Foggy	
New London, Conn.			29.89	759.2	58	14.4	100	S	4	1.8			Fog			0	0	Foggy	
New Orleans, La.			29.96	761.0	76	24.4	75	NW	8	3.6		2cs	Haze	W		0	0		
Newport, R. I.																			
New York, N. Y.			29.86	758.4	63	17.2	94	SE	2	0.9			Fog			0	0	Foggy	
Norfolk, Va.			29.76	755.9	69	20.6	95	SE	4	1.8			10n			0.06	1.5	Light rain	
North Platte, Neb.			29.56	750.8	64	17.8	78	Calm	0	0		8c				0.01	0.3		
Omaha, Neb.			29.89	759.2	66	18.9	49	NE	4	1.8		0	0			0	0		
Oswego, N. Y.			29.76	755.9	66.5	19.2	84	S	3	1.3			10s			0.19	4.8	Threatening	
Pack's Beach			29.83	757.7	59	15.0	94	SE	12	5.4			10n			0.08	2.0	Light rain	
Pembina, D. T.			29.98	761.5	51	10.6	52	E	2	0.9		5c	2s	NW		0	0		
Philadelphia, Penn.			29.82	757.4	66	8.9	90	SE	4	1.8			10n		SE	0.07	1.8	Light rain	
Pike's Peak, C. T.			30.09	764.3	26	— 3.3	88	NE	8	3.6		2c	5s		NE	0.37	9.4		
Pittsburgh, Penn.			29.74	755.4	62	16.7	88	NW	4	1.8						0.21	5.3	Dense smoke	
Port Huron, Mich.			29.72	754.9	69	20.6	75	N	7	3.1		0	0			0	0		
Portland, Maine			29.76	755.9	69	20.6	75	SW	9	4.0		2ck	Haze	W		0.01	0.3		
Portland, Or.			30.30	769.6	48	8.9	70	SW	4	1.8		8k	0			0	0		
Punta Rassa, Fla.			29.98	761.5	78.6	25.9	77	W	16	7.2			8ks		SW	0	0		
Rochester, N. Y.			29.73	755.1	68	20.0	79	SW	7	3.1		0	8ks		SW	0.04	1.0		
Salt Lake City, Utah			29.88	758.9	54	12.2	61	SW	3	1.3		0	0			0	0		
Sandy Hook, N. J.			29.84	757.9	57	13.9	100	SE	6	2.7			Fog			0	0	Foggy	
San Diego, Cal.			29.98	761.5	61	16.1	83	E	4	1.8			10s			0	0		
San Francisco, Cal.			29.90	759.4	52	11.1	86	SW	4	1.8		5c	0			0	0		
Santa Fe, N. M.			29.76	755.9	48	8.9	70	N	4	1.8			10s		N	0.08	2.0		
Savannah, Georgia			29.81	757.2	75	23.9	72	W	6	2.7		2k	0	W		0	0		
Shreveport, La.			29.92	760.0	72	22.2	75	Calm	0	0		5ck	2s	S		0	0		
Springfield, Mass.			29.84	757.9	68	20.0	84	S	8	3.6			10ks		W	0.26	6.6	Threatening	
St. Louis, Mo.			29.87	758.7	73	22.8	67	NW	8	3.6		2c	0			0	0		
St. Marks, Fla.			29.86	758.4	76	24.4	76	NW	6	2.7		0	0			0	0		
St. Paul, Minn.			29.92	760.0	61	16.1	45	N	4	1.8		0	Haze			0.02	0.5		
St. Paul's Island, Alaska			29.94	760.5	31	— 0.6	78	ENE	37	16.5		0c	10s			0.01	0.3		
Squan Beach, N. J.			29.85	752.8	54	12.2	93	E	2	0.9			Fog			0	0		
Toledo, Ohio			29.74	755.4	72	22.2	67	W	4	1.3		0	0			0.23	5.8		
Tybee Island, Ga.			29.81	757.2	72	22.2	85	W	6	2.7		2k	0	NW		0.02	0.5		
Vicksburg, Miss.			29.98	761.5	79	26.1	61	SW	3	1.3		0	0			0	0		
Virginia City, Mon.			29.63	752.6	49	9.4	77	SE	8	3.6		0	5s			0.09	2.3		
Washington, D. C.			29.78	756.4	67	19.4	97	Calm	0	0			Fog		E	0.54	13.7	Light rain	
Wilmington, N. C.			29.74	755.4	69	20.6	95	N	4	1.8			Fog			0.30	7.6	Foggy	
Wood's Hole, Mass.			29.92	760.0	56	13.3	100	SW	1	0.4			Fog			0	0	Foggy	
Wytheville, Va.			29.54	750.3	66	18.9	58	SW	6	2.7		0	0			0	0		
Yankton, D. T.			29.98	761.5	64	17.8	62	Calm	0	0		0	0			0	0		

NOTE.—The originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	82	27.8	91	NE	4	1.8		5ck	2s	N		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.97	761.2	80	26.7	78	E				2c	5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.71	754.6	81	27.2	86	Calm	0	0		2c	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	80	26.7	82	Calm	0	0		2c	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.			30.17	766.3	79	26.1	78	E	4	1.8		2ck	5kn	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.80	756.9	78	25.6	86	S	1.2	0.5		2ck	8n	S		Blank	Blank	Clearing	Robert Mason.
St. Georges, Bermudas			29.99	761.7	73.5	23.1	83	SE	5.7	2.5		2s	2k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.16	766.1	70	21.1	71	NE			2	2ck	2ks	NE		0	0		E. P. Church.
Makawao, Maui, S. I.	27.88	708.1			62.5	16.9	78	NE			2	0	1ks			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Mcrherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.83	757.7	32.5	0.3	100	N	16	7.2			10n			0.10	2.5		J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	68	20.0	90	SSE	3	1.3		0	5k			0	0		C. Partridge.
St. John's, Newfoundland			29.80	759.2	52.0	11.4	64	N				5k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.66	753.4	65	18.3	84	NW	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.96	735.6			70	21.1	64	NW				0	0			0	0		G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 26, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.90	759.5	71.6	22.0		NE			2		6			0	0		Charnot.
Algiers			29.97	761.2	73.0	22.8	81	NE			1		1			0	0		Peter.
La Calle			30.00	761.9	73.4	23.0		W			1		2			0	0		Kuntz.
Tunis			29.95	760.7	83.8	28.8	39	ESE			3		7			0	0		Jacques.
Sfax			30.02	762.5	75.9	24.4	66	SE			2		3			0	0		Chauvey.
Saïda			30.00	762.1	80.6	27.0		SSE			1		7			0.039	1.0	Thunder	Grosjean.
Tebessa			30.02	762.5	77.0	25.0		S			4		7			0.079	2.0	Thunder	Colin.
Geriville			30.08	764.0	68.0	20.0		S			2		8			0.079	2.0	Thunder	Bernadach.
Laghouat			30.02	762.5	78.1	25.6	44	E			3		1			0	0		Poinsignon.
Biskra			29.98	761.4	90.5	32.5		N			4		8			0.039	1.0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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.	Corrected for instrumental errors. Inches.	Corrected for instrumental errors. Millimeters.	Reduced to sea-level. Inches.	Reduced to sea-level. 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.	Weather.	Observer.
Agram			29.89	759.1	71.1	21.7	55	NW			2		10			0.307	7.8	Raining	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.92	760.0	60.8	16.0	72	W			2		10			0.075	1.9		I. R. Observatory.
Eperies			29.89	759.1	62.6	17.0	77	N			2		9		S	0.061	1.54		Julius Mikolik.
Gratz			29.91	759.7	66.4	19.1	68	NW			2		10			0	0		Andreas Rospini.
Hermannstadt			30.83	757.6	72.7	22.6	38	NNE			1		4			0	0		Prof. Reissenberger.
Kremsmünster			29.90	759.5	65.1	18.4	62	NW			2		8			0.079	2.0		Prof. C. Wagner.
Lemberg			29.87	758.7	58.1	14.5	87	W			4		10			0.035	0.9		Dr. T. Stanecki.
Nyiregyhaza			29.85	758.2	74.5	23.6	66	N			2		8			0.035	0.90		Habzsuda Daniel.
Pola			29.86	758.4	76.3	24.6	61	WNW			1		3cks			0	0		I. R. Hydrographic Of'ce
Szegedin			29.84	758.0	71.6	22.0	58	W			2		8			0	0		Karl Stancel.
Trieste			29.86	758.4	70.0	26.1	44	E			2		7			0.118	3.0		Prof. V. Faroifi.
Vienna			29.89	759.1	64.8	18.2	60	NE			2		10			0.020	0.5	Thunder-storm	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

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

Stations.	Corrected for instrumental errors. Inches.	Corrected for instrumental errors. Millimeters.	Reduced to sea-level. Inches.	Reduced to sea-level. 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.	Weather.	Observer.
Brussels	29.93	760.4			59.7	15.4	47	NNW			2		8k		NW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.24	768.1	53.0	11.7		NNW	26	11.6			5			0.010	0.25		William Boswell.
Annanhill																			
Ardrossan			30.32	770.1	56.5	13.6		NW			5		5						William McNeil.
Armagh Observatory			30.43	772.9	57.2	14.0		NNW	9	4.0			7						S. Call, for Dr. Robinson.
Bambridge																			
Barnstaple																			
Battersea, St. John's Col																			
Bidston, Liverpool Obs			30.31	769.9	54.7	12.6		WNW			7		5						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.44	773.2	59.5	15.3		NW			2		7						J. Dreyer, for L'd Rosse
Bradford			30.23	767.8	59.0	15.3		W			2		6						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.05	763.3	84.0	28.9		NE			3		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.25	768.3	58.0	14.4		NW			2		7						H. Todd.
Cape Town, (Cape Colony)			29.95	760.7	59.0	15.0		NW			4		6						Sgt. D. E. Hunt.
Cape Good Hope Obs	29.98	761.5			59.9	15.5	72	WSW	7	3.1			6						The Staff, for E. J. Stone.
Cardington			30.27	768.8	61.4	16.3		N					6						John McLaren.
Carlisle			30.28	769.1	58.0	14.4		NW					3			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.22	767.6	57.2	14.0		NNW			2		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.84	757.9	80.9	27.2		SE			1		3						Sgt. W. F. Hopkins
Dartmoor			30.38	771.6	51.5	10.8		N			2		5						R. E. Power.
Donaghadee			30.39	771.9	57	13.9		N			5		3						J. Mac Gowan, Jr.
Dover			30.22	767.6	58	14.4		NE			4		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.28	769.1	57.5	14.2		NW	5	2.2			10					Squally	Thomas Mackereth.
Falmouth Observatory			30.36	771.1	58.0	14.4		NNW	22	9.8			3						The Staff.
Fort Napier, (Natal)			29.66	753.4	77.0	25.0		NE			3		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	84.0	28.9		N					8						
Galway, Queen's College			30.41	772.4	63	17.2		NW			1		2						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.91	759.7	70.5	21.4		ENE			4		5						Sergt. E. G. Baker.
Glasgow Observatory			30.28	769.1	56.0	13.3		NW			1		6						James Gray.
Great Yarmouth			30.22	767.6	56	13.3		N			4		4						G. T. Watson.
Greenwich Royal Obs			30.25	768.3	61.8	16.6		N			3		10						The Staff, for G. B. Airy.
Guernsey			30.29	769.4	59.5	15.3		NNW			2		0						Dr. S. E. Hoskins, Dev.
Halifax, Moorside Obs			30.27	768.8	58.1	14.5		NNW					7						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.71	754.6	54.5	12.5		W			2		10					Raining	Corp'l J. V. Thompson.
Helston			30.32	770.1	60	15.6		N			4		4						Dr. W. B. Doyle.
Holyhead			30.04	763.0	54	12.2		NNW			5		2						John Tilston.
Hull Park																			
Kew Observatory			30.27	768.8	57.7	14.3		NW	12	5.4			8						The Staff.
Kingstown			30.43	772.9	55	12.8		NNW			4		7						George Mitchell.
Lampeter																			
Leicester Museum			30.28	769.1	59.0	15.0		NW			2		6					Misty	William J. Harrison
Llandudno			30.39	771.9	60.0	15.6		ENE					7						Dr. James Nicol.
Malta, (Mediterranean)			29.54	762.5	74.8	23.8		NE			1		4k						Fred Travis, Pvt A.H.G.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.29	769.4	58	14.4		NW			1		5						William D. Penny.
Nassau, (Bahamas)			30.00	762.0	78.3	25.7		W			4		4						Surg.-Maj. J. Jamieson.
North Shields			30.25	768.3	56	13.3		NNW			3		5						John Wm. Irvine.
Nottingham			30.27	768.8	61.0	16.1		NW			2		8k, d		NNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.29	769.4	54.2	12.3		NW			4		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.26	768.6	56	13.3		NNW			3		10						J. Lucas, for R. Main.
Plymouth			30.35	770.4	61	16.1		NNE			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.43	772.9	58	14.4		NW			2		5						W. Kennedy.
Saint Ann's Head			30.38	771.6	55	12.8		N			4		1						John C. Walker.
Saint Helier, (Jersey)			30.29	769.4	63.0	17.2		NNE			3		0						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			30.25	768.3	54.5	12.5		N			3		3						F. Shaw.
Scutari, (Turkey)			29.91	759.7	74.0	23.3		NE			3		0						Sergt. W. H. Lyne.
Sheffield			30.25	768.3	61	16.1		NNW			3		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.29	769.4	64.4	18.0		W			4		1			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.22	767.6	58.0	14.4		NNE			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			30.27	768.8	56.8	13.8		W			2		7					Hazy	The Staff.
Stornoway, Lews C. (Hebr)			30.34	770.6	52	11.7		NW			3		5						John Smith.
Strathfield Turgiss			30.27	768.8	67.8	19.9		NW			1-2		8						Rev Charles H. Griffith
Streatley V.carage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.29	769.4	51	10.6		NNW			5		7						John Trotter.
Truro, Royal Institution			30.34	770.6	62	16.7		N			6		6						W Newcombe.
Valencia Observatory			30.46	773.7	58	14.4		N	10	4.5			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.25	768.3	59.9	15.5		N			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.77	756.2	55.0	12.8	44	NW			6		9						
Fanöe			29.86	758.4	50.9	10.5	73	WNW			6		9						
Godthaab, (Greenland)			29.98	761.5	38.7	3.7	90	Calm			0		10						
Stykkisholm, (Iceland)			30.11	764.9	47.1	8.4	92	Calm			0		8						
Thorshavn, (Faröe)			30.26	768.5	49.1	9.5	67	N			4		5						
Vestervig			29.75	755.7	51.1	10.6	83	NW			7		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.67	753.5	70.7	21.5	72						1s						Normal School.
Alençon			30.20	767.0	69.8	21.0	46	NE			3		5k			0	0		Normal School.
Amiens			30.21	767.2	70.2	21.2	75	NW			3		0			0	0		Normal School.
Beaumette, (near Angers)			30.19	766.8	72.0	22.2	42	N	5.8	2.6			5		E	0	0		Beaumette Observatory
Beauvais			30.21	767.4	63.1	17.3	41	NNW			3		2		NNW	0	0		Normal School.
Besançon			30.16	766.0	71.2	21.8	45	NE			6		2		NE	0	0		Normal School.
Bourg en Bresse			30.04	762.9	74.3	23.5	48	NE			4		0			0	0		Normal School.
Bourges			30.19	766.7	69.4	20.8	56	N			4		5		SW	0	0		Normal School.
Brest			30.24	768.1	59.9	15.5	82	NNE			3		0			0	0		Naval Observatory.
Caen			30.36	771.2	59.0	15.0	70	NW			6		1		NW	0	0		Normal School.
Chartres			30.16	766.0	67.6	19.8		N			3		5k		N	0	0		Normal School.
Chaumont			30.09	764.3	64.4	18.0		WNW			6		..ck		WNW	0	0		Normal School.
Commercy			30.21	767.3	61.2	16.2	56	NW			4		5		E	0	0		Normal School.
Le Mans			30.34	770.5	65.8	18.8	56	NE			3		5		NE	0	0		Normal School.
Lons-Le Saulnier			30.08	764.1	69.8	21.0	48	N			1		0			0	0		Normal School.
Mâcon																			
Mirecourt			30.24	767.8	62.8	17.1	71	N			3		2		S	0	0		Normal School.
Orleans			30.29	769.3	76.1	24.5	47	N			3		2		NNW	0	0		Normal School.
Paris Observatory			30.16	766.0	65.5	18.6		NNW			2		8		NW	0	0		National Observatory
Parthenay			30.12	765.1	71.2	21.8	44	NE			6		5		NE	0	0		Normal School.
La Roche sur Yon			30.27	768.8	68.0	20.0	40	NNE			6		5		S	0	0		Normal School.
Rouen			30.22	767.6	64.2	17.9	40	NW			4		0			0	0		Normal School.
Saint Lo			30.30	769.7	61.7	16.5	87	NE			3		5		N	0	0		Normal School.
Villefranche			30.09	764.2	75.2	24.0	46	N			2		0			0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.05	633.7			64.4	18.0	52	NNW	9.3	4.17			4		N	0	0		—. Falguère.
Montsouris Observatory			30.16	766.0	64.9	18.3	50	NNW			2	7k			NNW	0	0	Misty	Marie Davy.
Perpignan	29.82	757.5			85.5	29.7	32	N	9.3	4.17			1		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.16	766.0	65.8	18.8	54	NW			2		8			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.14	765.6	74.8	23.8	43	NNE			2		5		N	0	0		C. Marquet.
Versailles, (near Paris)			30.17	766.3	66.6	19.2	54	NNW			2		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.87	758.6	74.3	23.5	86	SSE	7.6	3.4			10n			0 / 0	0 / 0	Sprinkling	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at ZiKa--Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.96	761.0	65.7	18.7	70	NW			6		8			0	0		Prof. Hoh.
Berlin			29.95	760.8	59.5	15.3	52	SW			4		8			0.035	0.9		Prof. Arndt.
Breslau			30.02	762.6	59.2	15.1	40	NW			5		9			0.079	2.0	Rainy	Dr. P. Neugebauer.
Karlsruhe			30.07	763.6	64.4	18.0	43	NE			1		3			0	0		A. Senz.
Cassel			29.93	760.1	62.4	16.9	47	NW			3		7			0.090	2.28		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.01	762.3	65.3	18.5	67	W					6			0.083	2.1	Thunder-storm	M. Wilhelm.
Hamburg			30.10	764.5	55.2	12.9	59	W			4		9ks			0.025	0.63	Squally	W. Reinert.
Kiel			29.95	760.6	57.0	13.9	66	W			4		10			0	0		Prof. G. Karsten.
Konigsberg			29.71	754.6	56.8	13.8	67	SE			1					0.068	1.74	Raining	Prof. E. Luther.
Koslin			30.06	763.4	53.6	12.0		W			4		6			0.067	1.7		Dr. Tägert.
Leipsic			30.02	762.6	58.1	14.5	51	WNW			1		9			0.165	4.2		Prof. Bruhns.
Münster			30.04	762.9	56.5	13.6	80	W			2		10			0.059	1.5		Prof. E. Heis.
Posen			29.98	761.5	62.2	16.8	38	W			6–7		9			0.110	2.8		Dr. Mageuer.
Strassburg, (in Alsace)			30.07	763.8	64.9	18.3	41	N					3			0.002	0.05		Hartwig and Tülk.
Stuttgart			30.04	763.0	63.5	17.5	45	NW					4			0	0		Mr. Würth.
Thorn			29.92	760.0	59.5	15.3	42	W			4		9			0.024	0.6		Dr. Hesenbalg.
Treves, (Trier)			30.03	762.8	67.1	19.5	30	W			5		9			0	0		Prof. Flesch.
Wustrow			29.93	760.1	40.1	9.5	72	W			5		4ks			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.83	757.7	81.3	27.4	54	SE	4.3	1.9			2	W		0	0		
Mondovi			29.40	756.9	78.3	25.7	43	NNW			4		3	WSW		0	0		
Genoa			29.90	759.5	77.2	25.1	63	SW	4.9	2.2			0			0	0		
Pavia			29.83	757.6	82.0	27.8	40	NE			1		3	NE		0	0		
Verona			29.87	758.7	86.4	30.2	36	S			1		10			0	0		
Padua			29.82	757.5	79.0	26.1	50	SW	6.3	2.8			9	SW		0	0		
Parma																			
Modena			29.84	758.0	81.9	27.7	40	E	6.3	2.8			6			0	0		
Leghorn			29.93	760.2	79.2	26.2	49	WSW	4.3	1.9			2			0	0		
Urbino			29.88	758.9	77.5	25.3	45	E			2					0	0		
Ancona			29.93	760.3	77.4	25.2	57	E			4		2			0	0		
Siena			29.84	757.8	81.0	27.2	31	NNW	1.8	0.8			4	W		0	0		
Rome			29.90	759.5	81.9	27.7	53	SSW	8.7	3.9			4	S		0	0		
Naples, O.U			29.92	760.0	81.7	27.6	58	SW			2		4	N		0	0		
Lecce			29.91	759.8	75.6	24.2	50	NNW	12.5	5.6			1			0	0		
Cosenza			29.91	759.6	79.5	26.4	45	SSE			1		5			0	0		
Catania, (Sicily)																			
Riposto			29.80	759.2	77.4	25.2	58	S			2		7	S		0	0		
Palermo			29.92	759.9	74.5	23.6	72	NE			2		1			0	0		
Sub-Series.																			
Naples, S. R.			29.98	761.6	80.4	26.9	65	SW			3		..en		W	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.21	767.4	55.0	12.8		N			4								
Groningen			30.01	762.3	56.1	13.4		NW			5								
Helder			30.15	765.9	52.2	11.2		NW			4								
Utrecht			30.08	763.9	60.1	15.6	57	NW			4		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea leve

NORWEGIAN SERIES.

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

Bergen			29.78	756.4	50.4	10.2	76	N	33.1	14.8			8			0	0		
Christiania			29.67	753.5	54.0	12.2	75	N	3.8	1.7			9			0.098	2.5		
Tromsö			29.89	759.3	57.2	14.0	85	NE			2		3			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon	29.59	751.6			83.3	28.5	61	NE	8.7	3.9			6			Blank	Blank		

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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	759.3	60.8	16.0	43	W	7	3			8						Astronomical Obs.
Wilna			29.84	757.9	59.5	15.3	40	NW	4	2			6						Astronomical Obs.
Dorpat			29.78	756.4	54.3	12.4	73	WSW	2	1			10						Physical Cabinet.
St. Petersburg			29.71	754.5	60.3	15.7	52	NW	7	3			1						Central Physical Obs.
Kuopio																			
Kieff			29.91	759.3	64.4	18.0	57	ESE	9	4			10						Physical Cabinet.
Nikolaiev			29.96	761.0	73.9	23.3	32	W	8	3.5			6						
Kertch			29.93	760.1	69.6	20.9	38	NNW	13	6			0						Lagorio.
Moscow			29.63	752.7	68.5	20.3	41	WNW	8	3.5			7						Meteorological Obs.
Lugan			29.67	753.5	68.2	20.1	40	WNW	17	7.5			6						Meteorological Obs.
Archangel			30.09	764.2	45.0	7.2	66	NNE	20	9			5						Ogorodnikof.
Tiflis			29.87	758.6	63.3	17.4	83	Calm	0	0			10				Raining		Physical Obs.
Astrakhan			29.82	757.3	77.2	25.1	17	WSW	17	7.5			8						Sebastianof.
Kasan			29.32	744.6	52.3	11.3	78	N	13	6			10						Physical Cabinet.
Orenburg			29.55	750.5	63.5	17.5	62	SW	10	4.5			10						Tschernischef.
Ekaterinburg			29.31	744.5	54.1	12.3	84	Calm	0	0			9				Raining		Meteorological Obs.
Kasaly			29.83	757.6	69.1	20.6	75	SW	8	3.5			0						Bobrof.
Tashkend			29.93	760.2	84.0	28.9	36	Calm	0	0			1						Michelson.
Barnaul			29.92	759.9	66.6	19.2	36	ESE	8	3.5			0						Meteorological Obs.
Yeniseisk			29.74	755.5	67.8	19.9	42	W	8	3.5			7						Marks.
Irkutsk			29.87	758.7	55.4	13.0	55	Calm	0	0			0						Usolzef.
Oorga			29.91	759.8	43.2	6.2	90	Calm	0	0			0						Mossin.
Peking, (China)			29.78	756.4	74.8	23.8	55	Calm	0	0			3						Physical Observatory.
Nertchinsk			29.30	744.3	47.3	8.5	48	NNW	4	2			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					41.0	5.0	83	SE	25	11			6						Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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			29.92	760.0	81.9	27.7	35	N	5.2	2.33			4			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.80	756.9	63.0	17.2	61	E			1		6			0	0		
Hernosand			29.75	755.7	53.2	11.8	74	E			2		10			0.10	3.5		
Stockholm			29.59	751.5	45.3	7.4	98	E			3		10			0.13	3.3	Raining	
Wisby			29.66	753.4	55.0	9.8	73	SW			5		6			0.01	0.2		
Sub-Series.																			
Upsala			29.64	752.9	46.5	9.2	92	NE			6		10		NE				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.60	726.4			72.0	22.2	45	N			2		1			0	0		The Observatory.
Zurich	28.41	721.5			70.9	21.6	40	W			2		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.9mm.; Thermometer, +4°.1 C.; Relative Humidity, −11 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.72	754.8	74.7	23.7	80	SW			6		10						Prof. C. N. A. Van Dyck.
Constantinople			29.99	761.8	70.7	21.5	41	ENE	22.4	10			0			0	0		
Fao, (Persian Gulf)			29.76	756.0	86.0	30.0		SE			4		0			Blank	Blank		
Salonica					80.8	27.1		SW			1		2						
Smyrna								SW			2		2						
Varna			29.91	759.7	87.4	30.8		SW			2		5						
			30.00	762.0	73.4	23.0		NE			2								

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.04	765.0	61	16.1		NW	4	1.8		0	0			0.01	0.3		
Chatham, N. B.			29.68	753.9	62	16.7	58	W	1	0.4		0	0			0.25	6.3		
Charlottetown, P. E. Island			29.71	754.6	52	11.1	94	Calm	0	0			10s			0.315	8.00		
Fort Garry, Manitoba			29.81	757.2	54	12.2	96	SE	7	3.1			10n			0.068	1.72	Light rain	
Halifax, N. S.			29.61	752.1	56	13.3	96	NW	12	5.4			10n		N	0.106	2.69	Light rain	
Kingston, Ontario			30.04	765.0	61	16.1	56	NE	8	3.6		Haze	0			0.55	14.0		
Montreal, Quebec			29.94	760.5	60	15.6	55	N	8	3.6		0	0			0.13	3.3		
Ottawa, Ontario			30.03	762.7	61	16.1	47	NW	12	5.4		0	0			0	0		
Parry Sound, Ontario			30.07	763.8	59	15.0	38	NE	11	4.9		0	0			0	0		
Port Dover, Ontario			30.01	762.1	57	13.9	47	N	8	3.6		0	0			0	0		
Port Stanley, Ontario			30.02	762.5	54	12.2	68	NE	6	2.7		Haze	0			0	0		
Quebec, Quebec			29.85	758.2	54	12.2	55	W	22	9.8		0	0			0.38	9.7		
Saugeen, Ontario			30.09	764.3	50	10.0	79	Calm	0	0		5cs	Sm'e			0	0		
Stayner, Ontario			30.07	763.8	57	13.9	51	NW	1	0.4		0	Haze			0	0		
Sydney, C. B.			29.64	752.8	57	13.9	92	NE	3	1.3			10n		NW	0.02	0.5	Light rain	
Toronto, Ontario			30.04	763.0	62	16.7	36	N	15	6.7		0	Haze			0	0		

Note.—The originals give the cloudiness on a scale of 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.84	757.9	66	18.9	94	Calm	0	0			10ks			0	0		
Alpena, Mich.			30.10	764.5	57	13.9	46	E	12	5.4		2c	Sm'e			0	0		
Atlantic City, N. J.			29.81	757.2	65	18.3	100	NW	12	5.4			10s		NW	0.80	20.3		
Augusta, Ga.			29.78	756.4	75	23.9	72	N	5	2.2		8k	0			0	0		
Baltimore, Md.			29.84	757.9	72	22.2	75	N	5	2.2		0	0			0.20	5.1		
Barnegat, N. J.			29.80	756.9	64	17.8	100	Calm	0	0			Fog			0.52	13.2	Foggy	
Benton, Montana			29.94	761.5	46	7.8	54	SW	8	3.6			10s			0	0		
Bismarck, Dakota			29.60	749.3	58	14.4	53	SE	3	1.3			10ks		S	1.00	25.4		
Boston, Mass.			29.80	756.9	75	23.9	64	N	8	3.6		0	0			0	0		
Breckenridge, Minn.			29.74	755.4	62	16.7	52	S	20	8.9		2k	5s	S		0	0		
Buffalo, N. Y.			29.98	761.5	58	14.4	47	N	8	3.6		0	Sm'e			0	0		
Burlington, Vt.			29.92	760.0	59	15.0	71	N	6	2.7		2k	0	NW		0.09	2.3		
Cairo, Ill.			29.88	758.9	72	22.2	80	Calm	0	0		0	0			0	0		
Cape Hatteras, N. C.			29.75	755.6	69	20.6	95	NE	13	5.8			10s			0	0		
Cape Henry, Va.			29.81	757.2	65	18.3	97	NE	9	4.0			10s			0.07	1.8		
Cape May, N. J.			29.81	757.2	65	18.3	94	N	10	4.5			10s		NW	0.18	4.6		
Charleston, S. C.			29.80	756.9	74	23.3	81	NW	6	2.7		0	Haze			0	0		
Cheyenne, W. T.			29.80	756.9	56	13.3	57	W	8	3.6		2c	0	W		0	0		
Chicago, Ill.			29.96	761.0	60	15.6	60	E	8	3.6		0	0			0	0		
Cincinnati, Ohio			29.95	760.7	69	20.6	61	N	4	1.8		0	0			0	0		
Cleveland, Ohio			30.02	762.5	55.2	12.9	56	N	7	3.1		2c	Haze			0	0		
Colorado Springs, Col.			29.81	757.2	56	13.3	63	N	2	0.9		5cs	0	E		0	0		
Corsicana, Texas			29.84	757.9	65	18.3	96	SE	6	2.7			10n		SE	0.17	4.3	Light rain	
Davenport, Iowa			29.95	760.7	63	17.2	88	E	8	3.6		0	Sm'e			0	0		
Denver, Col.			29.82	757.4	55	12.8	56	Calm	0	0		2c	0	SW		0	0		
Detroit, Mich.			30.02	762.5	56	13.3	56	NE	5	2.2		0	0			0	0		
Dodge City, Kansas			29.55	750.6	64	17.8	78	SE	6	2.7			10s			0	0		
Dubuque, Iowa			29.97	761.2	61	16.1	45	E	6	2.7		0	0			0	0		
Duluth, Minn.			29.99	761.7	49	9.4	56	SE	4	1.8		5c	Haze			0	0		
Eastport, Me.			29.74	755.4	63	17.2	83	NE	5	2.2		2k	0	N		0.49	12.4		
Erie, Penn.			29.97	761.2	59	15.0	48	Calm	0	0		0	Fog			0	0		
Escanaba, Mich.			30.43	765.3	57	13.9	75	N	4	1.8		Haze	2s		E	0	0		
Fort Gibson, I. T.			29.76	755.9	79	21.1	79	E	3	1.3		5ck	0	S		1.05	26.7		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.57	751.1	67	19.4	74	SE	8	3.6		8c	0	SW		0	0		
Galveston, Texas			29.87	758.7	78	25.6	82	S	12	5.4			10ks			0	0		
Grand Haven, Mich.			30.03	762.7	65	18.3	49	E	12	5.4		5ck	Haze		S	0	0		
Indianapolis, Ind.			29.94	760.5	72	22.2	58	NE	8	3.6		0	0			0.28	7.1		
Indianola, Texas			29.86	758.4	78	25.6	82	S	6	2.7		5c	0	W		0	0		
Jacksonville, Fla.			29.83	757.7	79	26.1	78	NE	1	0.4		0	0			0.07	1.8		
Keokuk, Iowa			29.87	758.7	63	17.2	61	NE	8	3.6		0	Haze			0	0		
Key West, Fla.			29.95	760.7	78.3	25.8	73	W	6	2.7		5k	0	W		0	0		
Kittyhawk, N. C.			29.79	756.7	73	22.8	100	N	12	5.4			Fog			0.77	19.6	Foggy	
Knoxville, Tenn.			29.85	758.2	68	20.0	79	N	2	0.9		5ck	0			0.01	0.3		
La Crosse, Wis.			29.98	761.5	63	17.2	47	Calm	0	0		Haze	Haze			0	0		
Leavenworth, Kan.			29.81	757.2	70	21.1	75	S	4	1.8		0	0			0	0		
Lexington, Ky.			29.90	759.4	70	21.1	70	NE	10	4.5		0	0			0	0		
Long Branch, N. J.			29.92	760.0	64	17.8	100	NW	8	3.6			Fog			0.53	13.5	Foggy	
Louisville, Ky.			29.89	759.2	74	23.3	68	Calm	0	0		0	0			0	0		
Lynchburg, Va.			29.85	758.2	76	24.4	68	Calm	0	0		0	0			0.45	11.4		
Malone, N. Y.																			
Marquette, Mich.			30.13	765.3	44	6.7	68	Calm	0	0		0	Haze			0	0		
Memphis, Tenn.			29.86	758.4	74	23.3	72	N	3	1.3		2c	Haze			0	0		
Milwaukee, Wisconsin			30.08	764.0	53	11.7	48	NE	10	4.5		0	Fog			0	0		
Mobile, Ala.			29.88	758.9	78	25.6	69	W	6	2.7		2c	0			0	0		
Montgomery, Ala.			29.88	758.9	75.5	24.2	70	N	1	0.4		0	Haze			0	0		
Morgantown, W. Virginia			29.89	759.2	73	22.8	67	NE	1	0.4		0	Haze			0	0		
Mt. Washington, N. H.			30.06	763.5	42	5.6	42	N	36	11.1		5k	Haze	N		0.20	5.1		
Nashville, Tenn.			29.86	758.4	72	22.2	75	Calm	0	0		5ck	0			0	0		
New Haven, Conn.			29.82	757.4	71	21.7	89	NNE	7	3.1		0	Fog			0.22	5.6	Light fog	
New London, Conn.			29.82	757.4	68	20.0	87	N	4	1.8		0	Fog			0.25	6.3		
New Orleans, La.			29.89	759.2	75	23.9	81	NW	3	1.3		5c	2k	W	NW	0	0		
Newport, R. I.																			
New York, N. Y.			29.84	757.9	65	18.4	86	Calm	0	0		Haze	Fog			0.52	13.2	Clearing	
Norfolk, Va.			29.81	757.2	68	20.0	90	NE	12	5.4			10n			0.37	9.4	Light rain	
North Platte, Neb.			29.62	752.7	63	17.2	83	SE	4	1.8			10s			0	0		
Omaha, Neb.			29.75	755.9	69	20.6	70	Calm	0	0		8ck	0	S		0	0		
Oswego, N. Y.			30.00	762.0	51.5	10.9	69	NNE	4	1.8			Fog			0	0	Foggy	
Peck's Beach			29.81	757.2	66	18.9	94	W	12	5.4		3k	3ks	W	W	0.12	3.0		
Pembina, D. T.			29.76	755.9	55	12.8	93	SE	12	5.4			10n			0.24	6.1	Light rain	
Philadelphia, Penn.			29.83	757.7	70	21.1	76	NE	12	5.4		0	0			0.80	20.3		
Pike's Peak, C. T.			29.98	761.5	28	— 2.2	77	NW	20	8.9		2c	0	NW		0.34	8.6		
Pittsburgh, Penn.			29.93	760.2	66	18.9	48	N	6	2.7		0	0			0	0		
Port Huron, Mich.			30.08	764.0	47	8.3	69	N	16	7.2		Haze	0			0	0		
Portland, Maine			29.83	757.7	68	20.0	69	NW	1	0.4		0	Haze			0	0		
Portland, Or.			30.36	771.1	45	7.2	76	W	4	1.8		5k	5ks			0	0		
Punta Rassa, Fla.			29.93	760.2	79	26.1	78	N	12	5.4			8ks		W	0	0		
Rochester, N. Y.			29.99	761.7	59	15.0	48	N	8	3.6			Haze			0	0		
Salt Lake City, Utah			29.78	756.4	60	15.6	44	SW	1	0.4			10s			0	0		
Sandy Hook, N. J.			29.82	757.4	63	17.2	100	N	4	1.8			Fog			0.56	14.2	Foggy	
San Diego, Cal.			29.92	760.2	64	16.1	83	S	4	1.8			10s		S	0	0		
San Francisco, Cal.			29.89	759.2	51	10.6	72	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.96	761.0	54	10.6	45	SW	4	1.8		5c	0	SW		0.05	1.3		
Savannah, Georgia			29.81	757.2	77	25.0	69	SW	4	1.8		0	0			0	0		
Shreveport, La.			29.87	758.7	71	21.7	80	S	2	0.9			10n			0.07	1.8	Light rain	
Springfield, Mass.			29.85	758.2	69	20.6	84	NW	8	3.6		2k	5d	N	NE	0.04	1.0		
St. Louis, Mo.			29.88	758.9	71	21.7	66	NE	5	2.2		0	0			0	0		
St. Marks, Fla.			29.84	757.9	76	24.4	81	NW	8	3.6		0	0			0	0		
St. Paul, Minn.			29.86	758.4	63	17.2	57	SE	8	3.6		0	Haze			0	0		
St. Paul's Island, Alaska			29.84	757.9	36	2.2	80	NE	33	14.8		...c	0			0	0		
Squan Beach, N. J.			29.82	757.4	60	15.6	94	N	1	0.4			Fog			0.46	11.4		
Toledo, Ohio			30.02	762.2	61	16.1	45	NE	12	5.4		0	Haze			0	0		
Tybee Island, Ga.			29.82	757.4	76	24.4	72	Calm	0	0		0	0			0	0		
Vicksburg, Miss.			29.92	760.0	76	24.4	76	SW	3	1.3		0	8ks		S	0	0		
Virginia City, Mon.			29.54	750.0	37	2.8	37	NE	8	3.6			10s			0.20	5.1		
Washington, D. C.			29.86	758.4	71.5	21.9	77	N	7	3.1		Haze	0			0.02	0.5		
Wilmington, N. C.			29.80	756.9	70	21.1	90	N	8	3.6			10s		N	1.19	30.2		
Wood's Hole, Mass.			29.82	757.4	59	15.0	93	NW	8	3.6			10s			0.65	16.5		
Wytheville, Va.			29.65	753.1	71	21.1	66	W	2	0.9		0	0			0	0		
Yankton, D. T.			29.76	755.9	68	20.0	65	E	5	2.2		8cs	5s	SE	SE	0	0		

NOTE.—The "originals" give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	30.10	764.5	83	28.3	83	NE	7	3.1	.....	5k	2ks	NE	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	29.97	761.2	79	26.1	82	E	.....	.....	.....	5fk	2n	.....	.....	0	0	Hazy	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.69	754.1	83	28.3	78	SE	2.4	1.1	.....	8c	0	SE	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.18	766.6	80	26.7	78	SE	2	0.9	.....	1k	0	S	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.25	768.3	79	26.1	78	ESE	2	0.9	.....	2ck	5kn	E	.....	0	0	Drizzling	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.79	756.7	78	25.6	82	SW	1.2	0.5	.....	8cs	2n	S	SW	Blank	Blank	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Georges, Bermudas	.....	.....	29.90	759.4	74.5	23.6	86	SE	8.4	3.8	.....	10cks	0	SE	.....	0	0	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu, Oahu, S. I.	.....	.....	30.19	766.8	66	18.9	68	NE	.....	.....	2	0	0	.....	.....	0	0	.....	E. P. Church.
Makawao, Maui, S. I.	27.88	708.1	.....	.....	62	16.7	83	E	.....	.....	3	0	6n	.....	.....	0	0	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Macpherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
York Factory, B. A.	.....	.....	30.25	768.3	33.0	0.6	.....	NE	8	3.6	.....	.....	10n	.....	.....	0.16	4.1	Raining	J. Fortescue.
Clifton, Jamaica, W. I.	.....	.....	30.01	762.2	72	22.2	90	SE	8	3.6	.....	2c	2k	SE	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	29.76	755.9	57	13.9	96	SE	.....	.....	.....	.....	.....	.....	.....	0	0	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	30.01	762.2	57	13.9	100	N	4	1.8	.....	0	0	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	29.09	738.9	.....	.....	72	22.2	56	SE	.....	.....	.....	0	0	.....	.....	0	0	.....	G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 27, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.82	757.4	68.0	20.0		NE			2		6			0	0		Charnot.
Algiers			29.83	757.6	73.4	23.0	79	NE			1		9			0	0		Peter.
La Calle			29.84	757.8	71.6	22.0													Kuntz.
Tunis			29.83	757.6	85.3	29.6	35	ESE			2		9			0	0	Threatening	Jacques.
Sfax			29.89	759.1	76.3	24.6	55	SE			3		2			0	0		Chauvey.
Saida			29.94	760.4	71.6	22.0													Grosjean.
Tebessa			29.91	759.7	64.4	18.0		SW			3		9			0.157	4.0	Rainy	Colin.
Gerlville			29.98	761.5	66.2	19.0		S			1		8			0.079	2.0	Threatening	Bernadach.
Laghouat			29.91	759.6	74.3	23.5	56	S			1		10			0	0	Rainy	Poinsignon.
Biskra			29.80	759.1	87.8	31.0		NW			4		8			0.039	1.0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.94	760.5	50.0	10.0	90	NE			1		10			1.051	26.7	Thunder-storm	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.78	756.5	54.1	12.3	88	W			1		10			0.331	8.4		I. R. Observatory.
Eperies			29.74	755.3	55.8	13.2	90	N			2		10			0.182	4.62	Raining	Julius Mikolik.
Gratz			29.83	757.6	57.7	14.3	78	SW			5		10			0.370	9.4		Andreas Rospini.
Hermannstadt			29.67	753.5	70.3	21.3	62	S			3		5			0.232	5.90		Prof. Reissenberger.
Kremsmünster			29.91	759.6	51.8	11.0	68	NW			3		10			0.122	3.1		Prof. C. Wagner.
Lemberg			29.69	754.0	57.4	14.1	72	W			4		10			0.118	3.0		Dr. T. Stanecki.
Nyiregyhaza			29.73	755.2	67.3	19.6	80	N			1		9			0	0		Habzsuda Daniel.
Pola			29.67	753.7	58.6	14.8	75	E			6		10ks			0.020	0.50	Thunder-storm	I.R. Hydrographic Of'ce
Szegedin			29.87	758.7	63.7	17.6	47	SW			1		8			0	0		Karl Stancel.
Trieste			29.71	754.6	60.4	15.8	56	ENE			4		6			0.236	6.0		Prof. V. Farolfi.
Vienna			29.85	758.1	56.7	13.7	50	NW			2		8			0.480	12.2	Raining	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.92	759.9			53.2	11.8	62	NNW			2		10k,s,n		NW	0.020	0.5		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56,56 meters or 183,9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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—	Low'r. From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Aberdeen			30.12	765.0	51.0	10.6		NW	3	1.3			10			0	0	Drizzling	William Boswell.
Annanhill																			
Ardrossan			30.18	766.6	54	12.2		NW			3		7						William McNeil.
Armagh Observatory			30.31	769.9	58.9	14.9		WNW	10	4.5									S. Cal., for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.25	768.3	50.4	10.2		WNW			4		10						John Hartnup, Jr.
Birr Castle, (Parsonstown).			30.36	771.1	61.5	16.4		W			1		10						J. Dreyer, for L'd Rosse.
Bradford			30.14	765.5	56.7	13.7		W			1		9						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	83.0	28.3		NE			4		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.19	766.8	57.0	13.9		NNE			1		7						H. Todd.
Cape Town, (Cape Colony)			30.03	762.7	57.8	14.3		N			4		10						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.14	765.5			57.2	14.0	97	NW	9	4.0			9						Th Staff, for E. J. Stone.
Cardington			30.21	767.3	60.0	15.6		N					9						John McLaren.
Carlisle			30.20	767.1	55.0	12.8		W					10			0	0	Threatening	T Bell, for J. Cartmell.
Chatham, School M. E.			30.20	767.1	56.8	13.8		NW			1		9						Q. M. Sergt J. Conroy.
Colombo, (Ceylon)			29.89	759.2	79.2	26.2		SE			2		10					Raining	Sgt. W. F. Hopkins.
Dartmoor			30.20	767.1	56.2	13.4		NW			1		1						R. E. Power.
Donaghadee			30.26	768.6	60	15.0		NNW			5		10						J. Mac Gowan, Jr.
Dover			30.19	766.8	57	13.9		NNE			3		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.20	767.1	57.0	13.9		NW	8.8	3.9			10						Thomas Mackereth.
Falmouth Observatory			30.30	769.6	58.0	14.4		NNE	16	7.2			2						The Staff.
Fort Napier, (Natal)			29.78	756.4	68.2	20.1		E			3		5						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	88.0	31.1		N					6						
Galway, Queen's College			30.19	766.8	64	17.8		SW			1		1						B. G. Clare, for Prof. Cur[illegible]
Gibraltar, (Mediterranean).			29.72	754.9	71.0	21.7		ENE			2		9			Blank	Blank		Sergt. E. G. Baker.
Glasgow Observatory			30.14	765.5	55.7	13.2		W			1		10						James Gray.
Great Yarmouth			30.10	766.1	56	13.3		NNW			5		4						G. T. Watson.
Greenwich Royal Obs.			30.21	767.3	60.2	15.7		N			2		9						The Staff, for G. B. Airy.
Guernsey			30.21	767.3	59	15.0		NE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.20	767.1	56.6	13.7		N					10						F. J. [illegible], for L. J. Cross.
Halifax, (Nova Scotia)			29.95	760.7	53.3	11.8		NW			5		2						Corp'l J. [illegible] Thompson.
Helston			30.28	769.1	62	16.7		N			4		2						Dr. W. B. [illegible].
Holyhead			30.03	762.7	55	12.8		WNW			2		4						John Tilston.
Hull Park																			
Kew Observatory			30.22	767.5	58.6	14.8		NW	8	3.6			8						The Staff.
Kingstown			30.36	771.1	59	15.0		NNW			4		6						George Mitchell.
Lampeter																			
Leicester Museum			30.21	767.3	55.8	13.2		W			4		10					Drizzling	William J. Harrison.
Llandudno			30.27	768.8	52.3	11.3		WNW					10					Showery	Dr. James Nicol.
Malta, (Mediterranean)			29.87	758.7	74.8	23.8		SE			1		6k						Fred Travis, Pvt A. H. C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.09	764.3	55	12.8		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.03	762.7	79.9	26.6		W			3		5						Surg.-Maj. J. Jameson.
North Shields			30.15	765.8	56	13.3		NW			3		8						John Wm. Irvine.
Nottingham			30.20	767.1	57.0	13.9		NW			3		10k, 6		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.20	767.1	56.0	13.3		NW			4		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.18	766.6	60	15.6		NW			3		10						J. Lucas, for R. Main.
Plymouth			30.28	769.1	59	15.0		S			2		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.37	771.4	60	15.6		SE			2		2						W. Kennedy.
Saint Ann's Head			30.30	769.6	54	12.2		NNW			2		1						John C. Walker.
Saint Helier, (Jersey)			30.25	768.3	64.5	18.1		E			3		2						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			30.17	766.3	53.0	11.7		N			2		10						F. Shaw.
Scutari, (Turkey)			29.80	756.9	75.4	24.1		NE			2		1						Sergt. W. H. Lyne.
Sheffield			30.17	766.3	59	15.0		NW			3		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.17	766.3	59.2	15.1		W			2		10			0.150	3.81	Misty	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.16	766.1	56.3	13.5		WNW			3		7						Rev. C. J. Steward.
Stonyhurst Observatory			30.20	767.1	54.1	12.3		W			2		7					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)			30.10	764.5	53	11.7		NW			5		10					Drizzling	John Smith.
Strathfield Turgiss			30.24	768.1	60.5	15.8		N			1		4						Rev Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.09	764.3	51	10.6		Calm			0		10					Raining	John Trotter.
Truro, Royal Institution			30.26	768.6	62	16.7		N			6		3						W Newcombe.
Valencia Observatory			30.38	771.6	58.1	14.5		NNW	19	8.5			1						The Staff.
Wick																			
Wisbeach																			
Worthing			30.22	767.6	62	16.7		NNE			2		7						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.60	751.9	52.0	11.1	75	NE			4		8					
Fanöe			29.71	754.5	53.2	11.8	72	NNW			4		7					
Godthaab, (Greenland)			29.90	759.4	40.8	4.9	96	Calm			0		10			Blank	Blank	Raining
Stykkisholm, (Iceland)			30.20	767.0	45.0	7.2	98	N			4		0					
Thorshavn, (Faröe)			30.00	762.0	44.1	6.7	96	ESE			4		10					Raining
Vestervig			29.71	754.7	51.1	10.6	89	N			4		4					

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.58	751.4	72.1	22.3	78						2ks						Normal School.
Alençon			30.13	760.8	60.8	16.0	37	NE			2		5kn			0	0		Normal School.
Amiens			30.20	767.0	67.3	19.6	74	NW			4		0			0	0		Normal School.
Beaumette, (near Angers)			30.20	767.0	63.5	17.5	37	N	20.6	9.2			5		E	0	0		Beaumette Observatory
Besançon			30.21	767.2	57.7	14.3	37	NNW			4		8		N	0	0		Normal School.
Bourg en Bresse			30.10	764.4	58.3	14.6	53	NE			4		1		NE	0	0		Normal School.
Bourges			30.06	763.5	60.8	16.0	32	NE			3		0			0	0		Normal School.
Brest			30.15	765.7	58.6	14.8	45	N			6		2		W	0	0		Normal School.
Caen			30.18	766.7	61.0	16.1	55	NNE			3		2		NNE	0	0		Naval Observatory.
Chartres			30.12	765.0	58.1	14.5	74	W			2		2			0	0		Normal School
Chaumont			30.14	765.6	62.1	16.7		N			6		3c			0	0		Normal School.
Commercy			30.10	764.6	52.7	11.5		WNW			6		10		WNW	0	0		Normal School.
Le Mans			30.16	766.0	55.4	13.0	48	NW			4		5		E	0	0		Normal School.
Lons-Le Saulnier			30.32	770.2	61.2	16.2	41	E			3		5		NE	0	0		Normal School.
Mâcon			30.09	764.2	57.2	14.0	48	N			4		0			0	0		Normal School.
Mirecourt																			
Orleans			30.22	767.6	58.5	14.7	57	N			1		8		SW	0	0		Normal School.
Paris Observatory			30.31	769.8	60.6	27.0	32	NNE			3		2		N	0	0		Normal School.
Parthenay			30.17	766.2	57.6	14.2		NNW			3		8		N	0	0		National Observatory
La Roche sur Yon			30.12	765.0	63.0	17.2	72	NE			8		5			0	0		Normal School.
Rouen			30.22	767.6	62.6	17.0	35	NE			8		0			0	0		Normal School.
Saint Lo			30.21	767.4	58.1	14.5	52	NNE			4		1		N	0	0		Normal School.
Villefranche			30.30	769.7	60.8	16.0	87	NE			3		5		E	0	0		Normal School.
Sub-Series.			30.06	763.5	62.6	17.0	52	NNE			6		2		N	0	0		Normal School
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.82	630.4			59.7	15.4	40	NNW	16.8	7.50			4		SSW	0	0		—. Falguère.
Montsouris Observatory			30.16	766.1	59.5	15.3	35	N			3		8k		N	0	0		Marié Davy.
Perpignan	29.92	760.0			78.4	25.8	31	WSW	16.8	7.50			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.17	766.2	57.7	14.3	40	N			3		8			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.17	766.1	63.3	17.4	37	NE			3		2		NE	0	0		C. Marquet.
Versailles, (near Paris)			30.17	766.2	60.4	15.8	45	NE			4		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.76	756.0	75.9	24.4	83	SSE	11.6	5.2			1kn			0 / 0.004	0 / 0.1	Lightning in W.	H. Le Leo, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at ZiKa--Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.80	759.2	56.8	13.8	77	NW			8		8			0.126	3.2		Prof. Hoh.
Berlin			29.76	756.0	56.3	13.5	66	SW			5		8			0.268	6.8		Prof. Arndt.
Breslau			29.84	758.0	57.0	13.9	40	SW			3		7			0.043	1.1		Dr. P. Neugebauer.
Karlsruhe			30.03	762.7	55.0	12.8	62	SW			3		10			0.071	1.8		A. Senz.
Cassel			29.78	756.5	51.1	10.6	73	NW			5		8			0.037	0.93		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.04	762.9	57.2	14.0	52	S					7			0	0		M. Wilhelm.
Hamburg			29.76	755.8	52.0	11.1	88	NW			3		10			0.415	10.55	Raining	W. Reinert.
Kiel			29.72	755.0	53.1	11.7	81	W			3		10			0.098	2.49		Prof. G. Karsten.
Königsberg			29.71	754.6	56.8	13.8	67	SE			1					0.068	1.74		Prof. E. Luther.
Köslin			29.85	758.3	47.8	8.8		W			4		9			0.370	9.4		Dr. Tägert.
Leipsic			29.84	757.8	53.1	11.7	64	WSW			5		10			0.106	2.7	Raining	Prof. Bruhns.
Munster			29.96	761.0	51.8	11.0	65	NW			2		10			0.043	1.1		Prof. E. Heis.
Posen			29.79	756.8	54.5	12.5	76	SW			2		9			0.114	2.9		Dr. Magener.
Strassburg, (in Alsace)			30.07	763.7	55.0	12.8	55	NW					8			0.004	0.12		Hartwig and Tülk.
Stuttgart			30.03	762.7	55.0	12.8	52	NW					6			0.028	0.7	Rainy	Mr. Würth.
Thorn			29.74	755.3	58.1	14.5	47	W			5		6			0	0		Dr. Hassenbalg.
Treves, (Trier)			30.01	762.2	57.6	14.2	50	NW			6		8			0.020	0.52		Prof. Flesch.
Wustrow			29.67	753.7	50.4	10.2	79	W			2		7ks			0.095	2.42		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.63	752.6	75.7	24.3	42	ESE	3.1	1.4			2	W		0	0		
Mondovi			29.60	751.8	74.7	23.7	45	NW			4		3	WSW		0	0		
Genoa			29.66	753.4	76.3	24.6	58	SE	8.7	3.9			4	N		0	0		
Savia			29.62	752.3	77.5	25.3	28	N			1		1	NW		0	0		
Verona			29.64	752.9	77.0	25.1	46	E			6		3			0	0		
Padua			29.70	754.3	65.1	18.4	57	NE	18.1	8.1			10	W		0	0		
Parma																			
Modena			29.69	754.2	66.2	19.0	88	NE	3.1	1.4			8			0	0		
Leghorn			29.67	753.7	76.3	24.6	78	S	5.6	2.5			3			0	0		
Urbino			29.66	753.3	77.7	25.4	41	WSW			4		5			0	0		
Ancona			29.62	752.4	81.3	27.4	45	SE			4		4			0	0		
Rimini			29.63	752.7	79.2	26.2	44	SSW	4.0	2.2			3	SW		0	0		
Rome			29.75	755.7	80.1	26.7	47	S	16.8	7.5			1			0	0		
Naples, O.U.			29.82	757.3	80.6	27.0	58	SW			4		4	SW		0	0		
Lecce			29.82	757.3	79.7	26.5	34	WSW	12.5	5.6			0			0	0		
Cosenza			29.83	757.7	78.4	25.8	47	SE			1		5			0	0		
Catania, (Sicily)																			
Riposto			29.82	757.3	72.9	22.7	65	NNE			2		8	N		0	0		
Palermo			29.79	756.6	77.0	25.0	57	NE			2		3			0.012	0.3	Showery	
Sub-Series.																			
Naples, S. R.			29.85	758.3	77.0	25.0	67	SSW			6		..en		SW	0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.17	766.3	53.2	11.8		NNW			4								
Groningen			29.89	759.2	50.0	10.0		NW			6								
Helder			30.03	762.7	50.2	10.1		NW			5								
Utrecht			30.01	762.2	55.9	13.3	56	NNW			4		.8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.78	756.4	57.2	14.0	51	NNW	13.9	6.2			0			0	0		
Christiania			29.75	755.7	55.0	12.8	57	NNE	2.7	1.1			6			0.204	6.7		
Tromsö			29.95	760.7	60.1	15.6	80	S			2		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.49	749.1			78.1	25.6	48	SW	4.9	2.2			8					Showery	

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.71	754.7	59.5	15.3	54	W	11	5			9						Astronomical Obs.
Wilna			29.72	755.0	63.0	17.2	38	W	4	2			10						Astronomical Obs.
Dorpat			29.77	756.2	56.5	13.6	59	N	7	3			8						Physical Cabinet.
St. Petersburg			29.81	757.2	51.4	10.8	55	ENE	13	6			6						Central Physical Obs.
Kuopio																			
Kieff			29.80	756.8	62.8	17.1	86	SE	4	2			10						Physical Cabinet.
Nikolaiev			29.90	759.5	70.7	21.5	33	S	10	4.5			0						
Kertch			29.93	760.1	73.2	22.9	38	E	10	4.5			0						Lagorio.
Moscow			29.78	756.3	58.8	14.9	70	NNE	8	3.5			8					Raining	Meteorological Obs.
Lugan			29.79	756.7	74.8	23.8	29	WSW	10	4.5			4						Meteorological Obs.
Archangel			30.08	764.0	52.2	11.2	52	ENE	13	6			3						Ogorodnikof.
Tiflis			29.84	757.9	76.3	24.6	47	SSW	13	6			5						Physical Obs.
Astrakhan			29.97	761.1	77.2	25.1	27	WSW	8	3.5			4						Sebastianof.
Kasan			29.74	755.3	57.6	14.2	42	W	8	3.5			5						Physical Cabinet.
Orenburg			29.62	752.4	70.0	21.1	67	NW	10	4.5			7						Tschernischef.
Ekaterinburg			29.61	752.2	49.1	9.5	68	W	17	7.5			10						Meteorological Obs.
Kasaly			29.82	757.3	71.6	22.0	84	NW	31	14			5						Bobrof.
Tashkend			29.85	758.1	85.6	29.8	52	Calm	0	0			0						Michelson.
Barnaul			29.77	756.1	75.2	24.0	29	SW	8	3.5			1						Meteorological Obs.
Yeniseisk			29.53	750.6	73.9	24.3	39	SW	20	9			7						Marks.
Irkutsk			29.87	758.6	59.4	15.2	55	Calm	0	0			0						Usolzef.
Oorga			30.04	763.1	48.6	9.2	80	Calm	0	0			0						Mossin.
Peking, (China)			29.76	755.9	69.3	20.7	81	S	8	3.5			7						Physical Observatory.
Nertchinsk			29.78	756.4	51.4	10.8	47	Calm	0	0			5						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					44.4	6.9	87	SE	13	6			3						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.76	756.0	81.9	27.7	36	ENE	5.1	2.3			8			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.2	47.8	8.8	66	E			7		0			0	0		
Hernosand			29.80	759 1	44.6	7.0	57	NE			7		2			0	0		
Stockholm			29.75	755.6	46.4	8.0	79	E			5		10			0.01	0.2		
Wisby			29.71	754.7	47.5	8.6	89	NNE			2		6			0.31	7.8		
Sub-Series.																			
Upsala			29.78	756.3	52.7	11.5	66	E			4		9		E				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.56	725.5			69.8	16.0	37	NE			4		1			0	0		The Observatory.
Zurich	28.40	721.4			58.1	14.5	49	W			1		5			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, --0.1mm.; Thermometer, --2°.2 C.; Relative Humidity, – 10 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.88	758.9	79.3	26.3	68	SW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			29.87	758.8	69.4	20.8	40	NW	10.1	4.5			0			0	0		
Fao, (Persian Gulf)			29.87	758.8	91.4	33.0		NW			3		0						
Salonica					82.2	27.9		S			3		0						
Valona			29.84	757.8	84.0	29.4		SW			3		2						
Varna			30.92	760.0	73.4	23.0		SE			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.32	770 1	62	16.7		NE	5	2.2		0	0			0	0		
Chatham, N. B.			30.02	765.5	50	10.0	51	NW	18	8.0		5k	0	NW		0.41	10.4		
Charlottetown, P. E. Island			29.96	761.0	47	8.3	50	NW	18	8.0		5k	0	NW		0	0		
Fort Garry, Manitoba			29.74	755.4	50	10.0	100	N	10	4.5			10n			0.502	12.75	Heavy rain	
Halifax, N. S.			29.88	758.9	53	11.7	56	NW	20	8.9		0	2ks		NW	0.110	2.79		
Kingston, Ontario			30.33	770.4	60	15.6	89	NE	6	2.7		0	Sm'e			0	0		
Montreal, Quebec			30.32	770.1	55	12.8	62	NE	9	4.0		0	2s			0	0		
Ottawa, Ontario			30.32	770.1	57	13.9	47	N	4	1.8		0	0			0	0		
Parry Sound, Ontario			30.22	767.6	60	15.6	49	E	12	5.4		Haze	Sm'e			0	0		
Port Dover, Ontario			30.18	766.6	58	14.4	53	NE	5	2.2		0	0			0	0		
Port Stanley, Ontario			30.15	765.8	63	17.2	40	E	12	5.4		0	0			0	0		
Quebec, Quebec			30.27	768.8	50	10.0	45	W	13	5.8		0	0			0	0		
Saugeen, Ontario			30.15	765.8	52	10.7	83	SE	7	3.1		0	Fog			0	0	Foggy	
Stayner, Ontario			29.19	766.8	58	14.4	61	SE	5	2.2		0	Haze			0	0		
Sydney, C. B.			29.80	756 9	46	7.8	62	NW	13	5.8			10ks		NW	0.19	4.8		
Toronto, Ontario			30.25	768.3	59	15.0	54	NE	5	2.2		Haze	Haze			0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.22	767.6	61	16.1	66	N	5	2.2		2c	0			0	0		
Alpena, Mich.			30.15	765.8	52	11.1	53	SE	4	1.8		0	Sm'e			0	0		
Atlantic City, N. J.			30.20	767.1	62	16.7	77	NE	14	6.3		0	0			0	0		
Augusta, Ga.			30.02	762.5	76	24.4	73	E	4	1.8		5c	0	E		0	0		
Baltimore, Md.			30.19	766.8	68	20.0	60	NE	8	3.6		0	0			0	0		
Barnegat, N. J.			30.20	767.1	61	16.1	70	E	6	2.7		0	0			0	0		
Benton, Montana			30.18	766.6	42	5.6	83	SW	4	1.8			10s			0	0		
Bismarck, Dakota			29.82	757.4	50	10.0	86	N	6	2.7			10n		N	0.29	7.4	Light rain	
Boston, Mass.			30.19	766.8	70	21.1	36	N	7	3.1		0	0			0	0		
Breckenridge, Minn.			29.60	751.8	66	18.9	90	SE	4	1.8		8k	0	SE		0.17	4.3		
Buffalo, N. Y.			30.20	767.1	60	15.6	44	E	9	4.0		1c	Sm'e	NE		0	0		
Burlington, Vt.			30.30	769.6	56	13.3	69	N	3	1.3		2c	0			0	0		
Cairo, Ill.			29.92	760.0	71	21.7	80	S	4	1.8		2c	0	SE		0	0		
Cape Hatteras, N. C.			29.95	760.7	69	20.6	90	NE	24	10.7		0	5s			0.03	0.8		
Cape Henry, Va.			30.11	764.8	66	18.9	74	NE	23	10.3		Haze	0			0.02	0.5		
Cape May, N. J.			30.18	766.6	64	17.8	62	NE	16	7.2		0	0			0	0		
Charleston, S. C.			29.99	761.7	71	21.7	85	N	12	5.4		2c	0			1.05	26.7		
Cheyenne, W. T.			29.89	759.2	46	7.8	85	N	16	7.2		10cs	0			0.03	0.8		
Chicago, Ill.			29.97	761.2	57	13.9	63	E	8	3.6		0	0			0	0		
Cincinnati, Ohio			30.01	762.2	68	20.0	49	E	4	1.8		0	0			0	0		
Cleveland, Ohio			30.07	763.8	62.8	17.1	47	SE	12	5.4		0	Sm'e			0	0		
Colorado Springs, Col.			29.88	758.9	54	12.2	49	N	4	1.8		8k	0	W		0.12	3.0		
Corsicana, Texas			29.85	758.2	65	18.3	94	S	6	2.7			Fog			0.03	0.8	Foggy	
Davenport, Iowa			29.90	759.4	68	20.0	56	E	12	5.4		5c	Sm'e			0.01	0.3		
Denver, Col.			29.9	759.4	53	11.7	73	SW	2	0.9		5cs	0	W		0.18	4.6		
Detroit, Mich.			30.02	760.5	61	16.1	66	E	5	2.2		0	Haze			0	0		
Dodge City, Kansas			29.48	749.0	66	18.9	73	SE	4	1.8		5k	0	W		0.15	3.8		
Dubuque, Iowa			29.91	759.7	68	20.0	51	SE	12	5.4		0	0			0	0		
Duluth, Minn.			29.85	758.2	49	9.4	63	NE	4	1.8		2ck	Sm'e	SW		0	0		
Eastport, Me.			30.10	764.5	53	11.7	48	N	12	5.4		8c	0	N		0	0		
Erie, Penn.			30.12	765.0	66	18.9	36	E	4	1.8		0	Haze			0	0		
Escanaba, Mich.			30.08	764.0	59	15.0	64	SE	4	1.8			Sm'e			0	0		
Fort Gibson, I. T.			29.76	755.9	69	20.6	90	SE	3	1.3			10s		S	0.03	0.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.68	753.9	61	16.1	88	NW	1	0.4			10s		NW	0.81	20.6		
Galveston, Texas			29.87	758.7	75	23.9	85	S	3	1.3		1ck	0	W		1.36	34.5		
Grand Haven, Mich.			30.05	763.3	60	15.6	54	SE	12	5.4		Haze	Sm'e			0	0		
Indianapolis, Ind.			29.96	761.0	67	19.4	55	E	7	3.1		5c	Haze	W		0	0		
Indianola, Texas			29.86	758.4	78	25.6	86	SE	6	2.7			10s		SE	1.19	30.2		
Jacksonville, Fla.			29.97	761.2	78	25.6	72	SW	8	3.6		8k	0	NE		2.40	61.0		
Keokuk, Iowa			29.80	756.9	69	20.6	65	SE	15	6.7		5cs	2s	SE		0.18	4.6		
Key West, Fla.			29.99	761.7	79.5	26.4	74	S	4	1.8		0	Haze			0	0		
Kittyhawk, N. C.			30.04	763.0	64	17.8	83	NE	28	12.5		2c	0	E		0	0		
Knoxville, Tenn.			30.02	762.5	69	20.6	75	NE	4	1.8		2c	Haze			0	0		
La Crosse, Wis.			29.84	757.9	71	21.7	53	S	12	5.4		2k	Haze	S		0	0		
Leavenworth, Kan.			29.74	755.4	67	19.4	84	E	1	0.4		0	5s		SW	0.30	7.6		
Lexington, Ky.			30.00	762.0	77	25.0	53	NE	8	3.6		Haze	0			0	0		
Long Branch, N. J.			30.24	768.1	60	15.6	70	N	12	5.4		0	0			0	0		
Louisville, Ky.			29.98	761.5	75	23.9	48	Calm	0	0		5cs	0			0	0		
Lynchburg, Va.			30.15	765.8	72	22.2	60	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.00	762.0	59	15.0	88	S	12	5.4		2cs	Haze			0	0		
Memphis, Tenn.			29.92	760.0	70	21.1	79	SE	4	1.8		5cs	Haze			0.01	1.0		
Milwaukee, Wisconsin			30.04	763.0	52	11.1	79	E	4	1.8			Fog			0	0	Foggy	
Mobile, Ala.			29.95	760.7	78	25.6	82	SW	1	0.4		5k	2s	SW	SW	0	0		
Montgomery, Ala.			29.97	761.2	80	26.7	55	SE	8	3.6		5cs	Haze			0	0		
Morgantown, W. Virginia			30.10	764.5	72	22.2	67	NE	2	0.9		0	Sm'e			0	0		
Mt. Washington, N. H.			30.28	769.1	34	1.1	43	N	46	20.6		2c	Haze	N		0	0		
Nashville, Tenn.			29.96	761.0	76	24.4	64	E	5	2.2		5k	0	SE		0.01	0.3		
New Haven, Conn.			30.24	768.1	69	20.6	39	NNE	4	1.8		2cs	0	NW		0	0		
New London, Conn.			30.24	768.1	73	22.8	35	N	2	0.9		0	0			0	0		
New Orleans, La.			29.92	760.0	76	24.4	82	SE	3	1.3		5cs	5s		S	0	0		
Newport, R. I.																			
New York, N. Y.			30.26	768.6	66	18.9	32	E	8	3.6		0	0			0	0		
Norfolk, Va.			30.11	764.7	70	21.1	53	NE	16	7.2		0	0			0	0		
North Platte, Neb.			29.33	745.0	60	15.6	88	Calm	0	0			10ks		SE	0.19	4.8		
Omaha, Neb.			29.72	754.9	68	20.0	79	SE	7	3.1		10cs	0	S		0.07	1.8		
Oswego, N. Y.			30.28	769.1	54.5	12.5	70	W	1	0.4		Haze	Fog			0	0		
Peck's Beach			30.20	767.1	63	17.2	57	E	16	7.2		Haze	Haze			0			
Pembina, D. T.			29.69	754.1	58	14.4	93	Calm	0	0			10s			0.35	8.9		
Philadelphia, Penn.			30.23	767.8	66	18.9	54	E	12	5.4		0	0			0	0		
Pike's Peak, C. T.			29.97	761.2	23	— 5.0	86	W	8	3.6		5c	2s	SW		0.10	2.5		
Pittsburgh, Penn.			30.13	765.3	63	17.2	37	NE	3	1.3		0	0			0	0	Smoky	
Port Huron, Mich.			30.14	765.5	54	12.2	73	NE	6	2.7		Haze	Haze			0	0		
Portland, Maine			30.22	767.6	62	16.7	36	N	10	4.5		5c	0	NW		0	0		
Portland, Or.			30.27	768.8	43	6.1	75	NW	2	0.9		Haze	Haze			0	0		
Punta Rassa, Fla.			29.99	761.7	80.2	26.8	78	SW	6	2.7		Haze	2ks		SW	0	0		
Rochester, N. Y.			30.23	767.8	62	16.7	50	SE	2	0.9		0	Sm'e			0	0		
Salt Lake City, Utah			30.06	763.5	41	5.0	48	S	1	0.4		0	0			0.01	0.3		
Sandy Hook, N. J.			30.22	767.6	62	16.7	60	NE	12	5.4		1c	0			0	0		
San Diego, Cal.			29.89	759.2	62	16.7	70	W	4	1.8			10s		W	0	0		
San Francisco, Cal.			29.82	757.4	51	10.6	72	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.63	752.6	51	10.6	34	W	4	1.8		0	0			0	0		
Savannah, Georgia			29.99	761.7	76	24.4	72	N	8	3.6		0	0			0.07	1.8		
Shreveport, La.			29.88	758.9	70	21.1	95	SE	3	1.3		10k	0	S		0.40	10.2		
Springfield, Mass.			30.22	767.6	67	19.4	50	NE	3	1.3		0	0			0	0		
St. Louis, Mo.			29.87	758.7	73	22.8	58	SE	8	3.6		5c	0			0	0		
St. Marks, Fla.			29.95	760.7	75	23.9	90	NW	3	1.3			10s		NW	0	0		
St. Paul, Minn.			29.73	755.1	71	21.7	56	SE	18	8.0		3ck	0	SW		0	0		
St. Paul's Island, Alaska			29.76	755.9	36	2.2	80	ENE	23	10.3		4c	0	S		0	0		
Squan Beach, N. J.			30.22	767.6	60	15.6	65	NE	4	1.8		0	Haze			0	0		
Toledo, Ohio			30.06	763.5	64	17.8	62	SE	8	3.6		Haze	Haze			0	0		
Tybee Island, Ga.			30.00	762.0	74	23.3	90	NE	6	2.7		2c	0			0	0		
Vicksburg, Miss.			29.96	761.0	70	21.1	75	SE	5	2.2			10s		SE	0	0		
Virginia City, Mon.			29.85	758.2	30	— 1.1	79	Calm	0	0		0	5s			0.66	16.8		
Washington, D. C.			30.19	766.8	67	19.4	48	N	9	4.0		Haze	Sm'e			0	0		
Wilmington, N. C.			29.98	761.5	68	20.0	84	NE	12	5.4			10s		N	0.08	2.0		
Wood's Hole, Mass.			30.22	767.6	66	18.9	40	N	4	1.8		0	0			0	0		
Wytheville, Va.			29.90	759.4	65	18.3	73	E	4	1.8		0	0			0	0		
Yankton, D. T.			29.68	753.9	69	20.6	70	S	4	1.8		8cs	0	SW		0.12	3.0		

NOTE.—The "originals" give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.06	763.5	83	28.3	67	NE	6	2.7		5c	2s	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.98	761.5	80	26.7	74	E				5cs	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.74	755.4	85	29.4	82	S	2.4	1.1		5c	0	S		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.19	766.8	80	26.7	74	SE	4	1.8		2c	1s	NE		0	0		James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	79	26.1	78	ESE	8	3.6		2ck	5kn	SE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.81	757.2	80	26.7	73	S	6	2.7		3ck	7n	S	SE	Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.94	760.5	75.0	23.9	88	S	3	1.3		5c	2k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.17	766.3	66	18.9	68	NE			3	0	5k			0	0		E. P. Church.
Makawao, Maui, S. I.	27.88	708.1			62	16.7	88	E			4	0	6n			0.12	3.0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.76	756.1	39.5	4.2	100	E	12	5.4			10n			1.18	4.6		J. Fortescue.
Clifton, Jamaica, W. I.			30.04	763.0	64	17.8	90	SSE	2	0.9		2c	0	SE		0	0		C. Partridge.
St. John's, Newfoundland			29.62	752.3	45	7.2	100	N					10n			0.75	19.1	Light rain	John Delaney.
St. John's, Porto Rico, W. I																			Leon M. Acuña.
Elyria, Ohio			30.06	763.5	64	17.8	52	S	8	3.6		0	Haze			0	0		H. M. Redington.
Indianola, Iowa	28.85	732.8			72	21.7	79	SE					8kn			0.16	4.1		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 28, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.76	756.0	71.8	22.1		NW			2		0			0	0		Charnot.
Algiers			29.75	755.6	71.6	22.0	82	E			1		7			0.079	2.0	Threatening	Peter.
La Calle			29.78	756.3	73.4	23.0		NE			5		8			0	0	Threatening	Kuntz.
Tunis			29.80	756.9	82.2	27.9	46	E			3		10			0	0		Jacques.
Sfax			29.82	757.5	77.5	25.3	57	E			4		2			0	0		Chauvey.
Saida			29.88	759.0	64.4	18.0		NNW			4		8			0.236	6.0	Threatening	Grosjean.
Tebessa			29.83	757.6	78.8	26.0		ESE			5		0			0	0	Threatening	Colin.
Geryville			29.91	759.7	70.7	21.5		NE			2		8			0.787	20.0	Stormy	Bernadach.
Laghount			29.80	756.8	82.4	28.0	30	E			3		1			0	0		Poinsignon.
Biskra			29.79	756.6	91.6	33.1		E			3		6			0	0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.85	758.2	65.5	18.6	51	SW			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.85	758.3	56.3	13.5	60	WNW			7		5			0	0		I. R. Observatory.
Eperies			29.82	757.3	56.5	13.6	74	Calm			0		10		N	0.193	4.90	Raining	Julius Mikolik.
Gratz			29.87	758.6	60.1	15.6	54	WSW			2		5			0	0		Andreas Rospini.
Hermannstadt			29.87	758.7	55.4	13.0	60	NW			3		10			0.057	1.45	Raining	Prof. Reissenberger.
Kremsmünster			29.93	760.1	53.6	12.0	55	NW			3		3			0.165	4.2		Prof. C. Wagner.
Lemberg			29.77	756.1	62.6	17.0	43	NW			4		3			0.311	7.9		Dr. T. Stanecki.
Nyiregyhaza			29.84	758.0	68.4	20.2	69	NW			3		4			0	0		Habzsuda Daniel.
Pola			29.88	758.9	67.3	19.6	49	WNW			1		2ks			0.081	2.05		I. R. Hydrographic Of'ce
Szegedin			29.86	758.5	69.8	21.0	37	SE			2		4			0	0		Karl Stancel.
Trieste			29.88	758.9	68.5	20.3	26	ENE			1		0			0	0		Prof. V. Farolfi.
Vienna			29.89	759.2	59.4	15.2	44	WSW			3		6			0.039	1.0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.67	753.6			57.4	14.1	75	W			1		10s, ks		W	0.010	0.25	Sprinkling	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.95	760.7	49.0	9.4		N	20	8.9			7			0.610	15.49		William Boswell.
Annanhill																			
Ardrossan			29.91	759.7	53	11.7		NE			3		5						William McNeil.
Armagh Observatory			29.89	759.2	55.2	12.9		NNE	10	4.5			8					Showery	S. Cal., for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.82	757.4	55.8	13.2		WNW			2		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.89	759.2	53.4	11.9		WNW			4		9					Drizzling	J. Dreyer, for Ld Rosse
Bradford			29.77	756.1	57.3	14.1		NW			1		10						J. Mc Landsborough
Bridgetown, (Barbadoes)			30.02	762.5	86.0	30.0		NE			2		4						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.82	757.4	59.0	15.0		WNW			1		10			0.980	24.89	Raining	H. Todd.
Cape Town, (Cape Colony)			30.14	765.5	57.0	13.9		NW			4		10					Showery	Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.17	766.3			56.9	13.8	97	WNW	11	4.9			10						Th Staff, for E. J. Stone
Cardington			29.84	757.9	63.0	17.2		W					9						John McLaren.
Carlisle			29.89	759.2	53.1	11.7		N					8			0.24	6.1		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.85	758.2	63.2	17.3		WSW					10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759.2	80.6	27.0		SW			6		10						Sgt. W. F. Hopkins
Dartmoor			29.95	760.7	55.8	13.2		W			3		10						R. E. Power.
Donaghadee			29.85	758.2	56	13.3		NNE			3		7						J. Mac Gowan, Jr.
Dover			29.84	757.9	59	15.0		WSW			3		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.80	756.9	58.7	14.8		WNW	5.8	2.6			10						Thomas Mackereth
Falmouth Observatory			29.91	759.7	60.7	15.9		WNW	16	7.2			10						The Staff.
Fort Napier, (Natal)			29.97	761.2	72.0	22.2		NW			4		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	88.0	31.1		N					6						
Galway, Queen's College			30.07	763.8	63	17.2		SW			5		10						B. G. Clare, for Prof. Carr
Gibraltar, (Mediterranean)			29.78	756.4	70.5	21.4		W			1		9			Blank	Blank		Sergt. E. G. Baker.
Glasgow Observatory			29.92	760.0	51.6	10.9		E			2		10						James Gray.
Great Yarmouth			29.81	757.2	55	12.8		NNW			1		6					Drizzling	G. T. Watson.
Greenwich Royal Obs.			29.83	757.7	61.6	16.4		NW			3		10						The Staff, for G. B. Airy
Guernsey			29.92	760.0	59.5	15.3		WNW			2		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.80	756.9	60.6	15.9		WNW					9					Threatening	F. J. Pace, for L. J. Crossley
Halifax, (Nova Scotia)			29.99	761.7	47.4	8.6		N			6		1						Corp'l J. Y. Thompson.
Helston			29.91	759.7	62	16.7		WNW			4		8					Showery	Dr. W. B. Doyle.
Holyhead			29.99	761.7	55	12.8		N			3		4			Blank	Blank		John Tilston.
Hull Park																			
Kew Observatory			29.84	757.9	60.3	15.7		W	9	4.0			10					Raining	The Staff.
Kingstown			29.91	759.7	52	11.1		NNE			2		9					Showery	George Mitchell.
Lampeter																			
Leicester Museum			29.83	757.7	56.3	13.5		NW			2		10						William J. Harrison
Llandudno			29.83	757.7	57.8	14.3		NW					5						Dr. James Nicol.
Malta, (Mediterranean)			29.87	758.7	77.8	25.4		SE			1		6k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.01	762.2	53	11.7		NE			2		10						William D. Penny.
Nassau, (Bahamas)			30.05	763.3	79	26.1		NW			3		7						Surg.-Maj. J. Jameson
North Shields			29.86	758.4	50	10.0		NNE			6		9					Misty	John Wm. Irvine
Nottingham			29.81	757.2	61.5	16.4		SSW			2		9ks		W				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			29.82	757.4	53.8	12.1		WSW			1		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliff Obs.			29.81	757.2	60	15.6		Calm			0		10						J. Lucas, for R. Main
Plymouth			29.89	759.2	63	17.2		W			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.88	758.9	55	12.8		NNW			5		10					Squally	W. Kennedy.
Saint Ann's Head			29.85	758.2	54	12.2		WNW			2		8						John C. Walker.
Saint Helier, (Jersey)			29.95	760.7	63.2	17.3		WNW			3		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.81	757.2	53.7	12.1		N			2		10						F. Shaw.
Scutari, (Turkey)			29.83	757.7	70.8	21.6		S			1		1						Sergt. W. H. Lyne.
Sheffield			29.78	756.[illegible]	62.3	16.8		NW			3		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.85	758.2	50.1	10.1		NNW			3		9			0.020	0.51		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.84	757.9	54.0	12.2		WNW			1		10					Raining	Rev. C. J. Steward.
Stonyhurst Observatory			29.78	756.4	57.7	14.3		W			2		8					Threatening	The Staff.
Stornoway, Lews C. (Heb.)			30.10	764.5	48	8.9		NE			5		10						John Smith.
Strathfield Turgiss			29.88	758.9	60.4	15.8		W			1		10						Rev. Charles H. Griffith
Streatley Vicarage			29.86	758.4	57	13.9		WSW			1		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.03	762.7	49	9.4		NNE			5		7						John Trotter.
Truro Royal Institution			29.90	759.4	60	15.6		NW			5		8						W. Newcombe.
Valencia Observatory			29.95	760.7	55	12.8		NNW	20	8.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.84	757.9	62.8	17.1		W			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.75	755.6	50.2	10.1	84	NE			4		8						
Fanöe			29.78	756.5	52.7	12.5	69	Calm			0		9						
Godthaab, (Greenland)			30.26	768.5	35.4	1.9	95	S			4		10			Blank	Blank	Raining	
Stykkisholm, (Iceland)			30.26	768.5	46.0	7.8	94	W			8		0						
Thorshavn, (Faröe)			30.23	767.9	47.7	8.7	67	N			6		4						
Vestervig			29.76	755.8	56.8	13.8	55	NNE			2		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio	.....	.....	29.56	750.8	66.4	19.1	88	.....	.....	.....	.....	.....	8n	.....	.....	.....	.....	.....	Normal School.
Alençon	.....	.....	29.91	759.7	62.6	17.0	70	W	.....	.....	1	.....	8n	.....	.....	0.083	2.1	.....	Normal School.
Amiens	.....	.....	29.91	759.8	59.0	15.0	52	N	.....	.....	3	.....	10	.....	.....	0	0	.....	Normal School.
Beaumette, (near Angers)	.....	.....	29.99	759.4	66.6	19.2	46	W	3.0	1.6	.....	.....	10	.....	N	0	0	.....	Beaumette Observatory
Besançon	.....	.....	29.93	760.3	59.9	15.5	62	SW	.....	.....	2	.....	10	.....	W	0	0	.....	Normal School.
Bourg en Bresse	.....	.....	29.98	761.5	51.4	10.8	37	N	.....	.....	4	.....	0	.....	.....	0	0	.....	Normal School.
Bourges	.....	.....	29.95	760.8	65.3	18.5	35	NE	.....	.....	1	.....	0	.....	.....	0	0	.....	Normal School.
Brest	.....	.....	29.99	761.7	61.2	16.2	57	E	.....	.....	2	.....	2	.....	W	0	0	.....	Normal School.
Caen	.....	.....	29.90	759.4	69.6	20.9	55	WNW	.....	.....	1	.....	10	.....	NNW	0	0	.....	Naval Observatory.
Charres	.....	.....	29.92	760.0	65.5	18.6	81	NW	.....	.....	2	.....	8	.....	.....	0	0	.....	Normal School
Chaumont	.....	.....	29.91	759.7	60.1	15.6	.....	W	.....	.....	1	.....	10	.....	.....	0	0	.....	Normal School.
Commercy	.....	.....	29.93	760.1	59.0	15.0	.....	NW	.....	.....	3	.....	5	.....	NW	0	0	.....	Normal School.
Le Mans	.....	.....	30.02	762.5	57.2	14.0	59	W	.....	.....	2	.....	5	.....	SE	0.009	0.25	.....	Normal School.
Nancy-Le Saulnier	.....	.....	30.06	763.5	64.0	17.8	57	ESE	.....	.....	2	.....	5	.....	N	0	0	.....	Normal School.
Nicom.	.....	.....	29.99	761.8	59.5	15.3	41	N	.....	.....	1	.....	0	.....	.....	0	0	.....	Normal School.
Nîrscourt	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Orleans	.....	.....	30.08	764.0	53.2	11.8	52	N	.....	.....	1	.....	8	.....	.....	0	0	.....	Normal School.
Paris Observatory	.....	.....	30.07	763.7	69.8	21.0	51	SW	.....	.....	2	.....	5	.....	W	0	0	.....	Normal School.
Parthenay	.....	.....	29.91	759.8	62.1	16.7	.....	NNW	.....	.....	2	.....	10	.....	.....	0	0	.....	National Observatory
La Roche sur Yon	.....	.....	29.98	761.6	64.4	18.0	39	NE	.....	.....	8	.....	0	.....	.....	0	0	.....	Normal School.
Rouen	.....	.....	30.01	762.3	62.6	17.0	39	N	.....	.....	2	.....	0	.....	.....	0	0	.....	Normal School.
Saint Lo	.....	.....	29.89	759.2	62.2	16.8	63	WSW	.....	.....	1	.....	2	.....	W	0	0	.....	Normal School.
Villefranche	.....	.....	29.95	760.8	59.4	15.2	80	NE	.....	.....	3	.....	5	.....	E	0	0	.....	Normal School.
Sub-Series.	.....	.....	30.02	762.5	64.4	18.0	42	NNE	.....	.....	6	.....	0	.....	.....	0	0	.....	Normal School
Gorée, (Senegambia)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frère Pascall.
Mont Louis	24.74	628.3	.....	.....	59.0	15.0	51	E	18.0	8.33	.....	.....	2	.....	SW	0	0	.....	—. Falguère.
Montsouris Observatory	.....	.....	29.91	759.6	60.3	15.7	59	WNW	.....	.....	1	.....	10	.....	.....	0	0	.....	Marié Davy.
Perpignan	29.71	754.6	.....	.....	70.2	21.	25	ESE	9.3	4.17	.....	.....	1	.....	WNW	0	0	.....	Dr. Flines.
Saint Maur, (near Paris)	.....	.....	29.92	760.0	61.9	16.6	59	WSW	.....	.....	1	.....	0	.....	.....	0	0	.....	E. Renou.
Saint Pierre, (Martinique)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Tours	.....	.....	29.92	760.3	67.3	19.6	41	SW	.....	.....	1	.....	8	.....	N	0	0	.....	C. Marquet.
Versailles, (near Paris)	.....	.....	29.92	760.0	61.9	16.6	64	W	.....	.....	2	.....	10	.....	.....	0	0	.....	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)	.....	.....	29.68	753.9	77.7	25.4	100	NNW	10.5	4.7	.....	.....	10n	.....	.....	0.870 0.968	22.0 24.6	Raining	H. Le Leo, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg	.....	.....	29.90	759.5	51.8	11.0	54	W	.....	.....	5	.....	10	.....	.....	0	0	.....	Prof. Hoh.
Berlin	.....	.....	29.84	757.8	56.8	13.8	65	NW	.....	.....	3	.....	8	.....	.....	0.157	4.0	Raining	Prof. Arndt.
Breslau	.....	.....	29.89	759.1	54.0	12.2	51	NW	.....	.....	7	.....	7	.....	.....	0	0	.....	Dr. P. Neugebauer.
Carlsruhe	.....	.....	29.93	760.3	58.8	14.9	42	SW	.....	.....	3	.....	4	.....	.....	0.071	1.8	.....	A. Senz.
Cassel	.....	.....	29.79	756.6	52.7	11.5	56	W	.....	.....	2	.....	8	.....	.....	0	0	.....	Dr. H. Möhl.
Cologne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Garthe.
Emden	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. Prestel.
Frankfort on the Main	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Physical Society.
Friedrichshafen	.....	.....	29.95	760.6	56.3	13.5	56	W	.....	.....	1	.....	.....	.....	.....	0	0	.....	M. Wilhelm.
Hamburg	.....	.....	29.82	757.2	49.6	9.8	87	NW	.....	.....	4	.....	9ks	.....	.....	0.672	17.0	Raining	W. Reinert.
Kiel	.....	.....	29.79	756.6	53.8	12.1	63	N	.....	.....	3	.....	1	.....	.....	0.067	1.72	.....	Prof. G. Karsten.
Konigsberg	.....	.....	29.67	753.7	57.4	14.1	64	SW	.....	.....	1	.....	.....	.....	.....	0.195	4.96	.....	Prof. E. Luther.
Köln	.....	.....	29.87	758.6	54.1	12.3	.....	N	.....	.....	4	.....	6	.....	.....	0.260	6.6	.....	Dr. Tägert.
Leipsic	.....	.....	29.88	758.9	56.1	13.4	52	SW	.....	.....	4	.....	9	.....	.....	0.232	5.9	.....	Prof. Bruhns.
Munster	.....	.....	29.87	758.8	56.7	13.7	93	SW	.....	.....	2	.....	5	.....	.....	0.201	5.1	.....	Prof. E. Heis.
Posen	.....	.....	29.80	756.9	57.9	14.4	61	SW	.....	.....	6-7	.....	9	.....	.....	0.087	2.2	.....	Dr. Magener.
Strassburg, (in Alsace)	.....	.....	29.95	760.8	57.2	14.0	39	Calm	.....	.....	.....	.....	3	.....	.....	0	0	.....	Hartwig and Tülk.
Stuttgart	.....	.....	29.94	760.4	55.9	13.3	46	NW	.....	.....	.....	.....	4	.....	.....	0.024	0.6	.....	Mr. Würth.
Thorn	.....	.....	29.74	755.4	57.4	14.1	61	WSW	.....	.....	5	.....	5	.....	.....	0.079	2.0	.....	Dr. Rosenbalg.
Trever, (Trier)	.....	.....	29.88	758.9	59.0	15.0	53	W	.....	.....	5	.....	9	.....	.....	0	0	.....	Prof. Plesch.
Wustrow	.....	.....	29.78	756.5	47.8	8.8	71	N	.....	.....	2	.....	3k	.....	.....	0.030	0.75	.....	E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri	.....	.....	29.89	759.2	66.0	18.9	46	ESE	1.3	0.6	.....	.....	9	W	.....	0	0	.....	
Mondovi	.....	.....	29.89	759.2	61.5	16.4	55	NNW	.....	.....	4	.....	10	.....	.....	0	0	.....	
Genoa	.....	.....	29.81	757.2	73.8	23.2	34	NW	4.9	2.2	.....	.....	0	.....	.....	0	0	.....	
Pavia	.....	.....	29.89	759.2	67.8	19.9	33	NE	.....	.....	4	.....	0	.....	.....	0	0	.....	
Verona	.....	.....	29.88	758.9	72.5	22.5	57	E	.....	.....	4	.....	2	.....	.....	0	0	.....	
Padua	.....	.....	29.87	758.8	67.3	19.6	35	E	7.4	3.3	.....	.....	0	.....	.....	0	0	.....	
Parma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Modena	.....	.....	29.89	759.2	67.3	19.6	52	NE	8.7	3.9	.....	.....	6	.....	.....	0	0	.....	
Leghorn	.....	.....	29.80	756.8	74.8	23.8	34	NE	13.7	6.1	.....	.....	3	.....	.....	0	0	.....	
Urbino	.....	.....	29.88	759.0	60.1	15.6	57	NNE	.....	.....	2	.....	8	.....	.....	2.362	60.?	.....	
Ancona	.....	.....	29.88	759.0	66.9	19.4	56	NNW	.....	.....	4	.....	3	.....	.....	0	0	.....	
Jesina	.....	.....	29.78	756.3	71.4	21.9	43	NE	1.8	0.8	.....	.....	4	S	.....	0	0	.....	
Rome	.....	.....	29.80	756.9	79.7	26.5	53	S	15.4	6.9	.....	.....	4	.....	.....	0	0	.....	
Naples, O.U	.....	.....	29.88	759.0	80.6	27.0	55	SW	.....	.....	4	.....	9	SSW	.....	0	0	.....	
Lecce	.....	.....	29.89	759.1	79.2	26.2	28	W	10.5	4.7	.....	.....	2	.....	.....	0	0	.....	
Cosenza	.....	.....	29.86	758.5	81.0	27.7	39	SE	.....	.....	1	.....	6	.....	.....	0	0	.....	
Catania, (Sicily)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Trapanto	.....	.....	29.84	757.9	79.2	26.2	63	S	.....	.....	2	.....	4	N	.....	0	0	.....	
Palermo	.....	.....	29.80	756.9	78.3	25.7	55	E	.....	.....	2	.....	9	.....	.....	0	0	.....	
Sub-Series.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Naples, S. R.	.....	.....	29.92	759.9	75.9	24.4	65	SW	.....	.....	4	.....	9n	.....	SW	0	0	.....	Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.88	759.0	58.3	14.6		WNW			2								
Groningen			29.79	756.7	54.5	12.5		WNW			2								
Helder			29.83	757.6	51.4	10.8		SE			2								
Utrecht			29.80	756.8	50.9	10.5	95	SSE			2		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.77	756.2	56.1	13.4	60	WNW	10.1	4.5			5			0.047	1.2		
Christiania			29.77	756.1	55.0	12.8	54	NNE	7.6	3.4			5			0.079	2.0		
Tromsö			29.86	758.4	51.1	10.6	67	NE			2		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.44	747.7			73.8	23.2	53	ENE	7.4	3.3			3						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.76	756.0	57.9	14.4	56	SW	13	6			9						Astronomical Obs.
Wilna			29.68	753.8	60.6	15.9	43	W	10	4.5			9						Astronomical Obs.
Dorpat			29.69	754.0	52.7	11.5	65	E	9	4			10						Physical Cabinet.
St. Petersburg			29.70	754.3	48.7	9.3	87	ESE	16	7			10					Raining	Central Physical Obs.
Kuopio																			
Kieff			29.86	758.4	54.9	12.7	97	NW	7	3			10					Raining	Physical Cabinet.
Nikolaiev			29.87	758.7	77.2	25.1	33	SW	10	4.5			0						
Kertch			29.90	759.4	72.5	22.5	61	SSE	10	4.5			2						Lagorio.
Moscow			29.81	757.2	55.9	13.3	98	SSE	8	3.5			10					Raining	Meteorological Obs.
Lugan			29.80	756.8	79.9	26.6	25	SSE	13	6			1						Meteorological Obs.
Archangel			30.15	765.9	56.7	13.7	59	NW	8	3.5			0						Ogorodnikof.
Tiflis			30.05	763.2	65.5	18.6	71	NW	4	2			9					Raining	Physical Obs.
Astrakhan			30.07	763.8	80.4	26.9	29	SE	4	2			2						Sebastianof.
Kasan			29.96	760.9	58.1	14.5	48	S	4	2			8						Physical Cabinet.
Orenburg			29.90	759.5	67.1	19.5	43	NW	8	3.5			10						Tschernischef.
Ekaterinburg			30.00	761.9	38.7	3.7	87	Calm	0	0			10					Raining	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.69	754.1	85.6	29.8	61	Calm	0	0			4						Michelson.
Barnaul			29.57	752.1	71.1	21.7	51	SW	8	3.5			4						Meteorological Obs.
Yeniseisk			29.20	741.6	72.5	22.5	53	S	20	9			6						Marks.
Irkutsk			29.62	752.4	64.4	18.0	48	Calm	0	0			0						Usolzef.
Oorga			29.97	761.3	51.4	10.8	80	Calm	0	0			0						Mossin.
Peking, (China)			29.82	757.3	72.0	22.2	37	Calm	0	0			3						Physical Observatory.
Nertchinsk			29.65	753.1	56.5	13.6	44	NW	4	2			6						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					42.6	5.9	66	SE	10	4.5			0						Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.77	756.2	68.5	20.3	55	S	6.7	3.00			10			0.047	1.2		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.93	760.1	48.2	9.0	66	E			2		6			0	0		
Hernosand			29.85	758.3	47.1	8.4	71	NE			3		6			0	0		
Stockholm			29.72	755.0	49.6	9.8	66	NE			3		8			0	0		
Wisby			29.76	756.0	42.8	6.0	100	N			3		10			0	0		
Sub-Series.																			
Upsala			29.76	756.0	47.1	8.4	78	NNE			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Geneva	28.49	723.7			59.2	15.2	38	N			2		0			0	0		The Observatory.
Zurich	28.31	719.0			60.6	15.9	40	W			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.9mm.; Thermometer, —3°.2 C.; Relative Humidity, —18 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Beirut, (Syria)			29.94	760.4	75.2	24.0	72	NNE			2		0						Prof. C. N. A. Van Dyck.
Constantinople			29.91	759.7	81.5	27.5	31	SW	7.8	3.5			0			0	0		
Bso. (Persian Gulf)			29.93	760.3	88.2	31.2		NW			4		0						
Salonica					82.2	27.9		S			2		0						
Valona			29.95	760.6	86.9	30.5		SW			3		2						
Varna			30.04	763.0	75.2	24.0		S			2		10					Threatening	

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.22	767.6	62	16.7		Calm	0	0		0	0			0	0		
Chatham, N. B.			30.05	763.3	49	9.4	53	NW	15	6.7		0	0			0	0		
Charlottetown, P. E. Island			29.97	761.2	43	6.1	54	NW	21	9.4		0	5cs		NW	0.050	1.27		
Fort Garry, Manitoba			29.97	761.2	44	6.7	96	NW	7	3.1			10n			0.071	1.81		
Halifax, N. S.			29.90	759.4	48	8.9	54	N	13	5.8		0	2ks		N	0	0		
Kingston, Ontario			30.19	766.8	61	16.1	71	Calm	0	0		0	Sm'e			0	0		
Montreal, Quebec			30.22	767.6	58	14.4	68	E	5	2.2		Haze	Haze			0	0		
Ottawa, Ontario			30.22	767.6	59	15.0	49	E	8	3.6		0	Sm'e			0	0		
Parry Sound, Ontario			30.01	762.2	66	18.9	49	SE	8	3.6		Haze	Sm'e		SE	0	0		
Port Dover, Ontario			30.11	764.8	61	16.1	67	E	4	1.8		0	0			0	0		
Port Stanley, Ontario			30.08	764.0	64	17.8	41	E	18	8.0		0	0			0	0		
Quebec, Quebec			30.28	769.1	48	8.9	49	NE	14	6.3		8k	5ks		N	0	0		
Saugeen, Ontario			30.01	762.2	68	20.0	79	SE	6	2.7		2cs	Sm'e			0	0		
Stayner, Ontario			30.04	763.0	64	17.8	69	SE	5	2.2		0	Haze			0	0		
Sydney, C. B.			29.75	755.6	40	4.4	68	NW	12	5.4			10ks			0	0		
Toronto, Ontario			30.13	765.3	57	13.9	68	NE	2	0.9		0	Sm'e			0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.20	767.1	60	15.6	65	Calm	0	0		Haze	0			0	0		
Alpena, Mich.			29.93	760.2	58	14.4	75	SE	1	0.4		5ck	Sm'e	SE		0	0		
Atlantic City, N. J.			30.25	768.3	63	17.2	57	Calm	0	0		0	0			0	0		
Augusta, Ga.			30.09	764.3	73	22.8	50	NE	8	3.6		0	0			0	0		
Baltimore, Md.			30.25	768.3	66	18.9	54	N	2	0.9		Haze	0			0	0		
Barnegat, N. J.			30.24	768.1	70	21.1	49	W	2	0.9		0	0			0	0		
Benton, Montana			30.22	767.6	41	5.0	74	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.99	761.7	46	7.8	54	N	4	1.8		5ck	0	N		0.11	2.8		
Boston, Mass.			30.22	767.6	67	19.4	41	E	3	1.3		0	0			0	0		
Breckenridge, Minn.			29.94	760.5	50	10.0	71	NW	16	7.2		2k	0	NW		0.07	1.8		
Buffalo, N. Y.			30.10	764.5	67.5	19.7	50	SW	5	2.2		0	Sm'e			0	0		
Burlington, Vt.			30.22	767.6	58	14.4	70	S	1	0.4		0	2s			0	0		
Cairo, Ill.			30.00	762.0	69	20.6	90	S	8	3.6		0	5ks		SW	0.02	0.5	Threatening	
Cape Hatteras, N. C.			30.11	764.8	68	20.0	84	NE	20	8.9		0	5s		NE	0	0		
Cape Henry, Va.			30.21	767.3	65	18.3	73	E	12	5.4		0	0			0	0		
Cape May, N. J.			30.25	768.3	61	16.1	66	Calm	0	0		0	0			0	0		
Charleston, S. C.			30.08	764.0	70	21.1	75	N	16	7.2		8cs	0	NE		0.08	2.0		
Cheyenne, W. T.			30.18	766.6	39	3.9	71	Calm	0	0		10cs	0			0.01	0.3		
Chicago, Ill.			29.85	758.2	70	21.1	80	SW	11	4.9			10s		S	0.29	7.4		
Cincinnati, Ohio			30.04	763.0	74	23.3	50	SE	8	3.6		5c	0			0	0		
Cleveland, Ohio			30.03	762.7	70.2	21.2	40	SE	14	6.3		2c	Sm'e			0	0		
Colorado Springs, Col.			30.22	767.6	42	5.6	91	N	4	1.8			10n			0.22	5.6	Light rain	
Corsicana, Texas			30.04	763.0	68	20.0	84	NE	20	8.9			10ks		S	0	0	Threatening	
Davenport, Iowa			29.80	756.9	71	21.7	80	SW	16	7.2		5c	2s	SW		0.46	11.7		
Denver, Col.			30.25	768.3	45	7.2	84	NE	4	1.8			10n			0.20	5.1	Light rain	
Detroit, Mich.			29.96	761.0	72	22.2	45	S	9	4.0		2c	Haze			0	0		
Dodge City, Kansas			29.87	758.7	52	11.1	73	NE	7	3.1		5k	0	NE		0.44	11.2		
Dubuque, Iowa			29.78	756.4	69	20.6	85	S	12	5.4			10s			0.35	8.9		
Duluth, Minn.			29.67	753.6	57	13.9	87	NW	24	10.7			10s		W	0.41	10.4		
Eastport, Me.			30.12	765.0	50	10.0	51	N	13	5.8		2c	0	N		0	0		
Erie, Penn.			30.03	762.7	72	22.2	45	SE	22	9.8		0	Haze			0	0		
Escanaba, Mich.			29.82	757.4	62	16.7	77	S	8	3.6		2ck	2s	SW		0.01	0.3		
Fort Gibson, I. T.			29.91	759.7	65	18.3	92	NW	6	2.7			10s		NW	1.17	29.7		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.16	766.1	46	7.8	69	W	8	3.6		0	0			0	0		
Galveston, Texas			29.99	761.7	79	26.1	86	S	8	3.6			10ks		S	0	0		
Grand Haven, Mich.			29.91	759.7	70	21.1	79	S	11	4.9			10s		SW	0.26	6.6		
Indianapolis, Ind.			29.97	756.1	73	22.8	71	SE	8	3.6		2ck	0			0.13	3.3		
Indianola, Texas			29.96	761.0	80	26.7	82	S	12	5.4		Haze	2s		S	0	0		
Jacksonville, Fla.			30.00	762.0	74	23.3	76	NE	16	7.2			8ks		NE	0	0		
Keokuk, Iowa			29.79	756.7	74	23.3	76	SW	8	3.6		2c	5ks	SW	SW	0.17	4.3		
Key West, Fla.			30.03	762.7	80.0	26.7	66	N	4	1.8		Haze	Sm'e			0	0		
Kittyhawk, N. C.			30.18	766.6	64	17.8	83	NE	20	8.9		0	0			0	0		
Knoxville, Tenn.			30.09	764.3	67	19.4	41	NE	16	7.2		2cs	Haze			0	0		
La Crosse, Wis.			29.75	755.6	70	21.1	84	S	10	4.5			10s		S	0.13	3.3		
Leavenworth, Kan.			29.92	760.0	57	13.9	87	W	16	7.2			10n		N	0.54	13.7	Light rain	
Lexington, Ky.			30.03	762.7	75	23.9	40	S	14	6.3		8c	0			0	0		
Long Branch, N. J.			30.25	768.3	69	20.6	60	SW	2	0.9		0	Haze			0	0		
Louisville, Ky.			30.02	762.5	76	24.4	68	E	2	0.9		5cs	0			0	0		
Lynchburg, Va.			30.23	767.8	65	18.3	53	N	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.74	755.4	64	17.8	73	S	12	5.4		5ks	0			0	0		
Memphis, Tenn.			30.03	762.7	71	21.7	85	S	4	1.8		2cs	8s			0.04	1.0		
Milwaukee, Wisconsin			29.85	758.2	61	16.1	70	SE	8	3.6		2c	5ks	NW	SE	0.15	3.8		
Mobile, Ala.			30.03	762.7	77	25.0	77	NW	4	1.8		2c	0			0	0		
Montgomery, Ala.			30.06	763.5	75	23.9	77	Calm	0	0		2c	Haze			0.72	18.3		
Morgantown, W. Virginia			30.14	765.5	71	21.7	65	Calm	0	0		0	Sm'e			0	0		
Mt. Washington, N. H.			30.37	771.4	42	5.6	39	N	18	8.0		5c	Haze			0	0		
Nashville, Tenn.			30.02	762.5	79	26.1	58	SE	3	1.3		8k	2s	S		0	0		
New Haven, Conn.			30.23	767.8	66	18.9	45	NE	7	3.1		2cs	0	NE		0	0		
New London, Conn.			30.24	768.1	67	19.4	46	N	3	1.3		0	0			0	0		
New Orleans, La.			30.02	762.5	76.5	24.7	84	S	1	0.4		0	Fog			0.91	23.1		
Newport, R. I.																			
New York, N. Y.			30.24	768.1	63	17.2	57	SW	2	0.9		0	Sm'e			0	0		
Norfolk, Va.			30.22	767.6	67	19.4	64	NE	8	3.6		0	0			0	0		
North Platte, Neb.			29.91	759.7	48	8.9	77	NW	6	2.7		2c	2s		W	0.01	0.3		
Omaha, Neb.			30.00	762.0	54	12.2	73	NW	18	8.0		10cs	0	W		1.10	27.9		
Oswego, N. Y.			30.17	766.3	62.5	16.9	59	SSE	5	2.2		0	Fog			0	0		
Peck's Beach			30.26	768.6	67	19.4	79	NW	1	0.4		0	0			0	0		
Pembina, D. T.			29.95	760.7	46	7.8	76	NW	12	5.4			10s			0.04	1.0		
Philadelphia, Penn.			30.25	768.3	67	19.4	65	SW	4	1.8		0	0			0	0		
Pike's Peak, C. T.			30.08	764.0	20	— 6.7	85	W	12	5.4		0	2s			0.27	6.9		
Pittsburgh, Penn.			30.15	765.8	67	19.4	50	S	5	2.2		0	0			0	0	Smoky	
Port Huron, Mich.			30.00	762.0	68	20.0	47	S	10	4.5		2c	0			0	0		
Portland, Maine			30.24	768.1	60	15.6	44	N	2	0.9		8ck	Haze	N		0	0		
Portland, Or.			30.11	764.7	51	10.6	65	NE	2	0.9		8k	0			0	0		
Punta Rassa, Fla.			30.14	765.5	76.5	24.7	70	NW	14	6.3		2cs	Sm'e			0	0		
Rochester, N. Y.			30.12	765.0	67	19.4	60	S	6	2.7		0	Haze			0	0		
Salt Lake City, Utah			30.04	763.0	41	5.0	73	NE	2	0.9		0	0			0	0		
Sandy Hook, N. J.			30.22	767.6	62	16.7	71	SW	5	2.2		5c	Haze			0	0		
San Diego, Cal.			30.97	760.2	62	16.7	78	NW	4	1.8			10s			0	0		
San Francisco, Cal.			29.89	759.2	50	10.0	86	SE	4	1.8		Haze	Haze			0	0		
Santa Fe, N. M.			29.86	758.4	45	7.2	53	N	4	1.8			10s		NW	0.09	2.3		
Savannah, Georgia			30.05	762.3	73	22.8	59	N	12	5.4		5k	0	NE		0	0		
Shreveport, La.			30.06	762.5	76	24.4	86	Calm	0	0		8k	0	SW		0	0		
Springfield, Mass.			30.23	767.8	65	18.3	48	N	4	1.8		8c	Haze			0	0		
St. Louis, Mo.			29.91	759.7	72	22.2	80	S	6	2.7		5c	0			0.07	1.8		
St. Marks, Fla.			30.04	763.0	72	22.2	85	N	3	1.3		0	0			0.25	6.3		
St. Paul, Minn.			29.75	755.6	52	11.1	93	NW	16	7.2			10n		NW	0.90	22.9		
St. Paul's Island, Alaska			29.68	753.9	33	0.6	80	N	8	3.6		...ck	0	NE		0	0		
Squan Beach, N. J.			30.23	767.8	62	16.7	61	W	6	2.7		2c	Haze			0	0		
Toledo, Ohio			29.96	761.0	74	23.3	51	S	14	6.3		Haze	Haze			0	0		
Tybee Island, Ga.			30.07	763.8	72	22.2	81	NE	18	8.0		0	8ks			0	0		
Vicksburg, Miss.			30.07	763.8	68	20.0	94	SE	4	1.8			10s		SE	0.01	0.3		
Virginia City, Mon.			29.85	758.2	34	1.1	61	Calm	0	0		0	0			0	0		
Washington, D. C.			30.26	768.6	62.5	16.9	63	Calm	0	0		0	Sm'e			0	0		
Wilmington, N. C.			30.12	765.0	67	19.4	79	NE	10	4.5			10s		NE	0	0		
Wood's Hole, Mass.			30.24	768.1	62	16.7	41	E	9	4.0			0			0	0		
Wytheville, Va.			30.01	762.2	58	14.4	53	E	3	1.3		0	0			0	0		
Yankton, D. T.			30.13	765.3	49	9.4	78	NW	10	4.5			10s		NW	0.75	19.1		

NOTE.—The originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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—13.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	83	28.3	87	NE	10	4.5		2k	10s	W		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.99	761.7	79	26.1	65	E				2c	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	83	28.3	78	S	1.2	0.5		0	0			0.70	17.8		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	78	25.6	69	Calm	0	0		Haze	0			0	0		James Gall.
St. Thomas, St. T., W. I.			30.24	768.1	79	26.1	74	ESE	10	4.5		2ck	5ks	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	78	25.6	78	Calm	0	0		10ck	0	SSW		0	0		Robert Mason.
St. Georges, Bermudas			29.96	761.0	73.5	23.1	86	NE	10	4.5			10n			0.225	5.72		C. F. Allen.
Honolulu, Oahu, S. I.			30.15	765.8	63	17.2	68	NE			3	5k	5n	NE		0	0		E. P. Church.
Makawao, Maui, S. I.	27.84	707.1			62	16.7	88	E			3	0	6n			0.20	5.1	Raining	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.88	758.9	32.0	0.0	100	N	20	8.9			10n			0	0	Light rain	J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	66	18.9	90	SSE	1	0.4		8c	0	SSE		0	0		C. Partridge.
St. John's, Newfoundland			29.65	753.1	38.5	3.6	95	E					10n			0.25	6.3	Light rain	John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.04	763.0	70	21.1	49	S	12	5.4		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.92	734.6			54	12.2	93	NW					10n			0.21	5.3		G. C. Carpenter.

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

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 29, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.76	755.9	73.6	23.1		NW			2		0			0	0		Charnot.
Algiers			29.66	753.3	72.7	22.6	71	NW			5		3			0.480	12.2	Rainy	Peter.
La Calle			29.57	751.0	73.4	23.0		NW			2		0			0	0		Kuntz.
Tunis			29.56	750.8	84.2	29.0	52	N			1		7			0.220	5.6	Threatening	Jacques.
Sfax			29.61	752.1	80.6	27.0	63	SSE			3		3			0	0	Sirocco	Chauvey.
Saïda			29.84	758.0	68.2	20.1		WNW			2		6			0	0		Grosjean.
Tebessa			29.69	754.1	83.7	28.7		SSE			5		2			0	0	Sirocco	Colin.
Gertville			29.92	760.0	65.3	18.5		NW			2		8			0	0		Bernadach.
Laghouat			29.80	757.0	70.7	21.5	46	NW			3		5			0	0		Poinsignon.
Biskra			29.69	754.2	79.7	26.5		NW			5		8			0	0	Sand-fall	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.84	758.0	70.9	21.6	59	NE			1		3			0.020	0.5		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.6	65.3	18.5	50	NE			1		3			0	0		I. R. Observatory.
Eperies			29.89	759.2	64.0	17.8	60	SE			1		8			0.056	1.42		Julius Mikolik.
Gratz			29.81	757.2	67.3	19.6	60	SE			2		2			0.346	8.8		Andreas Rospini.
Hermannstadt			29.92	759.9	67.1	19.5	49	E			3		0			0	0		Prof. Reissenberger.
Kremsmünster			29.74	755.3	64.4	18.0	58	E			3		2			0	0		Prof. C. Wagner.
Lemberg			29.90	759.5	63.5	17.5	43	W			5		4			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.94	760.5	71.6	22.0	64	S			4		2			0	0		Habzsuda Daniel.
Pola			29.83	757.6	70.5	21.4	65	SE			1		10ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.86	758.5	69.8	21.0	37	SE			2		4			0	0		Karl Stancel.
Trieste			29.84	757.9	69.8	21.0	54	NW			1		7			0.134	3.4		Prof. V. Farolfi.
Vienna			29.79	756.7	70.0	21.1	42	SE			2		2			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.58	751.3			63.0	17.2	57	W			1		10ks		NNE	0.012	0.30	Threatening	Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.76 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.00	762.0	50.0	10.0		NW	11	4.9			5			0.060	1.52		William Boswell.
Annanhill																			
Ardrossan			30.04	763.0	55	12.8		N			2		2						William McNeil.
Armagh Observatory			30.08	764.0	54.0	12.2		NNE	8	3.6			7						S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.95	760.7	52.0	11.1		NNE			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.06	763.5	56.0	13.3		N			1-2		8						J. Dreyer, for L'd Rosse.
Bradford			29.92	760.0	50.1	10.1		NE			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.01	762.2	83.0	28.3		NE			4		4						T. H Hunt.
Bywell																			
Cambridge Observatory			29.86	758.4	50.0	10.0		N			2		10						H. Todd.
Cape Town, (Cape Colony)			30.15	765.8	58.8	14.9		W			3		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.17	766.3			58.0	14.4	93	WNW	9	4.0			10						The Staff, for E. J. Stone.
Cardington			29.90	759.4	53.0	11.7		N					10			Blank	Blank		John McLaren.
Carlisle			30.08	764.0	52.3	11.3		N					6			0.08	2.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.80	756.9	51.7	10.9		NNE			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.84	757.9	83.5	28.6		SW			5		9						Sgt. W. F. Hopkins
Dartmoor			29.88	758.9	49.2	9.6		NE			1		8						R. E. Power.
Donaghadee			30.04	763.0	55	12.8		NNE			4		2						J. Mac Gowan, Jr.
Dover			29.80	756.9	60	15.6		NW			3		7						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.95	760.7	52.5	11.4		ENE	3.2	1.4			10						Thomas Mackereth.
Falmouth Observatory			29.85	758.2	53.6	12.0		NNE	21	9.4			10						The Staff.
Fort Napier, (Natal)			29.97	761.3	70.0	21.1		E			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	87.0	30.6		N					6						
Galway, Queen's College			30.05	762.7	62	16.7		W			1		4						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.79	756.7	68.2	20.1		W			5		10						Sergt. E. G. Baker.
Glasgow Observatory			30.00	762.0	54.4	12.4		NE			1		4						James Gray.
Great Yarmouth			29.83	757.7	53	11.7		NE			2		8						G. T. Watson.
Greenwich Royal Obs.			29.85	758.2	53.6	12.0		NNE			2		10			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			29.78	756.4	57	13.9		NE			1		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.97	761.5	48.5	9.2		NE					10					Threatening	F. J. Page, for L. J. Crosley.
Halifax, (Nova Scotia)			29.91	759.7	44.3	6.8		NE			3		9						Corp'l J. Y. Thompson.
Helston			29.84	757.9	57	13.9		NE			4		10						Dr. W. B. Neale.
Holyhead			30.10	764.5	53	11.7		NNE			5		4						John Tilston.
Hull Park																			
Kew Observatory			29.85	758.2	53.9	12.2		NNE	15	6.7			10			Blank	Blank		The Staff.
Kingstown			30.00	764.3	51	10.6		N			5		4						George Mitchell.
Lampeter																			
Leicester Museum			29.93	760.2	53.7	12.1		NE			2		9						William J. Harrison.
Llandudno			30.00	762.0	51.8	11.0		NE					8						Dr. James Nicol.
Malta, (Mediterranean)			29.65	753.1	77.4	25.2		SE					4k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.94	760.5	56	13.3		SW			1		8						William D. Penny.
Nassau, (Bahamas)			30.01	762.2	78.9	26.1		SW			4		7						Surg.-Maj. J. Jamieson
North Shields			29.99	761.7	50	10.0		NNE			3		9						John Wm. Irvine.
Nottingham			29.95	760.7	52.0	11.1		NNE			4		1k,a		NNE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.92	760.0	52.5	11.4		NNE			5		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.86	758.4	54	12.2		NNE			2		10						J. Lucas, for R. Main
Plymouth			29.84	757.9	57	13.9		NE			2		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.00	762.0	56	13.3		NE			5		5						W. Kennedy.
Saint Ann's Head			29.91	759.7	54	12.2		N			5		0						John C. Walker.
Saint Helier, (Jersey)			29.75	755.6	66	18.9		NE			4		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.94	760.5	52.2	11.2		NNE			2		9						F. Shaw.
Scutari, (Turkey)			29.98	761.5	75.8	24.3		NNE			2		1						Sergt. W. H. Lyne.
Sheffield			29.93	760.2	52.5	11.4		NE			2		10					Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.01	762.2	55.5	13.1		NE			2		7			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.83	757.7	55.3	12.9		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.95	760.7	55	12.8		W			2		6						The Staff.
Stornoway, Lewis C. (Hebr)			30.01	762.2	54	13.3		W			3		10						John Smith.
Strathfield Turgiss			29.87	758.7	52.4	11.3		NE			1-2		10						Rev Charles H. Griffith
Streatley Vicarage			29.89	759.2	53.2	11.8		N			5		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.99	761.7	53	11.7		NW			3		5						John Trotter.
Truro Royal Institution			29.81	757.2	57	13.9		N			4		10						W. Newcombe.
Valencia Observatory			30.06	734.5	56	13.2		NNE	24	10.7			7						The Staff.
Wick																			
Wisbeach																			
Worthing			29.80	756.9	56.2	13.4		NNE			3		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.82	757.3	57.0	13.9	58	SSW			2		7						
Fanöe			29.83	757.6	53.6	12.0	76	NW			4		3						
Godthaab, (Greenland)			30.28	769.0	33.8	1.0	87	NNE			4		10						
Stykkisholm, (Iceland)			29.76	756.0	46.8	8.2	92	W			6		8						
Thorshavn, (Faröe)			29.83	757.7	49.6	9.8	91	W			6		6						
Vestervig			29.80	756.9	52.9	11.6	71	WNW			4		5						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.52	749.8	70.5	21.4	52						n						Normal School.
Alençon			29.71	754.6	66.2	19.0	56	NE			2		8kn			0	0		Normal School.
Amiens			29.78	756.4	65.5	18.6	74	N			2		10			0.008	0.2		Normal School.
Beaumette, (near Angers)			30.04	763.1	70.9	21.6	32	E	8.1	3.6			8		ESE	0	0		Beaumette Observatory
Beauvais			29.80	756.8	63.3	17.4	49	NNE			1		10		ENE	0	0		Normal School.
Besançon			29.79	756.6	73.4	23.0	37	SSW			3		0			0	0		Normal School.
Bourg en Bresse			29.85	758.2	75.9	24.4	38	S			1		ck		N	0	0		Normal School.
Bourges			29.70	754.3	66.9	19.4	70	NE			2		10		W	0	0		Normal School.
Brest			29.68	753.9	55.6	13.1	86	NNE			2		10		NNE	0.157	4.00	Raining	Naval Observatory.
Caen			29.78	756.3	62.2	16.8	68	N			4		8		NE	0	0		Normal School
Chartres			29.69	754.1	67.5	19.7		NE			1		10			0	0		Normal School.
Chaumont			29.71	754.7	68.7	2[illegible].4		NW			2		0			0	0		Normal School.
Commercy			29.82	757.4	63.3	17.4	61	SE			2		5		NE	0	0		Normal School.
Le Mans			29.83	757.6	67.1	19.5	47	ESE			2		5		ESE	0.098	2.5		Normal School.
Lons-Le Saulnier			29.72	754.9	70.3	21.3	45	NW			2		5		E	0	0		Normal School.
Mâcon																			
Mirecourt			29.86	758.5	64.4	18.0	44	SSE			1		8			0	0		Normal School.
Orleans			29.81	757.2	75.2	24.0	41	ESE			3		5		SSE	0	0		Normal School.
Paris Observatory			29.73	755.2	65.8	18.8		E			1		10			0	0		National Observatory
Parthenay			29.70	754.3	65.3	18.5	29	NE			2		5		SW	0	0		Normal School.
La Roche sur Yon			29.69	754.0	67.1	19.5	34	NE			4		8		E	0	0		Normal School.
Rouen			29.82	757.3	62.8	17.1	61	NNE			2		2		E	0.319	8.1		Normal School.
Saint Lo			29.83	757.6	62.2	16.8	92	E			3		5		N	0	0		Normal School.
Villefranche			30.51?	774.9?	75.2	24.0	41	ENE			6		2			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)					52.0	11.1	84	E	9.3	4.17			8		SSW	0.024	0.6		Frère Pascall.
Mont-Louis	24.55	623.6			67.1	19.5	44	NE			1		10k			0	0	Showery	—. Falguère.
Montsouris Observatory			29.74	755.3	69.3	20.7	71	NE	7.2	3.33			5		NE	0	0		Marié Davy.
Perpignan	29.48	748.8			69.8	21.0	38	ENE			1		10			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.74	755.3															E. Renou.
Saint Pierre, (Martinique)					70.9	21.6	37	ESE			2		8		ESE	0	0		C. Marquet.
Tours			29.67	753.5	66.2	19.0	49	NE			3		9			0.012	0.30	Hazy	Dr. A. Bérigny.
Versailles, (near Paris)			29.74	755.4	64.4	18.0	79	NNE	2.2	1.0			10kn			0.028 / 0.047	0.7 / 1.2	Sprinkling	H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai)			29.96	760.9															

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.79	756.6	63.0	17.2	40	SW			3		2			0	0		Prof. Hoh.
Berlin			29.92	760.0	64.2	17.9	50	SW			1		8			0	0		Prof. Arndt.
Breslau			29.95	760.7	63.3	17.4	37	SSW			2		6			0	0		Dr. P. Neugebauer.
Carlsruhe			29.70	754.4	69.8	21.0	41	E			3		3			0	0		A. Senz.
Cassel			29.69	754.2	67.3	19.6	45	SSE			2		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen													3			0	0		M. Wilhelm.
Hamburg			29.74	755.5	61.7	16.5	65	NW			3		10			0.054	1.38	Light rain	W. Reinert.
Kiel			29.86	758.4	56.1	13.4	73	SE			1		9			0	0		Prof. G. Karsten.
Königsberg			29.83	7 7.7	59.5	15.3	60	W			1					0.043	3.63		Prof. E. Luther.
Köslin			29.78	756.5	59.4	13.0	66	W			0		3			0.020	0.5		Dr. Tägert.
Leipsic			30.06	763.5	57.7	14.3		Calm			1		7			0	0		Prof. Bruhns.
Münster			29.85	758.1	65.8	18.8	45	E			2		5			0.031	0.8		Prof. E. Heis.
Posen			29.81	757.2	62.6	17.0	92	WNW			2		3			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.94	760.5	61.0	16.1	43	W			0		2			0	0		Hartwig and Tülk.
Stuttgart			29.72	754.8	68.7	20.4	33	Calm					3			0	0		Mr. Würth.
Thorn			29.70	754.4	69.4	20.8	39	N			3		6			0.075	1.9		Dr. Rosenbalg.
Trevers, (Trier)			29.9[illegible]	760.0	61.5	16.4	50	SW			5		3			0	0		Prof. Flesch.
Wustrow			29.69	754.2	69.4	20.8	30	SW			2		3k			0	0		E. F. Schütz.
			29.87	758.6	52.0	11.1	68	W											

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.84	757.9	66.0	18.9	36	NNW	0.7	0.3			9	E		0.331	8.4		
Mondovi			29.84	757.8	60.4	15.8	41	NNW			4					0	0		
Genoa			29.75	755.6	69.4	2[illegible].8	43	NW	5.6	2.5			10	SE		0.327	8.3	Raining	
Pavia			29.81	757.2	71.4	21.9	33	E			2		9	NE		0	0		
Verona			29.79	756.7	75.4	24.1	32	E			4		4			0	0		
Padua			29.81	757.2	70.7	21.5	32	SE	8.7	3.9			10			0	0		
Parma																			
Modena			29.82	757.4	68.5	20.3	56	E	10.5	4.7			8			0	0		
Leghorn			29.76	755.8	67.8	19.9	84	SE	8.7	3.9			10			0	0		
Urbino			29.80	756.8	64.9	18.3	63	ESE			4					0	0		
Ancona			29.82	757.4	70.5	21.4	70	SE			4		10	S		0	0		
Siena			29.74	755.3	65.8	18.8	82	S	0	0			4	S		0	0		
Rome			29.72	754.8	78.3	25.7	45	ESE	11.2	5.0			5			0	0		
Naples, O. U.			29.72	755.0	69.1	20.6	36	S			4		10			0	0		
Lecce			29.83	757.6	78.4	25.8	40	SSE	24.8	11.1			7			0	0		
Cosenza			29.80	756.8	70.3	26.3	71	NW			1		6	NW		0	0		
Catania, (Sicily)																			
Liposto			29.82	757.3	77.0	25.0	70	NE			4		8	N		0	0		
Palermo			29.77	756.2	89.6	32.0	34	S			8		10			0	0		
Sub-Series.																			
Naples, S. R.			29.83	757.7	80.6	27.0	52	E			4		8		NW	0.102	2.6	Showery	Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.82	757.4	64.2	17.9		NNE			2								
Gronlngen			29.77	756.2	56.7	13.7		NE			1								
Helder			29.83	757.6	55.2	12.9		NNE			4								
Utrecht			29.76	755.8	64.8	18.2	66	W			2		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.72	754.8	53.2	11.8	67	WNW	3.4	1.5			6			0.283	7.2		
Christiania			29.68	753.8	57.6	14.2	64	SW	7.2	3.2			4			0.118	3.0		
Tromsö			29.68	753.8	48.2	9.0	78	NE			2		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.41	747.1			66.9	18.4	51	NNW	18.6	8.3			8						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.91	759.6	59.4	15.2	51	W	11	5			8						Astronomical Obs.
Wilna			29.81	757.1	57.7	14.3	58	W	4	2			6						Astronomical Obs.
Dorpat			29.73	755.1	59.7	15.4	45	WNW	4	2			9						Physical Cabinet.
St. Petersburg			29.70	754.4	52.0	11.1	76	NW	7	3			2						Central Physical Obs.
Kuopio																			
Kieff			29.95	760.6	65.1	18.4	52	WSW	4	2			6						Physical Cabinet.
Nikolaiev			29.99	761.8	73.6	23.1	39	NNW	10	4.5			5						
Kertch			29.95	760.7	72.3	22.4	70	SSE	10	4.5			6						Lagorio.
Moscow			29.77	756.2	51.6	10.9	96	N	10	4.5			10					Raining	Meteorological Obs.
Lugan			29.72	754.9	80.8	27.1	32	SW	20	9			4					Thunder-storm	Meteorological Obs.
Archangel			29.90	759.5	52.3	11.3	65	SE	20	9			10						Ogorodnikof.
Tiflis			29.93	760.2	77.0	25.0	43	SE	4	2			6						Physical Obs.
Astrakhan			30.08	764.1	77.5	25.3	41	SE	10	4.5			8						Sebastianof.
Kasan			30.02	762.4	58.1	14.5	65	SE	10	4.5			10						Physical Cabinet.
Orenburg			29.95	760.8	57.0	13.9	66	E	8	3.5			10						Tschernischef.
Ekaterinburg			30.19	766.9	48.4	9.1	38	N	4	2			1						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			30.09	764.2	63.7	17.6	86	Calm	0	0			10						Michelson.
Barnaul			29.59	751.6	49.5	9.7	94	NW	8	3.5			4					Raining	Meteorological Obs.
Yeniseisk			29.39	746.5	54.9	12.7	61	NW	13	6			1						Marks.
Irkutsk			29.51	748.5	57.6	19.8	48	Calm	0	0			10					Smoke-haze.	Usolzef.
Oorga			29.77	756.2	57.0	13.9	60	Calm	0	0			0						Mossin.
Peking, (China)			29.74	755.5	77.0	25.0	28	Calm	0	0			1						Physical Observatory.
Nertchinsk			29.53	750.0	54.9	12.7	49	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					41.4	5.2	81	E	10	4.5			10						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.56	750.8	87.6	19.8	64	SW	30.6	13.67			7			0.043	1.1		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.67	753.5	45.7	7.6	89	Calm			0		10			0.15	3.7	Raining	
Hernosand			29.65	753.1	53.2	11.8	72	S			3		10			0	0		
Stockholm			29.74	755.3	55.2	12.9	53	SSW			2		8			0	0		
Wisby			29.79	756.6	46.0	7.8	83	WNW			1		10			0	0		
Sub-Series.																			
Upsala			29.76	755.8	50.0	10.0	69	NW			1		10						Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.32	719.2			63.3	17.4	52	N			2		5			0	0		The Observatory.
Zurich	28.13	714.5			73.9	23.3	40	SE			1		2			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —6.5mm.; Thermometer, —1°.1 C.; Relative Humidity, —4 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.95	759.4	76.5	24.7	59	W			2		5						Prof. C. N. A. Van Dyck.
Constantinople			30.06	763.6	70.0	21.1	55	NNE	13.4	6			2		NE	0	0		
Fao, (Persian Gulf)			29.79	756.6	94.1	34.5		NW			4		0						
Salonica					82.0	27.8		SW			1		0						
Valona			29.93	760.3	85.5	29.7		SW			1		8						
Varna			30.04	763.0	73.4	23.0		SE			3		0						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

NOTE.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.87	758.7	61	16.1		Calm	0	0		Haze	Sm'e			0	0		
Chatham, N. B.			30.03	762.7	46	7.8	84	E	5	2.2		2cs	8ks	E	E	0	0		
Charlottetown, P. E. Island			29.97	761.2	41	5.0	86	N	15	6.7			10n			0	0		
Fort Garry, Manitoba			30.16	766.1	31	— 0.6	95	N	1	0.4		0	0			0	0		
Halifax, N. S.			29.83	757.7	44	6.7	70	N	9	4.0			8ks		N	0	0		
Kingston, Ontario			29.88	758.9	65	18.3	67	SW	3	1.3		Haze	Sm'e			0	0		
Montreal, Quebec			29.92	760.0	56	13.3	78	NE	8	3.6		Haze	Haze			0	0		
Ottawa, Ontario			29.88	758.9	61	16.1	68	E	8	3.6		5c	Sm'e	NE		0	0		
Parry Sound, Ontario			29.87	758.7	48	8.9	92	W	7	3.1			10n		SW	0.10	4.8	Light rain	
Port Dover, Ontario			29.85	758.2	63	17.2	89	S	5	2.2			10n			0.06	1.5	Light rain	
Port Stanley, Ontario			29.92	760.0	52	11.1	87	NW	35	15.6			10n		NW	0.12	3.0		
Quebec, Quebec			30.01	762.2	55	12.8	50	NE	15	5.8		0	0			0	0		
Saugeen, Ontario			29.94	760.5	41	5.0	82	W	5	2.2			10s			0.20	5.1		
Stayner, Ontario			29.86	758.4	53	11.7	96	NW	8	3.6			10n		NW	0	0	Light rain	
Sydney, C. B.			29.87	758.7	41	5.0	78	NE	8	3.6			10ks		NE	0.02	0.5		
Toronto, Ontario			29.82	757.4	59	15.0	87	W	1	0.4			10ks		SW	0.01	0.3		

NOTE.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.90	759.4	68	20.0	69	SW	2	0.9		Haze	Haze			0	0		
Alpena, Mich.			29.96	761.0	51	10.6	73	NW	19	8.5		5k	0	NW		0.77	19.6		
Atlantic City, N. J.			30.01	762.9	61	16.1	88	SW	8	3.6		0	0			0	0		
Augusta, Ga.			30.06	763.5	71	21.7	80	W	2	0.9		2c	0	W		0	0		
Baltimore, Md.			29.98	761.5	63	17.2	72	SW	8	3.6		2c	0			0	0		
Barnegat, N. J.			29.99	761.7	69	20.6	54	SW	6	2.7		2c	Haze			0	0		
Benton, Montana			29.97	761.2	52	11.1	53	Calm	0	0		2k	0			0	0		
Bismarck, Dakota			29.96	761.0	47	8.3	70	NE	2	0.9		0	0			0	0		
Boston, Mass.			29.99	761.7	66	18.9	36	NE	4	1.8		0	Haze			0	0		
Breckenridge, Minn.			30.13	765.3	48	8.9	77	W	2	0.9		0	0			0	0		
Buffalo, N. Y.			29.80	756.9	68	20.0	47	SW	8	3.6		8c	Haze			0	0		
Burlington, Vt.			29.91	759.7	62	16.7	66	Calm	0	0		2c	Sm'e			0	0		
Cairo, Ill.			30.22	767.6	61	16.1	66	N	8	3.6		2c	0	N		0.29	7.4		
Cape Hatteras, N. C.			30.05	763.3	69	20.6	79	NE	8	3.6		6	Haze			0	0		
Cape Henry, Va.			30.05	763.3	75	23.9	86	SE	3	1.3		Haze	0			0	0		
Cape May, N. J.			30.00	762.0	60	15.6	88	SW	6	2.7		0	0			0	0		
Charleston, S. C.			30.05	763.3	72	22.2	81	N	8	3.6		2k	0			0	0		
Cheyenne, W. T.			30.06	763.5	46	7.8	77	SW	4	1.8		8c	0			0	0		
Chicago, Ill.			30.16	766.1	58	14.4	70	NW	6	2.7		0	0			0.89	22.6		
Cincinnati, Ohio			30.07	763.8	62	16.7	82	NW	12	5.4			10s			0.01	0.3	Threatening	
Cleveland, Ohio			29.88	758.9	62.1	16.8	94	W	6	2.7			10n			0.05	1.3	Light rain	
Colorado Springs, Col.			30.08	764.0	46	7.8	92	N	2	0.9			10s			0	0		
Corsicana, Texas			30.22	767.6	63	17.2	100	N	15	6.7			10n			1.38	35.1	Light rain	
Davenport, Iowa			30.25	768.3	56	13.3	68	W	4	1.8		0	0			0.02	0.5		
Denver, Col.			30.10	764.5	50	10.0	79	S	1	0.4		2c	0			0	0		
Detroit, Mich.			29.98	761.5	56	13.3	80	N	13	5.8			10s		N	0.11	2.8		
Dodge City, Kansas			29.90	759.4	66	18.9	64	SE	4	1.8		0	0			0	0		
Dubuque, Iowa			30.14	765.5	54	12.2	61	W	8	3.6		0	0			0.16	4.1		
Duluth, Minn.			30.12	765.0	49	9.4	50	W	6	2.7		0	0			0.03	0.8		
Eastport, Me.			30.00	762.0	53	11.7	60	NE	4	1.8		5c	0	NE		0	0		
Erie, Penn.			29.82	757.2	71	21.7	49	SW	12	5.4			10ks		SW	0	0	Threatening	
Escanaba, Mich.			30.08	765.0	53	11.7	78	W	8	3.6		Haze	Haze			0.31	7.9		
Fort Gibson, I. T.			30.22	767.6	58	14.4	69	E	5	2.2		10cs	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.00	762.0	54	12.2	61	SE	5	2.2		0	0			0	0		
Galveston, Texas			30.09	764.3	78	25.6	90	NE	6	2.7		2k	0			0	0		
Grand Haven, Mich.			30.13	765.3	54	12.2	70	NW	8	3.6		0	0			0.68	17.3		
Indianapolis, Ind.			30.13	765.3	59	15.0	65	NW	16	7.2		0	0			0.17	4.3		
Indianola, Texas			30.10	764.5	80	26.7	82	SE	4	1.8		2k	0	SE		0	0		
Jacksonville, Fla.			30.00	762.0	74	23.3	85	N	8	3.6			8s		NE	0.02	0.5		
Keokuk, Iowa			30.22	767.6	60	15.6	66	Calm	0	0		0	0			0.16	4.0		
Key West, Fla.			29.99	761.7	79.3	26.3	74	NW	15	6.7		2c	0	NW		0	0		
Kittyhawk, N. C.			30.07	763.8	64	17.8	88	Calm	0	0		Haze	0			0	0		
Knoxville, Tenn.			30.06	763.5	65	18.3	83	SW	4	1.8			10n		W	0.13	3.3	Light rain	
La Crosse, Wis.			30.21	767.3	55	12.8	62	W	1	0.4		0	0			0.20	5.1		
Leavenworth, Kan.			30.28	769.1	57	13.9	76	Calm	0	0		0	0			0.04	1.0		
Lexington, Ky.			30.10	764.5	62	16.7	66	W	10	4.5			10s			0	0		
Long Branch, N. J.			29.96	761.0	69	20.6	56	SW	14	6.3		0	Haze			0	0		
Louisville, Ky.			30.10	764.5	63	17.2	67	W	16	7.2		0	0			0	0		
Lynchburg, Va.			30.02	762.5	65	18.3	63	E	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.03	762.7	51	10.6	59	W	12	5.4		0	0			1.30	33.0		
Memphis, Tenn.			30.20	767.1	62	16.7	72	NE	10	4.5		5cs	2ks			0.58	14.7		
Milwaukee, Wisconsin			30.20	767.1	55	12.8	73	NW	10	4.5		0	0			0.38	9.7		
Mobile, Ala.			30.06	763.5	75	23.9	85	NW	4	1.8		8c	0			0.72	18.3		
Montgomery, Ala.			30.07	768.8	76	24.4	77	Calm	0	0		8cs	Haze	W		0	0		
Morgantown, W. Virginia			29.99	759.4	75	23.9	47	S	1	0.4		8c	Sm'e	W		0	0		
Mt. Washington, N. H.			30.22	767.6	46	7.8	41	N	9	4.0		0	Haze			0	0		
Nashville, Tenn.			30.14	765.5	65	18.3	89	NW	4	1.8		10k	0	NW		0	0		
New Haven, Conn.			29.96	761.0	66	18.9	54	NE	12	5.4		0	Sm'e			0	0		
New London, Conn.			29.98	761.5	69	20.6	39	E	8	3.6		2cs	Haze	NW		0	0		
New Orleans, La.			30.07	763.8	78	25.6	84	NW	3	1.3		5k	0	NW		0	0		
Newport, R. I.																			
New York, N. Y.			29.97	761.2	62	16.7	56	SW	6	2.7		0	0			0	0		
Norfolk, Va.			30.05	763.3	69	20.6	80	S	4	1.8		0	0			0	0		
North Platte, Neb.			29.77	756.1	55	12.8	73	S	24	10.7		5c	0	W		0	0		
Omaha, Neb.			30.24	768.1	57	13.9	63	Calm	0	0		0	0			0	0		
Oswego, N. Y.			29.83	757.7	68	20.0	58	SSE	6	2.7			8s			0	0		
Peck's Beach			30.00	762.0	68	20.0	72	W	12	5.4		Haze	2s			0	0		
Pembina, D. T.			30.13	765.3	42	5.6	75	Calm	0	0		0	0			0.09	2.3		
Philadelphia, Penn.			29.98	761.5	63	17.2	72	SW	12	5.4		Haze	0			0	0		
Pike's Peak, C. T.			30.15	763.8	25	— 3.9	63	SW	4	1.8		2c	5s	W		0.05	1.3		
Pittsburgh, Penn.			29.87	758.7	70	21.1	39	SW	3	1.3		8ck	Sm'e	W		0	0		
Port Huron, Mich.			30.00	762.0	52	11.1	86	N	10	4.5			10s			0.39	9.9	Threatening	
Portland, Maine			30.02	762.5	58	14.4	42	NE	4	1.8		2c	Haze			0	0		
Portland, Or.			30.14	765.5	54	12.2	66	S	4	1.8		2k	2ks			0	0		
Punta Rassa, Fla.			30.00	762.0	74.6	23.7	81	N	12	5.4		5cs	2ks		NE	0.01	0.3		
Rochester, N. Y.			29.79	756.7	71	21.7	40	SW	10	4.5		Haze	Haze			0	0		
Salt Lake City, Utah			29.94	760.5	59	15.0	70	E	2	0.9		0	8s			0	0		
Sandy Hook, N. J.			29.95	760.7	66	18.9	58	W	11	4.9		2cs	Haze	W		0	0		
San Diego, Cal.			29.99	761.7	58	14.4	93	Calm	0	0			10s			0.07	1.8		
San Francisco, Cal.			29.93	760.2	51	10.6	79	S	10	4.5		Haze	0			0	0		
Santa Fe, N. M.			29.92	760.0	50	10.0	52	E	4	1.8		0	5s		SW	0	0		
Savannah, Georgia			30.03	762.7	70	21.1	90	N	6	2.7			10ks		NE	0.04	1.0		
Shreveport, La.			30.17	766.3	69	20.6	70	NE	12	5.4		8cs	0			0	0		
Springfield, Mass.			29.98	761.5	67	19.4	37	NE	4	1.8		1cs	Haze	E		0	0		
St. Louis, Mo.			30.27	768.8	59	15.0	64	N	14	6.3		0	0			0.48	12.2		
St. Marks, Fla.			30.06	763.5	72	22.2	85	N	3	1.3		0	0			0.43	10.9		
St. Paul, Minn.			30.13	765.3	54	12.2	73	Calm	0	0		0	0			0.04	1.0		
St. Paul's Island, Alaska			29.77	756.1	36	2.2	80	WNW	11	4.9		10ks	...k	NW		0	0		
Squan Beach, N. J.			29.96	761.0	69	20.6	56	W	5	2.2		Haze	Haze			0	0		
Toledo, Ohio			30.01	762.2	59	15.0	70	NW	18	8.0		2c	5s	W	NW	0.06	1.5	Clearing	
Tybee Island, Ga.			30.03	762.7	74	23.3	81	NE	12	5.4		5k	0	E		0	0		
Vicksburg, Miss.			30.19	766.8	72	22.2	71	NE	10	4.5		0	2ks		NE	0	0		
Virginia City, Mon.			29.75	755.6	44	6.7	67	Calm	0	0			10s			0	0		
Washington, D. C.			29.99	761.7	66.5	19.2	64	SW	6	2.7		5cs	0			0	0		
Wilmington, N. C.			30.04	763.0	72	22.2	80	NE	6	2.7		0	0			0	0		
Wood's Hole, Mass.			29.97	761.2	64	17.8	43	E	3	1.3		0	Sm'e			0	0		
Wytheville, Va.			29.85	758.2	60	15.6	55	NW	1	0.4		Haze	0			0	0		
Yankton, D. T.			30.21	767.3	56	13.3	63	SW	9	4.0		0	0			0	0		

NOTE.—The originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Bridgetown, Barbados, W. I.			30.09	764.3	80	26.7	95	E	7	3.1		0	2s			0	0		E. Racker.
Pointe-à-Pitre, Guadeloupe, do			30.30	769.0	79	26.1	70	SE				2k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.75	755.6	82	27.8	74	W	3.6	1.6		5fk	0	W		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	78	25.6	72	Calm	0	0		2k	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	78	25.6	78	S	4	1.8		2ek	5k	S		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	78	25.6	78	Calm	0	0		8es	2s	WSW	SSW	0	0		Robert Mason.
St. Georges, Bermudas			30.01	762.2	70	21.1	92	E	3	1.3		0	2ks			0.250	6.35		C. F. Allen.
Honolulu, Oahu, S. I.			30.15	765.8	63	17.2	68	NE			3	0	2k			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.63	752.6	29.0	— 1.7	100	NW	28	12.5			10n			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	63	17.2	83	SSE	0.5	0.2		5e	0	SSE		0	0		C. Partridge.
St. John's, Newfoundland			29.95	760.7	38.5	3.6	100	NE					10n			1.13	3.3	Raining	John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.89	759.2	60	15.9	100	NW	12	5.4			10n			0	0	Rainy	H. M. Redington.
Indianola, Iowa	29.27	743.4			62	16.7	70	NW				0	0			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 30, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.76	756.0	67.5	19.7		NW			2		6			0	0		Charnot.
Algiers			29.78	756.4	75.9	24.4	53	NNE			4		2			0	0	Raining	Peter.
La Calle			29.80	756.8	77.0	25.0		NW			2		6			0	0		Kuntz.
Tunis			29.81	757.1	80.4	26.9	57	E			4		7			0.094	2.4		Jacques.
Sfax			29.86	758.5	78.8	26.0	64	SE			3		1			0	0		Chauvey.
Saida			29.87	758.7	69.8	21.0		S			1		9			0.469	11.9	Rainy	Grosjean.
Tebessa			29.78	756.4	77.0	25.0		WSW			3		2			0	0		Colin.
Gerlville			29.88	759.0	71.6	22.0		SSE			4		5			0	0		Bernadach.
Laghouat			29.81	757.2	77.0	25.0	37	SE			2		2			0	0		Poinsignon.
Biskra			29.78	756.3	86.0	30.0		NW			4		3			0	0	Sand-fall	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.64	752.8	79.7	26.5	55	NE			2		2			0.701	17.8		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.75	755.6	64.0	17.8	74	NE			1		10			0.146	3.7		I. R. Observatory.
Eperies			29.74	755.5	68.2	20.1	71	Calm			0		10			0.019	0.49		Julius Mikolik.
Gratz			29.69	754.0	66.9	19.4	83	SW			2		10			0	0		Andreas Rospini.
Hermannstadt			29.78	756.5	74.1	23.4	54	SE			3		1			0.020	0.50		Prof. Reissenberger.
Kremsmünster			29.52	749.9	73.8	23.2	5:	ENE			2		7			0	0		Prof. C. Wagner.
Lemberg			29.82	757.3	64.0	17.8	77	SW			1		10			0.035	0.9	Raining	Dr. T. Stanecki.
Nyiregyhaza			29.76	755.8	79.9	26.6	69	S			2		6			0	0	Thunder-storm	Habzsuda Daniel.
Pola			29.64	752.5	68.7	20.4	79	SE			3		10s			0.002	0.05		I.R. Hydrographic Of'ce
Szegedin			29.68	753.8	80.6	27.0	35	S			5		2			0	0		Karl Stancel.
Trieste			29.66	753.3	70.7	21.5	65	SE			2		10			0.539	13.7	Raining	Prof. V. Farolfi.
Vienna			29.60	751.9	78.3	25.7	40	SSE			4		7			0	0		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.65	753.1			57.2	14.0	60	ENE			1		Sk, ks		NE	0	0	Clearing	Royal Observatory

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.90	759.4	58.1	14.5		W	5	2.2			5			0.015	0.38		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.02	762.5	57.9	14.4		WNW	5	2.2									S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			29.98	761.5	51.0	10.6		WNW			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.05	763.3	53.6	12.0		WSW			1		10						J. Dreyer, for L'd Rosse.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.99	761.7	84.4	29.1		NE			2		5						T. H Hunt.
Bywell																			
Cambridge Observatory			29.95	760.7	58.2	14.6		NNE			1		7						H. Todd.
Cape Town, (Cape Colony)			29.89	759.2	63.0	17.2		NW			3								Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.91	759.7			62.8	17.1	65	SSE	19	8.5			0						The Staff, for E. J. Stone.
Cardington			29 95	760.7	60.0	15.6		E					2						John McLaren.
Carlisle			29.94	760 5	57.9	14.4		W			1		10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.90	759.4	55.7	13.2		NE			3		6						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.82	757.4	79.4	26.3		SW			3		10						Sgt. W. F. Hopkins
Dartmoor			30.00	762.0	53.8	12.1		NE			4		1						R. E. Power.
Donaghadee			29.98	761.5	55	12.8		N			2		5						J. Mac Gowan, Jr.
Dover			29.90	759.4	54	12.2		NE			5		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.96	761.0	56.7	13.7		WNW	2.8	1.3			10						Thomas Mackereth
Falmouth Observatory			29.94	760.5	56.6	13.7		ESE	13	5.8			2						The Staff.
Fort Napier, (Natal)			29.95	760.7	66.0	18.9		E			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	87.0	30.6		N					8						
Galway, Queen's College			30.01	762.2	55	12.8		W			1		10					Rainy	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.78	756.4	69.0	20.6		W			4		5						Sergt. E. G. Baker.
Glasgow Observatory			29.99	759.4	59.3	15.2		WSW			1		5						James Gray.
Great Yarmouth			29.95	760.7	54	12.2		NNE			3		3						G. T. Watson.
Greenwich Royal Obs.			29.94	760.5	59.1	15.1		ENE			2		5			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			29.86	758.4	53	11.7		NE			5		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.								NW					6					Threatening	F. J. Rage, for L. J. Cross.
Halifax, (Nova Scotia)			29.89	759.2	48.7	9.3		NE			2		9					Rainy	Corp'l J. Y. Thompson.
Helston			29.88	758.9	62	16.7		N			4		4						Dr. W. B. Moyle.
Holyhead			30.00	762.0	54	12.2		NNW			2		10						John Tilston.
Hull Park																			
Kew Observatory			29.93	760.2	58.3	14.6		NE	18	8.0			5						The Staff.
Kingstown			30.08	764.0	53	11.7		NW			2		9						George Mitchell.
Lampeter																			
Leicester Museum			29.96	761.0	60.2	15.7		E			1		7						William J. Harrison.
Llandudno			30.06	763.5	54.7	12.6		ENE					10						Dr. James Nicol.
Malta, (Mediterranean)			29.76	755.9	75.2	24.0		NW			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.87	758.7	64	17.8		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.00	762.0	79.9	26.5		NW			1		3						Surg.-Maj. J. Jameson
North Shields																			John Wm. Irvine.
Nottingham			29.95	760.7	61.6	16.4		NNW			3		7k		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.96	761.0	57.2	14.0		NE			2		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.92	760.0	59	15.0		NE			2		6						J. Lucas, for R. Main
Plymouth			29.92	760.0	61	16.1		ENE			4		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Coeby foel																			
Roche's Point			30.02	762.5	55	12.8		SSE			2		8						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.82	757.7	57.8	14.3		E			6		10						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.95	761.0	79.0	26.1		NNE			2		1						Sergt. W. H. Lyne.
Sheffield			29.94	760.5	60	15.6		WNW			1		7			0	0		W. F. Cooper.
Sidmouth																			
Sidlesham Rectory			29.94	760.5	62.8	17.1		SW			1		8			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.94	760.5	54.0	12.2		NNE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.95	760.7	55.0	12.8		W			2		6						The Staff.
Stornoway, Lewis C. (Heb.)			29.87	758.7	56	13.3		W			3		7						John Smith.
Strathfield Turgiss			29.94	760.5	57.3	14.1		NE			1		8						Rev Charles H. Griffith
Strentley Vicarage			29.95	761.0	61.5	16.4		NE			6		8						Rev. John Slatter.
Sumburgh Head, (Shetland																			William Lawrence.
Taunton College																			
Thurso			29.85	758.2	54	12.2		WNW			5		7						John Trotter.
Truro Royal Institution			29.89	759.2	62	16.7		E	14	6.3	4		4						W Newcombe.
Valencia Observatory			30.06	763.5	54.9	12.7		NNW					10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.78	756.4	56.7	13.6	81	NE			2		6						
Fanöe			29.85	758.2	54.0	12.2	59	NNW			4		2						
Godthaab, (Greenland)			30.17	766.2	33.4	0.8	56	NE			7		10						
Stykkisholm, (Iceland)			29.30	744.2	38.1	3.4	90	NE			9		10						
Thorshavn, (Faröe)			29.61	752.2	50.9	10.5	91	W			7		10					Misty	
Vestervig			29.81	757 2	54.0	12.2	59	NW			4		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Ajaccio			29.73	755.2	75.2	24.0	64						5ck						Normal School.
Alençon			29.74	755.4	69.8	16.0	61	NE			3		10						Normal School.
Amiens			29.82	757.5	66.9	19.4	55	NE			4		5		NE	0.087	2.2		Normal School.
Beaumette			29.67	753.5	61.3	16.3	67	NE	11.6	5.2			10		E	0	0		Beaumette Observatory
Beauvais, (near Angers)			29.83	757.6	61.9	16.6	49	ENE			6		2		ENE	0	0		Normal School.
Besançon			29.71	754.6	74.8	23.8	43	E			3		2		NE	0	0		Normal School.
Bourg en Bresse			29.68	753.8	79.5	26.4	46	N			2		ck		SE	0	0		Normal School.
Bourgos			29.71	754.5	68.0	20.0	71	NNE			2		10		SW	0.142	3.6		Normal School.
Brest			29.75	755.6	53.1	11.7	77	NE			6		10		NE	0.289	7.25		Naval Observatory.
Caen						13.6	73						5			0	0		Normal School
Chartres			29.73	755.1	56.5	16.0		NE			2		4ck		NE	0	0		Normal School.
Chaumont			29.66	753.4	71.8	22.1		WNW			6		3			0	0		Normal School.
Commercy			29.77	756.1	69.4	20.8	44	NNE			6		5		NE	0	0		Normal School.
Le Mans			29.84	758.0	58.5	14.7	86	NE			6		8		NE	0	0		Normal School.
Lons-Le Saulnier			29.64	752.9	73.6	23.1	50	WNW			3		5		NE	0	0		Normal School.
Mâcon																			
Mirecourt			29.78	756.5	65.8	18.8	43	N			4		8		S	0	0		Normal School.
Orleans			29.82	757.4	71.6	22.0	55	ENE			4		5		SE	0.024	0.6		Normal School.
Paris Observatory			29.76	756.0	60.8	16.0		NNE			6		2		NE	0	0		National Observatory
Parthenay			29.66	753.3	61.7	16.5	78	NE			2		10			0.157	4.0		Normal School.
La Roche sur Yon			29.72	754.8	60.8	16.0	95	NE			6		10			0.047	1.2		Normal School.
Rouen			29.81	757.2	63.3	17.4	61	NNE			4		5		E	0	0		Normal School.
Saint Lo			29.85	758.3	59.7	15.4	93	NE			2		5		NE	0.126	3.2		Normal School.
Villefranche			30.08	763.9	76.3	24.6	49	E			1		2			0.07	2.0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.53	623.1			58.1	14.5	66	SW	9.3	4.17			5		SSW	0.102	2.6		—. Falguère.
Montsouris Observatory			29.76	755.9	62.1	16.7	57	NNE			4		4k		NNE	0	0	Misty	Marié Davy.
Perpignan	29.17	748.4			68.4	20.2	75	ENE	11.2	5.00			5		SW	0.351	9.0		Dr. Fines.
Saint Maur, (near Paris)			29.76	755.8	63.7	17.6	58	NNE			3		1			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.67	753.5	65.1	18.4	62	E			2		10		ESE	0.043	1.1		C. Marquet.
Versailles, (near Paris)			29.76	755.9	62.2	16.8	68	NE			5		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.95	760.6	64.2	17.9	81	SE	5.8	2.6			10kn			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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. Inches.	Rain-fall. Millimeters.	Weather.	Observer
Bamberg			29.60	751.9	71.6	22.0	37	W			3		2			0	0		Prof. Hoh.
Berlin			29.75	755.6	68.0	20.0	75	N			2		6			0	0		Prof. Arndt.
Breslau			29.70	754.4	76.6	24.8	43	SSE			4		7			0.303	7.7	Rainy	Dr. P. Neugebauer.
Carlsruhe			29.61	752.2	74.1	23.4	42	NE			5		1			0	0		A. Senz.
Cassel			29.67	753.7	64.4	18.0	62	NW			4		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.69	754.1	62.6	17.0	80	S					10			0.016	0.4	Showery	M. Wilhelm.
Hamburg			29.82	757.4	53.6	12.0	71	N			4		9k			0.272	6.90		W. Reinert.
Kiel			29.83	757.6	50.2	10.1	84	N			4		10			0.073	1.85		Prof. G. Karsten.
Königsberg			29.81	757.1	58.6	14.8	76	E			2					0.021	0.52		Prof. E. Luther.
Köslin			29.87	758.8	68.0	20.0		SE			1		5			0	0		Dr. Tägert.
Leipsic			29.70	754.3	68.7	20.4	42	NNW			1		2			0	0		Prof. Bruhns.
Münster			29.83	757.7	58.1	14.5	78	N			2		0			0.032	0.8		Prof. E. Heis.
Posen			29.70	754.4	74.3	23.5	47	E			2		8			0.012	0.3		Dr. Magener.
Strassburg, (in Alsace)			29.61	752.1	74.1	23.4	36	N					2			0	0		Hartwig and Tülk.
Stuttgart			29.59	751.5	73.9	23.3	43	E					4			0	0		Mr. Würth.
Thorn			29.72	754.8	72.3	22.4	47	SE			4		7			0.004	0.1		Dr. [illegible]enbacg
Treves, (Trier)			29.81	757.2	65.8	18.8	52	N			7		1			0	0		Prof. Flesch.
Wustrow			29.78	756.4	52.9	11.6	81	NNE			2		5ck			0.116	2.94		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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. Inches.	Rain-fall. Millimeters.	Weather.	Observer
Moncalieri			29.67	753.6	66.4	19.1	68	S	3.1	1.4			9	N		0.213	5.4		
Mondovi			29.65	753.0	63.7	17.6	64	NW			4			SW		0	0		
Genoa			29.61	752.3	67.1	19.5	65	N	4.3	1.9			0			0	0		
Pavia			29.67	753.7	60.8	16.0	87	NE			4		10			1.161	29.5	Raining	
Verona			29.63	752.5	67.8	19.9	76	E			2		10			0.323	8.2	Raining	
Padua			29.61	752.0	61.9	16.6	91	ENE	17.4	7.8			10	WSW		1.575	40.0	Showery	
Parma																			
Modena			29.65	753.2	62.8	17.1	86	W	15.0	6.7			8			0	0		
Leghorn			29.64	752.9	68.9	20.5	78	SSW	9.8	4.4			10			1.398	35.5	Showery	
Urbino			29.64	752.8	70.2	21.2	61	SE			2		10			0.079	2.0		
Ancona			29.65	753.2	70.9	21.6	77	SSE			4		10			0.248	6.3	Raining	
Siena			29.64	752.0	66.2	19.0	81	W	3.8	1.7			10	SW		0.043	1.1	Raining	
Rome			29.71	754.5	78.3	25.7	50	W	11.9	5.3			3			0	0		
Naples, O.U.			29.75	755.6	81.0	27.2	59	SW			4		5	W		0	0		
Lecce			29.81	757.2	79.0	26.1	84	SSE	44.7	20.0			6			0	0		
Cosenza			29.72	754.9	81.5	27.5	46	SW			1		7			0	0		
Catania, (Sicily)																			
Siposto			29.69	754.0	77.0	25.0	64	E			2		3	W		0	0		
Palermo			29.70	754.4	78.8	26.0	51	NE			2		6			0	0		
Sub-Series.																			
Naples, S. R.			29.80	756.8	74.8	23.8	75	WSW			3		k		NW	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.92	759.9	57.6	14.2		NE			4								
Groningen			29.82	757.5	51.6	10.9		N			4								
Helder			29.91	759.7	51.6	10.9		N			4								
Utrecht			29.84	758.0	56.3	13.5	53	NNE			3		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.76	756.0	52.5	11.4	59	SSW	9.4	4.2			10			0.025	5.2		
Christiania			29.72	754.9	59.5	15.3	59	SSW	8.7	3.9			2			0.106	2.7		
Tromsö			29.56	750.8	49.6	9.8	64	Calm			0		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.44	747.7			63.5	17.5	55	WNW	13.7	6.1			4					Showery	

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.74	755.5	73.0	22.8	40	SE	13	6			10						Astronomical Obs.
Wilna			29.93	759.4	67.1	19.5	38	S	4	2			10						Astronomical Obs.
Dorpat			29.89	759.1	60.4	15.8	46	SW	9	4			8						Physical Cabinet.
St. Petersburg			29.85	758.3	55.8	13.2	55	Calm	0	0			1						Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			30.05	763.3	69.8	21.0	54	ESE	7	3			6						
Nikolaiev			30.11	764.9	79.7	26.5	23	SSE	10	4.5			0						Lagorio.
Kertch			30.10	764.4	74.7	23.7	52	NE	8	3.5			1						Meteorological Obs.
Moscow			29.96	761.0	57.9	14.4	66	W	8	3.5			6						Meteorological Obs.
Lugan			29.95	760.7	75.9	24.4	36	WSW	4	2			2						Ogorodnikof.
Archangel			29.76	756.0	58.1	14.5	72	Calm	0	0			6						Physical Obs.
Tiflis			30.06	763.4	73.9	23.3	59	SE	10	4.5			6						Sebastianof.
Astrakhan			30.08	764.0	77.2	25.1	52	SE	8	3.5			8						Physical Cabinet.
Kasan			29.94	760.5	61.3	16.3	72	W	10	4.5			8					Thunder-storm	Tschernischef.
Orenburg			30.27	768.8	73.2	22.9	70	E	10	4.5			10						Meteorological Obs.
Ekaterinburg			30.24	768.0	65.7	18.7	30	Calm	0	0			0						Bobrof.
Kasaly																			Michelson.
Tashkend			30.15	765.9	76.6	24.8	29	NW	13	6			0						Meteorological Obs.
Barnaul			29.83	759.7	45.3	7.4	66	NW	8	3.5			5						Marks.
Yeniseisk			29.75	755.6	45.9	7.7	63	NW	10	4.5			10						Usolzef.
Irkutsk			29.44	747.7	65.8	18.8	45	SW	20	9			10					Smoky, hazy	Mossin.
Urga			29.64	752.9	59.4	15.2	60	Calm	0	0			0						Physical Observatory.
Peking, (China)			29.69	754.0	81.5	27.5	29	SSW	10	4.5			0						Meteorological Obs.
Nertchinsk			29.56	750.7	59.2	15.1	60	SW	4	2			0						
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor					35.4	1.9	82	NE	10	4.5			10						

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.63	752.5	63.7	17.6	50	W	25.4	11.33			5			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.63	752.7	55.9	11.6	82	SW			3		6			0.31	7.8		
Hernosand			29.65	753.2	54.7	12.6	50	S			5		6			0	0		
Stockholm			29.72	755.0	60.8	16.0	44	SW			2		4			0	0		
Wisby			29.84	757.9	52.5	11.4	69	SW			3		2			0	0		
Sub-Series.																			Dr. Hildebrandsson.
Upsala			29.75	755.6	61.5	16.4	46	S			2		2						

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.23	717.0			67.6	19.8	48	N			2		5			0	0		The Observatory.
Zurich	28.06	712.6			66.7	19.3	66	SE			2		9			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —8.7mm.; Thermometer, +1°.2 C.; Relative Humidity, —8 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)													0			0	0		Prof. C. N. A. Van Dyck.
Constantinople			30.04	763.1	71.6	22.0	58	NE	16.8	7.5									
Fao, (Persian Gulf)			29.78	756.5	95.0	35.0		NW			4		0						
Salonica					80.2	26.8		NW			2		5						
Valona			29.78	756.5	85.6	29.8		SE			1		8						
Varna			30.04	763.0	75.2	24.0		S			1		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.15	765.8	69	20.6		Calm	0	0		0	0			0.07	1.8		
Chatham, N. B.			29.88	758.9	49	9.4	88	NE	9	4.0		2cs	8ks	NE	NE	0	0		
Charlottetown, P. E. Island			29.86	758.4	44	6.7	98	S	3	1.3			10n			0.23	5.8	Light rain	
Fort Garry, Manitoba			29.80	756.9	51	10.6	79	S	3	1.3		2c	2s	W		0	0		
Halifax, N. S.			29.78	756.4	47	8.3	87	SW	4	1.8			8n		N	0.013	0.31		
Kingston, Ontario			30.14	765.5	59	15.0	77	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.03	762.7	53	11.7	63	N	9	4.0		0	2ks		N	0.18	4.6		
Ottawa, Ontario			30.13	765.3	58	14.4	68	W	5	2.2		0	0			0.30	7.6		
Parry Sound, Ontario			30.17	766.3	54	12.2	46	NE	6	2.7		2cs	0	W		0.09	2.3		
Port Dover, Ontario			30.20	767.1	52	11.1	60	NW	5	2.2		0	0			0.05	1.3		
Port Stanley, Ontario			30.18	766.1	54	12.2	66	NE	3	1.3		0	0			0	0		
Quebec, Quebec			29.97	761.2	50	10.0	93	Calm	0	0			10n			0.12	3.0	Light rain	
Saugeen, Ontario			30.18	766.6	50	10.0	82	Calm	0	0		2cs	0			0	0		
Stayner, Ontario																0.03	0.8		
Sydney, C. B.			29.84	757.9	51	10.6	65	W	4	1.8		0	2ks		NW	0	0		
Toronto, Ontario			30.18	766.6	55	12.8	44	NW	7	3.1		0	0			0.28	7.1		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.00	762.0	59	15.0	70	NW	7	3.1		2c	0	W		0.09	2.3		
Alpena, Mich.			30.14	765.0	52	11.1	53	SE	4	1.8		2c	0	SE		0	0		
Atlantic City, N. J.			30.00	762.0	63	17.2	57	NW	15	6.7		0	0			0	0		
Augusta, Ga.			29.97	761.2	75	23.9	60	NE	2	0.9		2cs	0	N		0	0		
Baltimore, Md.			30.08	764.0	63	17.2	42	N	9	4.0		0	0			0.01	0.3		
Barnegat, N. J.			29.99	761.7	62	16.7	64	W	14	6.3		2c	0			0	0		
Benton, Montana			29.79	756.7	55	12.8	38	SW	12	5.4		2k	0	SW		0	0		
Bismarck, Dakota			29.47	748.5	55	12.8	74	N	1	0.4			10ks		N	0.11	2.8		
Boston, Mass.			29.94	760.5	56	13.3	68	SW	4	1.8			10s			0	0		
Breckenridge, Minn.			29.65	753.1	59	15.0	81	S	12	5.4		0	Haze			1.17	29.7		
Buffalo, N. Y.			30.16	766.1	55	12.8	38	N	4	1.8		0	0			0.78	19.8		
Burlington, Vt.			30.03	762.7	58	14.4	64	N	13	5.8		2c	0			0.32	8.1		
Cairo, Ill.			30.10	764.5	62	16.7	66	NE	4	1.8		2c	0			0	0		
Cape Hatteras, N. C.			29.99	761.7	69	20.6	79	NE	20	8.9		5k	2s		NE	0	0		
Cape Henry, Va.			30.04	763.0	68	20.0	51	N	14	6.3		5cs	0	W		0	0		
Cape May, N. J.			30.02	762.5	62	16.7	56	N	20	8.9		0	0			0	0		
Charleston, S. C.			29.99	761.7	73	22.8	81	N	8	3.6		2k	Haze			0	0		
Cheyenne, W. T.			29.88	758.9	51	10.6	48	W	4	1.8		5c	0	W		0	0		
Chicago, Ill.			30.10	764.5	62	16.7	56	S	7	3.1		0	0			0	0		
Cincinnati, Ohio			30.15	765.8	63	17.2	46	E	4	1.8		2c	0			0	0		
Cleveland, Ohio			30.17	766.3	55.3	13.0	62	W	2	0.9		0	0			0.46	11.7		
Colorado Springs, Col.			29.88	758.9	60	15.6	39	N	3	1.3		0	0			0.02	0.5		
Corsicana, Texas			30.02	762.5	67	19.4	90	W	3	1.3		2cs	2k			0.33	8.4		
Davenport, Iowa			30.06	763.5	65	18.3	52	SW	16	7.2		1k	0			0	0		
Denver, Col.			29.93	760.2	55	12.8	50	Calm	0	0		2cs	0	SW		0	0		
Detroit, Mich.			30.15	765.8	58	14.4	64	NE	3	1.3		0	0			0	0		
Dodge City, Kansas			29.49	749.0	64	17.8	73	SW	12	5.4		0	0			0	0		
Dubuque, Iowa			30.06	763.5	61	16.1	66	S	16	7.2		5c	0	SE		0	0		
Duluth, Minn.			29.90	759.4	46	7.8	85	NE	4	1.8			10n			0.03	0.8	Light rain	
Eastport, Me.			29.87	758.7	50	10.0	71	S	4	1.8		10c	0	NW		0	0		
Erie, Penn.			30.15	765.8	55	12.8	73	NW	4	1.8		0	Haze			0.54	13.7		
Escanaba, Mich.			30.05	763.3	51	10.6	78	S	3	1.3			10ks		E	0	0		
Fort Gibson, I. T.			30.00	762.0	64	17.8	67	SE	5	2.2		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.54	750.3	61	16.1	77	Calm	0	0		5k	0	SW		0.17	4.3		
Galveston, Texas			30.12	765.0	77	25.0	86	E	6	2.7		0	0			0	0		
Grand Haven, Mich.			30.14	765.5	61	16.1	57	S	10	4.5		5c	0	SW		0	0		
Indianapolis, Ind.			30.12	765.0	63	17.2	42	E	8	3.6		0	0			0	0		
Indianola, Texas			30.04	763.0	82	27.8	74	SE	3	1.3		2c	Haze			0	0		
Jacksonville, Fla.			29.98	761.5	76	24.4	69	NE	4	1.8		3c	0	NE		0	0		
Keokuk, Iowa			30.03	762.7	62	16.7	61	SE	14	6.3		0	0			0	0		
Key West, Fla.			29.95	760.7	79.5	24.4	74	N	7	3.1		2cs	2ks			0.02	0.5		
Kittyhawk, N. C.			30.01	762.2	65	18.3	78	N	24	10.7		2c	0	N		0	0		
Knoxville, Tenn.			30.03	762.7	61.5	16.4	59	NE	16	7.2		1c	0			0	0		
La Crosse, Wis.			29.97	761.2	63	17.2	67	S	13	5.8		8k	0	S		0	0		
Leavenworth, Kan.			29.95	760.7	60	15.6	66	S	6	2.7		0	0			0	0		
Lexington, Ky.			30.12	765.0	61	16.1	50	NE	8	3.6		0	0			0	0		
Long Branch, N. J.			30.00	762.0	65	18.3	58	NW	24	10.7		0	0			0	0		
Louisville, Ky.			30.11	764.8	65	18.3	58	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.12	765.0	68	20.0	38	N	3	1.3		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	50	10.0	86	E	2	0.9			8n			0.02	0.5		
Memphis, Tenn.			30.08	764.0	64	17.8	63	NE	5	2.2		5cs	0	S		0	0		
Milwaukee, Wisconsin			30.08	764.0	63	17.2	57	W	12	5.4		2c	0			0	0		
Mobile, Ala.			30.01	762.2	70	21.7	75	N	8	3.6		5c	0			0	0		
Montgomery, Ala.			30.00	762.0	72	22.2	71	NW	4	1.8		5c	0	W		0	0		
Morgantown, W. Virginia			30.18	766.6	57	13.9	74	Calm	0	0		0	Fog			0.21	5.3		
Mt. Washington, N. H.			30.04	763.0	35	1.7	100	N	48	21.5			Fog			0.21	5.3		
Nashville, Tenn.			30.06	763.5	66	18.9	60	Calm	0	0		2cs	0			0	0		
New Haven, Conn.			29.97	761.2	63	17.2	77	N	14	6.3		8ck	0	N		0.02	0.5		
New London, Conn.			29.96	761.0	56	13.3	87	NW	2	0.9			10s		N	0.08	2.0		
New Orleans, La.			30.02	762.5	75	23.9	72	NE	6	2.7		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.00	762.0	62	16.7	45	N	12	5.4		0	0			0	0		
Norfolk, Va.			30.05	763.3	67	19.4	64	NE	16	7.2		0	0			0	0		
North Platte, Neb.			29.35	745.5	57	13.9	93	S	10	4.5			Fog		S	0	0	Foggy	
Omaha, Neb.			29.85	758.2	62	16.7	66	S	16	7.2		2c	0	W		0	0		
Oswego, N. Y.			30.15	765.8	47.1	8.4	74	W	7	3.1		Haze	0			0.03	0.8		
Peck's Beach			30.01	762.0	65	18.3	48	N	20	8.9		0	Haze			0	0		
Pembina, D. T.			29.70	754.4	57	13.9	69	SE	8	3.6		0	0			0	0		
Philadelphia, Penn.			30.03	762.7	61	16.1	60	N	24	10.7		0	0			0	0		
Pike's Peak, C. T.			29.98	761.5	22	— 5.6	86	W	28	12.8		2c	0			0.15	3.8		
Pittsburgh, Penn.			30.17	766.3	48	8.9	63	NW	1	0.4		0	0			0.04	1.0	Smoky	
Port Huron, Mich.			30.18	766.6	56	13.3	56	E	3	1.3		0	0			0	0		
Portland, Maine			29.93	760.2	52	11.1	79	SW	2	0.9			10n			0.15	3.8	Light rain	
Portland, Or.			30.14	765.5	53	11.7	60	W	6	2.7		5k	0			0	0		
Punta Rassa, Fla.			29.98	761.5	76.3	24.6	72	N	8	3.6		0	2ks			0.02	0.5		
Rochester, N. Y.			30.12	765.0	54	12.2	55	NW	8	3.6		0	0			0.30	7.6		
Salt Lake City, Utah			29.93	760.2	59	15.0	43	S	7	3.1		0	0			0.01	0.3		
Sandy Hook, N. J.			29.98	761.5	62	16.7	56	N	12	5.4		0	0			0	0		
San Diego, Cal.			29.99	761.7	58	14.4	87	N	8	3.6			10s			0.05	1.3		
San Francisco, Cal.			29.94	760.5	52	11.1	79	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.77	756.1	49	9.4	57	E	8	3.6			10s		SW	0	0		
Savannah, Georgia			29.98	761.5	76	24.4	72	SW	4	1.8		2c	0			0.13	3.3		
Shreveport, La.			30.07	763.8	66	18.9	78	NNE	1	0.4		5ck	0	W		0	0		
Springfield, Mass.			29.96	761.0	61	16.1	71	N	4	1.8		8c	2d	S	NE	0.02	0.5		
St. Louis, Mo.			30.11	764.7	61	16.1	60	SE	7	3.1		0	0			0	0		
St. Marks, Fla.			29.96	761.0	74	23.3	90	Calm	0	0		5c	Haze			0	0		
St. Paul, Minn.			29.81	757.2	62	16.7	68	SE	8	3.6			10s		S	0	0		
St. Paul's Island, Alaska			30.12	765.0	31	— 0.6	78	NW	3	1.3		4c	10k			0.01	0.3		
Squan Beach, N. J.			29.98	761.5	62	16.7	57	NW	15	6.7		2ck	Haze	NW		0	0		
Toledo, Ohio			30.12	765.0	64	17.8	57	Calm	0	0		0	0			0	0		
Tybee Island, Ga.			29.98	761.5	74	23.3	81	NW	4	1.8		2c	0	NW		0	0		
Vicksburg, Miss.			30.08	764.0	69	20.6	64	Calm	0	0		0	2s			0	0		
Virginia City, Mon.			29.62	752.3	44	6.7	60	Calm	0	0		Haze	0			0	0		
Washington, D. C.			30.11	764.7	59.5	15.3	50	NW	10	4.5		0	0			0.01	0.3		
Wilmington, N. C.			30.00	762.0	71	21.7	85	NE	1	0.4		2ck	8k	E	E		0		
Wood's Hole, Mass.			29.93	760.2	53	11.7	86	Calm	0	0			10s			0	0		
Wytheville, Va.			29.90	759.4	57	13.9	57	E	2	0.9		0	0			0	0		
Yankton, D. T.			29.75	755.6	64	17.8	67	S	10	4.5		1cs	0	NW		0	0		

NOTE.—The originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.06	763.5	83	28.3	87	E	5	2.2		5k	2ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.98	761.5	82	27.8	74	E				5c	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.72	754.9	84	28.9	70	W	3.6	1.6		2fk	0	W		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.25	768.3	78	25.6	82	E	6	2.7		2ck	5kn	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.79	756.7	78	25.6	82	Calm	0	0			10n			Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.98	761.5	70	21.1	64	E	3.3	1.5		0	0			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.17	766.3	62	16.7	73	NE			2	0	5k, n			0	0		E. P. Church.
Makawao, Maui, S. I.	27.86	707.6			61.5	16.4	88	E			2	0	0			0.08	2.0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.60	751.8	28.0	— 2.2	94	W	16	7.2		0	8k			0	0		J. Fortescue
Clifton, Jamaica, W. I.			30.02	762.5	68	20.0	90	S	0.5	0.2		0	10k			0	0		C. Partridge.
St. John's, Newfoundland			29.65	753.1	30.5	— 0.8	100	NE					10n			0.86	21.8	Raining	John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.19	766.8	59	15.0	31	NE	4	1.8		0	0			0.75	19.1		H. M. Redington.
Indianola, Iowa	29.05	737.9			69	20.6	64	S				2c	0	W		0	0		G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MAY 31, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.84	758.0	60.8	16.0		NW			2		6			0.157	4.0		Charnot.
Algiers			29.83	757.6	70.5	21.4	83	N			4		9			0.402	10.2	Threatening	Peter.
La Calle			29.92	760.0	78.1	25.6		W			5		1			0	0		Kuntz.
Tunis			29.80	759.2	88.2	31.2	61	SE			3		0			0	0		Jacques.
Sfax			29.97	761.3	77.9	25.5	56	NE			4		1			0	0		Chauvey.
Saida			29.87	758.6	64.4	18.0		NNW			2		8			0.394	10.0	Threatening	Grosjean.
Tebessa			29.95	760.8	82.4	28.0		W			5		1			0	0		Colin.
Geriville			29.88	759.0	78.6	25.9		NW			6		0			0	0		Bernadach.
Laghouat			29.89	759.3	87.8	31.0	17	SE			4		1			0	0		Poinsignon.
Biskra			29.92	760.0	94.1	34.5		E			4		10			0	0	Sand sirocco	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.74	755.5	69.3	20.7	72	SW			2		7			0.067	1.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.87	758.8	64.4	18.0	83	SW			1		10			0.717	18.2		I. R. Observatory.
Eperies			29.77	756.1	71.1	21.7	84	Calm			0		10			1.752	44.50	Raining	Julius Mikolik.
Gratz			29.77	756.2	65.5	18.6	89	NE			2		10			0.142	3.6		Andreas Rospini.
Hermannstadt			29.81	757.1	76.1	24.5	50	NW			1		5			0.028	0.70		Prof. Reissenberger.
Kremsmünster			29.80	759.2	59.7	15.4	89	Calm			0		10			0.811	20.6		Prof. C. Wagner.
Lemberg			29.76	755.9	74.5	23.6	64	S			4		5			2.382	60.5		Dr. T. Stanecki.
Nyiregyhaza			29.81	757.1	65.1	18.4	66	S			3		10			0.515	13.08	Thunder-storm	Habzsuda Daniel.
Pola			29.89	759.2	71.8	22.1	69	SSW			1		3cks			0.113	2.87		I.R. Hydrographic Of'ce
Szegedin			29.73	755.1	81.0	27.2	42	S			4		6			0	0		Karl Stancel.
Trieste			29.87	758.8	71.8	22.1	70	NW			1		7			0	0		Prof. V. Farolfi.
Vienna			29.81	757.1	65.8	18.8	85	N			3		10			0.083	2.1	Raining	I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.76	756.0			63.0	17.2	45	ESE			2		3k		ENE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.00	762.0	52.9	11.6		ESE	8	3.6			1			0	0		William Boswell.
Annanhill																			
Ardrossan			30.08	764.0	56.5	13.6		SW			2		7						William McNeil.
Armagh Observatory			30.11	764.8	55.2	14.6		SW	4	1.8			8						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.08	764.0	58.5	14.7		NNW			2		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.09	764.3	59.8	15.4		NNE			1		9						J. Dreyer, for L'd Rosse.
Bradford			30.01	762.2	62.1	16.7		S			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.93	760.2	82.6	28.1		NE			2		4						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.06	763.5	60.0	15.6		NE			1		1						H. Todd.
Cape Town, (Cape Colony)			29.89	759.2	62.4	16.9		NW			2		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.91	759.7			61.8	16.6	72	WNW	7	3.1			1						Th. Staff, for E. J. Stone.
Cardington			30.07	763.8	61.0	16.1		E					1						John McLaren.
Carlisle			30.09	764.3	61.8	16.6		W					9			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.03	762.7	57.4	14.1		NNE			1		4						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.84	757.9	85.5	29.7		SW			2		6						Sgt. W. F. Hopkins
Dartmoor			30.06	763.5	55.9	13.3		E			4		0						R. E. Power.
Donaghadee			30.08	764.0	59	15.0		W			1		6						J. Mac Gowan, Jr.
Dover			30.00	762.0	56	13.3		NE			5		2						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			30.04	763.0	64.2	17.9		WNW	2.2	1.0			5					Misty	G. D. Goldney.
Falmouth Observatory			30.00	762.0	56.6	13.7		E	20	8.9			1						Thomas Mackereth.
Fort Napier, (Natal)			29.77	756.1	75.0	23.9		NW			3		1						The Staff.
Freetown, (Sierra Leone.)			29.83	757.7	85.0	29.4		E					9						Pvt. G. Salmon.
Galway, Queen's College			30.16	766.1	63	17.2		Calm			0		6						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.83	757.7	76.0	24.4		W			4		3						Sergt. E. G. Baker.
Glasgow Observatory			30.04	763.0	56.8	13.8		WNW			2		9						James Gray.
Great Yarmouth			30.09	764.3	55	12.8		ENE			2		3						G. T. Watson.
Greenwich Royal Obs.			30.01	763.0	63.0	17.2		ENE			3		1						The Staff, for G. B. Airy.
Guernsey			29.95	760.7	56.5	13.6		NNE			5		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.04	763.0	62.5	16.9		W					10					Hazy	F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)			29.99	761.7	53.2	11.8		NW			2		2						Corp'l J. V. Thompson.
Helston			29.96	761.0	63	17.2		NE			4		4						Dr. W. B. Mavle.
Holyhead			30.01	762.2	57	13.9		N			3		10						John Tilston.
Hull Park																			
Kew Observatory			30.04	763.0	58.6	14.8		NE	20	8.9			4					Misty	The Staff.
Kingstown			30.12	765.0	56	13.3		ENE			3		5						George Mitchell.
Lampeter																			
Leicester Museum			30.08	764.0	61.0	16.1		E			1		4						William J. Harrison.
Llandudno			30.11	764.8	57.0	13.9		NE					6						Dr. James Nicol.
Malta, (Mediterranean)			29.94	760.5	69.0	20.6		NE			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.97	761.2	62	16.7		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.01	762.2	78.6	25.9		NW			3		4						Surg.-Maj. J. Jamieson.
North Shields			30.07	763.8	56	13.3		E			2		7						John Wm. Irvine.
Nottingham			30.07	763.8	67.3	19.6		SSE			4		4k		ESE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.04	763.0	62	16.7		ENE			2		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.01	762.2	60	15.6		ENE			1		1						J. Lucas, for R. Main.
Plymouth			29.98	761.5	62	16.7		ENE			4		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.07	763.8	59	15.0		E			3		8						W. Kennedy.
Saint Ann's Head			30.03	760.7	59	15.0		NNW			2		0						John C. Walker.
Saint Helier, (Jersey)			29.88	758.9	60.6	15.9		ENE			6		2						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			30.07	763.8	56.7	13.7		SE			3		1						F. Shaw.
Scutari, (Turkey)			29.90	759.4	70.8	21.6		NE			1		1						Sergt. W. H. Lyne.
Sheffield			30.08	764.0	65	18.3		SSW			2		2			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.07	763.8	64.4	18.0		Calm			0		5			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.08	764.0	57.7	14.3		E			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.05	763.3	61.2	16.2		W			1		7					Hazy	The Staff.
Stornoway, Lewis C. (Hebr.)			29.90	759.4	58	14.4		WSW			3		5						John Smith.
Strathfield Turgiss			30.03	760.7	61.8	16.6		NE			1		0						Rev. Charles H. Griffith
Streatley Vicarage			30.05	763.3	64.8	18.2		ESE			3		1						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.94	760.5	59	15.0		WSW			2		6						John Trotter.
Truro, Royal Institution			29.94	760.5	67	19.4		E			4		3						W. Newcombe.
Valencia Observatory			30.07	763.8	54	12.2		NNW	12	5.4			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.98	761.5	62.1	16.7		NE			3		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and, except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level, and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.08	763.9	55.9	13.3	73	NE			4		1						
Faröe			30.11	764.8	55.0	12.8	61	W			4		1						
Godthaab, (Greenland)			30.05	763.3	38.5	3.6	43	ENE			6		0						
Stykkisholm, (Iceland)			29.64	752.8	32.4	0.2	94	NE			10		8						
Thorshavn, (Faröe)			29.57	751.1	52.0	11.1	68	WSW			7-9		7						
Vestervig			30.07	763.6	56.8	13.8	73	WSW			4		2						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.76	755.8	80.2	26.8	71						5ck						Normal School.
Alençon			29.83	757.6	68.0	20.0	68	NE			3		8k&n			0	0		Normal School.
Amiens			29.92	760.0	70.2	21.2	41	E			6		0			0	0		Normal School.
Beaumette, (near Angers)			29.80	756.8	65.5	18.6	60	ESE	3.6	1.6			10		SE	0.094	2.4	Raining	Beaumette Observatory
Beauvais			29.80	756.8	65.5	18.6	60	E			6		0			0	0		Normal School.
Besançon			29.92	759.9	65.3	18.5	42	E			3		8		SW	0	0		Normal School.
Bourg en Bresse			29.95	760.6	72.0	22.0	62	S			4		..ks		N	0.197	5.0		Normal School.
Bourges			29.85	758.1	78.4	25.8	75	SE			2		5		NW	0	0		Normal School.
Brest			29.81	757.1	73.0	22.8	67	NE			4		10		NE	0	0		Naval Observatory.
Caen			29.82	757.3	58.5	14.7	76	NE			6		1		N	0	0		Normal School
Chartres			29.90	759.4	65.1	18.4	49	N			4		4c		E	0	0		Normal School.
Chaumont			29.80	757.0	70.5	21.4		E			2		5		SW	0	0		Normal School.
Commercy			29.80	756.8	79.2	26.2		SW			2		2		NE	0	0		Normal School.
Le Mans			29.96	760.9	69.4	20.8	51	E			3		5		SE	0	0		Normal School.
Lons-Le Saulnier			29.96	760.9	67.1	19.5	85	E			2		5		E	0	0		Normal School.
Mâcon			29.87	758.7	74.3	23.5	63	SSE											
Mirecourt											6		8		SW	0	0		Normal School.
Orleans			30.00	762.0	66.7	19.3	55	N			3		2		SE	0	0		Normal School.
Paris Observatory			29.90	759.5	74.3	23.5	55	E			3		5			0	0		National Observatory
Parthenay			29.84	758.0	68.2	20.1		NE			2		5		S	0.413	10.5		Normal School.
La Roche sur Yon			29.84	757.9	64.4	18.0	44	NE			1		10			0	0		Normal School.
Rouen			29.80	756.8	66.6	19.2	68	SE			2		0			0	0		Normal School.
Saint Lo			29.88	759.0	69.4	20.8	39	NNW			6		5		E	0.161	4.1		Normal School.
Villefranche			29.92	760.0	61.9	16.6	82	E			4		2			1.039	26.4		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.09	627.0			57.6	14.2	53	SSW	11.4	5.08			8		SSW	0.012	0.3		—. Falguère.
Montsouris Observatory			29.85	758.1	70.0	21.1	48	ENE			3		5k		SSE	0	0		Marié Davy.
Perpignan	29.63	752.5			74.5	23.6	63	SE	13.0	5.83			4		SSW	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.85	758.2	69.8	21.0	49	ENE			3		7			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.80	756.9	71.2	21.8	54	SSE			1		8		S	0	0		C. Marquet.
Versailles, (near Paris)			29.86	758.4	68.0	20.0	55	NE			4		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.92	759.9	63.7	17.6	97	ENE	9.6	4.3			10n			0.532 0.634	13.5 16.1	Raining	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.85	758.3	68.9	20.5	49	N			5		3			0	0		Prof. Hoh.
Berlin			30.08	764.0	66.2	19.0	82	NE			3		8			0	0		Prof. Arndt.
Breslau			30.02	762.6	59.2	15.1	80	NW			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.87	758.6	70.9	21.6	56	E			1		5			0	0		A. Senz.
Cassel			29.88	759.0	68.0	20.0	46	E			2		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.83	757.7	69.8	21.0	57	E					5			0	0		M. Wilhelm.
Hamburg			30.08	764.1	61.7	16.5	53	NE			1		5k			0	0		W. Reinert.
Kiel			30.10	764.4	56.7	13.7	79	NE			3		1			0	0		Prof. G. Karsten.
Königsberg			29.99	761.7	62.2	16.8	62	N			2					0.399	10.13		Prof. E. Luther.
Köslin			30.21	767.3	61.3	16.3		N			4		4			0	0		Dr. Tägert.
Leipsic			30.00	762.1	67.1	19.5	46	NNE			1		4			0	0		Prof. Bruhns.
Münster			30.03	762.7	64.4	18.0	60	E			2		0			0	0		Prof. E. Heis.
Posen			30.02	762.4	64.2	17.9	63	NW			2		8			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.87	758.6	70.0	21.1	55	NE					1			0.025	0.62		Hartwig and Tülk.
Stuttgart			29.85	758.3	72.5	22.5	59	E					3			0	0		Mr. Würth.
Thorn			29.99	761.7	65.5	18.6	55	N			4		6			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.85	758.3	68.4	20.2	53	NE			8		2			0	0		Prof. Flesch.
Wustrow			30.10	764.5	52.3	11.3	67	N			2		0			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.86	758.4	71.4	21.9	60	E	4.3	1.9			8	SW		0	0		
Mondovi			29.84	758.0	68.0	20.0	57	NNW			2		9	WSW		0	0		
Genoa			29.91	759.7	71.1	21.7	70	SE	6.9	3.1			10	SE		0.012	0.3		
Pavia			29.85	758.3	75.4	24.1	53	SW			4		8	SW		0	0		
Verona			29.82	757.5	77.7	25.4	90	W			2		3			0	0		
Padua			29.82	757.5	72.0	22.7	61	SW	8.7	3.9			7	SW		0	0		
Parma																			
Modena			29.88	759.0	76.6	24.8	61	SW	3.1	1.4			6			0	0		
Leghorn			29.92	759.9	74.3	23.5	65	SW	6.3	2.8			5			0	0		
Urbino			29.87	758.7	74.1	23.4	49	SW			2		4			0	0		
Ancona			29.90	759.4	74.5	23.6	70	SE			4		4			0	0		
Siena			29.90	759.5	74.3	23.5	52	S	5.6	2.5			10	SW		0.051	1.3	Raining	
Rome			29.95	760.6	81.3	27.4	48	SSW	8.7	3.9			8			0	0		
Naples, O. U.			29.97	761.1	80.6	27.0	55	SW			2		7			0	0		
Lecce			29.97	761.1	77.9	25.5	47	NNW	3.8	1.7			3			0	0		
Cosenza			29.95	760.6	82.9	28.3	51	NW			1		2			0	0		
Catania, (Sicily)																			
Lipuosto			29.93	760.2	77.4	25.2	56	N			2		1	SW		0	0		
Palermo			29.91	759.7	76.6	24.8	61	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.02	762.4	78.3	25.7	59	S			4		0			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet; its rain-fall is given for the preceding five hours.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.03	762.7	63.3	17.4		NE			4								
Groningen			30.03	762.7	59.9	15.5		NE			7								
Helder			30.07	763.8	55.2	12.9		NNE			4								
Utrecht			29.98	761.6	62.4	16.9	62	NE			3		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, 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	760.7	59.2	15.1	57	SSW	17.7	7.9			10			0	0		
Christiania			29.94	760.5	62.2	16.8	48	SSW	10.5	4.7			1			0	0		
Tromsö			29.49	749.0	50.4	10.2	75	S			6		10			0.019	0.3		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon	29.52	749.8			63.0	17.2	48	NNW	13.7	6.1			9						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

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

Warsaw			29.88	758.9	67.5	19.7	59	NNW	13	6			5						Astronomical Obs.
Wilna			29.81	757.1	66.7	19.3	60	W	8	3.5			7						Astronomical Obs.
Dorpat			30.01	762.0	59.4	15.2	62	ESE	7	3			8						Physical Cabinet.
St. Petersburg			30.00	762.0	57.7	14.3	65	W	2	1			3						Central Physical Obs.
Kuopio																			
Kieff			29.93	760.3	79.3	26.3	47	S	11	5			1						Physical Cabinet.
Nikolaiev			30.02	762.6	81.9	27.7	37	S	4	2			0						
Kertch			30.04	762.9	77.5	25.4	57	E	17	7.5			1						Lagorio.
Moscow			30.11	764.9	58.6	14.8	80	SSW	8	3.5			10					Raining	Meteorological Obs.
Lugan			30.02	762.4	80.1	26.6	35	E	10	4.5			1						Meteorological Obs.
Archangel			30.04	763.1	56.7	13.7	66	W	13	6			6						Ogorodnikof.
Tiflis			30.04	762.9	77.7	25.4	42	E	4	2			8						Physical Obs.
Astrakhan			30.19	766.9	81.3	27.5	43	SE	10	4.5			6						Sebastianof.
Kasan			30.12	765.0	67.3	19.6	49	W	4	2			4						Physical Cabinet.
Orenburg			30.28	769.2	61.3	16.3	66	SE	10	4.5			10						Tschernischef.
Ekaterinburg			30.11	764.7	69.4	20.8	46	S	13	6			3						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			30.16	766.0	78.8	26.0	39	Calm	0	0			0						Michelson.
Barnaul			30.26	768.7	46.4	8.1	46	NW	8	3.5			4						Meteorological Obs.
Yeniseisk			30.04	763.2	47.8	8.8	58	N	10	4.5			0						Marks.
Irkutsk			29.84	758.0	55.8	13.2	75	SW	10	5.5			10						Usolzef.
Gorga			29.61	752.2	62.6	17.0	50	Calm	0	0			0						Mossin.
Peking, (China)			29.69	754.2	84.7	29.3	23	SW	13	6			0						Physical Observatory.
Nertchinsk			29.44	747.8	74.5	23.6	31	SW	8	3.5			8					Smoky hazy	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					40.3	4.6	100	E	13	6			9						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

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	55.6	13.1	90	SSW	10.4	4.66			9			0.150	3.8	Raining	Royal Observatory.
San Fernando																			The Naval Observatory

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.87	758.6	54.9	12.7	74	SW			5		6			0	0		
Hernosand			29.83	757.6	58.3	14.6	42	S			7		4			0	0		
Stockholm			29.96	760.9	65.1	18.4	39	SW			1		4			0	0		
Wisby			30.02	762.6	53.2	11.8	74	N			2		0			0	0		
Sub-Series.																			
Upsala			29.97	761.1	67.6	19.8	36	WSW			4		4		WNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.45	722.6			70.5	21.4	52	NNW			2		5			0	0		The Observatory.
Zurich	28.24	717.3			74.3	23.5	49	NE			2		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, −3.2mm.; Thermometer, +2°.7 C.; Relative Humidity, −4 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.81	757.1	77.5	25.3	77	N			3		5						Prof. C. N. A. Van Dyck.
Constantinople			29.97	761.3	71.6	22.0	66	NE	8.9	4			0			0	0		
Fao, (Persian Gulf)			29.84	758.0	95.4	35.2		SE			1		10						
Salonica					82.9	28.3		NW			1		0						
Valona			29.91	761.5	84.6	29.2		W			2		2						
Varna			30.08	764.0	75.2	24.0		SE			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.22	767.6	58	14.4		Calm	0	0		0	0			0	0		
Chatham, N. B.			30.03	764.0	53	11.7	71	NE	3	1.3		8c	2ks	NE	NE	0	0		
Charlottetown, P. E. Island			30.04	763.0	46	7.8	87	NE	8	3.6			10s			0.01	0.3		
Fort Garry, Manitoba			29.42	747.3	53	11.7	97	SW	6	2.7		0	2s			0.986	25.04		
Halifax, N. S.			29.96	759.4	51	10.6	40	NW	6	2.7		2c	0	NW		0.016	0.40		
Kingston, Ontario			30.21	767.3	59	15.0	74	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.14	765.5	61	16.1	58	NE	7	3.1		0	0			0	0		
Ottawa, Ontario			30.18	766.6	60	15.6	52	N	3	1.3		0	0			0	0		
Parry Sound, Ontario			30.12	765.0	60	15.6	47	SE	15	6.7		5ck	0	W		0	0		
Port Dover, Ontario			30.13	765.3	54	12.2	67	E	4	1.8		0	0			0	0		
Port Stanley, Ontario			30.09	764.3	59	15.0	45	E	6	2.7		0	0			0	0		
Quebec, Quebec			30.10	764.5	60	15.6	60	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.07	763.8	55	12.8	77	NE	6	2.7		0	0			0	0		
Stayner, Ontario			30.09	764.3	57	13.9	58	SE	5	2.2		2c	0	S		0	0		
Sydney, C. B.			29.94	760.5	48	8.9	67	NE	13	5.8		2c	2s			0	0		
Toronto, Ontario			30.16	766.1	55	12.8	57	NE	12	5.4		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.11	764.8	61	16.1	66	NW	3	1.3		0	0			0	0		
Alpena, Mich.			30.03	762.7	53	11.7	66	SE	6	2.7		0	Haze			0	0		
Atlantic City, N. J.			30.10	764.5	61	16.1	83	N	3	1.3		0	0			0	0		
Augusta, Ga.			30.03	762.7	76	24.4	77	SE	4	1.8		8k	0	S		0	0		
Baltimore, Md.			30.12	765.0	65	18.3	44	N	7	3.1		0	0			0	0		
Barnegat, N. J.			30.10	764.5	66	18.9	68	NE	2	0.9		0	0			0	0		
Benton, Montana			29.64	752.8	45	7.2	46	W	20	8.9		2k	0	W		0	0		
Bismarck, Dakota			29.28	743.7	58	14.4	69	SW	3	1.3		5cs	0	SW		0.08	2.0		
Boston, Mass.			30.06	763.5	65	18.3	49	N	5	2.2		0	0			0	0		
Breckenridge, Minn.			29.45	748.0	55	12.8	87	SE	4	1.8		8k	0	SE		1.57	39.9		
Buffalo, N. Y.			30.13	765.3	56	13.3	62	SW	4	1.8		0	Sm'e			0	0		
Burlington, Vt.			30.14	765.5	56	13.3	69	N	4	1.8		2c	0			0	0		
Cairo, Ill.			29.92	760.0	65	18.3	68	SE	4	1.8		5c	0	SW		0	0		
Cape Hatteras, N. C.			30.07	763.8	67	19.4	41	NE	16	7.2		0	0			0	0		
Cape Henry, Va.			30.10	764.5	73	22.8	63	NW	10	4.5		0	0			0	0		
Cape May, N. J.			30.09	764.3	64	17.8	73	E	4	1.8		0	0			0	0		
Charleston, S. C.			30.07	763.8	74	23.3	76	NE	8	3.6		8ck	0	NE		0	0		
Cheyenne, W. T.			29.70	754.4	46	7.8	42	NW	4	1.8		5c	0			0	0		
Chicago, Ill.			29.87	758.7	65	18.3	63	SE	8	3.6		5c	0			0	0		
Cincinnati, Ohio			29.96	761.0	64	17.8	43	E	4	1.8		2c	0			0	0		
Cleveland, Ohio			30.13	765.3	57.5	14.2	49	E	3	1.3		0	Sm'e			0	0		
Colorado Springs, Col.			29.72	754.9	61	16.1	35	SE	6	2.7		0	0			0	0		
Corsicana, Texas			29.85	758.2	70	21.1	95	S	6	2.7			10s			0.01	0.3		
Davenport, Iowa			29.76	755.9	66	18.9	59	S	12	5.4		5ck	0	SW		0	0		
Denver, Col.			29.75	759.6	54	12.2	43	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.05	763.3	60	15.6	44	E	4	1.8		0	Sm'e			0	0		
Dodge City, Kansas			29.21	741.9	69	20.6	79	SW	9	4.0		0	0			0.01	0.3		
Dubuque, Iowa			29.78	756.4	64	17.8	73	SE	4	1.8			10s			0	0		
Duluth, Minn.			29.62	752.3	46	7.8	92	NE	10	4.5			10s			0.51	13.0		
Eastport, Me.			30.03	762.7	51	10.6	72	E	2	0.9		10c	0	NW		0	0		
Erie, Penn.			30.07	763.8	59	15.0	47	E	8	3.6		0	0			0	0		
Escanaba, Mich.			29.89	759.2	57	13.9	74	SW	12	5.4		2c	Haze			0.04	1.0		
Fort Gibson, I. T.			29.69	754.1	71	21.7	77	SE	12	5.4			10ks		S	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.44	747.8	57	13.9	81	NE	2	0.9		10k	0	W		0.02	0.5		
Galveston, Texas			29.94	760.5	79	26.1	78	SW	6	2.7		5ks	0			0	0		
Grand Haven, Mich.			29.92	760.0	66	18.9	45	SE	14	6.3		2c	0			0	0		
Indianapolis, Ind.			29.94	760.5	66	18.9	40	SE	4	1.8		0	Sm'e			0	0		
Indianola, Texas			29.95	760.7	80	26.7	78	S	10	4.5		5ck	5k	W		0	0		
Jacksonville, Fla.			30.01	762.2	76	24.4	81	NE	6	2.7		8k	0			0	0		
Keokuk, Iowa			29.72	754.9	68	20.0	60	S	7	3.1		5c	0	W		0	0		
Key West, Fla.			29.95	760.7	81.4	27.4	67	N	5	2.2		5k	Haze	NE		0	0		
Kittyhawk, N. C.			30.10	764.5	64	17.8	78	N	9	4.0		0	0			0	0		
Knoxville, Tenn.			29.98	761.5	70	21.1	66	E	8	3.6		1c	0			0	0		
La Crosse, Wis.			29.74	755.4	63	17.2	78	S	8	3.6			10n		S	0.17	4.3	Heavy rain.	
Leavenworth, Kan.			29.59	751.6	66	18.9	90	S	16	7.2			10n		S	0.09	2.3	Light rain.	
Lexington, Ky.			29.96	761.0	66	18.9	36	SE	8	3.6		2ck	0	E		0	0		
Long Branch, N. J.			30.12	765.0	70	21.1	52	NW	5	2.2		0	Haze			0	0		
Louisville, Ky.			29.95	760.7	63	17.2	57	N	3	1.3		0	0			0	0		
Lynchburg, Va.			30.11	764.8	61	16.1	61	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.82	757.4	59	15.0	59	S	12	5.4			10s		S	0.03	0.8		
Memphis, Tenn.			29.95	760.7	70	21.1	61	SE	1	0.4		5cs	2s			0	0		
Milwaukee, Wisconsin			29.86	758.4	55	12.8	68	SE	12	5.4		8c	0	NW		0	0		
Mobile, Ala.			29.97	761.2	77	25.0	82	SW	2	0.9		2c	0			0	0		
Montgomery, Ala.			29.98	761.5	75	23.9	72	SE	5	2.2		5c	Haze			0	0		
Morgantown, W. Virginia			30.03	762.7	60	15.6	54	N	1	0.4		0	0			0	0		
Mt. Washington, N. H.			30.18	766.6	33	20.6	70	N	29	13.0		0	Haze			0	0		
Nashville, Tenn.			29.95	760.7	68	20.0	60	N	1	0.4		10k	0	S		0	0		
New Haven, Conn.			30.10	764.5	66	18.9	45	NE	8	3.6		2c	0	NW		0	0		
New London, Conn.			30.10	764.5	68	20.0	47	N	4	1.8		0	0			0	0		
New Orleans, La.			29.94	760.5	77.5	25.3	75	Calm	0	0		2ck	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.12	765.0	62	16.7	50	N	10	4.5		0	0			0	0		
Norfolk, Va.			30.12	765.0	68	20.0	70	NW	6	2.7		0	0			0	0		
North Platte, Neb.			29.11	739.4	64	17.8	67	Calm	0	0		0	0			0	0		
Omaha, Neb.			29.52	749.8	70	21.1	79	Calm	0	0		5ck	0	W		0	0		
Oswego, N. Y.			30.17	766.3	57	13.9	57	S	1	0.4		4c	Fog	NW		0	0		
Peck's Beach			30.12	765.0	63	17.2	57	NE	8	3.6		Haze	Haze			0	0		
Pembina, D. T.			29.38	746.2	58	14.4	87	Calm	0	0		2c	0	NW		0.32	8.1		
Philadelphia, Penn.			30.12	765.0	64	17.8	58	NE	8	3.6		0	0			0	0		
Pike's Peak, C. T.			29.87	758.7	22	— 5.6	72	W	32	14.3		2c	0			0.11	2.8		
Pittsburgh, Penn.			30.06	763.5	59	15.0	43	NE	5	2.2		0	0			0	0	Smoky	
Port Huron, Mich.			30.06	763.5	59	15.0	43	SE	5	2.2		0	0			0	0		
Portland, Maine			30.06	763.5	60	15.6	55	N	10	4.5		0	Haze			0.04	1.0		
Portland, Or.			30.20	767.1	57	8.3	62	W	8	3.6		5k	2ks			0	0		
Punta Rassa, Fla.			29.90	761.7	79.3	26.3	69	NE	8	3.6		1cs	Sm'e	NE		0	0		
Rochester, N. Y.			30.19	766.8	57	13.9	57	SW	3	1.3		0	Haze			0	0		
Salt Lake City, Utah			29.72	754.9	58	14.4	21	SE	4	1.8		0	10s			0.05	1.3		
Sandy Hook, N. J.			30.11	764.7	62	16.7	61	N	6	2.7		Haze	Haze			0	0		
San Diego, Cal.			29.96	761.0	63	17.2	78	Calm	0	0			10s			0	0		
San Francisco, Cal.			29.92	760.0	51	10.6	72	Calm	0	0		Haze	0			0	0		
Santa Fe, N. M.			29.61	752.1	49	9.4	44	Calm	0	0		0	0			0	0		
Savannah, Georgia			30.05	763.3	76	24.4	81	NE	12	5.4			10ks		NE	0	0		
Shreveport, La.			29.92	760.0	73	22.8	85	SE	4	1.8			10s		SE	0	0		
Springfield, Mass.			30.09	764.3	65	18.3	48	Calm	0	0		0	0			0	0		
St. Louis, Mo.			29.87	758.7	66	18.9	58	S	8	3.6			10s			0	0		
St. Marks, Fla.			29.98	761.5	76	24.4	76	SE	6	2.7		2c	0			0	0		
St. Paul, Minn.			29.55	750.6	60	15.6	87	SE	24	10.7		0	8s		SE	0.52	13.2		
St. Paul's Island, Alaska			30.26	768.6	38	3.3	81	SSW	7	3.1		0	8k			0	0		
Squan Beach, N. J.			30.11	764.7	62	16.7	77	NE	2	0.9		0	Haze			0	0		
Toledo, Ohio			29.99	761.7	65	18.3	35	SE	11	4.9		0	0			0	0		
Tybee Island, Ga.			30.06	763.5	75	23.9	81	NE	14	6.3		2c	5k			0.01	0.3		
Vicksburg, Miss.			30.01	762.2	71	21.7	56	SE	8	3.6		0	5s		S	0	0		
Virginia City, Mon.			29.46	748.3	34	1.1	69	NW	8	3.6			10s			0.58	14.7		
Washington, D. C.			30.13	765.3	64	7.8	43	N	4	1.8		1cs	Haze			0	0		
Wilmington, N. C.			30.09	764.3	67	19.4	60	NE	8	3.6		0	0			0	0		
Wood's Hole, Mass.			30.08	764.0	62	16.7	66	NW	8	3.6		0	0			0	0		
Wytheville, Va.			29.90	759.4	55	12.8	55	S	2	0.9		0	0			0	0		
Yankton, D. T.			29.46	748.3	67	19.4	84	S	11	4.9		0	0			0.14	3.5		

NOTE.—The 'originals give the cloudiness by a scale from 0 to 4.

UNITED STATES SUB-SERIES.

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. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	86	30.0	61	NE	6	2.7		0	2ks			0	0		F. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.94	760.5	80	26.7	74	E				8pc	2ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.70	751.8	79	26.1	78	W	2.4	1.1		5k	0	W		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.22	767.6	79	26.1	78	S	8	3.6		2ck	5kn	S		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.77	756.1	76	24.4	82	Calm	0	0			10n			0	0	Showery	Robert Mason.
St. Georges, Bermudas			29.84	757.9	69	20.6	80	SE	4	1.8			10n			2.220	56.39		C. F. Allen.
Honolulu, Oahu, S. I.			30.16	766.1	64	17.8	73	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.																0.72	18.3		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.56	750.8	48	8.9	63	E	6	2.7			10cs			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.02	762.5	67	19.4	90	S	2	0.9		0	10k			0.01	0.3		C. Partridge.
St. John's, Newfoundland			29.67	753.6	37	2.8	100	NE					10n			0	0	Light rain	John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.04	763.0	58	14.4	57	E	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.74	730.0			70	21.1	73	S				Haze	8n			0	0	Threatening	G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness on a scale of 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 1, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.95	760.6	62.6	17.0		N			2		6			0	0		Charnot.
Algiers			29.95	760.8	68.7	20.4	85	N			2		3			0.870	22.1		Peter.
La Calle			29.85	758.7	81.3	27.4		NW			2		0			0	0		Kuntz.
Tunis			29.90	759.5	90.0	32.2	32	SE			4		0			0	0	Sirocco	Jacques.
Sfax			29.87	758.6	81.5	27.5		SE			4		0			0	0		Chauvey.
Sarda			29.96	760.9	68.2	20.1		N			2		7			0	0		Grosjean.
Tebessa			29.87	758.7	69.8	21.0		SSE			5		1			0	0	Sirocco	Colin.
Geriville			29.97	761.3	73.4	23.0	27	NW			4		0			0	0		Bernadach.
Laghouat			29.96	760.9	82.4	28.0		SW			2		0			0	0		Poinsignon.
Biskra			29.94	760.5	94.1	34.5		SE			4		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.00	762.1	77.2	25.1	58	SW			2		5			0.008	0.2		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.15	765.9	66.4	19.1	60	NE			3		9			0	0		I. R. Observatory.
Eperies			30.05	763.2	62.8	17.1	83	N			2		10		S	0.018	0.45		Julius Mikolik.
Gratz			30.02	762.6	72.7	22.6	75	SW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.91	759.8	72.7	22.6	65	SSE			3		6			0.018	0.45		Prof. Reissenberger.
Kremsmünster			30.04	763.1	68.4	20.2	64	E			5		1			0	0		Prof. C. Wagner.
Lemberg			30.04	763.0	63.7	17.6	80	NE			4		9			0.059	1.5		Dr. T. Stanecki.
Nyiregyhaza			29.97	761.2	73.4	23.0	83	N			3		6			0	0		Habasuda Daniel.
Pola			30.05	763.2	74.1	23.4	66	SSE			1		10cks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.91	759.8	81.0	27.2	52	W			3		8			0	0		Karl Stancel.
Trieste			30.07	763.6	72.7	22.6	73	NW			1		6			0	0		Prof. V. Farolfi.
Vienna			30.05	763.2	73.4	23.0	79	N			2		6			0.008	0.2		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.08	764.2	73.0	22.8	47	SE			2		..c		ESE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.32	770.1	59.0	15.0		SSE	13	5.8			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.30	769.6	62	16.7		NW			1		0						
Armagh Observatory			30.29	769.4	63.5	17.5		NE	8	3.6			0						William McNeil.
Banbridge																			S. Cull, for Dr. Robinson
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.23	767.8	67.0	19.4		ESE			2		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.21	767.3	69.5	20.8		ESE			1		7						J. Dreyer, for L'd Rosse.
Bradford			30.25	768.3	63	17.2		E			1		0						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.93	760.2	84.6	29.2		NE			4		2						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.20	767.1	68.0	20.0		E			1		0						H. Todd.
Cape Town, (Cape Colony)			29.89	759.2	60.4	15.8		W			4		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.99	761.7			59.9	15.5	76	WNW	15	6.7			1						The Staff, for E. J. Stone.
Cardington			30.22	767.6	72.0	22.2		NE					3						John McLaren.
Carlisle			30.25	768.3	75.0	23.9		Calm					5			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.25	768.3	63.4	17.4		NE					0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.87	758.7	79.5	26.4		SW			3		10						Sgt. W. F. Hopkins
Dartmoor			30.03	762.7	66.2	19.0		E			6		1						R. E. Power.
Donaghadee			30.29	769.4	58	14.4		N			3		3						J. Mac Gowan, Jr.
Dover			30.13	765.3	64	17.8		NE			5		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.23	767.8	69.8	21.0		ENE	3.8	1.7								Misty	Thomas Mackereth.
Falmouth Observatory			30.12	765.0	63.7	17.6		E	15	6.7			1						The Staff.
Fort Napier, (Natal)			29.80	756.9	73.0	22.8		E			1		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	86.0	30.0		N					9						
Galway, Queen's College			30.21	767.3	66	18.9		SW			1		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.96	761.0	73.5	23.1		W			3		5						Sergt. E. G. Baker.
Glasgow Observatory			30.26	768.6	64.0	17.8		ENE			1		6						James Gray.
Great Yarmouth			30.22	767.6	58	14.4		ENE			4		0						G. T. Watson.
Greenwich Royal Obs.			30.17	766.3	72.7	22.6		ENE			4		0						The Staff, for G. B. Airy.
Guernsey			30.03	762.7	59.5	15.3		ENE			2		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.28	769.1	66.1	18.9		E					0						F. J. Pare, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. T. Thompson.
Helston			30.06	763.5	59	15.0		E			4		0						Dr. W. B. Doyle.
Holyhead			30.24	768.1	66	18.9		ENE			3		0						John Tilston.
Hull Park																			
Kew Observatory			30.15	765.8	69.5	20.8		ENE	31	13.9			1						The Staff.
Kingstown			30.30	769.6	56	13.3		ENE			1		3					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			30.24	768.1	68.5	20.3		E			3		0						William J. Harrison.
Llandudno			30.24	768.1	65.0	18.3		E					0						Dr. James Nicol.
Malta, (Mediterranean)			29.99	761.7	73.8	23.2		NE			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.03	762.7	79.3	26.3		NNW			2		3						William D. Penny.
North Shields			30.33	770.4	56	13.3		ESE			4		1						Surg.-Maj. J. Jamieson.
Nottingham			30.24	768.1	69.7	20.9		SE			5		1k		SE				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, St Mary's College			30.20	767.1	70.0	21.1		ENE			5		3						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.16	766.1	69	20.6		ENE			2		7						J. Lucas, for R. Main.
Plymouth			30.09	764.3	69	20.6		E			5		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.20	767.1	62	16.7		ESE			4		5						W. Kennedy.
Saint Ann's Head			30.18	766.6	65	18.3		E			1		2						John C. Walker.
Saint Helier, (Jersey)			30.0	762.0	68.8	20.4		E			5		2						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			30.33	770.4	55.1	12.8		SE			1		0						F. Shaw.
Scutari, (Turkey)			29.91	759.7	75.6	24.2		NE			2		4					Hazy	Sergt. W. H. Lyne.
Sheffield			30.26	768.6	66.7	19.3		E			2		1			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.26	768.6	73.2	22.9		W			1		0			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.28	769.1	61.4	16.3		NNE			2		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.24	768.1	65.6	18.7		E			2		4					Hazy	The Staff.
Stornoway, Lews C. (Hebr)																			John Smith.
Strathfield Turgiss			29.12	765.0	71.6	22.0		E			1-2		0						Rev. Charles H. Griffith
Streatley Vicarage			30.18	766.6	72.5	22.5		E			6		2						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.25	768.3	57	13.9		N			1		6						John Trotter.
Truro, Royal Institution			30.04	763.0	73	22.8		E			6		3						W. Newcombe.
Valencia Observatory			30.17	766.3	68.8	20.4		ENE	7.5	3.4			5						The Staff.
Wick																			
Wisbeach																			
Worthing			30.09	764.3	74.0	23.3		NE			3		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind force by the the scale 0 to 12, the wind direction to 32 points, and the weather in the Beaufort notation. Not any distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.31	769.9	57.4	14.1	66	Calm			0		0						
Fanöe			30.32	770.1	61.7	16.5	57	WNW			4		1						
Godthaab, (Greenland)			30.04	763.0	41.4	5.2	41	Calm			0		0						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			30.13	765.3	47.8	8.8	99	SW			2		10						
Vestervig			30.31	769.9	57.6	14.2	65	W			4		0					Raining	

NOTE.—The originals give the wind force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between the 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.00	762.1	76.0	24.8	45	SE			4		8		SE	0	0		Normal School.
Amiens			30.04	763.1	79.5	26.4	48	NE			3		0			0	0		Normal School.
Beaumette, (near Angers)			29.91	759.6	80.4	26.9	41	E	6.1	2.7			10		E	0.005	0.2		Beaumette Observatory
Beauvais			30.07	763.8	76.8	24.9	46	ESE			2		5		E	0	0		Normal School.
Besançon			30.06	763.4	77.4	25.2	54	E			3		2		NE	0	0		Normal School.
Bourg en Bresse			30.00	762.0	77.7	25.4	67	N			2		10			0	0		Normal School.
Bourges			29.94	760.4	75.0	23.9	69	NE			2		2		W	0.138	3.5		Normal School.
Brest			29.93	760.3	64.6	18.1	68	NE			3		8		NE	0	0	Stormy	Naval Observatory.
Caen																			Normal School.
Chartres			29.99	761.8	82.4	28.0		E			3		6k		ENE	0	0		Normal School.
Chaumont			30.06	763.4	69.4	20.8		E			6		4ck		E	0	0		Normal School.
Commercy			30.11	764.8	76.3	24.6	35	E			6		2		NW	0.049	1.2		Normal School.
Le Mans			30.08	764.1	79.2	26.2	47	SE			2		2		SE	0.079	2.0		Normal School.
Lons-Le Saulnier			29.97	761.2	64.4	18	51	E			1		2		N	0.327	8.3		Normal School.
Mâcon			30.02	762.4	73.4	23.0	61	SSE			2		0			0	0		
Mirecourt			29.97	761.3	70.2	21.2	37	NE			6		1		SSW	0	0		Normal School.
Orleans			29.95	760.8	77.4	25.2	44	ESE			4		2		ESE	0.083	2.1		Normal School.
Paris Observatory			30.00	761.9	77.2	25.1		E			3		8		SE	0	0	Stormy	National Observatory
Parthenay			29.98	761.5	84.2	29	67	E			2		5		NE	0	0		Normal School.
La Roche sur Yon			29.93	760.1	80.6	27.0	45	ENE			1		5		W	0.102	2.6		Normal School.
Rouen			30.02	762.5	81.3	27.4	41	NE			1		2		E	0	0		Normal School.
Saint Lo			30.07	763.6	73.8	23.2	82	E			2		1		E	0	0		Normal School.
Villefranche			30.01	762.2	76.6	24.8	60	SE			1		5		NW	0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.81	630.2			51.6	10.9	90	SW	2.0	1.16			10		SSE	0.013	0.3		—, Falguère.
Montsouris Observatory			30.00	761.9	77.9	25.7	48	E			2		10k, n		SE	0	0		Marié Davy.
Perpignan			29.96	760.9	64.0	17.8	9[illegible]	ESE	5.1	2.30			10		SE	0.382	9.7	Raining	Dr. Fines.
Saint Maur, (near Paris)			30.00	762.0	78.8	26.0	49	ENE			2		8			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours													5			0.051	1.3		C. Marquet.
Versailles, (near Paris)			30.01	762.2	79.9	26.6	53	E			4		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.86	758.4	64.4	18.0	99	E	17.0	7.6			10c, n			2.961 / 3.906	75.2 / 99.2	Misty	H. Le Lec, S. J.

NOTE.—The originals give the wind force by the scale 0 to 7; the weather in general terms; the wind velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.01	762.9	68.0	20.0	44	N			2		2			0	0		Prof. Hoh.
Berlin			30.31	769.8	69.4	20.8	38	E			1		0			0	0		Prof. Arndt.
Breslau			30.28	769.0	67.6	19.8	43	NNE			4		6			0	0		Dr. P. Neugebauer.
Carlsruhe			30.04	762.9	77.5	25.3	47	NE			2		4			0	0		A. Senz.
Cassel			30.09	764.3	72.7	22.6	39	E			5		4			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.04	762.9	68.9	20.5	69	E					7			0	0		M. Wilhelm.
Hamburg			30.29	769.3	68.0	20.0	57	E			3		3k			0	0		W. Reinert.
Kiel			30.28	769.1	63.7	17.6	54	NE			4		0			0	0		Prof. G. Karsten.
Königsberg			30.25	768.3	63.9	17.8	56	N			1					0	0		Prof. E. Luther.
Köslin			30.45	773.7	61.7	16.5		N			4		2			0	0		Dr. Tägert.
Leipsic			30.22	767.5	70.2	21.2	41	NE			2		4			0	0		Prof. Bruhns.
Münster			30.19	766.7	70.7	21.5	52	NE			2		0			0	0		Prof. E. Heis.
Posen			30.24	768.2	69.4	20.8	36	NE			6–7		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.02	762.4	77.9	25.5	42	NE					5			0	0		Hartwig and Tülk.
Stuttgart			30.03	762.8	76.5	24.7	36	E					4			0	0		Mr. Würth.
Thorn			30.23	767.9	68.2	20.1	40	NNE			5		1			0	0		Dr. Hasenbalg.
Trever, (Trier)			30.02	762.5	77.0	25.0	38	SE			5		6			0	0		Prof. Flesch.
Wustrow			30.34	770.6	63.5	17.5	63	NNE			2		0			0	0		F. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.05	763.2	70.3	21.3	71	NNE	0.7	0.3			10	SW		0	0		
Mondovi			30.07	763.6	65.1	18.4	78	SW			2		10			0	0		
Genoa			29.99	761.8	73.8	23.2	62	SW	1.8	0.8			8	SW		0	0		
Pavia			30.03	762.8	75.2	24.0	55	E			1		9	E		0	0		
Verona			30.00	762.0	77.4	25.2	63	E			2		6	E		0	0		
Padua			30.02	762.6	74.3	23.5	65	SE	4.9	2.2			1			0	0		
Parma																			
Modena			30.02	762.5	75.4	24.1	55	WNW			1		5	W		0	0		
Leghorn			30.03	762.7	75.9	24.4	58	WSW	4.9	2.2			10			0	0		
Urbino			30.08	763.9	72.7	22.6	60	ENE			4		5			0	0		
Ancona			30.05	763.3	75.6	24.2	72	SE			2		4			0	0		
Siena			29.99	761.7	79.5	26.4	42	S	1.3	0.6			4	W		0	0		
Rome			30.02	762.4	86.0	30.0	32	WSW	4.3	1.9			1			0	0		
Naples, O. U.			29.93	762.8	84.9	29.4	48	SW			2		3			0	0		
Lecce			30.05	763.3	75.2	24.0	43	ENE	16.8	7.5			1			0	0		
Cosenza			30.04	762.9	83.8	28.8	51	NW			2		4			0	0		
Catania, (Sicily)																			
Trapposto			30.04	762.9	77.7	25.4	67	SSE			2					0	0		
Palermo			29.96	761.0	75.6	24.2	69	NE			4		0			0	0		
Sub-Series.																			
Naples, S. R.			30.11	764.7	82.4	28.0	57	NW			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.16	766.0	70.9	21.6		NE			4								
Groningen			30.21	767.2	67.1	19.5		ESE			2								
Helder			30.24	768.0	61.3	16.3		NE			4								
Utrecht			30.13	765.4	72.9	22.7	29	ENE			4		2						

Note.—The originals give the pressure of the wind in kilograms per square meter; the cloudiness by the scale 0 to 10, 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			30.30	769.5	58.3	14.6	61	SSW	3.8	1.7			10			0	0		
Christiania			30.17	766.2	68.7	20.4	42	SSW	6.3	2.8			1			0	0		
Tromsö			29.44	747.7	45.3	7.4	77	SSW			7		10			0	0	Raining	

Note.—The originals give the velocity of the wind in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			29.92	759.9	60.8	16.0	81	W	12	5			10						

Note.—The originals give the velocity of the wind in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			30.15	765.9	68.2	20.1	53	N	4	2			10						Astronomical Obs.
Wilna			30.13	765.3	70.3	21.3	42	E	4	2			9						Astronomical Obs.
Dorpat			30.21	767.2	68.7	20.4	28	NNW	4	2			0						Physical Cabinet.
St. Petersburg			30.16	766.0	62.2	16.8	53	WNW	9	4			0					Smoke-haze.	Central Physical Obs.
Kuopio			29.97	761.1	69.3	20.7	49	W					1		ENE	0	0		
Kieff			30.00	762.0	82.2	27.9	40	SSW	9	4			4						Physical Cabinet.
Nikolaiev			30.02	762.5	90.1	32.3	28	SSE	4	2			3						
Kertch			29.95	760.8	81.0	27.2	54	SE	13	6			0						Lagorio.
Moscow			30.08	763.9	59.4	15.2	86	SE	10	4.5			10					Light rain	Meteorological Obs.
Lugan			29.95	760.6	88.0	31.1	28	ESE	15	6			0						Meteorological Obs.
Archangel			30.06	763.5	65.7	18.7	62	W	13	6			2						Ogorodnikof.
Tiflis			30.01	762.2	77.7	25.4	40	SE	10	4.5			6						Physical Obs.
Astrakhan			30.21	767.4	80.4	26.9	47	SE	8	3.5			0						Sebastianof.
Kasan			30.14	765.6	55.8	13.2	90	S	4	2			10						Physical Cabinet.
Orenburg			30.19	766.9	74.7	23.7	42	Calm	0	0			6						Tschernischef.
Ekaterinburg			30.11	764.9	61.3	16.3	42	W	13	6			9					Raining.	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			30.06	763.5	79.0	26.1	48	Calm	0	0			0						Michelson.
Barnaul			30.20	767.1	47.7	8.7	47	NW	8	3.5			4					Raining	Meteorological Obs.
Yeniseisk			30.02	762.4	59.0	15.0	53	N	8	3.5			4						Marks.
Irkutsk			29.94	760.4	50.4	10.2	87	Calm	0	0			10						Usolzef.
Oorga			29.66	753.	61.2	16.2	96	Calm	0	0			4						Mossin.
Peking, (China)			29.75	755.6	80.2	26.8	43	Calm	0	0			0						Physical Observatory.
Nertchinsk			29.66	753.4	62.4	16.9	49	NW	4	2			4					Smoke-haze.	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					45.9	7.7	85	SE	10	4.5			10						Kurdakof.

Note.—The originals give the velocity of the wind in meters per second, except Kuopio by an unknown scale; the 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.

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	58.1	14.5	64	SW	20.1	9.0			10			0.043	1.1	Rainy	Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the velocity of the wind in kilometers per hour; the cloudiness by the scale 0 to 10, with a distinction between upper and lower clouds; the rainfall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.00	761.0	62.6	17.0	54	NW			3		10			0	0		
Hernosand			30.02	762.5	64.4	18.0	49	SW			1		4			0	0		
Stockholm			30.10	764.6	69.8	21.0	38	SW			3		2			0	0		
Wisby			30.24	768.0	69.1	15.6	51	W			3		0			0	0		
Sub-Series.																			
Upsala			30.11	764.7	69.4	20.8	44	SW			6		6						Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.60	726.4			70.0	21.1	57	N			2		8			0	0		The Observatory.
Zurich	28.43	722.2			69.8	21.0	66	NE			1		8			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.6mm.; Thermometer, +2°.1 C.; Relative Humidity, +1 per cent.

Note.—The originals give the force of the wind by the scale 0 to 4; the cloudiness without distinguishing between the 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.

Beirut, (Syria)			29.80	756.8	79.2	26.2	75	NW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			29.97	761.3	70.5	21.4	64	N	17.9	8.0			2		N	0	0		
Fao, (Persian Gulf)			29.84	758.0	97.3	36.3		SE			3		0						
Salonica					88.9	31.6		SW			1		0						
Valona			30.05	763.2	76.3	24.6		NW			2		0						
Varna			30.00	762.0	75.2	24.0		NE			3		10						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.20	767.1	59	15.0		N	1	0.4		0	0			0	0		
Chatham, N. B.			30.30	769.6	57	13.9	57	Calm	0	0		0	0			0	0		
Charlottetown, P. E. Island			30.29	769.4	48	8.9	66	E	3	1.3		0	0			0	0		
Fort Garry, Manitoba			29.61	752.1	52	11.1	98	W	1	0.4		0	5n			0.312	7.95		
Halifax, N. S.			30.16	766.1	51	10.6	55	E	6	2.7		2ck	0	SE		0	0		
Kingston, Ontario			30.17	766.3	64	17.8	59	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.19	766.8	59	15.0	78	NE	7	3.1		0	Haze			0	0		
Ottawa, Ontario			30.19	766.8	51	10.6	65	E	6	2.7		5cs	0	E		0	0		
Parry Sound, Ontario			30.02	762.5	65	18.3	38	E	16	7.2		2c	2s	SE	SE	0	0		
Port Dover, Ontario			29.98	761.5	59	15.0	65	NE	4	1.8		2ck	0	W		0	0		
Port Stanley, Ontario			29.94	760.5	67	19.4	47	E	10	4.5		2k	0	E		0	0		
Quebec, Quebec			30.26	768.6	54	12.2	67	NE	12	5.4		0	0			0	0		
Saugeen, Ontario			29.94	760.5	61	16.1	80	SE	10	4.5		5c	0			0	0		
Stayner, Ontario			30.00	762.0	60	15.6	60	SE	6	2.7		2c	0	NW		0	0		
Sydney, C. B.			30.29	769.4	50	10.0	61	N	6	2.7		0	0			0	0		
Toronto, Ontario			30.05	763.3	57	13.9	52	NE	11	4.9		2c	0			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.16	766.1	64	17.8	67	Calm	0	0		0	Haze			0	0		
Alpena, Mich.			29.90	759.4	53	11.7	60	E	8	3.6		5ck	0	E		0	0		
Atlantic City, N. J.			30.18	766.6	62	16.7	88	SE	4	1.8		2c	0	NW		0	0		
Augusta, Ga.			30.08	764.0	71	21.7	75	SE	2	0.9		0	2ks		S	0	0		
Baltimore, Md.			30.14	765.5	65	18.3	83	SE	4	1.8		Haze	Sm'e			0	0		
Barnegat, N. J.			30.17	766.3	66	18.9	60	NE	1	0.4		0	0			0	0		
Benton, Montana			29.79	756.7	42	5.6	92	N	20	8.9			10s		N	0.99	25.1		
Bismarck, Dakota			29.45	748.0	49	9.4	71	N	2	0.9			10s			0.03	0.8		
Boston, Mass.			30.24	768.1	54	12.2	80	E	4	1.8		8c	2s			0	0		
Breckenridge, Minn.			29.50	749.3	57	13.9	93	NW	4	1.8		5k	5s	NW		0.15	3.8		
Buffalo, N. Y.			29.97	761.2	58	14.4	42	SE	3	1.3		0	Haze			0	0		
Burlington, Vt.			30.18	766.6	59	15.0	65	S	1	0.4		0	2s			0	0		
Cairo, Ill.			29.80	756.9	74	23.3	63	S	8	3.6		5cs	5s	SW	SW	0	0		
Cape Hatteras, N. C.			30.11	764.8	67	19.4	68	NE	9	4.0		0	Haze			0	0		
Cape Henry, Va.			30.17	766.3	67	19.4	79	E	2	0.9		5c	0			0	0		
Cape May, N. J.			30.18	766.6	62	16.7	83	SE	4	1.8		2c	0	NW		0	0		
Charleston, S. C.			30.11	764.8	69	20.6	79	W	6	2.7		0	Haze			0	0		
Cheyenne, W. T.			29.74	755.4	40	4.4	48	W	16	7.2		0	0			0	0		
Chicago, Ill.			29.73	755.1	65	18.3	78	SE	8	3.6			10n			0.12	3.0	Light rain	
Cincinnati, Ohio			29.91	759.7	73	22.8	76	SE	4	1.8			10s		SE	0	0		
Cleveland, Ohio			29.88	758.9	68.9	20.5	52	E	11	4.9		5ck	5s	SW		0	0	Threatening	
Colorado Springs, Col.			29.72	754.9	46	7.8	69	SE	6	2.7		5c	2ks	W		0.01	0.3		
Corsicana, Texas			29.70	754.4	65	18.3	90	S	5	2.2		6	0			0.78	19.8		
Davenport, Iowa			29.60	751.8	68	20.0	79	S	10	4.5		2k	5s			0	0		
Denver, Col.			29.78	756.4	47	8.3	77	S	2	0.9		0	0			0.17	4.3		
Detroit, Mich.			29.84	757.9	65	18.3	73	E	5	2.2		8ck	Sm'e	E		0	0		
Dodge City, Kansas			29.19	741.4	59	15.0	65	N	24	10.7		0	0			0	0		
Dubuque, Iowa			29.62	752.3	66	18.9	84	SE	10	4.5			10s			1.55	39.4	Threatening	
Duluth, Minn.			29.65	753.1	45	7.2	92	NE	8	3.6			Fog			1.00	25.4	Foggy	
Eastport, Me.			30.28	769.1	49	9.4	63	E	8	3.6		0	0			0	0		
Erie, Penn.			29.90	759.4	69	20.6	42	SE	20	8.9		8ck	Haze	S		0	0		
Escanaba, Mich.			29.76	755.9	58	14.4	75	E	10	4.5			10ks			0	0		
Fort Gibson, I. T.			29.59	751.6	69	20.6	79	SE	12	5.4		0	1ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.49	749.0	56	13.3	81	SE	10	4.5			10s		SE	0	0		
Galveston, Texas			29.93	760.2	79	26.1	74	NW	4	1.8			10ks		S	0	0		
Grand Haven, Mich.			29.81	757.2	69	20.6	56	SE	7	3.1		10cs	0	SW		0	0		
Indianapolis, Ind.			29.83	757.7	72	22.2	63	SE	8	3.6			10s			0	0		
Indianola, Texas			29.90	759.4	77	25.0	86	NE	18	8.0		2ck	8s	SW	NE	0	0		
Jacksonville, Fla.			30.06	763.5	79	26.1	69	NE	5	2.2		4k	0	E		0	0		
Keokuk, Iowa			29.56	750.8	69	20.6	84	S	8	3.6			10s		S	0	0		
Key West, Fla.			29.95	760.7	81.1	27.3	70	E	6	2.7		2k	2ks	E		0.69	17.5		
Kittyhawk, N. C.			30.15	765.8	64	17.8	83	E	7	3.1		2c	Haze			0	0		
Knoxville, Tenn.			30.00	762.0	67.5	19.7	81	E	2	0.9		8cs	0	SW		0	0		
La Crosse, Wis.			29.53	750.0	65	18.3	100	SE	9	4.0			10n		SE	1.37	34.8	Heavy rain	
Leavenworth, Kan.			29.53	750.0	66	18.9	84	NW	4	1.8			10n		SW	0.24	6.1	Light rain	
Lexington, Ky.			29.92	760.0	71	21.7	80	SW	12	5.4			10s			0	0		
Long Branch, N. J.			30.21	767.3	62	16.7	88	SE	1	0.4		0	Haze			0	0		
Louisville, Ky.			29.88	758.9	73	22.8	72	Calm	0	0			10n			0.05	1.3	Light rain	
Lynchburg, Va.			30.13	765.3	67	19.4	55	S	1	0.4		5c	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.77	756.1	54	12.2	74	E	4	1.8			8s		S	0.02	0.5		
Memphis, Tenn.			29.82	757.4	79	26.1	61	SW	8	3.6		2cs	8s			0	0		
Milwaukee, Wisconsin			29.76	755.9	51	10.6	93	SE	13	5.8			10ks		SE	0.11	2.8	Clearing	
Mobile, Ala.			30.00	762.0	81	27.2	70	S	4	1.8		2k	0			0	0		
Montgomery, Ala.			30.02	762.5	77	25.0	75	SE	5	2.2		8c	2s	W	SE	0	0		
Morgantown, W. Virginia			29.96	761.0	66	18.9	63	Calm	0	0		8c	2s	W		0	0		
Mt. Washington, N. H.			30.36	771.1	39	3.9	82	NE	10	4.5		2k	Haze	E		0	0		
Nashville, Tenn.			29.89	759.2	78	25.6	65	SE	7	3.1		10k	0	S		0	0		
New Haven, Conn.			30.24	768.1	57	13.9	75	SE	4	1.8			Fog			0	0	Foggy	
New London, Conn.			30.25	768.3	53	12.8	90	E	3	1.3		0	8s			0	0		
New Orleans, La.			29.97	761.5	77.5	25.3	80	SE	4	1.8		2k	0	S		0	0		
Newport, R. I.																			
New York, N. Y.			30.20	767.1	62	16.7	46	E	14	6.3		0	0			0	0		
Norfolk, Va.			30.15	765.8	68	20.0	70	W	3	1.3		2c	0			0	0		
North Platte, Neb.			29.17	740.9	58	14.4	58	N	10	4.5		5ck	5ks	SW	SW	0.28	7.1		
Omaha, Neb.			29.47	748.5	59	15.0	100	Calm	0	0			10n		W	4.29	109.0	Heavy rain.	
Oswego, N. Y.			30.10	764.5	63.6	17.6	48	SSE	8	3.6		Haze	5s			0	0		
Peck's Beach			30.21	767.3	66	18.9	73	E	4	1.8		2c	5s			0	0		
Pembina, D. T.			29.57	751.1	53	11.7	79	NW	4	1.8		5c	2s			0	0		
Philadelphia, Penn.			30.19	766.8	64	17.8	67	E	4	1.8		2c	Sm'e	W		0	0		
Pike's Peak, C. T.			29.74	755.4	17	— 8.3	100	SW	48	21.5			Fog			0.76	19.3		
Pittsburgh, Penn.			29.97	761.5	66	18.9	54	NE	2	0.9						0	0	Dense smoke	
Port Huron, Mich.			29.88	758.9	62	16.7	56	SE	3	1.3		2c	2s			0	0		
Portland, Maine			30.29	769.4	54	12.2	61	E	4	1.8		8ck	0	NW		0	0		
Portland, Or.			30.30	769.6	44	6.7	67	SW	4	1.8		8k	2ks			0.01	0.3		
Punta Rassa, Fla.			30.02	762.5	77.0	25.0	72	NE	10	4.5		0	Haze			0.23	5.8		
Rochester, N. Y.			30.03	762.7	59	15.0	64	SE	9	4.0		Haze	Haze			0	0		
Salt Lake City, Utah			29.94	760.5	44	6.7	30	NE	8	3.6		5k	0	NW		0.07	1.8		
Sandy Hook, N. J.			30.18	766.6	62	16.7	77	E	11	4.9		5cs	Haze	NW		0	0		
San Diego, Cal.			29.89	759.2	60	15.6	66	SE	4	1.8			10s			0.08	2.0		
San Francisco, Cal.			29.88	758.9	53	11.7	73	Calm	0	0		Haze	0			0	0		
Santa Fe, N. M.			29.56	758.4	55	12.8	39	Calm	0	0		0	Haze			0	0		
Savannah, Georgia			30.09	764.3	76	24.4	69	E	4	1.8		0	0			0	0		
Shreveport, La.			29.79	756.7	73	22.8	81	SSE	5	2.2		0	0			0	0		
Springfield, Mass.			30.21	767.3	63	17.2	62	Calm	0	0		Haze	Haze			0	0		
St. Louis, Mo.			29.70	754.4	72	22.2	75	S	12	5.4			10s		S	0.50	12.7		
St. Marks, Fla.			30.03	760.7	75	23.9	81	E	10	4.5		0	0			0	0		
St. Paul, Minn.			29.40	746.7	63	17.2	94	SE	18	8.0			10n		SE	0.13	3.3	Light rain	
St. Paul's Island, Alaska			30.23	767.8	36	2.2	80	ESE	17	7.6		0	10s			0	0		
Squan Beach, N. J.			30.21	767.3	60	15.6	82	E	2	0.9		0	Haze			0	0		
Toledo, Ohio			29.85	758.2	65	18.3	78	Calm	0	0			10s		SW	0	0		
Tybee Island, Ga.			30.10	764.5	77	25.0	65	NE	4	1.8		2k	0	NE		0	0		
Vicksburg, Miss.			29.96	761.0	74	23.3	81	S	8	3.6		2c	5s	SW	SW	0	0		
Virginia City, Mon.			29.59	751.6	32	0.0	79	W	4	1.8			10s			0	0		
Washington, D. C.			30.15	765.8	67	19.4	74	SE	1	0.4		Haze	1s			0	0		
Wilmington, N. C.			30.12	765.0	66	18.9	84	N	4	1.8		0	0			0	0		
Wood's Hole, Mass.			30.28	769.1	58	14.4	69	Calm	0	0		2k	0	N		0	0		
Wytheville, Va.			29.87	758.7	63	17.2	57	E	2	0.9		5c	0	W		0	0		
Yankton, D. T.			29.50	749.3	62	16.7	88	W	8	3.6			10s		SW	0.25	6.3		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					81	27.2	74	NE	5	2.2		2k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.91	759.7	80	26.7	65	SE				5c	5k	SE		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.69	754.1	84	28.9	74	SE	2.4	1.1		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.20	767.1	79	26.1	74	S	6	2.7		2c	2k	S		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.77	756.1	76	24.4	82	Calm	0	0			10s			0	0		Robert Mason.
St. Georges, Bermudas			29.85	758.2	70.5	21.4	80	NE	3.8	1.7		5c	8k			0.180	4.57		C. F. Allen.
Honolulu, Oahu, S. I.			30.06	763.5	63	17.2	73		2	0.9		0	0			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																0.61	15.5		J. Fortescue.
York Factory, B. A.			29.81	757.2	32.5	0.3	89	N	12	5.4			10ks			0	0		C. Partridge.
Clifton, Jamaica, W. I.			29.97	761.2	66	18.9	90	N	0.5	0.2			10k			0.02	0.5		John Delaney.
St. John's, Newfoundland			30.21	767.3	39.5	4.2	77	N				5c	5s						Leon M. Acuña.
St. John's, Porto Rico, W. I.																0.55	14.0		H. M. Redington.
Elyria, Ohio			29.88	758.9	72	22.2		S	8	3.5			10ks			0.20	5.1		G. C. Carpenter.
Indianola, Iowa	28.68	728.5			61	16.1	94	NW					10k, n						
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 2, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.5	70.5	21.4		NW			3		2			0.079	2.0		Charnot.
Algiers			30.00	762.1	69.4	20.8	96	NW			1		8			0.787	20.0	Rainy	Peter.
La Calle			29.88	758.9	77.7	25.4		NW			3		6			0.236	6.0		Kuntz.
Tunis			29.93	758.5	90.9	32.2	39	S			3		3			0	0		Jacques.
Sfax			30.01	760.3	79.7	26.5		SE			3		2			0	0		Chauvey.
Safda			30.02	762.6	66.6	19.2		NW			3		6			0.039	1.0		Grosjean.
Tebessa			29.93	760.1	86.2	30.1		S			5		2			0	0	Sirocco	Colin.
Geriville			30.05	763.2	65.1	18.4		NW			2		2			0	0		Bernadach.
Laghouat			30.04	763.0	64.4	18.0	34	NW			3		1			0	0		Poinsignon.
Biskra			29.99	761.7	90.0	32.2		NW			5		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.06	763.4	78.3	25.7	57	NE			3		5			0.031	0.8		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.18	766.5	66.2	19.0	67	NE			3		10			0	0		I. R. Observatory.
Eperies			30.08	764.1	69.4	20.8	76	N			2		9		S	0	0		Julius Mikolik.
Gratz			30.06	763.5	72.7	22.6	73	S			2		2			0	0		Andreas Rospini.
Hermannstadt			29.94	760.5	72.3	22.4	67	S			3		7			0.077	1.95		Prof. Reissenberger.
Kremsmünster			30.04	763.1	68.4	20.2	54	E			6		1			0	0		Prof. C. Wagner.
Lemberg			30.11	764.8	69.8	21.0	66	N			3		6			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.02	762.4	75.2	24.0	82	NE			3		1			0.124	3.16		Habzsuda Daniel.
Pola			30.03	762.7	75.6	24.2	64	WNW			2		1k			0	0		I.R. Hydrographic Of'ce
Szegedin			29.96	761.0	71.1	21.7	73	NE			2		10			0	0		Karl Stancel.
Trieste			30.02	762.8	77.9	25.5	58	W			1		2			0	0		Prof. V. Farolfi.
Vienna			30.08	763.9	75.6	24.2	70	ENE			1		1			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.05	763.2	74.8	23.8	49	ESE			2		1k		E	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.40	772.1	59.0	15.0		SSE	16	7.2			0			0	0		William Boswell.
Annanhill																			
Ardrossan			30.28	769.1	72	22.0		E			2		0						William McNeil.
Armagh Observatory			30.28	769.1	65.0	18.3		ESE	15	6.7			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			30.15	765.8	68.4	20.4		ENE			6		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.15	765.8	71.8	22.1		SE			1		3						J. Dreyer, for L'd Rosse.
Bradford			30.24	768.1	64.3	17.9		E			1		0						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.93	760.2	84.6	29.2		NE			4		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.17	766.3	72.0	22.2		NE			2		1						H. Todd.
Cape Town, (Cape Colony)			29.50	749.3	54.8	12.7		W			5		10						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.93	759.4			54.4	12.4	89	N	15	6.7			10						The Staff, for E. J. Stone.
Cardington			30.18	766.6	73.6	23.1		NE					1						John McLaren.
Carlisle			30.28	769.1	67.8	19.9		SE					0			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.10	764.5	64.2	17.9		NE			3		1						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.84	757.9	82.0	27.8		SW			4		10						Sgt. W. F. Hopkins
Dartmoor			30.09	764.3	67.0	19.4		E			7		2						R. E. Power.
Donaghadee			30.28	769.1	61	16.1		NE			3		0						J. Mac Gowan, Jr.
Dover			30.08	764.0	65	18.3		ENE			5		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.22	767.6	68.8	20.4		E	8.4	3.8			2					Hazy	Thomas Mackereth.
Falmouth Observatory			30.03	762.7	65.0	18.3		E	19	8.5			5					Misty	The Staff.
Fort Napier, (Natal)			29.76	755.9	60.0	15.6		E			1		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.82	757.4	87	30.6		N					6						
Galway, Queen's College			30.09	764.3	68	20.0		SW			1		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.94	760.5	72.5	22.5		SW			5		6						Sergt. E. G. Baker.
Glasgow Observatory			30.29	769.4	64.4	18.0		E			3		5						James Gray.
Great Yarmouth			30.20	767.1	58	14.4		ENE			5		2						G. T. Watson.
Greenwich Royal Obs.			30.13	765.3	76.5	24.7		ENE			5		0						The Staff, for G. B. Airy.
Guernsey			29.98	761.5	60.5	15.8		NE			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.27	768.8	65.2	18.4		E					4						F. J. Rage, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.95	760.7	70	21.1		SW			4		4c					Hazy	Dr. W. B. Mavle.
Holyhead			30.21	767.3	64	17.8		ENE			6		0						John Tilston.
Hull Park																			
Kew Observatory			30.12	765.0	72.0	22.2		ENE	31	13.9			1					Hazy	The Staff.
Kingstown			30.28	769.1	58	14.4		E			4		1						George Mitchell.
Lampeter																			
Leicester Museum			30.21	767.3	68.6	20.3		E			2		0						William J. Harrison.
Llandudno			30.19	766.8	66.6	19.2		E					1						Dr. James Nicol.
Malta, (Mediterranean)			29.97	761.2	75.0	23.9		SE			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.12	765.0	80.1	26.7		ENE			4		4						Surg.-Maj. J. Jamieson.
North Shields			30.38	771.6	55	12.8		E			3		7						John Wm. Irvine.
Nottingham			30.22	767.6	69.1	20.6		NW			5		0						E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.17	766.3	70.9	21.6		ENE			6		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.10	764.5	73	22.8		E			3		2						J. Lucas, for R. Main
Plymouth			30.01	762.2	71.5	21.9		E			5		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.12	765.0	66	18.9		E			5		2						W. Kennedy.
Saint Ann's Head			30.08	764.0	71	21.7		SE			2		5					Misty	John C. Walker.
Saint Helier, (Jersey)			29.97	761.2	67.5	19.7		E			5		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			30.34	770.6	53.7	12.1		NE			2		7						F. Shaw.
Scutari, (Turkey)			29.92	760.0	76.0	24.4		NE			2		2						Sergt. W. H. Lyne.
Sheffield			30.25	768.3	67	19.4		NE			3		6			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.26	768.6	69.8	21.0		SE			4		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	62.3	16.8		NNE			2		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.22	767.6	66.4	19.1		E			4		6					Haze	The Staff.
Stornoway, Lewis C. (Hebr.)																			John Smith.
Strathfield Turgiss			30.11	764.8	74.8	23.8		E			1-2		4						Rev Charles H. Griffith
Streatley Vicarage			30.14	765.5	72.0	22.2		E			2		0						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.21	767.3	67	19.4		ESE			2		0						John Trotter.
Truro, Royal Institution			29.99	761.7	76	24.4		E			7		6						W Newcombe.
Valencia Observatory			30.06	763.5	71.8	22.1		ESE	16	7.2			6						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York			30.06	763.5	75.2	24.0		NE			4		4						

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.35	771.0	60.8	16.0	69	NE			2		1						
Faröe			30.34	770.6	67.1	19.5	60	W			2		1						
Godthaab, (Greenland)			30.03	762.8	39.7	4.3	57	Calm			0		0						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			30.39	771.8	58.1	14.5	64	Calm			0		8						
Vestervig			30.33	770.4	63.3	17.4	74	NW			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.00	762.0	68.4	20.2	77	NE			3		8		NE	0.780	19.8		Normal School.
Amiens			30.01	762.2	83.1	28.4	41	NE			3		0			0	0		Normal School.
Beaumette, (near Angers)			29.87	758.0	73.8	23.2	59	NE	2.5	1.1			8		E	0.118	3.0	Rainy	Beaumette Observatory
Beauvais			30.02	762.5	79.3	26.3		E			6		5		SE	0	0		Normal School.
Besançon			30.04	762.9	83.8	28.8	46	SSW			3		2		S	0	0		Normal School.
Bourg en Bresse			29.98	761.5	80.4	26.9	71	NW			2		2		NE	0	0		Normal School.
Bourges			30.00	762.0	75.6	24.2	62	SE			2		5		W	0.008	0.2		Normal School.
Brest			29.88	758.9	67.5	19.7	79	ENE			1		8		NE	0	0	Stormy	Naval Observatory.
Caen																			Normal School
Chartres			29.97	761.3	76.1	24.5		E			1		8kn		SE	0.500	12.7		Normal School.
Chaumont			30.04	763.0	71.1	21.7		SE			3		2c			0	0		Normal School.
Commercy			30.08	763.9	77.4	25.2	47	E			2		0			0	0		Normal School.
Le Mans			30.10	764.6	72.1	22.3	69	E			3		8		SE	0.079	2.0		Normal School.
Lons-Le Saulnier			29.95	760.7	67.5	19.7	60	N			1		0			0	0		Normal School.
Mâcon			30.00	761.9	75.2	24.0	60	SSW			2		0			0.039	1.0		
Mirecourt			29.93	760.3	74.8	23.8	40	N			1		1		NNW	0	0		Normal School.
Orleans			29.93	760.3	72.7	22.6	89	W			3		8		E	0	0		Normal School.
Paris Observatory			29.95	760.7	79.9	26.6		ENE			3		1ck			0	0		National Observatory
Parthenay			29.93	760.2	70.7	21.5	89	SE			2		5		E	0.197	5.0		Normal School.
La Roche sur Yon			29.96	760.9	65.8	18.8	90	SE			2		10			0.512	13.0		Normal School.
Rouen			29.97	761.3	84.0	28.9	29	NNE			3		0			0	0		Normal School.
Saint Lo			29.99	761.7	74.8	23.8	62	E			2		5		E	0.551	14.0		Normal School.
Villefranche			30.00	762.1	79.0	26.1	63	E			2		5		SE	0.591	15.00		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.83	630.6			48.4	9.1	91	NE	1.3	0.57			10		NE	0.134	3.4		—. Falguère.
Montsouris Observatory			29.96	760.9	81.7	27.6	42	E			2		2c, cs		S	0	0		Marié Davy.
Perpignan			29.96	761.0	66.9	19.4	79	S	1.0	0.47			10		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.95	760.7	81.1	27.3	38	ENE			2		0			0.031	0.8		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.93	760.2	69.1	20.6	83	SSE			2		10		SSE	0.004	0.1		C. Marquet.
Versailles, (near Paris)			29.97	761.1	79.9	26.6	44	SE			2		3			0.191	4.84		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.73	755.2	62.4	16.9	100	NNW	12.3	5.5			..kn			1.20 / 1.228	30.5 / 31.2	Foggy	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	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. Inches.	Millimeters.	Weather.	Observer.
Bamberg			30.02	762.4	73.4	23.0	32	E			4		2			0	0		Prof. Hoh.
Berlin			30.33	770.3	73.2	22.9	60	SE			3		2			0	0		Prof. Arndt.
Breslau			30.25	769.4	75.6	24.2	33	ENE			3		6			0	0		Dr. P. Neugebauer.
Carlsruhe			29.99	761.8	79.2	26.2	43	E			2		1			0	0		A. Senz.
Cassel			30.07	763.7	75.6	24.2	26	E			7		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.98	761.4	75.2	24.0	67	N ?					3			0	0		M. Wilhelm.
Hamburg			30.31	769.9	70.3	21.3	41	NE			2		0			0	0		W. Reinert.
Kiel			30.32	770.2	64.4	18.0	51	ENE			3		0			0	0		Prof. G. Karsten.
Königsberg			30.3	770.0	69.4	20.8	41	W			1					0	0		Prof. E. Luther.
Köslin			30.51	775.0	64.0	18.1		N			4		0			0	0		Dr. Tägert.
Leipsic			30.22	767.5	73.0	22.8	41	E			4		7			0	0		Prof. Bruhns.
Münster			30.18	766.6	74.3	23.5	39	NE			2		0			0	0		Prof. E. Heis.
Posen			30.30	770.3	73.6	23.1	39	E			C-7		6			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.97	761.3	80.1	26.7	42	E					2			0	0		Hartwig and Tülk.
Stuttgart			30.00	762.0	79.7	26.5	41	SE					0			0	0		Mr. Würth.
Thorn			30.28	769.0	76.1	24.5	39	NE			5		5			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.99	761.7	79.2	26.2	36	E			6		1			0	0		Prof. Plesch.
Wustrow			30.36	771.2	66.7	19.3	43	NE			2		0			0	0		F. F. chüts.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. 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. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.04	763.0	70.9	21.6	66	W	0.7	0.3			3	S		0.366	9.3		
Mondovi			30.10	764.4	66.2	19.0	70	WNW			2		10			0	0		
Genoa			29.97	761.1	78.1	25.6	54	N	7.4	3.3			4	E		0	0		
Pavia			30.04	763.1	78.3	25.7	53	NE			1		6	NE		0	0		
Verona			29.99	761.7	82.2	27.9	53	E			1		0			0	0		
Padua			30.02	762.5	77.4	25.2	59	SE	3.8	1.7			1	SW		0	0		
Parma																			
Bologna			30.02	762.5	78.8	26.0	57	E			1		2	N		0	0		
Leghorn			29.98	761.5	70.9	25.5	61	NW	1.8	0.8			5			0	0		
Urbino			30.07	763.6	73.0	22.8	65	NE			4		1			0	0		
Ancona			30.04	763.1	76.6	24.8	61	ESE			4		1			0	0		
Siena			29.95	760.6	83.5	28.6	36	SE	0.7	0.3			4	SE		0	0		
Rome			29.99	761.7	87.4	30.8	38	S	8.1	3.6			5			0	0		
Naples, O.U.			30.00	762.1	86.4	30.2	42	SE			2		3			0	0		
Lecce			30.01	762.2	77.0	25.5	56	NNE	17.4	7.8			0			0	0		
Cosenza			30.03	762.7	84.2	29.0	50	WNW			2		4			0	0		
Catania, (Sicily)																			
Hipposto			30.01	762.2	77.4	25.2	65	W			2		1	S		0	0		
Palermo			29.93	760.2	76.8	24.9	68	NE			4		0			0	0		
Sub-Series.																			
Naples, S. R.			30.05	763.3	80.0	30.0	53	SW			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.11	764.8	73.4	23.0		ENE			4								
Groningen			30.19	766.7	71.6	22.0		ENE			5								
Helder			30.20	767.1	62.6	17.0		NE			4								
Utrecht			30.10	764.4	76.5	24.7	39	ENE			4		2						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.34	770.6	63.3	17.4	57	NNW	11.4	5.1			0			0	0		
Christiania			30.37	771.3	70.9	21.6	39	WSW	5.6	2.6			1			0	0		
Tromsö			30.17	766.2	39.7	4.3	78	SW			2		8			0.063	1.6	Rain & snow	

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.11	764.7	65.8	18.8	58	NNW	12.5	5.6			6						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.22	767.5	74.5	23.6	35	NE	7	3			3						Astronomical Obs.
Wilna			30.23	767.9	70.7	21.5	34	N	8	3.5			9						Astronomical Obs.
Dorpat			30.18	766.6	67.1	19.5	30	NW	9	4			9						Physical Cabinet.
St. Petersburg			30.04	763.1	56.8	13.8	61	WNW	12	5			1						Central Physical Obs.
Kuopio			30.07	763.8	52.7	11.5	52	NNW					10		S	0	0		
Kieff			30.14	765.5	70.0	21.1	45	NNW	12	5			5						Physical Cabinet.
Nikolaiev			29.98	761.6	93.7	34.3	31	E	10	4.5			0						
Kertch			29.86	758.4	76.8	24.9	60	ENE	10	4.5			5					Smoke-haze.	Lagorio.
Moscow			30.00	761.9	65.8	18.8	57	NW	17	7.5			7						Meteorological Obs.
Lugan			29.81	757.1	90.1	32.3	20	SE	10	4.5			0						Meteorological Obs.
Archangel			29.85	758.3	52.0	11.1	58	NW	17	7.5			0						Ogorodnikof.
Tiflis			29.87	758.7	77.0	25.0	51	Calm	0	0			8						Physical Obs.
Astrakhan			30.03	762.7	78.3	25.7	35	ESE	8	3.5			0						Sebastianof.
Kasan			29.82	757.5	62.4	16.9	86	S	10	4.5			10						Physical Cabinet.
Orenburg			30.02	762.6	66.6	19.2	63	Calm	0	0			10						Tschernischef.
Ekaterinburg			29.91	759.7	66.2	19.0	44	NW	8	3.5			3						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.90	759.5	83.1	28.4	39	Calm	0	0			0						Michelson.
Barnaul			29.93	760.3	54.9	12.7	50	SW	13	6			4					Rainy	Meteorological Obs.
Yeniseisk			29.83	756.7	58.1	14.5	60	E	8	3.5			2						Marks.
Irkutsk			29.69	754.1	46.8	8.2	89	Calm	0	0			10						Usolzef.
Oorga			29.43	747.6	62.2	16.8	39	Calm	0	0			10						Mossin.
Peking, (China)			29.60	751.7	82.6	28.1	34	Calm	0	0			0						Physical Observatory.
Nertchinsk			29.86	758.4	48.9	9.4	60	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					42.6	5.9	81	NE	8	3.5			10						Kurdakof.

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.95	760.8	68.5	20.3	57	W	2.9	1.3			6			0.165	4.2	Light rain	Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.26	768.7	55.4	13.0	51	NNW			3		8			0	0		
Hernosand			30.30	769.7	62.2	16.8	19	NW			3		8			0	0		
Stockholm			30.33	770.4	64.4	18.0	19	N			3		6			0	0		
Visby			30.30	769.7	54.7	12.6	61	NE			3		4			0	0		
Sub-Series.																			
Upsala			30.35	770.9	65.1	18.4	26	NW			4		6	N					Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.56	725.4			75.2	24.0	53	NNE			2		3			0	0	Misty	The Observatory.
Zurich	28.39	721.2			79.5	26.4	48	NE			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.5mm.; Thermometer, +4°.0 C.; Relative Humidity, —3 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.72	754.8	80.1	26.7	75	N			2		5						Prof. C. N. A. Van Dyck.
Constantinople			29.97	761.2	70.5	21.4	63	NNE	11.2	5.0			2		NE	0	0		
Fao, (Persian Gulf)			29.76	756.0	96.8	36.0		SE			3		0						
Salonica					88.2	31.2		NE			2		5						
Valona			30.00	761.9	76.5	24.7		W			2		0						
Varna			30.00	762.0	86.0	30.0		SE			3		2						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12: the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.10	764.5	69	20.6		N	4	1.8		0	0			0	0		
Chatham, N. B.			30.23	767.8	57	13.9	60	Calm	0	0		2c	0			0	0		
Charlottetown, P. E. Island			30.25	768.3	50	10.0	72	S	8	3.6		2c	0			0	0		
Fort Garry, Manitoba			29.51	749.5	36	2.2	100	NE	30	13.4			10n			0.956	24.28	Heavy rain	
Halifax, N. S.			30.15	765.8	48	8.9	77	Calm	0	0		2c	0			0	0		
Kingston, Ontario			30.09	764.3	63	17.2	64	SE	12	5.4		0	Sm'e			0	0		
Montreal, Quebec			30.12	765.0	62	16.7	72	SW	10	4.5		Sm'e	Sm'e			0	0		
Ottawa, Ontario			30.05	763.3	63	17.2	48	E	8	3.6		0	Sm'e			0	0		
Parry Sound, Ontario			29.88	758.9	68	20.0	69	SE	21	9.4		2ck	5ks	SW	SW	0	0		
Port Dover, Ontario			29.94	760.5	60	15.6	88	S	4	1.8			10n		S	0.02	0.5	Light rain	
Port Stanley, Ontario			29.92	760.0	61	16.1	87	E	25	11.2			10n		E	0.06	1.5		
Quebec, Quebec			30.21	767.3	62	16.7	61	Calm	0	0		0	0			0	0		
Saugeen, Ontario			29.80	756.9	70	21.1	53	S	6	2.7		8k	0			0	0		
Stayner, Ontario			29.88	758.9	65	18.3	76	SE	5	2.2			10ks		S	0	0		
Sydney, C. B.			30.24	768.1	56	13.3	47	NW	3	1.3		8c	0	NW		0	0		
Toronto, Ontario			29.96	761.0	62	16.7	68	E	6	2.7		8cs	2s	SW		0	0		

Note.—The originals 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.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.16	766.1	66	18.9	48	S	5	2.2		0	0			0	0		
Alpena, Mich.			29.72	754.9	55	12.8	93	SE	1	0.4			10n		S	0	0	Light rain	
Atlantic City, N. J.			30.23	767.8	62	16.7	77	NE	2	0.9		5k	0	NE		0	0		
Augusta, Ga.			30.14	765.5	73	22.8	76	Calm	0	0			8ks		S	0	0		
Baltimore, Md.			30.20	767.1	64	17.8	83	SE	3	1.3			10s		SW	0	0		
Barnegat, N. J.			30.23	767.8	63	17.2	78	Calm	0	0		5k	0			0	0		
Benton, Montana			30.10	764.5	50	10.0	86	Calm	0	0		5k	0	W		0.39	9.9		
Bismarck, Dakota			29.63	752.6	42	5.6	91	NW	11	4.9			10n			0.27	6.9	Light rain	
Boston, Mass.			30.23	742.4	58	14.4	48	E	9	4.0		0	0			0	0		
Breckenridge, Minn.			29.56	750.8	51	10.1	79	W	22	9.8			10s			0.06	1.5		
Buffalo, N. Y.			29.94	760.5	67	19.4	60	S	12	5.4		5k	5s	S	S	0	0		
Burlington, Vt.			30.15	765.8	64	17.8	67	S	2	0.9		2c	Sm'e			0	0		
Cairo, Ill.			29.89	759.2	77	25.0	72	S	9	4.0		2k	0	S		0	0		
Cape Hatteras, N. C.			30.16	766.1	65	18.9	78	NE	12	5.4		0	Haze			0	0		
Cape Henry, Va.			30.21	767.3	64	17.8	78	SE	9	4.0		8k	0	NW		0	0		
Cape May, N. J.			30.22	767.6	61	16.1	82	SE	2	0.9			10s		NW	0	0		
Charleston, S. C.			30.19	766.8	73	22.8	76	NE	4	1.8		2ck	5s			0	0		
Cheyenne, W. T.			30.02	762.5	43	6.1	35	W	8	3.6		0	0			0	0		
Chicago, Ill.			29.74	755.4	70	21.1	75	S	6	2.7		2ck	0	SW		1.39	35.3		
Cincinnati, Ohio			29.91	759.7	70	21.1	80	SE	8	3.6			10s		SE	0.25	6.3	Light rain	
Cleveland, Ohio			29.87	758.7	69.3	20.7	77	SE	13	5.8			8ks		SE	0.18	4.6		
Colorado Springs, Col.			30.03	762.7	42	5.6	42	NW	2	0.9		0	0			0	0		
Corsicana, Texas			29.89	759.2	74	23.3	85	S	11	4.9			10s		S	0	0		
Davenport, Iowa			29.75	755.6	66	18.9	90	NE	1	0.4		2k	8s		SW	1.36	34.5		
Denver, Col.			30.09	764.3	42	5.6	34	S	5	2.2		0	0			0	0		
Detroit, Mich.			29.80	756.9	68	18.9	80	SW	10	4.5		2ck	5ks		SW	0	0		
Dodge City, Kansas			29.66	753.4	52	11.1	73	N	8	3.6		0	0			0	0		
Dubuque, Iowa			29.73	755.1	66	18.9	79	NW	2	0.9			10s			1.01	25.7		
Duluth, Minn.			29.61	752.1	47	8.3	92	Calm	0	0			Fog			0.25	6.3	Foggy	
Eastport, Me.			30.25	762.3	54	12.2	68	SW	1	0.4		5c	0			0	0		
Erie, Penn.			29.88	758.9	68	20.0	64	SE	18	8.0			10ks		SE	0.15	3.8	Threatening	
Escanaba, Mich.			29.71	754.6	57	13.9	87	SE	4	1.8			10s			0.86	21.8		
Fort Gibson, I. T.			29.81	757.2	77	25.0	77	SE	12	5.4		0	1ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.78	756.4	50	10.0	71	NE	16	7.2		8k	0	NW		0.70	17.8		
Galveston, Texas			29.97	761.2	80	26.7	70	S	15	6.7		5k	0	SW		0	0		
Grand Haven, Mich.			29.78	756.4	57	13.9	96	SW	11	4.9			10s			0.77	19.6	Foggy	
Indianapolis, Ind.			29.81	757.2	73	22.8	85	SE	6	2.7		2cs	5s	W	SE	3.37	80.6		
Indianola, Texas			29.96	761.0	82	27.8	74	S	10	4.5		2k	0	S		0	0		
Jacksonville, Fla.			30.14	765.5	77	25.0	69	NE	4	1.8		4k	0	SW		0	0		
Keokuk, Iowa			29.71	754.6	67	19.4	90	NW	8	3.6			10s		S	0.25	6.3		
Key West, Fla.			30.03	762.7	81.6	27.6	70	NE	8	3.6		2c	2ks	SW		0	0		
Kittyhawk, N. C.			30.21	767.3	64	17.8	78	SE	10	4.5		2c	0	NE		0	0		
Knoxville, Tenn.			30.08	764.0	65	18.3	94	NE	2	0.9			Fog			1.59	40.4	Foggy	
La Crosse, Wis.			29.73	755.1	59	15.0	54	NW	6	2.7		5k	0	NW		0.54	13.7		
Leavenworth, Kan.			29.82	757.4	60	15.6	56	N	12	5.4			10s		W	0.06	1.5		
Lexington, Ky.			29.99	761.7	72	22.2	80	S	16	7.2		5c	2ks	W		0.20	5.1		
Long Branch, N. J.			30.25	768.3	60	15.6	82	NW	2	0.9		2c	2ks			0	0		
Louisville, Ky.			29.89	759.2	75	23.9	72	SE	4	1.8		5k	0	SW		0.14	3.6		
Lynchburg, Va.			30.17	766.3	64	17.8	67	SE	2	0.9			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.68	753.9	59	15.0	94	Calm	0	0			Fog			1.00	25.4	Foggy	
Memphis, Tenn.			29.96	761.0	80	26.7	70	S	12	5.4		2k	0	SW		0	0		
Milwaukee, Wisconsin			29.76	755.9	67	19.4	90	S	3	1.3		5k	Fog	SW		2.18	55.4		
Mobile, Ala.			30.06	764.5	81	27.2	74	S	5	2.2		2k	5s	SW	SW	0	0		
Montgomery, Ala.			30.12	765.0	77	25.0	82	SE	4	1.8			10s		SW	0	0		
Morgantown, W. Virginia			29.99	761.7	69	20.6	79	SE	1	0.4			10s			0.11	2.8	Threatening	
Mt. Washington, N. H.			30.33	770.4	42	5.6	83	NW	4	1.8		0	2s		NW	0	0		
Nashville, Tenn.			29.97	761.2	81	27.2	62	S	4	1.8		2k	0	SW		0.55	14.0		
New Haven, Conn.			30.26	768.6	61	16.1	66	SE	3	1.3		0	0			0	0		
New London, Conn.			30.26	768.6	59	15.0	76	N	2	0.9		2ck	Haze	W		0	0		
New Orleans, La.			30.03	762.7	77.5	25.3	75	SE	2	0.9		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.23	767.8	60	15.6	70	E	3	1.3		0	Fog			0	0		
Norfolk, Va.			30.22	767.6	66	18.9	79	SE	4	1.8		5k	2s			0	0		
North Platte, Neb.			29.55	750.6	52	11.1	59	W	12	5.4		0	0			0	0		
Omaha, Neb.			29.81	757.2	56	13.3	87	SE	4	1.8			10s		SW	0.33	8.4		
Oswego, N. Y.			30.00	762.0	66.7	19.3	62	SSE	10	4.5			8ks			0	0		
Peck's Beach			30.25	768.3	63	17.2	78	E	4	1.8		4k	2s			0	0		
Pembina, D. T.			29.33	745.0	42	5.6	91	N	28	12.5			10s			1.30	33.0		
Philadelphia, Penn.			30.24	768.1	56	13.3	87	S	4	1.8			10s		S	0	0		
Pike's Peak, C. T.			29.97	761.2	15	— 9.4	0	W	20	8.9		0	0			0	0		
Pittsburgh, Penn.			29.93	761.5	68	20.0	74	SE	6	2.7			10cs		W	0.19	4.8		
Port Huron, Mich.			29.82	757.4	68	20.0	74	S	10	4.5			10s		SW	0	0		
Portland, Maine			30.28	769.1	55	12.8	68	NE	1	0.4		0	0			0	0		
Portland, Or.			30.19	766.8	43	6.1	75	Calm	0	0		5k	5ks			0.15	3.8		
Punta Rassa, Fla.			30.10	764.5	75.7	24.3	85	NE	10	4.5		Haze	Sm'e			0	0		
Rochester, N. Y.			29.99	761.7	67	19.4	64	SE	4	1.8			10s		SE	0	0		
Salt Lake City, Utah			30.02	762.5	44	6.7	44	NW	2	0.9		0	0			0	0		
Sandy Hook, N. J.			30.22	767.6	59	15.0	81	N	4	1.8		5k	Haze		SE	0	0		
San Diego, Cal.			29.93	760.2	60	15.6	88	Calm	0	0			8s			0.02	0.5		
San Francisco, Cal.			29.84	757.9	51	10.6	72	SW	4	1.8		Haze	Haze			0	0		
Santa Fe, N. M.			29.81	757.2	50	10.0	14	S	8	3.6		0	0			0	0		
Savannah, Georgia			30.16	766.1	74	23.3	81	E	2	0.9		5ck	Sm'e			0	0		
Shreveport, La.			29.98	761.5	77	25.0	82	S	2	0.9			10s		S	0	0		
Springfield, Mass.			30.23	767.8	58	14.4	64	NE	3	1.3		Sm'e	0			0	0		
St. Louis, Mo.			29.81	757.2	77	25.0	76	SW	8	3.6		10cs	0	E		0.17	4.3		
St. Marks, Fla.			30.11	764.8	75	23.9	76	E	8	3.6		0	0			0	0		
St. Paul, Minn.			29.63	752.6	56	13.3	74	SW	10	4.5		2c	5s		SW	0.11	2.8		
St. Paul's Island, Alaska			29.80	756.9	40	4.4	100	SE	13	5.8		...cs	10s			0.44	11.2		
Squan Beach, N. J.			30.23	767.8	58	14.4	81	N	2	0.9		2k	0			0	0		
Toledo, Ohio			29.80	756.9	70	21.1	79	S	12	5.4		5c	5s		SW	0.16	4.1		
Tybee Island, Ga.			30.17	766.3	72	22.2	90	NE	6	2.7		2c	2k	NW		0	0		
Vicksburg, Miss.			30.08	764.0	76	24.4	76	S	6	2.7		0	2s		S	0	0		
Virginia City, Mon.			29.72	754.9	35	1.7	69	Calm	0	0		0	0			0	0		
Washington, D. C.			30.20	767.1	63	17.2	80	SE	8	3.6			10s		S	0	0		
Wilmington, N. C.			30.19	766.8	68	20.0	69	E	3	1.3		10cs	Haze	NW		0	0		
Wood's Hole, Mass.			30.28	769.1	57	13.9	52	NE	2	0.9		5k	0	NE		0	0		
Wytheville, Va.			29.89	759.2	63	17.2	83	Calm	0	0			10s			0.42	10.7		
Yankton, D. T.			29.84	757.2	52	11.1	79	Calm	0	0		2cs	0	W		0.12	3.0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	.....	.....	84	28.9	75	E	5	2.2	.....	5k	2ks	E	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	29.92	760.0	79	26.1	65	SE	.....	.....	.....	8cs	2k	SE	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.74	755.4	81	27.2	74	E	4.8	2.1	.....	0	0	.....	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clearing	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.22	767.6	78	25.6	72	E	4	1.8	.....	2c, k	8k, n	.....	E	0	0	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.78	756.4	79	26.1	74	NE	7.2	3.2	.....	8c	5s	N	.....	0	0	.....	Robert Mason.
St. Georges, Bermudas	.....	.....	29.91	759.7	70.5	21.4	90	NE	7.0	3.1	.....	0	8k	.....	.....	0	0	.....	C. F. Allen.
Honolulu, Oahu, S. I.	.....	.....	29.98	761.5	66	18.9	79	.....	2	0.9	.....	0	0	.....	.....	0	0	.....	E. P. Church.
Makawao, Maui, S. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Macpherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	30.02	762.5	32.0	0	90	W	20	8.9	.....	.....	10s	.....	.....	0	0	.....	J. Fortescue.
Clifton, Jamaica, W. I.	.....	.....	30.00	762.0	68	20.0	79	SE	0.5	0.2	.....	0	10k	.....	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	30.17	766.3	55	12.8	56	N	.....	.....	.....	2k	2s	.....	.....	0	0	.....	John Delaney.
St. John's, Porto Rico, W. I	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	29.88	758.9	68	20.0	.....	S	8	3.6	.....	0	5ks	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	28.93	734.8	.....	.....	59	15.0	76	NW	.....	.....	.....	.....	8n, s	.....	.....	0.78	19.8	Thunder-storm.	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 3, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.5	73.2	22.9		SSW			4		2			0	0		Charnot.
Algiers			29.97	761.3	71.2	21.8	91	WNW			3		6			0.079	2.0	Rainy	Peter.
La Calle			29.90	759.4	67.6	19.8		SE			3		6			0.197	5.0		Kuntz.
Tunis			29.88	759.0	70.7	21.5	60	NNW			4		10			0.622	15.8	Rainy	Jacques.
Sfax			29.83	757.6	70.7	26.5		N			5		4			0.039	1.0		Chauvey.
Saïda			30.04	763.0	65.1	18.4		NW			2		4			0	0		Grosjean.
Tebessa			29.93	760.2	71.6	22.0		N			4		0			0.236	6.0	Rainy	Colin.
Geriville			30.05	763.2	61.5	16.4		NW			3		3			0	0		Bernadach.
Laghouat			30.06	763.4	69.8	21.0	27	NW			4		4			0	0		Poinsignon.
Biskra			30.02	762.5	83.7	28.7		NW			5		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.98	761.4	73.4	23.0	73	NE			2		8			0.016	0.4		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.1	765.1	65.8	18.8	53	NE			7		0			0	0		I. R. Observatory.
Eperies			30.04	763.1	76.5	24.7	56	N			1		3			0	0		Julius Mikolik.
Gratz			30.05	763.2	65.8	18.8	90	NW			2		10			0	0		Andreas Rospini.
Hermannstadt			29.99	761.8	77.0	25.0	51	ESE			3		3			0	0		Prof. Reissenberger.
Kremsmünster			29.93	760.2	71.6	22.0	62	E			6		6			0	0		Prof. C. Wagner.
Lemberg			30.10	764.4	73.0	22.8	48	N			3		4			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.03	762.8	80.6	27.0	66	E			3		2			0	0		Habzsuda Daniel.
Pola			29.93	760.1	80.2	26.8	45	ESE			2		2ck			0	0		I. R. Hydrographic Office
Szegedin			29.98	761.6	78.8	26.0	54	Calm			0		8			0	0		Karl Stancel.
Trieste			29.92	760.0	79.7	26.5	61	SW			1		6			0	0		Prof. V. Farolfi.
Vienna			30.00	761.9	76.1	24.5	50	SE			1		8			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.93	760.1	79.0	26.1	40	S			1		1ck		S	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.26	768.6	51.0	10.6		SE	11	4.9			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.05	763.3	71	21.7		NE			3		2						William McNeil.
Armagh Observatory			30.02	762.5	68.4	20.2		ESE	9	4.0			2						S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.96	761.0	76.5	24.7		ESE			3		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.98	761.5	72.6	22.6		NE			1		1						J. Dreyer, for L'd Rosse.
Bradford			29.99	761.7	70.5	21.4		E			2		3						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.99	761.7	84.0	28.9		NE			2		5						T. H Hunt.
Bywell																			
Cambridge Observatory			29.96	761.0	61.0	16.1		E			1		0						H. Todd.
Cape Town, (Cape Colony)			29.81	757.2	56.8	13.8		NW			6		10						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.81	757.2			56.6	13.7	100	NW	19	8.5			10						Th Staff, for E. J. Stone.
Cardington			29.99	761.7	78.0	25.6		NE					1						John McLaren.
Carlisle			30.02	762.5	70.4	21.3		NE					3			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.92	760.0	68.4	20.2		NE			1		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.82	757.4	81.6	27.6		SW			5		10					Raining	Sgt. W. F. Hopkins
Dartmoor			29.97	761.2	67	19.4		E			1		2						R. E. Power.
Donaghadee			30.03	762.7	61	16.1		NNE			3		3						J. Mac Gowan, Jr.
Dover			30.03	760.2	64	17.8		ENE			2		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.98	761.5	70.8	21.6		SE	5.0	2.2								Misty	Thomas Mackereth.
Falmouth Observatory			29.97	761.2	65.7	18.7		SSE	10	4.5			7						The Staff.
Fort Napier, (Natal)			29.82	757.4	73.8	23.2		E			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	759.9	89	31.7		N					6						
Galway, Queen's College			29.94	760.5	69	20.6		NW			1		2						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.12	765.0	75.0	23.9		WSW			4		5						Sergt. E. G. Baker.
Glasgow Observatory			30.06	763.5	64.1	17.9		NE			2		6						James Gray.
Great Yarmouth			30.00	762.0	63	17.2		ENE			2		0						G. T. Watson.
Greenwich Royal Obs.			29.96	761.0	80.6	27.0		ENE			2		1						The Staff, for G. B. Airy.
Guernsey			29.94	760.5	64	17.8		S			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.02	762.5	71.2	21.8		E					6						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. T. Thompson.
Helston			29.92	760.0	71	21.7		NW			3		3						Dr. W. B. Moyle.
Holyhead			29.99	761.7	69	20.6		ENE			2		10						John Tilston.
Hull Park																			
Kew Observatory			29.94	760.5	76.3	24.6		E	17	7.6								Misty	The Staff.
Kingstown			30.03	762.7	57	13.9		NE			2		3					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			29.98	761.5	75.4	24.1		E			1		0						William J. Harrison.
Llandudno			29.97	761.2	72.8	22.7		E					3						Dr. James Nicol.
Malta, (Mediterranean)			29.85	757.7	73.0	22.8		SE			2		10					Foggy	Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.18	766.6	78.3	25.7		NNW			3		5						William D. Penny.
North Shields			30.10	764.5	57	13.9		NNE			3		2					Hazy	Surg.-Maj. J. Jameson.
Nottingham			30.00	762.0	77.6	25.3		NE			5		1k		E				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, St Mary's College			29.97	761.5	75.0	23.9		ENE			3-4		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.92	760.0	76	24.4		ENE			2		3						J. Lucas, for R. Main
Plymouth			29.94	760.5	72	22.2		S			3		8						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.07	762.0	65	18.3		ESE			3		2						W. Kennedy.
Saint Ann's Head			29.98	761.5	65	18.3					1		2						John C. Walker.
Saint Helier, (Jersey)			30.01	762.2	67.0	19.4		W			2		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			30.08	764.0	56.9	13.8		NE			2		3						F. Shaw.
Scutari, (Turkey)			29.89	759.2	78.8	26.0		NE			2		2						Sergt. W. H. Lyne.
Sheffield			29.99	761.7	72.5	22.5		ESE			2		3			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.02	762.5	62.7	17.1		E			4		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.98	761.5	71.0	21.7		NE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.99	761.7	71.1	21.7		E			2							Hazy	The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.92	760.0	82.3	27.9		NW			1		0						Rev Charles H. Griffith
Streatley Vicarage			29.95	760.7	81.0	27.2		E			6		0						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso					60	15.6		SE			2		3						John Trotter.
Truro, Royal Institution			29.92	760.0	74	23.3		E			4		4						W. Newcombe.
Valencia Observatory			29.97	761.2	63.7	17.6		S	9.5	4.2			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.94	760.5	65.0	18.3		NE			1		3						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			30.23	767.8	65.8	18.8	50	SE			2		0						
Fanöe			30.15	765.8	74.7	23.7	48	SE			4		1						
Godthaab, (Greenland)			30.10	764.4	43.3	6.3	53	NE			4		0						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			30.19	766.7	52.3	11.3	87	ESE			2		3						
Vestervig			30.11	764.7	75.4	24.1	39	SE			4		2						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Angelo																			Normal School.
Alençon			30.00	762.0	75.9	24.4	65	SW			2		8		SW	0.630	16.0		Normal School.
Amiens			29.93	760.1	90.7	32.8	35	E			1		0			0	0		Normal School.
Beaumette, (near Angers)			29.93	760.3	72.0	22.2	59	SW	7.1	3.4			10		SW	0	0		Beaumette Observatory
Beauvais			29.97	761.2	78.8	26		S			2		2		SE	0	0		Normal School.
Besançon			30.00	761.9	81.0	27.2	44	N			4		0			0	0		Normal School.
Bourg en Bresse			29.95	760.6	77.4	25.2	68	N			2		10		S	0.709	18.0		Normal School.
Bourges			29.96	760.9	74.7	23.7	69	W			1		2		W	0.106	2.7		Normal School.
Brest			29.92	760.0	61.0	16.1	83	SW			2		10		SW	0.610	15.5	Misty	Naval Observatory.
Caen																			Normal School
Chartres			29.97	761.1	81.0	27.3		SSW			1		5k		SW	0	0		Normal School.
Chaumont			30.01	762.2	74.7	23.7		WNW			3		1k		WNW	0	0		Normal School.
Commercy			30.02	762.6	75.0	24.2	46	NE			2		2		SW	0	0		Normal School.
Le Mans			30.13	765.2	70.3	21.3	75	W			2		8		W	0.846	21.5		Normal School.
Lons-Le Saulnier			29.89	759.2	66.0	18.9	62	WSW			2		10		N	0.059	1.5		Normal School.
Mâcon			29.96	760.9	75.2	24.0	56	NNE			2		0			0.34	8.8		
Mirecourt			29.91	760.5	72.7	22.6	48	NW			2		2		NE	0	0		Normal School.
Orleans			29.96	761.0	78.4	25.8	51	W			2		2		S	0.008	0.2		Normal School.
Paris Observatory			29.93	760.2	78.6	25.9		W			1		5k		SW	0.156	3.97		National Observatory
Parthenay			30.04	763.1	69.8	21	82	W			2		5		W	0.079	2.0		Normal School.
La Roche sur Yon			30.02	762.4	69.3	20.7	75	W			1		8		E	0.236	6.0		Normal School.
Rouen			29.96	761.0	76.1	24.5	53	SE			1		2		E	0.059	1.5		Normal School.
Saint Lo			30.06	763.5	68.2	20.1	91	W			2		5		W	0	0		Normal School.
Villefranche			30.01	762.2	82.0	27.8	64	SE			2		2			0.24	6.2		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.83	630.7			55.0	12.8	79	E	7.4	2.30			9		NE	0.374	9.5		—. Faiguère.
Montsouris Observatory			29.94	760.4	83.7	28.6	54	Calm			0		3k		SSW	0.272	6.9		Marié Davy.
Perpignan			29.93	760.1	66.7	19.3	80	N	2.0	0.92			10		SE	0.039	1.0	Storming	Dr. Fines.
Saint Maur, (near Paris)			29.93	760.3	84.0	28.9	42	SSE			1		0			0.012	0.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours								NW			2		5		NW	0.165	4.2		C. Marquet.
Versailles, (near Paris)			29.95	760.7	81.0	27.2	50	SW			2		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			29.97	756.2	68.4	20.2	79	SW	6.9	3.1			0			0 0	0 0		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.90	759.5	78.8	26.0	38	E			3		4			0	0		Prof. Hoh.
Berlin			30.10	766.8	79.3	26.3	35	SE			4		3			0	0		Prof. Arndt.
Breslau			30.20	767.0	79.0	26.1	30	ESE			4		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.82	757.3	78.8	26.0	48	NE			2		0			0	0		A. Senx.
Cassel			29.89	759.2	81.5	27.5	43	E			4		0			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.92	759.9	71.6	22.0	74	W					3			0.047	1.2		M. Wilhelm.
Hamburg			30.13	765.3	75.7	24.3	45	SE			4		78			0	0		W. Reinert.
Kiel			30.10	766.8	69.6	20.9	65	ENE			4		4			0	0		Prof. G. Karsten.
Königsberg			30.24	768.0	69.4	20.8	41	NE			1					0	0		Prof. E. Luther.
Köslin			30.37	771.4	71.6	22.0		N			2		2			0	0		Dr. Tägert.
Leipsic			30.06	763.4	79.3	26.3	34	ESE			4		2			0	0		Prof. Bruhns.
Münster			29.93	760.3	78.0	26.0	57	NE			2		0			0	0		Prof. E. Heis.
Posen			30.22	767.6	77.0	25.0	37	SE			6-7		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.92	760.0	78.0	25.9	46	E					5			0	0		Hartwig and Tütk.
Stuttgart			29.85	758.1	80.0	27.0	56	E					4			0	0		Mr. Würth.
Thorn			30.28	769.1	77.5	25.3	31	NE			5		1			0	0		Dr. Hesenbalg.
Treves, (Trier)			29.88	759.0	81.7	27.6	38	NE			7		0			0	0		Prof. Flesch.
Wustrow			30.22	767.6	69.4	20.8	55	NE			3		3			0	0		E. F. chütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. 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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.98	761.6	71.6	22.0	63	NNW	1.3	0.6			3	E		0.126	3.2		
Mondovi			30.00	761.9	66.6	19.2	65	NW			2		10	SE		0	0		
Genoa			29.94	760.4	76.1	24.5	55	N	4.3	1.9			10	E		0	0		
Savia			29.99	761.7	69.4	20.8	78	W			1		9	NE		0.079	2.0		
Verona			29.93	760.2	76.5	24.7	58	E			2		10			0	0		
Padua			29.93	760.1	77.4	25.2	57	SE	7.4	3.3			1	WNW		0	0		
Parma																			
Bologna			29.93	760.3	70.9	21.6	68	NW			1		8	E		0.394	10.0		
Leghorn			29.93	760.1	74.8	23.8	61	N	5.6	2.5			7			0	0		
Urbino			29.93	760.1	73.0	22.8	68	S			4		10			0	0		
Ancona			29.95	760.5	76.0	24.8	72	NNW			4		7	SE		0	0		
Siena			29.88	759.0	72.1	22.3	52	E	1.8	0.8			8	E		0	0		
Rome			29.88	758.9	73.2	22.9	70	NNW	13.7	6.1			10	SSW		0	0		
Naples, O.U.			29.87	758.8	88.3	31.3	41	SE			4		5			0	0		
Lecce			29.93	760.2	79.0	26.1	54	ESE	12.5	5.6			1			0	0		
Cosenza			29.90	759.5	86.9	30.5	44	SSE			2		7	SSE		0.039	1.0		
Catania, (Sicily)																			
Riposto			29.94	760.4	82.4	28.0	48	SSE			2		9			0	0		
Palermo			29.83	757.6	79.5	26.4	54	ENE			4		9	SW		0	0		
Sub-Series.																			
Naples, S. R.			29.92	760.0	80.0	30.0	38	WSW			4		ck	SW		0.165	4.2		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.97	761.2	74.5	23.6		SE			3								
Groningen			29.98	761.5	76.1	24.5		SE			5								
Helder			29.99	761.8	67.8	19.9		ENE			2								
Utrecht			29.93	760.1	80.4	26.9	42	SE			3		0						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.20	767.0	70.3	21.3	54	SW	7.4	3.3			0			0	0		
Christiania			30.16	766.1	73.9	23.3	45	S	13.4	6.0			0			0	0		
Tromsö			30.21	767.4	36.7	2.6	96	W			2		10			0.276	7.0	Snowing	

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.19	766.9	66.6	19.2	57	N	12.5	5.6			7						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.17	766.3	76.3	24.6	36	E	4	2			0						Astronomical Obs.
Wilna			30.23	767.7	68.9	20.5	34	Calm	0	0			0						Astronomical Obs.
Dorpat			30.13	765.4	65.7	18.7	37	WNW	13	6			3						Physical Cabinet.
St. Petersburg			30.02	762.5	52.7	11.5	71	WNW	11	5			10						Central Physical Obs.
Kuopio			30.00	761.9	48.2	9.0	66	NW					10		ESE	0	0		
Kieff			30.14	765.5	70.5	21.4	46	NNE	9	4			1						Physical Cabinet.
Nikolaiev			30.06	763.1	82.4	28.0	34	NNE	13	6			0						
Kertch			29.90	759.5	74.3	23.5	57	NE	10	4.5			3						Lagorio.
Moscow			29.98	761.5	57.7	14.3	44	WNW	17	7.5			6						Meteorological Obs.
Lugan			29.78	756.3	76.1	24.5	30	N	25	11			6						Meteorological Obs.
Archangel			29.89	759.2	39.6	4.2	74	NW	20	9			10						Ogorodnikof.
Tiflis			29.74	755.3	79.3	26.3	41	Calm	0	0			8						Physical Obs.
Astrakhan			29.80	756.8	84.7	29.3	31	WSW	4	2			5						Sebastianof.
Kasan			29.47	748.5	54.5	12.5	62	W	13	6			8						Physical Cabinet.
Orenburg			29.65	753.0	81.5	27.5	34	S	8	3.5			0						Tschernischef.
Ekaterinburg			29.41	747.1	69.8	21.0	47	W	8	3.5			7						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.87	758.7	81.3	27.4	48	Calm	0	0			0						Michelson.
Barnaul			29.67	753.5	53.1	11.7	93	WSW	8	3.5			5					Raining	Meteorological Obs.
Yeniseisk			29.48	748.8	58.8	14.9	58	NW	10	4.5			5						Marks.
Irkutsk			29.64	752.8	48.6	9.2	76	Calm	0	0			3						Usolzef.
Oorga																			Mossin.
Peking, (China)			29.54	750.3	89.4	31.9	26	Calm	0	0			7						Physical Observatory.
Nertchinsk			29.51	749.8	59.5	15.3	41	SSE	10	4.5			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					36.7	2.6	100	N	4	2			1						Kurdakof.

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.00	762.1	72.7	22.6	38	NE	15.7	7.0		1	4	N		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.14	765.6	57.2	14.0	54	NNW			2		8			0	0		
Hernosand			30.12	765.0	62.6	17.0	44	WNW			3		8			0	0		
Stockholm			30.15	765.8	67.3	19.6	39	ESE			3		2			0	0		
Visby			30.30	769.6	61.5	16.4	49	W			3		0			0	0		
Sub-Series.																			
Upsala			30.15	765.8	73.9	23.3	45	NE			4		1		W				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.52	724.3			75.0	23.9	48	N			2		3			0.764	19.4		The Observatory.
Zurich	28.32	719.4			78.6	25.9	51	NW			1		3			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.6mm.; Thermometer, +4°.7 C.; Relative Humidity, —8 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.71	754.6	82.2	27.9	71	WNW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			29.95	760.7	74.1	23.4	79	N	16.8	7.5			2		N	0	0		
Fao, (Persian Gulf)			29.76	755.9	94.8	36.9		SE			3		10						
Salonica					91.0	32.8		NE			2		10						
Valona			29.94	760.5	82.4	28.0		W			2		0						
Varna			30.04	763.0	82.4	28.0		W			8		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.05	763.3	65	18.3		W	1	0.4			10s		W	0	0		
Chatham, N. B.			30.13	765.3	57	13.9	66	Calm	0	0		0	Haze			0	0		
Charlottetown, P. E. Island			30.17	766.3	55	12.8	57	S	4	1.8		0	0			0	0		
Fort Garry, Manitoba			30.03	762.7	34	1.1	89	N	16	7.2		5k	5n	N	N	0.287	7.29		
Halifax, N. S.			30.09	764.3	55	12.8	67	SE	3	1.3		0	0			0	0		
Kingston, Ontario			30.02	762.5	59	15.0	80	S	11	4.9		10cs	0			0	0		
Montreal, Quebec			30.02	762.5	63	17.2	72	SW	15	6.7		0	Haze			0	0		
Ottawa, Ontario			29.99	761.7	67	19.4	64	S	14	6.3		8k	Sm'o		SW	0	0	Threatening	
Parry Sound, Ontario			29.95	760.7	57	13.9	84	W	6	2.7		2ck	2ks	W	W	0.02	0.5		
Port Dover, Ontario			30.03	762.7	62	16.7	88	SW	7	3.1		5k	0	W		0	0		
Port Stanley, Ontario			30.01	762.2	65	18.3	70	W	8	3.6		2k	0	W		0.15	3.8		
Quebec, Quebec			30.09	764.3	65	18.3	58	Calm	0	0		0	0			0	0		
Saugeen, Ontario			29.95	760.7	58	14.4	82	SW	5	2.2		2k	0			0.04	1.0		
Stayner, Ontario			29.93	760.2	62	16.7	75	NW	3	1.3		2k	0	NW		0	0		
Sydney, C. B.			30.19	766.8	58	14.4	47	NW	2	0.9		8ck	0	N		0	0		
Toronto, Ontario			29.97	761.2	59	15.0	70	SW	7	3.1			10n		SW	0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.12	765.0	63	17.2	67	S	11	4.9		2cs	2k	S	S	0	0		
Alpena, Mich.			29.84	757.9	57	13.9	57	W	6	2.7		2k	0	W		0.02	0.5		
Atlantic City, N. J.			30.21	767.3	61	16.1	77	S	5	2.2		0	8s		S	0	0		
Augusta, Ga.			30.15	765.8	70	21.1	85	NE	8	3.6			8s		NE	0.09	2.3		
Baltimore, Md.			30.14	765.5	66	18.3	78	SE	8	3.6			10s		W	0	0		
Barnegat, N. J.			30.20	767.1	63	17.2	61	S	5	2.2		5c	Haze			0	0		
Benton, Montana			29.96	761.0	52	11.1	66	S	12	5.4			10s			0	0		
Bismarck, Dakota			30.07	763.8	45	7.2	60	N	3	1.3		0	Haze			0.03	0.8		
Boston, Mass.			30.20	767.1	64	17.8	45	SW	4	1.8		0	0			0	0		
Breckenridge, Minn.			30.09	764.3	38	3.3	80	NW	12	4.5		5k	0	NW		0.10	2.5		
Buffalo, N. Y.			29.98	761.5	59	15.0	94	SW	9	4.0			10n			0	0	Light rain	
Burlington, Vt.			30.06	763.5	66	18.9	68	S	12	5.4		2c	0			0	0		
Cairo, Ill.			30.18	766.6	70	21.1	75	N	8	3.6		0	2ks		NW	0	0		
Cape Hatteras, N. C.			30.18	766.6	67	19.4	84	Calm	0	0			10s			0	0		
Cape Henry, Va.			30.20	767.1	70	21.1	85	SE	4	1.8		Haze	2s			0	0		
Cape May, N. J.			30.19	766.8	61	16.1	82	SE	6	2.7			10s		NW	0	0		
Charleston, S. C.			30.22	767.6	71	21.7	85	W	8	3.6		5ck	5s	N	N	0	0		
Cheyenne, W. T.			30.04	763.0	40	4.4	56	SW	2	0.9		2c	0			0	0		
Chicago, Ill.			30.08	764.0	59	15.0	65	SW	10	4.5		0	0			0.25	6.3		
Cincinnati, Ohio			30.11	764.8	67	19.4	78	NW	8	3.6		5k	0	W		0.51	13.0		
Cleveland, Ohio			30.03	762.7	63	17.2	75	W	7	3.1		2c	0	W		0.41	10.4		
Colorado Springs, Col.			30.05	763.3	39	3.9	73	NW	4	1.8		1c	0	W		0	0		
Corsicana, Texas			30.12	765.0	75	23.9	90	S	4	1.8		5k	Haze	S		0	0		
Davenport, Iowa			30.16	766.1	55	12.8	80	W	8	3.6		0	Sm'e			0.21	5.3		
Denver, Col.			30.08	764.0	49	9.4	44	Calm	0	0		2s	0	W		0	0		
Detroit, Mich.			30.01	762.2	60	15.6	82	W	8	3.6		2ck	0	W		0.69	17.5		
Dodge City, Kansas			29.67	753.6	68	20.0	56	S	4	1.8		0	0			0	0		
Dubuque, Iowa			30.13	765.3	53	11.7	61	W	8	3.6		0	0			0.37	9.4		
Duluth, Minn.			29.90	759.4	41	5.0	57	W	16	7.2		5k	5ks	W	W	0.03	0.8		
Eastport, Me.			30.17	766.3	56	13.3	62	SW	2	0.9		0	0			0	0		
Erie, Penn.			29.99	761.7	64	17.8	88	SW	1	0.4		0	8ks		SW	0.05	1.3		
Escanaba, Mich.			29.87	758.7	48	8.9	77	SW	6	2.7			10ks		SW	0.33	8.4		
Fort Gibson, I. T.			30.13	765.3	70	21.1	66	E	6	2.7		1k	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.18	766.6	44	6.7	84	NE	2	0.9		5k	0	NW		1.21	30.7		
Galveston, Texas			30.14	765.5	81	27.2	82	SE	6	2.7		2k	0	SE		0	0		
Grand Haven, Mich.			30.02	762.5	55	12.8	68	W	20	8.9		0	0			0.49	12.4		
Indianapolis, Ind.			30.12	765.0	63	17.2	78	NW	11	4.0		5k	0	NW		0.57	14.5		
Indianola, Texas			30.11	765.5	78	25.6	77	S	6	2.7		5c	0	W		0	0		
Jacksonville, Fla.			30.19	766.8	77	25.0	65	Calm	0	0		0	0			0	0		
Keokuk, Iowa			30.16	766.1	65	18.3	63	SW	1	0.4		0	0			0.04	1.0		
Key West, Fla.			30.11	764.8	79.0	26.4	70	NE	14	6.3		5k	Haze	E		0.12	2.8		
Kittyhawk, N. C.			30.20	767.1	64	17.8	83	SE	5	2.2			10s			0	0		
Knoxville, Tenn.			30.18	766.6	63	17.2	94	NE	8	3.6			10ks		W	0.38	9.7		
La Crosse, Wis.			30.10	764.5	48	8.9	56	NW	14	6.3		0	0			0.26	6.6		
Leavenworth, Kan.			30.18	766.6	64	17.8	61	S	1	0.4		0	0			0	0		
Lexington, Ky.			30.11	764.8	70	21.1	71	NW	4	1.8		2c	0			0.32	8.1		
Long Branch, N. J.			30.23	767.8	58	14.4	69	S	6	2.7		10cs	0	SW		0	0		
Louisville, Ky.			30.13	765.3	67	19.4	84	NW	4	1.8		2k	0	NW		0.53	13.5		
Lynchburg, Va.			30.11	764.8	68	20.0	82	SW	1	0.4			10s			0.01	0.3		
Malone, N. Y.																			
Marquette, Mich.			29.82	757.4	46	7.8	62	SW	16	7.2		5k	0	W		0.93	23.6		
Memphis, Tenn.			30.15	765.8	74	23.3	72	NE	7	3.1		2k	0			0	0		
Milwaukee, Wisconsin			30.04	763.0	55	12.8	55	W	24	10.7		0	0			0.50	12.7		
Mobile, Ala.			30.18	766.6	76	24.4	86	SW	3	1.3		2c	0			0	0		
Montgomery, Ala.			30.19	766.8	78	25.6	71	SW	3	1.3		8k	0	W		0	0		
Morgantown, W. Virginia			30.04	763.0	69	20.6	79	SW	3	1.3			10s			0.57	14.5		
Mt. Washington, N. H.			30.34	770.6	46	7.8	54	W	12	5.4		0	Haze			0	0		
Nashville, Tenn.			30.12	765.0	76	24.4	64	NW	4	1.8		0	0			0	0		
New Haven, Conn.			30.22	767.6	62	16.7	56	SE	4	1.8		2cs	0	W		0	0		
New London, Conn.			30.23	767.8	58	14.4	70	S	5	2.2		0	0			0	0		
New Orleans, La.			30.17	766.3	78	25.6	78	Calm	0	0		2c	Sm'e			0.01	0.3		
Newport, R. I.																			
New York, N. Y.			30.23	767.8	59	15.0	69	SE	4	1.8			10s			0	0		
Norfolk, Va.			30.19	766.8	65	18.3	78	SE	6	2.7			10s			0.01	0.3		
North Platte, Neb.			29.73	755.1	55	12.8	80	Calm	0	0		5c	0	SW		0	0		
Omaha, Neb.			30.16	766.1	57	13.9	75	SW	4	1.8		0	0			0	0		
Oswego, N. Y.			30.00	762.0	67	19.4	68	S	10	4.5			8ks			0	0		
Peck's Beach			30.20	767.1	61	16.1	82	SE	8	3.6			10s			0	0		
Pembina, D. T.			30.02	760.5	34	1.1	94	NW	16	7.2			10n			0.19	4.8	Light snow	
Philadelphia, Penn.			30.20	767.1	60	15.6	76	SE	7	3.1			10s		SE	0	0		
Pike's Peak, C. T.			30.12	765.0	24	— 4.4	74	SW	28	12.5		5cs	0	W		0	0		
Pittsburgh, Penn.			30.05	762.3	67	19.4	74	NW	4	1.8		5k	0	NW		0.01	0.3		
Port Huron, Mich.			29.98	761.5	61	16.1	77	SW	12	5.4		0	0			0.48	12.2		
Portland, Maine			30.19	766.8	58	14.4	64	SW	1	0.4		0	Haze			0	0		
Portland, Or.			30.20	767.1	46	7.8	69	SW	4	1.8		5k	5ks			0	0		
Punta Rassa, Fla.			30.16	766.1	77.2	25.1	67	NE	8	3.6		1c	Sm'e	NE		0	0		
Rochester, N. Y.			29.97	761.2	65	18.3	78	S	8	3.6			10s		SW	0	0		
Salt Lake City, Utah			29.87	758.7	59	15.0	18	SW	4	1.8			10s			0	0		
Sandy Hook, N. J.			30.21	767.3	59	15.0	64	SE	7	3.1		0	8ks			0	0		
San Diego, Cal.			30.02	762.5	62	16.7	76	Calm	0	0			10s			0	0		
San Francisco, Cal.			29.97	761.2	50	10.0	79	S	4	1.8		0	0			0	0		
Santa Fe, N. M.			29.87	758.7	58	14.4	32	SE	16	7.2		2c	0	SW		0	0		
Savannah, Georgia			30.20	767.1	75	23.9	63	SW	8	3.6		5ck	2ks		W	0	0		
Shreveport, La.			30.17	766.3	77	25.0	82	S	3	1.3		5c	5k	W	S	0	0		
Springfield, Mass.			30.07	763.8	58	14.4	58	Calm	0	0		5cs	Haze			0	0		
St. Louis, Mo.			30.23	767.8	64	17.8	67	NE	8	3.6		0	0			0.01	0.3		
St. Marks, Fla.			30.18	766.6	75	23.9	76	SE	4	1.8		0	0			0	0		
St. Paul, Minn.			30.00	762.0	44	6.7	60	W	12	5.4		0	0			0.08	2.0		
St. Paul's Island, Alaska			29.92	760.0	40	4.4	91	S	5	2.2			10s			1.54	39.1		
Squan Beach, N. J.			30.22	767.6	58	14.4	58	S	3	1.3			10s		S	0	0		
Toledo, Ohio			30.00	762.0	66	18.9	68	SW	10	4.5		2c	0			0.75	19.1		
Tybee Island, Ga.			30.19	764.8	72	22.2	81	SW	2	0.9		2c	2s	NE		0	0		
Vicksburg, Miss.			30.24	768.1	81	27.2	61	S	3	1.3		2c	0			0	0		
Virginia City, Mon.			29.66	753.4	40	4.4	60	N	2	0.9			0			0	0		
Washington, D. C.			30.13	765.3	65	18.3	66	SE	8	3.6		2cs	8s		S	0	0		
Wilmington, N. C.			30.20	767.1	64	17.8	89	E	8	3.6			10n		SW	0.23	5.8	Light rain	
Wood's Hole, Mass.			30.24	768.1	58	14.4	63	N	3	1.3			10s			0	0		
Wytheville, Va.			29.93	760.2	62	16.7	83	W	8	3.6			10s			0.62	15.7		
Yankton, D. T.			30.19	766.8	54	12.2	74	Calm	0	0		0	0			0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					85	29.4	75	E	3	1.3		5ck	2ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.97	761 2	80	26.7	74	E				5c	5n	E		0.11	2.8	Hazy	L. V. Bigard.
Havana, Cuba, W. I.			29.81	757.2	81	27.2	82	E	6.0	2.7		5k	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.25	768.3	78	25.6	74	NNE	7	3.1		2c	8k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	78	25.6	74	NW	4.8	2.1			10s		NW	0	0		Robert Mason.
St. Georges, Bermudas			29.97	761.2	70.0	21.1	55	NNE	9.5	4.2		0	2ks			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			29.98	761.5	64	17.8	71	NE	4	1.8		0	2k		NE	0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.09	764.3	32.0	0	90	W	20	8.9			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.03	762.7	65	18.3	90	SE	1.0	0.4		0	8k			0	0		C. Partridge.
St. John's, Newfoundland			30.25	768.3	38.5	3.6	86	NE				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.05	763.3	65	18.3		SW	4	1.8		0	2c			0.43	10.9		H. M. Redington.
Indianola, Iowa	29.21	741.9						NW				0	0						G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 4, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.04	763.0	73.4	23.1		NW			1		1			0	0		Charnot.
Algiers			29.94	760.4	71.2	21.8	80	W			3		6			0.268	6.8	Raining	Peter.
La Calle			29.88	759 0	71.6	22.0		NW			4		9			0.079	2.0	Thunder-storm	Kuntz.
Tunis			29.84	758.0	75.9	24.4	40	WNW			3		8			0	0		Jacques.
Sfax			29.89	759.1	76.1	24.5		W			4		1			0	0		Chauvey.
Saida			30.07	763.7	70.7	21.5		NNW			2		2			0	0		Grosjean.
Tebessa			29.91	759.8	68.2	20.1		NNW			2		2			0	0		Colin.
Geriville			30 04	762.9	66.9	19.4		NW			4		9			0.197	5.0		Bernadach.
Laghouat			30.04	762.9	73.4	23.0	37	NW			4		5			0.039	1.0		Poinsignon.
Biskra			30.03	762.8	83.3	28.5		NW			5		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Azram			29.86	758.4	81.9	27.7	53	SW			2		2			0.701	17.8		Prof. Ivan Stozir.
Buda-Posth																			I. R. Cen. M. I., Hungary
Cracow			29.95	760.7	65.5	18.6	53	NE			2		2			0.268	6.8		I. R. Observatory.
Eperies			29.96	760.9	78.1	25.6	63	SE			1		4		N	0	0		Julius Mikolik.
Gratz			29.89	759.3	72.7	22.6	69	SSW			2		8			0	0		Andreas Rospini.
Hermanustadt			29.96	761.0	78.4	25.8	34	SE			3		1			0	0		Prof. Reissenberger.
Kremsmünster			29.78	756.4	77.0	25.0	52	E			2		2			0	0		Prof. C. Wagner.
Lemberg			29.97	761.1	78.1	25.6	41	SW			4		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.00	762.0	81.7	27.6	40	S			3		0			0	0		Habzsuda Daniel.
Pola			29.84	758.0	81.7	27.6	51	SSE			2		2ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.89	759.3	81.3	27.4	45	SE			3		2			0	0		Karl Stancel.
Trieste			29.87	758.6	73.2	22.9	62	NE			1		10			0.047	1.2		Prof. V. Farolfi.
Vienna			29.87	758.8	78.1	25.6	54	SE			3		5			0.161	4.1		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.87	758.7	76.3	24.6	52	NW			1		2k		W	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.81	757.2	63.1	17.3		SSE	12	5.4			2			0	0		William Loswell.
Annanhill																			
Ardrossan			29.90	759.4	56	13.3		NW			3		4						William McNeil.
Armagh Observatory			29.90	759.4	64.8	18.2		WNW	9	4.0			6						S. Cal., for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.92	760.0	58.2	14.6		W			5		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.02	762.5	62.0	16.7		WNW			1		8						J. Dreyer, for L'd Rosse.
Bradford			29.84	757.9	64.7	18.2		W			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.01	762.2	83.4	28.6		E			2		7					Showery	T. H. Hunt.
Bywell																			
Cambridge Observatory			29.84	757.9	75.0	23.9		W			1		1						H. Todd.
Cape Town, (Cape Colony)			29.98	761.5	59.8	15.4		NW			4		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.15	764.5			55.5	13.1	73	W	13	5.8			10						Th. Staff, for E. J. Stone.
Cardington			29.89	759.2	80.0	26.7		NW					1						John McLaren.
Carlisle			29.87	758.7	63.0	17.2		W					10			0	0	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.88	758.9	76.2	24.6		W			1		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.81	757.2	81.5	27.5		SW			5		10						Sgt. W. F. Hopkins.
Dartmoor			30.11	764.8	52.8	11.6		NW			4		10						R. E. Power.
Donaghadee			29.91	759.7	63	17.2		NW			3		7						J. Mac Gowan, Jr.
Dover			29.92	760.0	58	14.4		WSW			4		0					Hazy	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.99	760.0	60.3	15.7		SW	3.6	1.6			10						Thomas Mackereth
Falmouth Observatory			30.08	764.0	61.4	16.3		WNW	28	12.5			2						The Staff.
Fort Napier, (Natal)			29.74	755.4	76.0	24.4		E			3		10					Hazy	Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.83	757.7	85	29.4		Calm					5						
Galway, Queen's College			29.99	759.4	64	17.8		NW			4		3						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.03	762.7	71.6	21.7		SW			5		2						Sergt. E. G. Baker.
Glasgow Observatory			29.86	758.4	59.0	15.0		NW			1		10					Misty	James Gray.
Great Yarmouth			29.85	758.2	64	17.8		SE			2		2					Misty	G. T. Watson.
Greenwich Royal Obs.			29.89	759.2	80.5	26.9		WSW			1		1						The Staff, for G. B. Airy.
Guernsey			30.01	762.2	61	16.1		WNW			4		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.90	759.4	65.6	18.7		WNW					10						F. J. Pace, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. C. Thompson.
Helston			30.03	762.7	65	18.3		NW			4		2						Dr. W. B. Doyle.
Holyhead			29.99	761.7	61	16.1		WNW			3		3						John Tilston.
Hull Park																			
Kew Observatory			30.89	759.2	72.3	22.4		WSW	9	4.0			3					Hazy	The Staff.
Kingstown			30.00	762.0	63	17.2		WNW			4		4						George Mitchell
Lampeter																			
Leicester Museum			29.87	758.7	73.3	22.9		W			4		5					Misty	William J. Harrison.
Llandudno			29.96	761.0	64.2	17.8		W					10						Dr. James Nicol.
Malta, (Mediterranean)			29.82	757.4	73.8	23.2		NW			1		4k						Fred Travis, Pvt. A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.18	766.6	77.4	25.2		NNW			4		5						Surg.-Maj. J. Jameson.
North Shields			29.85	758.2	56	13.3					2		9						John Wm. Irvine.
Nottingham			29.88	758.9	75.0	23.9		WSW			3		10k		W				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			29.88	758.9	68.8	20.4		NNW			2		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.97	758.7	75	23.9		W			2		5			Blank	Blank		J. Lucas, for R. Main
Plymouth			30.02	762.5	67	19.4		NW			3		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel																			
Roche's Point			30.04	763.0	64	17.8		SW			3		5						W. Kennedy.
Saint Ann's Head			30.01	762.2	56	13.3		WNW			2		3						John C. Walker.
Saint Helier, (Jersey)			30.03	762.7	60.0	15.6		WNW			6		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.86	758.4	57.0	13.9		ESE			1		5					Foggy	F. Shaw.
Scutari, (Turkey)			29.94	760.5	74.0	23.3		NE			2		3						Sergt. W. H. Lyne.
Sheffield			29.86	758.4	67.2	19.6		NW			2		10			0	0		W. F. Cooper.
Sidmouth																			
Siloth Rectory			29.87	758.7	64.8	18.2		W			3		10			0	0	Misty	Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.82	757.4	80.1	26.7		ESE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.90	759.4	60.4	15.8		SW			1		10					Hazy	The Staff.
Stornoway, Lewis C. (Heb.)																			John Smith.
Strathfield Turgiss			29.90	759.4	74.9	23.8		NW			1		8						Rev. Charles H. Griffith
Streatley Vicarage			29.90	759.4	77.7	25.4		WSW			4		5						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso					65	18.3		Calm			0		10						John Trotter.
Truro Royal Institution			30.03	762.7	65	18.3		NW			6		5						W. Newcombe.
Valencia Observatory			30.07	763.8	58.4	14.7		WSW	15	6.7			8						The Staff.
Wick																			
Wisbeach																			
Worthing			29.92	760.0	64.7	18.2		WSW			3		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.87	758.8	72.9	22.7	54	SSE			2		0						
Faröe			29.82	757.3	79.2	26.2	45	SE			2		1						
Godthaab, (Greenland)			29.93	760.2	46.0	7.8	65	Calm			0		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)								NE			2		10						
Vestervig			29.82	757.4	76.3	24.6	55	NNE			2		3						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.04	763.1	67.6	19.8	60	W			3		5		W	0	0		Normal School.
Amiens			29.96	760.9	66.6	19.2	56	E			3		0			0	0		Normal School.
Beaumonette, (near Angers)			30.01	762.2	65.3	18.5	69	SW	2.7	1.2			10		W	0	0		Beaumonette Observatory
Beauvais			30.00	761.9	77.5	25.3	55	W			3		8		W	0	0		Normal School.
Besançon			30.03	762.7	67.3	19.6	83	S			2		8		SW	1.122	28.5		Normal School.
Bourg en Bresse			29.97	761.2	70.0	21.1	88	E			6		10		NW	0	0		Normal School.
Bourges			30.02	762.6	68.2	20.1	71	SW			3		10		NE	0	0		Normal School.
Brest			30.06	763.5	61.0	16.1	66	NW			3		8k		NW	0	0		Naval Observatory.
Caen																			Normal School
Chartres			29.99	761.8	76.5	24.7		WSW			1		9k, n		WSW	0	0		Normal School.
Chaumont			29.99	761.8	72.1	22.3		SW			3		2ck			0.030	1.0		Normal School.
Commercy			29.96	760.9	61.9	16.6	77	NNW			2		10			0	0	Thunder-storm.	Normal School.
Le Mans			30.17	766.4	67.3	19.6	58	WNW			2		8		WNW	0	0		Normal School.
Lons-Le Saulnier			29.91	760.4	65.7	18.7	62	NNW			1		8			0.585	14.85		Normal School.
Mâcon			29.99	761.7	70.2	21.[illegible]	72	W			6		5		NW	0	0		
Mirecourt			29.89	759.2	70.7	21.5	57	SW			2		10		NE	1.575	40.0		Normal School.
Orleans			29.97	761.2	70.9	21.6	77	W			3		8		W	0.004	0.1		Normal School.
Paris Observatory			29.96	761.0	73.8	23.2		SW			3		8ck		SW	0.007	0.17		National Observatory
Parthenay			30.10	764.4	63.5	17.5	76	W			2		8		W	0	0		Normal School.
La Roche sur Yon			30.08	764.1	66.6	19.2	70	W			2		10			0.008	0.2		Normal School.
Rouen			29.98	761.5	70.9	21.6	53	NW			2		2		W	1.315	33.4		Normal School.
Saint Lo			30.04	763.1	61.7	16.5	96	NW			2		5		NW	0	0		Normal School.
Villefranche			30.01	762.2	72.0	22.2	67	ESE			4		8		N	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.89	632.3			52.7	11.	76	NNE	5.4	2.31			8		NN[illegible]	0.441	11.2		—. Falguère.
Montsouris Observatory			29.96	761.0	73.4	23.[illegible]	61	W			2		8k, n		W	0.366	9.3		Marié Davy.
Perpignan			30.06	763.5	70.0	21.1	53	NW	6.[illegible]	2.78			5ck			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.96	760.9	75.6	24.2	55	NW			2		4			0.201	5.1		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.92	762.6	70.0	21.1	59	WNW			1		8		NNW	0	0		C. Marquet.
Versailles, (near Paris)			29.98	761.4	75.9	24.4	25	NW			2		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.80	757.0	70.0	21.1	90	SE	3.4	1.5			0			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.75	755.6	77.0	25.0	48	S			2		4			0	0		Prof. Hoh.
Berlin			29.86	758.5	83.8	28.8	40	SE			2		6			0	0		Prof. Arndt.
Breslau			29.98	761.4	83.1	28.4	41	SE			5		8			0	0		Dr. P. Neugebauer.
Curlsruhe			29.70	756.7	80.2	26.8	52	NW			1		10			0	0		A. Senz.
Cassel			29.71	754.5	86.4	30.2	41	NW			2		3			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.84	758.0	75.2	24.0	72	S					1			0	0		M. Wilhelm.
Hamburg			29.83	757.6	79.3	26.3	49	SE			3		4kn			0	0		W. Reinert.
Kiel			29.85	758.3	73.2	22.9	66	E			3		0			0	0		Prof. G. Karsten.
Königsberg			29.98	761.6	80.6	27.0	33	S			1					0	0		Prof. E. Luther.
Köslin			30.08	764.0	81.5	27.5		SE			3		2			0	0		Dr. Tägert.
Leipsic			29.82	757.3	82.4	28.0	45	SSE			2		3			0	0		Prof. Bruhns.
Münster			29.83	757.6	84.7	29.3	46	SE			2		0			0	0		Prof. E. Heis.
Posen			29.95	760.8	84.9	29.4	38	S			C-[illegible]		4			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.82	757.4	83.7	28.7	48	SW					8			0	0		Hartwig and Tülk.
Stuttgart			29.83	757.7	81.5	27.5	56	W					8			0	0		Mr. Würth.
Thorn			29.96	760.9	81.7	27.6	41	S			2		0			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.77	756.1	84.6	29.2	32	NW			4		4			1.475	37.47		Prof. Flesch.
Wustrow			29.87	758.8	83.3	28.5	46	SE			2		3			0	0		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. 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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.87	758.0	73.9	23.3	62	SW	1.3	0.6			9	N		0.126	3.20		
Mondovi			29.90	759.4	68.5	20.3	59	W			2		8	N		0	0		
Genoa			29.83	757.6	77.4	25.2	51	N	4.3	1.9			4	W		0	0		
Pavia			29.87	758.7	77.5	25.3	55	NE			1		4	NE		0	0		
Verona			29.96	761.0	84.4	29.1	46	E			1		4			0	0		
Padua			29.85	758.2	78.6	25.9	57	E	7.4	3.3			2	WNW		0	0		
Parma											2		4	WSW		0	0		
Bologna			29.84	758.8	79.7	26.5	59	N					7			0	0		
Leghorn			29.81	757.1	70.5	26.4	50	NE	7.4	3.3			5			0.098	2.5		
Urbino			29.85	758.1	70.7	21.5	71	ENE			4		5			0	0		
Ancona			29.84	758.8	75.9	24.4	71	WNW			4		7	E		0.004	0.1		
Siena			29.80	757.0	75.7	24.3	50	SE	5.6	2.5			10	S		0	0		
Rome			29.82	757.3	68.7	20.4	77	ENE	6.9	3.1			10	SW		0	0		
Naples, O.U.			29.84	758.0	77.0	25.0	55	SW			4		10			0	0		
Lecce			29.91	759.8	78.1	25.6	46	SSW	16.8	7.5			10			0	0		
Cosenza			29.82	757.5	78.8	26.0	69	SE			1		8	SE		0.197	5.0		
Catania, (Sicily)																			
Lipposto			29.80	757.0	81.5	27.5	55	SE			2		6	S		0	0		
Palermo			29.74	755.4	74.3	23.5	52	NE			2		8			0	0		
Sub-Series.																			
Naples, S. R.			29.85	758.3	70.5	21.4	79	NE			3		..ck	NW		0.130	3.3		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.94	760.5	62.6	17.0		WNW			4								
Groningen			29.76	755.9	78.4	25.8		N			2								
Helder			29.84	758.0	64.4	18.0		N			2								
Utrecht			29.80	756.9	82.2	27.9	49	WNW			3		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.88	758.9	68.0	20.0	44	W	13.0	5.8			0			0.056	1.5		
Christiania			29.85	758.2	72.9	22.7	40	S	10.7	4.8			0			0	0		
Tromsö			29.96	760.9	39.2	4.0	93	NE			1		10			0.071	1.8		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.17	766.2	70.7	21.5	48	N	21.0	9.4			7						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.96	761.0	81.3	27.4	34	SE	13	6			1						Astronomical Obs.
Wilna			30.07	763.8	75.4	24.1	34	Calm	0	0			5						Astronomical Obs.
Dorpat			30.16	766.1	57.4	14.1	39	NE	9	4			10						Physical Cabinet.
St. Petersburg			30.15	765.7	54.0	12.2	49	WSW	7	3			6						Central Physical Obs.
Kuopio			30.07	763.7	54.3	12.4	53	NW					0						
Kieff			30.11	764.7	73.8	23.2	40	NNE	4	2			0						Physical Cabinet.
Nikolaiev			30.11	764.9	81.0	27.2	30	ENE	8	3.5			0						
Kertch			30.04	763.0	72.1	22.3	49	NE	15	6			0						Lagorio.
Moscow			30.05	763.3	52.2	11.2	36	NNW	13	6			6						Meteorological Obs.
Lugan			29.89	759.3	73.4	23.0	27	WNW	13	6			1						Meteorological Obs.
Archangel			30.07	763.7	39.6	4.2	65	NW	20	9			9						Ogorodnikof.
Tiflis			29.77	756.1	79.5	26.4	41	NW	13	6			5						Physical Obs.
Astrakhan			29.98	761.6	71.8	22.1	25	NNE	10	4.5			0						Sebastianof.
Kasan			29.53	750.0	39.6	4.2	80	NW	20	9			10						Physical Cabinet.
Orenburg			29.70	754.4	60.6	15.9	36	NW	13	6			8						Tschernischef.
Ekaterinburg			29.36	745.8	52.2	11.2	68	SW	13	6			7						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.82	757.5	85.3	29.6	43	Calm	0	0			0						Michelson.
Barnaul			29.70	754.4	58.8	14.9	80	Calm	0	0			3						Meteorological Obs.
Yeniseisk			29.48	748.7	56.5	13.6	68	NW	8	3.5			10					Raining	Marks.
Irkutsk			29.52	749.9	56.1	13.4	52	Calm	0	0			0						Usolzef.
Oorga			29.60	751.7	52.2	11.2	36	Calm	0	0			0						Mossin.
Peking, (China)			29.67	753.7	75.0	23.9	32	SW	10	4.5			0						Physical Observatory.
Nertchinsk			29.58	751.2	46.6	8.1	79	SSE	4	2			4						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					48.4	9.1	92	Calm	0	0			2						Kurdakof.

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.02	762.6	72.7	22.6	33	NE	19.5	8.7		1	4	S		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cross			30.05	763.3	47.1	8.4	92	Calm			0		10			0	0		
Hernosand			30.00	761.9	48.6	9.2	81	SE			2		10			0.13	3.2		
Stockholm			29.91	759.6	73.4	23.0	22	SSE			1		4			0	0		
Visby			30.01	762.3	63.7	19.6	49	W			2		0			0	0		
Sub-Series.																			Dr. Hildebrandsson.
Upsala			29.88	759.0	78.6	25.9	39	SW			6		6	WNW	WSW				

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.50	723.9			74.8	23.8	50	NNE			4		8			0	0		The Observatory.
Zurich	28.30	718.8			75.4	24.1	62	W			2		6			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.1mm.; Thermometer, +4°.5 C.; Relative Humidity, —6 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.72	755.0	79.3	26.3	71	NW			2		0						Prof. C. N. A. Van Dyck.
Constantinople			30.00	762.0	70.9	21.6	67	NE	15.7	7.0			2		NE	0	0		
Fao, (Persian Gulf)			29.72	755.0	98.6	37.0		NW			3		10						
Salonica					87.6	30.9		SW			1		0						
Valona			29.93	760.2	82.9	28.3		W			1		10						
Varna			30.04	763.0	77.0	25.0		NE			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.19	766.8	60	15.6		SW	5	2.2		0	0			0.02	0.5		
Chatham, N. B.			30.03	762.7	57	13.9	66	SW	1	0.4		Haze	Sm'e			0	0		
Charlottetown, P. E. Island			29.98	761.5	55	12.8	63	S	5	2.2			10s			0	0		
Fort Garry, Manitoba			30.18	766.6	30	3.9	82	NW	5	2.2		0	2s			0	0		
Halifax, N. S.			30.04	763.0	58	14.4	53	W	6	2.7		Haze	Haze			0	0		
Kingston, Ontario			30.19	766.8	57	13.9	85	SW	1	0.4		0	0			0	0		
Montreal, Quebec			30.09	764.3	60	15.6	82	W	8	3.6		Haze	2ks			0.01	0.3		
Ottawa, Ontario			30.09	764.3	60	16.7	58	SE	6	2.7		0	0			0	0		
Parry Sound, Ontario			30.06	763.5	54	12.2	64	SW	15	6.7		0	0			0	0		
Port Dover, Ontario			30.12	765.0	58	14.4	70	S	12	5.4		0	0			0	0		
Port Stanley, Ontario			30.14	765.5	58	14.4	81	W	12	5.4		10k	0			0	0		
Quebec, Quebec			30.04	763.0	63	17.2	83	SW	12	5.4			10n		SW	0	0		
Saugeen, Ontario			30.12	765.0	42	5.6	91	SW	10	4.5			10s			0	0	Light rain	
Stayner, Ontario			30.06	763.5	59	15.0	58	W	9	4.0			8n		NW	0	0	Threatening	
Sydney, C. B.			30.12	765.0	53	11.7	56	NE	5	2.2		0	0			0	0		
Toronto, Ontario			30.14	765.5	57	13.9	63	SW	5	2.2		5ck	2s			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.15	765.8	68	20.0	64	Calm	0	0		2k	Haze	W		0	0		
Alpena, Mich.			30.01	762.2	52	11.1	59	SW	8	3.6			10ks		SW	0.01	0.3		
Atlantic City, N. J.			30.23	767.8	64	17.8	73	S	1	0.4		2ck	5s	NW	NW	0	0		
Augusta, Ga.			30.17	766.3	68	20.0	89	Calm	0	0		2c	2s	S	SW	0.02	0.5		
Baltimore, Md.			30.22	767.6	67	19.4	69	N	3	1.3		0	Sm'e			0	0		
Barnegat, N. J.			30.23	767.8	66	18.9	73	S	3	1.3		8k	0	W		0.01	0.3		
Benton, Montana			30.11	764.8	45	7.2	76	NW	14	6.3		2k	0			0.34	1.0		
Bismarck, Dakota			30.08	764.0	40	4.4	72	NE	4	1.8		10ck	0			0	0		
Boston, Mass.			30.12	765.0	61	16.1	61	NW	12	5.4		8k	0			0.03	0.8		
Breckenridge, Minn.			30.09	764.3	40	4.4	71	N	8	3.6		5k	0	N		0	0		
Buffalo, N. Y.			30.13	765.3	60	15.6	49	SW	8	3.6		0	0			0.02	0.5		
Burlington, Vt.			30.13	765.3	63	17.2	67	S	4	1.8		0	2s			0	0		
Cairo, Ill.			30.11	764.8	70	21.1	61	SE	16	7.2		2c	0			0	0		
Cape Hatteras, N. C.			30.18	766.6	73	22.8	85	SE	8	3.6		5c	2k			0	0		
Cape Henry, Va.			30.20	767.1	70	21.1	85	SE	4	1.8		Haze	2s			0	0		
Cape May, N. J.			30.22	767.6	61	16.1	82	S	4	1.8		5k	0	NW		0	0		
Charleston, S. C.			30.18	766.6	73	22.8	76	W	4	1.8		5ck	2s		S	0	0		
Cheyenne, W. T.			29.98	761.5	49	9.4	42	W	8	3.6		0	0			0	0		
Chicago, Ill.			30.02	762.5	66	18.9	59	SW	11	4.9		2ck	0			0	0		
Cincinnati, Ohio			30.20	767.1	62	16.7	82	SE	4	1.8		10c	0			0	0		
Cleveland, Ohio			30.14	765.5	63.5	17.5	55	S	7	3.1		6	0			0	0		
Colorado Springs, Col.			29.98	761.5	51	10.6	40	N	5	2.2		0	0			0	0		
Corsicana, Texas			30.08	764.0	73	22.8	85	S	8	3.6		8c	0	W		0	0		
Davenport, Iowa			30.03	762.7	64	17.8	66	SW	8	3.6			10s			0	0		
Denver, Col.			30.03	762.7	53	11.7	36	S	6	2.7		0	0			0	0		
Detroit, Mich.			30.10	764.5	63	17.2	57	SW	12	5.4		2ck	0			0	0		
Dodge City, Kansas			29.52	749.8	66	18.9	79	S	8	3.6		5k	0			0.01	0.3		
Dubuque, Iowa			30.04	763.0	61	16.1	71	Calm	0	0			10s			0	0		
Duluth, Minn.			30.05	763.3	40	4.4	64	NW	8	3.6		5ck	0	NW		0.04	1.0		
Eastport, Me.			30.08	764.0	53	11.7	66	S	6	2.7		2c	Sm'e			0	0		
Erie, Penn.			30.10	764.5	64	17.8	48	SE	10	4.5		0	2s			0	0		
Escanaba, Mich.			30.00	762.0	49	9.4	64	W	6	2.7			10ks			0	0		
Fort Gibson, I. T.			29.93	760.2	77	25.0	74	SE	12	5.4		8ck	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.09	764.3	46	7.8	62	E	18	8.0		5ck	0	SW		0	0		
Galveston, Texas			30.12	765.0	80	26.7	74	E	7	3.1		0	0			0	0		
Grand Haven, Mich.			30.04	763.0	60	15.6	65	S	15	6.7		5ck	0	W		0	0		
Indianapolis, Ind.			30.13	765.3	64	17.8	62	S	4	1.8		5cs	0	NW		0	0		
Indianola, Texas			30.11	764.8	81	27.2	74	SE	10	4.5		2c	2k	W		0	0		
Jacksonville, Fla.			30.21	767.3	78	25.6	69	Calm	0	0		0	0			0	0		
Keokuk, Iowa			29.99	761.7	60	15.6	70	SE	4	1.8		10cs	0	S		0	0		
Key West, Fla.			30.11	764.8	78.3	25.7	66	NE	12	5.4		2k	Haze	NE		0.06	1.5		
Kittyhawk, N. C.			30.20	767.1	70	21.1	89	SE	5	2.2		5c	0			0	0		
Knoxville, Tenn.			30.18	766.6	67	19.4	74	NE	8	3.6		1cs	0			0	0		
La Crosse, Wis.			30.05	763.3	52	11.1	66	NE	6	2.7		10k	0	N		0	0		
Leavenworth, Kan.			29.92	760.0	64	17.8	94	NE	6	2.7			10n		NW	0.80	20.3	Heavy rain.	
Lexington, Ky.			30.26	768.6	68	20.0	59	N	6	2.7		2c	0			0	0		
Long Branch, N. J.			30.21	767.3	67	19.4	45	SW	6	2.7		2k	0	SW		0	0		
Louisville, Ky.			30.17	766.3	65	18.3	63	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.20	767.1	72	22.2	76	Calm	0	0		0	0			0.94	23.9		
Malone, N. Y.																			
Marquette, Mich.			29.98	761.5	46	7.8	62	W	12	5.4		2cs	0	W		0	0		
Memphis, Tenn.			30.12	765.0	76	24.4	69	SE	2	0.9		5c	0			0	0		
Milwaukee, Wisconsin			30.04	763.0	57	13.9	63	SE	3	1.3		8c	Sm'e			0.03	0.8		
Mobile, Ala.			30.20	767.1	73	22.8	76	NE	8	3.6		5c	0			0.53	13.5		
Montgomery, Ala.			30.21	767.3	70	21.1	85	NE	2	0.9		5cs	Haze	W		0.38	9.7		
Morgantown, W. Virginia			30.24	768.1	63	17.2	82	Calm	0	0		0	Fog			0	0		
Mt. Washington, N. H.			30.32	770.1	40	4.4	91	NW	32	14.3		5cs	5s	SW	NW	0	0		
Nashville, Tenn.			30.16	766.1	73	22.8	63	NE	2	0.9		2ck	0			0	0		
New Haven, Conn.			30.20	767.1	67	19.4	64	SW	5	2.2		2cs	0	SE		0.01	0.3		
New London, Conn.			30.21	767.3	58	14.4	82	SW	5	2.2		2ck	2s	W	W	0.02	0.5		
New Orleans, La.			30.15	765.8	76	24.4	82	NE	8	3.6		5k	0	NE		1.72	43.7		
Newport, R. I.																			
New York, N. Y.			30.21	767.3	59	15.0	76	SW	4	1.8		0	0			0	0		
Norfolk, Va.			30.20	767.1	75	23.9	72	Calm	0	0		5k	Haze			0	0		
North Platte, Neb.			29.45	748.0	61	16.1	82	Calm	0	0		5c	5ks	W	W	0	0		
Omaha, Neb.			29.86	758.4	62	16.7	88	Calm	0	0		10cs	0	S		0.18	4.6		
Oswego, N. Y.			30.19	766.8	59	15.0	53	WSW				Haze	0			0	0		
Peck's Beach			30.25	768.3	64	17.8	73	S	6	2.7		0	5ks			0	0		
Pembina, D. T.			30.16	766.1	39	3.9	77	NW	8	3.6		0	0			0.03	0.8		
Philadelphia, Penn.			30.23	767.8	64	17.8	72	W	3	1.3		0	0			0	0		
Pike's Peak, C. T.			30.12	765.0	27	— 2.8	77	N	16	7.2		0	Haze			0	0		
Pittsburgh, Penn.			30.24	768.1	57	13.9	80	E	2	0.9						0	0	Dense smoke	
Port Huron, Mich.			30.12	765.0	59	15.0	64	SW	9	4.0		0	2s			0	0		
Portland, Maine			30.12	765.0	58	14.4	81	SW	1	0.4			10s			0.01	0.3		
Portland, Or.			30.36	771.1	40	4.4	73	N	1	0.4		Haze	Haze			0.05	1.3		
Punta Rassa, Fla.			30.17	766.3	76.5	24.7	64	NE	10	4.5		Haze	Sm'e			0	0		
Rochester, N. Y.			30.15	765.8	61	16.1	50	S	8	3.6		0	0			0	0		
Salt Lake City, Utah			30.12	765.0	58	14.4	31	S	2	0.9		0	0			0	0		
Sandy Hook, N. J.			30.19	766.8	62	16.7	77	SW	12	5.4		5k	0	NW		0.01	0.3		
San Diego, Cal.			30.04	763.0	63	17.2	83	N	4	1.8			10s			0	0		
San Francisco, Cal.			29.99	761.7	54	12.2	74	Calm	0	0		Haze	0			0	0		
Santa Fe, N. M.			29.82	757.4	55	12.8	45	N	4	1.8		0	0			0.23	5.8		
Savannah, Georgia			30.18	766.6	75	23.9	69	W	6	2.7		2c	0			0	0		
Shreveport, La.			30.10	764.5	78	25.6	73	SW	6	2.7		5c	2s		SW	0	0		
Springfield, Mass.			30.16	766.1	63	17.2	66	S	4	1.8		2cs	Haze			0	0		
St. Louis, Mo.			30.08	764.0	65	18.3	53	S	8	3.6			10s			0	0		
St. Marks, Fla.			30.19	766.8	69	20.6	90	NE	6	2.7		5c	0			0.57	14.5		
St. Paul, Minn.			30.02	762.5	45	7.2	60	NW	8	3.6			8s		NW	0	0		
St. Paul's Island, Alaska			30.25	768.3	41	5.6	82	SSE	1	0.4		...c	10k			0	0		
Squan Beach, N. J.			30.20	767.1	62	16.7	77	W	2	0.9		0	Haze			0.02	0.5		
Toledo, Ohio			30.11	764.8	67	19.4	60	SW	10	4.5		0	0			0	0		
Tybee Island, Ga.			30.18	766.6	74	23.3	81	SE	8	3.6		2c	0	W		0	0		
Vicksburg, Miss.			30.20	767.1	72	22.2	75	SE	6	2.7		0	2s		SE	0.07	1.8		
Virginia City, Mon.			29.88	758.9	31	— 0.6	69	Calm	0	0		0	0			0	0		
Washington, D. C.			30.22	767.6	66	18.9	75	SE	1	0.4		Haze	Sm'e			0	0		
Wilmington, N. C.			30.18	766.6	74	23.3	81	SW	4	1.8		8cs	Haze	W		0	0		
Wood's Hole, Mass.			30.18	766.6	56	13.3	79	W	10	4.5			10s			0	0		
Wytheville, Va.			30.06	763.5	60	15.6	76	NW	2	0.9		0	0			0	0		
Yankton, D. T.			30.04	763.0	47	8.3	70	NE	10	4.5			10s		W	0	0		

NOTE.—The original give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					81	27.2	82	NE	3	1.3			10s			0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.98	761.5	80	26.7	70	E				0	5k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	83	28.3	70	E	4.8	2.1		5ck	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.25	768.3	79	26.1	70	SE	10	4.5		8k	2k	SE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.																			Robert Mason.
																			C. F. Allen.
St. Georges, Bermudas			29.85	758.2	76	24.4	76	NE	4.8	2.1		2ck	0	NE		0	0		
																			E. P. Church.
Honolulu, Oahu, S. I.			29.97	761.2	65	18.3	70		2	0.9		2c	2k		N	0	0		
Makawao, Maui, S. I.			29.92	760.0	61	16.1	94	Calm	0	0		0	5n			0.05	1.3		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Mcrherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.33	770.4	33.5	0.8	84	W	12	5.4		6ck	0	E		0	0		J. Forteseue.
Clifton, Jamaica, W. I.	27.25	692.1	30.04	763.0	67	19.4	84	N	1.0	0.4		0	5k			0.10	2.5		C. Partridge.
St. John's, Newfoundland			30.25	768.3	38.5	3.6	86	NE				0	0			0	0		John Debaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.16	766.1	63	17.2		S	12	5.4		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.08	738.6			61	16.1	88	S					10n			0.35	8.9	Raining	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 5, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.01	762.3	77.0	25.0		SSE			2		2			0	0		Charnot.
Algiers			30.04	762.9	71.6	22.0	86	WNW			2		8			0.252	6.4		Peter.
La Calle			29.86	758.4	71.0	22.0		NW			5		9			0.157	4.0	Rainy	Kuntz.
Tunis			29.83	757.6	74.8	23.8	55	W			4		8			0.646	16.4	Rainy	Jacques.
Sfax			29.85	758.2	77.7	25.4		SE			4		2			0	0		Chauvey.
Saida			30.08	764.0	76.1	24.5		NNE			1		2			0	0		Grosjean.
Tebessa																			Colin.
Geriville			30.06	763.4	63.3	17.4		N			2		3			0	0		Bernadach.
Laghouat			29.99	761.7	70.7	21.5	46	N			3		9			0	0		Poinsignon.
Biskra			29.97	761.2															Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.84	757.8	79.9	26.6	57	Calm			0		6			0.150	3.8		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.78	756.5	65.7	18.7	73	NE			3		8			0.020	0.5		I. R. Observatory.
Eperies			29.85	758.1	77.4	25.2	65	S			2		7		N	0	0		Julius Mikolik.
Gratz			29.82	757.3	76.6	24.8	63	SW			2		5			0	0		Andreas Rospini.
Hermannstadt			29.88	758.9	79.9	26.6	34	SE			3		1			0	0		Prof. Reissenberger.
Kremsmünster			29.84	757.9	70.5	21.4	66	NW			2		9			0.413	10.5		Prof. C. Wagner.
Lemberg			29.82	757.4	82.2	27.9	47	S			3		7			0	0		Dr. T. Stanecki.
Nyregyhaza			29.90	759.5	83.8	28.8	40	S			2		3			0.160	4.06		Habsuda Daniel.
Pola			29.87	758.6	78.8	26.0	55	WNW			1		2ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.85	758.1	8 .4	28.0	40	S			3		3			0	0		Karl Stancel.
Trieste			29.88	759.0	78.1	25.6	57	SW			1		8			0	0		Prof. V. Farolfi.
Vienna			29.84	757.8	67.3	19.6	78	W			2		9			0.091	2.3		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.97	761.2	66.[illegible]	19.0	68	NNW			1		10ks		NW	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.80	756.9	59.5	15.3		SSE	13	5.8			4			0	0		William Boswell.
Annanhill																			
Ardrossan			29.92	760.0	58	14.4		SSW			2		5						William McNeil.
Armagh Observatory			29.94	760.2	53.7	12.1		S	9	4.0			10						S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			29.95	760.7	63.6	17.6		WNW			2		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.87	758.7	55.2	12.9		SE			1		2					Rainy	J. Dre er, for L'd Rosse.
Bradford			29.91	759.7	65.1	18.4		SW			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	84.0	28.9		NE			2		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.00	762.0	71.5	21.9		SW					5						H. Todd.
Cape Town, (Cape Colony)																			Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.16	766.1			59.5		64	W	10	4.5			2						Th Staff, for E. J. Stone.
Cardington			30.05	762.7	71.0	21.7		NW					5						John McLaren.
Carlisle			29.92	760.0	63.7	17.6		W					10			0	0		T Bell, for J. Cartmell.
Chatham, School M. E			29.98	761.5	67.2	19.6		W			1		10						Q. M. Sergt J. Conroy.
Colombo, (Ceylon)			29.78	756.4	82.4	28.0		SW			5		10						Sgt. W. F. Hopkins
Dartmoor			30.10	764.5	58	14.4		SW			3		3					Solar halo	R. E. Power.
Donaghadee			29.92	760.0	58	14.4		S			3		10						J. Mac Gowan, Jr.
Dover			30.02	762.5	64	17.8		E			2		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester			29.94	760.2	67.5	19.7		SW	3.4	1.5			8					Misty	Thomas Mackereth.
Falmouth Observatory			30.06	763.5	62.7	17.1		SSW	22	9.8			9						The Staff.
Fort Napier, (Natal)			29.91	760.5	59.6	15.3		S			4		10						Pvt. G. Salmon.
Freetown, (Sierra Leone)			29.84	757.7	86	30.0		W					7						
Galway, Queen's College			29.82	757.4	59	15.0		SSE			3		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.98	761.5	76.0	24.4		SW			5		5						Sergt. E. G. Baker.
Glasgow Observatory			29.90	759.4	58.0	14.4		W			2		10						James Gray.
Great Yarmouth			30.00	762.0	62	16.7		NNW			3		2						G. T. Watson.
Greenwich Royal Obs.			30.01	762.2	71.1	21.7		WSW			1		9						Th S aff, for G. B. Airy.
Guernsey			30.09	764.3	61	16.1		WNW			2		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.94	760.5	68.0	20.0		WSW					10						F. J. P ge, for L. J. Cross.
Halifax, (Nova Scotia)																			Corp'l J. Thompson.
Helston			30.06	763.5	67	19.4		S			4		4					Solar halo	Dr. W. B. Avle.
Holyhead			29.98	761.5	59	15.0		SW			2		4						John Tilston.
Hull Park																			
Kew Observatory			30.01	762.2	69.1	20.6		W	6	2.7			7						The Staff.
Kingstown			29.97	761.2	58	14.4		SSE			2		10					Raining	George Mitchell.
Lampeter																			
Leicester Museum			29.98	761.5	67.4	19.7		SW			1		2						William J. Harrison.
Llandudno			29.98	761.5	62.9	17.2		WNW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.88	758.9	75.0	24.0		NE			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.19	766.8	79.9	26.6		ENE			3		5						Surg.-Maj. J. Jameson.
North Shields			29.95	761.2	63	17.2		WNW			4		7						John Wm. Irvine.
Nottingham			29.9	761.2	75.2	24.0		SW			3		7k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.96	761.0	71.0	21.7		SSW			3		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.97	761.2	70	21.1		SW			1		6						J. Lucas, for R. Main.
Plymouth			30.07	763.8	64.5	18.1		S			2		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.88	758.9	58	14.4		S			5		10						W. Kennedy.
Saint Ann's Head			30.01	762.2	59	15.0		SW			1		9						John C. Walker.
Saint Helier, (Jersey)			30.09	764.3	66.8	19.3		W			2		5						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston.
Scarborough			29.96	761.0	58.4	14.7		SE			1		3						F. Shaw.
Scutari, (Turkey)			29.95	760.7	76.4	24.7		NE			3		1						Sergt. W. H. Lyne.
Sheffield			29.96	761.0	68.4	20.2		NW			1		6			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.94	760.5	65.3	18.5		W			3		7			0.075	1.91		Rev Francis Redford.
Somerleyton, (Lowestoft			29.98	761.5	63.5	17.5		NNE			1		2						Rev. C. J. Steward.
Stonyhurst Observatory								W			2		6						The Staff.
Stornoway, Lews C. (Heb)																			John Smith.
Strathfield Turgiss			29.99	761.7	69.3	20.7		W			1		3						Rev Charles H. Griffith
Streatley Vicarage			29.99	761.7	78.5	25.8		W			3		5						Rev. John Slatter.
Sumburgh Head, (Shetland																			William Lawrence.
Taunton College																			
Thurso			29.74	755.4	61	16.1		W			5		6						John Trotter.
Truro Royal Institution			30.01	762.2	66	18.9		S			5		6						W Newcombe.
Valencia Observatory			29.52	749.8	57.4	14.1		SSE	37	16.5			10					Rain & mist	The Staff.
Wick																			
Wisbeach																			
Worthing			30.03	762.7	66.2	19.0		SW			4		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.66	753.4	75.2	24.0	45	W			2		0						
Fanöe			29.80	757.0	57.2	14.0	85	NW			4		10						
Godthaab, (Greenland)			29.78	756.5	40.6	4.8	56	SW			6		5						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.48	748.9	47.5	8.6	74	N			6		10					Raining	
Vestervig			29.76	755.8	55.4	13.0	82	NW			6		10						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon											2		5		SW	0	0		Normal School.
Amiens			30.10	761.4	69.1	20.6	49	SW			6		0			0	0		Normal School.
Beaumette			30.01	762.3	77.4	25.2	54	W					2		W	0	0		Beaumette Observatory
Beaumette, (near Angers)			30.05	763.2	68.9	20.5	41	N	.7	1.2			8		W	0	0		Normal School.
Beauvais			30.07	763.6	69.0	20.9	50	NW			3		8		NW	0	0		Normal School.
Besançon			30.08	763.9	72.6	22.2	72	S			2		8		SW	0.287	7.3		Normal School.
Bourg en Bresse			30.02	762.5	67.5	19.7	80	ESE			6		10		WSW	0	0		Normal School.
Bourges			30.02	762.6	68.9	20.4	71	W			2		2		SW	0	0		Naval Observatory.
Brest			30.06	763.5	67.8	19.9	61	SW			3		5kn						Normal School
Caen																0	0		Normal School.
Chartres			30.12	765.0	67.1	19.5		W			2		10			0	0		Normal School.
Chaumont			30.07	763.8	68.0	20.0		NW			4		8kn		NW	1.043	26.5		Normal School.
Commercy			30.08	763.9	63.2	17.6	80	W			4		10			0	0		Normal School.
Le Mans			30.21	767.3	67.1	19.5	63	NNE			2		8		NW	0	0		Normal School.
Lons-Le Saulnier			30.00	761.9	64.6	18.1	78	NNE			2		8		N	0	0		
Mâcon			30.04	763.0	66.9	19.4	81	WNW			4		10			0.340	8.8		Normal School.
Mirecourt			29.95	760.7	69.0	20.9	63	NW			4		10		NE	0	0		Normal School.
Orleans			30.03	762.7	71.2	21.8	66	NW			3		5		W	0	0		National Observatory.
Paris Observatory			30.00	762.1	72.0	22.2		WNW			2		10			0	0		Normal School.
Parthenay			30.12	765.0	75.2	24													Normal School.
La Roche sur Yon			30.08	764.1	72.0	22.2	50	NW			1		2		SE	0	0		Normal School.
Rouen			30.03	762.8	68.2	20.1	50	WNW			2		2		W	0	0		Normal School.
Saint Lô			30.10	764.4	73.0	23.1	45	NW			2		5		NW	0	0		Normal School.
Villefranche			30.05	763.2	66.	19.0	77	NW			6		8		N	0.315	8.00		Normal School
Sub-Series.																			
Goree, (Senegambia)					55.0	12.8	72	NNW	6.2	2.78			4		NE	0	0		Frère Pascall.
Mont-Louis	24.89	632.1			73.0	22.9	59	WNW			1		9k, n		W	0	0		—. Falguère.
Montsouris Observatory			30.00	762.1	74.7	23.7	46	NW	4.0	2.08			4c		N	0	0		Marié Davy.
Perpignan			29.99	761.8	71.6	22.0	59	NW			1		10			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.01	762.3															E. Renou.
Saint Pierre, (Martinique)					71.8	22.1	49	W			2		2		NNW	0	0		C. Marquet.
Tours			30.07	763.7	70.5	21.4	63	NW			3		10			0	0		Dr. A. Bérigny.
Versailles, (near Paris)			30.02	762.4					9.0	4.3			10kn			0	0	Misty.	H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai)			29.80	757.0	71.1	21.7	75	ENE								0	0		

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.73	755.1	73.4	23.0	67	W			3		7			0.079	2.0		Prof. Hoh.
Berlin			29.76	756.0	82.6	28.1	42	SW			3		7			0.012	0.3		Prof. Arndt.
Breslau			29.80	756.9	84.2	29.0	40	S-E			6		8			0	0		Dr. P. Neugebauer.
Carlsruhe			29.90	759.4	75.4	24.1	61	SW			5		8			0.118	3.0		A. Senz.
Cassel			29.69	754.0	82.0	27.8	55	W			3		8			0.066	1.67		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.91	759.7	73.4	23.0	74	SW					5			0.087	2.3		M. Wilhelm.
Hamburg			29.82	757.4	71.8	22.1	53	W			4		10			0	0		W. Reinert.
Kiel			29.79	756.7	71.8	22.1	66	W			5		1			0	0		Prof. G. Karsten.
Königsberg			29.65	753.1	81.5	27.5	56	S			1					0.012	0.3		Prof. E. Luther.
Köslin			29.86	758.5	72.5	22.5		SW			2		5			0.756	19.2		Dr. Tägert.
Leipsic			29.82	751.3	73.8	23.2	69	SW			3		7			0.244	6.2		Prof. Bruhns.
Münster			29.87	758.7	75.4	24.1	60	NW			2		3			0	0		Prof. E. Heis.
Posen			29.75	755.7	82.9	28.3	41	SW			6-7		3			0.020	0.5		Dr. Magener.
Strasburg, (in Alsace)			29.93	760.3	74.1	23.4	66	SW					8			0.458	11.63		Hartwig and Tülk.
Stuttgart			29.91	759.6	69.8	21.0	74	E					10			0.102	2.6		Mr. Würth.
Thorn			29.70	754.4	84.2	29.0	40	SW			4		5			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.89	759.1	71.8	22.1	70	SW			7		10			0	0		Prof. Plesch.
Wustrow			29.85	758.2	62.8	17.1	76	W			2		0			0	0		F. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.89	759.2	73.0	22.8	64	W	0.7	0.3			6	E		0.079	2.0		
Mondovi			29.89	759.2	68.9	20.5	56	W			2		3	ESE		0	0		
Genoa			29.87	758.8	76.8	24.9	59	SE	3.1	1.4			8	SE		0	0		
Pavia			29.88	758.9	76.8	24.9	59	SE			1		3	NE		0.433	11.0		
Verona			29.85	758.1	83.7	28.7	49	E			1		5			0	0		
Padua			29.86	758.5	78.1	25.6	51	ESE	4.9	2.2			1	SE		0	0		
Parma																			
Bologna			29.88	759.0	77.5	25.3	60	N			2		5	SE		0	0		
Leghorn			29.88	759.0	68.9	20.5	83	S	2.5	1.4			9			0.039	1.0		
Urbino			29.87	758.6	67.1	19.5	75	ENE			4		7			0	0		
Ancona			29.87	758.6	75.0	24.2	71	NNE			4		3			0	0		
Siena			29.84	757.9	75.4	24.1	48	SSW	2.5	1.1			8	NE		0.264	6.7		
Rome			29.89	759.2	77.7	25.4	55	WSW	13.7	6.1			5	W		0	0		
Naples, O.U.			29.92	760.0	77.0	25.0	55	SW			2		3			0	0		
Lecce			29.92	760.0	82.9	28.3	36	S	16.8	7.5			9	SW		0	0		
Cosenza			29.89	759.1	81.1	27.3	54	NW			1		7	NW		0	0		
Catania, (Sicily)																			
Riposto			29.80	759.1	75.2	24.0	70	NE			2		4	W		0	0		
Palermo			29.83	757.6	74.1	23.4	62	NE			4		9			0	0		
Sub-Series.																			
Naples, S. R.			29.95	760.7	75.2	24.0	70	SW			3		6	W		0.807	20.5		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.02	762.5	61.5	16.4		NNW			3								
Groningen			29.86	758.4	60.3	15.7		NNW			2								
Helder			29.93	760.3	55.9	13.3		NW			3								
Utrecht			29.89	759.3	68.7	20.4	68	NW			3		5						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.69	754.2	53.6	12.0	72	W	16.8	7.5			9			0.213	4.4		
Christiania			29.51	749.6	73.9	23.3	38	SW	9.2	4.1			4			0	0	Hazy	
Tromsö			29.47	748.6	41.4	5.2	92	NE			6		5			0.008	0.2		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.12	765.1	72.3	22.4	32	N	23.7	10.6			1						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.72	754.8	85.3	29.6	31	S	16	7			5						Astronomical Obs.
Wilna			29.74	755.5	77.5	25.3	53	S	8	3.5			10						Astronomical Obs.
Dorpat			29.68	753.9	80.2	26.8	31	SSW	11	5			6						Physical Cabinet.
St. Petersburg			29.65	753.2	72.0	22.2	52	SW	7	3			7						Central Physical Obs.
Kuopio			29.49	749.1	69.6	20.9	57	SW					5		NE				
Kieff			30.04	762.9	81.3	27.4	39	SSE	9	4			7						Physical Cabinet.
Nikolaiev			30.08	764.1	87.3	30.7	26	S	10	4.5			0						
Kertch			30.07	763.8	73.4	23.0	62	NE	13	6			1						Lagorio.
Moscow			30.10	764.5	61.9	16.6	42	SW	8	3.5			5						Meteorological Obs.
Lugan			30.08	764.0	68.5	20.3	24	E	13	6			0						Meteorological Obs.
Archangel			29.74	755.3	44.6	7.0	85	W	4	2			10					Raining	Ogorodnikof.
Tiflis			30.01	762.3	75.2	24.0	57	S	13	6			7						Physical Obs.
Astrakhan			30.20	767.1	66.6	19.2	20	NNW	10	4.5			0						Sebastianof.
Kasan			29.92	760.0	46.4	8.1	46	N	10	4.5			8						Physical Cabinet.
Orenburg			29.74	755.4	41.2	51.	64	NNW					10						Tschernischef.
Ekaterinburg			29.37	746.0	37.2	2.9	91	W	13	6			10					Raining	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.78	756.3	86.0	30.0	48	Calm	0	0			2						Michelson.
Barnaul			29.71	754.7	70.9	21.6	58	Calm	0	0			2						Meteorological Obs.
Yeniseisk			29.61	752.2	68.4	20.2	50	S	10	5.5			1						Marks.
Irkutsk			29.74	755.4	53.6	12.0	55	Calm	0	0			7						Usolzef.
Oorga																			Mossin.
Peking, (China)			29.60	751.7	84.7	29.3	25	SSW	13	6			1						Physical Observatory.
Nertchinsk			29.71	754.6	52.5	11.4	61	Calm		0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					52.2	11.2	80	E	10	4.5			10						Kurdukof.

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.95	760.6	79.9	26.6	35	S	1.6	0.7		1	1	NE		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.47	748.4	52.2	11.2	80	S			10		1			0.07	1.8		
Hernosand			29.45	748.0	54.3	12.4	65	S			6		1			0.07	1.9		
Stockholm			29.49	749.1	77.9	25.5	39	SSW			6		2			0.05	1.2		
Visby			29.63	752.5	72.0	22.2	58	W			6		0			0	0		
Sub-Series.																			
Upsala			29.47	748.6	77.2	25.1	38	SW			6		8		SW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.54	725.0			71.2	21.8	70	NNE			2		7			0.012	0.3		The Observatory.
Zurich	28.34	719.9			70.2	21.2	70	W			1		7			0.405	11.8		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, −1.0mm.; Thermometer, +2°.4 C.; Relative Humidity, +14 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Beirut, (Syria)			29.82	757.3	83.8	28.8	60	WSW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			30.01	762.2	70.7	21.5	61	NE	16.8	7.5			2		NE	0	0		
Fao, (Persian Gulf)			29.76	756.0	95.7	35.4		SE			3		0						
Salonica					82.8	28.2		S			2		5						
Salona			29.96	761.0	86.4	30.2		SW			2		2						
Yarna			30.04	763.0	77.0	25.0		S			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.13	765.3	59	15.0		Calm	0	0			10s		SW	0.03	0.8		
Chatham, N. B.			30.04	763.0	65	18.3	72	SW	2	0.9		0	Sm'e			0	0		
Charlottetown, P. E. Island			30.08	764.0	56	13.3	81	SW	8	3.6			10s			0	0		
Fort Garry, Manitoba			30.12	765.0	40	4.4	94	NE	7	3.1		5k	5n	NE	NE	0.070	1.78		
Halifax, N. S.			30.06	763.5	56	13.3	68	SW	8	3.6		0	0			0	0		
Kingston, Ontario			30.10	764.5	58	14.4	86	Calm	0	0		10cs	0			0.03	0.8		
Montreal, Quebec			30.08	764.0	65	18.3	75	NE	6	2.7		2c	Haze	W		0	0		
Ottawa, Ontario			30.07	763.8	57	13.9	58	Calm	0	0		8k	Sm'e	W		0.04	1.0		
Parry Sound, Ontario			30.04	763.0	58	14.4	82	W	2	0.9			10n		SW	0.05	1.3		
Port Dover, Ontario			30.04	763.0	63	17.2	78	Calm	0	0		10k	0	S		0	0		
Port Stanley, Ontario			30.02	762.5	61	16.1	85	E	3	1.3			10n		E	0	0		
Quebec, Quebec			30.11	764.8	60	15.6	65	SW	6	2.7		5k	0	SW		0	0		
Saugeen, Ontario			30.00	762.0	56	13.3	90	Calm	0	0		5k	2s			0.24	6.1		
Stayner, Ontario			30.01	762.2	60	15.6	88	Calm	0	0		8k	Haze			0.16	4.1		
Sydney, C. B.			30.10	764.5	56	13.3	65	W	8	3.6		Haze	Haze			0	0		
Toronto, Ontario			30.06	763.5	54	12.2	81	SE	3	1.3			8ks		SW	0.05	1.3		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.13	765.3	63	17.2	72	S	3	1.3			10s		W	0	0		
Alpena, Mich.			29.99	761.7	53	11.7	79	E	4	1.8		2c	0	SE		0	0		
Atlantic City, N. J.			30.22	767.6	66	18.9	90	SW	3	1.3		0	0			0	0		
Augusta, Ga.			30.16	766.1	76	24.4	73	S	4	1.8		2ck	2s	S	S	0	0		
Baltimore, Md.			30.19	766.8	69	20.6	84	S	5	2.2		Haze	5ks			0	0		
Barnegat, N. J.			30.22	767.6	70	21.1	75	SW	3	1.3		2c	0	W		0	0		
Benton, Montana			30.42	772.7	45	7.2	76	N	16	7.2			10s		N	0	0		
Bismarck, Dakota			30.02	762.5	50	10.0	64	NW	6	2.7		0	Haze			0.01	0.3		
Boston, Mass.			30.16	766.1	73	22.8	47	NW	4	1.8		0	0			0	0		
Breckenridge, Minn.			30.10	764.5	49	9.4	73	W	8	3.6		0	0			0	0		
Buffalo, N. Y.			30.01	752.2	67	19.4	50	Calm	0	0			Haze			0	0		
Burlington, Vt.			30.10	764.5	65	18.3	73	S	6	2.7			10s			0	0		
Cairo, Ill.			30.09	764.3	66	18.9	100	S	8	3.6			10n		S	1.68	42.7	Heavy rain	
Cape Hatteras, N. C.			30.24	768.1	76	24.4	69	SE	6	2.7		2c	Haze			0	0		
Cape Henry, Va.			30.23	767.8	78	25.6	73	S	4	1.8		5c	Haze	W		0	0		
Cape May, N. J.			30.22	767.6	61	16.1	94	S	6	2.7		5cs	Fog	NW		0	0		
Charleston, S. C.			30.24	768.1	78	25.6	72	S	4	1.8		5c	2s			0	0		
Cheyenne, W. T.			30.19	766.8	47	8.3	77	N	4	1.8			10s			0	0		
Chicago, Ill.			30.00	762.0	58	14.4	81	N	7	3.1			10s			0.23	5.8		
Cincinnati, Ohio			29.98	761.5	72	22.2	72	S	8	3.6			10s		S	0	0		
Cleveland, Ohio			30.00	762.0	64.5	18.1	76	SW	4	1.8			10n			0.03	0.8	Heavy rain	
Colorado Springs, Col.			30.13	765.3	50	10.0	86	N	12	5.4		2cs	5ks	SW		0	0		
Corsicana, Texas			30.04	763.0	74	23.3	85	S	6	2.7		2ck	2k	W		0	0		
Davenport, Iowa			30.05	763.3	61	16.1	94	Calm	0	0			10s		NE	0.02	0.5		
Denver, Col.			30.23	767.8	54	12.2	67	NE	2	0.9			10s			0	0		
Detroit, Mich.			29.97	761.2	65	18.3	68	NE	4	1.8			10s			0.01	0.3		
Dodge City, Kansas			29.92	760.0	62	16.7	88	NE	15	6.7			10n			0.02	0.5	Light rain	
Dubuque, Iowa			30.03	762.7	63	17.2	67	NW	4	1.8		8cs	0	NW		0	0		
Duluth, Minn.			30.06	763.5	50	10.0	64	SW	8	3.6		5ck	0			0	0		
Eastport, Me.			30.14	765.5	51	10.6	78	S	5	2.2		2c	0			0	0		
Erie, Penn.			29.98	761.5	67	19.4	55	SE	8	3.6			10ks			0	0		
Escanaba, Mich.			30.04	763.0	52	11.1	72	NE	4	1.8		2c	Haze			0	0		
Fort Gibson, I. T.			29.98	761.5	64	17.8	94	SE	12	5.4			10n		NW	0.83	21.1	Light rain	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.20	767.1	45	7.2	84	Calm	0	0		0	0			0	0		
Galveston, Texas			30.07	763.8	80	26.7	74	SE	6	2.7		0	0			0	0		
Grand Haven, Mich.			30.00	762.0	57	13.9	93	W	4	1.8			10s			0.09	2.3		
Indianapolis, Ind.			29.93	760.2	68	20.0	84	W	4	1.8			10s		W	0.27	6.9		
Indianola, Texas			30.07	763.8	82	27.8	70	S	6	2.7		2c	2k	W		0	0		
Jacksonville, Fla.			30.21	767.3	79	26.1	65	Calm	0	0		0	0			0	0		
Keokuk, Iowa			30.00	762.0	61	16.1	94	Calm	0	0			Fog			0.58	14.7	Foggy	
Key West, Fla.			30.12	765.0	74.4	25.2	69	NE	9	4.0		5k	0			0.01	0.3		
Kittyhawk, N. C.			30.24	768.1	74	23.5	81	W	8	3.6		5cs	0	SW		0	0		
Knoxville, Tenn.			30.11	764.8	71	21.7	80	Calm	0	0		10cs	0			0	0		
La Crosse, Wis.			30.10	764.5	55	12.8	68	N	6	2.7		2k	0	N		0	0		
Leavenworth, Kan.			30.04	763.0	65	18.3	84	Calm	0	0		0	5s		NE	0.70	17.8		
Lexington, Ky.			30.05	763.3	71	21.7	66	SW	14	6.3		2c	5s			0	0		
Long Branch, N. J.			30.22	767.6	64	17.8	89	SE	1	0.4		2c	Haze			0	0		
Louisville, Ky.			30.01	762.2	74	23.3	68	SW	10	4.5		10k	0	SW		0	0		
Lynchburg, Va.			30.16	766.1	74	23.3	72	E	1	0.4		5c	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	47	8.3	62	N	4	1.8		2ck	0	W		0	0		
Memphis, Tenn.			30.09	764.3	75	23.9	64	SE	6	2.7		5cs	Haze			0	0		
Milwaukee, Wisconsin			30.04	763.0	48	8.9	85	NE	13	5.8			10ks		NE	0	0		
Mobile, Ala.			30.16	766.1	76	24.4	86	SW	2	0.9		0	0			0	0		
Montgomery, Ala.			30.17	766.3	75	23.9	72	S	4	1.8		8c	Haze			0	0		
Morgantown, W. Virginia			30.02	762.5	71	21.7	70	Calm	0	0		8c	2ks	W		0	0		
Mt. Washington, N. H.			30.38	771.6	46	7.8	69	NW	32	14.3		8cs	Haze	W		0	0		
Nashville, Tenn.			30.11	764.8	72	22.2	71	W	4	1.8		5k	5s	W		0	0		
New Haven, Conn.			30.20	767.1	69	20.6	65	SSW	5	2.2		5cs	Sm'e	N		0	0		
New London, Conn.			30.22	767.6	65	18.3	81	S	3	1.3		2c	0	NW		0	0		
New Orleans, La.			30.13	765.3	76	24.4	82	S	4	1.8		2ck	0	SW		0.01	0.3		
Newport, R. I.																			
New York, N. Y.			30.22	767.6	64	17.8	83	SW	4	1.8		5c	Fog			0	0		
Norfolk, Va.			30.23	767.8	77	25.0	77	SW	9	4.0		8k	0	S		0	0		
North Platte, Neb.			29.88	758.9	52	11.1	86	NE	6	2.7			10ks		SW	0	0		
Omaha, Neb.			30.15	766.1	54	12.2	87	Calm	0	0			10s			0	0		
Oswego, N. Y.			30.08	764.0	65.2	18.4	66	S	2	0.9			10s			0	0	Threatening	
Peck's Beach			30.23	767.8	65	18.3	89	SE	8	3.6		8cs	Haze			0	0		
Pembina, D. T.			30.10	764.5	40	4.4	77	NW	16	7.2			10s		NW	0	0		
Philadelphia, Penn.			30.20	767.1	66	18.9	89	SW	5	2.2		0	Sm'e			0	0		
Pike's Peak, C. T.			30.18	766.6	27	— 2.8	88	SW	8	3.6		2c	10s	W		0	0		
Pittsburgh, Penn.			30.02	762.5	65	18.3	68	Calm	0	0						0	0	Dense smoke	
Port Huron, Mich.			29.99	761.7	63	17.2	67	Calm	0	0			10n			0	0	Light rain	
Portland, Maine			30.17	766.3	60	15.6	76	E	1	0.4		2c	0			0	0		
Portland, Or.			30.25	768.3	48	8.9	49	Calm	0	0		0	Haze			0	0		
Punta Rassa, Fla.			30.18	766.6	76.0	24.4	64	E	12	5.4		1c	Sm'e			0	0		
Rochester, N. Y.			30.04	763.0	67	19.4	55	SW	6	2.7			10s		SW	0	0		
Salt Lake City, Utah			30.15	765.8	56	13.3	34	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.20	767.1	68	20.0	74	W	4	1.8		8c	Haze	W		0	0		
San Diego, Cal.			30.04	763.0	61	16.1	83	NE	4	1.8			10s			0	0		
San Francisco, Cal.			30.00	762.0	56	13.3	71	SW	2	0.9		0	0			0	0		
Santa Fe, N. M.			29.82	757.4	58	14.4	42	Calm	0	0		5c	0	SW		0	0		
Savannah, Georgia			30.22	767.6	78	25.6	69	SW	6	2.7		8ck	0	SW		0	0		
Shreveport, La.			30.10	764.5	75	23.9	85	S	4	1.8		5ck	0	SW		0	0		
Springfield, Mass.			30.18	766.6	69	20.6	61	S	4	1.8		5cs	Sm'e			0	0		
St. Louis, Mo.			30.07	763.8	66	18.9	83	W	4	1.8			10s			1.42	36.1		
St. Marks, Fla.			30.17	766.3	73	22.8	85	E	4	1.8		0	0			0	0		
St. Paul, Minn.			30.06	763.5	53	11.7	67	Calm	0	0		8ck	0	W		0	0		
St. Paul's Island, Alaska			30.32	770.1	41	5.0	82	ESE	4	1.8			10k			0	0		
Squan Beach, N. J.			30.20	767.1	65	18.3	94	W	1	0.4		0	Sm'e			0	0		
Toledo, Ohio			29.94	760.5	62	16.7	88	NE	18	8.0			10s		SE	0.14	3.6	Threatening	
Tybee Island, Ga.			30.22	767.6	79	26.1	69	S	2	0.9		5c	2k	SW		0	0		
Vicksburg, Miss.			30.19	766.8	78	25.6	65	Calm	0	0		0	0			0	0		
Virginia City, Mon.			30.00	762.0	38	3.3	55	E	10	4.5		0	0			0	0		
Washington, D. C.			30.19	766.8	71	21.7	77	S	8	3.6		5cs	2s			0	0		
Wilmington, N. C.			30.24	768.1	76	24.4	76	S	8	3.6		5c	2k	W	SW	0	0		
Wood's Hole, Mass.			30.22	767.6	63	17.2	83	Calm	0	0		5c	0	W		0	0		
Wytheville, Va.			29.96	761.0	65	18.3	78	E	3	1.3		0	0			0	0		
Yankton, D. T.			30.25	768.3	51	10.6	79	NW	4	1.8		8ks	2s	NW	NW	0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					80	26.7	78	NE	4	1.8		5k	2s	E		0.08	2.0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.98	761.5	80	26.7	82	E				5cs	2ks	E		0.33	8.4		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	80	26.2	82	SE	8.4	3.8		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.17	766.3	79	26.1	70	E	13	5.8		2c	8k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	77	25.0	76	N	1.2	0.5		0	2s			Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.15	765.8	72.5	22.5	76	Calm	0	0		..s	2k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			29.97	761.2	65	18.3	73	NE	4	1.8		2c	5k	NE	NE	0	0		E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	58.5	14.7	87	Calm	0	0		0	..s			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.27	768.8	37.5	3.1	67	N	8	3.6		5c	0	N		0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.26	692.4	30.04	763.0	72	22.2	95	N	0.5	0.2		0	0			0.32	8.1		C. Partridge.
St. John's, Newfoundland			30.14	765.5	60	15.6	34	W				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.04	763.0	61	16.1		NW	4	1.8			10n			0.55	14.0	Raining	H. M. Redington.
Indianola, Iowa	29.16	740.7			60	15.6	81	NW				8ck	0	W		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 6, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.17	766.2	77.2	25.1		NE			3		0			0	0		Charnot.
Algiers			30.15	765.9	75.0	24.2	61	E			2		8			0	0		Peter.
La Calle			30.03	762.7	70.0	21.1		NW			4		6			0.630	16.0		Kuntz.
Tunis			29.97	761.2	70.2	21.2	83	W			3		8			0.5 8	12.9	Rainy	Jacques.
Sfax			29.93	760.2	75.9	24.4		NE			3		2			0.039	1.0		Chauvey.
Saida			30.17	766.2	70.7	26.5		NNE			1		1			0	0		Grosjean.
Tebessa			30.07	763.7	68.4	20.2		N			4		7			0.039	1.0	Rain	Colin.
Gerlville			30.14	765.5	71.8	22.1		N			2		0			0	0		Bernadach.
Laghouat			30.16	766.0	78.8	26.0	42	N			2		4			0	0		Poinsignon.
Biskra			30.10	764.5	87.8	31.0		NW			4		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.88	759.0	86.9	30.5	51	Calm			0		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.92	759.9	66.0	18.9	76	W			1		10			0.140	3.7		I. R. Observatory.
Eperies			29.81	757.9	77.5	25.3	65	S			2		7		N	1.142	29.00		Julius Mikolik.
Gratz			29.95	760.6	74.8	23.8	70	E			2		5			0	0		Andreas Rospini.
Hermannstadt			29.87	758.8	80.2	26.8	35	SE			3		1			0	0		Prof. Reissenberger.
Kremsmünster			30.01	762.3	66.6	19.2	83	WNW			3		10			0.047	1.2		Prof. C. Wagner.
Lemberg			29.80	757.0	81.0	27.2	49	NW			5		8			0.031	0.8		Dr. T. Stanecki.
Ny'regyhaza			29.91	759.7	82.4	28.0	56	SW			3		0			0	0		Habzsuda Daniel.
Pola			29.96	760.9	77.5	25.3	66	SSW			1		2ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.89	759.1	80.2	26.8	43	S			3		5			0	0		Karl Stancel.
Trieste			29.96	760.9	70.7	26.5	64	NW			1		6			0	0		Prof. V. Farolfi.
Vienna			29.93	760.1	72.0	22.2	58	W			4		10			0.110	2:8		I. R Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.04	763.0	70.2	21.2	53	W			2		10s		W	0	0	Sprinkling.	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.64	752.8	55	12.8		SSE	6	2.7			9			0.200	5.08		William Boswell.
Annanhill																			
Ardrossan																			
Armagh Observatory			29.80	756.9	62.8	17.1		W3W	11	4.9									William McNeil.
Banbridge																			S. Cali, for Dr. Robinson
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			29.81	757.2	64.2	17.9		SW			4		6						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.81	758.7	62.9	17.2		SW			1-3		9						J. Dreyer, for L'd Rosse.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.01	762.2	82.6	28.1		NE			3		7					Threatening	T. H. Hunt.
Bywell																			
Cambridge Observatory			29.90	759.4	68.9	20.5		SW			3		7						H. Todd.
Cape Town, (Cape Colony)			30.00	762.0	71.8	16.6		W			2		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.01	762.2			62.0	16.7	56	WNW	15	6.7			0						Th. Staff, for E. J. Stone.
Cardington			29.95	760.2	71	21.7		SW					8						John McLaren.
Carlisle			29.76	755.9	62.9	17.2		W					10			0.08	2.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.92	760.0	69.4	20.8		W			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.80	756.9	82.4	28.0		SW			4		10						Sgt. W. F. Hopkins
Dartmoor			30.04	763.0	54.5	12.5		W			4		8						R. E. Power.
Donaghadee			29.75	755.6	61	16.1		WNW			3		5						J. Mac Gowan, Jr.
Dover			29.98	761.5	61	16.1		SW			5		10						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.80	756.9	63.3	17.4		SW	9	4.0			10						G. D. Goldney.
Falmouth Observatory			30.03	762.7	60.0	15.9		SW	26	11.6			9						Thomas Mackereth.
Fort Napier, (Natal)			30.09	764.3	59.6	15.3		SE			1		10						The Staff.
Freetown, (Sierra Leone.)			29.85	758.2	82	27.8		E					8						Pvt. G. Salmon.
Galway, Queen's College			29.84	757.9	62	16.7		W			5		4						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.00	763.3	76	24.4		NE			3		0						Sergt. E. G. Baker.
Glasgow Observatory			29.68	753.9	56.7	13.7		W			2		7						James Gray.
Great Yarmouth			29.89	759.2	67	19.4		WSW			3		6						G. T. Watson.
Greenwich Royal Obs.			29.94	760.5	75.6	24.2		WSW			2		7						The Staff, for G. B. Airy.
Guernsey			30.08	764.0	59	15.0		SW			3		8					Misty	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.81	757.2	64.4	18.0		W					10					Showery	F. J. Pierce, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. V. Thompson.
Helston			30.02	762.5	64	17.8		SW			4		8						Dr. W. B. Avie.
Holyhead			29.86	758.4	60	15.6		SSW			6		2						John Tilston.
Hull Park																			
Kew Observatory			30.93	760.2	68	20.0		SW	21	9.4			7						The Staff.
Kingstown			29.83	757.7	64	17.8		WNW			3		6						George Mitchell
Lampeter																			
Leicester Museum			29.88	758.9	67	19.4		SW			4		4						William J. Harrison.
Llandudno			29.83	757.7	65.0	18.3		W					6						Dr. James Nicol.
Malta, (Mediterranean)			29.94	760.5	74.2	23.4		NE					2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.17	766.3	72.2	22.3		ENE			2		10					Rainy	William D. Penny.
North Shields																			Surg.-Maj. J. Jameson.
Nottingham			29.85	758.2	71.3	21.8		WbW			5		7ks		W				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, St Mary's College			29.86	758.4	66.0	18.9		SW			4		8						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.92	760.0	67	19.4		W			3		7						J. Lucas, for R. Main
Plymouth			30.02	762.5	63.5	17.5		W			4		10					Misty	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.88	758.9	63	17.2		WbW			4		5					Misty	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.09	764.3	64.8	18.2		W			4		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.98	761.5	79.0	26.1		NE			2		3						Sergt. W. H. Lyne.
Sheffield			29.80	759.4	69	20.6		W			3		8			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.76	755.9	65.6	18.3		WSW			4		8			0.153	3.89		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.88	758.9	67.7	19.8		SSW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.81	757.2	58.3	14.6		SW			3		10						The Staff.
Stornoway, Lewis C. (Heb.)																			John Smith.
Strathfield Turgiss			29.94	760.5	68.8	20.4		W			1-2		5						Rev Charles H. Griffith
Streatley Vicarage			29.95	760.7	74.0	23.3		WSW			6		6						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.53	750.0	63	17.2		Calm			0		6						John Trotter.
Truro Royal Institution			30.00	762.0	63	17.2		W			7		6						W. Newcombe.
Valencia Observatory			29.93	760.2	59.9	15.5		W	20	8.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.92	759.9	62.2	16.8	46	W			2		9						
Fanöe			29.90	759.5	56.5	13.6	79	SW			4		9						
Godthaab, (Greenland)			29.49	749.1	36.1	2.2	79	NNE			4		0						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.60	751.7	59.4	12.7	78	SW			2		6						
Vestervig			29.83	757.6	57.2	14.0	85	S			2		4						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.17	766.4	69.1	20.6	64	SW			3		8		SW	0	0		Normal School.
Amiens			30.08	763.9	72.7	22.6	63	W			2		0			0	0		Normal School.
Beaumette, (near Angers)			30.17	766.4	72.3	22.4	56	SW	5.8	2.6			5		SW	0	0		Beaumette Observatory
Beauvais			30.14	765.6	75.7	24.3	47	S W			3		8		SW	0	0		Normal School.
Besançon			30.2	767.6	73.4	23	56	SW			2		8		SW	0	0		Normal School.
Bourg en Bresse			30.11	764.8	76.5	24.7	68	N			4		5		S	0	0		Normal School.
Bourges			30.17	766.2	70.5	21.4	64	WSW			4		5		SW	0	0		Normal School.
Brest			30.08	764.1	64.2	17.9	76	W			3		10		W	0.039	1.00	Misty	Naval Observatory.
Caen																			Normal School
Chartres			30.15	765.9	73.4	23		W			3		2c		W	0	0		Normal School.
Chaumont			30.23	767.7	69.8	21.0		WNW			8		0			0	0		Normal School.
Commercy			30.22	767.5	68.4	20.2	45	W			4		0			1.039	1.0		Normal School.
Le Mans			30.32	770.1	69.1	20.6	65	SW			3		5		SW	0	0		Normal School.
Lons-Le Saulnier			30.14	765.6	62.4	16.9	57	N			2		2			0	0		Normal School.
Mâcon			30.15	765.9	72.7	22.6	75	WNW			4		0			0	0		
Mirecourt			30.09	764.2	69.4	20.8	41	W			2		0			0	0		Normal School.
Orleans			30.16	766.0	73.0	22.8	63	W			3		2		N	0	0		Normal School.
Paris Observatory			30.11	764.9	75.4	24.1		SW			2		5ck		NW	0	0	Solar halo	National Observatory
Parthenay			30.20	767.1	76.1	24.5	87	NW			2		5		W	0	0		Normal School.
La Roche sur Yon			30.25	768.3	64.4	18.0	77	SW			2		10			0	0		Normal School.
Rouen			30.11	764.7	67.8	19.9	74	SSW			2		10		W	0	0		Normal School.
Saint Lo			30.11	764.8	71.1	21.7	77	S			2		5		SW	0	0		Normal School.
Villefranche			30.00	762.1	76.1	24.5	64	NW			3		2		NE	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.02	635.6			54.9	12.7	80	NNW	3.6	1.6			2		N	0	0		—, Falguère.
Montsouris Observatory			30.12	765.0	76.3	24.6	34	SW			3		8c,ck,k		WNW	0	0	Solar halo	Marié Davy.
Perpignan			30.14	765.6	75.7	24.3	38	WNW	3.6	1.62			0			0	0		Dr. Flues.
Saint Maur, (near Paris)			30.12	765.0	74.1	23.4	27	WSW			3		5			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.17	766.3	75.7	24.3	33	WSW			2		2		WNW	0	0		C. Marquet.
Versailles, (near Paris)			30.13	765.2	74.8	23.8	38	WNW			4		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.80	756.9	63.5	17.5	96	ENE	23.7	10.6			10n			0.394 / 0.528	10.0 / 13.4		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.99	761.7	70.2	21.2	50	W			4		8			0.016	0.4		Prof. Hoh.
Berlin			30.08	764.0	70.7	21.5	50	W			2		5			0	0		Prof. Arndt.
Breslau			30.04	763.0	68.9	20.5	69	NW			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.07	763.7	71.8	23.8	52	SW			2		9			0	0		A. Senz.
Cassel			29.86	758.5	75.0	24.2	28	SW			4		2			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.13	765.4	65.3	18.5	85	W ?					10			0	0		M. Wilhelm.
Hamburg			30.00	761.9	68.5	20.3	41	SW			2		4c		W	0	0		W. Reinert.
Kiel			29.96	760.9	66.4	19.1	47	W			2		5			0	0		Prof. G. Karsten.
Königsberg			29.80	759.1	60.4	15.8	60	NW			2					0.370	9.4		Prof. E. Luther.
Köslin			30.15	765.9	59.9	15.5		NW			4		5			0	0		Dr. Tägert.
Leipsic			30.05	763.2	69.8	21.0	57	NW			1		7			0.535	13.6		Prof. Bruhns.
Münster			29.99	761.8	73.4	23.0	45	NW			2		0			0	0		Prof. E. Heis.
Posen			29.98	761.6	72.7	22.6	43	W			6-7		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.10	764.5	73.6	23.1	50	W					5			0	0		Hartwig and Tülk.
Stuttgart			30.08	763.9	70.3	21.3	60	N			8					0	0		Mr. Würth.
Thorn			29.86	759.3	75.0	23.9	33	NNW			5		3			0	0		Dr. Rosenbalg.
Treves, (Trier)			30.04	762.9	73.4	23.0	42	SW			7		1			0	0		Prof. Flesch.
Wustrow			30.01	762.2	60.4	15.8	61	WSW			2		3			0	0		F. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.98	761.5	74.5	23.6	62	SSE	1.3	0.6			3	N		0	0		
Mondovi			29.98	761.4	72.9	22.7	48	E			2		1	NE		0	0		
Genoa			30.01	762.3	72.1	22.3	52	SW	1.3	0.6			10	N		0.075	1.9		
Pavia			29.97	761.1	70.9	26.6	52	W			2		9	NE		0	0		
Verona			29.91	759.7	78.8	26.0	52	SW			2		6			0	0		
Padua			29.93	760.2	78.8	26.0	53	SE	7.4	3.3			2	NE		0	0		
Parma																			
Bologna			29.94	760.5	77.5	25.3	57	NNW			2		3	ENE		0	0		
Leghorn			29.99	761.8	73.2	22.9	63	W	1.8	0.8			1			0	0		
Urbino			29.99	761.7	72.0	22.2	50	SSW			4		1			0	0		
Ancona			29.97	761.2	75.9	24.4	71	SE			4		2			0	0		
Siena			29.95	760.6	75.6	24.2	45	NW					3	N		0.012	0.3		
Rome			29.97	761.2	82.2	27.9	42	WSW	8.1	3.6			6			0	0		
Naples, O. U.			29.98	761.5	78.8	26.0	47	NW			2		7			0	0		
Lecce			29.99	761.7	80.2	26.8	43	WSW	11.2	5.0			6	S		0	0		
Cosenza			29.95	760.6	83.1	28.4	44	SE			2		8	SE		0	0		
Catania, (Sicily)																			
Siposto			29.91	759.8	77.2	25.1	67	SE			4		4	NE		0	0		
Palermo			29.90	759.4	73.4	23.0	73	NE			2		9			0.012	0.3		
Sub-Series.																			
Naples, S. R.			30.04	762.9	77.4	25.2	60	N			3		..ks	N		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.04	763.0	66.6	19.2		SW			4								
Groningen			29.91	759.8	66.2	19.0		WSW			5								
Helder			29.96	760.9	58.3	14.6		SSW			5								
Utrecht			29.95	760.8	71.2	21.8	50	SW			4		8						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.69	754.1	59.[illegible]	15.2	62	SSW	14.2	6.4			10			0.224	5.7	Rainy	
Christiania			29.[illegible]4	752.8	67.6	19.8	29	WSW	13.[illegible]	5.9			2			0.004	0.1		
Tromsö			29.30	744.2	45.3	7.4	94	NE			2		10			0	0	Rainy	

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.12	765.1	82.4	28.0	33	NE	13.7	6.1		0							

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.84	758.0	73.8	23.2	59	NW	7	3			6						Astronomical Obs.
Wilna			29.69	754.2	76.5	24.7	57	W	4	2			8						Astronomical Obs.
Dorpat			29.57	751.1	73.2	22.9	47	W	11	5			0						Physical Cabinet.
St. Petersburg			29.47	748.6	65.8	18.8	79	NW	4	2			8					Thunder-storm	Central Physical Obs.
Kuopio			29.32	744.8	66.7	19.2	47	W					5		E				Physical Cabinet.
Kieff			29.88	759.0	84.0	28.9	40	SSW	13	6			1						
Nikolaiev			30.08	764.1	86.0	30.1	38	S	8	3.5			0						Lagorio.
Kertch			30.01	762.3	75.4	24.1	62	E	13	6			0						Meteorological Obs.
Moscow			29.69	754.2	63.3	17.4	84	SW	13	6			10					Rainy	Meteorological Obs.
Lugan			29.96	761.0	78.3	25.7	24	ESE	10	4.5			0						Ogorodnikof.
Archangel			29.58	751.2	61.3	16.3	69	ESE	20	9			6						Physical Obs.
Tiflis			30.13	765.2	73.8	23.2	37	S	8	3.5			9						Sebastianof.
Astrakhan			30.30	769.7	69.6	20.9	32	Calm	0	0			0						Physical Cabinet.
Kasan			29.86	758.4	66.2	19.0	63	W	10	4.5			10						Tschernischef.
Orenburg			29.79	756.6	62.6	17.1	35	NW	13	6			10						Meteorological Obs.
Ekaterinburg			29.58	751.2	45.9	7.7	54	W	20	9			8						Bobrof.
Kasaly																			Michelson.
Tashkend			30.24	768.2	65.1	18.4	74	NW	8	3.5			10					Rainy	Meteorological Obs.
Barnaul			29.60	751.8	59.4	15.2	89	WSW	8	3.5			4						Marks.
Yeniseisk			29.45	748.1	76.1	24.5	50	E	13	6			0						Usolzef.
Irkutsk			29.67	753.5	60.4	15.8	51	Calm	0	0			0						Mossin.
Oorga			29.72	755.0	52.2	11.2	60	Calm	0	0			10						Physical Observatory.
Peking, (China)			29.84	757.9	71.4	21.9	37	S	8	3.5			5						Meteorological Obs.
Nertchinsk			29.63	752.6	65.5	18.6	29	SW	8	3.5			3						
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor					45.7	7.6	94	SE	8	3.5			6						

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.07	763.7	81.9	27.7	21	NE	1.6	0.7						0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.39	746.6	59.7	15.4	56	NW			7		8			0	0		
Hernosand			29.49	749.0	64.4	18.0	36	W			3		8			0	0		
Stockholm			29.42	747.3	65.5	18.6	32	WSW			5		4			0	0		
Visby			29.74	755.4	61.2	16.2	53	W			1		0			0.02	0.5		
Sub-Series.																			
Upsala			29.57	751.1	68.5	20.3	35	W			6		6						Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.79	729.6			70.5	21.4	55	NNE			2		7			0	0		The Observatory.
Zurich	28.51	724.2			73.0	22.8	60	SE			1		8			0.047	1.2		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.5mm.; Thermometer, +1°.8 C.; Relative Humidity, —1 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			30.03	762.7	71.4	21.9	55	NNE	10.1	4.5			2		NE	0	0		
Fao, (Persian Gulf)			29.76	756.0	96.8	36.0		NW			3		0						
Salonica					84.0	28.9		NW			1		0						
Valona			30.04	762.9	79.0	26.1		NW			2		5						
Varna			30.08	764.0	82.4	28.0		SE			3		2						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.02	762.5	60	15.6		W	1	0.4			8s		W	0	0		
Chatham, N. B.			29.74	755.4	71	21.7	63	SW	11	4.9		8c	0	W		0	0		
Charlottetown, P. E. Island			29.84	757.9	63	17.2	63	S	8	3.6		0	0			0	0		
Fort Garry, Manitoba			30.30	769.6	43	6.1	83	W	7	3.1		0	Haze			0	0		
Halifax, N. S.			29.81	757.2	69	20.6	48	S	3	1.3		2c		NW		0	0		
Kingston, Ontario			30.00	762.0	62	16.7	79	NW	4	1.8		2ck		NW		0	0		
Montreal, Quebec			29.87	758.7	62	16.7	74	W	10	4.5		2ck	5ks	W		0	0		
Ottawa, Ontario			29.97	761.2	58	14.4	48	W	8	3.6		5ck		W		0.03	0.8	Clearing	
Parry Sound, Ontario			30.04	763.0	55	12.8	68	W	13	5.8		5cs		W		0	0		
Port Dover, Ontario			30.07	763.8	57	13.9	64	N	6	2.7		5k		W		0.02	0.5		
Port Stanley, Ontario			30.06	763.5	58	14.4	49	N	4	1.8		0	0			0	0		
Quebec, Quebec			29.79	756.7	62	16.7	67	SW	10	4.5			10n		SW	0	0		
Saugeen, Ontario			30.06	763.8	47	8.3	48	SW	1	0.4		2cs	0			0	0		
Stayner, Ontario																0	0		
Sydney, C. B.			29.84	757.9	73	22.8	50	W	10	4.5		0	Haze			0	0		
Toronto, Ontario			30.06	763.5	56	13.3	57	W	3	1.3		0	0			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.90	759.4	68	20.0	84	S	1	0.4			8s		W	0.04	1.0		
Alpena, Mich.			30.05	763.3	53	11.7	61	N	8	3.6		5c	0	NW		0	0		
Atlantic City, N. J.			29.97	761.2	62	16.7	94	SW	6	2.7			10s			0.28	7.1		
Augusta, Ga.			30.08	764.0	73	22.8	81	S	5	2.2		0	0			1.15	29.2		
Baltimore, Md.			29.97	761.2	74	23.3	72	S	9	4.0		5ck	Haze	W		0.85	21.6		
Barnegat, N. J.			29.97	761.2	60	15.6	100	SW	4	1.8			10s			0	0		
Benton, Montana			30.48	774.2	48	8.9	77	Calm	0	0		2k	0	S		0.18	4.6		
Bismarck, Dakota			30.38	771.6	44	6.7	67	NW	13	5.8		2k	0			0	0		
Boston, Mass.			29.93	760.2	68	20.0	79	SW	8	3.6		5k	5s		W	0	0		
Breckenridge, Minn.			30.30	769.6	42	5.6	100	N	8	3.6			10s			0.25	6.3		
Buffalo, N. Y.			30.32	770.1	56	13.3	62	NW	4	1.8		2k	5ks	W	W	0.06	1.5		
Burlington, Vt.			29.89	759.2	63	17.2	72	W	4	1.8			10s			0.16	4.1		
Cairo, Ill.			30.02	762.5	66	18.9	94	S	4	1.8			10s		S	0.88	22.4	Threatening	
Cape Hatteras, N. C.			30.12	765.0	74	23.3	76	S	16	7.2		5ck	Haze			0	0		
Cape Henry, Va.			30.04	763.0	73	22.8	81	SW	14	6.3		10k	0	W		0	0		
Cape May, N. J.			29.98	761.5	64	17.8	89	S	8	3.6		2k	0	W		0.20	5.1		
Charleston, S. C.			30.15	765.8	77	25.0	72	S	8	3.6		5k	0			0	0		
Cheyenne, W. T.			30.34	770.6	41	5.0	75	N	4	1.8			10s			0	0		
Chicago, Ill.			30.08	764.0	59	15.0	65	NW	4	1.8			10s			0	0		
Cincinnati, Ohio			29.99	761.7	69	20.6	84	NE	2	0.9			10n			0.03	0.8	Light rain	
Cleveland, Ohio			30.03	762.7	58.5	14.7	70	NE	4	1.8			10ks		W	0.52	13.2		
Colorado Springs, Col.			30.26	768.5	46	7.8	92	N	12	5.4			10n			0.73	18.5	Light rain	
Corsicana, Texas			29.99	761.7	72	22.2	90	S	6	2.7		5cs	2k			0	0		
Davenport, Iowa			30.17	766.3	58	14.4	76	NW	1	0.4			10s			0	0		
Denver, Col.			30.39	771.9	43	6.1	83	N	16	7.2			10n		N	0.11	2.8	Heavy rain	
Detroit, Mich.			30.05	763.3	60	15.6	49	N	3	1.3		2ck	5ks	NW		0	0		
Dodge City, Kansas			29.98	761.5	52	11.1	60	NE	11	4.9		0	0			0.33	8.4		
Dubuque, Iowa			30.13	765.3	61	16.1	66	NW	8	3.6			10s			0	0		
Duluth, Minn.			30.24	768.1	45	7.2	67	NW	4	1.8			10s		NW	0.03	0.8		
Eastport, Me.			29.84	757.9	54	12.2	73	SW	9	4.0		10c	0	W		0	0		
Erie, Penn.			29.99	761.7	62	16.7	71	NW	4	1.8		2ck	4ks	NW		0.34	8.6		
Escanaba, Mich.			30.15	765.8	47	8.3	69	N	16	7.2		5k	0	N		0	0		
Fort Gibson, I. T.			30.02	762.5	68	20.0	90	N	8	3.6			10s		N	0.03	0.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.40	772.1	46	7.8	69	N	8	3.6			10s		N	0	0		
Galveston, Texas			30.04	763.0	79	26.1	69	S	8	3.6		8k	0	NE		0	0		
Grand Haven, Mich.			30.09	764.3	55	12.8	73	Calm	0	0			10s		NW	0	0		
Indianapolis, Ind.			30.03	762.7	59	15.0	76	NE	6	2.7			10n		W	0.20	5.1	Light ra	
Indianola, Texas			30.06	763.5	79	26.1	82	S	3	1.3		5k	0			0	0		
Jacksonville, Fla.			30.16	766.1	78	25.6	58	Calm	0	0		0	0			0	0		
Keokuk, Iowa			30.12	765.0	60	15.6	66	N	12	5.4			10s		N	0	0		
Key West, Fla.			30.07	763.8	80.6	27.0	67	E	8	3.6		0	2ks			0	0		
Kittyhawk, N. C.			30.10	764.5	72	22.2	85	W	14	6.3			10s			0.09	2.3		
Knoxville, Tenn.			30.01	763.0	70	21.1	79	Calm	0	0		8k	0	SW		0.01	0.3		
La Crosse, Wis.			30.13	765.3	56	13.3	74	N	9	4.0			10s		N	0	0		
Leavenworth, Kan.			30.18	766.6	59	15.0	81	Calm	0	0			5s			0.05	1.3		
Lexington, Ky.			30.06	763.5	72	22.2	76	SW	8	3.6		5c	2s			0	0		
Long Branch, N. J.			29.95	760.7	68	20.0	94	SW	2	0.9			10s			0	0		
Louisville, Ky.			29.99	761.7	74	23.3	72	SW	2	0.9			10s			0	0		
Lynchburg, Va.			30.00	762.0	77	25.0	67	SW	1	0.4			0			0.02	2.5		
Malone, N. Y.																			
Marquette, Mich.			30.16	766.1	45	7.2	61	NW	8	3.6		2k	0	NW		0	0		
Memphis, Tenn.			30.04	763.0	70	21.1	90	S	5	2.2		2ck	8s			0.93	23.6		
Milwaukee, Wisconsin			30.12	765.0	57	13.9	75	NW	6	2.7			10ks		NW	0	0		
Mobile, Ala.			30.12	765.0	79	26.1	78	SE	2	0.9		5c	2s			0.10	2.5		
Montgomery, Ala.			30.11	764.8	76	24.4	69	S	6	2.7		2cs	Haze			0	0		
Morgantown, W. Virginia			29.99	761.7	70	21.1	75	W	1	0.4			10s			0.45	11.4		
Mt. Washington, N. H.			30.10	764.5	45	7.2	100	NW	56	25.0			Fog			0.10	2.5		
Nashville, Tenn.			30.03	762.7	75	23.9	72	Calm	0	0		5ck	0	W		0.11	2.8		
New Haven, Conn.			29.98	761.5	66	18.9	84	SW	4	1.8			10s			0	0		
New London, Conn.			29.99	761.7	65	18.3	84	SW	9	4.0			10s		SW	0	0		
New Orleans, La.			30.08	764.0	75	23.9	91	SE	3	1.3		2cs	5k		SE	0.04	1.0		
Newport, R. I.																			
New York, N. Y.			29.95	761.0	65	18.3	89	Calm	0	0		1k	5s			0	0		
Norfolk, Va.			30.05	763.3	74	23.3	81	SW	14	6.3			10s		SW	0	0		
North Platte, Neb.			30.06	763.5	50	10.0	78	N	2	0.9			8ks		W	0.12	3.0		
Omaha, Neb.			30.22	767.6	58	14.4	70	N	12	5.4		2ck	0	W		0.05	1.3		
Oswego, N. Y.			30.01	762.2	48	8.9	92	W	15	6.7		5cs	5s	N		0.03	0.8		
Peck's Beach			29.98	761.5	63	17.2	88	S	8	3.6			10s			0.28	7.1		
Pembina, D. T.			30.32	770.1	45	7.2	76	W	4	1.8		0	0			0	0		
Philadelphia, Penn.			29.95	761.0	69	20.6	90	W	6	2.7			10s		W	0.10	2.5		
Pike's Peak, C. T.			30.18	766.6	21	− 6.1	85	W	6	2.7		Haze	10s			0.32	8.1		
Pittsburgh, Penn.			30.01	762.2	63	17.2	83	NW	1	0.4			10s		NW	0.25	6.3		
Port Huron, Mich.			30.07	763.8	54	12.2	49	NE	5	2.2		5c	0	W		0	0		
Portland, Maine			29.88	758.9	64	17.8	78	SW	8	3.6			10s			0	0		
Portland, Or.			30.05	763.3	56	13.3	62	S	3	1.3		2k	0			0	0		
Punta Rassa, Fla.			30.12	765.0	76	24.4	76	NE	8	3.6		Haze	Sm'e			0	0		
Rochester, N. Y.			30.02	762.5	56	13.3	74	NW	12	5.4		2k	5s	NW	NW	0.13	3.3		
Salt Lake City, Utah			30.13	765.3	60	15.6	29	SW	2	0.9		0	0			0	0		
Sandy Hook, N. J.			29.93	760.2	70	21.1	84	S	5	2.2		0	8ks		W	0	0		
San Diego, Cal.			29.94	760.5	61	16.1	88	N	4	1.8			10s			0	0		
San Francisco, Cal.			30.00	762.0	56	13.3	75	Calm	0	0		Haze	0			0	0		
Santa Fe, N. M.			29.95	760.7	52	11.1	35	W	4	1.8		0	0			0	0		
Savannah, Georgia			30.14	765.5	76	24.4	81	Calm	0	0			10s		S	0	0		
Shreveport, La.			30.08	764.6	73	22.8	85	Calm	0	0		8c	2s			0.81	20.6		
Springfield, Mass.			29.94	760.5	65	18.3	91	SW	8	3.6			10s			0	0		
St. Louis, Mo.			30.07	763.8	62	16.7	71	N	12	5.4			10s			0	0		
St. Marks, Fla.			30.14	765.5	75	23.9	90	W	2	0.9		10k	0	W		0	0		
St. Paul, Minn.			30.17	766.3	47	8.3	69	N	12	5.4			10s		N	0	0		
St. Paul's Island, Alaska			29.94	760.5	40	4.4	91	SE	24	10.7			10s			0.16	4.1		
Squan Beach, N. J.			29.95	760.7	58	14.4	100	S	3	1.3			10s		S	0	0		
Toledo, Ohio			30.03	762.7	58	14.4	75	N	4	1.8		5c	5s		N	0.04	1.0		
Tybee Island, Ga.			30.13	765.3	72	22.2	85	S	8	3.6		2c	2k			0	0		
Vicksburg, Miss.			30.20	767.1	71	21.7	85	Calm	0	0			10s			0.01	0.3		
Virginia City, Mon.			30.06	763.5	39	3.9	63	NE	8	3.6		0	0			0	0		
Washington, D. C.			29.98	761.5	71	21.7	82	W	1	0.4		5cs	1s	W	NW	0.40	10.2		
Wilmington, N. C.			30.14	765.5	76	24.4	76	SW	6	2.7		2k	2ks	SW	SW	0	0		
Wood's Hole, Mass.			30.00	762.0	63	17.2	76	SW	18	8.0			10s			0	0		
Wytheville, Va.			29.84	757.9	66	18.9	84	W	2	0.9		2k	0	W		0.96	24.4		
Yankton, D. T.			30.33	770.4	50	10.0	79	NW	8	8.0		0	0			0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					82	27.8	87	E	4	1.8		5k	2ks			0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.96	761.0	80	26.7	70	E				0	0			0.21	5.3		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	80	26.7	82	E	3.6	1.6		2k	0	E		0.04	1.0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.25	768.3	80	26.7	78	E	10	4.5		2c	2k	E		0.04	1.0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	77	25.0	88	NE	2.4	1.1		5c	0	N		0	0		Robert Mason.
St. Georges, Bermudas			30.17	766.3	71	21.7	76	SE	6	2.7			10kn			0.75	19.1		C. F. Allen.
Honolulu, Oahu, S. I.			29.99	761.7	63	17.2	68		2	0.9		0	0			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.15	765.8	34.5	1.4	79	NW	20	8.9			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.24	691.9	30.02	762.5	70	21.1	9	N	2	0.9		0	0			0	0		C. Partridge.
St. John's, Newfoundland			29.90	759.4	67	19.4	46	W				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.15	765.8	59	15.0	65	E	4	1.8			10n			0.26	6.7		H. M. Redington.
Indianola, Iowa	29.22	742.2			62	16.7	81	N					8kn			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 7, 1875.

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.
1:40 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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.24	768.0	77.7	25.4		NW			2		0			0	0		Charnot.
Algiers			30.28	769.0	72.7	22.6	84	NE			1		2			0	0		Peter.
La Calle			30.22	767.5	71.6	22.0		NW			6		0			0	0		Kuntz.
Tunis			30.17	766.3	75.2	24.0	67	NE			3		6			0.083	2.1		Jacques.
Sfax			30.13	765.2	79.0	26.1		SSE			5		2			0	0		Chauvey.
Safda			30.24	768.2	79.2	26.2		N			2		0			0	0.		Grosjean.
Tebessa			30.18	766.5	65.3	18.5		N			3		9			0.079	2.0	Light rain	Colin.
Geriville			30.21	767.3	71.6	22.0		NNE			1		3			0	0		Bernadach.
Laghouat			30.18	766.5	79.7	26.5	25	NW			3		1			0	0		Poinsignon.
Biskra			30.19	766.7	85.5	29.7		NNE			3		6			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.11	764.7	81.0	27.2	50	SW			3		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.08	763.9	66.0	18.9	79	W			1		7			0.126	3.2		I. R. Observatory.
Eperies			30.03	762.7	71.6	22.0	67	Calm			0		9			0.020	0.5		Julius Mikolik.
Gratz			30.07	763.6	76.1	24.5	47	N			2		2			0	0		Andreas Rospini.
Hermannstadt			29.98	761.5	62.6	17.0	86	W			1		10			0.756	19.2		Prof. Reissenberger.
Kremsmünster			30.15	765.9	72.3	22.4	55	WNW			3		7			0	0		Prof. C. Wagner.
Lemberg			29.95	760.7	66.0	18.9	68	N			3		6			0.520	13.2		Dr. T. Stanecki.
Nyiregyhaza			30.04	763.1	73.0	22.8	66	N			3		2			0	0		Habzsuda Daniel.
Pola			30.14	765.6	78.8	26.0	60	NNW			2		1k			0	0		I.R. Hydrographic Of'ce
Szegedin			30.00	761.9	73.4	23.0	64	NW			4		10			0	0		Karl Stancel.
Trieste			30.14	765.6	83.7	28.7	51	W			1		6			0	0		Prof. V. Farolfi.
Vienna			30.11	764.9	71.6	22.0	68	W			2		8			0.173	4.4		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.20	767.1	70.7	21.5	53	W			2		6cks		WNW	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.83	757.1	58	14.4		S	10	4.5			1			0	0	Showery	William Boswell.
Annanhill																			
Ardrossan			29.79	756.7	60	15.6		SW			1		7						William McNeil.
Armagh Observatory			29.85	758.2	62.7	17.1		SW	19	8.5			7					Squally	S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			29.92	760.0	66.4	19.2		SW			6		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.95	760.7	66.2	15.7		WSW			3		10					Showery	J. Dreaper, for L'd Rosse.
Bradford			29.87	758.7	66.3	19.1		S			4		8					Showery	J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	83.4	28.6		SE			4		9						T. H Hunt.
Bywell																			
Cambridge Observatory			30.08	764.0	69.5	20.8		SW			3		10						H. Todd.
Cape Town, (Cape Colony)			30.12	765.0	63	17.2		NW			3		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.12	765.0			64.2	17.9	78	W	8	3.6			2						The Staff, for E. J. Stone.
Cardington			30.10	764.5	74	23.3		SW					6						John McLaren.
Carlisle			29.83	757.7	59.9	15.5		SW					9			0.13	3.3		T Bell, for J. Cartmell.
Chatham, School M. E.			30.14	765.5	66.2	19.0		W			3		9						Capt. I Fellowes, R. E.
Colombo, (Ceylon)			29.80	756.9	80.5	26.9		SW			5		10						Sgt. W. F. Hopkins
Dartmoor			30.25	768.3	55	12.8		SW			4		10					Rain & fog	R. E. Power.
Donaghadee			29.80	756.9	65	18.3		WSW			5		10						J. Mac Gowan, Jr.
Dover			30.19	766.8	59	15.0		WSW			5		9						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester			29.94	760.5	64.9	18.3		S	6.6	3.0			8					Showery	Thomas Mackereth.
Falmouth Observatory			30.20	767.1	62.4	16.9		SW	28	12.5			10						The Staff.
Fort Napier, (Natal)			30.00	763.3	75.4	24.1		E			1		1						Pvt. G. Salmon.
Freetown, (Sierra Leone)			29.83	757.7	84	28.9							8						
Galway, Queen's College			29.82	757.4	59	15.0		W			5		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.20	767.1	75	23.9		NE			4		0						Sergt. E. G. Baker.
Glasgow Observatory			29.78	756.4	54	12.2		Calm			0		10						Lewis Stewart.
Great Yarmouth			30.00	763.5	71	21.7		WSW			5		4						G. T. Watson.
Greenwich Royal Obs.			30.15	765.8	64.5	18.1		SW			4		10						The Staff, for G. B. Airy.
Guernsey			30.28	769.1	63.5	17.5		SW			3		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.92	760.0	65.6	18.7		SW					9					Showery	F. J. Rice, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Thompson.
Helston			30.15	765.8	63	17.2		SW			4		10						Dr. W. B. Avle.
Holyhead			29.86	758.4	60	15.6		SSW			6		3						John Tibston.
Hull Park																			
Kew Observatory			30.14	765.5	64.0	17.8		SSW	21	9.4			10					Raining	The Staff.
Kingstown			29.95	760.7	66	18.9		W			3		8						George Mitchell.
Lampeter																			
Leicester Museum			30.02	762.5	69.9	21.1		SW			5		8						William J. Harrison.
Llandudno			29.92	760.0	66	18.9		WSW					1						Dr. James Nicol.
Malta, (Mediterranean)			30.05	763.3	73.8	23.2		NE			1		4k						Fred Travis, Pvt A.H.C.
Mackree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.14	765.5	75.8	24.3		ESE			1		7					Threatening	Surg.-Maj. J. Jameson
North Shields			29.86	758.4	64	17.8		SW			4		8						John Wm. Irvine.
Nottingham			29.98	761.5	69.7	20.9		SSW			5		9k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.01	762.2	67.1	19.5		SSW			4		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.07	763.8	69	20.6		SW			3		10						J. Lucas, for R. Main
Plymouth			30.19	766.8	60	15.6		SW			4		10					Foggy	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.03	762.7	60	15.6		WSW			5		10						W. Kennedy.
Saint Ann's Head			30.04	763.0	58	14.4		SW			4		6						John C. Walker.
Saint Helier, (Jersey)			30.29	769.4	63.0	17.2		WSW			3		10						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston.
Scarborough			29.91	759.7	66	18.9		SW			3		8						F. Shaw.
Scutari, (Turkey)			29.96	761.0	73.2	22.9		SW			1		6						Sergt. W. H. Lyne.
Sheffield			29.92	760.0	70.5	21.4		SW			5		5			0	0	Rainy	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.85	758.2	58.0	14.4		SSW			5		10			0.160	4.06	Rain	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.05	763.3	71.4	21.9		SSW			2		7						Rev. C. J. Steward.
Stonyhurst Observatory			29.92	760.0	60.3	15.7		SW			3		10						The Staff.
Stornoway, Lewis C. (Heb.)																			John Smith.
Strathfield Turgiss			30.14	765.5	69.6	20.9		W			1-2		10						Rev Charles H. Griffith
Streatley Vicarage			30.13	765.3	69.2	20.7		SW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland																			William Lawrence.
Taunton College																			
Thurso			29.77	756.1	60	15.6		Calm			0		7						John Trotter.
Truro Royal Institution			30.15	765.8	64	17.8		S			6		10						W Newcombe.
Valencia Observatory			29.97	761.2	61.0	16.1		SW	34	15.2			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.21	767.3	59.2	15.1		SW			6		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.92	760.0	66.9	19.4	59	W			6		10						
Fanöe			29.97	761.2	58.6	14.8	81	W			4		10						
Godthaab, (Greenland)			29.19	741.5	40.5	4.7	74	NNE			4		5						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.60	751.8	57.2	14.0	77	SW			4		10						
Vestervig			29.89	759.1	55.0	12.8	82	WSW			2		10						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.34	770.5	71.1	23.4	54	SW			3		5		SW	0	0		Normal School.
Amiens			30.31	767.4	77.0	25.0	46	WSW			3		5		WSW	0	0		Normal School.
Beaumette, (near Angers)			30.33	770.3	73.2	22.9	54	SW	10.3	4.6			5		SW	0	0		Beaumette Observatory.
Beauvais			30.35	771.0	72.1	22.3	50	WSW			2		2		W	0	0		Normal School.
Besançon			30.38	771.6	75.2	24	74	WNW			2		5		SW	0	0		Normal School.
Bourg en Bresse			30.33	770.4	78.3	25.7	67	NE			2		5		S	0	0		Normal School.
Bourges			30.32	770.0	69.8	21	70	WSW			2		5		WSW	0	0		Normal School.
Brest			30.26	768.5	66.0	18.9	69	SW			3		10		SW	0.010	0.25	Misty	Naval Observatory.
Caen																			Normal School
Chartres			30.30	769.5	76.6	24.8		WSW			1		2k		W	0	0		Normal School.
Chaumont			30.37	771.4	70.7	21.5		W			4		7ck		W	0	0		Normal School.
Commercy			30.37	771.4	69.3	20.7	58	WNW			4		5		E	0	0		Normal School.
Le Mans			30.48	774.2	70.7	21.5	57	NW			2		2		NW	0	0		Normal School.
Lons-Le Saulnier			30.30	769.5	66.4	19.1	62	NW			2		2		NW	0	0		Normal School.
Mâcon			30.32	770.1	72.0	22.2	67	WNW			4		5		E	0	0		
Mirecourt			30.01	762.2	69.4	20.8	58	W			4		2		W	0	0		Normal School.
Orleans			30.17	766.4	74.5	23.6	77	WSW			3		2		W	0	0		Normal School.
Paris Observatory			30.28	769.1	74.7	23.7		SW			1		1k			0	0		National Observatory.
Parthenay			30.39	772.0	77.0	25	83	SW			2		2		W	0	0		Normal School.
La Roche sur Yon			30.34	770.5	74.5	23.6	56	SW			1		2		NE	0	0		Normal School.
Rouen			30.29	769.4	72.7	22.6	51	SW			2		2		SW	0	0		Normal School.
Saint Lo			30.28	769.0	68.0	20.0	77	W			1		5		S	0	0		Normal School.
Villefranche			30.32	770.2	74.8	23.8	79	N			3		2		NW	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.18	639.6			66.4	19.1	46	NNW	4.1	1.84			0			0	0		—, Faignère.
Montsouris Observatory			30.28	769.0	77.5	25.3	48	W			2		3k, c		W	0	0		Marié Davy.
Perpignan			30.23	767.7	84.9	29.4	31	NW	2.0	1.14			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.28	769.2	77.0	25.0	44	W			1		1k			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.32	770.2	75.6	24.2	50	W			1		2		WNW	0	0		C. Marquet.
Versailles, (near Paris)			30.29	769.3	75.2	24.0	48	NW			3		4			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.68	753.8	66.0	18.9	95	W	7.0	3.4			10n			0.071 / 0.232	1.8 / 5.9		H. Le Lee, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.04	763.0	73.4	23.0	39	W			5		3			0	0		Prof. Hoh.
Berlin			30.14	765.5	75.4	24.1	54	S			2		7			0	0		Prof. Arndt.
Breslau			30.15	765.7	74.3	23.5	42	W			5		7			0	0		Dr. P. Neugebauer.
Carlsruhe			30.21	767.3	77.4	25.2	46	SW			5		2			0	0		A. Senz.
Cassel			30.04	762.9	71.8	22.1	47	SW			4		4			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.25	768.3	71.6	22.0	58	SW					2			0	0		M. Wilhelm.
Hamburg			30.10	764.3	68.5	20.3	66	W			5		10k			0.016	0.4		W. Reinert.
Kiel			30.00	762.0	67.8	19.9	61	W			5		10			0	0		Prof. G. Karsten.
Königsberg			29.97	761.3	70.7	21.5	52	SW			2					0	0		Prof. E. Luther.
Köslin			30.18	766.6	67.3	19.6		W			4		6			0	0		Dr. Tägert.
Leipsic			30.14	765.5	75.9	24.4	29	WSW			2		8			0	0		Prof. Brahns.
Münster			30.17	766.4	67.5	19.7	60	W			4		0			0.012	0.3		Prof. E. Heis.
Posen			30.08	764.0	70.1	24.5	39	W			6-7		10			0.012	0.3		Dr. Magener.
Strassburg, (in Alsace)			30.24	768.2	76.1	24.5	45	SW					6			0	0		Hartwig and Tülk.
Stuttgart			30.21	767.3	77.0	25.0	53	NW					5			0	0		Mr. Würth.
Thorn			30.00	762.1	72.3	22.4	48	W			5		9			0	0		Dr. Dusenbalg.
Treves, (Trier)			30.19	766.9	72.7	22.6	40	W			8		1			0	0		Prof. Flesch.
Wustrow			30.04	763.0	63.5	17.5	75	WSW			3		7			0	0		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.17	766.2	71.1	21.7	48	SW	1.8	0.8			2	S		0	0		
Mondovi			30.16	766.0	77.0	25.0	41	NNW			2		2	S		0	0		
Genoa			30.16	766.0	76.6	24.8	69	SW	1.3	0.6			0			0	0		
Pavia			30.16	766.0	80.6	27.0	47	N			1		0			0	0		
Verona			30.11	764.7	86.0	30.0	39	SSW			2		0			0	0		
Padua			30.13	765.4	80.6	27.0	40	S	3.8	1.7			1	W		0	0		
Parma																			
Bologna			30.17	766.2	77.9	25.5	69	NE			2		3	WNW		0	0		
Leghorn			30.14	765.5	77.0	25.0	70	WNW	5.6	2.5			3			0	0		
Urbino			30.15	765.8	71.6	22.0	58	NE			4		2			0	0		
Ancona			30.16	766.0	74.6	24.8	71	NNW			4		2	E		0	0		
Siena			30.11	764.7	78.4	25.8	41	ENE	4.3	1.9			4	NE		0	0		
Rome			30.11	764.9	83.1	28.4	41	S	8.1	3.6			3	E		0	0		
Naples, O.U.			30.10	764.6	83.1	28.4	41	SW			2		3	NE		0	0		
Lecce			30.07	763.8	82.4	28.0	56	NNE	12.5	5.6			1	E		0	0		
Cosenza			30.10	764.4	81.5	27.5	43	NW			1		6	NW		0	0		
Catania, (Sicily)																			
Girgento			30.06	763.4	79.5	26.4	67	ESE			2		4	S		0	0		
Palermo			30.04	762.9	73.6	23.1	65	NE			2		9			0	0		
Sub-Series.																			
Naples, S. R.			30.09	764.2	82.0	27.8	53	SE			3		..e	NE		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.21	767.4	64.4	18.0		W			4								
Groningen			30.06	763.4	63.5	17.5		WSW			5								
Helder			30.11	764.7	61.5	16.4		SW			4								
Utrecht			30.12	765.0	68.2	20.1	61	WSW			4		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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	53.6	12.0	84	WSW	11.9	5.3			10			0.291	7.4		
Christiania			29.67	753.7	59.4	15.2	70	NW	6.3	2.8			9			0	0	Raining	
Tromsö			29.71	754.6	44.6	7.0	92	NE			6		10			0.020	0.5		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.20	767.0	87.1	30.6	26	ENE	3.8	1.7			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			30.02	762.6	72.7	22.6	37	SW	4	2			3						Astronomical Obs.
Wilna			29.97	761.3	70.7	21.5	41	W	4	2			7						Astronomical Obs.
Dorpat			29.84	757.9	68.0	20.0	42	W	13	6			2						Physical Cabinet.
St. Petersburg			29.74	755.4	63.1	17.3	55	NW	7	3			4					Solar corona	Central Physical Obs.
Kuopio			29.69	754.0	56.1	13.4	62	W					10		E	0.024	0.60		Physical Cabinet.
Kieff			29.92	760.0	77.4	25.2	61	NNE	4	2			5						
Nikolaiev			30.00	762.1	87.3	30.7	37	SSW	8	3.5			0						Lagorio.
Kertch			29.95	760.8	79.7	26.5	44	E	10	4.5			0						Meteorological Obs.
Moscow			29.76	755.8	72.9	22.7	40	WNW	10	4.5			0						Meteorological Obs.
Lugan			29.81	757.1	86.2	30.1	25	WSW	8	3.5			0						Ogorodnikof.
Archangel			29.59	751.6	58.5	14.7	78	W	13	6			10					Raining	Physical Obs.
Tiflis			29.92	760.0	79.2	26.2	36	SW	10	4.5			2						Sebastianof.
Astrakhan			30.11	764.8	74.7	23.7	28	S	8	3.5			0						Physical Cabinet.
Kasan			29.65	753.1	69.3	20.7	63	W	6	2.5			8						Tscherniischef.
Orenburg			29.80	756.9	64.9	18.3	76	W	10	4.5			10						Meteorological Obs.
Ekaterinburg			29.62	752.4	43.9	6.6	60	NW	13	6			7						Bobrof.
Kasaly																			Michelson.
Tashkend			30.02	762.4	80.1	26.7	28	Calm	0	0			2						Meteorological Obs.
Barnaul			29.84	757.8	54.9	12.7	43	SSW	8	3.5			4						Marks.
Yeniseisk			29.63	752.6	59.0	15.0	67	W	13	6			4						Usolzef.
Irkutsk			29.49	749.1	68.0	20.0	52	Calm	0	0			5						Mossin.
Oorga			29.68	753.9	57.0	13.9	61	Calm	0	0			0						Physical Observatory.
Peking, (China)			29.69	754.0	73.6	23.1	55	SE	10	4.5			6					Rainy	Meteorological Obs.
Nertchinsk			29.41	746.9	65.3	18.5	37	SW	8	3.5			3						
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor					42.6	5.9	87	SE	4	2			2						

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			30.18	766.5	86.2	30.1	25	NE	18.6	8.3						0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.66	753.4	55.8	13.2	68	SW			1		8			0	0		
Hernosand			29.68	753.9	57.2	14.0	41	S			3		6			0	0		
Stockholm			29.75	755.6	59.0	15.0	81	SW			2		10			0.04	1.1		
Wiby			29.86	758.5	63.3	17.4	65	SW			3		4			0.04	1.0		
Sub-Series.																			
Upsala			29.73	755.2	62.1	16.7	64	S			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.87	733.3			75.2	24.0	42	NW			2		1			0	0		The Observatory.
Zurich	28.66	727.9			75.2	24.0	56	W			1		3			0.158	4.0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.2mm.; Thermometer, +4°.4 C.; Relative Humidity, —14 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.00	759.5	83.1	28.4	62	SSW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			30.02	762.4	72.3	22.4	63	SE	7.8	3.5			8		NW	0	0		
Fao, (Persian Gulf)			29.79	756.6	95.0	35.0		NW			4		0						
Salonica					84.0	28.9		SW			1		2						
Valona			30.11	764.8	77.5	25.3		NW			2		8						
Varna			30.04	763.0	82.4	28.0		S			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.93	760.2	57	10.6		SW	1	0.4			10s		SW	0.18	4.6	Light rain	
Chatham, N. B.			29.91	759.7	58	14.4	55	W	1	0.4		5c	0	W		0	0		
Charlottetown, P. E. Island			29.94	760.5	56	13.3	59	N	8	3.6			10s			0	0		
Fort Garry, Manitoba			29.98	761.5	52	11.1	73	W	12	5.4		5k	2ks	W	W	0	0		
Halifax, N. S.			29.81	757.2	64	17.8	70	NE	3	1.3		8ck		W		0.01	0.3		
Kingston, Ontario			29.91	759.7	52	11.1	95	W	3	1.3			10n			0.37	9.4	Light rain	
Montreal, Quebec			29.82	757.4	53	11.7	90	NE	3	1.3			10n			0.07	1.8	Light rain	
Ottawa, Ontario			29.86	758.4	58	14.4	54	S	4	1.8		8c	2n	S	S	0	0	Threatening	
Parry Sound, Ontario			29.90	759.4	55	12.8	74	W	1	0.4		2cs	0	SW		0	0		
Port Dover, Ontario			29.92	760.0	55	12.8	87	E	3	1.3		10k	0	S		0.10	2.5		
Port Stanley, Ontario			29.92	760.0	54	12.2	75	N	3	1.3			10n		N	0.01	0.3		
Quebec, Quebec			29.89	759.2	54	12.2	67	E	8	3.6			10n		E	0	0		
Saugeen, Ontario			29.92	760.0	43	6.1	79	W	3	1.3		5k	0	W		0	0		
Stayner, Ontario			29.88	758.9	51	10.6	72	Calm	0	0		5ck	0	N		0	0		
Sydney, C. B.			29.88	758.9	66	18.9	42	NE	4	1.8		8c	Haze	W		0	0		
Toronto, Ontario			29.90	760.4	54	12.2	58	W	4	1.8		5ck	5s	W		0	0		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.80	756.9	54	12.2	100	NW	5	2.2			10n			0.20	5.1	Light rain	
Alpena, Mich.			29.91	759.7	47	8.3	70	NW	9	4.0		5c	0	N		0	0		
Atlantic City, N. J.			29.80	756.9	63	17.2	94	SW	12	5.4		0	0			0.89	22.6		
Augusta, Ga.			29.96	761.0	73	22.8	81	S	3	1.3		5ck	0	SW		0.15	3.8		
Baltimore, Md.			29.75	755.6	72	22.2	85	SW	10	4.5		2c	5ks	W	SW	0.19	4.8		
Barnegat, N. J.			29.78	756.4	64	17.8	88	S	6	2.7		8k	0	SW		0.35	8.9		
Benton, Montana			30.09	764.3	50	10.0	78	SE	2	0.9		5k	0			0	0		
Bismarck, Dakota			30.03	762.7	45	7.2	60	NW	6	2.7			10s		S	0	0		
Boston, Mass.			29.84	757.9	60	15.6	66	E	8	3.6			10s			0	0		
Breckenridge, Minn.			30.11	764.8	49	9.4	86	W	4	1.8		8k	0			0	0		
Buffalo, N. Y.			29.87	758.7	52	11.1	79	NW	4	1.8			10s			0.47	11.9		
Burlington, Vt.			29.88	758.9	54	12.2	87	N	2	0.9			10n			0.11	2.8	Light rain	
Cairo, Ill.			30.12	765.0	59	15.0	76	N	12	5.4		0	10ks		NW	0.19	4.8		
Cape Hatteras, N. C.			29.90	761.7	75	23.9	81	SW	15	6.7		1k	0			0	0		
Cape Henry, Va.			29.89	759.2	78	25.6	61	SW	20	8.9		Haze	0			0	0		
Cape May, N. J.			29.80	756.9	63	17.2	88	S	16	7.2		0	0			0.67	17.0		
Charleston, S. C.			30.02	762.5	78	25.6	72	S	12	5.4		2k	0	S		0	0		
Cheyenne, W. T.			30.11	764.8	45	7.2	85	S	12	5.4		10c	Fog	SW		0	0		
Chicago, Ill.			29.98	761.5	48	8.9	77	N	12	5.4			10s		N	0.25	6.3		
Cincinnati, Ohio			29.99	761.7	60	15.6	82	W	4	1.8		10ck	0	W		0.41	10.4		
Cleveland, Ohio			29.91	759.4	55	12.8	87	S	8	3.6		8k	2s	SW		0.31	7.9		
Colorado Springs, Col.			30.14	765.5	45	7.2	100	S	8	3.6			10n			0.59	15.0	Light rain	
Corsicana, Texas			30.18	766.6	60	15.6	82	N	6	2.7		2c	0			0	0		
Davenport, Iowa			30.10	764.5	49	9.4	77	NW	8	3.6		2k	0			0.17	4.3		
Denver, Col.			30.18	766.6	48	8.9	85	Calm	0	0			8s		SW	0.08	2.0		
Detroit, Mich.			29.90	759.4	51	10.6	72	N	6	2.7			10s			0	0		
Dodge City, Kansas			29.94	760.5	60	15.6	65	NE	4	1.8		0	0			0	0		
Dubuque, Iowa			30.08	764.0	52	11.1	66	NW	4	1.8		6	0			0.12	3.0		
Duluth, Minn.			30.00	762.0	55	12.8	56	SW	4	1.8		5ck	5ks	W	W	0	0		
Eastport, Me.			29.92	760.0	57	13.9	63	NE	3	1.3		10c	Haze	W		0	0		
Erie, Penn.			29.87	758.7	56	13.3	80	Calm	0	0		0	8s			0.36	9.1	Clearing	
Escanaba, Mich.			29.95	760.7	51	10.6	72	S	4	1.8		Haze	5s			0	0		
Fort Gibson, I. T.			30.20	767.1	59	15.0	76	N	4	1.8		5c	0	NW		0.15	3.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.16	766.1	47	8.3	70	SE	2	0.9		5cs	0	W		0	0		
Galveston, Texas			30.07	763.5	72	21.1	81	E	4	1.8			10ks		E	0.79	20.1	Threatening	
Grand Haven, Mich.			29.98	761.5	47	8.3	89	N	6	2.7			10s			0.28	7.1	Light rain	
Indianapolis, Ind.			29.96	761.0	57	13.9	81	W	6	2.7		5k	0	NW		0.21	5.3		
Indianola, Texas			30.09	764.3	68	20.0	95	N	24	10.7			10s		N	0.06	1.5		
Jacksonville, Fla.			30.08	764.0	76	24.4	72	S	8	3.6		10k	0	S		0	0		
Keokuk, Iowa			30.08	764.0	55	12.8	62	NW	11	4.9		0	0			0.07	1.8		
Key West, Fla.			30.05	763.3	80.3	26.8	70	S	5	2.2		5c	2ks	W		0	0		
Kittyhawk, N. C.			29.96	761.0	75	23.9	72	W	24	10.7		5k	0	SW		0	0		
Knoxville, Tenn.			29.95	760.7	60	15.6	80	N	12	5.4			10s			0.61	15.5		
La Crosse, Wis.			30.07	763.8	53	11.7	73	SW	4	1.8		0	0			0.02	0.5		
Leavenworth, Kan.			30.21	767.3	52	11.1	73	NW	4	1.8		0	0			0	0		
Lexington, Ky.			30.01	762.2	55	12.8	80	NW	4	1.8		2c	2s			0.77	19.6		
Long Branch, N. J.			29.78	756.4	62	16.7	100	S	15	6.7			Fog			0.77	19.6	Foggy	
Louisville, Ky.			30.02	762.5	60	15.6	76	Calm	0	0		0	0			0.57	14.5		
Lynchburg, Va.			29.80	756.9	72	22.2	76	SW	5	2.2		10k	0	SW		0.01	0.3		
Malone, N. Y.																			
Marquette, Mich.			29.93	760.2	51	10.6	59	Calm	0	0		0	0			0	0		
Memphis, Tenn.			30.13	765.3	64	17.8	73	N	5	2.2		0	0			0.69	17.5		
Milwaukee, Wisconsin			30.03	762.7	49	9.4	77	NW	7	3.1		0	5ks		NW	0.08	2.0		
Mobile, Ala.			30.02	762.5	72	22.2	85	NW	4	1.8		0	2s			0.01	0.3		
Montgomery, Ala.			30.02	762.5	71	21.7	83	SW	5	2.2		10cs	Haze	W		0.03	0.8		
Morgantown, W. Virginia			29.86	758.4	55	12.8	86	NW	5	2.2			10n			0.51	13.0	Light rain	
Mt. Washington, N. H.			30.08	764.0	35	1.7	100	SE	8	3.6			10n		SE	0.25	6.8	Light rain	
Nashville, Tenn.			30.07	763.8	62	16.7	77	NW	5	2.2		5k	0	NW		0.98	24.9		
New Haven, Conn.			29.81	757.2	66	18.9	78	E	6	2.7			10s			0.02	0.5		
New London, Conn.			29.82	757.4	60	15.6	97	E	8	3.6			Fog			0.01	0.3	Foggy	
New Orleans, La.			30.01	762.2	74	23.3	83	W	4	1.8		5cs	0	W		0.36	9.1		
Newport, R. I.																			
New York, N. Y.			29.79	756.7	66	18.9	100	SE	4	1.8			10s			0.03	0.8		
Norfolk, Va.			29.89	759.2	78	25.6	61	SW	20	8.9		0	0			0	0		
North Platte, Neb.			29.93	760.2	47	8.3	77	Calm	0	0		5cs	2s			0	0		
Omaha, Neb.			30.26	767.1	53	11.7	73	W	4	1.8		0	0			0	0		
Oswego, N. Y.			29.89	759.2	48	8.9	97	NW	3	1.3			10n			0.55	14.0	Heavy rain	
Peck's Beach			29.81	757.2	63	17.2	88	SW	16	7.2		Haze	2s			1.33	33.8		
Pembina, D. T.			29.99	761.7	54	12.2	73	W	8	3.6		2k	5s	NW		0	0		
Philadelphia, Penn.			29.76	755.9	72	22.2	85	SW	13	5.8		5k	5s	W	W	0.11	2.8		
Pike's Peak, C. T.			30.14	765.5	26	— 3.3	76	N	28	12.5			8s			0	0		
Pittsburgh, Penn.			29.87	758.7	55	12.8	73	NE	6	2.7			10s		N	0.67	17.0		
Port Huron, Mich.			29.92	760.0	47	8.3	69	N	12	5.4			10s		N	0	0		
Portland, Maine			29.91	759.7	58	14.4	70	NE	1	0.4			10s			0.01	0.3		
Portland, Or.			30.07	763.8	55	12.8	80	Calm	0	0			10s			0.02	0.5		
Punta Rassa, Fla.			30.08	764.0	79	26.1	76	SE	8	3.6		8cs	Haze			0.01	0.3		
Rochester, N. Y.			29.86	758.4	53	11.7	86	NW	4	1.8			10n			0.51	13.0	Light rain	
Salt Lake City, Utah			29.91	759.7	63	17.2	33	E	2	0.9		8ck	0	W		0	0		
Sandy Hook, N. J.			29.76	755.9	65	18.3	100	S	15	6.7			Fog			0.20	5.1	Foggy	
San Diego, Cal.			29.91	759.7	61	16.1	88	N	4	1.8			Fog			0	0	Foggy	
San Francisco, Cal.			29.99	761.7	58	14.4	82	S	4	1.8		Haze	0			0	0		
Santa Fe, N. M.			29.92	760.0	53	11.7	67	SE	12	5.4			10s		SW	0	0		
Savannah, Georgia			30.16	766.1	77	25.0	86	E	4	1.8			10ks		SW	2.40	61.0	Threatening	
Shreveport, La.			30.16	766.1	62	16.7	83	N	9	4.0		5k	2s	W		0.09	2.3		
Springfield, Mass.			29.81	757.2	65	18.3	58	N	4	1.8		5k	5s	W		0	0		
St. Louis, Mo.			30.13	765.3	56	13.3	68	NW	11	4.9		0	0			0.28	7.1		
St. Marks, Fla.			30.15	765.8	76	24.4	90	Calm	0	0		5k	0	SW		0	0		
St. Paul, Minn.			30.02	762.5	54	12.2	68	SW	2	0.9		0	0			0	0		
St. Paul's Island, Alaska			29.56	750.8	40	4.4	91	WSW	2	0.9		...ks	10s	SW		0.64	16.3		
Squan Beach, N. J.			29.78	756.4	58	14.4	100	S	8	3.6		5k	Fog	W		0.51	13.0		
Toledo, Ohio			29.89	759.2	56	13.3	74	SW	3	1.3			10s		SW	0	0		
Tybee Island, Ga.			29.99	761.7	73	22.8	85	S	6	2.7		2k	2s			0	0		
Vicksburg, Miss.			30.16	766.1	64	17.8	83	N	5	2.2		0	0			2.09	53.1		
Virginia City, Mon.			29.73	755.1	48	8.9	63	W	4	1.8		0	0			0	0		
Washington, D. C.			29.76	755.9	73	22.8	81	S	20	8.9		5cs	2s		SW	0.18	4.6		
Wilmington, N. C.			30.01	762.2	75	23.9	72	SW	13	5.8		2k	5ks	SW	SW	0	0		
Wood's Hole, Mass.			29.81	757.2	59	15.0	100	S	3	1.3			Fog			0	0	Foggy	
Wytheville, Va.			29.61	752.1	63	17.2	83	W	7	3.1			10n			0.13	3.3	Light rain	
Yankton, D. T.			30.24	768.1	49	9.4	71	W	5	2.2		0	0			0	0		

NOTE.—The original give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					80	26.7	86	SE	6	2.7			10n			0.10	2.5		E. Racker.
Pointe-à Pitre, G'd'Ploupe, d			29.99	761.7	81	27.2	74	E					5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.77	756.1	78	25.6	78	S	1.2	0.5		2c	0	NW		0.45	11.4		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	80	26.7	74	ESE	9	4.0		2c	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	79	26.1	74	N	1.2	0.5		2ck	0			0	0		Robert Mason.
St. Georges, Bermudas			30.15	765.8	73	22.8	74	SE	3.0	1.6		0	2k			0.15	3.8		C. F. Allen.
Honolulu, Oahu, S. I.			29.99	761.7	65	18.3	78		4	1.8						0	0	Sultry	E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.57	751.6	36.9	2.2	80	W	10	4.5			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.26	692.4	30.06	763.5	71	21.7	85	S	1	0.4			10k			0	0		C. Partridge.
St. John's, Newfoundland			29.94	759.7	68	20.0	83	W					10s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.88	758.9	55.5	13.1	84	W	4	1.8			10ks			0	0		H. M. Redington.
Indianola, Iowa	29.24	742.7			50	10.0	73	NW				0	0			0	0		G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 8, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.22	767.5	77.0	25.0		NE			3		0			0	0		Charnot.
Aiglers			30.21	767.4	74.8	23.8	99	N			2		0			0	0		Peter.
La Calle			30.23	767.7	75.2	24.0		WSW			2		0			0	0		Kuntz.
Tunis			30.20	767.0	80.1	26.7	51	NW			4		3			0	0		Jacques.
Sfax			30.23	767.9	78.8	26.0		NE			5		1			0	0		Chauvey.
Saida			30.26	768.5	79.7	26.5		NE			4		1			0	0		Grosjean.
Tebessa			30.19	766.7	72.5	22.5		NNE			3		6			0	0		Colin.
Gerfville			30.20	767.1	73.4	23.0		NE			2		0			0	0		Bernadach.
Laghouat			30.16	766.0	80.6	27.0	31	E			2		4			0	0		Poinsignon.
Biskra			30.18	766.6	84.2	29.0		E			4		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.06	763.5	81.1	27.3	44	SW			4		4			0.165	4.2		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.96	760.9	65.8	18.8	55	W			3		10			1.126	3.2		I. R. Observatory.
Eperies			29.92	760.0	84.4	29.1	78	Calm			0		10		SE	0	0		Julius Mikolik.
Gratz			30.02	762.6	76.6	24.8	61	SSW			2		5			0	0		Andreas Rospini.
Hermannstadt			29.98	761.5	72.7	22.6	47	NW			3		3			0.008	0.2		Prof. Reissenberger.
Kremsmünster			30.07	763.6	72.3	22.4	62	W			5		6			0	0		Prof. C. Wagner.
Lemberg			29.86	758.4	75.0	23.9	51	NW			4		1			0.004	0.1		Dr. T. Stanecki.
Nyiregyhaza			29.93	760.2	78.1	25.6	62	SW			2		5			0.018	0.45		Habzsuda Daniel.
Pola			30.11	764.8	80.8	27.1	49	WNW			2		2ck			0	0		I.R. Hydrographic Of'ce
Szegedin			29.97	761.3	82.4	28.0	39	W			3		6			0	0		Karl Stancel.
Trieste			30.15	765.8	84.2	29.0	49	Calm			0		1			0	0		Prof. V. Farolfi.
Vienna			30.01	762.3	77.0	25.0	72	SW			3		7			0.075	1.9		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.2[illegible]	767.0	65.7	18.7	58	W			1		10ks		WNW	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.04	763.0	49.6	15.9		WNW	19	8.5			3			0.030	0.76		William Boswell.
Annanhill																			
Ardrossan			30.16	766.1	60	15.6		NW			3		5						William McNeil.
Armagh Observatory			30.22	767.6	60.3	15.7		WSW	5	2.2			8						S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			30.22	767.6	59.3	15.2		WNW			3		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.22	767.6	62.7	17.1		Calm			0		8						J. Dreyer, for L'd Rosse.
Bradford			30.15	765.8	64.5	18.1		W			2		3						J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	84.0	28.9		NE			4		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.18	766.6	67	19.4		W			2		1						H. Todd.
Cape Town, (Cape Colony)			29.99	761.7	69	20.6		NW			1		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.01	762.2			66.9	19.4	62	NW	5	2.2			9						Th Staff, for E. J. Stone.
Cardington			30.18	766.6	70.0	21.1		W					2						John McLaren.
Carlisle			30.07	763.8	58.8	14.9		W					6			0.16	4.1		T Bell, for J. Cartmell.
Chatham, School M. E.			30.16	766.1	70.4	21.3		W			1		5						Capt. J Fellowes, R. E.
Colombo, (Ceylon)			29.82	757.4	82.5	28.1		SW			4		10						Sgt. W. F. Hopkins
Dartmoor			30.31	769.9	60.0	15.6		NW			1		5						R. E. Power.
Donaghadee			30.20	767.1	62	16.7		SE			3		5						J. Mac Gowan, Jr.
Dover			30.21	767.3	63	19.2		WSW			5		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester			30.18	766.6	61.8	16.6		W	7.4	3.3			6						Thomas Mackereth.
Falmouth Observatory			30.28	769.1	60.6	15.9		S	11	4.9			9						The Staff.
Fort Napier, (Natal)			30.06	763.5	75.0	23.9		NE			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.85	758.2	85	29.4		N					7						
Galway, Queen's College			29.83	757.7	58	14.4		W			6		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.18	766.6	75.0	23.9		NE			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.17	764.8	60.4	15.8		WNW			2		7						Lewis Stewart.
Great Yarmouth			30.16	766.1	63	17.2		N E			2		3						G. T. Watson.
Greenwich Royal Obs.			30.19	766.8	76.2	24.6		NW			1		7					Misty	Th Staff, for G. B. Airy.
Guernsey			30.29	769.4	60.5	15.8		WNW			1		6						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.19	766.8	62.4	16.9		WNW					6						F. J. Pierce, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. V. Thompson.
Helston			30.25	768.3	64	17.8		S			2		6						Dr. W. B. Avile.
Holyhead			30.28	769.1	60	15.6		WNW			2		7						John Tilston.
Hull Park																			
Kew Observatory			30.19	766.8	69.8	21.0		W	9	4.0			5						The Staff.
Kingstown			30.27	768.8	62	16.7		SSE			3		6						George Mitchell.
Lampeter																			
Leicester Museum			30.2	767.1	66.9	19.4		W			3		1						William J. Harrison.
Llandudno			30.23	767.8	62.5	16.9		NW					4						Dr. James Nicol.
Malta, (Mediterranean)			30.11	764.8	75.0	23.9		NE					2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.14	765.5	82.3	27.9		E E			2		3						Surg.-Maj. J. Jamieson
North Shields			30.11	764.8	63	17.2		WNW			3		7						John Wm. Irvine.
Nottingham			30.21	767.1	68.1	20.1		NW			3		10		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.17	766.3	69.0	20.6		NW			3		0					Hazy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.17	766.3	69	20.6		NW			1		3						J. Lucas, for R. Main
Plymouth			30.26	768.6	65	18.3		S			3		7						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.20	767.1	62	16.7		SW			4		8						W. Kennedy.
Saint Ann's Head			30.24	768.1	57	13.9		W			1		3						John C. Walker.
Saint Helier, (Jersey)			30.30	769.6	63.2	17.3		SW			4		8						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston.
Scarborough			30.13	765.3	64.	17.8		NW			2		9						F. Shaw.
Scutari, (Turkey)			29.95	760.7	81.0	27.2		NE			1		1						Sergt. W. H. Lyne.
Sheffield			30.16	766.1	66	18.9		WNW			4		3			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.16	766.1	62.4	16.7		W			3		7			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.14	765.5	68.0	20.0		NNW			1		5						Rev. C. J. Steward.
Stonyhurst Observatory			30.19	766.8	58.6	14.8		W			3		6						The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			30.20	767.1	70.0	21.1		W			1		4						Rev Charles H. Griffith
Streatley Vicarage			30.22	767.6	76.5	24.7		W			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland																			William Lawrence.
Taunton College																			
Thurso			29.99	761.7	55	12.8		WNW			6		7						John Trotter.
Truro Royal Institution			30.22	767.3	68	20.0		SE			4		8						W Newcombe.
Valencia Observatory			30.19	766.8	62.3	16.8		SS	10.5	4.7			7						The Staff.
Wick																			
Wisbeach																			
Worthing			30.21	768.1	63.5	17.4		SW			4		3						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

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

Copenhagen			29.86	758.4	59.7	15.4	77	NW			2		10						
Faröe			29.95	760.8	58.8	14.9	67	NNW			4		2						
Godthaab, (Greenland)			29.48	748.7	35.[illegible]	1.8	95	SW			4		10						Rain & snow
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.77	756.2	51.1	10.6	60	NW			6		6						
Vestervig			29.91	759.6	58.6	14.8	68	WNW			6		3						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.30	769.5	73.0	22.8	52	SW			2		2		SW	0	0		Normal School.
Amiens			30.24	768.0	69.4	20.8	68	WSW			3		5		WSW	0	0		Normal School.
Beaumette, (near Angers)			30.22	767.6	78.1	25.6	51	NW	2.0	0.9			1		W	0	0		Beaumette Observatory.
Bernivais			30.32	770.1	65.7	18.7	51	WNW			3		8		WNW	0	0		Normal School.
Besançon			30.34	770.7	79.9	26.6	49	SSW			3		2		SW	0	0		Normal School.
Bourg en Bresse			30.31	769.9	82.0	28.1	56	NE			1		0			0	0		Normal School.
Bourges			30.21	767.3	77.4	25.2	54	W			2		8		W	0	0		Normal School.
Brest			30.21	767.4	71.8	22.1	62	S			1		8c		N	0.020	0.50		Naval Observatory.
Caen																			Normal School
Chartres			30.27	768.9	74.3	23.5		W-W			1		1c		W	0	0		Normal School.
Chaumont			30.32	770.6	71.6	22.0		W			3		5k		W	0	0		Normal School.
Commercy			30.30	769.7	70.3	21.3	61	W			6		5		E	0	0		Normal School.
Le Mans			30.44	773.2	69.1	20.6	54	E			2		0			0	0		Normal School.
Lons-Le Saulnier			30.24	768.1	70.3	21.3	72	W			2		2		N	0	0		Normal School.
Mâcon			30.27	768.9	77.0	25.0	68	WNW			2		5		S	0	0		
Mirecourt			30.17	766.4	71.8	22.1	66	NW			4		2		E	0	0		Normal School.
Orleans			30.26	768.5	74.5	23.6	77	WNW			2		2		W	0	0		Normal School.
Paris Observatory			30.26	768.6	69.1	20.6		WNW			2		1ck			0	0		National Observatory.
Parthenay			30.31	770.6	85.3	29.6	74	SE			2		5		SE	0	0		Normal School.
La Roche sur Yon			30.27	768.9	81.0	27.2	50	SE			2		2			0	0		Normal School.
Rouen			30.27	768.9	66.4	19.2	63	N			2		5		W	0	0		Normal School.
Saint Lo			30.31	769.8	69.1	20.6	79	NW			1		5		NW	0	0		Normal School.
Villefranche			30.29	769.3	81.9	27.7	51	N			1		2		W	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.18	639.5			71.1	21.7	37	ESE	4.1	1.84			2		NE	0	0		—. Falguère.
Montsouris Observatory			30.26	768.5	71.6	22.0	45	WNW			2		1c		WSW	0	0		Marié Davy.
Perpignan			30.17	766.4	90.3	32.4	28	ENE	1.6	0.70			0			0	0		Dr. Fines.
Saint Muir, (near Paris)			30.26	768.5	72.7	22.6	43	WNW			2		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.26	768.6	77.2	25.1	53	W			1		0			0	0		C. Marquet.
Versailles, (near Paris)			30.27	768.9	71.2	21.8	50	NW			3		3			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.80	756.8	62.6	17.0	98	N	2.0	0.9		..c	..kn		N	0.016 / 0.035	0.4 / 0.9		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.05	763.2	70.5	22.5	59	W			7		6			0.157	4.0		Prof. Hob.
Berlin			30.02	762.5	70.3	21.3	59	NW			4		8			0.059	1.5		Prof. Arndt.
Breslau			30.08	762.8	70.2	21.2	62	W			6		8			0.067	1.7		Dr. P. Neugebauer.
Carlsruhe			30.11	764.8	73.7	26.5	48	W			5		5			0	0		A. Senz.
Cassel			29.97	761.1	71.6	22.0	47	W			7		7			0.006	0.14		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen																			M. Wilhelm.
Hamburg			30.20	767.1	73.4	23.0	66	W			3					0	0		W. Reinert.
Kiel			30.00	761.9	65.1	18.4	71	W			5		10kn		W	0.157	4.0		Prof. G. Karsten.
Königsberg			29.95	760.6	62.6	17.0	77	W			5		10			0.232	5.89		Prof. E. Luther.
Köslin			29.79	756.7	61.9	16.6	71	SW			1					0.413	10.5		Dr. Tägert.
Leipsic			30.04	763.1	62.6	17.0		W			4		6			0.220	5.6		Prof. Bruhns.
Münster			30.03	762.7	72.0	22.2	41	WNW			5		5			0.094	2.4		Prof. E. Heis.
Posen			30.12	765.0	67.5	19.7	68	NE			5		3			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.94	760.5	66.2	19.0	77	W			5		6			0.126	3.2		Hartwig and Tülk.
Stuttgart			30.16	766.1	78.4	25.8	42	SW					4			0	0		Mr. Würth.
Thorn			30.11	764.7	78.8	26.0	51	W					4			0	0		Dr. Hessenbalg.
Treves, (Trier)			30.87	758.7	65.3	18.5	71	NW			3		9			0.039	1.0		Prof. Flesch.
Wustrow			30.13	765.2	74.1	23.4	42	W			8		2			0	0		E. F. Schütz.
			29.94	760.5	61.5	16.4	81	W			2		10			0.043	1.1		

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.10	764.5	81.7	27.6	48	SW	1.8	0.8			2	S		0	0		
Mondovi			30.07	763.6	83.8	28.6	43	NW			2		0	N		0	0		
Genoa			30.16	766.1	78.8	26.0	56	SW	3.1	1.4			0			0	0		
Parma			30.09	764.3	84.7	29.3	46	NW			2		0			0	0		
Verona			30.07	763.6	87.8	31.0	46	SW			1		0			0	0		
Padua			30.07	763.6	83.1	28.4	44	SW	6.3	2.8			1	W		0	0		
Bologna																			
Leghorn			30.11	764.8	83.1	28.4	59	NE			2		2	WSW		0	0		
Urbino			30.15	765.9	78.3	25.7	71	NNE	3.1	1.4			6			0	0		
Ancona			30.13	765.2	78.1	25.6	33	SSE			2		0			0	0		
Siena			30.15	768.8	81.0	27.2	52	NE			4		1			0	0		
Rome			30.10	764.6	82.9	28.3	31	SE					4	E		0	0		
Naples, O.U.			30.14	765.6	84.9	29.4	43	WSW	7.4	3.3			3	NE		0	0		
Lecce			30.14	765.5	86.5	30.3	42	SW			4		2	NE		0	0		
Cosenza			30.10	764.5	79.0	26.1	41	NNE	17.4	7.8			1	N		0	0		
Catania, (Sicily)			30.15	765.9	83.5	28.6	40	SE			2		6			0	0		
Ragusa																			
Sub-Series.																			
Palermo			30.07	763.7	79.9	26.6	62	ENE			2		3	W		0	0		
Naples, S. R.			30.08	764.0	75.7	24.3	59	NE			2		1			0	0		
			30.20	767.0	79.3	26.3	59	N			4		..c	NE		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.23	767.9	63.0	17.2		WNW			4								
Groningen			30.02	762.4	61.0	16.1		NW			5								
Helder			30.11	764.9	57.9	14.4		N			4								
Utrecht			30.11	764.9	65.3	18.5	70	W			3		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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	756.8	54.7	12.6	72	SW	16.8	7.5			10			0.276	7.0		
Christiania			29.70	754.4	66.4	19.1	35	SSW	8.1	3.6			6			0.055	1.4		
Tromsö			29.74	755.4	42.8	6.0	91	NE			6		5			0	0		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.19	766.7	79.3	26.3	36	WSW	11.2	5.0			1						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			29.84	757.9	73.2	22.9	48	WSW	20	9			10						Astronomical Obs.
Wilna			29.79	756.6	69.3	20.7	49	W	4	2			10						Astronomical Obs.
Dorpat			29.65	753.1	60.3	15.7	57	WSW	13	6			8						Physical Cabinet.
St. Petersburg			29.53	750.0	57.2	14.0	80	W	4	2			9						Central Physical Obs.
Kuopio			29.48	748.9	45.5	7.5	93	NE					10		WSW	0.217	5.50	Raining	
Kieff			29.93	760.1	72.0	22.2	54	SW	4	2			6						Physical Cabinet.
Nikolaiev			29.89	759.2	87.3	30.7	34	S	4	2			2						
Kertch			29.88	758.9	77.9	25.5	47	NE	10	4.5			0						Lagorio.
Moscow			29.82	757.4	74.1	23.4	46	SW	8	3.5			7						Meteorological Obs.
Lugan			29.70	754.4	89.2	31.8	24	SW	8	3.5			1						Meteorological Obs.
Archangel			29.72	754.8	48.2	9.0	73	W W	13	6			0						Ogorodnikof.
Tiflis			29.85	758.2	79.5	26.4	37	SE	13	6			4						Physical Obs.
Astrakhan			30.01	762.3	79.3	26.3	28	S	8	3.5			0						Sebastianof.
Kasan			29.65	753.1	73.6	23.1	42	NW	6	2.5			2						Physical Cabinet.
Orenburg			29.78	756.3	70.7	21.5	66	NE	4	2			10						Tschernischef.
Ekaterinburg			29.57	751.0	66.4	19.1	52	W	13	6			8						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.95	760.8	80.6	27.0	66	Calm	0	0			6						Michelson.
Barnaul			29.76	755.9	50.9	10.5	58	WSW	13	6			4						Meteorological Obs.
Yeniseisk			29.29	744.0	61.5	16.4	63	SE	10	4.5			10						Marks.
Irkutsk			29.45	753.2	53.6	12.0	70	Calm	0				5						Usolzef.
Oorga			29.51	749.6	61.9	16.6	40	NW	4	2			8						Mossin.
Peking, (China)			29.56	750.8	77.9	25.5	56	SSW	13	6			0						Physical Observatory
Nertchinsk			29.60	751.7	45.5	7.5	70	N	8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					50.0	10.0	88	SE	17	7.5			7						Kurdakof.

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			30.11	764.9	90.5	32.5	25	W	5.1	2.3						0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.65	753.2	50.0	10.0	79	NNE			2		8			0.01	0.2		
Hernosand			29.60	751.9	63.0	17.2	38	S			2		2			0.31	7.8		
Stockholm			29.68	753.8	60.3	15.7	43	NW			3		2			0.04	1.1		
Wisby			29.78	756.4	56.5	13.6	67	N			2		0			0	0		
Upsala			29.68	753.8	62.2	16.8	48	WSW			4		8					Rain	Dr. Hildebrandsson.
Sub-Series.																			

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.83	732.3			89.2	26.8	43	NE			2		1			0	0		The Observatory.
Zurich	28.62	726.8			77.0	25.0	51	W			1		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +6.1mm.; Thermometer, +7°.0 C.; Relative Humidity, —13 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.83	757.7	83.6	28.8	66	SSW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			30.02	762.5	74.5	23.6	46	NE	8.9	4.0			0			0	0		
Fao, (Persian Gulf)			29.81	757.2	95.0	35.0		NW			4		0						
Salonica					85.6	29.8		NW			3		5						
Valona			30.07	763.8	77.9	25.5		NW			2		0						
Varna			30.04	763.0	86.0	30.0		SE			3		5						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.06	763.5	59	15.0		SW	5	2.2		0	2s		W	0	0		
Chatham, N. B.			29.99	761.7	52	11.1	86	Ca'm	0	0			8s			0.28	7.1		
Charlottetown, P. E. Island			29.97	761.2	48	8.9	86	NW	9	4.0			10n			0.06	1.5		
Fort Garry, Manitoba			29.75	755.6	47	8.3	86	E	3	1.3			2ks		NW	0	0		
Halifax, N. S.			29.89	759.2	56	13.3	96	SW	10	4.5			8n		SW	0.01	0.3		
Kingston, Ontario			30.08	764.0	57	13.9	79	W	4	1.8		0	0			0	0		
Montreal, Quebec			29.99	761.7	57	13.9	78	W	10	4.5		Haze	2ks			0	0		
Ottawa, Ontario			29.98	761.5	57	13.9	58	N	3	1.3		0	Sm'e			0	0		
Parry Sound, Ontario			30.00	762.0	54	12.2	67	W	8	3.6		2cs	0	W		0	0		
Port Dover, Ontario			30.10	764.5	52	11.1	93	S	6	2.7		0	0			0	0		
Port Stanley, Ontario			30.07	763.8	55	12.8	73	W	7	3.1		0	0			0	0		
Quebec, Quebec			29.99	761.7	56	13.3	87	SW	10	4.5			10n		SW	0	0		
Saugeen, Ontario			30.00	762.0	55	12.8	62	SW	9	4.0		1cs	0			0	0		
Stayner, Ontario			30.01	762.2	59	15.0	59	SW	1	0.4		0	0			0	0		
Sydney, C. B.			29.96	761.0	63	17.2	87	SW	19	8.5		8k	8s	SW	SW	0	0	Clearing	
Toronto, Ontario			30.07	763.8	64	17.8	65	SW	2	0.9		2ks	Haze			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.04	763.0	61	16.1	77	Calm	0	0		2c	0			0.53	13.5		
Alpena, Mich.			29.94	760.5	56	13.3	56	W	8	3.6		5ck	Haze	W		0	0		
Atlantic City, N. J.			30.11	764.8	61.5	16.4	77	NE	4	1.8		5c	0	SW		0.30	33.0		
Augusta, Ga.			30.04	763.0	67	19.4	79	N	2	0.9			10s		N	1.08	27.4	Threatening	
Baltimore, Md.			30.12	764.8	62	16.7	71	NW	9	4.0		2c	0			0.63	16.0		
Barnegat, N. J.			30.09	764.3	63	17.2	66	NW	10	4.5		5c	0	SW		0.30	7.6		
Benton, Montana			29.91	759.7	52	11.1	86	W	4	1.8		5k	0			0.02	0.5		
Bismarck, Dakota			29.72	754.9	56	13.3	62	NW	4	1.8		5cs	0	N		0	0		
Boston, Mass.			30.03	762.7	61	16.1	71	NW	6	2.7		2c	5k			0.87	22.1		
Breckenridge, Minn.			29.78	756.4	52	11.1	93	SE	8	3.6			10s			0.17	4.3		
Buffalo, N. Y.			30.07	763.8	54	12.2	86	SW	12	5.4		2cs	2ks		SW	0	0		
Burlington, Vt.			30.04	763.0	58	14.4	70	S	4	1.8		2k	5s			0.37	9.4		
Cairo, Ill.			30.16	766.1	58	14.4	75	E	2	0.9		0	0			0	0		
Cape Hatteras, N. C.			30.05	763.3	68	20.0	94	NE	7	3.1			10s			0.67	17.0		
Cape Henry, Va.			30.11	764.8	64	17.8	68	NE	16	7.2		8k	2s	W		0.97	24.6		
Cape May, N. J.			30.09	764.3	60	15.6	81	NW	2	0.9		2c	0	W		0.80	20.3		
Charleston, S. C.			30.02	762.5	70	21.1	90	NE	4	1.8			10s		NE	0.13	3.3	Light rain	
Cheyenne, W. T.			29.82	758.2	55	12.8	38	NW	8	3.6		5c	0			0	0		
Chicago, Ill.			30.05	763.3	61	16.1	55	SW	9	4.0		0	0			0	0		
Cincinnati, Ohio			30.18	766.6	57	13.9	57	NW	4	1.8		Haze	0			0	0		
Cleveland, Ohio			30.10	764.5	54.6	12.6	77	S	4	1.8		0	Sm'e			0.21	5.3		
Colorado Springs, Col.			29.84	757.9	50	10.0	86	N	4	1.8		5c	0	W		0.16	4.1		
Corsicana, Texas			30.08	764.0	61	16.1	82	NE	3	1.3		0	0			0	0		
Davenport, Iowa			30.07	763.8	58	14.4	69	SW	4	1.8		2k	Sm'e			0	0		
Denver, Col.			29.85	758.2	58	14.4	42	S	5	2.2		5cs	0	SW		0	0		
Detroit, Mich.			30.08	764.0	53	11.7	73	W	6	2.7		0	Sm'e			0.10	2.5		
Dodge City, Kansas			29.51	749.5	60	15.6	25	S	6	2.7		0	0			0	0		
Dubuque, Iowa			30.02	762.5	61	16.1	66	Calm	0	0		0	0			0	0		
Duluth, Minn.			29.84	757.9	58	14.4	67	SW	10	4.5		2ck	Haze	W		0.07	1.8		
Eastport, Me.			29.99	761.7	52	11.1	86	N	8	3.6			10s		N	0.85	21.6		
Erie, Penn.			30.06	763.5	57	13.9	68	S	8	3.6		0	Haze			0.03	0.8		
Escanaba, Mich.			29.94	760.5	56	13.3	80	S	4	1.8		2k	0	S		0.01	0.3		
Fort Gibson, I. T.			30.04	763.0	61	16.1	68	E	5	2.2		2c	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.67	753.6	59	15.0	48	NW	9	4.0		0	5s		NW	0	0		
Galveston, Texas			30.08	764.0	75	23.9	59	E	6	2.7		0	5ks		E	0	0		
Grand Haven, Mich.			30.05	763.3	59	15.0	64	SW	12	5.4		0	0			0.02	0.5		
Indianapolis, Ind.			30.14	765.5	56	13.3	68	W	3	1.3		0	0			0	0		
Indianola, Texas			30.09	764.3	74	23.3	81	NE	14	6.3		0	2s		NE	0.26	6.6		
Jacksonville, Fla.			30.03	762.7	73	22.8	85	S	1	0.4			Fog			0.22	5.6	Light rain	
Keokuk, Iowa			30.04	763.0	63	17.2	61	SW	1	0.4		2c	0	NW		0	0		
Key West, Fla.			30.03	762.7	80.7	27.1	70	SW	3	1.3		2cs	Haze			0	0		
Kittyhawk, N. C.			30.08	764.0	61	16.1	100	NE	5	2.2			10s			0.75	19.1		
Knoxville, Tenn.			30.12	765.0	58	14.4	64	NE	8	3.6		10cs	0			0.03	0.8		
La Crosse, Wis.			29.98	761.5	57	13.9	75	S	8	3.6		5c	Haze	W		0	0		
Leavenworth, Kan.			29.99	761.7	60	15.6	59	S	4	1.8		2c	0	W		0	0		
Lexington, Ky.			30.17	766.3	57	13.9	58	NE	6	2.7		0	0			0	0		
Long Branch, N. J.			30.12	765.0	62	16.7	88	NW	1	0.4		5cs	0	W		0.29	7.4		
Louisville, Ky.			30.06	763.5	55	12.8	74	W	2	0.9		0	0			0	0		
Lynchburg, Va.			30.11	764.8	66	18.9	64	NW	2	0.9		10c	0	W		0.52	13.2		
Malone, N. Y.																			
Marquette, Mich.			29.88	758.9	58	14.4	53	W	16	7.2			10s		W	0	0		
Memphis, Tenn.			30.15	765.8	61	16.1	60	NE	7	3.1		0	0			0.69	17.5		
Milwaukee, Wisconsin			30.01	762.2	61	16.1	66	W	9	4.0		2cs	0			0.15	3.8		
Mobile, Ala.			30.06	763.5	66	18.9	73	N	10	4.5		0	0			0.12	3.0		
Montgomery, Ala.			30.08	764.0	67	19.4	69	N	8	3.6		2cs	0	S		0.14	3.5		
Morgantown, W. Virginia			30.14	765.5	59	15.0	69	W	4	1.8		0	8s			0.33	8.4		
Mt. Washington, N. H.			30.16	766.1	33	0.6	100	NW	20	8.9			Fog			0.70	17.8		
Nashville, Tenn.			30.12	765.0	63	17.2	62	N	2	0.9		2ck	0	W		0	0		
New Haven, Conn.			30.10	764.5	65	18.3	63	NE	4	1.8		8cs	0	NW		0.49	12.4		
New London, Conn.			30.10	764.5	65	18.3	73	E	2	0.9		2c	5ks	SW		0.33	8.4		
New Orleans, La.			30.07	763.8	72	22.2	67	NE	8	3.6		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.12	765.0	58	14.4	69	N	6	2.7		2c	0	W		0.25	6.7		
Norfolk, Va.			30.12	765.0	65	18.3	78	NE	6	2.7		10k	0	NE		0.42	10.7		
North Platte, Neb.			29.30	744.2	58	14.4	81	S	14	6.3		10k	5d	S		0	0	Threatening	
Omaha, Neb.			29.85	758.2	60	15.6	65	S	22	9.8		5ck	0	SW		0	0		
Oswego, N. Y.			30.09	764.3	53.5	11.9	73	W	12	5.4		Haze	8ks			0.06	1.5		
Peck's Beach			30.13	765.3	64	17.8	93	NE	2	0.9		5cs	2s			0.55	14.0		
Pembina, D. T.			29.73	755.1	55	12.8	80	SE	8	3.6		0	0			0	0		
Philadelphia, Penn.			30.12	765.0	62	16.7	67	NW	6	2.7		2c	2s	W	W	0.43	10.9		
Pike's Peak, C. T.			30.04	763.0	31	— 0.6	89	W	16	7.2		5cs	0			0.05	1.3		
Pittsburgh, Penn.			30.12	765.0	55	11.1	79	N	4	1.8		0	Sm'e			0.04	1.0		
Port Huron, Mich.			30.07	763.8	53	11.7	73	SW	8	3.6		0	0			0.01	0.3		
Portland, Maine			30.05	763.3	59	15.0	76	Calm	0	0		8cs	0	NW		0.17	4.3		
Portland, Or.			29.98	761.5	59	15.0	76	SE	4	1.8		5k	2ks			0	0		
Punta Rassa, Fla.			30.03	760.7	81	27.2	74	SW	16	7.2			8ks			0	0		
Rochester, N. Y.			30.06	763.5	56	13.3	68	W	8	3.6		0	Haze			0.03	0.8		
Salt Lake City, Utah			29.82	757.4	58	14.4	41	W	2	0.9		0	0			0	0		
Sandy Hook, N. J.			30.09	764.3	61	16.1	70	N	5	2.2		5c	0	W		0.40	10.2		
San Diego, Cal.			29.93	760.2	62	16.7	83	SE	4	1.8			10s			0	0		
San Francisco, Cal.			29.94	760.5	53	11.7	96	W	20	8.9			Fog			0	0	Foggy	
Santa Fe, N. M.			29.76	755.9	58	14.4	32	SW	4	1.8		0	Haze			0	0		
Savannah, Georgia			30.11	764.8	79	26.1	78	Calm	0	0		2ck	Sm'e		N	0.52	13.2		
Shreveport, La.			30.12	765.0	63	17.2	83	Calm	0	0		0	Haze			0	0		
Springfield, Mass.			30.08	764.0	63	17.2	74	NW	1	0.4		2cks	0	NW		0.38	9.7		
St. Louis, Mo.			30.14	765.5	62	16.7	61	S	5	2.2		0	0			0	0		
St. Marks, Fla.			30.11	764.8	76	24.4	86	Calm	0	0		0	0			0	0		
St. Paul, Minn.			29.83	757.7	57	13.9	68	SE	4	1.8		8cack		SW		0	0		
St. Paul's Island, Alaska			29.47	748.5	41	5.0	91	SSE	8	3.6		ck	10s			0.02	0.5		
Squan Beach, N. J.			30.10	764.5	58	14.4	81	N	4	1.8		5c	0			0.86	21.8		
Toledo, Ohio			30.10	764.5	58	14.4	64	SW	8	3.6		0	0			0.01	0.3		
Tybee Island, Ga.			30.01	762.2	73	22.8	90	NE	6	2.7			10ks			0.78	19.8		
Vicksburg, Miss.			30.16	766.1	69	20.6	69	E	3	1.3		0	0			0	0		
Virginia City, Mon.			29.53	750.0	45	7.2	67	E	2	0.9			10s		E	0.24	6.1		
Washington, D. C.			30.14	765.5	60	15.6	70	NW	12	5.4		2cs	Haze	SW		0.39	9.9		
Wilmington, N. C.			30.02	762.5	67	19.4	90	NE	7	3.1			10s		NE	0.64	16.3	Light rain	
Wood's Hole, Mass.			30.08	764.0	61	16.1	77	NW	5	2.2		0	8s			0	0		
Wytheville, Va.			29.93	760.2	53	11.7	86	NW	1	0.4		Haze	0	W		0.16	4.1	Hazy	
Yankton, D. T.			29.78	756.4	59	15.0	76	SW	5	2.2		0	8s	SW		0	0		

NOTE.—The original give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 1—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Bridgetown, Bb'does, W. I.					82	27.8	70	SE	7	3.1		5k	5s	E		0	0		E. Racker.
Pointe-à-Pitre, G'loupe, do			29.98	761.5	82	27.8	78	SE				5k	5ks	SE		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.76	755.9	86	30.0	74	Calm	0	0		2c	0	W		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	80	26.7	78	N	7	3.1		2ck	2kn	NE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	80	26.7	74	NE	2.4	1.1		0	2k		E	0	0		Robert Mason.
St. Georges, Bermudas			30.19	766.8	74.5	23.6	74	E	30	13.4		0	8k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.02	762.5	63	17.2	73		1	0.4		0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.96	761.0	64.5	18.1	88	Calm	0	0		0	5n		N	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.37	746.0	37.0	2.8	81	N	8	3.6			10n			0.19	4.8		J. Fortescue.
Clifton, Jamaica, W. I.	27.20	692.4	30.07	763.8	65	18.3	90												C. Partridge.
St. John's, Newfoundland			30.13	765.3	65	18.3	77	SW				5k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.11	764.8	56	13.3	81	SW	4	1.8			2ck			0.56	14.2		H. M. Redington.
Indianola, Iowa	29.08	738.6			67	19.4	73	SW				8c	2s	NW		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 9, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.03	762.7	75.2	24.0		SSW			1		0			0	0		Charnot.
Algiers			30.01	762.2	76.0	24.8	82	N			1		0			0	0		Peter.
La Calle			30.09	764.2	70.2	21.2		NE			3		1			0	0		Kuntz.
Tunis			30.10	764.5	81.7	27.6	48	E			3		2			0	0		Jacques.
Sfax			30.13	765.4	76.5	24.7		NE			3		1			0	0		Chauvey.
Saïda			30.09	764.2	84.9	29.4		NE			1		1			0	0		Grosjean.
Tebessa			30.06	763.5	77.4	25.2		NNE			2		2			0	0		Colin.
Geriville			30.09	764.2	73.8	23.2		SSE			3		2			0	0		Bernadach.
Laghouat			30.09	764.3	80.6	27.0	31	SSE			2		4			0	0		Poinsignon.
Biskra			30.04	763.0	89.8	32.1		E			3		2			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.99	761.8	80.6	27.0	56	NE			1		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.00	761.9	66.2	19.0	53	W			7		6			0	0		I. R. Observatory.
Eperies			29.96	760.9	66.6	19.2	73	Calm			0		8			0.589	14.95		Julius Mikolik.
Gratz			29.87	758.8	76.1	24.5	58	SSW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.94	760.2	68.7	20.4	53	NW			3		6			0.144	3.65		Prof. Reissenberger.
Kremsmünster			30.02	762.6	68.7	20.4	63	NW			1		1			0	0		Prof. C. Wagner.
Lemberg			29.88	758.9	68.0	20.0	58	NW			5		5			0.067	1.7		Dr. T. Stanecki.
Nyiregyhaza			29.97	761.2	73.4	23.2	53	W			2		2			0	0		Habzsuda Daniel.
Pola			29.98	761.6	82.0	27.8	40	SE			3		2ck			0	0		I.R. Hydrographic Of'ce
Szegedin			29.95	760.7	73.8	23.2	53	W			2		8			0.122	3.1		Karl Stancel.
Trieste			30.01	762.2	83.8	28.8	64	SW			1		3			0	0		Prof. V. Farolfi.
Vienna			30.01	762.2	73.8	23.2	71	NW			2		2			0.098	2.5		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.89	759.2	75.9	24.1	40	S			2		8ck		WSW	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.82	757.4	52.1	11.2		SE	17	7.6			9			0	0		William Boswell.
Annanhill																			
Ardrossan			29.63	752.6	57	13.9		SE			2		8						William McNeil.
Armagh Observatory			29.55	750.6	60	15.6		S	17	7.6			9					Raining	S. Cal., for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col																			
Bidston, Liverpool Obs			29.69	754.1	60.0	15.6		SE			4		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.54	750.3	59	15.0		SSW			1–2		8					Showery	J. Dreyer, for L'd Rosse.
Bradford			29.72	754.9	59.8	15.4		SE			1		10					Raining	J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.99	761.7	84	28.9		NE			4		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.78	756.4	73.5	23.1		S			1		10					Foggy	H. Todd.
Cape Town, (Cape Colony)			30.02	762.5	57	13.9		NW			3		0					Hazy	Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.05	763.3			58.4	14.7	91	WNW	8	3.6			10						The Staff, for E. J. Stone.
Cardington			29.76	755.9	68	20.0		SE					7					Drizzling	John McLaren.
Carlisle			29.69	754.1	57.3	14.1		S					10			0.01	0.3	Raining	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.80	756.9	75.2	21.0		SW			2		10						Capt. I Fellowes, R. E.
Colombo, (Ceylon)			29.87	758.7	75.3	24.1		SW			4		10						Sgt. W. F. Hopkins
Dartmoor			29.87	758.7	56.5	13.6		SW			4		8						R. E. Power.
Donaghadee			29.61	752.1	58	14.4		S W			5		5						J. Mac Gowan, Jr.
Dover			29.81	757.2	67	19.4		ENE			2		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester			29.71	754.6	59.2	15.1		SE	1.6	0.7			10						Thomas Mackereth.
Falmouth Observatory			29.80	756.9	61.8	16.6		SSW	29	13.0			8						The Staff.
Fort Napier, (Natal)			29.94	760.5	78	25.6		E			1		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.85	758.2	84	28.9		W					4						
Galway, Queen's College			29.74	755.4	60	15.6		SW			3		5					Rain	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.07	763.8	76.0	24.4		NE			3		0						Sergt. E. G. Baker.
Glasgow Observatory			29.65	753.1	54.2	12.3		E			5		10					Squally	Lewis Stewart.
Great Yarmouth			29.82	757.4	61	16.1		SE			4		6						G. T. Watson.
Greenwich Royal Obs			29.78	756.4	79.0	26.1		S			4		9						The Staff, for G. B. Airy.
Guernsey			29.85	758.2	63	17.2		WSW			3		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.75	755.6	58.5	14.7		SE					10					Raining	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.78	756.4	65	18.3		SW			4		6						Dr. W. B. [illegible]
Holyhead			29.64	752.8	61	16.1		SSW			6		2					Rainy	John Tilston.
Hull Park																			
Kew Observatory			29.76	755.9	75.[illegible]	23.9		SSE	20	8.9			9						The Staff.
Kingstown			29.66	753.4	60	15.6		SSE			4		5					Showery	George Mitchell.
Lampeter																			
Leicester Museum			29.75	755.6	61.5	16.4		E			1		10					Showery	William J. Harrison.
Llandudno			29.68	753.9	65.3	18.5		SW					1						Dr. James Nicol.
Malta, (Mediterranean)			30.07	763.8	76.8	24.9		NE			1		8k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.13	765.3	81.0	27.2		Calm			0		7					Threatening	Surg.-Maj. J. Jameson
North Shields			29.79	756.7	56	13.3		SSE			4		8						John Wm. Irvine.
Nottingham			29.73	755.1	60.0	15.6		SSE			2		10n		SSE			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.72	754.9	59.2	15.1		SE			3		10					Heavy rain	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			29.74	755.4	63	17.2		S			2		10					Thunder	J. Lucas, for R. Main
Plymouth			29.80	756.9	62.5	16.9		S			3		8						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.59	751.6	61	16.1		SW			4		8						W. Kennedy.
Saint Ann's Head			29.72	754.9	59	15.0		SSW			4		7						John C. Walker.
Saint Helier, (Jersey)			29.76	756.1	65	18.3		NW			3		8						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston.
Scarborough			29.80	756.9	56.0	13.3		SSE			2		10						F. Shaw.
Scutari, (Turkey)			29.94	760.2	76.0	24.4		SW			1		3						Sergt. W. H. Lyne.
Sheffield			29.76	755.9	62.0	16.7		S			3		10			0	0	Raining	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.58	751.9	57.0	13.9		E			3		10			0.28	7.11	Raining	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.84	757.9	68.1	20.0		SSE			2		3						Rev. C. J. Steward.
Stonyhurst Observatory			29.70	754.4	58.1	14.4		SE			2		10						The Staff.
Stornoway, Lews C. (Heb)																			John Smith.
Strathfield Turgiss			29.76	755.9	67.9	19.9		SW			1		8						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland																			William Lawrence.
Taunton College																			
Thurso			29.77	756.1	55	12.8		ESE			5		7						John Trotter.
Truro Royal Institution			29.74	754.4	64	17.8		SW			4		4						W. Newcombe.
Valencia Observatory			29.54	750.3	58.5	14.7		S	24	10.7			8						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York			29.77	756.1	62.3	16.8		SE			4		10						William J. Harris.

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of Cape Good Hope Observatory is unknown, and barometer reduced to freezing.

DANISH SERIES.

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

Copenhagen			29.89	759.2	59.9	15.5	49	WNW			4		6					
Fanöe			29.97	761.3	58.1	14.5	70	W W			2		1					
Godthaab, (Greenland)			29.88	759.0	37.0	2.8	72	WSW			2		10					
Stykkisholm, (Iceland)																		
Thorshavn, (Faröe)			29.82	757.3	52.3	11.3	88	ESE			2		10					
Vestervig			29.92	760.0	57.6	11.2	74	WNW			6		2					

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.81	757.9	82.8	28.2	43	W			3		8		W	0	0		Normal School.
Amiens			30.04	762.9	85.3	29.6	41	NW			2		0			0	0		Normal School.
Beaumette, (near Angers)			29.83	757.6	76.3	24.7	61	SW	37.8	16.9			5		SSW	0	0		Beaumette Observatory.
Beauvais			29.87	758.7	81.5	27.5		S			3		5		SSW	0	0		Normal School.
Besançon			30.04	763.1	85.1	29.5	33	SSW			4		0			0	0		Normal School.
Bourg en Bresse			29.98	761.5	86.0	30.0	63	SSE			2		0			0	0		Normal School.
Bourges			29.89	759.1	86.0	30	61	SSW			6		8		W	0	0		Normal School.
Brest			29.85	758.2	67.8	19.9	63	WSW			3		8k		W	0.010	0.25		Naval Observatory.
Caen																			Normal School
Chartres			29.85	758.1	89.2	31.8		SSW			2		4ck		S	0	0		Normal School.
Chaumont			30.02	762.4	71.6	22.0		S			3		0			0	0		Normal School.
Commercy			30.04	763.1	76.1	24.5	38	ESE			2		2		NW	0	0		Normal School.
Le Mans			30.31	770.5	81.1	27.3	53	W			2		8		SW	0	0		Normal School.
Lons-Le Saulnier			29.93	760.2	70.7	21.5	58	W			2		0			0	0		Normal School.
Mâcon			29.98	761.5	77.7	25.4	76	S			2		0			0	0		
Mirecourt			29.90	759.4	74.5	23.6	46	W			2		0			0	0		Normal School.
Orleans			29.77	756.2	87.1	30.6	41	SSW			4		2		S	0	0		Normal School.
Paris Observatory			29.81	757.1	86.0	30.0		SE			3		5ck			0	0		National Observatory.
Parthenay			29.93	760.1	80.6	27	84	SW			2		5		SW	0	0		Normal School.
La Roche sur Yon			29.97	761.3	66.0	19.2	74	W			2		8		E	0	0		Normal School.
Rouen			29.81	757.1	83.5	28.6	42	SSE			2		5		S	0	0		Normal School.
Saint Lo			29.83	757.7	65.1	18.4	81	SW			2		1		SW	0	0		Normal School.
Villefranche			30.00	762.0	87.8	31.0	91	SSE			1		0			0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.97	634.2			72.5	22.5	58	ESE	3.6	1.6			5		SSW	0	0		—. Faiguère.
Montsouris Observatory			29.83	757.6	90.3	32.4	34	S			2		7c		S	0	0		Marié Davy.
Perpignan			29.97	761.2	81.7	27.6	46	ENE	1.6	0.70			2c			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.82	757.4	87.8	31.0	36	SSE			3		1			0	0		E. Renou.
Saint Pierre, (Martinique)																			C. Marquet.
Tours			29.81	757.1	88.5	31.4	36	SSW			3		5		SW	0	0		Dr. A. Bérigny.
Versailles, (near Paris)			29.83	757.6	87.8	31.0	36	S			6		7			0	0		
Zi-Ka-Wei, (near Shanghai)			29.91	759.6	62.6	17.0	90	ENE	2.7	1.2			0			0 / 0	0 / 0		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.02	762.5	69.8	21.0	46	NW			2		2			0	0		Prof. Hoh.
Berlin			30.09	764.3	66.9	19.4	56	NW			1		6			0.035	0.9		Prof. Arndt.
Breslau			30.10	764.5	63.3	17.4	54	NW			8		9			0	0		Dr. P. Neugebauer.
Carlsruhe			29.97	761.1	76.3	24.6	48	NE			1		1			0	0		A. Senz.
Cassel			29.89	759.1	71.2	21.8	42	SW			2		2			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.99	761.8	69.8	21.0	74	SW					3			0	0		M. Wilhelm.
Hamburg			30.05	763.2	63.1	17.3	44	NW			3		3k			0.016	0.4		W. Reinert.
Kiel			30.02	762.5	63.1	17.3	51	NW			3		5			0	0		Prof. G. Karsten.
Königsberg			29.87	758.6	56.8	13.8	57	W			3					0.047	1.2		Prof. E. Luther.
Köslin			30.14	765.6	58.8	14.9		W			4		5			0.016	0.4		Dr. Tägert.
Leipsic			30.07	763.7	67.3	19.6	51	WSW			2		4			0	0		Prof. Bruhns.
Malmö			30.03	762.8	68.0	20.0	60	SW			2		3			0	0		Prof. E. Heis.
Münster			30.04	763.1	66.2	19.0	43	W			3-4		6			0.004	0.1		Dr. Magener.
Posen			29.97	761.3	76.3	24.6	48	SE					1			0.010	0.26		Hartwig and Tülk.
Strassburg, (in Alsace)			29.95	760.8	78.8	26.0	36	SW					0			0	0		Mr. Würth.
Stuttgart			29.94	760.5	66.0	18.8	48	WNW			4		7			0.216	5.5		Dr. Hesenbalg.
Thorn			29.92	759.9	77.4	25.2	34	E			5		2			0.275	7.06		Prof. Flesch.
Treves, (Trier)			30.02	762.4	61.3	16.3	67	WSW			4		5			0	0		E. Fischütz.
Wustrow																			

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.96	761.0	83.7	28.7	51	E	4.9	2.2			2	NE		0	0		
Mondovi			29.95	760.7	79.2	26.2	53	SSE			4		2			0	0		
Genoa			30.06	763.4	75.7	24.3	71	S	7.4	3.3			2	SE		0	0		
Pavia			29.97	761.2	83.8	28.8	48	E			2		0			0	0		
Verona			29.95	760.7	89.6	32.0	53	S			1		0			0	0		
Udine			29.96	761.0	82.1	27.9	49	SE	8.1	3.6			1	W		0	0		
Parma																			
Bologna			29.97	761.3	81.2	29.0	58	WNW			2		0			0	0		
Leghorn			30.08	764.0	75.9	24.4	59	SW	3.8	1.7			1			0	0		
Urbino			29.98	761.5	82.2	27.9	35	SW			2		0			0	0		
Ancona			30.00	762.0	82.0	27.8	53	SE			4		0			0	0		
Siena			30.01	762.2	82.9	28.3	41	W	2.5	1.4			1	W		0	0		
Rome			30.06	763.5	84.7	29.3	53	WSW	6.9	3.1			2			0	0		
Naples, O.U.			30.10	764.4	81.5	27.5	58	SW			2		1			0	0		
Lecce			30.08	764.0	80.6	27.0	46	NNE	9.4	4.2			1	N		0	0		
Cosenza			30.07	763.6	81.9	29.4	51	SE			1		5	SE		0	0		
Catania, (Sicily)																			
Riposto			30.04	762.9	77.4	25.2	70	NE			4		4	S		0	0		
Palermo			30.04	763.0	79.0	26.1	44	NE			2		1			0	0		
Sub-Series.																			
Naples, S. R.			30.15	765.7	79.2	26.2	75	WSW			4		..e	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.91	759.6	71.6	22.0		SE			4								
Groningen					66.0	18.9		SE			1								
Helder			29.95	760.6	64.9	18.3		E			4								
Utrecht			29.91	759.7	71.4	21.9	46	SSE			3		2						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.83	757.7	53.2	11.8	58	WNW	10.2	4.6			3			0	0		
Christiania			29.72	755.0	62.6	17.0	35	N	14.3	6.4			8			0	0		
Tromsö			29.71	754.6	54.6	7.0	82	NE			6		9			0	0		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.13	765.2	68.0	20.0	43	N	26.2	11.7			3						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.91	759.7	66.6	19.2	45	W	9	4			6						Astronomical Obs.
Wilna			29.80	756.8	62.8	17.1	63	NW	8	3.5			9						Astronomical Obs.
Dorpat			29.64	752.8	57.4	14.1	51	WSW	7	3			10						Physical Cabinet.
St. Petersburg			29.65	753.1	57.0	13.9	57	N	2	1			9						Central Physical Obs.
Kuopio			29.63	752.8	55.4	13.0	65	N					10		SSE	0.232	5.90		Physical Cabinet.
Kieff			29.84	757.9	71.6	22.0	56	WNW	7	3			8						
Nikolaiev			29.86	758.5	84.7	29.3	33	SW	4	2			5						
Kertch			29.83	757.6	83.1	28.4	41	SW	10	4.5			3						Lagorio.
Moscow			29.73	755.1	61.3	16.3	87	SW	8	3.5			10					Raining	Meteorological Obs.
Lugan			29.65	753.1	87.6	30.9	18	SW	17	7.5			4					Lightning	Meteorological Obs.
Archangel			29.58	751.2	55.2	12.9	82	WSW	4	2			10					Raining	Ogorodnikof.
Tiflis			29.72	755.0	82.0	27.8	33	SE	8	3.5			5						Physical Obs.
Astrakhan			29.95	760.7	81.1	27.3	20	ESE	8	3.5			1						Sebastianof.
Kasan			29.71	754.7	72.7	22.6	73	SW	4	2			2						Physical Cabinet.
Orenburg			29.81	757.1	79.7	26.5	43	NE	2	1			6						Tschernischef.
Ekaterinburg			29.77	756.2	68.2	20.1	42	NW	4	2			5						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.83	757.7	81.4	27.4	58	Calm	0	0			6						Michelson.
Barnaul			29.67	753.8	59.7	15.4	49	SW	8	3.5			2						Meteorological Obs.
Yeniseisk			29.37	746.1	52.2	11.2	73	NE	8	3.5			10					Raining	Marks.
Irkutsk			29.47	748.5	57.9	14.4	58	Calm	0	0			6						Usolzef.
Oorga			29.51	749.5	58.3	14.6	33	Calm	0	0			0						Mossin.
Peking, (China)			29.50	749.2	85.6	29.8	40	S	8	3.5			2						Physical Observatory.
Nertchinsk			29.58	751.3	52.2	11.2	61	NW	4	2			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					51.3	10.7	85	SE	31	14			10						Kurdukof.

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.83	757.6	93.9	34.4	23	S	15.0	6.7		1	1	S		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.69	754.1	51.4	10.8	52	E			3		4			0	0		
Hernosand			29.65	753.1	50.7	10.4	51	NE			5		8			0.20	5.0		
Stockholm			29.14	747.8	46.8	8.2	88	NW			5		10			0.03	0.8	Raining	
Wisby			29.55	753.1	56.8	13.8	60	WNW			3		0			0	0		
Sub-Series.																			
Upsala			29.44	747.8	50.4	10.2	78	WNW			4		10					Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.56	726.3			76.6	24.8	47	NNW			2		1			0	0		The Observatory.
Zurich	28.41	721.5			83.1	28.4	37	W			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.0mm.; Thermometer, +4°.0 C.; Relative Humidity, —9 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.85	758.3	84.4	29.4	61	SW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			30.01	762.2	80.1	26.7	54	SW	5.6	2.5			5		NE	0	0		
Fao, (Persian Gulf)			29.79	756.7	98.6	36.6		SE			3		0						
Salonica					84.0	28.9		NW			1		0						
Valona			30.02	762.5	80.2	26.8		W			2		0						
Varna			30.00	762.0	69.8	21.0		E			2		10					Raining	

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.26	768.6	65	18.3		Calm	0	0		0	0			0	0		
Chatham, N. B.			30.30	769.6	60	15.6	82	W	1	0.9		2c	Haze			0	0		
Charlottetown, P. E. Island			30.34	770.6	54	12.2	86	S	8	3.6			10ks			0	0		
Fort Garry, Manitoba			29.73	755.1	51	10.6	86	S	5	2.2		0	0			0	0		
Halifax, N. S.			30.24	768.1	56	13.3	87	N	4	1.8			8n		SW	0	0		
Kingston, Ontario			30.24	768.1	60	15.6	78	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.29	769.4	62	16.7	63	SW	5	2.2		Haze	Haze			0	0		
Ottawa, Ontario			30.24	768.1	57	13.9	57	S	2	0.9		0	Sm'e			0	0		
Parry Sound, Ontario			30.13	765.3	64	17.8	62	S	8	3.6		2cs	0		SW	0	0		
Port Dover, Ontario			30.18	766.6	55	12.8	74	N	4	1.8		0	0			0	0		
Port Stanley, Ontario			30.15	765.8	56	13.3	84	Calm	0	0		0	0			0	0		
Quebec, Quebec			30.25	768.3	61	16.1	71	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.12	765.0	58	14.4	76	S	3	1.3		5k	0		S	0	0		
Stayner, Ontario			30.11	764.8	63	17.2	64	SE	1	0.4		2c	0		NW	0	0		
Sydney, C. B.			30.35	770.9	61	16.1	69	N	1	0.4		8ck	0		W	0	0		
Toronto, Ontario			30.20	767.1	56	13.3	69	SE	5	2.2		0	0			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.21	767.3	60	15.6	87	Calm	0	0		Haze	Haze			0	0		
Alpena, Mich.			30.03	762.7	56	13.3	87	SE	4	1.8		5k	2s	SE		0	0		
Atlantic City, N. J.			30.15	765.8	58	14.4	87	NE	18	8.0			10n			0	0	Light rain	
Augusta, Ga.			30.12	765.0	65	18.3	78	NW	2	0.9		0	0			0	0		
Baltimore, Md.			30.15	765.8	64	17.8	62	NE	8	3.6		Haze	5s		SW	0	0		
Barnegat, N. J.			30.15	765.8	58	14.4	87	NE	12	5.4			10n		SW	0	0	Light rain	
Benton, Montana			29.75	755.6	54	12.2	70	NE	4	1.8			10s			0	0		
Bismarck, Dakota			29.60	751.8	56	13.3	56	N	2	0.9		2cs	Haze	N		0	0		
Boston, Mass.			30.29	769.4	56	13.3	87	E	4	1.8			10n			0.02	0.5	Light rain	
Breckenridge, Minn.			29.76	755.9	54	12.2	93	Calm	0	0		0	8s			0.37	9.4		
Buffalo, N. Y.			30.15	765.8	60	15.6	66	Calm	0	0		0	Sm'e			0	0		
Burlington, Vt.			30.27	768.8	60	15.6	65	S	1	0.4		0	2s			0	0		
Cairo, Ill.			30.04	763.0	61	16.1	77	SE	4	1.8		8c	0	SW		0	0		
Cape Hatteras, N. C.			30.01	762.2	67	19.4	100	NE	16	7.2			10n			2.84	72.1	Light rain	
Cape Henry, Va.			30.10	764.5	59	15.0	94	NE	28	12.5			10n		NE	0.53	13.5	Light rain	
Cape May, N. J.			30.13	765.3	58	14.4	93	NE	16	7.2			10n		SW	0.07	1.8	Light rain	
Charleston, S. C.			30.10	764.5	61	16.1	94	NW	8	3.6			10s		N	0.54	13.7		
Cheyenne, W. T.			29.82	757.4	51	10.6	79	SE	12	5.4		0	2s			0	0		
Chicago, Ill.			29.95	760.7	62	16.7	61	S	8	3.6			10s			0	0		
Cincinnati, Ohio			30.05	763.3	60	15.6	70	E	3	1.3		Haze	0			0	0		
Cleveland, Ohio			30.11	764.8	58.8	14.9	66	SE	7	3.1		2ck	Sm'e			0	0		
Colorado Springs, Col.			29.87	758.7	52	11.1	86	SE	4	1.8			10ks			0	0		
Corsicana, Texas			29.91	759.7	71	21.7	85	S	12	5.4		10k	0	S		0	0		
Davenport, Iowa			29.85	758.2	58	14.4	86	SE	20	8.9			10n		SW	0.74	18.8	Light rain	
Denver, Col.			29.85	758.2	56	13.3	69	NW	6	2.7		0	0			0	0		
Detroit, Mich.			30.08	764.0	60	15.6	82	SE	4	1.8			10s			0	0		
Dodge City, Kansas			29.48	746.2	60	15.6	55	SE	5	2.2			10s			0.01	0.3	Threatening	
Dubuque, Iowa			29.87	758.7	57	13.9	94	SE	10	4.5			10n			0.26	6.6	Light rain	
Duluth, Minn.			29.82	757.4	51	10.6	93	SE	4	1.8			Fog			0.05	1.3	Foggy	
Eastport, Me.			30.33	770.4	49	9.4	89	Calm	0	0			10s		SW	0	0		
Erie, Penn.			30.12	765.0	63	17.2	67	SE	12	5.4		0	Haze			0	0		
Escanaba, Mich.			29.96	761.0	53	11.7	86	SE	14	6.3			10n		SE	0.03	0.8	Light rain	
Fort Gibson, I. T.			29.74	755.4	68	20.0	90	S	14	6.3			10ks		NW	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.73	755.1	54	12.2	70	Calm	0	0		2c	0			0	0		
Galveston, Texas			29.99	761.7	79	26.1	69	S	12	5.4		2k	0	SW		0	0		
Grand Haven, Mich.			30.00	762.0	60	15.6	70	S	8	3.6			10s		W	0	0		
Indianapolis, Ind.			30.02	762.5	62	16.7	61	SE	10	4.5		5cs	2s		E	0	0		
Indianola, Texas			29.98	761.5	81	27.2	74	S	12	5.4		2k	0	S		0	0		
Jacksonville, Fla.			30.08	764.0	69	20.6	84	N	4	1.8			10s		N	0.57	14.5		
Keokuk, Iowa			29.78	756.4	59	15.0	94	S	9	4.0			10n		S	0.11	2.8	Light rain	
Key West, Fla.			30.08	764.0	82.0	27.8	67	SW	2	0.9		0	Haze			0	0		
Kittyhawk, N. C.			30.05	763.3	61	16.1	91	NE	24	10.7			10s			1.53	38.9		
Knoxville, Tenn.			30.11	764.8	61	16.1	82	E	4	1.8		1k	0	SW		0	0		
La Crosse, Wis.			29.85	758.2	59	15.0	87	S	11	4.9			10s		S	0.47	11.9		
Leavenworth, Kan.			29.70	754.4	68	20.0	68	S	6	2.7		0	0			0.18	4.6		
Lexington, Ky.			30.09	764.3	63	17.2	67	E	8	3.6		0	0			0	0		
Long Branch, N. J.			30.21	767.3	58	14.4	94	NE	18	8.0			10n		NE	0.01	0.3	Light rain	
Louisville, Ky.			30.05	763.3	63	17.2	67	NE	4	1.8		5cs	0			0	0		
Lynchburg, Va.			30.15	765.8	66	18.9	68	N	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.90	759.4	56	13.3	87	S	8	3.6			10s		S	0.05	1.3		
Memphis, Tenn.			30.05	763.3	68	20.0	60	SE	5	2.2		5cs	0			0	0		
Milwaukee, Wisconsin			29.91	759.7	56	13.3	87	SE	7	3.1			Fog			0	0		
Mobile, Ala.			30.08	764.0	69	20.6	70	N	2	0.9		0	0			0	0		
Montgomery, Ala.			30.11	764.8	72	22.2	54	NE	5	2.2		2c	Haze			0	0		
Morgantown, W. Virginia			30.13	765.3	60	15.6	76	Calm	0	0			Fog			0	0		
Mt. Washington, N. H.			30.45	773.4	41	5.0	74	E	18	8.0			10s			0	0	Hazy	
Nashville, Tenn.			30.05	763.3	67	19.4	64	N	1	0.4		5ck	0	W		0	0		
New Haven, Conn.			30.25	768.3	69	15.0	84	NE	6	2.7			10n			0.01	0.3	Light rain	
New London, Conn.			30.28	769.1	57	13.9	90	NE	5	2.2			10s		NE	0.01	0.3	Threatening	
New Orleans, La.			30.06	763.5	73.5	23.1	70	S	3	1.3		0	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			30.22	767.6	60	15.6	85	E	13	5.8			10s			0	0		
Norfolk, Va.			30.10	764.5	60	15.6	94	NE	12	5.4			10n			0.24	6.1	Light rain	
North Platte, Neb.			29.45	748.0	55	12.8	86	Calm	0	0			Fog			0	0	Foggy	
Omaha, Neb.			29.74	755.4	58	14.4	97	N	8	3.6			10s		N	0.74	18.8		
Oswego, N. Y.			30.22	767.6	61.5	16.4	68	SSE	4	1.8		Haze	Haze			0	0		
Peck's Beach			30.15	765.8	58	14.4	81	NE	12	5.4			10n			0	0	Light rain	
Pembina, D. T.			29.70	754.4	55	12.8	80	Calm	0	0		0	0			0.21	5.3		
Philadelphia, Penn.			30.18	766.6	61	16.1	82	E	20	8.9		5k	5s	W	W	0	0		
Pike's Peak, C. T.			30.2	762.5	31	— 0.6	79	W	30	13.4		2k	Haze	SW		0	0		
Pittsburgh, Penn.			30.12	765.0	55	12.8	80	Calm	0	0						0	0	Dense smoke	
Port Huron, Mich.			30.10	764.5	60	15.6	70	SE	5	2.7		10c	0			0	0		
Portland, Maine			30.32	770.1	56	13.3	80	E	3	1.3			10s			0	0		
Portland, Or.			29.91	759.7	54	12.2	80	SW	4	1.8			10s			0.31	7.9		
Punta Rassa, Fla.			30.08	764.0	79	26.1	71	NW	8	3.6		5ck	5ks	NW		0	0		
Rochester, N. Y.			30.18	766.6	64	17.8	53	S	2	0.9		0	Haze			0	0		
Salt Lake City, Utah			29.52	749.8	71	21.7	44	W	12	5.4			10s			0	0		
Sandy Hook, N. J.			30.20	767.1	60	15.6	83	E	17	7.6			10s		E	0	0		
San Diego, Cal.			29.95	761.0	62	16.7	78	S	4	1.8			10s			0	0		
San Francisco, Cal.			29.99	761.7	55	12.8	68	W	14	6.3		0	0			0	0		
Santa Fe, N. M.			29.72	754.9	54	12.2	38	SW	8	3.6		5c	Haze	SW		0	0		
Savannah, Georgia			30.06	763.5	80	26.7	70	NW	2	0.9		2c	2s			0	0		
Shreveport, La.			30.01	762.2	69	20.6	79	S	7	3.1		2cs	0	N		0	0		
Springfield, Mass.			30.25	768.3	59	15.0	87	Calm	0	0			10ks		NE	0	0		
St. Louis, Mo.			29.94	760.5	62	16.7	71	S	14	6.3			10s			0	0		
St. Marks, Fla.			30.09	764.3	76	24.4	86	Calm	0	0		10c	0			0	0		
St. Paul, Minn.			29.73	755.1	59	15.0	87	SE	6	2.7			10s		SW	0.21	5.3		
St. Paul's Island, Alaska			29.96	761.0	40	4.4	82	SE	1	0.4		...ck	8k	E		0	0		
Squan Beach, N. J.			30.19	766.8	59	15.0	87	NE	20	8.9			10n		NE	0.08	2.0	Light rain	
Toledo, Ohio			30.07	763.8	62	16.7	66	SE	4	1.8		8c	0			0	0		
Tybee Island, Ga.			30.08	764.0	64	17.8	88	NW	6	2.7			10s			0.52	13.2		
Vicksburg, Miss.			30.12	765.0	64	17.8	60	SE	6	2.7		0	0			0	0		
Virginia City, Mon.			29.37	746.0	53	11.7	48	SE	12	5.4		Haze	2s			0	0		
Washington, D. C.			30.15	765.8	62	16.7	79	NE	8	3.6		5cs	2s		S	0	0		
Wilmington, N. C.			30.07	763.8	60	15.6	94	N	10	4.5			10s		N	1.97	50.0		
Wood's Hole, Mass.			30.28	769.1	56	13.3	93	E	7	3.1			10n			0.09	2.3	Light rain	
Wytheville, Va.			29.95	760.7	56	13.3	80	E	1	0.4		2k	0	W		0	0		
Yankton, D. T.			29.78	756.4	56	13.3	90	SW	1	0.4			Fog			0.60	5.2	Foggy	

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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—13.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbados, W. I.					82	27.8	87	E	4	1.8		8ck	2ks	E		0	0		E. Racker.
Pointe-à Pitre, Guadeloupe, do			30.01	762.2	82	27.8	70	SE				2k		SE		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.79	756.7	82	27.8	74	Calm	0	0		2c	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.29	769.4	78	25.6	78	SE	12	5.4			8k, n			0.60	15.2	Showery	W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	79	26.1	74	NW	2.4	1.1		5c	0	N		0	0		Robert Mason.
St. Georges, Bermudas			30.19	766.8	75.5	24.2	73	ESE	9.3	4.2			8ks			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.01	762.2	68	20.0	79		1	0.4		0	2ks			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.76	755.9	36.0	2.2	71	NW	8	3.6			10ks			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.27	692.6	30.08	764.0	64	17.8	83												C. Partridge.
St. John's, Newfoundland			30.41	772.4	53	11.7	67	SW								0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.11	764.8	59	15.0	69	SE				0	2ks			0	0		H. M. Redington.
Indianola, Iowa	28.82	732.0			64	17.8	88	SE					9n			0.67	17.0		G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.	Observer.
Schooner Addie Fuller, N. 19° 55', W. 61° 20'	NW	3.5	Long swell		Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 10, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.04	762.9	77.2	25.1		E			2		1			0	0		Charnot.
Algiers			30.00	762.0	78.4	25.8	80	ESE			2		8			0	0		Peter.
La Calle			30.00	762.1	81.0	27.2		E			1		1			0	0		Kuntz.
Tunis			30.11	764.9	85.5	29.7	50	E			3		0			0	0		Jacques.
Sfax			30.16	766.0	77.4	25.2		ESE			3		2			0	0		Chauvey.
Safin			30.14	765.6	86.9	30.5		NNW			1		1			0	0		Grosjean.
Tebessa			30.03	762.8	83.1	28.4		NE			1		1			0	0		Colin.
Geryville			30.1[illegible]	766.6	82.6	28.1		NW			2		2			0	0		Bernadach.
Laghouat			30.11	764.9	87.8	31.0	24	S			3		2			0	0		Poinsignon.
Biskra			30.07	763.6	91.8	33.2		E			3		1			0	0	Lt. sirocco	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.87	758.8	85.5	29.7	48	SW			3		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.94	760.5	65.7	18.7	54	NE			2		0			0	0		I. R. Observatory.
Eperies			29.93	760.2	72.2	22.3	72	S			1		0			0	0		Julius Mikolik.
Gratz			29.82	757.5	78.8	26.0	69	SSW			2		0			0	0		Andreas Rospini.
Hermannstadt			29.95	760.8	72.7	22.6	44	N			3		1			0	0		Prof. Reissenberger.
Kremsmünster			29.82	757.4	75.6	24.2	64	N			1		1			0.33	8.5		Prof. C. Wagner.
Lemberg			29.93	760.3	69.8	21.0	49	NW			3		4			0.075	1.9		Dr. T. Stanecki.
Nyiregyhaza			29.95	760.7	79.5	26.4	59	S			1		3			0	0		Habzsuda Daniel.
Pola			29.97	761.2	82.6	28.1	59	S			1		1ks			0	0		I. R. Hydrographic Of'ce
Szegedin			29.93	760.3	70.5	26.4	42	S			1		8			0	0		Karl Stancel.
Trieste			29.96	761.0	78.1	25.6	68	NW			2		2			0	0		Prof. V. Farolfi.
Vienna			29.85	758.2	81.0	27.2	54	SE			2		1			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.83	757.6	61.0	16.1	80	W			2		10kr		SW	0.236	6.0	Rainy	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.34	745.2	61.0	16.1		SSW	21	9.4			3			0.150	3.81		William Boswell.
Annanhill																			
Ardrossan			29.46	748.3	55	12.8		W3W			2		7						William McNeil.
Armagh Observatory			29.47	748.5	59.1	15.1		W	9	4.0			7					Showery	S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.55	750.6	56.3	13.5		WSW			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.53	750.0	57.0	13.9		W			1-3		9					Showery	J. Dreyer, for L'd Rosse.
Bradford			29.52	749.8	62.5	16.9		SW			1		5						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.94	760.5	83.0	28.3		NE			3		6						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.66	753.4	67.0	19.4		SW			2		7					Showery	H. Todd.
Cape Town, (Cape Colony)			29.99?	761.7?	57	13.9		NW			4		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.00	762.0			55.8	13.2	98	W	14	6.3			7						The Staff, for E. J. Stone.
Cardington			29.67	753.6	65.0	18.3		SW					8						John McLaren.
Carlisle			29.51	749.5	59.5	15.3		W					8			0.09	2.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.72	754.9	65.2	18.4		SW			2		6						Capt. I. Fellowes, R. E.
Colombo, (Ceylon)			29.78	756.4	82.8	28.2		SW			5		10						Sgt. W. F. Hopkins
Dartmoor			29.75	755.6	49.5	9.7		SW			6		10					Raining	R. E. Power.
Donaghadee			29.46	748.3	46.0	7.8		WSW			3		10						J. MacGowan, Jr.
Dover			29.77	756.1	62	16.7		WSW			5		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.57	751.1	61.7	16.5		SSE	15.0	6.7			8						Thomas Mackereth
Falmouth Observatory			29.70	754.4	59.4	15.2		WSW	28	12.5			9						The Staff.
Fort Napier, (Natal)			29.88	758.9	76.4	24.7		NE			2		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.7	85	29.4		N					5						[tis.
Galway, Queen's College			30.02	752.3	63	17.2		SW			2		3						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.02	762.5	75.0	23.9		SW			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.43	747.5	54.3	12.4		W			6		8						Lewis Stewart.
Great Yarmouth			29.69	754.1	65	18.3		WSW			4		6						G. T. Watson.
Greenwich Royal Obs.			29.74	754.6	71.0	21.7		S W											The Staff, for G. B. Airy.
Guernsey			29.78	756.4	57	13.9		SSW			2		8					Showery	Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			29.57	751.1	60.3	15.7		SW					8						F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.70	754.4	62	16.7		SW			4		6						Dr. W. B. Mavle.
Holyhead			29.55	750.6	59	15.0		SSW			5		3						John Tilston.
Hull Park																			
Kew Observatory			29.70	754.4	65.1	18.4		S	25	11.2			7					Threatening	The Staff.
Kingstown			29.57	751.1	58	14.4		W											George Mitchell.
Lampeter																			
Leicester Museum			29.65	753.1	52.6	11.4		W			2		10					Showery	William J. Harrison.
Llandudno			29.54	750.3	59.0	15.0		WSW					10						Dr. James Nicol.
Malta, (Mediterranean)			30.07	763.8	76.8	24.9		NW			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.15	765.8	80.9	27.2		S			1		5						Surg.-Maj. J. Jameson
North Shields			29.51	749.5	62	16.7		WSW			6		2						John Wm. Irvine.
Nottingham			29.65	753.1	56.0	13.3		SW			2		10n		SW			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			29.62	752.3	53.2	11.8		SSW			3		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.65	753.1	59	15.0		SW			4		10						J. Lucas, for R. Main
Plymouth			29.69	754.9	60	15.6		SW			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.58	751.3	54	12.2		W			4		10					Raining	W. Kennedy.
Saint Ann's Head			29.61	752.1	56	13.3		W-W			4		8						John C. Walker.
Saint Helier, (Jersey)			29.80	756.9	58.5	14.7		W			5		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.56	750.8	64.0	17.8		SW			4		7						F. Shaw.
Scutari, (Turkey)			29.96	761.0	79.2	26.2		NE			2		6						Sergt. W. H. Lyne.
Sheffield			29.56	750.8	65	18.3		WSW			4		6			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.50	749.3	62.8	17.1		WSW			5		4			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.67	753.6	68.3	20.2		SSW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.53	750.0	61.7	16.5		SW			2		10						The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.71	754.6	64.1	17.8		S			1-2		8						Rev. Charles H. Griffith
Streatley Vicarage			29.79	755.1	59.8	15.4		WSW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.21	741.9	57	13.9		SW			3		7						John Trotter.
Truro Royal Institution			29.65	753.1	61	16.1		W			4		6						W. Newcombe.
Valencia Observatory			29.59	751.6	54.8	12.7		WSW	17	7.6			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.75	755.6	61.3	16.3		SW			4		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of Cape Good Hope Observatory is unknown, and barometer reduced to freezing.

DANISH SERIES.

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

Copenhagen			29.78	756.3	57.0	13.9	70	SE			6		10						
Fanöe			29.71	754.6	57.4	14.1	92	SW			4		10						
Godthaab, (Greenland)			29.73	755.2	45.7	7.6	64	Calm			0		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.26	743.1	49.8	9.9	96	ESE			2		10						
Vestervig			29.65	753.1	56.[illegible]	13.4	91	SSW			4		10					Rain	

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.90	759.4	61.9	16.6	69	SW			4		8		SW	0.12	3.1		Normal School.
Amiens			30.01	762.3	68.7	20.4	76	NE			6		5		ENE	0.37	9.6		Normal School.
Beaumette, (near Angers)			29.88	759.0	65.3	18.5	53	SW	32.7	14.6			10		SW	0.035	0.9	Showery	Beaumette Observatory.
Beauvais			29.91	759.6	66.7	19.3	61	SW			3		8		SW	0.404	10.25		Normal School.
Besançon			30.05	763.2	62.2	16.8	81	SSE			2		8		SW	0.067	1.7		Normal School.
Bourg en Bresse			30.06	75[illegible].5	58.6	14.8	99	E			2		10		N	0.89	22.8	Rainy	Normal School.
Bourges			29.96	760.9	68.2	20.1	75	SSW			2		8		NE	0.244	6.2		Normal School.
Brest			29.77	756.1	61.0	16.1	75	SW			3		10n		SW	0.020	0.50	Squally	Naval Observatory.
Caen																			Normal School
Chartres			29.89	759.2	66.7	19.3		SW			3		9k		W	0.378	9.6		Normal School.
Chaumont			30.04	763.0	66.6	19.		SSE			3		10kn		SE	1.034	26.25		Normal School.
Cherbourg			30.05	763.2	59.7	15.4	78	W			6		10			0.472	12.0		Normal School.
Le Mans			30.06	763.4	66.2	19	66	SW			3		8		SW	0	0		Normal School.
Lons-Le Saulnier			30.02	762.6	57.9	14.4	81	S			2		10			0.272	6.95	Raining	Normal School.
Mâcon			30.05	763.2	61.3	16.3	91	SSW			2		10			0.728	18.5		
Mirecourt			29.95	760.8	64.8	18.2	77	SSW			4		10		NNE	0.98	25.0		Normal School.
Orléans			29.92	760.0	65.1	18.4	71	SSW			8		5		WSW	0	0		Normal School.
Paris Observatory			29.87	758.6	68.7	20.4		SSW			3		8k, n		SW	0.367	9.32		National Observatory
Parthenay			30.02	762.4	61.4	18	86	SW			6		5		SW	0.282	7.2		Normal School.
La Roche sur Yon			29.97	761.2	62.2	16.8	72	SW			4		10			0.098	2.5		Normal School.
Rouen			29.82	757.3	63.9	17.7	66	S			2		10			0	0		Normal School.
Saint Lo			29.84	757.8	58.3	14.6	93	SW			2		1		W	0.028	0.7		Normal School.
Villefranche			30.07	763.7	63.0	17.2	89	NW			2		8		N	0.266	6.6		Normal School
Sub-Series.																			
Gorée, (Senegambia)													8		SSW	0.13	3.3		Frère Pascall.
Mont-Louis	24.91	632.7			59.2	15.1	92	E	2.0	1.16			10k, n		SSW	0.394	10.0		—, Falguère.
Montsouris Observatory			29.86	758.5	70.9	21.6	52	SW			3		8c, n		SW	0	0		Marié Davy.
Perpignan			30.03	762.7	71.1	21.7	72	NE	1.3	0.57			8			0.620	15.9		Dr. Fines.
Saint Maur, (near Paris)			29.87	758.8	68.5	20.3	54	SW			3								E. Renou.
Saint Pierre, (Martinique)													8		W	0.157	4.0		C. Marquet.
Tours			29.93	760.1	66.0	18.9	60	WNW			3		9			0.350	8.89		Dr. A. Bérigny.
Versailles, (near Paris)			29.87	758.7	69.8	21.0	49	W			4					0 / 0	0 / 0		H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai			29.88	759.0	70.7	21.5	93	ESE	11.2	5.0			0						

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Lower 0—10.	Clouds. Direction. Upper From—	Lower From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.77	756.1	77.0	25.0	48	SW			3		4			0	0		Prof. Hoh.
Berlin			29.83	757.6	80.2	26.8	38	S			2		9			0	0		Prof. Arndt.
Breslau			30.03	762.8	78.6	25.9	42	S			3		1			0	0		Dr. P. Neugebauer.
Carlsruhe			29.91	759.8	65.8	18.8	74	W			2		10			0.161	4.1		A. Senz.
Cassel			29.72	755.0	63.0	17.2	75	NW			2		9			0.107	2.72		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.84	757.9	76.1	24.5	60	W					6			0.532	13.5		M. Wilhelm.
Hamburg			29.80	757.0	64.4	18.0	63	W			4		10			0	0		W. Reinert.
Kiel			29.79	756.6	62.6	17.0	77	W			4		10			0	0		Prof. G. Karsten.
Königsberg			29.96	761.0	62.2	16.8	58	W			1					0	0		Prof. E. Luther.
Köslin			30.03	762.8	65.8	18.8		SE			2		8			0	0		Dr. Tägert.
Leipsic			29.80	756.9	79.0	26.1	48	SW			1		6			0	0		Prof. Bruhns.
Munster			29.84	757.9	65.1	18.4	59	SW			2		10			0.413	10.5		Prof. E. Heis.
Posen			29.94	760.4	75.7	24.3	46	SE			8		3			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.94	760.5	67.3	19.6	68	NW					10			0.400	10.17		Hartwig and Tülk.
Stuttgart			29.85	758.3	74.5	23.6	64	NW					5			0.236	7.0		Mr. Würth.
Thorn			29.92	760.0	72.7	22.6	42	SSW			2		6			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.82	757.4	61.2	16.2	77	W			5		10			0.240	6.09		Prof. Plesch.
Wustrow			29.80	756.8	66.7	19.3	68	SE			3		10			0	0		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit.	Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Lower 0—10.	Clouds. Direction. Upper From—	Lower From—	Rain-fall in 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.89	759.2	80.1	26.7	57	ESE	7.4	3.3			4			0	0		
Mondovi			29.88	759.0	77.0	25.0	56	WNW			4		0			0	0		
Genoa			30.07	763.7	77.0	25.0	60	S	9.4	4.2			2	SE		0	0		
Pavia			29.94	760.4	82.8	28.2	46	SE			1		1	SE		0	0		
Verona			29.90	759.5	89.2	31.8	36	E			1		0			0	0		
Padua			29.91	759.8	82.9	28.3	48	NW	4.3	1.9			1			0	0		
Parma																			
Bologna			29.93	760.1	84.9	29.4	56	WSW			1		2	W		0	0		
Leghorn			30.05	763.3	78.8	26.0	56	W	3.1	1.4			1			0	0		
Urbino			29.97	761.2	81.5	27.5	34	SW			4		0			0	0		
Ancona			29.98	761.5	85.3	29.6	42	SE			4		0			0	0		
Siena			30.00	762.0	84.7	29.3	33	SW					3	SW		0	0		
Rome			30.07	763.8	83.7	28.7	49	WSW	6.3	2.8			1			0	0		
Naples, O.U.			30.09	764.2	84.0	28.9	55	W			4		1			0	0		
Lecce			30.02	762.4	82.8	28.2	38	ENE	7.4	3.3			1	N		0	0		
Cosenza			30.07	763.6	86.9	30.5	38	SW			2		4	WNW		0	0		
Catania, (Sicily)																			
Riposto			30.00	762.1	78.8	26.0	66	SSW			2		1			0	0		
Palermo			30.03	762.7	76.3	24.6	65	NE			2		1			0	0		
Sub-Series.																			
Naples, S. R.			30.14	765.6	82.2	27.9	63	SW			1		..c	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.82	757.4	61.9	16.6		W			4								
Groningen			29.72	754.9	63.9	17.7		SW			4								
Helder			29.75	755.7	62.1	16.7		SW			4								
Utrecht			29.75	755.6	63.1	17.3	70	SW			3		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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			29.54	750.4	57.9	14.4	58	SSE	8.7	3.9			10			0.354	9.0		
Christiania			29.79	756.7	58.6	14.8	57	SSW	9.2	4.1			9			0	0		
Tromsö			29.88	758.9	43.9	6.6	93	NE			6		5			0	0		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.21	767.1	69.6	20.9	48	N	16.1	7.2		1							

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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	68.9	20.5	47	SW	7	3			1						Astronomical Obs.
Wilna			29.95	760.6	59.5	15.3	48	NW	8	3.5			5						Astronomical Obs.
Dorpat			29.81	757.2	57.2	14.0	51	WSW	9	4			7						Physical Cabinet.
St. Petersburg			29.67	753.7	48.6	9.2	78	N	13	6			9						Central Physical Obs.
Kuopio			29.71	754.6	53.1	11.7	81	ENE					10		W	0.043	1.10		
Kieff			29.93	760.2	70.9	21.6	44	NNW	16	7			7						Physical Cabinet.
Nikolaiev			29.93	760.3	81.9	27.7	35	NW	8	3.5			4						
Kertch			29.89	759.3	7[illegible].0	23.9	61	W	10	4.5			7						Lagorio.
Moscow			29.72	754.9	64.2	17.9	44	W	10	4.5			5						Meteorological Obs.
Lugan			29.63	752.6	84.4	29.1	34	WNW	17	7.5			7					rain & hail	Meteorological Obs.
Archangel			29.37	745.9	55.2	12.9	72	Calm	0	0			9					Rainy	Ogorodnikof.
Tiflis			29.84	758.0	74.5	23.6	43	NW	13	6			7						Physical Obs.
Astrakhan			29.93	760.3	83.3	28.5	19	SE	8	3.5			1						Sebastianof.
Kasan			29.68	753.8	66.9	19.3	68	SE	4	2			10						Physical Cabinet.
Orenburg			29.85	758.3	84.7	29.3	38	Calm	0	0			10						Tschernischef.
Ekaterinburg			29.81	757.1	72.1	22.3	52	S	4	2			2						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.72	754.9	84.0	28.9	42	Calm	0	0			3						Michelson.
Barnaul			29.78	756.4	61.2	16.2	51	NNW	8	3.5			2						Meteorological Obs.
Yeniseisk			29.41	746.9	58.5	14.7	77	N	13	6			8						Marks.
Irkutsk			29.39	746.6	59.0	15.0	69	Calm	0	0			5						Usolzef.
Oorga			29.48	748.9	54.3	12.4	67	Calm	0	0			8						Mossin.
Peking, (China)			29.56	750.9	84.2	29.0	46	S	8	3.5			0					Lightning	Physical Observatory.
Nertchinsk			30.56	750.8	61.2	16.2	51	E	4	2			3						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor					52.2	11.2	88	SE	15	6			10						Kurd kof.

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			29.95	760.6	82.2	27.9	22	SW	9.6	4.3						0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.83	757.6	49.6	9.8	62	S			2		8			0.02	0.4		
Hernosand			29.77	756.2	57.1	14.0	53	S			3		4			0	0		
Stockholm			29.82	757.4	61.5	16.4	32	SSW			3		4			0.38	9.6		
Visby			29.94	760.4	54.3	12.4	68	NNE			2		6			0.42	10.6		
Sub-Series.																			
Upsala			29.84	758.0	61.0	16.1	49	S			2		8		NW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.57	725.7			73.6	23.1	43	SSW			4		9			0.051	1.3		The Observatory.
Zurich	28.32	719.4			66.6	19.2	75	W			2		8			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.6mm.; Thermometer, +3.1 C.; Relative Humidity, —13 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.90	759.5	83.7	28.7	62	SW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			30.03	762.7	75.0	23.9	59	NE	7.8	3.5			2		NE	0	0		
Fao, (Persian Gulf)			29.84	757.8	93.2	34.0		NW			4		0						
Salonica					87.4	30.8		NW			1		0						
Valona			30.02	762.5	80.2	26.8		W			1		0						
Varna			30.01	763.0	80.6	27.0		E			2		8						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.12	765.0	68	20.0		SW	1	0.4		0	2s		SW	0	0		
Chatham, N. B.			30.27	768.8	62	16.7	79	Calm	0	0		8cs	Haze			0	0		
Charlottetown, P. E. Island			30.29	769.4	61	16.1	83	SE	8	3.6			10s			0.02	0.5		
Fort Garry, Manitoba			29.76	755.9	50	10.0	96	NE	13	5.8			10n			0	0		
Halifax, N. S.			30.19	766.8	52	11.1	99	SE	3	1.3			Fog			0.11	3.8	Foggy	
Kingston, Ontario			30.09	764.3	62	16.7	91	Calm	0	0		5k	0			0	0		
Montreal, Quebec			30.09	764.3	61	16.1	77	NE	4	1.8		5ck	5ks	S	S	0	0		
Ottawa, Ontario			30.08	764.0	60	15.6	66	E	2	0.9		5k	2n			0	0		
Parry Sound, Ontario			30.04	763.0	65	18.3	68	SE	1	0.4		5ck	0	NW		0	0		
Port Dover, Ontario			30.04	763.0	55	12.8	87	N	6	2.7			10n		W	0.04	1.0	Light rain	
Port Stanley, Ontario			30.01	762.2	60	15.6	71	Calm	0	0			10n			0	0		
Quebec, Quebec			30.16	766.1	60	15.6	71	N	5	2.2		8k	2ks	NE	N	0	0		
Saugeen, Ontario			30.00	762.0	61	16.1	55	SE	2	0.9		5k	0	E		0	0		
Stayner, Ontario			30.01	762.2	60	15.6	79	SE	3	1.3		5k	0	NW		0	0		
Sydney, C. B.			30.37	771.4	55	12.8	99	SE	2	0.9			10n		S	0.14	3.6	Light rain	
Toronto, Ontario			30.06	763.5	59	15.0	85	NE	5	2.2		5ck	5s	W		0	0		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.06	763.5	61	16.1	82	NW	10	4.5		2k	10ks	N	N	0	0		
Alpena, Mich.			29.98	761.5	55	12.8	73	SE	1	0.4		5k	1s	SE		0	0		
Atlantic City, N. J.			30.07	763.8	58	14.4	93	NW	12	5.1			10s		NW	0.41	10.4	Clearing	
Augusta, Ga.			30.14	765.5	67	19.4	76	Calm	0	0		10k	0			0	0		
Baltimore, Md.			30.11	764.8	66	18.9	63	N	4	1.8		0	0			0	0		
Barnegat, N. J.			30.06	763.5	58	14.4	93	NW	8	3.6			10s		NW	0.71	18.0		
Benton, Montana			29.88	758.9	48	8.9	100	N	16	7.2			10n			0.81	20.6	Light rain	
Bismarck, Dakota			29.25	742.9	61	16.1	82	E	10	4.5			10ks		E	0	0	Threatening	
Boston, Mass.			30.00	762.0	55	12.8	93	N	7	3.1			10s			5.35	127.9		
Breckenridge, Minn.			29.94	752.8	59	15.0	94	SE	20	8.9		8k	0	SE		0	0		
Buffalo, N. Y.			30.00	762.0	62	16.7	66	SW	4	1.8		5k	5s	SW	SW	0	0		
Burlington, Vt.			30.10	764.5	57	13.9	81	SE	1	0.4			10n			0.01	0.3	Light rain	
Cairo, Ill.			29.97	751.2	71	21.7	71	S	8	3.6		2cs	0	NW		0.01	0.3		
Cape Hatteras, N. C.			30.11	764.8	64	17.8	83	NE	16	7.2			10s			0.05	1.3		
Cape Henry, Va.			30.09	764.3	67	19.4	79	N	8	3.6		8k	0	NW		0.03	0.8		
Cape May, N. J.			30.08	764.0	60	15.6	88	N	10	4.5			10s		NW	0.11	2.8		
Charleston, S. C.			30.15	765.8	69	20.6	81	NW	4	1.8		2k	Haze			0	0		
Cheyenne, W. T.			29.70	754.4	52	11.1	14	W	24	10.7		2c	0			0	0		
Chicago, Ill.			29.88	758.9	65	18.3	78	SE	6	2.7		5ck	0	S		0.07	1.8		
Cincinnati, Ohio			29.95	760.7	70	21.1	61	S	4	1.8		5k	0	N		0	0		
Cleveland, Ohio			29.98	761.5	65.2	18.4	73	S	6	2.7			10n		SW	0	0	Light rain	
Colorado Springs, Col.			29.69	754.1	62	16.7	13	N	16	7.2			10ks			0	0		
Corsicana, Texas			29.89	759.2	75	23.9	81	S	12	5.4		10k	0	S		0	0		
Davenport, Iowa			29.83	757.7	65	18.3	94	E	8	3.6		5ck	Sm'e	SW		0.06	1.5		
Denver, Col.			29.72	754.9	63	17.2	3	W	3	1.3		2cs	0	W		0	0		
Detroit, Mich.			29.97	761.2	63	17.2	83	SE	2	0.9			8s			0	0		
Dodge City, Kansas			29.14	740.1	75	23.9	54	SW	11	4.9		0	0			0	0		
Dubuque, Iowa			29.86	758.4	62	16.7	88	E	8	3.6			10s			0.04	1.0		
Duluth, Minn.			29.88	758.9	46	7.8	85	NE	4	1.8			Fog			0.02	0.5	Foggy	
Eastport, Me.			30.20	767.1	49	9.4	100	E	7	3.1			Fog			0.20	5.1	Light rain	
Erie, Penn.			29.98	761.5	66	18.9	64	SE	8	3.6		8ck	0	Se		0	0		
Escanaba, Mich.			29.95	760.7	57	13.9	81	S	3	1.3		5c	0	S		0.01	0.3		
Fort Gibson, I. T.			29.76	756.1	76	24.4	72	S	15	6.7		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Stanton, N. M.			29.16	740.7	67	19.4	79	SE	24	10.7		2k	8s	SE	SE	0	0		
Galveston, Texas			29.98	761.5	79	26.1	78	S	12	5.4		5k	0	S		0	0		
Grand Haven, Mich.			29.94	760.5	63	17.2	77	SE	5	2.2		10k	0	W		0	0		
Indianapolis, Ind.			29.92	760.0	72	22.2	67	S	6	2.7		2c	Haze	W		0.01	0.3		
Indianola, Texas			29.96	761.0	82	27.8	74	S	14	6.3		2k	0	S		0	0		
Jacksonville, Fla.			30.14	765.5	76	24.4	65	NE	2	0.9		0	0			0	0		
Keokuk, Iowa			29.76	755.9	70	21.1	79	SE	7	3.1		0	0			0.03	0.8		
Key West, Fla.			30.08	764.0	81.7	27.6	67*	NE	4	1.8		2k	Haze	SE		0	0		
Kittyhawk, N. C.			30.12	765.0	63	17.2	89	N	16	7.2			10ks			0.02	0.5		
Knoxville, Tenn.			30.12	765.0	63	17.2	88	Calm	0	0		1ck	0			0	0		
La Crosse, Wis.			29.81	757.2	63	17.2	83	SE	8	3.6			10s		SE	0	0		
Leavenworth, Kan.			29.62	752.3	75	23.9	72	S	16	7.2		0	0			0	0		
Lexington, Ky.			30.05	763.3	65	18.3	49	S	13	5.8		2c	5s			0	0		
Long Branch, N. J.			30.07	763.8	58	14.4	100	NW	5	2.2			10n		NW	0.93	23.6	Light rain	
Louisville, Ky.			29.99	761.7	72	22.2	58	Calm	0	0			10s			0	0		
Lynchburg, Va.			30.12	765.0	67	19.4	74	E	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.92	760.0	55	12.8	75	E	4	1.8		0	0			0	0		
Memphis, Tenn.			30.01	762.2	75	23.9	63	SW	6	2.7		2cs	0			0	0		
Milwaukee, Wisconsin			29.92	760.0	60	15.6	70	NE	4	1.8		2c	Haze	SW		0.13	3.3		
Mobile, Ala.			30.11	764.8	75	23.9	76	SW	3	1.3		0	0			0	0		
Montgomery, Ala.			30.13	765.3	74	23.3	64	S	2	0.9		0	Haze			0	0		
Morgantown, W. Virginia			30.02	762.5	70	21.1	61	Calm	0	0		0	5s			0	0		
Mt. Washington, N. H.			30.29	769.4	44	6.7	100	SE	20	8.9			Fog			0.53	13.5		
Nashville, Tenn.			30.01	762.2	75	23.9	56	S	2	0.9		0	0			0	0		
New Haven, Conn.			30.06	763.5	57	13.9	87	N	11	4.9			10s			1.20	30.5		
New London, Conn.			30.03	762.7	57	13.9	94	NW	5	2.2			10s		NW	2.07	52.6		
New Orleans, La.			30.07	763.8	75	23.9	77	SE	4	1.8		2k	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			30.08	767.0	58	14.4	93	N	8	3.6			10n			0.15	3.8	Light rain	
Norfolk, Va.			30.14	765.5	65	18.3	73	NW	8	3.6		2c	5k			0.01	0.3		
North Platte, Neb.			29.90	736.6	68	20.0	84	SW	8	3.6			10s			0	0		
Omaha, Neb.			29.50	749.3	72	22.2	80	SE	20	8.9		8c	0	W		0	0		
Oswego, N. Y.			30.05	763.3	63.1	17.3	72	SSE	12	5.4			10s			0	0		
Peck's Beach			30.08	764.0	60	15.6	88	N	14	6.3			1ks		N	0.53	13.5		
Pembina, D. T.			29.70	754.4	53	11.7	79	N	4	1.8			10s			0	0		
Philadelphia, Penn.			30.08	764.0	61	16.1	77	NE	10	4.5		5k	0	NE		0.04	1.0		
Pike's Peak, C. T.			29.71	754.6	17	— 8.3	67	SW				5ck	Haze	W		0	0		
Pittsburgh, Penn.			30.01	762.2	62	16.7	71	Calm	0	0		2c	Sm'e	NW		0	0		
Port Huron, Mich.			30.00	762.0	61	16.1	71	Calm	0	0		5ck	5s	W		0	0		
Portland, Maine			30.05	763.3	54	12.2	98	NE	17	7.6			10n			0.02	0.5	Heavy rain	
Portland, Or.			30.09	764.3	53	11.7	80	SW	8	3.6		5k	5ks			0.01	0.3		
Punta Rassa, Fla.			30.10	764.5	77	25.0	86	N	4	1.8		0	Sm'e			0	0		
Rochester, N. Y.			30.01	762.2	65	18.3	68	S	4	1.8		0	2s			0	0		
Salt Lake City, Utah			29.86	758.4	52	11.1	53	NW	6	2.7		10k		W		0.52	13.2		
Sandy Hook, N. J.			30.05	763.3	58	14.4	93	N	13	5.8			10n		N	0.57	14.5	Light rain	
San Diego, Cal.			29.91	759.7	58	14.4	81	Calm	0	0		0	2s			0	0		
San Francisco, Cal.			29.90	759.4	53	11.7	80	S	4	1.8		10ck	0	SW		0	0		
Santa Fe, N. M.			29.69	754.1	62	16.7	36	W	8	3.6		0	Haze			0	0		
Savannah, Georgia			30.15	765.8	78	25.6	78	S	5	2.2		0	Sm'e			0	0		
Shreveport, La.			30.00	762.0	75	23.9	85	S	8	3.6		2k	0	S		0	0		
Springfield, Mass.			30.04	763.0	63	16.7	57	N	8	3.6			10ks		NE	0.77	19.6		
St. Louis, Mo.			29.89	759.2	71	21.7	75	S	8	3.6		0	0			0.02	0.5		
St. Marks, Fla.			30.15	765.8	80	26.7	82	SW	1	0.4		10c	0			0	0		
St. Paul, Minn.			29.73	755.1	59	15.0	87	SE	12	5.4			10s			0.01	0.3		
St. Paul's Island, Alaska			29.68	753.9	39	3.9	81	NE	11	4.9		10ck	10k	ENE	E	0	0		
Squan Beach, N. J.			30.06	763.5	58	14.4	95	NW	4	1.8			10s		NW	0.95	24.1		
Toledo, Ohio			29.95	760.7	64	17.8	83	S	4	1.8		0	5s		SW	0.02	0.5	Clearing	
Tybee Island, Ga.			30.16	766.1	72	22.2	81	SE	4	1.8		2c	2k			0	0		
Vicksburg, Miss.			30.11	764.8	74	23.3	76	S	4	1.8		0	0			0	0		
Virginia City, Mon.			29.52	749.8	69	20.6	83	W	4	1.8			10n			0.96	24.4	Light rain	
Washington, D. C.			30.13	765.3	65	18.3	73	Calm	0	0		Haze	Sm'e			0	0		
Wilmington, N. C.			30.15	765.8	65	18.3	89	N	4	1.8		2k	0	N		0	0		
Wood's Hole, Mass.			30.02	762.5	60	15.6	100	S	15	6.7			Fog			1.36	37.1	Foggy	
Wytheville, Va.			29.89	759.7	60	15.6	76	N	1	0.4		0	0			0	0		
Yankton, D. T.			29.45	748.0	66	18.9	84	SE	13	5.8		0	10s		SE	0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	.....	.....	84	28.9	83	E	5	2.2	.....	2c	5s	E	.....	0	0	.....	E. Racker.
Pointe-à Pitre, G'd'loupe, de	.....	.....	29.94	760.5	81	27.2	79	E	.....	.....	.....	0	5ks	.....	E	0.10	2.5	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.77	756.1	81	27.2	78	SE	3.6	1.6	.....	2c	0	SE	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.23	767.8	81	27.2	70	N	3	1.3	.....	5ck	2k	E	.....	0.02	0.5	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.84	757.9	80	26.7	74	NNW	7.2	3.2	.....	8ck	3s	N	NE	0	0	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Georges, Bermudas	.....	.....	30.27	768.8	74	23.3	62	ESE	7.4	3.3	.....	0	5k	.....	.....	0	0	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu, Oahu, S. I.	.....	.....	30.02	762.5	71	21.7	75	NE	6	2.7	.....	0	5ks	.....	NE	0	0	.....	E. P. Church.
Makawao, Maui, S. I.	.....	.....	30.01	762.2	64	17.8	78	NE	10.8	4.8	.....	0	2s	.....	.....	0	0	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10ks	.....	.....	0	0	.....	J. Fortescue.
York Factory, B. A.	.....	.....	30.05	763.3	36.5	2.2	71	N	8	3.6	.....	.....	.....	.....	.....	.....	.....	.....	C. Partridge.
Clifton, Jamaica, W. I.	27.25	692.1	30.01	763.0	67	19.4	90	.....	.....	.....	.....	2k	2s	.....	.....	0	0	.....	John Delaney.
St. John's, Newfoundland	.....	.....	30.49	774.4	66	18.9	31	W	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10n	.....	.....	0.10	2.5	Raining	H. M. Redington.
Elyria, Ohio	.....	.....	30.00	762.0	62	16.7	80	SE	4	1.8	.....	0	2n	.....	.....	0	0	.....	G. C. Carpenter.
Indianola, Iowa	28.80	731.5	.....	.....	77	25.0	85	SE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 21° 20′, W. 65° 10′	NNW	5	29.88	758.9	82	27.8	83	ESE	.....	.....	5	..c	.....	WNW	.....	Short sea.	.....	.....	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 11, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.0	80.6	27.0		NNW			2		1			0	0		Charnot.
Algiers			30.09	764.3	75.6	24.2	67	N			1		2			0	0		Peter.
La Calle			30.09	764.2	77.7	25.4		SSE			1		0			0	0		Kuntz.
Tunis			30.10	764.5	87.4	30.8	39	E			3		2			0	0		Jacques.
Sfax			30.15	765.7	79.5	26.4		NE			3		2			0	0		Chauvey.
Sukda			30.14	765.6	89.8	32.1		NNW			2		0			0	0		Grosjean.
Tebessa			30.05	763.3	78.2	16.2		ENE			2		6			0	0	Threatening	Colin.
Geriville			30.27	767.5	83.1	28.4		NW			2		2			0	0		Bernadach.
Laghouat			30.14	765.5	89.6	32.0	21	W			3		1			0	0		Poinsignon.
Biskra			30.08	764.0	95.7	35.4		E			3		1			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.89	759.1	84.2	29.0	40	SW			4		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.85	758.2	65.5	18.6	75	W			3		8			0.517	13.0		I. R. Observatory.
Eperies			29.84	757.6	74.8	23.8	72	SE			1		8		N	0.625	15.87		Julius Mikolik.
Gratz			29.81	757.2	78.4	25.8	71	E			2		5			0	0		Andreas Rospini.
Hermanstadt			29.89	759.1	81.1	27.3	43	ENE			3		0			0	0		Prof. Reissenberger.
Kremsmünster			29.89	759.2	68.0	20.0	60	NW			1		10			0	0		Prof. C. Wagner.
Lemberg			29.82	757.3	74.3	23.5	60	N			4		8			0	0		Dr. T. Stanecki.
Nyregyhaza			29.84	757.8	85.6	29.8	57	SW			3		6			0	0		Habzsuda Daniel.
Pola			29.90	761.8	81.0	27.2	58	S			2		1k			0	0		I.R. Hydrographic Of'ce
Szegedin			29.91	759.6	84.2	29.0	40	W			3		2			0	0		Karl Stancel.
Trieste			29.99	761.7	80.8	27.1	49	W			1		6			0	0		Prof. V. Farolfi.
Vienna			29.88	758.0	75.7	24.3	74	SE			2		8			0.004	0.1		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.76	755.9	63.1	17.3	57	WSW			4		6k		WSW	0.354	9.0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.40	746.7	50.0	10.0		W	5	2.2			10			0	0	Raining	William Boswell.
Annanhill																			
Ardrossan			29.45	748.0	57	13.9		S W			2		6						William McNeil.
Armagh Observatory			29.50	749.3	53.3	11.8		SSW	2	0.9			8						S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.54	750.3	55.2	12.9		WSW			6		5						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.54	750.3	57.6	14.2		S W			2		8						J. Dreyer, for L'd Rosse.
Bradford			29.5	749.3	53.3	11.8		W			1		3						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.98	761.5	84.0	28.9		NE			4		5						T. H Hunt.
Bywell																			
Cambridge Observatory			29.61	752.1	65.0	18.3		SW			2		5					Foggy	H. Todd.
Cape Town, (Cape Colony)			30.13	765.3	56.8	13.8		NW			3		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.16	766.1			59.3	15.2	81	WNW	6	2.7			5					rizzling	Th Staff, for E. J. Stone.
Cardington			29.66	753.4	63.0	17.2		W					3						John McLaren.
Carlisle			29.48	748.8	53	11.7		NW					9			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			29.68	753.9	60.5	15.8		W			4		7					Threatening	Capt. I Fellowes, R. E.
Colombo, (Ceylon)			29.82	757.4	81.8	27.7		SW			4		10						Sgt. W. F. Hopkins
Dartmoor			29.83	757.7	50.2	10.1		W			6		9						R. E. Power.
Donaghadee			29.47	748.5	58	14.4		NE			3		5						J. Mac Gowan, Jr.
Dover			29.75	755.6	55	12.8		WSW			6		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.54	750.3	53.3	11.8		WNW	7.8	3.5			8					Squally	Thomas Mackereth.
Falmouth Observatory			29.79	756.7	57.5	14.2		WSW	38	17.0			5						The Staff.
Fort Napier, (Natal)			29.66	758.4	78.4	25.8		E			2		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	90	32.2		N					6						B. G. Clare, for Prof. Curtis.
Galway, Queen's College			29.61	752.1	62	16.7		WSW			4		10					Raining	Sergt. E. G. Baker.
Gibraltar, (Mediterranean)			30.01	762.2	74.0	23.3		SW			5		0						Lewis Stewart.
Glasgow Observatory			29.45	748.0	49.4	9.8		NW			2		10					Raining	G. T. Watson.
Great Yarmouth			29.60	751.8	57	13.9		WNW			4		7					Squally	R Inny.
Greenwich Royal Obs.			29.71	754.6	59.0	15.0		W			5		7						The Staff, for G. B. Airy.
Guernsey			29.91	759.7	58	14.4		WSW			5		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.54	750.3	53.0	11.7		W			8							Showery	F. J. Pierce, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. C. Thompson.
Helston			29.78	756.4	60	15.6		SW			7		5					Showery	Dr. W. B. Doyle.
Holyhead			29.59	751.6	56	13.3		SW			5		3						John Tilston.
Hull Park																			
Kew Observatory			29.71	751.6	57.7	14.3		WSW	25	11.2			6					Threatening	The Staff.
Kingstown			29.56	750.8	54	12.2		NW			3		8						George Mitchell.
Lampeter																			
Leicester Museum			29.61	752.1	57.8	14.3		W			6		3					Showery	William J. Harrison.
Llandudno			29.58	751.3	60.4	15.6		WSW					4						Dr. James Nicol.
Malta, (Mediterranean)			30.09	764.3	79.4	26.4		NW			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.16	766.1	79.2	26.2		NE			2		0						Surg.-Maj. J. Jameson
North Shields			29.45	748.0	60	15.6		WNW			3		7						John Wm. Irvine.
Nottingham			29.59	751.6	65.0	18.3		WSW			4		5k		W	Blank	Blank		E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.58	751.3	60.0	15.6		SW			6		8						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.6	753.4	62	16.7		SW			6		7						J. Lucas, for R. Main.
Plymouth			29.79	756.7	53.7	11.7		SW			6		10					Squally	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.62	752.3	52	11.7		W			4		8					Showery	W. Kennedy.
Saint Ann's Head			29.5	753.1	55	12.8		WSW			5		7						John C. Walker.
Saint Helier, (Jersey)			29.91	759.7	60.2	15.7		W			7		2						A. P. Amy.
Sandwick Manse, (Orkneys)																			Rev. C. Clouston.
Scarborough			29.51	749.3	54.3	12.4		WSW			2		10					aining	F. Shaw.
Scutari, (Turkey)			29.7	761.2	79.4	26.3		NE			3		1						Sergt. W. H. Lyne.
Sheffield			29.55	750.6	55.2	12.9		W			2		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.48	748.8	64.3	17.9		WSW			4		5			0.047	1.20		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.58	751.3	62.0	16.7		WSW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.52	749.8	53.7	12.1		SW			4		9						The Staff.
Stornoway, Lewis C. (Heb.)																			John Smith.
Strathfield Turgiss			29.69	754.1	56.8	13.8		SW			2		3						Rev Charles H. Griffith
Streatley Vicarage			29.72	754.9	61.8	16.6		W			6		3						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.37	746.0	57	13.9		NNE			1		6						John Trotter.
Truro Royal Institution			29.74	755.4	60	15.6		W			7		5						W Newcombe.
Valencia Observatory			29.51	752.1	55.3	12.9		SW	23	10.3			5						The Staff.
Wick																			
Wisbeach																			
Worthing			29.78	756.4	58.0	14.4		WSW			5		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of Cape Good Hope Observatory is unknown, and barometer reduced to freezing.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.56	750.7	62.6	17.0	72	SSE			4		6					Rainy	
Faröe			29.42	747.3	53.8	12.1	94	ESE			2		8						
Godthaab, (Greenland)			29.80	756.9	36.7	3.6	83	S			4		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.34	744.3	57.2	14.0	71	S			2		5						
Vestervig			29.45	748.0	56.5	13.6	87	Calm			0		10						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.00	762.0	53.0	17.2	46	SW			4		8		SW	0.016	0.4		Normal School.
Alençon			29.84	758.0	63.0	17.2	67	ENE			2		5		ENE	0.378	9.6		Normal School.
Amiens			30.0	762.1	63.0	17.2	46	SW	37.1	16.6			5		SW	0.173	4.4		Beaumette Observatory.
Beaumette, (near Angers)			29.95	760.7	63.1	17.3	47	WNW			6		8		W	0.207	5.25		Normal School.
Beauvais			30.11	764.9	65.3	18.5	71	S			3		5		SW	0.319	8.1		Normal School.
Besançon			30.07	763.8	71.2	21.8	59	SW			1		5		E	0.040	1.0		Normal School.
Bourg en Bresse			30.05	763.2	65.1	18.4	73	SW			6		5		E	0.134	3.4		Normal School.
Bourges			29.92	760.0	62.8	17.1	61	WSW			4		5		WSW	0.138	3.50		Naval Observatory.
Brest																			Normal School
Caen			29.97	761.2	64.8	18.2		W			3		4k		W	0.248	6.3		Normal School.
Chartres			30.05	763.2	67.1	19.5		SW			6		8kn		SW	0.157	4.00		Normal School.
Chaumont			30.02	762.6	62.6	17.0	57	W			8		5		E	.394	10.0		Normal School.
Commercy			30.16	766.0	60.4	15.8	69	W			4		8		W	0.482	12.25		Normal School.
Le Mans			30.07	763.6	62.1	16.7	77	S			4		10		SW	0.037	0.95		Normal School.
Lons-Le Saulnier			30.08	764.1	68.0	20.0	64	SW			6		0			0.252	6.4		
Mâcon			29.95	760.7	66.6	19.2	39	SSW			8		5		NNE	0.110	2.8		Normal School.
Mirecourt			29.91	759.8	66.2	19.0	56	W			6		2		W	0.138	3.5		Normal School.
Orleans			29.94	760.4	61.2	16.2		SW			3		2k			0.324	8.24		National Observatory.
Paris Observatory			30.08	764.0	63.7	17.6	92	SW			6		5		W	0.354	9.0		Normal School.
Parthenay			30.12	765.0	64.8	18.2	56	NW			2		5		NE	0.622	15.8		Normal School.
La Roche sur Yon			29.82	757.3	62.6	17.0	52	WSW			2		2		W	0.354	9.0		Normal School.
Rouen			29.94	760.4	59.9	15.5	61	W			2		5		W	0.327	8.3		Normal School.
Saint Lo			30.10	764.4	69.8	21.0	70	NW			2		8		NE	0.157	4.00		Normal School
Villefranche																			
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.98	634.6			61.0	16.1	71	E	4.7	2.08			4		SSW	0	0		—. Faiguère.
Montsouris Observatory			29.93	760.3	63.7	17.6	50	W			4		7k, n		W	0.346	8.8		Marié Davy.
Perpignan			30.08	761.0	80.4	26.9	36	W	1.6	0.70			4c		SW	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.95	760.6	60.8	16.0	70	W			2		7			0.370	9.4		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.02	762.4	65.8	18.8	46	W			4		5		W	0.366	9.3		C. Marquet.
Versailles, (near Paris)			29.94	760.5	61.9	16.6	55	W			6		8			0.123	3.13	Showery	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.80	756.8	72.9	22.7	85	S	11.2	5.0		..c	..cs			0.374 / 0.425	9.5 / 10.8		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.81	757.2	68.9	20.5	57	SW			5		8			0.051	1.3		Prof. Hoh.
Berlin			29.73	755.1	72.7	22.6	56	SW			4		8			0.173	4.4		Prof. Arndt.
Breslau			29.89	759.1	74.7	23.9	45	SSW			4		6			0.480	12.2		Dr. P. Neugebauer.
Carlsruhe			29.88	758.9	68.7	20.4	62	SW			1		5			0.142	3.6		A. Senz.
Cassel			29.60	751.9	66.4	19.1	55	SW			8		6			0.178	4.52		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.95	760.6	68.0	20.0	72	W					5			0.020	0.5		M. Wilhelm.
Hamburg			29.54	750.2	59.7	15.4	71	SSW			6		8n		SW	0.232	5.9		W. Reinert.
Kiel			29.53	750.0	64.2	17.9	74	W			2		10			0	0		Prof. G. Karsten.
Königsberg			29.70	754.3	67.1	19.5	57	W			2					0.126	3.2		Prof. E. Luther.
Köslin			29.84	757.9	68.9	20.5		SW			4		5			0.024	0.6		Dr. Tägert.
Leipsic			29.75	755.7	72.0	22.2	51	SW			5		7			0.197	5.0		Prof. Bruhns.
Münster			29.69	754.2	59.0	15.0	78	SW			4		6			0.201	5.1		Prof. E. Heis.
Posen			29.78	756.4	75.4	24.1	43	SW			6–7		9			0.177	4.5		Dr. Magener.
Strassburg, (in Alsace)			29.02	760.0	72.5	22.5	40	SW					8			0	0		Hartwig and Tülk.
Stuttgart			29.91	759.8	63.9	17.7	78	W					3			0.059	1.5		Mr. Würth.
Thorn			29.76	755.8	74.7	23.8	48	W			4		6			0.043	1.1		Dr. Hessenbalg.
Treves, (Trier)			30.81	757.2	67.6	19.8	45	W			10		4			0.112	2.84		Prof. Plesch.
Wustrow			29.61	752.0	64.0	17.8	76	SW			6		7			0.102	2.6		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.95	760.6	78.1	25.6	53	SW	1.3	0.6			3	W		0	0		
Mondovi			29.93	760.3	75.7	24.3	55	NW			6		5	SE		0	0		
Genoa			30.03	762.7	73.8	25.2	64	SE	10.5	4.7			4	SW		0	0		
Pavia			30.07	763.7	82.8	28.2	39	SW			6		1	SW		0	0		
Verona			29.91	759.7	88.7	31.5	37	E			4		3			0	0		
Padua			29.93	760.1	80.8	27.1	46	W	13.7	6.1			5	SW		0	0		
Parma																			
Bologna			29.97	761.1	84.9	29.4	55	WSW			8		3	W		0	0		
Leghorn			30.06	763.4	77.0	25.0	65	SW	13.7	6.1			1			0	0		
Urbino			30.04	763.0	82.0	27.8	36	SW			2		0			0	0		
Ancona			30.00	761.9	82.8	28.2	66	SE			4		1			0	0		
Siena			29.99	761.8	81.5	27.5	40	SW	4.9	2.2			4	SW		0	0		
Rome			30.10	764.4	82.4	28.0	44	SSW			6		1			0	0		
Naples, O.U.			30.12	765.0	81.9	27.7	46	SW			2		0			0	0		
Lecce			30.06	763.5	82.8	28.2	34	ESE	7.4	3.3			1	NE		0	0		
Cosenza			30.09	764.3	85.3	29.6	47	WNW			2		0			0	0		
Catania, (Sicily)																			
Riposto			30.03	762.7	80.6	27.0	52	E			2		2			0	0		
Palermo			30.06	763.4	78.3	25.7	61	E			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.17	766.3	81.1	27.3	54	W			1		..k	WSW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	*Observer.
Flushing			29.76	755.9	60.1	15.6		W			5								
Groningen			29.48	748.8	55.9	13.3		W			8								
Helder			29.58	751.4	55.4	13.0		SW			5								
Utrecht			29.62	752.4	61.3	16.3	60	WSW			6		8						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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			29.42	747.2	61.9	16.6	50	NNW	4.0	1.8			10			0	0		
Christiania			29.52	749.9	51.6	10.8	89	NNE	6.3	2.8			10			0.49	10.3	Raining	
Tromsö			29.72	754.8	46.9	8.3	88	NE			6		0			0	0		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.19	766.8	69.8	21.0	46	NNE	21.0	9.4			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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	756.9	69.8	21.0	56	WSW	16	8			5						Astronomical Obs.
Wilna			29.69	754.1	62.8	17.1	84	S	4	2			10					Raining	Astronomical Obs.
Dorpat			29.72	754.9	58.1	14.5	52	S	9	4			10						Physical Cabinet.
St. Petersburg			29.73	755.0	58.3	14.6	49	WNW	7	3			5						Central Physical Obs.
Kuopio			29.70	754.4	55.8	13.2	57	NNE							SSE	0.012	0.30		
Kieff			29.91	759.8	78.3	25.7	56	SSW	9	4			6						Physical Cabinet.
Nikolaiev			29.99	761.8	84.7	29.3	29	W	4	2			0						
Kertch			30.00	761.9	75.9	24.4	47	NNE	10	4.5			1						Lagorio.
Moscow			29.80	756.9	60.4	15.8	46	WNW	17	7.5			7						Meteorological Obs.
Lugan			29.81	757.2	76.5	24.7	27	NW	19	4.5			0						Meteorological Obs.
Archangel			29.64	752.9	43.2	6.2	97	NW.	20	9			10					Raining	Ogorodnikof.
Tiflis			29.83	757.6	82.8	28.2	32	N	8	3.5			3						Physical Obs.
Astrakhan			29.85	75[illegible].3	86.0	30.0	29	SW	10	4.5			8						Sebastianof.
Kasan			29.56	75[illegible].9	62.1	16.7	56	WNW	8	3.5			10						Physical Cabinet.
Orenburg			29.76	755.9	78.6	25.9	50	NE	4	2			8						Tschernischef.
Ekaterinburg			29.71	754.5	72.3	22.5	57	SE	8	3.5			2						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.69	754.0	81.3	27.4	65	Calm	0	0			3						Michelson.
Barnaul			29.76	756.0	64.2	17.9	56	NW	8	3.5			2						Meteorological Obs.
Yeniseisk			29.55	7[illegible]0.5	62.8	17.1	64	SW	13	6			5						Marks.
Irkutsk			29.02	752.3	44.2	6.8	85	NW	13	6			10					Raining	Usolzef.
Oorga			29.34	745.3	57.9	14.4	56	Calm	0	0			10						Mossin.
Peking, (China)			29.60	751.7	69.4	20.8	83	Calm	0	0			2						Physical Observatory.
Nertchinsk			29.54	750.3	64.9	18.3	43	SE	4	2			8						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					53.6	12.0	79	SE.	8	3.5			2						Kurdakof.

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			29.07	761.3	86.0	30.0	28	W	9.6	4.3		1		8		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lund			29.75	755.7	53.6	12.0	63	ESE			1		0			0	0		
Gernosund			29.69	754.0	52.2	11.2	73	S			1		10			0	0		
Stockholm			29.60	751.8	47.3	8.5	77	ESE			5		10			0.50	12.5		
Visby			29.60	751.7	51.1	10.6	95	NNW			3		6			0.10	2.4		
Sub-Series.																			
Upsala			29.66	753.4	47.1	8.4	90	ESE			4		10		SE			Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.65	727.6			69.1	20.6	59	WSW			4		6			0.362	9.2		The Observatory.
Zurich	28.36	720.4			69.1	20.6	52	W			5		4			0.756	19.2		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.3mm.; Thermometer, +0°.3 C.; Relative Humidity, +3 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut (Syria)			29.82	757.5	84.2	29.0	59	W			3		8						Prof. C. N. A. Van Dyck.
Constantinople			30.04	763.0	7[illegible].9	23.[illegible]	46	NNE	16.8	7.5			2		NE	0	0		
Fao (Persian Gulf)			29.75	754.8	95.0	35.0		NW			4		0						
Salonica					88.0	31.1		E			3		2						
Talona			30.02	762.5	82.4	28.0		W			1		0						
Varna			30.01	763.0	86.0	30.0		S			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12: the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. No any distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.16	766.1	68	20.0		Calm	0	0		5c	0	S		0	0		
Chatham, N. B.			30.14	765.5	65	18.3	81	W	1	0.4		5k	2ks	W		0.03	0.8		
Charlottetown, P. E. Island			30.18	766.6	62	16.7	86	S	8	3.6			10n			0.05	1.3	Light rain	
Fort Garry, Manitoba			29.88	758.9	40	4.4	96	NE	28	12.5		5k	5ks	NE	NE	0.832	21.13		
Halifax, N. S.			30.12	765.0	65	18.3	83	SW	13	5.8		0	2ks		SW	0.04	1.0		
Kingston, Ontario			30.11	764.8	66	18.9	81	Calm	0	0		2c	0			0	0		
Montreal, Quebec			30.13	765.3	65	18.3	77	NW	1	0.4		Haze	Haze			0	0		
Ottawa, Ontario			30.03	762.7	61	16.1	62	E	2	0.9		0	Sm'e			0	0		
Parry Sound, Ontario			29.99	761.7	68	20.0	69	SE	11	4.9		2ck	2ks	NW	W	0	0		
Port Dover, Ontario			30.03	762.7	64	17.8	83	Calm	0	0		2ck	0	SW		0	0		
Port Stanley, Ontario			30.01	762.2	66	18.9	83	E	5	2.2		2c	0	E		0	0		
Quebec, Quebec			30.16	766.1	64	17.8	80	S	3	1.3			10n		S	0	0		
Saugeen, Ontario			29.94	760.5	69	20.6	80	NE	6	2.7		2cs	0	SW		0	0		
Stayner, Ontario			29.97	761.2	69	20.6	75	SE	4	1.8			10ks		W	0	0		
Sydney, C. B.			30.23	767.8	69	20.6	80	SW	15	6.7		5c	2ks	W	SW	0	0		
Toronto, Ontario			30.05	763.3	61	16.1	79	NE	6	2.7		8ck	Haze	W		0	0		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.14	765.5	71	21.7	70	Calm	0	0		0	Haze			0	0		
Alpena, Mich.			29.80	756.9	58	14.4	87	SE	11	4.9		2c	Sm'e			0	0		
Atlantic City, N. J.			30.17	766.3	66	18.9	86	SE	3	1.3		0	0			0	0		
Augusta, Ga.			30.18	766.6	71	21.7	75	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.15	766.1	73	22.8	63	SW	4	1.8		Haze	Sm'e			0	0		
Barnegat, N. J.			30.15	766.1	70	21.1	75	Calm	0	0		0	Haze			0	0		
Benton, Montana			30.09	764.3	56	13.3	74	S	4	1.8		0	0			0.14	3.6		
Bismarck, Dakota			29.90	759.4	42	5.6	83	NW	28	12.5			10ks		N	1.10	27.9		
Boston, Mass.			30.15	765.8	64	17.8	78	NW	4	1.8		5c	Fog	NW		0	0		
Breckenridge, Minn.			29.45	748.0	51	10.6	100	NW	24	10.7			Fog			0.06	1.5	Light rain	
Buffalo, N. Y.			30.01	762.2	70	21.1	70	S	4	1.8		8c	Sm'e			0	0		
Burlington, Vt.			30.14	765.5	65	18.3	68	S	4	1.8		2k	0			0.02	0.5		
Cairo, Ill.			30.06	763.5	74	23.3	72	S	8	3.6		0	0			0	0		
Cape Hatteras, N. C.			30.17	766.3	69	20.6	79	NE	9	4.0		0	Haze			0	0		
Cape Henry, Va.			30.18	766.6	76	24.4	68	W	5	2.2		Haze	0			0	0		
Cape May, N. J.			30.17	766.3	65	18.3	90	Calm	0	0		0	0			0	0		
Charleston, S. C.			30.19	766.8	71	21.7	75	NW	7	3.1		0	Haze			0	0		
Cheyenne, W. T.			30.10	764.5	43	6.1	75	Calm	0	0		0	0			0	0		
Chicago, Ill.			29.80	756.9	76	24.4	72	SW	13	5.8		2ck	0	SW		0	0		
Cincinnati, Ohio			29.98	761.5	76	21.4	68	S	8	3.6		2c	0	S		0	0		
Cleveland, Ohio			29.98	761.5	72.8	22.7	72	SE	8	3.6		5k	0	W		0	0		
Colorado Springs, Col.			30.07	763.8	51	10.6	52	N	8	3.6		0	0			0	0		
Corsicana, Texas			30.03	762.7	76	24.4	86	S	6	2.7		0	0			0	0		
Davenport, Iowa			29.79	756.7	75	23.9	76	SW	14	6.3		5c	0			0	0		
Denver, Col.			30.15	765.8	53	11.7	42	Calm	0	0		0	0			0	0		
Detroit, Mich.			29.94	760.5	73	22.8	76	SW	6	2.7		2c	Haze			0	0		
Dodge City, Kansas			29.62	752.3	64	17.8	48	N	16	7.2		0	0			0	0		
Dubuque, Iowa			29.71	754.6	76	24.4	77	SW	10	4.5		5k	0	NW		0	0		
Duluth, Minn.			29.53	750.0	48	8.9	92	NE	5	2.2			Fog			0.08	2.0	Foggy	
Eastport, Me.			30.18	766.6	54	12.2	100	Calm	0	0		5c	Fog	N		2.38	60.5		
Erie, Penn.			29.97	761.2	75	23.9	68	SE	12	5.4		2c	Haze			0	0		
Escanaba, Mich.			29.66	753.4	59	15.0	87	SE	8	3.6		5c	2s	SW	SE	0.06	1.5		
Fort Gibson, I. T.			29.93	760.2	76	24.4	81	S	12	5.		5ck	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.94	760.5	47	8.3	77	NW	24	10.7			10s		NW	0	0		
Galveston, Texas			30.06	763.5	81	27.2	74	SE	8	3.6		0	0			0	0		
Grand Haven, Mich.			29.81	757.2	72	22.2	75	S	24	10.7		8k	0	SW		0	0		
Indianapolis, Ind.			29.96	761.0	78	25.6	65	S	8	3.6		2c	0			0	0		
Indianola, Texas			30.05	763.3	83	28.3	74	SE	12	5.4		2k	0	S		0	0		
Jacksonville, Fla.			30.18	766.6	76	24.4	86	NE	4	1.8		0	0			0	0		
Keokuk, Iowa			29.78	756.4	80	26.7	66	SW	14	6.3		0	0			0	0		
Key West, Fla.			30.08	764.0	83.2	28.4	64	NE	6	2.7		5k	Haze	NE		0	0		
Kittyhawk, N. C.			30.17	766.3	65	18.3	89	SE	1	0.4		5c	0			0	0		
Knoxville, Tenn.			30.16	766.1	68	20.0	90	Calm	0	0		0	0			0	0		
La Crosse, Wis.			29.65	753.1	73	22.8	85	SW	10	4.5		2k	0			0.04	1.0		
Leavenworth, Kan.			29.79	756.7	75	23.9	76	S	6	2.7		0	2s		NW	0	0		
Lexington, Ky.			30.08	764.0	75	23.9	68	SW	12	5.4		0	0			0	0		
Long Branch, N. J.			30.19	766.8	65	18.3	89	NW	1	0.4		0	Haze			0	0		
Louisville, Ky.			30.04	763.0	72	22.2	67	SE	3	1.3		0	0			0	0		
Lynchburg, Va.			30.16	766.1	72	22.2	71	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.59	751.6	68	20.0	79	SW	24	10.7		5cs	0	SW		0	0		
Memphis, Tenn.			30.11	764.8	78	25.6	65	SW	8	3.6		0	0			0	0		
Milwaukee, Wisconsin			29.75	755.6	77	25.0	72	SW	16	7.2		5k	0	NE		0	0		
Mobile, Ala.			30.37	766.3	74	23.3	81	SW	4	1.8		0	0			0	0		
Montgomery, Ala.			30.19	766.8	74	23.3	72	Calm	0	0		0	Haze			0	0		
Morgantown, W. Virginia			30.08	764.0	74	23.3	68	SW	1	0.4		1c	0	W		0	0		
Mt. Washington, N. H.			29.44	747.8	45	7.2	61	NW	4	1.8		2k	2s			0	0		
Nashville, Tenn.			30.09	764.3	77	25.0	69	W	2	0.9		0	0			0	0		
New Haven, Conn.			30.18	766.6	70	21.1	70	NNE	4	1.8		2ck	0	NW		0	0		
New London, Conn.			30.19	766.8	69	20.6	84	N	4	1.8		2c	Fog	W		0	0		
New Orleans, La.			30.14	765.5	76	24.4	73	SE	4	1.8		2cs	Haze			0	0	Foggy	
Newport, R. I.																			
New York, N. Y.			30.05	763.3	59	15.0	93	S	8	3.6			10s			0	0		
Norfolk, Va.			30.18	766.6	75	23.9	72	SW	3	1.3		0	0			0	0		
North Platte, Neb.			29.64	752.8	55	12.8	61	NW	12	5.4		0	0			0	0		
Omaha, Neb.			29.84	757.9	63	17.2	57	NW	14	6.3		2c	0	W		0	0		
Oswego, N. Y.			30.08	764.0	67	19.4	74	SSE	12	5.4			10s			0	0		
Peck's Beach			30.18	766.6	69	20.6	79	W	1	0.9		Haze	Haze			0	0		
Pembina, D. T.			29.77	756.1	41	5.0	91	N	24	10.7			10n			0.85	21.6	Light rain	
Philadelphia, Penn.			30.17	766.3	63	17.2	94	E	4	1.8		Haze	Sm'e			0	0		
Pike's Peak, C. T.			30.16	766.1	28	— 2.2	67	SW				0	Haze			0	0		
Pittsburgh, Penn.			30.06	763.5	69	20.6	75	Calm	0	0		0	Sm'e			0	0		
Port Huron, Mich.			29.93	760.2	71	21.7	71	S	12	5.4		0	0			0	0		
Portland, Maine			30.20	767.1	57	13.9	87	Calm	0	0		0	Haze			0.20	5.1		
Portland, Or.			29.99	761.7	51	10.6	65	N	4	1.8		8k	0			0	0		
Punta Rassa, Fla.			30.14	765.5	77.2	25.1	72	NE	12	5.4		1ck	2ks	SE		0	0		
Rochester, N. Y.			30.04	763.0	69	20.6	70	S	5	2.2		2c	Sm'e			0	0		
Salt Lake City, Utah			29.84	757.9	57	13.9	46	W	4	1.8		5c	0			0	0		
Sandy Hook, N. J.			30.16	766.1	66	18.9	84	NE	2	0.9		1k	Haze			0.01	0.3		
San Diego, Cal.			29.93	760.1	60	15.6	61	S	8	3.6			10s		S	0	0		
San Francisco, Cal.			29.82	757.4	53	11.7	86	S	4	1.8			10s			0	0		
Santa Fe, N. M.			29.84	757.9	55	12.8	22	N	8	3.6			8s		NW	0	0		
Savannah, Georgia			30.22	767.6	82	27.8	67	SW	7	3.1		2c	0	S		0	0		
Shreveport, La.			30.11	764.8	77	25.0	82	S	4	1.8			10s		S	0	0		
Springfield, Mass.			30.19	766.8	62	16.7	94	Calm	0	0			Fog			0.01	0.3	Foggy	
St. Louis, Mo.			29.97	761.2	76	24.4	72	SW	16	7.2		0	0			0	0		
St. Marks, Fla.			30.21	767.3	74	23.3	92	SE	6	2.7			10n			2.23	56.6	Light rain	
St. Paul, Minn.			29.53	750.0	66	18.9	54	SW	16	7.2		0				0	0		
St. Paul's Island, Alaska			29.71	754.6	39	3.9	81	N	5	2.2			10k			0	0		
Squan Beach, N. J.			30.17	766.3	63	17.2	88	N	2	0.9		0	0			0	0		
Toledo, Ohio			29.92	759.0	76	24.4	69	S	12	5.4		0	0			0	0		
Tybee Island, Ga.			30.18	766.6	70	21.1	79	SW	6	2.7		0	0			0	0		
Vicksburg, Miss.			30.21	767.3	80	26.7	65	SW	4	1.8		0	0			0	0		
Virginia City, Mon.			29.75	755.6	40	4.4	72	SE	2	0.9		0	0			0	0		
Washington, D. C.			30.17	766.3	71	21.7	73	Calm	0	0		2ck	Sm'e	W		0	0		
Wilmington, N. C.			30.18	766.6	73	22.8	67	W	5	2.2		0	0			0	0		
Wood's Hole, Mass.			30.16	766.1	65	18.3	89	NW	5	2.2		0	Fog			0	0	Foggy	
Wytheville, Va.			29.98	761.5	61	16.1	68	Calm	0	0		2k	0	W		0	0		
Yankton, D. T.			29.86	758.4	53	11.7	61	NW	24	10.7		0	1s		NW	0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	.....	.....	.....	.....	82	27.8	70	S	4	1.8	.....	5k	0	E	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, Gd'Ploupe, do	.....	.....	29.93	760.2	82	27.8	74	E	.....	.....	.....	0	5ks	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.81	757.2	81	27.2	82	E	6.0	2.7	.....	8f k	0	E	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.22	767.6	79.5	26.4	70	S	6	2.7	.....	2ek	5k, n	SE	.....	0.43	10.9	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.80	756.9	79	26.1	78	N	4.8	2.1	.....	0	2s	.....	.....	0	0	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	30.21	767.3	75	23.9	79	ESE	7.5	3.4	.....	0	5ks	.....	.....	0	0	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Honolulu, Oahu, S. I.	.....	.....	30.05	763.3	69	20.6	75	NE	9	4.0	.....	0	5ks	.....	.....	0	0	.....	E. P. Church.
Makawao, Maui, S. I.	.....	.....	30.01	763.0	64.5	18.1	78	Calm	0	0	.....	0	2n	.....	.....	0	0	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	30.27	768.8	32.0	0	79	N	14	6.3	.....	.....	10s	.....	.....	0	0	.....	J. Fortescue.
Clifton, Jamaica, W. I.	27.23	691.6	30.03	762.7	68	20.0	90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	30.38	771.6	71	21.7	70	S	.....	.....	.....	2c	5s	.....	.....	0	0	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	29.97	761.2	74	23.3	76	SW	8	3.6	.....	0	2s	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	28.87	733.3	.....	.....	74	23.3	90	SE	.....	.....	.....	.....	10n	.....	.....	0.01	0.3	.....	G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 23° 21′, W. 66° 30′	NNW	7	29.90	759.4	78	25.6	91	ESE	.....	.....	7	.....	..k	.....	WNW	Rough	.....	Squally	James Jorgensen, Mate.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 12, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.10	764.6	78.8	26.0		E			2		0			0	0		Charnot.
Algiers			30.08	763.9	77.7	25.4	82	WNW			1		7			0	0		Peter.
La Calle			30.08	764.0	75.4	24.1		NNE			2		5			0	0		Kuntz.
Tunis			30.10	764.5	70.2	21.2	41	E			3		0			0	0		Jacques.
Sfax			30.16	766.0	81.0	27.2		SE			3		1			0	0	Threatening	Chauvey.
Sadda			30.16	766.0	91.4	33.0		SE			2		1			0	0		Grosjean.
Tebessa			30.08	764.0	84.4	29.1		WSW			3		2			0	0		Colin.
Gerlville			30.21	767.2	84.4	29.1		SSE			3		6			0	0	Threatening	Bernadach.
Laghouat			30.14	765.5	95.0	35.0	24	N			2		3			0	0		Poinsignon.
Biskra			30.08	764.0	97.2	36.2		E			2		0			0	0		Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.00	762.0	79.3	26.3	50	NE			3		7			0.067	1.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.03	762.7	66.4	19.1	51	W			7		10			0	0		I. R. Observatory.
Eperies			29.98	761.6	70.3	21.5	67	W			1		10		E	0.849	21.57		Julius Mikolik.
Gratz			30.10	764.4	60.8	16.0	88	ESE			2		10			0	0		Andreas Rospini.
Hermanstadt			29.87	758.7	81.7	27.6	48	N			3		5			0.083	2.1		Prof. Reissenberger.
Kremsmünster			30.10	764.4	60.1	15.6	75	WSW			2		1			0.283	7.2		Prof. C. Wagner.
Lemberg			29.94	760.4	60.6	20.9	83	W			5		8			0.035	0.9		Dr. T. Stanecki.
Nyiregyhaza			29.99	761.8	78.4	25.8	45	N			2		7			0	0		Habzsuda Daniel.
Pola			30.00	762.1	82.0	27.8	53	SSE			2		1k			0	0		I. R. Hydrographic Of'ce
Segedin			29.96	761.0	81.0	27.2	45	NE			2		6			0	0		Karl Stancel.
Trieste			30.00	762.0	83.3	28.7	54	NW			1		3			0	0		Prof. V. Farolfi.
Vienna			30.12	765.0	57.6	14.2	83	SW			1		10			0.126	3.2		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.87	758.7	58.5	14.7	76	SW			4		10kn		WSW	0.109	4.3		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.48	748.8	56.0	13.3		SSE	16	7.2			2			0.295	7.50		William Boswell.
Annanhill																			
Ardrossan			29.50	749.3	57	13.9		SW			2		3						William McNeil.
Armagh Observatory			29.51	749.5	51.8	11.0		SSW	6	2.7			7						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.54	750.3	53.3	11.8		NW			1		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.57	751.1	51.6	10.9		SW			1		8					Rainy	J. Dreyer, for Ld Rosse.
Bradford			29.51	749.5	56.2	13.4		W			1		8					Showery	J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	84.0	28.9		NE			4		5						T. H Hunt.
Bywell																			
Cambridge Observatory			29.59	751.6	58.0	14.4		SW			2		10					Showery	H. Todd.
Cape Town, (Cape Colony)			30.19	766.8	58.2	14.6		NW			5		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.20	767.1			59.2	15.1	78	WsW	16	7.2			3						The Staff, for E. J. Stone.
Cardington			29.59	751.6	59.0	15.0		SW					9						John McLaren.
Carlisle			29.52	749.8	56.3	13.5		W					4			0.11	2.8		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.67	753.6	54.5	12.5		SSW			4		10					Drizzling	Capt. J Fellowes, R. E.
Colombo, (Ceylon)			29.81	757.2	81.9	27.7		SW			5		10						Sgt. W. F. Hopkins
Dartmoor			29.80	756.9	50.2	10.1		W			6		9					Showery	R. E. Power.
Donaghadee			29.50	749.3	58	14.4		SW			3		10						J. Mac Gowan, Jr.
Dover			29.75	755.6	56	13.3		WsW			6		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.53	750.0	59.5	15.3		SW	1.4	0.6			10						Thomas Mackereth.
Falmouth Observatory			29.74	755.4	58.2	14.6		WSW	35	15.6			8						The Staff.
Fort Napier, (Natal)			30.02	762.5	63.0	17.7		S			4		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.85	758.2	85	29.4		NE					6						[tis.
Galway, Queen's College			29.55	750.6	61	16.1		S			6		10					Raining	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.05	763.3	70.5	21.4		ENE			1		0						Sergt. E. G. Baker.
Glasgow Observatory			29.48	748.8	58.4	14.7		WSW			1		5						Lewis Stewart.
Great Yarmouth			29.65	753.1	56	13.3		SsW			4		7					Rainy	G. T. Watson.
Greenwich Royal Obs.			29.66	753.4	54.6	12.6		SSW			5		10					Raining	The Staff, for G. B. Airy.
Guernsey			29.84	757.9	57	13.9		SW			5		8						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			29.56	750.8	56.0	13.3		NW					8						F. J. Pace, for L. J. Cross-
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.73	755.1	62	16.7		SW			7		8					Showery	Dr. W. B. Mavle.
Holyhead			29.61	752.1	58	14.4		SW			4		3						John Tilston.
Hull Park																			
Kew Observatory			29.65	753.1	55.3	12.9		SSW	30	13.4			10					Squally	The Staff.
Kingstown			29.55	750.6	55	12.8		W			2		10					Raining	George Mitchell.
Lampeter																			
Leicester Museum			29.50	[illegible]	53.0	11.7		SW			2		10					Drizzling	William J. Harrison.
Llandudno			29.55	[illegible]	63.4	17.4		WSW					6						Dr. James Nicol.
Malta, (Mediterranean)			30.09	764.3	85	29.4		NW			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.15	765.8	78.9	26.1		NE			1		3						Surg.-Maj. J. Jameson
North Shields			29.54	75[illegible].3	52	11.1		[illegible]			1		8						John Wm. Irvine.
Nottingham			29.58	751.3	54.1	12.3		SSE			2		10n		SSE			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.56	750.8	50.1	10.0		Calm			0		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.57	751.1	57	13.9		W			5		6					Showery	J. Lucas, for R. Main.
Plymouth			29.72	754.9	61	16.1		SW			5		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.60	751.8	57	13.9		W			4		5					Showery	W. Kennedy.
Saint Ann's Head			29.62	752.3	55	12.8		W			4		2						John C. Walker.
Saint Helier, (Jersey)			29.88	758.9	59.8	15.4		WsW			7		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.56	750.8	52.3	11.3		S			2		10						F. Shaw.
Scutari, (Turkey)			29.96	761.0	83.4	28.6		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.56	750.8	59.0	15.0		SW			3		8			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.53	750.0	64.5	18.1		W			3		4			0.010	0.25		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.64	752.8	55.1	12.8		SSW			1		10					Rainy	Rev. C. J. Steward.
Stonyhurst Observatory			29.53	750.0	51.9	12.7		SW			1		10						The Staff.
Stornoway, Lewis C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.64	752.8	58.4	14.7		W			2–3		4						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.45	748.0	54	12.2		Calm			0		7						John Trotter.
Truro Royal Institution			29.69	754.1	61	16.1		W			7		7						W Newcombe.
Valencia Observatory			29.64	752.8	56.7	13.7		W	24	10.7			6						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York			29.74	755.4	55.8	13.2		WSW			8		10						William J. Harris.

Note.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of Cape Good Hope Observatory is unknown, and barometer reduced to freezing.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.60	751.9	53.2	11.8	81	WSW			4		10						
Fanöe			29.67	753.5	56.5	13.6	74	W			6		5						
Godthaab, (Greenland)			29.43	747.5	38.1	3.4	95	Calm			0		10					Raining	
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.48	748.8	49.8	9.9	89	NE			2		10					Raining	
Vestervig			29.60	751.7	55.9	13.3	86	SW			6		8						

Note.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio																			Normal School.
Alençon			30.02	762.5	63.7	17.6	57	SW			6		8		SW	0	0		Normal School.
Amiens			30.05	763.2	65.1	18.4	84	SSW			3		2		WSW	0.299	7.6		Normal School.
Beaumette, (near Angers)			30.04	763.0	63.5	17.5	53	SW	35.3	15.8			8		SW	0	0		Beaumette Observatory.
Beauvais			30.00	761.9	66.7	19.3	53	SW			4		10		W	0.030	0.75		Normal School.
Besançon			30.23	767.8	67.5	19.6	43	S			4		0			0.224	5.7		Normal School.
Bourg en Bresse			30.18	766.6	70.9	21.6	38	S			2		0			0	0		Normal School.
Bourges			29.94	760.4	68.9	20.5	60	SW			6		5		W	0	0		Normal School.
Brest			29.89	759.2	63.9	17.7	67	SW			6		8		WSW	0.069	1.75	Misty	Naval Observatory.
Caen																			Normal School
Chartres			30.04	762.9	67.1	19.5		WSW			6		6k		W	0	0		Normal School.
Chaumont			30.16	766.1	64.4	18.0		SSW			6		5kn		SSW	0.039	1.00		Normal School.
Commercy			30.10	764.4	62.6	17.0	49	WSW			8		5		N	0.020	0.5		Normal School.
Le Mans			30.18	766.3	66.0	18.9	47	SW			6		8		SW	0	0		Normal School.
Lons-Le Saulnier			30.17	766.3	54.9	12.7	53	W			1		0			0	0		Normal School.
Mâcon			30.20	767.0	65.8	18.8	64	WSW			4		0		NNE	0	0		Normal School.
Mirecourt			30.10	764.5	65.1	18.4	41	SSW			6		5		W	0	0		National Observatory
Orléans			30.04	762.9	66.6	19.2	46	WSW			6		8		SW	0.004	0.11		Normal School.
Paris Observatory			30.01	762.2	64.0	17.8		SW			4		10k		SW	0	0		Normal School.
Parthenay			30.17	766.2	65.8	18.8	75	W			8		5		NE	0	0		Normal School.
La Roche sur Yon			30.14	765.6	62.8	17.1	61	SW			4		5		W	0.055	1.4		Normal School.
Rouen			29.89	759.1	67.8	19.9	55	SSW			4		2		W	0.004	0.1		Normal School.
Saint Lô			29.92	759.9	65.5	18.6	69	W			2		10		N	0.167	4.25		Normal School
Villefranche			30.21	767.2	69.4	20.8	52	NE			1		5						
Sub-Series.																			Frère Pascall.
Gorée (Senegambia)																			—, Falguère.
Mont-Louis	25.01	635.2			58.8	14.9	86	E	2.6	1.16			8		SW	0.083	2.1		Marié Davy.
Montsouris Observatory			29.96	761.0	68.5	20.3	49	SW			4		9k, n		SW	0.024	0.6		Dr. Fines.
Perpignan			30.13	765.4	79.2	26.[illegible]	41	SE	1.1	0.47			3c		SW	0	0		E. Renou.
Saint Maur, (near Paris)			30.02	762.4	63.7	17.6	53	SW			4		9			0.020	0.5		
Saint Pierre, (Martinique)																			C. Marquet.
Tours			30.08	763.9	68.5	20.3	37	W			4		5		WSW	0	0		Dr. A. Bérigny.
Versailles, (near Paris)			30.00	762.1	66.2	19.0	51	SW			6		8			0	0		
Zi-Ka-Wei, (near Shanghai			29.76	756.0	69.4	24.8	87	SE	6.3	2.8			10kn			0 / 0	0 / 0	Misty	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	Winds. Direction. From—	Winds. 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. Inches.	Millimeters.	Weather	Observer.
Bamberg			29.97	761.1	65.3	18.5	39	W			6		4			0.492	12.5		Prof. Hoh.
Berlin			29.92	759.9	68.2	20.1	40	SW			5		6			0.118	3.0		Prof. Arndt.
Breslau			30.02	762.6	68.7	20.4	32	NW			5		7			0	0		Dr. P. Neugebauer.
Carlsruhe			30.06	763.4	67.1	19.5	46	SW			10		5			0	0		A. Senz.
Cassel			29.81	757.1	65.8	18.8	50	SW			4		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.12	765.0	64.4	18.0	80	W					3			0	0		M. Wilhelm.
Hamburg			29.80	756.9	58.3	14.6	77	SW			5		6ck			0.091	2.3		W. Reinert.
Kiel			29.71	754.7	57.7	14.3	73	SW			4		7			0.587	14.01		Prof. G. Karsten.
Königsberg			29.76	755.8	57.9	14.4	63	W			1					0.189	4.8		Prof. E. Luther.
Köslin			29.95	760.8	59.4	15.1		W			6		8			0.213	5.4		Dr. Tägert.
Leipsic			29.96	760.9	68.9	20.5	36	SW			5		7			0.102	2.6		Prof. Bruhns.
Münster			29.89	759.1	59.4	15.2	74	SW			5		6			0.453	11.5		Prof. E. Heis.
Posen			29.93	760.1	71.2	21.8	32	SW			8		9			0	0		Dr. Magener.
Strasburg, (in Alsace)			30.09	764.2	69.6	20.9	31	SW					2			0	0		Harfwig and Tölk.
Stuttgart			30.04	763.0	70.7	21.5	36	W					3			0	0		Mr. Würth.
Thorn			29.85	758.3	68.5	20.3	39	WSW			5		6			0.106	2.7		Dr. Hesenbalg.
Treves, (Trier)			30.07	761.2	65.1	18.4	49	W			10		10			0.004	0.09		Prof. Flesch.
Wustrow			29.78	756.4	53.6	12.0	90	WSW			6		6			0.031	0.8		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit.	Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. 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. Inches.	Millimeters.	Weather	Observer.
Moncalieri			29.97	761.2	78.4	25.8	55	WNW	0.7	0.3			4	N		0	0		
Mondovi			29.97	761.2	76.5	24.7	60	NE			2		5			0	0		
Genoa			30.02	762.6	78.3	25.7	61	SE	10.5	4.7			0			0	0		
Pavia			29.98	761.4	82.8	28.2	44	SE			4		1	SW		0	0		
Verona			29.92	760.0	87.8	31.0	39	E			2		2			0	0		
Padua			29.95	760.7	81.0	27.2	46	SW	8.1	3.6			3	W		0	0		
Parma																			
Bologna			30.00	762.1	82.4	28.0	48	WNW			2		3	N		0	0		
Leghorn			30.07	763.8	78.0	25.9	51	W	14.3	6.4			1			0	0		
Urbino			30.07	763.8	80.8	27.1	35	SW			2		4			0	0		
Ancona			30.01	762.2	82.0	27.8	64				2					0	0		
Siena			30.00	762.0	81.1	27.3	35	WSW	6.3	2.8			2	W		0	0		
Rome			30.08	764.1	84.2	29.0	53	SSW			4		1			0	0		
Naples, O. U.			30.11	764.9	81.5	27.5	49	SW			2		0			0	0		
Lecce			30.02	762.6	82.8	28.2	35	SSE	8.7	3.9			1	SW		0	0		
Cosenza			30.12	765.1	86.0	30.0	44	SE			2		0			0	0		
Catania, (Sicily)																			
Hipposto			30.02	762.5	78.8	26.0	45	E			2		0			0	0		
Palermo			30.04	763.1	77.9	25.5	62	NE			2		0			0	0		
Sub-Series.																			Prof. F. Brioschi.
Naples, S. R.			30.16	766.0	80.2	26.8	52	SW			4					0	0		

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.84	758.0	59.4	15.2		WSW			4								
Groningen			29.71	754.6	59.7	15.4		SW			5								
Helder			29.72	755.0	59.2	15.1		SW			5								
Utrecht			29.77	756.2	56.1	13.4	88	SSW			4		10						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.41	747.0	55.0	12.8	80	S	10.3	4.6			10			0.209	5.3		
Christiania			29.48	748.9	54.3	12.4	68	E	2.7	1.2			10			0.165	4.2		
Tromsö			29.56	750.9	48.7	9.3	89	NE			7		5			0	0		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.15	765.9	72.5	22.5	32	N	23.7	10.6			0						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.91	759.6	66.9	19.4	42	WSW	20	9			5						Astronomical Obs.
Wilna			29.74	755.5	64.2	17.9	37	W	20	9			7						Astronomical Obs.
Uorpat			29.49	749.0	57.6	11.2	63	SW	13	6			9						Physical Cabinet.
St. Petersburg			29.42	747.2	52.2	11.2	88	WSW	4	2			10					Raining	Central Physical Obs.
Kuopio			29.38	746.3	59.5	15.3	69	SE					10			0	0		Physical Cabinet.
Kieff			29.90	759.4	73.4	23.0	53	NW	9	4			10						
Nikolaiev			29.93	760.3	85.8	29.9	44	S	13	6			0						Lagorio.
Kertch			29.98	761.4	76.6	24.8	40	NE	10	4.5			0						Meteorological Obs.
Moscow			29.68	753.8	66.6	19.2	61	W	8	3.5			7						Meteorological Obs.
Lugan			29.81	757.1	87.1	30.6	28	SW	10	4.7			2						Ogorodnikof.
Archangel			29.[illegible]0	751.9	49.3	9.6	76	SSW	10	4.5			10					Raining	Physical Obs.
Tiflis			29.91	759.6	83.5	28.6	34	S	13	6			5						Sebastianof.
Astrakhan			29.07	763.8	84.4	29.1	25	NNE	4	2			1						Physical Cabinet.
Kasan			29.73	755.2	64.9	18.3	64	WNW	6	2.5			3						Tschernischef.
Orenburg			29.82	757.5	66.0	18.9	45	NW	4	2			4						Meteorological Obs.
Ekaterinburg			29.61	752.2	65.3	18.5	74	SW	8	3.5			9						Bobrof.
Kasaly																			Michelson.
Tashkend			29.92	759.9	70.9	21.6	61	NE	8	3.5			10						Meteorological Obs.
Barnaul			29.71	754.5	69.1	20.6	3	N	8	3.5			1						Marks.
Yeniseisk			29.54	750.3	59.9	15.5	80	SW	8	3.5			5						Usolzef.
Irkutsk			29.56	750.7	51.4	10.8	77	Calm	0	0			10						Mossin.
Oorga			29.69	754.2	47.8	8.8	70	Calm	0	0			0						Physical Observatory.
Peking, (China)			29.58	751.2	76.8	24.9	79	Calm	0	0			0						Meteorological Obs.
Nertchinsk			29.58	751.3	59.4	15.2	77	Calm	0	0			10						
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor					54.9	12.7	89	SE	4	2			0						

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.95	760.8	87.6	30.9	26	SW	12.8	5.7			2			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.50	749.3	52.9	11.6	59	ENE			2		8			0	0		
Hernosand			29.47	748.5	50.0	10.0	52	NE			2		8			0	0		
Stockholm			29.37	746.1	51.8	11.0	64	ENE			3		10			0	0		
Wisby			29.43	747.6	50.0	10.0	98	WNW			4		10			0.30	7.6		
Sub-Series.																			
Upsala			29.43	747.4	52.9	11.6	63	N			4		10		NNE				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.73	729.7			69.0	20.9	44	SSW			2		0			0.055	1.4		The Observatory.
Zurich	28.50	723.9			68.7	20.4	47	W			2		2			0.059	1.5		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.4mm.; Thermometer, +0°.5 C.; Relative Humidity, —12 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.78	756.3	82.9	28.3	59	SW			2		5					Rainy	Prof. C. N. A. Van Dyck.
Constantinople			30.04	762.9	75.2	24.0	47	NE	14.5	6.5			0			0	0		
Fao, (Persian Gulf)			29.72	755.0	95.0	35.0		NW			4		0						
Salonica					86.4	30.2		NW			1		0						
Valona			30.05	763.2	82.4	28.0		W			1		0						
Varna			30.04	763.0	86.0	30.0		SE			3		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.75	755.6	69	20.6		SW	4	1.8			10s		SW	0.04	1.0		
Chatham, N. B.			29.97	761.2	66	18.9	89	S	11	4.9		2cs	8ks	S	S	0	0		
Charlottetown, P. E. Island			30.09	764.3	62	16.7	86	S	15	6.7		0	0			0	0		
Fort Garry, Manitoba			30.32	770.1	40	4.4	97	NE	3	1.3		0	0			0	0		
Halifax, N. S.			30.06	763.5	64	17.8	90	SW	7	3.1			8n		SW	0	0		
Kingston, Ontario			29.74	755.4	63	17.2	94	S	14	6.3		10cs	0			0.02	0.5		
Montreal, Quebec			29.73	755.1	70	21.1	77	S	12	5.4		2ck	Haze	W		0.49	12.4		
Ottawa, Ontario			29.66	753.4	73	22.8	51	W	10	4.5		2k	8n	W		0	0	Threatening	
Parry Sound, Ontario			29.80	756.9	48	8.9	93	NW	18	8.0			10n		SW	0.28	7.1		
Port Dover, Ontario			29.74	755.4	69	20.6	85	W	10	4.5		10ck	0	W		0.32	8.1		
Port Stanley, Ontario			29.80	756.9	66	18.9	74	NW	14	6.3		2c	0	NW		0	0		
Quebec, Quebec			29.78	756.4	75	23.9	62	N	9	4.0		0	0			0	0		
Saugeen, Ontario			29.90	759.4	40	4.4	82	NW	5	2.2			10n		N	0.30	7.6		
Stayner, Ontario			29.76	755.9	56	13.3	84	N	8	3.6		5k	2s	NW	W	0.07	1.8	Clearing	
Sydney, C. B.			30.16	766.1	71	21.7	73	W	15	6.7		0	2ks		SW	0	0		
Toronto, Ontario			29.73	755.1	65	18.3	80	W	6	2.7		5cs	0	W		0.10	2.5		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.83	753.9	74	23.3	59	S	10	4.5		0	Haze			0	0		
Alpena, Mich.			29.89	759.2	46	7.8	60	NW	24	10.7		5k	5ks	NW	NW	0	0		
Atlantic City, N. J.			30.05	763.3	59	15.0	100	S	8	3.6			10n			0	0	Light rain	
Augusta, Ga.			30.03	762.7	78	25.6	61	SW	3	1.3		0	0			0	0		
Baltimore, Md.			29.98	761.5	72	22.2	80	S	8	3.6		2ck	5ks		SE	0	0		
Barnegat, N. J.			30.06	763.5	60	15.6	94	S	8	3.6			Fog			0	0	Foggy	
Benton, Montana			29.96	761.0	56	13.3	87	Calm	0	0		0	0			0.06	1.5		
Bismarck, Dakota			30.11	764.8	47	8.3	70	SE	5	2.2		8c	0	S		0	0		
Boston, Mass.			30.02	762.5	67	19.4	79	S	8	3.6		0	2s		SW	0	0		
Breckenridge, Minn.			30.26	768.6	51	10.6	71	NE	2	0.9		0	0			0.01	0.3		
Buffalo, N. Y.			29.69	754.1	68	20.0	74	SW	9	4.0		2cs	8s		SW	0.32	8.1		
Burlington, Vt.			29.78	756.4	74	23.3	72	S	20	8.9		2c	2s		S	0	0		
Cairo, Ill.			30.09	764.3	74	23.3	81	NW	8	3.6			10s		NW	0	0		
Cape Hatteras, N. C.			30.09	764.3	71	21.7	85	NE	3	1.3		5k	0	SW		0	0		
Cape Henry, Va.			30.[illegible]	763.3	70	21.1	80	SE	14	6.3		5k	0	SW		0	0		
Cape May, N. J.			30.06	763.5	59	15.0	94	S	8	3.6			10s			0	0	Threatening	
Charleston, S. C.			30.10	764.5	76	24.4	72	SW	8	3.6		5c	Haze	S		0	0		
Cheyenne, W. T.			30.11	764.8	50	10.0	64	S	1	0.4		0	0			0	0		
Chicago, Ill.			30.08	764.0	50	10.0	79	N	16	7.2			10s			0	0		
Cincinnati, Ohio			29.88	758.9	75	23.9	64	NW	8	3.6		0	0			0	0		
Cleveland, Ohio			29.81	757.2	67.1	19.5	79	W	16	7.2		5c	0	W		0.11	2.8		
Colorado Springs, Col.			30.16	766.1	49	9.4	78	N	8	3.6		0	0			0	0		
Corsicana, Texas			30.16	766.1	74	23.3	90	S	4	1.8		2k	0	S		0	0		
Davenport, Iowa			30.14	765.5	57	13.9	75	NW	12	5.4			10s			0	0		
Denver, Col.			30.15	765.8	57	13.9	52	Calm	0	0		0	0			0	0		
Detroit, Mich.			29.84	757.9	65	18.3	73	NW	8	3.6			10ks		NW	0.02	0.5		
Dodge City, Kansas			29.78	756.4	69	20.6	47	E	9	4.0		0	0			0	0		
Dubuque, Iowa			30.15	765.8	55	12.8	62	N	12	5.4			10s			0	0		
Duluth, Minn.			30.32	770.1	43	6.1	67	NE	8	3.6		2k	0	N		0.02	0.5		
Eastport, Me.			30.04	763.0	52	11.1	93	S	6	2.7			Fog			0	0		
Erie, Penn.			29.75	755.6	70	21.1	79	W	12	5.4		0	9ks		SW	0.05	1.3	Clearing	
Escanaba, Mich.			30.13	765.3	40	4.4	82	NW	16	7.2			10n		NW	0	0	Light rain	
Fort Gibson, I. T.			30.10	764.5	77	25.0	82	Calm	0	0		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.20	767.1	50	10.0	72	SE	14	6.3		5k	0	W		0	0		
Galveston, Texas			30.17	766.3	81	27.2	74	SE	3	1.3		0	0			0	0		
Grand Haven, Mich.			30.04	763.0	50	10.0	64	N	19	8.5			10s			0.04	1.0		
Indianapolis, Ind.			30.00	762.0	66	18.9	64	NW	12	5.4		0	0			0	0		
Indianola, Texas			30.16	766.1	83	28.3	70	SE	4	1.8		2k	0	SE		0	0		
Jacksonville, Fla.			30.16	766.1	78	25.6	45	NE	4	1.8		0	0			0	0		
Keokuk, Iowa			30.12	765.0	58	14.4	76	NW	8	3.6			10s		NW	0	0		
Key West, Fla.			30.10	764.5	80.7	27.1	66	NE	8	3.6		5k	2ks			0.41	10.4		
Kittyhawk, N. C.			30.08	764.0	64	17.8	88	SE	6	2.7		5c	2s			0	0		
Knoxville, Tenn.			30.05	763.3	74	23.3	71	SW	8	3.6		1c	0			0	0		
La Crosse, Wis.			30.24	768.1	48	8.9	62	N	16	7.2		2k	8s	N	N	0	0		
Leavenworth, Kan.			30.22	767.3	60	15.6	66	N	6	2.7		0	0			0	0		
Lexington, Ky.			29.95	760.7	79	26.1	66	W	12	5.4			10s			0	0		
Long Branch, N. J.			30.05	763.3	60	15.6	100	SW	12	5.4			10s		SW	0	0		
Louisville, Ky.			29.94	760.5	80	26.7	70	SW	7	3.1		5k	0	SW		0	0		
Lynchburg, Va.			30.00	762.0	70	21.1	85	SW	3	1.3			10s		SW	0	0		
Malone, N. Y.																			
Marquette, Mich.			30.16	766.1	40	4.4	73	NW	20	8.9		2k	0	NW		0.40	10.2		
Memphis, Tenn.			30.14	765.5	80	26.7	66	SW	4	1.8		2ck	0	NW		0	0		
Milwaukee, Wisconsin			30.13	765.3	50	10.0	64	NW	15	6.7			10ks		SW	0	0		
Mobile, Ala.			30.20	767.1	74	23.3	76	S	4	1.8		0	0			0	0		
Montgomery, Ala.			30.18	766.6	77.5	25.3	67	SW	3	1.3		2k	Haze	W		0	0		
Morgantown, W. Virginia			29.84	757.9	71	21.7	89	S	5	2.2			10s			0.10	2.5	Threatening	
Mt. Washington, N. H.			30.23	767.8	50	10.0	86	W	40	17.9		Haze	2s			0	0		
Nashville, Tenn.			30.04	763.0	82	27.8	60	W	6	2.7		2k	0g			0	0		
New Haven, Conn.			30.05	763.3	63	11.7	88	S	8	3.6			Fog			0	0	Foggy	
New London, Conn.			30.08	764.0	58	14.4	97	S	6	2.7			Fog			0.01	0.3	Foggy	
New Orleans, La.			30.18	766.6	78.5	25.9	69	NW	4	1.8		0	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			30.05	763.3	59	15.0	93	S	8	3.6			10s			0	0		
Norfolk, Va.			30.07	763.8	73	22.8	76	S	6	2.7		5k	0	SW		0	0		
North Platte, Neb.			29.82	757.4	58	14.4	81	SE	10	4.5		0	0			0	0		
Omaha, Neb.			30.25	768.3	50	10.0	86	N	9	4.0			10s		N	0	0		
Oswego, N. Y.			29.74	755.4	76	24.4	62	SSW	12	5.4			10s			0	0	Threatening	
Peck's Beach			30.06	763.5	60	15.6	94	SW	12	5.4			10s			0	0		
Pembina, D. T.			30.30	769.6	45	7.2	76	N	4	1.8			0			0	0		
Philadelphia, Penn.			30.05	763.3	60	15.6	88	S	11	4.9		5k	5s	S	S	0	0		
Pike's Peak, C. T.			30.28	769.1	32	0.0	79	SW	22	9.8		0	Haze			0	0		
Pittsburgh, Penn.			29.8[illegible]	757.4	69	20.6	84	SE	12	5.4						1.10	27.9	Dense smoke	
Port Huron, Mich.			29.87	758.7	53	11.7	86	N	12	5.4			10s		NE	0.02	0.5		
Portland, Maine			30.02	762.5	58	14.4	88	S	7	3.1			Fog			0	0	Foggy	
Portland, Or.			30.08	764.0	50	10.0	71	Calm	0	0		5ck	Haze			0	0		
Punta Rassa, Fla.			30.15	765.8	76.1	24.5	76	NE	8	3.6		Haze	Sm'e			0	0		
Rochester, N. Y.			29.67	753.6	74	23.3	63	SW	8	3.6			10s		SW	0	0		
Salt Lake City, Utah			29.93	760.2	66	18.9	70	SW	3	1.3		2c	0			0	0		
Sandy Hook, N. J.			30.03	762.7	62	16.7	94	S	12	5.4			10s		S	0	0	Threatening	
San Diego, Cal.			29.99	761.7	60	15.6	66	SW	8	3.6			10s		SW	0	0		
San Francisco, Cal.			29.90	759.4	56	13.3	86	SW	4	1.8			10ks		SW	0	0		
Santa Fe, N. M.			29.94	760.5	60	15.6	44	SE	1	0.4			10s			0	0		
Savannah, Georgia			30.22	767.6	80	26.7	70	SW	4	1.8		0	0			0	0		
Shreveport, La.			30.19	766.8	77	25.0	82	W	4	1.8		0	0			0	0		
Springfield, Mass.			30.01	762.2	67	19.4	74	SW	8	3.6		0	8ks		S	0	0		
St. Louis, Mo.			30.15	765.8	65	18.3	63	N	12	5.4		0	0			0	0		
St. Marks, Fla.			30.20	767.1	77	25.0	88	Calm	0	0		8ck	0			0	0		
St. Paul, Minn.			30.25	768.3	43	6.1	75	N	8	3.6			10s		N	0	0		
St. Paul's Island, Alaska			29.91	759.7	38	3.3	71	W	5	2.2			10k			0.01	0.3		
Squan Beach, N. J.			30.04	763.0	59	15.0	94	S	7	3.1			Fog			0	0	Foggy	
Toledo, Ohio			29.86	758.4	68	20.0	65	W	12	5.4		2k	0	W		0.07	1.8		
Tybee Island, Ga.			30.09	764.3	79	26.1	58	S	6	2.7		0	2k			0	0		
Vicksburg, Miss.			30.26	768.6	83	28.3	55	SW	3	1.3		0	0			0	0		
Virginia City, Mon.			29.74	755.4	51	10.6	59	Calm	0	0			10s			0	0		
Washington, D. C.			29.99	761.7	71	21.7	75	S	12	5.4		8cs	2s		W	0	0		
Wilmington, N. C.			30.11	764.8	64	17.8	94	S	5	2.2			10n			2.02	51.3	Light rain	
Wood's Hole, Mass.			30.08	764.0	59	15.0	100	W	9	4.0			Fog			0	0	Foggy	
Wytheville, Va.			29.78	756.4	69	20.6	75	W	8	3.6			10s			0	0		
Yankton, D. T.			30.34	770.6	48	8.9	81	E	7	3.1			10s		NE	0	0		

NOTE.—The original give the cloudiness o the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					83	28.3	74	NE	2	0.9		2k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.00	762.0	83	28.3	74	E				0	5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	83	28.3	78	SE	2.4	1.1		5c	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.27	768.8	80	26.7	78	S	7	3.1		2ck	5kn	S		0.14	3.6		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	78	25.6	78	NW	2.4	1.1		5c	0	W		0	0		Robert Mason.
St. Georges, Bermudas			30.12	765.0	76	24.4	81	SSE	10.5	4.7		0	8k			0.80	20.3		C. F. Allen.
Honolulu, Oahu, S. I.			30.05	763.3	65	18.3	68	NE	12	5.4		5ck	5k	NE	NE	0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.30	769.6	39.5	4.2	82	W	8	3.6		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.23	691.6	30.04	763.0	64	17.8	90												C. Partridge.
St. John's, Newfoundland			30.26	768.6	69	20.6	72	SW				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.83	757.7	68	20.0	74	S	16	7.2		0	5ks			0	0		H. M. Redington.
Indianola, Iowa	29.23	742.4			54	12.2	79	NW				0	2n			0	0		G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.	Observer.
Schooner Addie Fuller, N. 25° 50′, W. 67° 55′	NNW	4	Short sea.		Squally & rainy.	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 13, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.04	763.9	85.5	29.7		NE			3		10			0.091	2.3	Storming	Charnot.
Algiers			30.06	763.5	77.0	25.0	79	N			1		2			0	0		Peter.
La Calle			30.10	764.9	71.7	22.0		NE			1		7			0	0		Kuntz.
Tunis			30.10	764.5	88.2	31.2	34	E			4		0			0	0		Jacques.
Sfax			30.14	765.5	81.5	27.5		SE			3		1			0	0		Chauvey.
Sadn			30.08	764.0	94.1	31.5		W			4		6			0	0	Threatening	Grosjean.
Tebessa			30.08	764.0	87.8	31.0		ESE			3		3			0	0	Threatening	Colin.
Gerlville			30.08	764.1	89.1	31.7		SE			3		7			0	0	Threatening	Bernadach.
Laghouat			30.11	764.7	93.2	34.0	22	NE			2		2			0	0		Poinsignon.
Biskra			30.08	763.9	99.3	37.4		E			3		6			0	0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.97	761.1	79.0	26.1	47	Calm			0		6			0.063	1.6		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.94	760.5	65.7	18.7	37	W			3		5			0	0		I. R. Observatory.
Eperies			29.96	760.9	71.6	22.0	63	SE			1		1			0	0		Julius Mikolik.
Gratz			29.98	761.5	73.0	22.8	75	S			2		2			0	0		Andreas Rospini.
Hermannstadt			29.94	760.4	79.5	25.4	49	NW			3		3			0	0		Prof. Reissenberger.
Kremsmünster			30.00	761.9	67.3	19.6	51	Calm			0		1			0	0		Prof. C. Wagner.
Lemberg			29.93	760.1	73.8	23.2	52	SW			4		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.01	762.3	81.0	27.2	48	N			2		0			0	0		Habzsuda Daniel.
Pola			30.00	762.0	81.1	27.3	51	SW			1		1ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.98	761.6	75.9	24.4	53	W			3		6			0.433	11.0		Karl Stancel.
Trieste			30.00	761.9	78.8	26.0	60	NW			1		2			0	0		Prof. V. Farolfi.
Vienna			29.99	761.7	74.3	23.5	56	W			2		1			0.008	0.2		I. R Central Institu e.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.89	759.1	61.0	16.1	72	W			2		9cks		SW	0.433	11.0	Sprinkling	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.48	748.8	54.0	12.2		S	15	6.7			4			0.050	1.27	Showery	William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			29.52	749.8	54.0	12.2		SW	6	2.7									S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.57	751.1	51.5	10.8		SE			1		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.51	749.5	57.7	14.3		SW			1		9						J. Dreyer, for Ld Rosse.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	84.8	29.3		E			2		6						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.70	754.4	60.1	15.6		SSW			3		10					Showery	H. Todd.
Cape Town, (Cape Colony)			30.15	765.8	54	12.2		E			3		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.22	767.4	51.7	10.9	94	SSE	8	3.6			9						The Staff, for E. J. Stone.
Cardington			29.69	754.1	60.0	15.6		SW					9						John McLaren.
Carlisle			29.53	750.0	56.8	13.8		W					10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.71	754.6	58.8	14.9		SSW			3		10					Raining.	Capt. I. Fellowes, R. E.
Colombo, (Ceylon)			29.88	758.9	81.6	27.6		SW			5		10						Sgt. W. F. Hopkins.
Dartmoor			29.76	755.9	48.5	9.2		SW			7		10					Rain & fog	R. E. Power.
Donaghadee			29.51	749.5	55	12.8		SSW			3		6						J. Mac Gowan, Jr.
Dover			29.79	756.7	58	14.4		SW			5		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.60	751.8	53.8	12.1		S	17.4	7.8			10					Raining	Thomas Mackereth.
Falmouth Observatory			29.66	753.4	54.4	12.4		SSW	32	14.3			10					Raining	The Staff.
Fort Napier, (Natal)			29.92	760.0	56.0	13.6		E			2		8						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.84	757.9	86	30.0		E					6						
Galway, Queen's College			29.54	750.3	63	17.2		SW			3		2						B. G. Clare, for Prof. Curtis.
Gibraltar. (Mediterranean)			30.06	763.5	72.5	22.5		NE			2		4						Sergt. E. G. Baker.
Glasgow Observatory			29.37	746.0	59.0	15.0		SW			3		4						Lewis Stewart.
Great Yarmouth			29.72	754.9	62	16.7		SW			4		7						G. T. Watson.
Greenwich Royal Obs.			29.74	755.4	60.0	15.6		S			4		10						The Staff, for G. B. Airy.
Guernsey			29.81	757.2	58	14.4		SSW			5		8					Squally	Dr. S. E. Hoskins.
Halifax, Moorside Obs.								SW					10					Raining	F. J. Hey, for L. J. Cross.
Halifax, (Nova Scotia)																			Corp'l J. C. Thompson.
Helston			29.66	753.4	57	13.9		S			6		10					Misty	Dr. W. B. Savile.
Holyhead			29.55	750.6	55	12.8		NE			1		5					Raining	John Tilston.
Hull Park																			
Kew Observatory			29.73	755.1	58.3	14.6		SSW	21	9.4			10					Threatening	The Staff.
Kingstown			29.55	750.6	55	12.8		SW			2		8						George Mitchell.
Lampeter																			
Leicester Museum			29.66	753.4	56.8	13.8		SW			4		10					rizzling	William J. Harrison.
Llandudno			29.56	750.8	51.3	10.7		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.06	763.5	85.8	29.9		NW			1		0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.18	766.6	82.9	28.3		NE			1		6						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.63	752.6	58.0	14.4		S			3		10p		S			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.62	752.3	52.8	11.6		S			3		10					Raining	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.66	753.4	57	13.9		SW			4		10					Raining	J. Lucas, for R. Main
Plymouth			29.69	754.1	55	12.8		SSW			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.54	750.3	55	12.8		SW			3		10					Showery	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.84	757.9	57.8	14.3		SW			5		10						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.98	761.5	83.0	28.3		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.59	751.6	60	15.6		SSW			3		9					Raining	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.55	740.6	56.6	13.7		WSW			4		10			0.150	3.81	Rainy	Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.72	754.9	59.0	15.0		SSW			2		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.58	751.3	52.2	11.2		SW			1		10						The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.72	754.9	58.3	14.6		SW			2–3		10						Rev. Charles H. Griffith
Streatley Vicarage			29.70	754.4	60.2	15.7		SW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.47	748.5	53	11.7		Calm			0		7						John Trotter.
Truro Royal Institution			29.62	752.3	57	13.9		SW			6		10					Rainy	W. Newcombe.
Valencia Observatory			29.54	750.3	57.1	13.9		WNW	8.5	3.8			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

Note.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. The elevation of Cape Good Hope Observatory is unknown, and barometer reduced to freezing.

DANISH SERIES.

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

Copenhagen			29.66	753.4	59.4	15.2	60	SW			2		8						
Fanöe			29.68	753.9	57.9	14.4	75	W			6		8						
Godthaab, (Greenland)			29.93	760.2	38.5	3.6	75	N			2		5						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.45	748.0	50.7	10.4	80	ENE			2		8						
Vestervig			29.58	751.4	56.5	13.6	82	SW			2		5						

Note.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio													8		SW	0.043	1.1		Normal School.
Alençon			29.96	761.0	68.0	20.0	51	SW			4		5		SSW	0.350	8.0		Normal School.
Amiens			30.05	763.2	66.6	19.2	68	SSW			6		10		SSW	0	0		Normal School.
Beaumette, (near Angers)			29.97	761.2	70.2	21.2	36	SW	37.8	16.9			8		WSW	0.177	4.50		Beaumette Observatory.
Beauvais			29.97	761.1	65.7	18.7	72	SSW			2		2		SW	0	0		Normal School.
Besançon			30.132	765.27	70.9	21.6	45	S			3		1		SW	0	0		Normal School.
Bourg en Bresse			30.05	763.3	76.5	24.7	46	NE			1		8		NE	0	0		Normal School.
Bourges			30.04	763.0	71.2	21.8	73	WSW			2		10		SW	0.070	1.78	Raining	Normal School.
Brest			29.81	757.2	56.7	13.7	90	SW			6		6k		SW	0	0		Naval Observatory.
Caen			30.02	762.6	68.4	20.2		SW			3		5ks		SW	0	0		Normal School.
Chartres			30.15	765.7	66.2	19.0		SW			6		5		NE	0	0		Normal School.
Chaumont			30.10	764.5	64.0	17.8	63	SW			4		8		SW	0	0		Normal School.
Commercy			30.15	765.8	67.1	19.5	57	SW			6		0			0	0		Normal School.
Le Mans			30.07	763.8	60.3	15.7	58	W			2		0			0	0		Normal School.
Lons-Le Saulnier			30.11	764.9	68.0	20.0	64	S			4		2		NNE	0	0		Normal School.
Mâcon			30.02	762.5	64.6	18.1	49	SSW			2		5		W	0	0		National Observatory
Mirecourt			29.99	761.7	67.6	19.8	55	WSW			6		8k		WSW	0	0		Normal School.
Orleans			29.95	760.7	67.3	19.6		WSW			3		5		SW	0	0		Normal School.
Paris Observatory			30.08	764.0	66.9	19.4	79	W			4		5		NE	0	0		Normal School.
Parthenay			30.03	762.7	66.0	18.4	58	SW			4		10			0.327	8.3		Normal School.
La Roche sur Yon			29.89	759.2	63.7	17.6	71	SSW			1		5		W	0.591	15.0		Normal School.
Rouen			29.89	759.2	57.2	14.0	98	W			2		5		SE	0	0		Normal School
Saint Lo			30.12	765.0	75.2	24.0	55	ESE			1								
Villefranche																			Frère Pascall.
Sub-Series.																			
Gorée, (Senegambia)					68.2	20.1	56	SW	6.8	3.02			5		SW	0	0		—. Faignère.
Mont-Louis	24.95	633.8			68.9	20.5	50	SSW			3-4		9k		SW	0	0		Marié Davy.
Montsouris Observatory			29.94	760.5	68.9	20.5	50	NE	2.1	0.92			2c			0	0		Dr. Fines.
Perpignan			30.05	763.3	74.8	23.8	46	SSW			3		9			0	0		E. Renou.
Saint Maur, (near Paris)			29.95	760.8	68.7	20.4	51												
Saint Pierre, (Martinique)																			C. Marquet.
Tours			29.99	761.9	68.7	20.4	49	SW			3		8		WSW	0	0		Dr. A. Bérigny.
Versailles, (near Paris)			29.95	760.8	67.3	19.6	61	SW			6		7			0	0		
Zi-Ka-Wei, (near Shanghai)			29.60	751.9	77.7	25.4	80	SSW	9.6	4.3			9k		W	1.224 / 1.437	31.1 / 36.5	Misty	H. Le Lec, S. J.

Note.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.94	760.5	66.2	19.0	48	W			7		9			0	0		Prof. Hoh.
Berlin			29.93	760.3	67.6	19.8	42	S			1		4			0.020	0.5		Prof. Arndt.
Breslau			30.02	762.6	66.9	19.4	54	W			7		7			0	0		Dr. P. Neugebauer.
Carlsruhe			30.01	762.3	67.3	19.6	57	SW			8		9			0	0		A. Senz.
Cassel			29.76	756.0	67.6	19.8	38	SW			4		6			0.045	1.13		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.05	763.2	68.0	20.0	68	W					1			0	0		M. Wilhelm.
Hamburg			29.82	757.3	61.0	16.1	66	W			5		10			1.213	30.8		W. Reinert.
Kiel			29.75	755.6	59.9	15.5	60	W			5		5			0.192	4.87		Prof. G. Karsten.
Königsberg			29.76	756.0	54.1	12.3	81	W			4					0.047	1.2		Prof. E. Luther.
Köslin			29.97	761.1	59.0	15.0		W			6		8			0.165	4.2		Dr. Tügert.
Leipsic			29.96	760.9	64.8	18.2	60	WSW			4		7			0	0		Prof. Bruhns.
Münster			29.87	758.7	64.8	18.2	50	SW			5		6			0.134	3.4		Prof. E. Heis.
Posen			29.95	760.2	67.3	19.6	45	SW			8		4			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			30.02	762.6	71.2	21.8	38	W					9			0	0		Hartwig and Tülk.
Stuttgart			29.99	761.8	72.9	22.9	38	W					8			0	0		Mr. Würth.
Thorn			29.83	757.7	67.1	19.5	45	SW			5		4			0.047	1.2		Dr. Rosenbalg.
Treves, (Trier)			29.92	760.0	65.1	18.4	59	W			8		10			0.133	3.38		Prof. Plesch.
Wustrow			29.80	756.8	59.5	15.3	74	SW			4		5			0.024	0.6		E. F. Schütz.

Note.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.96	760.9	80.2	26.8	43	SE	2.5	1.1			1			0	0		
Mondovi			29.95	760.8	76.8	24.9	57	NNW			4		0			0	0		
Genoa			30.03	762.8	76.6	24.8	61	SE	11.2	5.0			0			0	0		
Pavia			29.98	761.4	79.9	26.6	46	NE			2		0			0	0		
Verona			29.95	760.8	88.0	31.1	40	E			2		0			0	0		
Padua			29.97	761.2	79.7	26.5	49	SW	2.5	1.1			3	S		0	0		
Parma																			
Bologna			30.03	762.7	82.4	28.0	59	NE			4		2	NE		0	0		
Leghorn			30.07	763.6	67.5	19.7	65	NW	3.1	1.4			1			0	0		
Urbino			30.06	763.5	82.8	28.2	35	SW			2		2			0	0		
Ancona			30.00	762.0	82.4	28.0	46				2					0	0		
Siena			29.99	761.7	80.2	26.8	44	NNW	1.8	0.8			4	W		0	0		
Rome			30.08	764.1	83.1	28.4	49	SSW			2		1			0	0		
Naples, O.U.			30.06	763.4	82.8	28.2	57	SW			2		2			0	0		
Lecce			30.06	763.4	82.9	28.3	34	SE	13.0	5.8			0			0	0		
Cosenza			30.07	763.7	89.2	31.8	43	SE			1		1			0	0		
Catania, (Sicily)																			
Lipposto			30.06	763.4	77.4	25.2	59	NE			2		0			0	0		
Palermo			30.04	763.1	75.7	24.3	71	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.13	765.3	82.4	28.0	59	W			3		3k	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.88	759.0	58.3	14.6		SW			3								
Groningen			29.74	755.3	60.8	16.0		WSW			5								
Helder			29.79	756.7	59.7	15.4		SW			4								
Utrecht			29.80	757.0	62.8	17.1	62	SW			4		8						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.47	748.4	59.0	15.0	58	SW	5.4	2.4			6			0	0		
Christiania			29.38	746.3	62.4	16.9	49	SW	5.4	2.4			4			0.004	0.1		
Tromsö			29.42	747.3	43.9	6.6	91	NE			6		8			0	0		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.12	765.1	72.3	22.4	26	NNE	18.6	8.3			4						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.84	758.0	72.3	22.4	37	SW	20	9			10						Astronomical Obs.
Wilna			29.72	755.0	70.2	21.2	35	S	13	6			5						Astronomical Obs.
Dorpat			29.64	752.9	57.9	14.4	65	SW	11	5			9						Physical Cabinet.
St. Petersburg			29.56	750.9	56.5	13.6	68	WNW	11	5			6						Central Physical Obs.
Kuopio			29.42	747.3	57.7	14.3	55	SE					8		NW	0	0		
Kieff			30.04	763.0	76.8	24.9	45	W	7	3			8						Physical Cabinet.
Nikolaiev			30.04	763.0	84.0	28.9	46	ENE	8	3.5			2						
Kertch			29.96	760.9	81.7	27.6	41	N	13	6			3						Lagorio.
Moscow			29.81	757.1	62.6	17.0	54	WNW	13	6			7						Meteorological Obs.
Lugan			29.85	758.1	82.2	27.9	45	N	8	3.5			9						Meteorological Obs.
Archangel			29.54	750.3	64.9	18.3	63	Calm	0	0			8						Ogorodnikof.
Tiflis			29.95	760.7	76.3	24.6	50	NW	10	4.5			6						Physical Obs.
Astrakhan			30.08	763.9	84.4	29.1	40	SSW	10	4.5			0						Sebastianof.
Kasan			29.70	754.3	69.6	20.9	70	W	13	6			5						Physical Cabinet.
Orenburg			29.89	759.4	79.3	26.3	74	SE	8	3.5			4						Tschernischef.
Ekaterinburg			29.75	755.7	70.0	21.1	30	SW	8	3.5			0						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.93	760.2	81.0	27.7	57	Calm	0	0			1						Michelson.
Barnaul			29.76	756.0	69.8	21.0	52	W	8	3.5			4						Meteorological Obs.
Yeniseisk			29.52	749.9	67.8	19.9	58	NW	8	3.5			4						Marks.
Irkutsk			29.54	750.4	56.8	13.8	78	Calm	0	0			4						Usolzef.
Oorga			29.66	753.4	49.6	9.8	69	Calm	0	0			0						Mossin.
Peking, (China)			29.60	751.9	67.5	19.7	94	Calm	0	0			0 ?					Raining ?	Physical Observatory.
Nertchinsk			29.61	752.1	52.0	11.1	77	Calm	0	0			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					54.9	12.7	100	SE	8	3.5			0						Kurdakof.

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.93	760.2	87.4	30.8	19	W	20.1	9.0		2	6	SW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.35	745.4	49.3	9.6	89	SW			2		10			0.02	0.5	Light rain	
Hernosand			29.29	743.9	52.5	11.4	86	SSW			5		10			0.11	2.9		
Stockholm			29.84	747.7	59.4	15.2	60	SSW			1		6			0.06	1.5		
Wisby			29.58	751.3	57.2	14.0	80	SW			3		8			0	0		
Sub-Series.																			
Upsala			29.43	747.6	60.4	15.8	59	SSW			4		8	WSW	SW				Dr. Hildebrandsson.

NOTE.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.63	727.2			75.4	24.1	36	SSW			2		1			0	0		The Observatory.
Zurich	28.44	722.4			72.3	22.4	44	W			1		2			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +0.8mm.; Thermometer, +3°.6 C.; Relative Humidity, —20 per cent.

NOTE.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			30.04	763.1	78.1	25.6	48	NNE	13.4	6.0			0			0	0		
Fao, (Persian Gulf)			29.78	756.4	96.8	36.0		NW			4		0						
Salonica					90.9	32.7		NW			1		2						
Valona			30.03	762.8	85.0	29.6		W			1		0						
Varna			30.04	763.0	86.0	30.0		S			2		5						

NOTE.—The originals give the wind-force by the scale 0 to 7 and 0 to 12: the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

GREEK SERIES.

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

Athens																			

NOTE.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.12	765.0	46	7.8		NW	5	2.2		0	28		NW	0.02	0.05		
Chatham, N. B.			29.73	755.1	66	18.9	81	S	18	8.0		2c	8ks	S	S	0	0		
Charlottetown, P. E. Island			29.86	758.4	64	17.8	81	S	20	8.9		5k	0	S		0	0		
Fort Garry, Manitoba			30.09	764.3	55	12.8	74	S	12	5.4		5k	5ks	W	W	0	0		
Halifax, N. S.			29.84	757.9	61	16.1	95	S	7	3.1			10n			0.005	0.13		
Kingston, Ontario			30.15	765.8	46	7.8	67	W	8	3.6		5k	0	NW		0.03	0.8		
Montreal, Quebec			29.98	761.5	46	7.8	69	W	8	3.6		2k	5ks	N		0.18	4.8		
Ottawa, Ontario			30.05	762.3	46	7.8	55	W	14	6.3		4k		W		0	0		
Parry Sound, Ontario			30.18	766.6	46	7.8	54	NW	15	6.7		2ck	0	NW		0	0		
Port Dover, Ontario			30.24	768.1	43	6.1	59	NW	11	4.9		0	0			0	0		
Port Stanley, Ontario			30.24	768.1	45	7.2	59	N	6	2.7		0	0			0	0		
Quebec, Quebec			29.84	757.9	46	7.8	62	SW	16	7.2		0	0			0	0		
Saugeen, Ontario			30.24	768.1	41	5.0	87	NW	3	1.3		2c	0			0	0		
Stayner, Ontario													10ks		SW	0	0		
Sydney, C. B.			30.01	762.2	69	20.6	76	SW	9	4.0		2ck	0	N		0	0		
Toronto, Ontario			30.23	767.8	45	7.2	52	NW	16	7.2									

NOTE.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.91	759.7	53	11.7	73	NW	15	6.7		5k	0	W		0.13	3.3		
Alpena, Mich.			30.24	768.1	46	7.8	60	NW	12	5.4		1c	Haze			0	0		
Atlantic City, N. J.			29.97	761.2	55	12.8	68	NW	14	6.3		5c	0	NW		0	0		
Augusta, Ga.			30.00	762.0	73	22.8	81	Calm	0	0		5cs	0	W		0.14	3.6		
Baltimore, Md.			30.07	763.8	58	14.4	53	N	8	3.6		0	2ks			0.19	4.8		
Barnegat, N. J.			29.94	760.5	58	14.4	69	NW	18	8.0		0	0			0.33	8.4		
Benton, Montana			29.94	760.5	58	14.4	81	E	2	0.9		0	0			0	0		
Bismarck, Dakota			29.81	757.2	55	12.8	68	E	7	3.1		2k	Haze			0	0		
Boston, Mass.			29.83	757.7	56	13.3	87	NW	9	4.0			10s		NW	0.23	5.8		
Breckenridge, Minn.			30.01	762.2	52	12.8	79	S	24	10.7		8k	0	S		0	0		
Buffalo, N. Y.			30.20	767.1	42	5.6	65	NW	9	4.0		2k	0	NW		0	0		
Burlington, Vt.			29.99	761.7	48	8.9	70	N	8	3.6		5k	2s	NW		0.08	2.0		
Cairo, Ill.			30.24	768.1	59	15.0	76	N	4	1.8		2c	0	NE		0	0		
Cape Hatteras, N. C.			29.94	760.5	75	23.9	85	S	8	3.6		8c	0			0	0		
Cape Henry, Va.			30.00	762.0	72	22.2	62	N	28	12.5		5k	0	W		0	0		
Cape May, N. J.			29.99	761.7	57	13.9	69	N	24	10.7		8k	0	NW		0.13	3.3		
Charleston, S. C.			30.02	762.5	72.5	22.5	85	W	3	1.3		5k	5s	NW	N	1.40	35.6		
Cheyenne, W. T.			30.03	762.7	58	14.4	44	NW	8	3.6		0	0			0	0		
Chicago, Ill.			30.27	768.8	50	10.0	64	NE	7	3.1		2c	0	W		0	0		
Cincinnati, Ohio			30.18	766.6	58	14.4	69	NE	8	3.6		0	0			0	0		
Cleveland, Ohio			30.23	767.8	49.1	9.5	57	N	13	5.8		2k	0			0	0		
Colorado Springs, Col.			30.01	762.2	55	12.8	68	N	2	0.9		5c	2ks	SW		0	0		
Corsicana, Texas			30.16	766.1	73	22.8	81	SW	5	2.2		0	0			0	0		
Davenport, Iowa			30.23	767.8	55	12.8	68	SE	12	5.4		0	2s			0	0		
Denver, Col.			30.05	763.3	60	15.6	49	S	2	0.9		0	0			0	0		
Detroit, Mich.			30.27	768.8	47	8.3	69	NE	9	4.0		2c	0			0	0		
Dodge City, Kansas			29.68	753.9	73	22.8	63	S	16	7.2		0	0			0	0		
Dubuque, Iowa			30.23	767.8	53	11.7	61	E	8	3.6		5ck	2s	W		0	0		
Duluth, Minn.			30.26	768.6	45	7.2	76	NE	4	1.8			10s			0.02	0.5		
Eastport, Me.			29.78	756.4	50	10.0	100	S	10	4.5			Fog			0	0	Foggy	
Erie, Penn.			30.21	767.3	46	7.8	60	NW	12	5.4		2k	0			0	0		
Escanaba, Mich.			30.29	769.4	47	8.3	61	Calm	0	0		5c	0	W		0	0		
Fort Gibson, I. T.			30.11	764.8	78	20.6	80	Calm	0	0		1k	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.73	755.1	63	17.2	78	SE	12	5.4		1k	0	W		0	0		
Galveston, Texas			30.20	767.1	77	25.0	81	NW	8	3.6		0	0			0	0		
Grand Haven, Mich.			30.30	769.6	50	10.0	64	NE	4	1.8		0	0			0	0		
Indianapolis, Ind.			30.22	767.6	54	12.2	61	NE	8	3.6		2c	0	W		0	0		
Indianola, Texas			30.20	767.1	84	28.9	67	Calm	0	0		0	2s		S	0	0		
Jacksonville, Fla.			30.[illegible]	763.3	81	27.2	70	SW	4	1.8		7k	0	SW		0	0		
Keokuk, Iowa			30.19	766.8	54	12.2	61	SE	12	5.6		5ck	0	SW					
Key West, Fla.			30.12	765.0	81.6	27.6	60	E	3	1.3			2ks			0.01	0.3		
Kittyhawk, N. C.			29.96	761.0	68	20.0	89	N	6	2.7			10ks		NE	0	0		
Knoxville, Tenn.			30.11	764.8	65	18.3	68	NE	12	5.4		1c	0			0	0		
La Crosse, Wis.			30.24	768.1	53	11.7	67	S	12	5.4		8k	0	S		0	0		
Leavenworth, Kan.			30.06	763.5	70	21.1	60	SE	8	3.6		2c	0	NW		0	0		
Lexington, Ky.			30.17	766.3	59	15.0	70	NE	12	5.4		2k	0	E		0	0		
Long Branch, N. J.			29.97	761.2	58	14.4	62	NW	22	9.8		5cs	0	SW		0.22	5.6		
Louisville, Ky.			30.20	767.1	57	13.9	63	N	8	3.6		0	0			0	0		
Lynchburg, Va.			30.05	763.5	72	22.2	94	N	5	2.2		0	0			0.24	6.1		
Malone, N. Y.																			
Marquette, Mich.			30.25	768.3	50	10.0	65	SW	4	1.8		0	0			0	0		
Memphis, Tenn.			30.29	767.1	70	21.1	71	NE	7	3.1		2c	0			0	0		
Milwaukee, Wisconsin			30.33	770.4	48	8.9	62	NE	2	0.9		5ck	2cs	N	NE	0	0		
Mobile, Ala.			30.14	765.5	80	26.7	91	NW	5	2.2		0	0			0	0		
Montgomery, Ala.			30.12	765.0	80	26.7	66	N	3	1.3		0	Haze			0	0		
Morgantown, W. Virginia			30.20	767.1	52	11.1	59	W	5	2.2		2c	0	W		0.84	21.3		
Mt. Washington, N. H.			29.96	761.0	28	— 2.2	100	N	20	8.9			Fog			0.56	14.2		
Nashville, Tenn.			30.14	765.5	65	18.3	68	N	6	3.7		2k	0	N		0	0		
New Haven, Conn.			29.91	759.7	56	13.3	68	N	14	6.3		2ck	5s	SW		0.35	8.9		
New London, Conn.			29.88	758.9	55	12.8	80	NW	6	2.7			10s			0.34	8.6		
New Orleans, La.			30.16	766.1	79	26.1	74	NW	8	3.6		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.98	761.5	55	12.8	56	N	20	8.9		0	0			0.19	4.8		
Norfolk, Va.			30.02	762.5	67	19.4	55	N	16	7.2		8c	0	W		0.15	3.8		
North Platte, Neb.			29.48	748.8	67	19.4	64	S	6	2.7		4c	2s	S		0	0		
Omaha, Neb.			29.95	760.7	68	20.0	69	SE	14	6.3		2c	0			0	0		
Oswego, N. Y.			30.14	765.5	42.6	5.9	67	NW	14	6.3		0	3ks			0.17	4.3		
Peck's Beach			29.99	761.7	56	13.3	93	N	24	10.7		Haze	9s			0.23	5.8		
Pembina, D. T.			30.06	763.5	55	12.8	68	SE	16	7.2			10s			0	0		
Philadelphia, Penn.			30.03	762.7	55	12.8	50	N	23	10.3		2k	0	N		0.55	14.0		
Pike's Peak, C. T.			30.20	767.1	29	— 1.7	89	W	32	14.3		8cs	Haze	SW		0	0		
Pittsburgh, Penn.			30.17	766.3	50	10.0	57	NW	8	3.6		1k	0	NW		0	0		
Port Huron, Mich.			30.29	769.4	45	7.2	53	NE	12	5.4		0	0			0	0		
Portland, Maine			29.79	756.7	58	14.4	88	N	8	3.6			10n		N	0.05	1.3	Light rain	
Portland, Or.			29.88	758.9	52	11.1	66	Calm	0	0		8k	0			0	0		
Punta Rassa, Fla.			30.13	765.3	79.6	26.4	73	SE	4	1.8		1ck	Sm'e			0	0		
Rochester, N. Y.			30.16	766.1	43	6.1	58	NW	17	7.6		0	2k		NW	0	0		
Salt Lake City, Utah			29.82	757.4	68	20.0	42	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.94	760.5	56	13.3	56	NW	20	8.9		0	5s		NW	0.58	14.7		
San Diego, Cal.			30.08	764.0	57	13.9	57	NE	4	1.8			10s		NE	0	0		
San Francisco, Cal.			29.97	760.2	54	12.2	87	S	4	1.8			10s		SW	0.03	0.8		
Santa Fe, N. M.			29.91	759.7	62	16.7	46	SW	4	1.8		10c	2s	SW	SW	0.03	0.8		
Savannah, Georgia			30.00	762.0	78	25.6	78	S	8	3.6		10ck	Haze	SW		0.30	7.6		
Shreveport, La.			30.17	766.3	78	25.6	86	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.90	759.4	57	13.9	69	NW	8	3.6		0	8ks		N	0.32	8.1		
St. Louis, Mo.			30.26	768.6	57	13.9	52	E	6	2.7		0	0			0	0		
St. Marks, Fla.			30.06	763.5	79	26.1	78	NW	8	3.6		5c	0	N		0	0		
St. Paul, Minn.			29.13	765.3	50	10.0	71	SE	2	0.9		8cs	0			0	0		
St. Paul's Island, Alaska			29.99	761.7	39	3.9	81	WSW	3	1.3			10k			0.01	0.3		
Squan Beach, N. J.			29.96	761.0	55	12.8	62	NW	11	4.9		0	0			0	0		
Toledo, Ohio			30.25	768.3	50	10.0	71	NE	8	3.6		0	0			0	0		
Tybee Island, Ga.			30.00	762.0	80	26.7	58	SW	12	5.4			8ks			0	0		
Vicksburg, Miss.			30.21	767.3	81	27.2	66	NW	2	0.9		2cs	0			0	0		
Virginia City, Mon.			29.74	755.4	56	13.3	57	SE	8	3.6		Haze	0			0	0		
Washington, D. C.			30.09	764.3	56	13.3	62	NW	16	7.2		1k	Sm'e	NW		0.24	6.1		
Wilmington, N. C.			30.00	762.0	71	21.7	85	SW	8	3.6		10cs	0	N		0.41	10.4		
Wood's Hole, Mass.			29.86	758.4	62	16.7	100	W	4	1.8			Fog			0	0	Foggy	
Wytheville, Va.			29.86	758.4	61	16.1	66	NW	6	2.7		8k	0	W		0.74	18.8		
Yankton, D. T.			29.89	759.2	67	19.4	69	SE	11	4.9		k	0	W		0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	.....	.....	78	25.6	86	E	4	1.8	.....	5k	2s	E	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, G'd'loupe, do	.....	.....	30.01	762.2	81	27.2	78	E	.....	.....	.....	5k	5ks	E	.....	0.14	3.5	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.83	757.7	83	28.3	74	SE	3.6	1.6	.....	0	0	.....	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.28	769.1	80	26.7	78	E	8	3.6	.....	2ek	5k	E	.....	0	0	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.87	758 7	79	26.1	74	NE	4.8	2.1	.....	8c	0	NW	.....	0	0	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Georges, Bermudas	.....	.....	30.12	765.0	74.5	23.6	86	S	6 4	2.9	.....	.....	10ks	.....	.....	0.46	11.7	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu, Oahu, H. I.	.....	.....	30.04	763.0	67	19.4	68	NE	13	5.8	.....	5c	5k	NE	NE	Blank	Blank	.....	E. P. Church
Makawao, Maui, H. I.	.....	.....	30.02	762 5	62.5	16.9	88	NE	12	5.4	.....	0	6n	.....	NE	0.05	1.3	Light rain	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
York Factory, B. A.	.....	.....	30.18	766.6	48.0	8.9	70	E	4	1.8	.....	0	0	.....	.....	0	0	Mirage	J. Fortescue.
Clifton, Jamaica, W. I.	27.26	692.4	30.07	763.8	73	22.8	90	SSE	2.0	0.9	.....	10c	0	SSE	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	30.19	766.8	73	22.8	65	SW	.....	.....	.....	0	0	.....	.....	0	0	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	30.38	771.6	49	-9.4	57	NE	12	5.4	.....	0	0	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	29.16	740.7	.....	.....	58	14.4	93	SE	.....	.....	.....	.....	10n	.....	.....	0	0	.....	G. C. Carpenter.
U. S. Marine Series.	**True course towards.**	**Hourly rate in knots.**														**State of ocean.**	**Direction of swell from—**		
Schooner Addie Fuller, N. 27° 24′, W. 68° 25′	N½W	4	29.94	760.5	78.5	25.8	93	S by W	.....	.....	4	.....	..k	.....	N	Short sea.	.....	Fair	James Jorgensen, Mate.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 14, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.01	762.2	79.7	26.5		E			1		2			0	0		Charnot.
Algiers			30.01	762.2	88.5	31.4	54	W			1		6			0	0		Peter.
La Calle			30.00	762.0	81.3	27.4		NW			5		7			0.157	4.0	Sirocco	Kuntz.
Tunis			30.01	762.3	91.4	33.0	34	ESE			3		3			0	0	Threatening	Jacques.
Sfax			30.08	764.0	83.3	28.5		NW			3		5			0	0		Chauvey.
Saïda			30.00	762.1	94.1	34.5		W			2		7			0.079	2.0	Rainy	Grosjean.
Tebessa			30.00	762.0	84.2	29.1		N			7		9			0.157	4.0	Hurricane	Colin.
Gerfville			30.04	763.1	86.0	30.0		S			3		10			0.079	2.0	Threatening	Bernadach.
Laghount			30.08	764.1	87.8	31.0	27	SE			1		3			0.079	2.0	Thunder-storm	Poinsignon.
Biskra			30.07	763.7	81.3	27.5		W			3		6			0	0	Threatening	Coulon.

NOTE.—In the originals not any distinction is made between upper and lower clouds. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.93	760.3	79.5	26.4	54	NE			3		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Gracow			29.87	758.6	65.3	18.5	33	W			2		3			0	0		I. R. Observatory.
Eperies			29.89	759.2	76.5	24.7	67	SE			2		6		N	0	0		Julius Mikolik.
Gratz			29.95	760.8	71.8	22.1	79	S			2		2			0	0		Andreas Rospini.
Hermannstadt			29.93	760.1	73.4	23.0	60	NNE			1		3			0.154	3.9		Prof. Reissenberger.
Kremsmünster			29.89	759.3	73.8	23.2	51	NE			1		1			0	0		Prof. C. Wagner.
Lemberg			29.86	758.5	77.7	25.4	50	SW			4		4			0.382	9.7		Dr. T. Stanecki.
Nyiregyhaza			29.93	760.1	81.0	27.2	58	S			2		4			0	0		Habzsuda Daniel.
Pola			29.98	761.4	79.5	26.5	54	SW			1		3ck			0	0		I.R. Hydrographic Of'ce
Szegedin			29.92	759.9	77.7	25.4	57	W			1		3			0.972	24.7		Karl Stancel.
Trieste			29.97	761.3	78.3	25.7	73	NNW			1		3			0	0		Prof. V. Farolfi.
Vienna			29.90	759.4	82.9	28.3	30	SW			1		3			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.75	755.6	66.6	19.2	67	WSW			3		10ks		SW	0.083	2.1		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. Not any distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.31	744.5	50.0	10.0		SSE	*25	11.2			10			0.420	10.67	Squally	William Boswell.
Annanhill																			
Ardrossan			29.13	739.9	53	11.7		SSE			4		10					Raining	William McNeil.
Armagh Observatory			29.12	739.6	56.2	13.4		SSW	21	9.4			9					Rainy	S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.32	744.7	60.6	15.9		S			5		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.19	741.4	58.5	14.7		SW			4-5		4						J. Dreyer, for L'd Rosse.
Bradford			29.34	745.2	60.5	15.8		S			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.05	763.3	82.4	28.0		E			2		7						T. H Hunt.
Bywell																			
Cambridge Observatory			29.52	749.8	64.0	17.8		SW			3		7					Showery	H. Todd.
Cape Town, (Cape Colony)			30.25	768.3	58	14.4		S			3		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.32	770.1	59.8	15.4	56	SE	8	3.6			1						The Staff, for E. J. Stone.
Cardington			29.55	750.6	64.0	17.8		SW					9						John McLaren.
Carlisle			29.27	743.4	56.7	13.7		S					10			0.09	2.3	Raining	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.59	751.6	61.6	16.4		WSW			3		10						Capt. I Fellowes, R. E
Colombo, (Ceylon)			29.90	759.4	80.0	26.7		SW			5		10					Raining	Sgt. W. F. Hopkins
Dartmoor			29.61	752.1	50.8	10.4		SW			8		10					Squally	R. E. Power.
Donaghadee			29.13	739.9	56	13.3		SW			6		10						J. Mac Gowan, Jr.
Dover			29.66	753.4	59	15.0		SW			4		5						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.37	746.0	59.0	15.0		S	7.6	3.4			10					Squally	G. D. Goldney.
Falmouth Observatory			29.53	750.0	56.2	13.4		SSW	33	14.8			10					Rain & fog	Thomas Mackereth.
Fort Napier, (Natal)			29.93	760.2	53.0	11.7		E			3		3						The Staff.
Freetown, (Sierra Leone.)			29.83	757.7	87	30.6		N					5						Pvt. G. Salmon.
Galway, Queen's College			29.53	750.0	61	16.1		SW			6		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.99	761.7	75.5	24.2		SW			3								Sergt. E. G. Baker.
Glasgow Observatory			29.16	740.7	54.8	12.7		S			3		10					Raining	Lewis Stewart.
Great Yarmouth			29.58	751.3	63	17.2		SW			3		8						G. T. Watson.
Greenwich Royal Obs.			29.60	751.8	62.1	16.7		SSW			5		10						The Staff, for G. B. Airy.
Guernsey			29.67	753.6	61	16.1		SSW			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.38	746.2	58.6	14.8		SSW					10					Showery	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.52	749.8	59	15.0		S			6		10					Misty	Dr. W. B. Moyle.
Holyhead			29.30	744.2	57	13.9		SSW			6		4					Rainy	John Tilston.
Hull Park																			
Kew Observatory			29.67	754.1	63.0	17.2		SSW	28	12.5			8					Threatening	The Staff.
Kingstown			29.71	754.6	59	15.0		SSW			4		7						George Mitchell.
Lampeter																			
Leicester Museum			29.48	748.8	61.0	16.1		SW			6		10					Threatening	William J. Harrison.
Llandudno			29.31	744.5	56.5	13.6		W					9						Dr. James Nicol.
Malta, (Mediterranean)			30.03	762.7	81.0	27.2		NE			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			29.20	767.1	83.2	28.4		E			1		4						Surg.-Maj. J. Jameson.
North Shields			29.35	745.5	58	14.4		S			4		9						John Wm. Irvine.
Nottingham			29.46	748.3	62.7	17.1		S			5		10kd		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.43	747.5	61.0	16.1		S			6		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.53	750.0	62	16.7		SW			5		10						J. Lucas, for R. Main.
Plymouth			29.57	751.1	58	14.4		SSW			5		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.29	744.0	56	13.3		WSW			5		5						W. Kennedy.
Saint Ann's Head			29.39	746.5	53	11.7		WSW			4		6						John C. Walker.
Saint Helier, (Jersey)			29.69	754.1	62.6	17.0		SW			6		8						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			29.42	747.3	60.5	15.8		S			3		10						F. Shaw.
Scutari, (Turkey)			29.95	760.7	85.4	29.2		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.39	746.5	63.7	17.6		SW			5		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.24	742.7	56.	13.3		S			4		10			0.250	6.35	Raining	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.56	750.8	65.0	18.3		SSW			3		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.33	745.0	57.3	14.1		S			5		8						The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.52	752.3	60.4	15.8		SW			1-2		8						Rev Charles H. Griffith
Streatley Vicarage			29.57	751.1	69.2	20.7		SW			7		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.23	742.4	57	13.9		SE			5		8						John Trotter.
Truro, Royal Institution			29.54	750.3	61	16.1		SW			6		8						W Newcombe.
Valencia Observatory			29.16	740.7	56.4	13.6		SSW	58	25.9			5						The Staff.
Wick																			
Wisbeach																			
Worthing			29.65	753.1	61.5	16.4		SW			5		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, they give the wind-force by the scale 0 to 12, the wind direction to 32 points, and the weather by the Beaufort notation. Not any distinction is made between upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			29.56	750.9	62.2	16.8	70	WSW			2		9						
Fanöe			29.60	751.8	57.6	14.2	72	W			6		3						
Godthaab, (Greenland)			29.93	760.3	43.9	6.6	70	NNE			2		0						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.39	746.5	52.0	11.1	72	ENE			4		8						
Vestervig			29.54	750.2	56.5	13.6	71	SW			2		4						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. Not any distinction is made between 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't 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.83	757.7	69.1	20.6	55	SW			6		8		SW	0	0		Normal School.
Amiens			29.75	755.7	71.6	22.0	59	WSW			6		8		WSW	0.142	3.6		Normal School.
Beaumette, (near Angers)			29.82	757.5	69.1	20.6	53	SW	37.1	16.6			10		SW	0	0		Beaumette Observatory.
Beauvais			29.84	758.0	70.5	21.4	53	SSW			3		10		WSW	0.187	4.75		Normal School.
Besançon			30.01	762.3	79.7	26.5	32	SSE			3		0			0	0		Normal School.
Bourg en Bresse			29.96	760.9	82.2	27.9	35	N			2		1		S	0	0		Normal School.
Bourges			29.89	759.3	73.6	23.1	67	SSW			4		2		SE	0	0		Normal School.
Brest			29.74	755.4	62.4	16.9	77	SW			4		8		SW	0.276	7.00		Naval Observatory.
Caen																			Normal School.
Chartres			29.86	758.4	71.8	22.1		WSW			4		6k		SW	0.028	0.7		Normal School.
Chaumont			29.96	761.0	71.6	22.0		SSW			3		1c			0	0		Normal School.
Commercy			29.98	761.5	68.9	20.5	41	SW			8		2		NE	0	0		Normal School.
Le Mans			29.99	761.7	68.0	20	65	SW			6		8		SW	0	0		Normal School.
Lons-Le Saulnier			29.87	758.8	69.3	20.7	68	WSW			2		0			0	0		Normal School.
Mâcon			29.97	761.3	76.3	24.6	51	S			4		0			0	0		
Mirecourt			30.09	764.3	70.3	21.3	45	SSW			2		1		NNE	0	0		Normal School.
Orleans			29.86	758.5	72.7	22.6	40	WSW			6		0			0	0		Normal School.
Paris Observatory			29.82	757.4	72.5	22.5		SSW			4		8k		SW	0.136	3.34		National Observatory
Parthenay			29.90	759.4	70.7	21.5	78	W			8		0			0	0		Normal School.
La Roche sur Yon			29.92	760.0	69.4	20.8	58	W			8		8		E	0	0		Normal School.
Rouen			29.76	755.8	66.9	19.4	63	SSW			1		10			0.055	1.4		Normal School.
Saint Lô			30.01	762.3	64.8	18.2	82	W			2		5		SE	0.217	5.5		Normal School.
Villefranche			29.97	761.3	83.1	28.4	38	ESE			1		2		N	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.90	632.5			71.1	21.7	42	SSW	2.6	1.16			4		SW	0.035	0.9		—. Faignère.
Montsouris Observatory			29.82	757.5	76.3	24.6	43	SW			3		6k		SW	0.106	2.7		Merié Davy.
Perpignan			29.97	761.4	73.0	22.8	74	NE	1.6	0.70			8c		E	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.83	757.6	74.1	23.4	40	SW			4		6			0.091	2.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.87	758.6	75.2	24.0	28	WSW			3		0			0	0		C. Marquet.
Versailles, (near Paris)			29.83	757.7	72.0	22.2	49	SW			6		8		SW	0.121	3.08		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.65	753.2	73.4	23.0	96	NE	5.4	2.4			10k		SE	0.399 0.465	9.9 11.8		H. Le Lec, S. J.

Note.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.80	757.9	71.6	22.0	44	SW			4		6			0.008	0.2		Prof. Hoh.
Berlin			29.86	758.4	70.5	21.4	53	NW			3		8			0.008	0.2		Prof. Arndt.
Breslau			29.93	760.3	73.8	23.2	35	S			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.87	758.7	75.9	24.4	31	SW			2		7			0	0		A. Senz.
Cassel			29.70	754.4	69.1	20.6	55	S			5		8			0.106	2.70		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.96	760.9	69.8	21.0	74	W					1			0	0		M. Wilhelm.
Hamburg			29.71	754.7	59.7	15.4	85	SW			5		10			0.150	3.8		W. Reinert.
Kiel			29.65	753.2	62.2	16.8	83	SW			3		10			0.124	3.14		Prof. G. Karsten.
Königsberg			29.75	755.7	61.5	16.4	84	SW			1					0.047	1.2		Prof. E. Luther.
Köslin			29.89	759.1	66.2	19.0		SW			1		5			0.213	5.4		Dr. Tägert.
Leipsic			29.87	758.6	70.2	21.2	49	SW			3		9			0.012	0.3		Prof. Bruhns.
Münster			29.72	754.8	65.7	18.7	75	SW			4		10			0	0		Prof. E. Heis.
Posen			29.85	758.1	74.8	23.8	43	SW			6–7		9			0.001	0.02		Dr. Magener.
Strassburg, (in Alsace)			29.88	759.0	79.2	26.2	31	S					6			0	0		Hartwig and Tülk.
Stuttgart			29.89	759.1	69.3	20.7	31	W					5			0	0		Mr. Würth.
Thorn			29.78	756.4	70.9	21.6	55	NW			4		9			0	0		Dr. Grosenbalg.
Treves, (Trier)			29.80	756.9	72.0	22.2	34	W			9		2			0	0		Prof. Flesch.
Wustrow			29.72	754.9	60.4	15.2	80	SW			6		10			0	0		E. F. Schütz.

Note.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.96	760.9	78.4	25.8	51	ESE	0.7	0.3			8	SW		0	0		
Mondovi			29.96	760.9	76.1	24.5	51	SSE			4		3	NW		0	0		
Genoa			30.03	762.8	75.4	24.1	64	SW	6.3	2.8			0			0	0		
Pavia			30.97	761.3	81.5	27.5	46	SE			2		3	SW		0	0		
Verona			30.94	759.9	84.9	29.4	46	E			2		10			0	0		
Padua			30.92	760.4	80.4	26.9	49	SW	4.3	1.9			5	W		0	0		
Parma																			
Bologna			30.99	761.7	80.6	27.0	60	NE			4		3	SW		0	0		
Leghorn			30.04	763.0	65.8	18.8	47	WSW	3.8	1.7			4			0	0		
Urbino			30.04	763.1	81.7	27.6	35	SW			2		5			0	0		
Ancona			29.97	761.7	82.4	28.0	55	ESE			4		2			0	0		
Siena			29.96	761.0	84.0	28.9	35	SW	4.3	1.9			7	W		0	0		
Rome			30.05	763.2	85.6	29.8	37	SSW			4		5	SW		0	0		
Naples, O.U.			30.07	763.6	84.6	29.2	55	SW			2		4			0	0		
Lecce			30.02	762.8	84.4	29.1	31	ESE	11.9	5.3			1	E		0	0		
Cosenza			30.02	762.6	89.6	32.0	42	SE			1		7			0	0		
Catania, (Sicily)																			
Riposto			30.03	762.8	78.4	25.8	69	NE			2		2	SW		0	0		
Palermo			29.99	761.7	77.9	25.5	70	NE			2		5			0	0		
Sub-Series.																			
Naples, S. R.			30.10	764.6	86.0	30.0	39	W			3		..c	SW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.74	755.4	63.7	17.6		WSW			4								
Groningen			29.63	752.5	61.2	16.2		SW			5								
Helder			29.65	753.1	61.0	16.1		SW			4								
Utrecht			29.67	753.6	61.7	16.5	88	SW			4		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.44	747.8	57.2	14.0	61	N	8.1	3.6			6			0.217	5.5		
Christiania			29.45	748.0	56.7	13.7	60	SSE	7.2	3.2			9			0	0		
Tromsö			29.52	749.8	58.6	14.8	76	S			6		2			0.059	1.5		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.16	766.0	70.5	21.4	46	NNW	8.7	3.9		1							

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.84	757.8	72.7	22.6	43	W	16	7			10					Thunder-storm.	Astronomical Obs.
Wilna			29.85	758.1	71.1	21.7	40	S	4	2			6						Astronomical Obs.
Dorpat			29.81	757.2	64.8	18.2	50	W	7	3			4						Physical Cabinet.
St. Petersburg			29.75	755.7	56.1	13.4	77	WNW	9	4			1						Central Physical Obs.
Kuopio			29.61	752.0	64.9	18.2	60	SW					5		NE	0	0		
Kieff			29.92	760.0	80.1	26.7	38	SW	2	1			9						Physical Cabinet.
Nikolaiev			30.00	762.0	77.2	25.1	64	N	17	7.5			4						
Kertch			29.96	761.0	84.7	29.3	59	N	13	6			1						Lagorio.
Moscow			29.87	758.8	68.4	20.2	41	SW	13	6			4						Meteorological Obs.
Lugan			29.85	758.1	81.7	27.6	47	ENE	8	3.5			9						Meteorological Obs.
Archangel			29.66	753.4	57.7	14.3	58	N	13	6			10						Ogorodnikof.
Tiflis			29.93	760.2	80.2	26.8	41	WNW	8	3.5			6						Physical Obs.
Astrakhan			30.10	764.4	84.4	29.1	39	WSW	10	4.5			1						Sebastianof.
Kasan			29.84	757.8	71.8	22.1	47	W	10	4.5			7						Physical Cabinet.
Orenburg			30.15	765.7	80.1	26.7	44	W	8	3.5			2						Tschernischef.
Ekaterinburg			29.84	757.9	59.9	15.5	60	SW	10	4.5			3						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.99	761.8	82.2	27.9	35	Calm	0	0			0						Michelson.
Barnaul			29.79	756.6	68.7	20.4	56	Calm	0	0			1						Meteorological Obs.
Yeniseisk			29.59	751.5	72.5	22.5	64	NW	10	4.5			0						Marks.
Irkutsk			29.54	750.4	61.5	16.4	69	Calm	0	0			6						Usolzef.
Oorga			29.65	753.1	50.0	10.0	76	Calm	0	0			0						Mossin.
Peking, (China)			29.58	751.2	78.6	25.9	47	Calm	0	0			6						Physical Observatory
Nertchinsk			29.48	748.9	61.3	16.3	55	Calm	0	0			7						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					53.4	11.9	89	SE	10	4.5			5						Kurdakof.

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.89	759.2	85.5	29.7	17	SW	10.5	4.7						0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.58	751.4	51.8	11.0	85	S			1		6			0	0		
Hernosand			29.51	749.5	57.6	14.2	69	ESE			3		2			0	0		
Stockholm			29.55	750.6	54.3	12.4	82	S			3		10			0.12	3.0	Raining	
Wisby			29.65	753.2	57.2	14.0	90	S			3		10			0	0		
Sub-Series.																			
Upsala			29.56	750.7	53.6	12.0	86	S			2		7	SW	SSW			Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.56	725.4			81.5	27.5	20	S			4		1			0	0		The Observatory.
Zurich	28.37	720.5			78.4	25.8	41	SW			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.1mm.; Thermometer, +6°.9 C.; Relative Humidity, —36 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.84	758.0	80.1	26.7	69	WNW			2		2						Prof. C. N. A. Van Dyck.
Constantinople			30.03	762.8	78.1	25.6	63	NNE	13.4	6.0			0			0	0		
Fao, (Persian Gulf)			29.82	757.3	96.8	36.0		NW			4		0						
Salonica					91.8	33.2		S			1		0						
Valona			29.99	761.8	83.3	28.5		W			1		2						
Varna			30.04	763.0	80.6	27.0		SE			2		2						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. Not any distinction is made between upper and lower clouds.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.05	763.3	55	12.8		SW	5	2.2		0	0			0	0		
Chatham, N. B.			29.72	754.9	53	11.7	68	W	4	1.8		5k	0	W		0	0		
Charlottetown, P. E. Island			29.80	756.9	53	11.7	80	S	11	4.9			8ks			0.095	2.42		
Fort Garry, Manitoba			29.95	760.7	59	15.0	85	S	5	2.2		5k	2ks	SW	SW	0	0		
Halifax, N. S.			29.71	754.6	52	11.1	73	W	15	6.7		2cs	0	SW		0.126	3.20		
Kingston, Ontario			30.05	763.3	52	11.1	83	W	7	3.1		0	0			0	0		
Montreal, Quebec			29.86	758.4	51	10.6	74	W	15	6.7		2cs	2s	NW		0	0		
Ottawa, Ontario			29.94	760.5	54	12.2	62	SW	16	7.2		0	0			0	0		
Parry Sound, Ontario			30.05	763.3	52	11.1	73	SW	11	4.9		0	0			0	0		
Port Dover, Ontario			30.14	765.5	51	10.6	79	Calm	0	0		10k		W		0	0		
Port Stanley, Ontario			30.12	765.0	54	12.2	73	NW	12	5.4		0	0			0	0		
Quebec, Quebec			29.79	756.7	45	7.2	68	SW	14	6.3		8k	5ks	SW	SW	0	0		
Saugeen, Ontario			30.11	764.8	46	7.8	84	W	4	1.8		0	Sm'e			0	0		
Stayner, Ontario			30.05	763.3	53	11.7	48	NW	5	2.2		0	0			0	0		
Sydney, C. B.			29.71	754.6	58	14.4	94	SW	8	3.6			Fog			0.01	0.3	Light rain	
Toronto, Ontario			29.94	760.5	69	20.6	24	W	12	5.4		Haze	2k		W	0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.04	763.0	56	13.3	62	Calm	0	0		0	Haze			0	0		
Alpena, Mich.			30.05	763.3	54	12.2	54	W	11	4.9		0	0			0	0		
Atlantic City, N. J.			30.15	766.8	60	15.6	55	Calm	0	0		10cs	0	SW		0	0		
Augusta, Ga.			30.06	763.5	77	25.0	82	SE	4	1.8		0	5ks		S	0	0		
Baltimore, Md.			30.17	766.3	62	16.7	41	NE	4	1.8		2c	0	W		0	0		
Barnegat, N. J.			30.13	765.3	63	17.2	46	SW	2	0.9		5c	0	SW		0	0		
Benton, Montana			29.80	756.9	60	15.6	59	W	2	0.9			10s			0	0		
Bismarck, Dakota			29.61	752.1	59	15.0	81	E	9	4.0			10n			0.22	5.6	Light rain	
Boston, Mass.			30.01	762.2	55	12.8	51	NW	10	4.5		0	0			0	0		
Breckenridge, Minn.			29.85	758.2	60	15.6	70	SE	16	7.2			10s			0	0		
Buffalo, N. Y.			30.10	764.5	52	11.1	79	SW	8	3.6		2k	5ks	W	SW	0	0		
Burlington, Vt.			29.95	760.7	56	13.3	69	S	8	3.6		5k	0			0	0		
Cairo, Ill.			30.08	764.0	65	18.3	73	S	8	3.6		5c	0	W		0	0		
Cape Hatteras, N. C.			30.16	766.1	65	18.3	58	NE	13	5.8		8cs	0	NW		0	0		
Cape Henry, Va.			30.17	766.3	66	18.9	74	W	3	1.3		5k	5s			0	0		
Cape May, N. J.			30.16	766.1	59	15.0	48	N	5	2.2		5ck	0	W		0	0		
Charleston, S. C.			30.10	764.5	78	25.6	82	E	8	3.6		5cs	0	E		0	0		
Cheyenne, W. T.			29.96	761.0	64	17.8	26	SW	8	3.6		0	0			0.01	0.3		
Chicago, Ill.			30.08	764.0	50	10.0	72	NE	6	2.7		0	8s			0	0		
Cincinnati, Ohio			30.09	764.3	63	17.2	62	S	3	1.3			10s			0	0		
Cleveland, Ohio			30.12	765.0	55.7	13.2	43	S	8	3.6		0	0			0	0		
Colorado Springs, Col.			29.96	761.0	64	17.8	62	NW	4	1.8		0	2ks			0	0		
Corsicana, Texas			30.08	764.0	70	21.1	79	S	7	3.1		2c	0			0	0		
Davenport, Iowa			30.04	763.0	54	12.2	86	E	8	3.6			10s		S	1.59	40.4		
Denver, Col.			29.99	761.7	66	18.9	36	W	2	0.9		0	0			0	0		
Detroit, Mich.			30.10	764.5	55	12.8	61	N	5	2.2		0	Sm'e			0	0		
Dodge City, Kansas			29.38	746.2	80	26.7	51	W	9	4.0		0	0			0	0		
Dubuque, Iowa			30.06	763.5	53	11.7	93	SE	12	5.4			10s			1.01	25.7		
Duluth, Minn.			30.08	764.0	48	8.9	70	NE	8	3.6		2k	0	N		0	0		
Eastport, Me.			29.85	758.2	53	11.7	60	W	7	3.1		0	0			0.05	1.3		
Erie, Penn.			30.10	764.5	56	13.3	51	S	12	5.4		2k	Haze			0	0		
Escanaba, Mich.			30.12	765.0	50	10.0	78	N	4	1.8		0	0			0	0		
Fort Gibson, I. T.			29.96	761.0	79	26.1	69	S	6	2.7		1cs	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.62	752.3	65	18.3	84	E	16	7.2		5k	0	E		0	0		
Galveston, Texas			30.13	765.3	78	25.6	82	W	7	3.1		0	0			0	0		
Grand Haven, Mich.			30.11	764.8	55	12.8	58	E	4	1.8		0	0			0	0		
Indianapolis, Ind.			30.08	764.0	59	15.0	87	Calm	0	0			10n			0.21	5.3	Light rain	
Indianola, Texas			30.14	765.5	83	28.3	67	S	6	2.7		0	0			0	0		
Jacksonville, Fla.			30.06	763.5	82	27.8	74	SW	4	1.8		8k	0	SW		0	0		
Keokuk, Iowa			29.9	759.4	59	15.0	81	SE	8	3.6		2c	2ks	NW		0.03	0.8		
Key West, Fla.			30.12	765.0	84.5	29.2	57	Calm	0	0		Haze	2s			0	0		
Kittyhawk, N. C.			30.17	766.3	63	17.2	52	Calm	0	0		10k	Haze			0	0		
Knoxville, Tenn.			30.11	764.8	63	17.2	78	Calm	0	0		1k	0	NW		0	0		
La Crosse, Wis.			30.13	765.3	58	14.4	64	SE	8	3.6			10s		SE	0	0		
Leavenworth, Kan.			29.80	756.9	77	25.0	65	S	14	6.3		2k	0	SW		0	0		
Lexington, Ky.			30.16	766.1	61	16.1	61	E	3	1.3		2c	8s			0	0		
Long Branch, N. J.			30.14	765.5	62	16.7	45	NW	8	3.6		2c	0	NW		0	0		
Louisville, Ky.			30.12	765.0	65	18.3	63	N	3	1.3			10s			0	0		
Lynchburg, Va.			30.16	766.1	68	20.0	56	NE	3	1.3		10k	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.12	765.0	48	8.9	70	W	4	1.8		2c	0	NW		0	0		
Memphis, Tenn.			30.09	764.3	74	23.3	63	SE	2	0.9		2c	0			0	0		
Milwaukee, Wisconsin			30.12	765.0	51	10.6	65	E	4	1.8		2cs	0	SW		0	0		
Mobile, Ala.			30.11	764.8	73	22.8	59	NW	5	2.2		2c	0			0.08	2.0		
Montgomery, Ala.			30.12	765.0	75.5	24.2	60	N	4	1.8		2c	Haze			0	0		
Morgantown, W. Virginia			30.15	765.8	59	15.0	58	NE	2	0.9		8c	0	NW		0	0		
Mt. Washington, N. H.			29.90	759.4	24	— 4.4	100	N	54	24.1			Fog			0	0		
Nashville, Tenn.			30.10	764.5	68	20.0	69	Calm	0	0		10k	0	W		0	0		
New Haven, Conn.			30.10	764.5	61	16.1	50	W	6	2.7		2cs	0	NW		0	0		
New London, Conn.			30.10	764.5	59	15.0	48	W	5	2.2		2c	0			0	0		
New Orleans, La.			30.10	764.5	81.5	27.5	61	N	4	1.8		2ck	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.13	765.3	65	18.3	45	W	16	7.2		0	0			0	0		
Norfolk, Va.			30.18	766.6	67	19.4	64	SW	3	1.3		2ck	5s	SW		0	0		
North Platte, Neb.			29.28	743.7	68	20.0	84	Calm	0	0		8c	0	W		0	0		
Omaha, Neb.			29.70	754.4	76	24.4	72	S	9	4.0		2c	0	W		0	0		
Oswego, N. Y.			30.[illegible]8	764.0	50	10.0	50	W	12	5.4			1cks			0	0		
Peck's Beach			30.17	766.3	61	16.1	44	E	4	1.8		8ks	Haze			0	0		
Pembina, D. T.			29.88	758.9	64	17.8	73	SE	12	5.4		2c	0			0	0		
Philadelphia, Penn.			30.17	766.3	58	14.4	42	NW	11	4.9		0	2s		NW	0	0		
Pike's Peak, C. T.			30.09	764.3	30	— 1.1	89	SW	50	22.4		0	Haze			0.05	1.3		
Pittsburgh, Penn.			30.16	766.1	49	9.4	61	N	1	0.4						0	0	Dense smoke	
Port Huron, Mich.			30.14	765.5	50	10.0	71	N	8	3.6		0	0			0	0		
Portland, Maine			29.95	760.7	54	12.2	49	W	12	5.4		0	0			0.04	1.0		
Portland, Or.			29.99	761.7	56	13.3	87	S	8	3.6			10s			0	0		
Punta Rassa, Fla.			30.13	765.3	79.7	26.5	65	N	8	3.6			8s		NE	0	0		
Rochester, N. Y.			30.06	763.5	54	12.2	43	W	12	5.4		0	Haze			0	0		
Salt Lake City, Utah			29.98	761.5	57	13.9	25	S	8	3.6		0	0			0	0		
Sandy Hook, N. J.			30.11	764.8	56	13.3	45	W	17	7.6		2cs	0	W		0	0		
San Diego, Cal.			30.08	764.0	55	12.8	79	NE	8	3.6		0	0			0	0		
San Francisco, Cal.			30.07	763.8	53	11.7	86	Calm	0	0		10cs	Haze			0.06	1.5		
Santa Fe, N. M.			29.89	759.2	60	15.6	44	W	3	1.3		0	0			0.07	1.8		
Savannah, Georgia			30.09	764.3	82	27.8	78	SE	4	1.8		5ck	Sm'e	SE		0	0		
Shreveport, La.			30.10	764.5	80	26.7	70	W	4	1.8		5c	2s	NW		0	0		
Springfield, Mass.			30.06	763.5	56	13.3	56	S	4	1.8		0	0			0	0		
St. Louis, Mo.			30.05	763.3	62	16.7	77	SE	10	4.5		2c	2ks	SW		0.20	5.1		
St. Marks, Fla.			30.04	763.0	75	23.9	72	N	3	1.3		5c	0			0	0		
St. Paul, Minn.			29.89	759.2	58	14.4	69	E	12	5.4		8c	0			0.01	0.3		
St. Paul's Island, Alaska			29.87	758.7	39	3.9	81	E	2	0.9		10cs	...s	E		0	0		
Squan Beach, N. J.			30.13	765.3	59	15.0	38	NW	2	0.9		2c	0	SW		0	0		
Toledo, Ohio			30.10	764.5	59	15.0	54	SW	2	0.9		2c	0	W		0	0		
Tybee Island, Ga.			30.08	764.0	79	26.1	90	E	2	0.9		2k	0	N		0	0		
Vicksburg, Miss.			30.17	766.3	78	25.6	77	SE	8	3.6		5k	0	S		0	0		
Virginia City, Mon.			29.62	752.3	53	11.7	24	S	4	1.8		Haze	2s			0.08	2.0		
Washington, D. C.			30.17	766.3	61	16.1	44	NE	6	2.7			5s		W	0	0		
Wilmington, N. C.			30.13	765.3	72	22.2	71	E	10	4.5		2cs	Haze			0	0		
Wood's Hole, Mass.			30.07	763.8	57	13.9	57	SW	7	3.1		0	0			0	0		
Wytheville, Va.			29.93	760.2	57	13.9	75	W	1	0.4		Haze	0			0	0		
Yankton, D. T.			29.71	754.6	68	20.0	79	E	10	4.5		1cs	0	W		0	0		

NOTE.—The original give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					84	28.9	61	SE	4	1.8		2c	5s	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.01	762.2	81	27.2	70	E				5k	5ks	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.86	758.4	81	27.2	74	NE	6.0	2.7		10ck	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.30	769.6	81	27.2	74	E	7	3.1		2ck	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.87	758.7	79	26.1	74	NW	1.2	0.5		8c	0	N		0	0		Robert Mason.
St. Georges, Bermudas			30.10	764.5	75	23.9	86	SW	1.6	0.7		0	5cs			0.125	3.18		C. F. Allen.
Honolulu, Oahu, H. I.			30.07	763.8	66	18.9	65	NE	12	5.4		5k	5k	NE	NE	0	0		E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.00	762.0	50.0	10.0	86	NE	6	2.7		6ck	0	SW		0.12	3.0		J. Fortescue.
Clifton, Jamaica, W. I.	27.27	692.6	30.09	764.3	66	18.9	90	SSE	0.5	0.2		10c	0	SSE		0.12	3.0		C. Partridge.
St. John's, Newfoundland			30.07	763.8	62.5	16.9	89	SE				5k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.32	770.1	57	13.9	54	E	8	3.6		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.99	736.3			61	16.1	87	E				5ck	Fog	NW		0.60	15.2		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 28° 34', W. 68° 38'	N by E	1	29.93	760.2	70	26.1	91	NW by W			1.5	..c				Smooth			James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 15, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.99	761.8	84.4	29.1		NW			4		1			0	0		Charnot.
Algiers			29.94	760.4	84.2	29.0	53	N			2		4			0	0	Sirocco	Peter.
La Calle			29.92	760.0	85.1	29.5		SW			1		2			0	0		Kuntz.
Tunis			29.91	759.8	93.4	34.1	41	E			4		4			0	0	Threatening	Jacques.
Sfax			30.00	762.1	85.3	29.6		NE			4		5			0	0		Chauvey.
Saida			29.99	761.7	86.9	30.5		NNW			2		9			0.039	1.0	Threatening	Grosjean.
Tebessa			30.00	761.9	88.9	31.6		SW			5		9			0.157	4.0	Threatening	Colin.
Geriville			29.99	761.8	85.1	29.5		S			3		8			0	0	Threatening	Bernadach.
Laghouat			29.98	761.6	87.8	31.0	32	NE			1		4			0.039	1.0	Foggy	Poinsignon.
Biskra			30.01	762.3	83.3	28.5		NW			6		9			0	0	Sand-fall	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.87	758.8	84.2	29.0	43	SW			2		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.7	65.7	18.7	78	NE			2		5			0	0		I. R. Observatory.
Eperies			29.93	760.3	78.8	26.0	64	S			2		3		N	0	0		Julius Mikolik.
Gratz			29.83	757.7	77.7	25.4	74	SSW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.91	759.6	80.2	26.8	48	ENE			1		4			0	0		Prof. Reissenberger.
Kremsmünster			29.73	755.1	79.7	26.5	51	ENE			6		1			0	0		Prof. C. Wagner.
Lemberg			30.28	769.1	79.7	26.5	48	SW			4		3			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.87	758.7	88.5	31.4	48	SW			3		1			0	0		Habzsuda Daniel.
Pola			29.91	759.6	84.9	29.4	46	S			2		2ks			0	0		I. R. Hydrographic Of'ce
Szegedin			29.90	759.4	84.1	28.4	41	Calm			0		0			0	0		Karl Stancel.
Trieste			29.89	759.3	84.2	29.0	52	W			1		3			0	0		Prof. V. Farolfi.
Vienna			29.81	757.2	84.0	28.9	46	S			4		3			0	0		I. R. Central Institute.

NOTE.—The originals give, occasionally, the weather by the Vienna symbols. Not any distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.76	753.3	63.0	17.2	84	WSW			2		10ks		SW	0.138	3.5		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.14	740.1	53.0	11.7		[illegible]	18	8.0			4			0.400	10.16		William Boswell.
Annanhill																			
Ardrossan			29.02	737.1	50	10.0		WNW			2		8						William McNeil.
Armagh Observatory			29.06	738.1	56.9	13.8		WSW	8	3.6			7					Showery	S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bilston, Liverpool Obs.			29.15	740.4	54.7	12.6		SSW			5		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.15	740.4	53.1	11.7		WSW			1		9						J. Dreyer, for L'd Rosse.
Bradford			29.17	740.9	60.0	15.6		S			3		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.04	763.0	84.0	28.9		NE			2		6						T. H Hunt.
Bywell																			
Cambridge Observatory			29.41	747.0	59.9	15.5		SW			4		7					Showery	H. Todd.
Cape Town, (Cape Colony)			30.09	764.3	66.8	19.3		SE			3		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.16	766.1	64.0	17.8	46	SE	9	4.0			2						The Staff, for E. J. Stone.
Cardington			29.40	746.7	66.4	19.1		SW					4						John McLaren.
Carlisle			29.11	739.4	54.8	12.7		SW					10			0.16	4.1		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.50	749.3	61.2	16.2		SW			4		8					Squally	Capt. I Fellowes, R. E.
Colombo, (Ceylon)			29.89	759.2	79.5	26.4		SW			3		10						Sgt. W. F. Hopkins
Dartmoor			29.52	749.8	50.5	10.3		S			8		10					Threatening	R. E. Power.
Donaghadee			29.06	738.1	53	11.7		ESE			4		5						J. Mac Gowan, Jr.
Dover			29.58	751.3	60	15.6		SW			6		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.18	741.1	59.7	15.4		SW	14	6.3			10					Showery	Thomas Mackereth
Falmouth Observatory			29.47	748.5	58.3	14.6		SW	45	20.1			10						The Staff.
Fort Napier, (Natal)			29.98	761.5	50.1	10.1		E			3		6						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.85	758.2	88.0	31.1		N					7						
Galway, Queen's College			29.51	749.5	60	15.6		W			7		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.00	762.0	81.5	27.5		SW			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.02	737.1	51.6	10.9		Calm			0		10					Raining	Lewis Stewart.
Great Yarmouth			29.46	748.3	63	17.2		SSW			6		6						G. T. Watson.
Greenwich Royal Obs.			29.50	749.3	60.4	15.8		S			5		8					Showery	The Staff, for G. B. Airy.
Guernsey			29.62	752.3	59.5	15.3		SW			6		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.19	7 1.4	62.6	17.0		SSW					6					Squally	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.47	748.5	61	16.1		SW			6		10					Sprinkling	Dr. W. B. Moyle.
Holyhead			29.12	739.6	51	10.6		NW			3		5					Raining	John Tilston.
Hull Park																			
Kew Observatory			29.48	748.8	61.4	16.3		SSW	38	17.0			4						The Staff.
Kingstown			29.09	738.9	52	11.1		SSE			4		6					Showery	George Mitchell.
Lampeter																			
Leicester Museum			29.32	744.7	60.6	15.9		S			6		9					Squally	William J. Harrison.
Llandudno			29.10	739.1	56.7	13.7		SW					10					Showery	Dr. James Nicol.
Malta, (Mediterranean)			29.97	761 2	85.2	29.6		SW			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.19	766.8	83.0	28.3		E			1		7						Surg.-Maj. J. Jameson.
North Shields			29.17	740.9	54	12.2		SSW			3		8						John Wm. Irvine.
Nottingham			29.29	744.0	59.6	15.3		S			5		7ks						E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.26	743.2	60.0	15.6		S			6		7						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.39	746.5	58	14.4		SSW			7		10						J. Lucas, for R. Main
Plymouth			29.47	748.5	60	15.6		SW			6		8						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.25	742.9	55	12.8		W			6		8						W. Kennedy.
Saint Ann's Head			29.21	741.9	56	13.3		WSW			7		6						John C. Walker.
Saint Helier, (Jersey)			29.64	752.8	59.8	15.4		W			6		5						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston
Scarborough			29.24	742.7	61.0	16.1		SW			4		9					Raining	F. Shaw.
Scutari, (Turkey)			29.94	760.5	89.2	31.8		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.22	742.2	62.4	16.9		SW			6		5			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.11	739.4	54.3	12.4		SW			6		10			0.290	7.37	Showery	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.44	747.8	63.0	17.2		SSW			3		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.15	740.4	55.7	13.2		SW			3		10						The Staff.
Stornoway, Lews C. (Hebr)																			John Smith.
Strathfield Turgiss			29.51	749.5	59.8	15.4		W			2–3		7						Rev Charles H. Griffith
Streatley Vicarage			29.44	747.8	63.0	17.2		SW			8		6						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.08	738.6	50	10.0		SSE			4		4						John Trotter.
Truro, Royal Institution			29.62	752.3	61	16.1		W			6		5					Raining	W Newcombe.
Valencia Observatory			29.32	744.7	53.9	12.2		WNW	38	17.0			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.57	751.1	60.2	15.7		SW			6		5						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			29.67	753.7	69.1	20.6	64	SW			2		1						
Fanöe			29.58	751.4	64.4	18.0	76	SW			4		9						
Godthaab, (Greenland)			29.94	760.5	40.1	4.5	82	Calm			0		8						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.24	742.8	48.6	9.2	83	NE			7		10					Raining	
Vestervig			29.54	750 4	60.4	15.8	87	SSE			2		10						

Note.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Angoulême			29.80	756.8	58.6	14.8	65	SW			4		8		SW	0.197	5.0		Normal School.
Amiens			29.64	752.9	72.3	22.4	48	WSW			6		8		WSW	0	0		Normal School.
Beaumette, (near Angers)			29.78	756.4	64.9	18.3	47	SW	49.7	22.2			5		SW	0.063	1.6		Beaumette Observatory.
Beauvais			29.73	755.1	69.6	20.9	44	WSW			4		8		SW	0.167	4.25		Normal School.
Besançon			29.91	759.7	75.9	24.4	50	W			3		2		SW	0	0		Normal School.
Bourg en Bresse			29.83	757.6	68.0	20.0	81	NE			1		10		SW	0	0	Raining	Normal School.
Bourges			29.82	757.4	67.8	19.9	66	SW			6		5		E	0	0		Normal School.
Brest			29.65	753.2	62.4	16.9	66	W			6		8		W	0.374	9.50	Threatening	Naval Observatory.
Caen																			Normal School
Chartres			29.78	756.5	67.1	19.5		SW			4		4ck		WSW	0.035	0.9		Normal School.
Clermont			29.89	759.1	68.2	20.1		SW			6		10kn		SW	0	0		Normal School.
Commercy			29.89	759.1	67.5	19.7	72	SSW			2		5		NNE	0	0		Normal School.
Le Mans			29.92	760.0	64.8	18.2	62	SW			4		8		SW	0.177	4.5		Normal School.
Mâcon-Le Saulnier			29.84	758.0	64.6	18.1	55	NW			4		5		W	0.305	7.75	Thunder	Normal School.
Marcoussis			29.86	758.5	73.4	23.0	50	N			4		0			0	0		
Nancy			29.77	756.1	65.5	18.6	70	SSW			2		2		WNW	0	0		Normal School.
Paris Observatory			29.79	756.7	67.3	19.6	53	SW			8		5		W	0	0		Normal School.
Parthenay			29.75	755.6	67.3	19.6		SSW			4		8kn		SW	0	0		National Observatory.
La Roche sur Yon			29.88	758.9	62.6	17	61	SW			6		5		SW	0	0		Normal School.
Rouen			29.89	759.1	65.1	18.4	64	WNW			6		2		E	0.071	1.8		Normal School.
Saint Lo			29.68	753.9	63.3	17.4	61	SSW			2		5		S	0.079	2.0		Normal School.
Villefranche			29.69	754.0	65.3	18.5	67	SW			3		5		SE	0.276	7.0		Normal School.
Gorée, (Senegambia)			29.90	759.5	75.0	23.9	68	E			3		8		NE	0	0		Normal School
Sub-Series.																			
Mont-Louis																			Frère Pascall.
Montsouris Observatory	24.84	630.8			59.9	15.5	92	E	5.2	2.31			8		SW	0.094	2.4		—. Falguère.
Perpignan			29.74	755.3	69.8	21.0	49	SW			3		7c, ck		SW	0.031	0.8		Marié Davy.
Saint Maur, (near Paris)			29.91	759.6	72.5	22.5	76	NW	1.1	0.47			9c, n		W	0	0		Dr. Fines.
Saint Pierre, (Martinique)			29.74	755.5	66.4	19.1	58	SW			4		10			0	0		E. Renou.
Tours																			
Versailles, (near Paris)			29.82	757.4	67.3	19.6	43	WSW			4		8		WSW	0.063	1.6		C. Marquet.
Zi-Ka-Wei, (near Shanghai)			29.74	755.4	65.5	18.6	54	W			6		8		W	0.033	0.83		Dr. A. Bérigny.
			29.65	753.2	73.8	23.2	98	ESE	11.6	5.2			10			{0 0} {0 0}		Misty	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.71	754.6	77.4	25.2	41	SW			4		4			0	0		Prof. Hoh.
Berlin			29.79	756.7	84.4	29.1	32	S			3		4			0	0		Prof. Arndt.
Breslau			29.93	760.3	83.8	28.8	29	NW			4		0			0	0		Dr. P. Neugebauer.
Karlsruhe			29.75	755.7	78.1	25.6	58	SW			1		2			0	0		A. Senz.
Kassel			29.58	751.3	80.6	27.0	30	S			6		1			0	0		Dr. H. Möhl.
Köln																			Dr. Garthe.
Leipzig																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.80	756.9	75.2	24.0	79	W					6			0.071	1.8		M. Wilhelm.
Hamburg			29.67	753.6	73.2	22.9	52	SW			4		3ck		SW	0.043	1.1		W. Reinert.
Kiel			29.67	753.5	69.6	20.9	67	SW			4		4			0	0		Prof. G. Karsten.
Königsberg			29.90	759.5	70.7	21.5	62	W			1					0.134	3.4		Prof. E. Luther.
Halle			29.87	758.7	79.3	26.3		S			4		3			0.076	1.7		Dr. Tägert.
Leipzic			29.79	756.6	85.3	29.6	33	SW			2		3			0	0		Prof. Brahns.
Münster			29.66	753.4	74.7	23.7	58	SW			2		6			0.051	1.3		Prof. E. Heis.
Posen			29.98	761.6	84.7	29.3	33	WSW			3–4		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.77	756.2	83.1	28.4	39	NW					9			1.546	39.28		Hartwig and Tü k.
Stuttgart			29.70	754.3	85.6	29.8	47	W					8			0.543	13.8		Mr. Würth.
Trier			29.86	758.5	80.2	26.8	44	W			3		2			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.75	755.5	63.7	17.6	79	SW			5		10			0.142	3.61		Prof. Plesch.
Wustrow			29.72	754.8	78.4	25.8	41	SSW			3		4			0.059	1.5		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.89	759.1	70.5	21.4	78	NW	1.3	0.6			10	SE		0.020	0.5	Raining	
Mondovi			29.85	758.3	77.4	25.2	49	ESE			2		7	WSW		0	0		
Genoa			29.94	760.5	77.4	25.2	67	SW	6.9	3.1			2	SE		0	0		
Savona			29.89	759.1	80.6	27.0	42	NE			2		1	SW		0	0		
Verona			29.87	758.7	79.3	26.3	55	N			6		10			0	0		
Padua			29.88	759.0	81.7	27.6	47	E	10.5	4.7			3			0	0		
Bologna																			
Ancona			29.95	760.8	82.4	28.0	51	WNW			6		3	S		0	0		
Urbino			29.95	760.7	72.3	22.4	45	W	2.5	1.1			10			0.035	0.9		
Perugia			29.98	761.6	81.3	27.4	42	SW			2		5			0	0		
Rome			29.92	760.0	82.8	28.2	53	SE			4		6			0	0		
Naples, O.U			29.91	759.6	78.1	25.6	42	SSE	3.1	1.4			9	E		0	0		
Naples, S.R			29.95	760.6	87.1	30.6	50	WSW			2		3	SW		0	0		
Lecce			29.97	761.2	84.2	29.0	58	SW			2		3			0	0		
Cosenza			29.99	761.7	84.7	29.3	44	ENE	15.0	6.7			3	E		0	0		
Catania, (Sicily)			29.98	761.4	88.9	31.6	42	SE			1		5			0	0		
Trapani																			
Palermo			29.95	760.6	78.8	26.0	71	ESE			2		2	NE		0	0		
Sub-Series.			29.91	759.6	79.0	26.1	69	E			2		6			0	0		
Naples, S. R.			29.99	761.8	85.5	29.7	54	W			3					0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.65	753.1	62.2	16.8		W			4								
Groningen			29.56	750.9	66.2	19.0		SSW			5								
Helder			29.57	751.1	61.9	16.6		SSW			5								
Utrecht			29.58	751.4	66.7	19.3	70	SW			4		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.37	746.1	57.2	14.0	87	SSE	7.0	3.4			10			0.472	12.0		
Christiania			29.61	752.0	58.5	14.7	73	SSE	2.7	1.2			10			0	0		
Tromsö			29.57	751.0	59.7	15.4	91	Calm			0		0			0	0		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.13	765.4	69.8	21.0	57	NNW	11.2	5.0			9						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.89	759.1	79.2	26.2	39	SSW	4	2			2						Astronomical Obs.
Wilna			29.89	759.2	70.0	21.1	52	W	8	3.5			7						Astronomical Obs.
Dorpat			29.80	756.8	63.1	17.3	59	W	11	5			3						Physical Cabinet.
St. Petersburg			29.73	755.2	58.6	11.8	84	NE	2	1			10					Foggy	Central Physical Obs.
Kuopio			29.69	754.2	70.3	21.3	63	S					2		N	0	0		Physical Cabinet.
Kieff			29.92	760.0	78.1	25.6	32	NW	18	8			5						
Nikolaiev			29.98	761.5	85.5	29.7	35	N	4	2			4						Lagorio.
Kertch			29.94	760.5	78.6	25.9	73	S	8	3.5			3						Meteorological Obs.
Moscow			29.84	758.0	65.3	18.5	72	SW	10	4.5			10						Meteorological Obs.
Lugan			29.73	755.2	88.0	31.1	32	WSW	20	9			6						Ogorodnikof.
Archangel			29.82	757.3	45.7	7.6	91	NW	8	3.5			10					Raining	Physical Obs.
Tiflis			29.87	758.7	86.9	30.5	28	E	10	4.5			3						Sebastianof.
Astrakhan			30.00	762.1	88.3	31.3	38	SE	10	4.5			1						Physical Cabinet.
Kasan			29.85	758.3	69.6	20.9	47	W	10	4.5			3						Tschernischef.
Orenburg			29.95	760.8	75.9	24.9	53	W	8	3.5			1						Meteorological Obs.
Ekaterinburg			29.74	755.5	62.1	16.7	48	W	17	7.5			7						Bobrof.
Kasaly																			Michelson.
Tashkend			29.84	757.8	85.8	29.9	34	Calm	0	0			2						Meteorological Obs.
Barnaul			29.70	754.4	70.2	21.2	53	Calm	0	0			4						Marks.
Yeniseisk			29.58	751.4	78.6	25.9	47	N	8	3.5			1						Usolzef.
Irkutsk			29.61	752.2	58.6	14.8	74	Calm	0	0			8						Mossin.
Oorga			29.65	753.0	49.3	9.6	72	Calm	0	0			7						Physical Observatory.
Peking, (China)			29.68	753.6	68.7	20.4	77	Calm	0	0			9					Raining	Meteorological Obs.
Nertchinsk			29.50	749.2	59.2	15.1	68	NNW	4	2			10						
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor					53.4	11.9	89	SE	10	4.5			5						

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.70	754.4	75.0	23.9	31	W	13.4	6.0		1	1		N	0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.74	755.4	61.2	16.2	65	SSE			2		2			0	0		
Hernosand			29.72	755.0	62.6	17.0	62	E			3		6			0	0		
Stockholm			29.72	754.8	63.9	17.7	56	SSW			1		4			0	0		
Wisby			29.84	758.0	63.3	17.4	63	SW			1		6			0.004	0.1		
Sub-Series.																			
Upsala			29.73	755.1	63.0	17.2	55	SSW			2		8		SSW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.45	722.6			77.9	25.5	44	S			2		2			0	0		The Observatory.
Zurich	28.20	716.3			83.3	28.5	38	W			1		5			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —3.9mm.; Thermometer, +4°.8 C.; Relative Humidity, —12 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.83	757.7	80.4	26.9	69	NW			1		5						Prof. C. N. A. Van Dyck.
Constantinople			30.02	762.5	81.7	27.6	43	ENE	10.1	4.5			0			0	0		
Fao, (Persian Gulf)			29.63	752.5	100.4	38.0		NW			4		0						
Salonica					93.6	34.2		S			2		0						
Valona			29.94	760.5	87.8	31.0		S			2		5						
Varna			30.04	763.0	75.2	24.0		N			3		10					Rain & hail.	

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			29.99	761.7	59	15.0		SW	1	0.4		0	0			0	0		
Chatham, N. B.			29.74	755.4	53	11.6	63	SW	11	4.9		5ck	2ks	SW	SW	0	0		
Charlottetown, P. E. Island			29.84	757.2	54	12.2	72	S	11	4.9		5k	0	S		0	0		
Fort Garry, Manitoba			29.82	757.4	60	15.6	94	Calm	0	0		5k	5ks	S		0	0		
Halifax, N. S.			29.80	756.9	52	11.1	83	SW	13	5.8			5ks		SW	0	0		
Kingston, Ontario			29.85	758.2	54	12.2	78	SW	2	0.9		2c	0			0	0		
Montreal, Quebec			29.86	758.4	55	12.8	70	SW	7	3.1		2cs	2s	NW		0	0		
Ottawa, Ontario			29.83	757.7	59	15.0	48	SW	4	1.8		0	Sm'e			0	0		
Parry Sound, Ontario			29.98	761.5	53	11.7	70	Calm	0	0		0	0			0	0		
Port Dover, Ontario			30.02	762.5	51	10.6	79	Calm	0	0		0	0			0	0		
Port Stanley, Ontario			30.01	762.2	56	13.3	80	E	5	2.2		0	0			0	0		
Quebec, Quebec			29.78	756.4	49	9.4	57	SW	19	8.5			10m		SW	0	0		
Saugeen, Ontario			29.96	761.0	59	15.0	82	Calm	0	0		0	0			0	0		
Stayner, Ontario			29.95	760.7	60	15.6	49	Calm	0	0		0	Haze			0	0		
Sydney, C. B.			29.91	759.7	64	17.8	54	SW	10	4.5		0	0			0	0		
Toronto, Ontario			29.99	761.7	59	15.0	63	W	3	1.3		0	0			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.93	760.2	63	17.2	57	S	1	0.4		5cs	Haze			0	0		
Alpena, Mich.			29.93	760.2	53	11.7	72	W	1	0.4		0	Fog			0	0		
Atlantic City, N. J.			30.02	762.5	66	18.9	78	NW	4	1.8		2k	0	NW		0	0		
Augusta, Ga.			30.01	762.2	75	23.9	77	SE	3	1.3		5c	0	S		0	0		
Baltimore, Md.			30.02	762.5	66	18.9	63	NW	2	0.9		Haze	Sm'e			0	0		
Barnegat, N. J.			30.02	762.5	70	21.1	66	W	3	1.3		0	Haze			0	0		
Benton, Montana			29.91	759.7	56	13.3	62	W	12	5.4		5ck	0	W		0	0		
Bismarck, Dakota			29.64	752.8	56	13.3	51	SE	8	3.6		5k	0	S		0.03	0.8		
Boston, Mass.			29.93	760.2	59	15.0	49	W	8	3.6		0	Sm'e			0	0		
Breckenridge, Minn.			29.79	756.7	62	16.7	88	SE	8	3.6			10s			0.69	17.5		
Buffalo, N. Y.			29.97	761.2	55	12.8	68	SW	8	3.6		0	0			0	0		
Burlington, Vt.			29.89	759.2	59	15.0	70	S	3	1.3		0	2s			0	0		
Cairo, Ill.			29.87	758.7	74	23.3	90	S	4	1.8			8ks		SW	0.10	2.5		
Cape Hatteras, N. C.			30.05	763.3	75	23.9	81	S	10	4.5		5ck	Haze	W		0	0		
Cape Henry, Va.			30.02	762.5	77	25.0	65	SW	6	2.7		5c&k	Haze	W		0	0		
Cape May, N. J.			30.02	762.5	62	16.7	68	SW	4	1.8		2k	0	W		0	0		
Charleston, S. C.			30.04	763.0	80	26.7	82	S	4	1.8		5ck	5s	S	S	0	0		
Cheyenne, W. T.			30.02	762.5	52	11.1	23	NW	8	3.6		0	0			0	0		
Chicago, Ill.			29.81	757.2	56	13.3	93	NE	6	2.7			10n			0.45	11.4	Light rain	
Cincinnati, Ohio			29.81	757.9	66	18.9	83	S	8	3.6			10n			0.01	0.3	Light rain	
Cleveland, Ohio			29.94	760.2	57.8	14.3	53	SE	8	3.6		5c	Sm'e	W		0	0		
Colorado Springs, Col.			30.02	762.5	68	20.0	10	N	6	2.7		0	0			0	0		
Corsicana, Texas			29.98	761.5	72	22.2	85	SW	16	7.2		2k	0	S		0	0		
Davenport, Iowa			29.76	755.9	63	17.2	94	SE	8	3.6			10s		S	0.15	3.8	Threatening	
Denver, Col.			30.05	763.3	58	14.4	21	S	5	2.2		0	0			0	0		
Detroit, Mich.			29.94	760.5	60	15.6	65	E	4	1.8		2c	Haze			0	0		
Dodge City, Kansas			29.34	745.2	72	22.2	46	W	11	4.9		0	0			0	0		
Dubuque, Iowa			29.74	755.4	58	14.4	94	E	10	4.5			10n			0.17	4.3	Drizzling	
Duluth, Minn.			29.90	759.4	49	9.4	71	NE	4	1.8		2ck	2s			0	0		
Eastport, Me.			29.83	757.7	55	12.8	62	S	7	3.1		10ck	0	W		0	0		
Erie, Penn.			29.96	761.0	58	14.4	57	SE	8	3.6		0	Sm'e			0	0		
Escanaba, Mich.			29.93	760.2	54	12.2	68	N	4	1.8		1c	0			0	0		
Fort Gibson, I. T.			29.81	757.2	79	26.1	61	S	12	5.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.75	755.6	64	17.8	83	NE	4	1.8			10s		E	0	0		
Galveston, Texas			30.05	763.3	81	27.2	67	S	6	2.7		0	2ks		S	0	0		
Grand Haven, Mich.			29.88	758.9	61	16.1	77	E	9	4.0			10s		NW	0	0		
Indianapolis, Ind.			29.84	757.9	63	17.2	88	S	4	1.8			10n		S	0.53	13.5	Heavy rain	
Indianola, Texas			30.06	763.5	82	27.8	67	S	10	4.5		2k	0	S		0	0		
Jacksonville, Fla.			30.05	763.3	82	27.8	78	S	8	3.6		0	0			0	0		
Keokuk, Iowa			29.78	756.4	67	19.4	90	NE	14	6.3			10s		NE	2.84	72.1		
Key West, Fla.			30.10	764.5	82.6	28.1	70	SE	5	2.2		5c	2ks	W		0	0		
Kittyhawk, N. C.			30.03	762.7	67	19.4	89	N	5	2.2			10ks		W	0.03	0.8		
Knoxville, Tenn.			29.98	761.5	67	19.4	84	NE	3	1.3			10ks		W	0	0	Threatening	
La Crosse, Wis.			29.82	757.4	58	14.4	94	NE	11	4.9			10n		NE	0.39	9.9	Light rain	
Leavenworth, Kan.			29.65	753.1	76	24.4	64	SW	10	4.5		2c	0	SW		0	0		
Lexington, Ky.			29.94	760.5	65	18.3	89	SW	12	5.4			10n			0.40	10.2	Light rain	
Long Branch, N. J.			30.02	762.5	69	20.6	56	NW	5	2.2		0	Haze			0	0		
Louisville, Ky.			29.88	758.9	67	19.4	84	SE	10	4.5			10s			0.41	10.4		
Lynchburg, Va.			29.99	761.7	71	21.7	64	SW	2	0.9		10c	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.95	760.7	50	10.0	65	SW	4	1.8		5cs	0	NW		0	0		
Memphis, Tenn.			29.94	760.5	78	25.6	73	SW	6	2.7		5cs	0			0	0		
Milwaukee, Wisconsin			29.87	758.7	47	8.3	85	NE	8	3.6			10n			0.02	0.5	Light rain	
Mobile, Ala.			30.05	763.3	80	26.7	78	SW	1	0.4		0	Haze			0	0		
Montgomery, Ala.			30.04	763.0	75	23.9	68	N	1	0.4		0	Haze			0	0		
Morgantown, W. Virginia			29.95	760.7	66	18.9	68	NW	1	0.4		10c	Haze	W		0	0		
Mt. Washington, N. H.			29.95	760.7	29	— 1.1	100	NW	40	17.9			Fog			0.03	0.8		
Nashville, Tenn.			29.89	759.2	77	25.0	72	SW	4	1.8		5k	0	W		0.34	8.6		
New Haven, Conn.			30.00	762.0	66	18.9	49	W	4	1.8		5cs	0	NW		0	0		
New London, Conn.			30.00	762.0	63	17.2	67	SW	2	0.9		2c	2ck	W	SW	0	0		
New Orleans, La.			30.05	763.3	80.5	26.9	72	NW	5	2.2		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.01	762.2	62	16.7	46	N	8	3.6		0	0			0	0		
Norfolk, Va.			30.03	762.7	76	24.4	64	SW	6	2.7		5c	0			0	0		
North Platte, Neb.			29.44	747.8	61	16.1	60	Calm	0	0		0	8ks		W	0	0		
Omaha, Neb.			29.66	753.4	73	22.8	85	NE	10	4.5		10cs	0	SE		0	0		
Oswego, N. Y.			30.00	762.0	54.5	12.5	61	W	12	5.4		Haze	5s			0	0		
Peck's Beach			30.03	762.7	66	18.9	78	W	12	5.4		2k	2s			0	0		
Pembina, D. T.			29.78	756.4	64	17.8	83	SE	4	1.8			10s			0	0		
Philadelphia, Penn.			30.02	762.5	65	18.3	53	E	4	1.8		0	0			0	0		
Pike's Peak, C. T.			30.17	766.3	29	— 1.1	78	W	12	5.4		0	Haze			0	0		
Pittsburgh, Penn.			29.96	761.0	56	13.3	74	NE	1	0.4		2c	Sm'e	NW		0	0		
Port Huron, Mich.			29.96	761.0	57	13.9	69	Calm	0	0			0			0	0		
Portland, Maine			29.89	759.2	58	14.4	53	SW	8	3.6		2c	Haze			0	0		
Portland, Or.			29.86	758.4	59	15.0	82	Calm	0	0			10s			0	0		
Punta Rassa, Fla.			30.12	765.0	79.5	26.4	69	E	3	1.3		10cs	Sm'e			0	0		
Rochester, N. Y.			30.00	762.0	58	14.4	53	W	9	4.0		0	Haze			0	0		
Salt Lake City, Utah			29.98	764.5	59	15.0	43	S	5	2.2		0	0			0	0		
Sandy Hook, N. J.			29.99	761.7	63	17.2	57	N	8	3.6		1c	Haze	W		0	0		
San Diego, Cal.			30.04	763.0	59	15.0	81	NE	4	1.8		0	8ks		NE	0	0		
San Francisco, Cal.			29.81	757.2	59	15.0	82	SE	8	3.6			10s			0	0		
Santa Fe, N. M.			29.84	757.9	65	18.3	2	N	4	1.8		0	0			0	0		
Savannah, Georgia			30.03	762.7	83	28.3	74	S	6	2.7		5ck	Haze			0	0		
Shreveport, La.			30.02	762.5	75	23.9	81	SSW	7	3.1		0	0			0	0		
Springfield, Mass.			29.97	761.2	58	14.4	63	Calm	0	0		10cs	Sm'e			0.005	0.13		
St. Louis, Mo.			29.81	757.2	72	22.2	84	SW	16	7.2			10n			0.34	8.6	Light rain	
St. Marks, Fla.			30.05	763.3	76	24.4	81	Calm	0	0		0	0			0	0		
St. Paul, Minn.			29.73	755.1	59	15.0	87	NE	5	2.2			8s			0.24	6.1		
St. Paul's Island, Alaska			29.90	759.4	39	3.9	81	WSW	7	3.1		8ck	...k	WSW		0.01	0.3	Sprinkling	
Squan Beach, N. J.			30.00	762.0	65	18.3	52	NW	3	1.3		0	0			0	0		
Toledo, Ohio			29.91	759.7	68	20.0	62	E	8	3.6			8s		N	0	0		
Tybee Island, Ga.			30.02	752.5	80	26.7	91	S	14	6.3		8k	0	SW		0	0		
Vicksburg, Miss.			30.08	764.0	85	29.4	58	SW	6	2.7		0	0			0	0		
Virginia City, Mon.			29.74	755.4	46	7.8	68	Calm	0	0		0	0			0.03	0.8		
Washington, D. C.			30.02	762.5	66	18.9	70	Calm	0	0		1cs	2s		NW	0	0		
Wilmington, N. C.			30.09	764.3	67	19.4	90	N	5	2.2			10n			0.05	1.3	Light rain	
Wood's Hole, Mass.			29.99	761.2	63	17.2	67	W	7	3.1		2k	0	W		0	0		
Wytheville, Va.			29.78	756.4	62	16.7	88	Calm	0	0		5k	0	W		0	0		
Yankton, D. T.			29.75	755.6	65	18.5	84	SE	3	1.3			Fog			0	0	Foggy	

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	.....	.....	86	30.0	61	E	7	3.1	.....	0	2ks	.....	.....	0.10	2.5	.....	E. Racker.
Pointe-à Pitre, G'd'loupe, do	.....	.....	30.01	762.2	81	27.2	78	E	.....	.....	.....	0	5ks	.....	.....	0.11	2.8	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.83	757.7	84	28.9	78	SE	4.8	2.1	.....	8ck	0	E	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5ck	2k	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.30	769.6	79	26.1	82	SE	7	3.1	.....	0	2ks	.....	.....	0	0	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.87	758.7	71	21.7	74	NE	1.2	0.5	.....	.....	.....	.....	.....	.....	.....	.....	Robert Mason.
St. Georges, Bermudas	.....	.....	30.06	763.5	75.5	24.2	82	WSW	3.2	1.5	.....	0	8k	.....	.....	0	0	.....	C. F. Allen.
Honolulu, Oahu, H. I.	.....	.....	30.08	764.0	66	18.9	75	NE	13	5.8	.....	5ck	8k, n	NE	.....	Blank	Blank	Threatening	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Macpherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.12	3.0	.....	J. Fortescue
York Factory, B. A.	.....	.....	30.15	765.8	38	3.3	91	NE	12	5.4	.....	0	0	.....	.....	0	0	.....	C. Partridge.
Clifton, Jamaica, W. I.	27.27	692.6	30.05	763.3	72	22.2	85	SSE	2.0	0.9	.....	5c	2k	SSE	.....	0	0	.....	John Delaney.
St. John's, Newfoundland	.....	.....	30.03	762.7	58	14.4	76	W	.....	.....	.....	5k	5s	.....	.....	.....	.....	.....	Leon M. Acuña.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	H. M. Redington.
Elyria, Ohio	.....	.....	30.13	765.3	62	16.7	56	E	8	3.6	.....	0	0	.....	.....	0	0	.....	G. C. Carpenter.
Indianola, Iowa	28.83	732.3	.....	.....	72	22.2	79	SE	.....	.....	.....	0	8s	.....	.....	.....	.....	.....	
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 29° 22′, W. 69° 10′	NNW	4	29.91	759.7	78	25.6	86	W	.....	.....	5	.....	..k	.....	ESE	Rough	.....	Squally	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 16, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.93	760.1	72.5	22.5		NW			3		2			0	0		Charnot.
Algiers			29.93	760.3	75.2	24.0	65	WNW			4		9			0.157	4.0	Sirocco	Peter.
La Calle			29.93	760.3	85.1	29.5		SE			5		7			0.551	14.0	Threatening	Kuntz.
Tunis			29.93	760.2	91.9	33.3	26	ESE			3		8			0	0	Threatening	Jacques.
Sfax			30.00	762.1	86.9	30.5		E			3		3			0	0		Chauvey.
Saïda			29.92	759.9	81.7	27.6		NW			2		6			0.236	6.0	Thunder	Grosjean.
Tebessa			29.99	761.8	84.6	29.2		SW			3		6			0	0		Colin.
Gerfville			29.92	760.0	74.3	23.5		E			5		8			0.039	1.0		Bernadach.
Laghouat			29.91	759.9	80.9	30.5	40	E			2		6			0	0		Poinsignon.
Biskra			29.93	760.1	88.2	31.2		NW			6		2			0	0	Sand-fall	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.85	758.3	83.7	28.7	41	SW			4		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.84	757.8	85.1	29.5	48	WSW			2		3			0	0		I. R. Observatory.
Eperies			29.85	758.1	80.2	26.8	64	SE			3					0	0		Julius Mikolik.
Gratz			29.86	758.4	76.1	24.5	77	NNW			2		5			0	0		Andreas Rospini.
Hermannstadt			29.85	758.1	85.6	29.8	36	SE			3		4			0	0		Prof. Reissenberger.
Kremsmünster			29.85	758.1	71.6	22.0	62	E			2		10			0.110	2.8		Prof. C. Wagner.
Lemberg			29.85	758.3	83.8	28.8	42	SW			3		4			0	0		Dr. T. Stanecki.
Ny'regyhaza			29.93	760.2	64.4	18.0	96	NE			4		10			2.291	58.20	Thunder-storm	Habzsuda Daniel.
Pola			29.91	759.6	81.9	27.7	59	SE			2		4ksn			0	0		I.R. Hydrographic Of'ce
Szegedin			29.86	758.4	82.0	27.8	47	S			2		6			0.110	2.8		Karl Stancel.
Trieste			29.93	760.2	79.2	26.2	48	N			1		4			0	0		Prof. V. Farolfi.
Vienna			29.86	758.5	78.3	25.7	50	SE			1		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.78	756.4	63.0	17.2	63	SW			2		6c, k	SW	SW	0.006	0.15	Sprinkling	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the 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—12.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.29	744.0	58.0	14.4		S	17	7.6			3			0.010	0.25		William Boswell.
Annanhill																			
Ardrossan			29.31	744.5	59	15.0		NW			3		5						William McNeil.
Armagh Observatory			29.43	747.5	52.7	11.5		WNW	9	4.0			10					Showery	S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.42	747.3	57.6	14.2		SW			6		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.54	750.3	56.3	13.5		WNW			1-2		10					Showery	J. Dreyer and J. Mitchell
Bradford			29.41	747.0	58.5	14.7		SW			1		4					Showery	J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.04	763.0	85.0	29.4		NE			4		3						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.59	751.6	59.0	15.0		SW			3		7						H. Todd.
Cape Town, (Cape Colony)			29.86	758.4	64.4	18.0		W			3		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.00	762.0	63.8	17.7	57	W	25	11.2			5						The Staff, for E. J. Stone.
Cardington			29.58	751.3	63.0	17.2		SW					6					Thunder-shower	John McLaren.
Carlisle			29.35	745.5	56.2	13.4		SW					9			0.28	7.1		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.61	752.1	61.8	16.6		WSW			3		6						Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.92	760.0	80.4	26.9		SW			2		10						Sgt. W. F. Hopkins
Dartmoor			29.70	754.4	50.2	10.1		SW			4		7					Showery	R. E. Power.
Donaghadee			29.37	746.0	58	14.4		W			3		6						J. Mac Gowan, Jr.
Dover			29.68	753.9	58	14.4		SW			5		3						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.44	747.8	60.7	15.9		SW	6	2.7			8						G. D. Goldney.
Falmouth Observatory			29.66	753.4	59.3	15.2		WSW	23	10.3			6						Thomas Mackereth
Fort Napier, (Natal)			29.94	760.5	59.4	15.2		E			4		5						The Staff.
Freetown, (Sierra Leone.)			29.84	757.9	82	27.8		E					9						Pvt. G. Salmon.
Galway, Queen's College			29.52	749.8	58	14.4		NW			4		7						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.96	761.0	72.5	22.5		W			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.28	743.7	57.6	14.2		NW			1		9					Threatening	Lewis Stewart.
Great Yarmouth			29.62	752.3	61	16.1		SSW			5		7						G. T. Watson.
Greenwich Royal Obs.			29.63	752.6	63.2	17.3		S			5		5						The Staff, for G. B. Airy.
Guernsey			29.71	754.6	59	15.0		SW			4		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.45	748.0	56.7	13.7		SSW					7					Showery	F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)																			
Helston			29.62	752.3	63	17.2		SW			4		4						Corp'l J. Y. Thompson.
Holyhead			29.46	748.3	55	12.8		WSW			4		5						Dr. W. B. Moyle.
Hull Park																			John Tilston.
Kew Observatory			29.62	752.3	59.7	15.4		S	26	11.6			6						The Staff.
Kingstown			29.45	748.0	56	13.3		WNW			2		7						George Mitchell.
Lampeter																			
Leicester Museum			29.55	750.6	59.0	15.0		SW			3		5						William J. Harrison.
Llandudno			29.44	747.8	56.5	13.6		SW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.92	760.0	88.4	31.3		SE			1		4k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.20	767.1	81.9	27.7		E			1		7						William D. Penny.
North Shields			29.39	746.5	68	20.0		SW			6		9						Surg.-Maj. Henry.
Nottingham			29.53	750.0	58.1	14.5		WNW			4		10d		WNW				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, St. Mary's College			29.51	749.5	53.2	12.8		W			6		9					Threatening	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.57	751.1	55	12.8		S			4		5						J. Lucas, for R. Main
Plymouth			29.65	753.1	60	15.6		SW			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.55	750.6	58	14.4		NW			5		10					Showery	W. Kennedy.
Saint Ann's Head			29.56	750.8	56	13.3		WSW			5		5						John C. Walker.
Saint Helier, (Jersey)			29.72	755.9	61.4	16.3		W			4		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston
Scarborough			29.46	748.3	56.6	13.7		SSW			4		8						F. Shaw.
Scutari, (Turkey)			29.91	759.7	84.0	28.9		NE			2		2						Sergt. W. H. Lyne.
Sheffield			29.45	748.0	61	16.1		SW			4		4					Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.34	745.2	65.3	18.6		SW			6		7			0.075	1.91		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.96	761.0	61.7	16.5		SW			2		3						Rev. C. J. Steward.
Stonyhurst Observatory			29.43	747.5	54.2	12.3		SW			3		10						The Staff.
Stornoway, Lewis C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.62	752.3	61.6	16.4		SW			1-2		5						Rev. Charles H. Griffith
Streatley Vicarage			29.61	752.1	56.0	13.3		WSW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.26	743.2	56	13.3		NNW			2		5						John Trotter.
Truro, Royal Institution			29.62	752.3	61	16.1		W			6		5						W. Newcombe.
Valencia Observatory			29.64	752.8	56.5	13.6		NW	21	9.4			5						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

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.	Force. 0—12.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.83	757.6	66.6	19.2	53	SW			2		5						
Fanöe			29.77	756.2	61.7	16.5	70	SW			4		4						
Godthaab, (Greenland)			29.76	756.0	42.1	5.6	88	SSW			2		10					Raining	
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.56	750.8	42.2	9.0	77	N			6		8						
Vestervig			29.72	754.8	60.1	15.6	85	S			6		5						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.81	757.1	62.6	17.0	58	SW			3		8		SW	0.134	3.4		Normal School.
Amiens			29.69	754.1	68.7	20.4	58	WSW			2		8		WSW	0.016	0.4		Normal School.
Beaumette, (near Angers)			29.77	756.1	61.9	16.6	96	SW	12.5	5.6			10		SW	0.087	2.2	Raining	Beaumette Observatory.
Beauvais			29.81	757.1	66.6	19.2	60	SSW			2		8		SW	0	0		Normal School.
Besançon			29.95	760.8	71.6	22	63	ESE			3		0			0.402	10.2		Normal School.
Bourg en Bresse			29.87	758.7	71.4	21.9	65	S			2		8		NNW	0.598	15.2		Normal School.
Brest			29.84	758.0	71.4	21.9	62	WSW			2		5		NE	0.071	1.8		Normal School.
Caen			29.69	754.0	64.9	18.3	63	WSW			3		5k		W	0.197	5.00		Naval Observatory.
Chartres																			Normal School
Chaumont			29.81	757.2	66.9	19.4		SW			6		8ek		SW	0	0		Normal School.
Commercy			29.94	760.2	66.6	19.2		S			2		10ks		S	0.020	0.50		Normal School.
Le Mans			29.95	760.8	66.2	19.0	53	SW			2		5			0.226	5.75		Normal School.
Lons-Le Saulnier			29.94	760.5	63.7	17.6	67	SW			4		8		SW	0.177	4.5		Normal School.
Mâcon			29.85	758.1	64.9	18.3	75	NNE			1		5			0.413	35.9		Normal School.
Mirecourt			29.91	759.8	68.7	20.4	71	N			4		5		S	0.283	7.2		
Orléans			29.84	757.9	66.7	19.3	54	SSW			2		2		NNW	0	0		Normal School.
Paris Observatory			29.86	758.5	65.5	18.6	63	SW			4		8		SW	0.016	0.4		Normal School.
Parthenay			29.89	757.9	62.8	17.1		SW			3		10k, n			0.019	0.49	Raining	National Observatory.
La Roche sur Yon			29.88	758.9	60.8	16	78	SW			4		5		SW	0.335	8.5		Normal School.
Rouen			29.83	757.6	60.4	15.8	64	WNW			4		8		ENE	0.146	3.7		Normal School.
Saint Lo			29.76	755.9	62.2	16.8	66				2		5		S	0.079	2.0		Normal School.
Villefranche			29.74	755.5	61.7	16.5	72	W			2		5		W	0.059	1.5		Normal School.
			29.92	760.0	71.2	21.8	69	NE			3		8		S	1.843	46.80		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.14	638.5			66.5	17.6	54	SSW	7.3	3.25			4		SSW	0	0		—. Falguère.
Montsouris Observatory			29.80	756.9	60.6	15.9	79	SW			3		10k, n		WSW	0.024	0.6	Sprinkling	Marié Davy.
Perpignan			29.79	756.7	77.0	25.0	75	NE	3.6	1.62			5k		W	0	0		Dr. Fines.
Saint Maur. (near Paris)			29.80	756.8	68.2	20.1	55	SW			2		9			0.185	4.7		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.83	757.6	64.8	18.2	49	SW			3		10		WSW	0	0		C. Marquet.
Versailles, (near Paris)			29.81	757.1	64.8	18.2	55	SW			4		10			0.017	0.43		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.54	750.4	79.0	26.1	91	SSE	6.9	3.1			10kn		S	1.996 1.984	48.4 50.4	Misty	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.81	757.2	69.8	21.0	58	SW			3		3			0.630	16.0		Prof. Hoh.
Berlin			29.96	760.9	73.4	23.0	43	S			5		4			0.185	4.7		Prof. Arndt.
Breslau			29.99	761.8	71.2	21.8	66	NW			4		7			0	0		Dr. P. Neugebauer.
Carlsruhe			29.87	758.6	70.9	21.6	52	E			2		1			0.772	19.6		A. Senz.
Cassel			29.72	754.9	71.8	22.1	39	S			2		2			0.178	4.52		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.95	760.6	66.2	19.0	72	W					5			0	0		M. Wilhelm.
Hamburg			29.85	758.1	67.6	19.8	52	SW			4		6k		SW	0.024	0.6		W. Reinert.
Kiel			29.76	756.0	66.7	19.3	54	SW			3		5			0.133	3.38		Prof. G. Karsten.
Konigsberg			29.82	757.5	79.9	26.3	62	W			2					0	0		Prof. E. Luther.
Koslin			30.09	764.2	65.8	18.8		NW			4		4			0	0		Dr. Tägert.
Leipsic			29.92	759.9	74.5	23.6	48	SSW			2		6			0.079	2.0		Prof. Bruhns.
Münster			29.84	757.8	68.5	20.3	50	SE			1		0			0.071	1.8		Prof. E. Heis.
Posen			29.96	760.9	74.5	23.6	60	NW			6–7		9			0.004	0.1		Dr. Magener.
Strassburg, (in Alsace)			29.87	758.7	71.8	22.1	52	S					2			0	0		Hartwig and Tü k.
Stuttgart			29.85	758.3	74.3	23.5	50	SW					4			0	0		Mr. Würth.
Thorn			29.83	757.6	77.9	25.5	55	W			5		4			0	0		Dr. Hesenbalg.
Treves, (Trier)			29.81	757.2	69.4	20.8	43	SW			7		4			0.200	5.08		Prof. Flesch.
Wusirow			29.90	759.5	65.8	18.8	63	WSW			2		4			0.122	3.1		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.89	759.3	77.9	25.5	49	ESE	1.8	0.8			7	W		0.039	1.0		
Mondovi			29.89	759.1	71.4	21.9	64	NNW			4		6	SW		0	0		
Genoa			29.93	760.1	77.4	25.2	67	S	6.3	2.8			0			0	0		
Pavia			29.90	759.5	78.1	25.6	50	NE			1		4	S		0	0		
Verona			29.88	758.9	82.0	27.8	47	E			2		0			0	0		
Padua			29.88	758.9	80.1	26.7	44	SW	3.1	1.4			3			0	0		
Parma																			
Bologna			29.90	759.5	79.7	26.5	58	NNW			4		2	W		0	0		
Leghorn			29.90	759.5	80.6	27.0	41	S	6.9	3.1			3			0	0		
Urbino			29.97	761.2	81.5	27.5	33	SW			2		4			0	0		
Ancona			29.91	759.8	81.5	27.5	54	SE			2		1			0	0		
Siena			29.90	759.4	85.5	29.7	37	SSW	1.3	0.6			6	SW		0	0		
Rome			29.94	760.4	86.9	30.5	43	SSW			4		1			0	0		
Naples, O.U.			29.97	761.2	84.0	28.9	43	SW			2		1			0	0		
Lecce			29.94	760.4	84.7	29.3	52	NNW	11.9	5.3			4	N		0	0		
Cosenza			29.92	759.9	91.4	33.0	31	SW			2		4	ENE		0	0		
Catania, (Sicily)																			
Trapesto			29.95	760.7	82.2	27.9	60	SW			2		3	E		0	0		
Palermo			29.89	759.1	82.6	28.1	52	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.			30.02	762.4	83.3	28.5	45	SW			1					0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.87	755.8	64.4	18.0		SSW			5								
Groningen			29.72	754.9	64.4	18.0		SSW			5								
Helder			29.72	754.8	63.3	17.4		SSW			4								
Utrecht			29.72	754.8	67.1	19.5	55	SSW			4		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.45	748.0	57.6	14.2	76	S	18.3	8.2			7			0.636	16.0		
Christiania			29.66	753.3	62.4	16.9	66	SSE	18.8	8.4			7			0.248	6.3		
Tromsö			29.54	750.4	62.8	17.1	99	S			6		10			0	0	Raining	

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.06	763.4	64.8	18.2	50	NNW	17.4	7.8			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.81	757.2	85.6	29.8	33	SE	9	4			9						Astronomical Obs.
Wilna			29.94	760.4	79.5	26.4	42	SE	2	1			4						Astronomical Obs.
Dorpat			30.00	761.9	71.6	22.0	50	SSE	2	1			0						Physical Cabinet.
St. Petersburg			30.00	762.0	52.8	17.1	79	WNW	2	1			1						Central Physical Obs.
Kuopio			29.87	758.7	67.3	19.6	63	SSE					5		NW	0	0		
Kieff			30.00	761.9	77.4	25.2	46	N	7	3			3					Smoke-haze.	Physical Cabinet.
Nikolaiev			29.98	761.4	86.9	30.5	31	W	4	2			2						
Kertch			29.95	760.8	85.1	29.5	46	NNE	4	2			1						Lagorio.
Moscow			29.93	760.1	68.4	20.2	50	NW	8	3.5			5						Meteorological Obs.
Lugan			29.76	755.8	82.4	28.0	31	NW	13	6			5						Meteorological Obs.
Archangel			30.04	763.0	53.1	11.7	80	NW	17	7.5			0						Ogorodnikof.
Tiflis			29.76	755.9	85.6	29.8	35	NE	10	4.5			8						Physical Obs.
Astrakhan			29.79	756.6	85.3	29.6	40	WNW	4	2			9					Raining	Sebastianof.
Kasan			29.63	752.7	56.5	13.6	88	N	4	2			10					Raining	Physical Cabinet.
Orenburg			29.59	751.6	73.4	23.0	90	Calm	0	0			10						Tschernischef.
Ekaterinburg			29.65	753.1	70.4	21.3	41	S	4	2			7						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.76	755.8	86.5	30.3	38	Calm	0	0			0						Michelson.
Barnaul			29.78	756.3	68.4	20.2	58	Calm	0	0			2						Meteorological Obs.
Yeniseisk			29.56	750.9	74.7	23.7	66	S	10	4.5			6						Marks.
Irkutsk			29.67	753.5	62.6	17.0	75	Calm	0	0			10						Usolzef.
Oorga			29.82	757.3	47.5	8.6	68	Calm	0	0			1						Mossin.
Peking, (China)			29.58	751.3	76.5	24.7	64	Calm	0	0			4						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.72	755.0	77.0	25.0	30	SW	17.4	7.8		2	4	SW		0	0	Light rain	Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.74	755.3	55.4	13.0	87	S			2		10			0.21	5.4		
Hernosand			29.66	753.3	48.2	9.0	95	SSW			3		10			0.33	8.3	Rain & fog	
Stockholm			29.76	755.8	65.5	18.6	79	SW			2		8			0.004	0.1		
Visby			29.78	756.3	60.1	15.6	91	W			2		10			0.11	2.9		
Sub-Series.																			
Upsala			29.76	755.8	66.9	19.4	69	SSW			4		8	SSW	SW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.45	722.7			68.4	20.2	57	NNE			2		8			0.457	11.6		The Observatory.
Zurich	28.25	718.6			73.9	23.3	73	SE			1		3			0.252	6.4		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —3.9mm.; Thermometer, —0°.6 C.; Relative Humidity, +2 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.77	756.2	85.8	29.9	64	W			2		0						Prof. C. N. A. Van Dyck.
Constantinople			29.98	761.6	78.4	25.8	58	ENE	14.5	6.5			0			0	0		
Fao, (Persian Gulf)			29.63	752.5	100.4	38.0		NW			4		0						
Salonica					94.1	34.5		S			2		0						
Valona			29.95	760.8	88.2	31.2		SW			2		2						
Varna			30.00	762.0	89.6	32.0		NE			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.96	761.0	59	15.0		Calm	0	0		2c	Sm'c	W		0	0		
Chatham, N. B.			29.75	755.6	55	12.8	62	SW	4	1.8		8ck	0	W		0	0		
Charlottetown, P. E. Island			29.77	756.1	55	12.8	72	S	8	3.6			8ks			0.020	0.51		
Fort Garry, Manitoba			29.86	758.4	60	15.6	100	E	8	3.6		5k	5ks			0.033	0.84		
Halifax, N. S.			29.70	754.4	55	12.8	85	S	7	3.1		2k	0	SW		0	0		
Kingston, Ontario			29.96	761.0	60	15.6	68	W	4	1.8		5c	Sm'c	W		0	0		
Montreal, Quebec			29.89	759.2	57	13.9	67	W	2	0.9		Haze	Haze			0	0		
Ottawa, Ontario			29.92	760.0	59	15.0	51	SW	8	3.6		0	Sm'c			0	0		
Parry Sound, Ontario			29.96	761.0	58	14.4	58	NE	3	1.3		2ck	2ks	W	W	0	0		
Port Dover, Ontario			29.93	760.2	60	15.6	55	N	7	3.1		10ck	0	NW		0	0		
Port Stanley, Ontario			29.94	760.5	57	13.9	69	N	1	0.4		2k	0	N		0	0		
Quebec, Quebec			29.85	758.2	54	12.2	55	SW	7	3.1		2k	0	SW		0	0		
Saugeen, Ontario			29.95	760.7	54	12.2	74	Calm	0	0		8cs	0			0	0		
Stayner, Ontario			29.93	760.2	59	15.0	56	N	5	2.2		5c	0			0	0		
Sydney, C. B.			29.81	757.2	60	15.6	65	SW	7	3.1		10k	2ks	W	W	0	0		
Toronto, Ontario			29.94	760.5	60	15.6	56	W	2	0.9		5cs	2s	NW		0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.87	758.7	64	17.8	67	Calm	0	0		2cs	Haze	SW		0	0		
Alpena, Mich.			29.92	760.0	60	15.6	54	N	2	0.9		2c	Sm'e			0	0		
Atlantic City, N. J.			29.87	758.7	63	17.2	94	SE	2	0.9			10s		SE	0	0		
Augusta, Ga.			29.94	760.5	83	28.3	53	W	4	1.8		0	0			0	0		
Baltimore, Md.			29.84	758.9	68	20.0	69	N	2	0.9		5ck	5s	W	W	0	0		
Barnegat, N. J.			29.89	759.2	62	16.7	94	E	2	0.9			8s			0	0		
Benton, Montana			29.95	760.7	58	14.4	87	Calm	0	0			10s			0	0		
Bismarck, Dakota			29.63	752.6	63	17.2	57	NE	3	1.3		5k	0	N		0.26	6.6		
Boston, Mass.			29.85	758.2	62	16.7	51	W	6	2.7		0	Sm'e			0	0		
Breckenridge, Minn.			29.79	756.7	67	19.4	90	S	10	4.5		2k	0	S		0	0		
Buffalo, N. Y.			29.90	759.4	57	13.9	46	SE	4	1.8		8cs	Haze	NW		0	0		
Burlington, Vt.			29.89	759.2	57	13.9	69	N	5	2.2		0	2s			0	0		
Cairo, Ill.			29.91	759.7	75	23.9	76	Calm	0	0		8cs	0	W		0.14	3.6		
Cape Hatteras, N. C.			29.83	757.7	72	22.2	85	SW	24	10.7		5ck	5ks		W	0.24	6.1		
Cape Henry, Va.			29.77	756.1	71	21.7	90	W	12	5.4			10s		W	0.23	5.8		
Cape May, N. J.			29.86	758.4	64	17.8	88	E	4	1.8			10s			0.15	3.8		
Charleston, S. C.			29.97	761.2	80	26.7	61	W	12	5.4		2cs	Haze			0	0		
Cheyenne, W. T.			30.00	762.0	62	16.7	29	W	8	3.6		0	0			0	0		
Chicago, Ill.			29.93	760.2	54	12.2	87	NE	5	2.2			10s			0.35	8.9		
Cincinnati, Ohio			29.86	758.4	68	20.0	79	SW	2	0.9			10s			0.93	23.6		
Cleveland, Ohio			29.88	758.9	63.5	17.5	73	N	5	2.2		2ck	Sm'e	W		0	0		
Colorado Springs, Col.			29.98	761.5	65	18.3	35	N	3	1.3		0	0			0	0		
Corsicana, Texas			30.00	762.0	73	22.8	85	SW	12	5.4		0	0			0	0		
Davenport, Iowa			29.90	759.4	64	17.8	89	E	4	1.8			10s			0	0		
Denver, Col.			30.02	762.5	58	14.4	32	S	3	1.3		0	0			0	0		
Detroit, Mich.			29.91	759.7	64	17.8	67	NW	4	1.8		2c	Haze			0	0		
Dodge City, Kansas			29.35	745.5	78	25.6	65	W	3	1.3		2k	0			0	0		
Dubuque, Iowa			29.92	760.0	64	17.8	89	E	4	1.8			10s			0	0		
Duluth, Minn.			29.94	760.5	52	11.1	66	NE	8	3.6		8ck	Haze			0	0		
Eastport, Me.			29.77	756.1	56	13.3	62	S	3	1.3		2k	Haze	W		0	0		
Erie, Penn.			29.87	758.7	63	17.2	57	E	4	1.8		8ck	Haze			0	0		
Escanaba, Mich.			29.96	761.0	56	13.3	62	N	8	3.6		0	0			0	0		
Fort Gibson, I. T.			29.87	758.7	79	26.1	69	S	5	2.2		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.63	752.6	70	21.1	85	SE	16	7.2			10s		SE	0	0		
Galveston, Texas			30.06	763.5	82	27.8	67	SW	8	3.6		2k	0	SW		0	0		
Grand Haven, Mich.			29.93	760.2	60	21.1	70	W	2	0.9		0	Haze			0	0		
Indianapolis, Ind.			29.88	758.9	66	18.9	94	N	6	2.7			10s		N	0.03	0.8		
Indianola, Texas			30.05	763.3	82	27.8	70	S	6	2.7		5k	0	S		0	0		
Jacksonville, Fla.			30.07	763.8	84	28.9	67	W	8	3.6		2k	0	W		0	0		
Keokuk, Iowa			29.80	756.9	67	19.4	90	E	12	5.4		8ck	0	W		0	0		
Key West, Fla.			30.11	764.8	83.4	28.1	67	E	4	1.8		2k	2ks	E		0	0		
Kittyhawk, N. C.			29.80	756.9	71	21.7	85	SW	16	7.2		0	8ks		W	0.29	7.4	Clearing	
Knoxville, Tenn.			29.92	760.0	72	22.2	80	SW	4	1.8		1k	0			0.23	5.8		
La Crosse, Wis.			29.91	759.7	63	17.2	88	SE	7	3.1			Fog			0.01	0.3	Foggy	
Leavenworth, Kan.			29.76	755.9	80	26.7	65	SE	2	0.9		2cs	0	W		0	0		
Lexington, Ky.			29.90	759.4	72	22.2	80	W	4	1.8			10s			0.32	8.1		
Long Branch, N. J.			29.89	759.2	63	17.2	88		1	0.4		5c	0	W		0	0		
Louisville, Ky.			29.87	758.7	71	21.7	71	Calm	0	0			10s			0.04	1.0		
Lynchburg, Va.			29.86	758.4	67	19.4	84	N	4	1.8			10s		N	0.18	4.6		
Malone, N. Y.																			
Marquette, Mich.			29.98	761.5	48	8.9	70	N	4	1.8		5cs	0	NW		0	0		
Memphis, Tenn.			29.98	761.5	79	26.1	69	SW	8	3.6		2c	0			0	0		
Milwaukee, Wisconsin			29.94	760.5	55	12.8	87	E	5	2.2			Fog			0.43	10.9	Foggy	
Mobile, Ala.			30.10	764.5	79	26.1	78	W	8	3.6		0	0			0	0		
Montgomery, Ala.			30.06	763.5	80	26.7	64	W	8	3.6		2c	Haze			0	0		
Morgantown, W. Virginia			29.88	758.9	61	16.1	94	Calm	0	0			10n			0.28	7.1	Light rain	
Mt. Washington, N. H.			29.98	761.5	32	0.0	70	NW	38	17.0		0	5s		NW	0	0		
Nashville, Tenn.			29.88	758.9	82	27.8	59	W	6	2.7		1c	0	S		0	0		
New Haven, Conn.			29.90	759.4	69	20.6	52	Calm	0	0		2c	0	NW		0	0		
New London, Conn.			29.90	759.4	66	18.9	64	N	2	0.9		1c	Haze	W		0	0		
New Orleans, La.			30.09	764.3	80	26.7	74	W	6	2.7		1k	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.89	759.2	65	18.3	73	N	1	0.4		5c	Fog	W		0	0		
Norfolk, Va.			29.78	756.1	73	22.8	81	W	12	5.4			10s		W	0.15	3.8		
North Platte, Neb.			29.41	747.0	65	18.3	94	Calm	0	0			Fog			0	0	Foggy	
Omaha, Neb.			29.74	755.4	75	23.9	76	E	8	3.6		5c	0	W		0.01	0.3		
Oswego, N. Y.			29.92	760.0	55	12.8	59	W	10	4.5		5cs	5s	NW		0	0		
Peck's Beach			29.89	759.2	62	16.7	94	E	4	1.8			10n			Blank	Blank	Light rain	
Pembina, D. T.			29.80	756.9	61	16.1	79	SE	8	3.6		2k	5s			0.86	21.8		
Philadelphia, Penn.			29.89	759.2	66	18.9	74	E	7	3.1		2c	2s	W	E	0	0		
Pike's Peak, C. T.			30.29	767.1	33	0.6	69	Calm	0	0		0	Haze			0	0		
Pittsburgh, Penn.			29.86	758.4	63	17.2	67	Calm	0	0						0	0	Dense smoke	
Port Huron, Mich.			29.94	762.5	57	13.9	63	Calm	0	0		5c	Haze			0	0		
Portland, Maine			29.83	757.7	61	16.1	50	W	10	4.5		0	Haze			0	0		
Portland, Or.			29.87	758.7	59	15.0	87	Calm	0	0			10n			0.20	5.1	Light rain	
Punta Rassa, Fla.			30.13	765.3	79.2	26.2	82	NE	4	1.8			10s		SE	0	0		
Rochester, N. Y.			29.89	759.2	62	16.7	50	NW	3	1.3		8c	Haze	W		0	0		
Salt Lake City, Utah			29.88	758.9	68	20.0	42	NW	4	1.8		0	0			0	0		
Sandy Hook, N. J.			29.89	759.2	63	17.2	88	E	5	2.2		5cs	2s	W		0	0		
San Diego, Cal.			30.07	763.8	58	14.4	81	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			29.93	760.2	57	13.9	81	SE	10	4.5			10s			0.90	22.9		
Santa Fe, N. M.			29.86	758.4	62	16.7	36	W	8	3.6		0	0			0	0		
Savannah, Georgia			29.99	761.7	81	27.2	67	SW	11	4.9		2c	0			0	0		
Shreveport, La.			30.06	763.5	77	25.0	82	SW	4	1.8		2k	0	SW		0	0		
Springfield, Mass.			29.89	759.2	62	16.7	56	Calm	0	0		3cks	Sm'e			0	0		
St. Louis, Mo.			29.90	759.4	73	22.8	90	SE	4	1.8			10n			0.78	19.8	Light rain	
St. Marks, Fla.			30.08	764.0	78	25.6	90	SW	6	2.7		0	0			0	0		
St. Paul, Minn.			29.81	757.2	64	17.8	88	SE	8	3.6		5c	5s	SW	SE	0	0		
St. Paul's Island, Alaska			29.93	760.2	41	5.0	82	SW	10	4.5		8cs	8s	SW		0.13	3.3		
Squan Beach, N. J.			29.89	759.2	60	15.6	94	Calm	0	0		5cs	2s			0	0		
Toledo, Ohio			29.91	759.7	60	15.6	88	N	1	0.4			10s			0.20	5.1		
Tybee Island, Ga.			29.98	761.5	81	27.2	70	W	6	2.7		Haze	0			0	0		
Vicksburg, Miss.			30.18	766.6	83	28.3	59	SW	8	3.6		0	0			0	0		
Virginia City, Mon.			29.64	752.8	54	12.2	49	E	20	8.9		0	0			0	0		
Washington, D. C.			29.88	758.9	64.5	18.1	83	NW	4	1.8		2ck	5s		NE	0.07	1.8		
Wilmington, N. C.			29.89	759.2	74	23.3	90	SW	9	4.0		2ck	5ks		W	0.82	2.8		
Wood's Hole, Mass.			29.91	759.7	63	17.2	67	Calm	0	0		0	Sm'e			0	0		
Wytheville, Va.			29.64	752.8	68	20.0	84	W	3	1.3		10k	0	W		0.44	11.2		
Yankton, D. T.			29.79	756.7	74	23.3	77	SE	3	1.3		5c	0	W		0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					85	29.4	64	NE	6	2.7		5c	5ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.03	762.7	82	27.8	74	E				0	5k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.83	757.7	83	28.3	78	E	6.0	2.7		5c	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.30	769.6	80	26.7	78	SE	9	4.0		5ck	2kn	SE		0.06	1.5		W. S. Cameron.
Santiago de Cuba, W. I.			29.88	758.9	81	27.2	74	N	4.8	2.1		0	2s			0	0		Robert Mason.
St. Georges, Bermudas			30.08	764.0	75.5	24.2	86	SW	5.8	2.6		0	8cs			0.075	1.8		C. F. Allen.
Honolulu, Oahu, H. I.			30.08	764.0	65	18.3	68	NE	13	5.8		8ck	5cs	NE		0	0	Threatening	E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.27	768.8	35.5	1.9	70	E	8	3.6		8k	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.07	763.8	72	22.2	85	SSE	2.0	0.9		2c	5k	SSE		0	0		C. Partridge.
St. John's, Newfoundland			30.00	762.0	63	17.2	40	W				Sm'e	Sm'e			0.02	0.5		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.11	764.8	64	17.8	67	N	4	1.8			2c			0.03	0.8		H. M. Redington.
Indianola, Iowa	28.78	731.0			76	24.4	85	E				2c	Fog	S		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 30° 02', W. 69° 38'	NW	5	29.94	760.5	79	26.1	86	WSW			5	..c		ESE		Short sea.		Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 17, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.97	761.2	75.4	24.1		SE			4		2			0	0		Charnot.
Algiers			29.86	758.4	75.9	24.4	67	N			2		6			0.098	2.5		Peter.
La Calle			29.94	760.4	93.6	34.2		S			6		6			0	0	Sirocco	Kuntz.
Tunis			29.90	759.5	94.1	34.5	20	SE			4		3			0.083	2.1	Sirocco	Jacques.
Sfax			29.97	761.2	82.8	28.2		NE			5		2			0	0		Chauvey.
Sarda			29.92	760.0	73.6	23.1		NNW			1		6			0	0		Grosjean.
Tebessa			29.91	759.7	86.0	30.0		S			6		6			0	0	Sirocco	Colin.
Gerlville			29.84	758.0	77.2	25.1		SE			5		2			0	0		Bernadach.
Laghouat			29.85	758.2	98.6	37.0	36	SW			4		3			0	0	Sirocc	Poinsignon.
Biskra			29.84	758.0	99.7	37.6		E			6		9			0	0	S nd-storm	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.86	758.5	83.1	28.4	44	NW			2		10			0.028	0.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.86	758.5	82.4	28.0	52	NE			2		6			0	0		I. R. Observatory.
Eperies			29.89	759.3	79.0	26.6	65	S			2					0	0		Julius Mikolik.
Gratz			29.80	757.0	77.0	25.0	78	NW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.87	758.8	82.0	28.1	37	SE			2		2			0	0		Prof. Reissenberger.
Kremsmünster			29.73	755.2	78.4	25.8	50	ENE			2		8			0	0		Prof. C. Wagner.
Lemberg			29.86	758.4	82.8	28.2	49	N			2		3			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.89	759.2	83.5	28.6	52	NE			1		3			0	0		*Habzsuda Daniel.*
Pola			29.89	759.1	76.5	24.7	78	SE			3		10ks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.86	758.5	83.1	28.4	47	S			2		4			0	0		Karl Stancel.
Trieste			29.93	760.2	77.7	25.4	62	E			1		10			0.110	2.8		Prof. V. Farolfi.
Vienna			29.78	756.4	79.7	26.5	45	S			3		5			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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.86	758.4	63.1	17.3	67	W			1		10ks		W	0.087	2.20	Clearing	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.89	757.7	55.0	12.8		NW	18	8.0			5			0.190	4.83		William Boswell.
Annanhill																			
Ardrossan			29.84	757.9	60	15.6		NW			3		4						William McNeil.
Armagh Observatory			29.93	760.2	55.0	12.8		NNW	8	3.6			9						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.82	757.4	57.8	14.3		W			2		3						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.97	761.2	58	14.4		NW			1		8						J. Dreyer and I. Mitchell
Bradford			29.82	757.4	58.9	14.9		SW			1		5						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.05	763.3	84.6	29.2		NE			5		7					Rainy	T. H. Hunt.
Bywell																			
Cambridge Observatory			29.91	757.2	66	18.9		S			1		10						H. Todd.
Cape Town, (Cape Colony)			30.08	764.0	59.8	15.4		W			4		3						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.14	765.5	60.6	15.9	66	WNW	16	7.2			2						The Staff, for E. J. Stone.
Cardington			29.84	757.9	68	20.0		SW					8			Blank	Blank		John McLaren.
Carlisle			29.78	756.4	58.3	14.6		N					7			0.01	0.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.80	756.9	68	20.0		WSW			1		5						Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.92	760.0	79.2	26.2		SW			2		10						Sgt. W. F. Hopkins
Dartmoor			29.92	760.0	52.8	11.6		NW			2		9						R. E. Power.
Donaghadee			29.98	761.5	58	14.4		NNW			4		2						J. Mac Gowan, Jr.
Dover			29.85	758.2	61	16.1		SW			2		2						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.79	756.7	62.3	16.8		SW	4.6	2.1			10						G. D. Goldney.
Falmouth Observatory			29.89	759.2	56.9	13.8		NW	22	9.8			5						Thomas Mackereth.
Fort Napier, (Natal)			29.98	761.5	64.2	17.9		NE			3		2						The Staff.
Freetown, (Sierra Leone.)			29.89	759.2	78	25.6		Calm					10						Pvt. G. Salmon.
Galway, Queen's College			29.62	752.3	61	16.1		NW			3		4						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.95	760.7	74	23.3		W			4		0						Sergt. E. G. Baker.
Glasgow Observatory			29.81	757.2	58.3	14.6		S			1		9					Misty	Lewis Stewart.
Great Yarmouth			29.82	757.4	59	15.0		SSE			3		3						G. T. Watson.
Greenwich Royal Obs.			29.85	757.4	64	17.8		SW			1		8						The Staff, for G. B. Airy.
Guernsey			29.84	757.9	56.5	13.6		WNW			1		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.81	757.2	60.6	15.9		NNE					9					Threatening	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			29.89	758.4	63	17.2		NW			4		4						Dr. W. B. Moyle.
Holyhead			29.89	759.2	56	13.3		NNW			4		2						John Tilston.
Hull Park																			
Kew Observatory			29.82	757.4	64.2	17.2		S	6	2.7			7					Rainy	The Staff.
Kingstown			29.95	760.2	56	13.3		NW			4		8						George Mitchell.
Lampeter																			
Leicester Museum			29.80	758.2	55	12.8		Calm			0		10						William J. Harrison.
Llandudno			29.85	758.2	60.7	15.9		SW					2						Dr. James Nicol.
Malta, (Mediterranean)			30.00	762.0	85	29.4		SE			1		2k						Fred Travis, Pvt. A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.17	766.3	83.1	28.4		E			1		4						William D. Penny.
North Shields			29.82	757.4	56	13.3		NNE			3		2						Surg.-Maj. Henry.
Nottingham			29.82	757.4	67.3	19.6		SSE			2		7ks		WSW			Thunder & lightning.	John Wm. Irvine. E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.82	757.4	59.1	15.1		N			2		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.79	756.7	63	17.2		WSW			1		8						J. Lucas, for R. Main.
Plymouth			29.84	757.9	60.5	15.8		NW			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.90	761.0	56	13.3		N			4		5						W. Kennedy.
Saint Ann's Head			29.88	758.9	57	13.9		NW			2		3						John C. Walker.
Saint Helier, (Jersey)			29.85	758.2	63.2	17.3		WNW			3		8						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			29.82	757.4	54.5	12.5		N			1		9						F. Shaw.
Scutari, (Turkey)			29.88	758.9	85.4	29.7		NE			3		4					Hazy	Sergt. W. H. Lyne.
Sheffield			29.78	756.4	62	16.7		NNW			1		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.82	757.4	67	19.4		NW			2		5			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.81	757.2	62.1	16.7		SSE			1		4						Rev. C. J. Steward.
Stonyhurst Observatory			29.81	757.2	56	13.3		S			1		10					Threatening	The Staff.
Stornoway, Lews C. (Heb.)																			John Smith.
Strathfield Turgiss			29.83	757.2	61.3	16.3		W			1		7						Rev. Charles H. Griffith
Streatley Vicarage			29.81	757.2	66.3	19.1		SW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.81	757.2	55	12.8		NW			4		6						John Trotter.
Truro Royal Institution			29.86	758.4	62	16.7		NW			6		6						W. Newcombe.
Valencia Observatory			29.03	762.7	56.1	13.4		NW	21	9.4			5						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

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. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.82	757.3	58.6	14.8	85	SE			2		10					Raining	
Faröe			29.84	757.9	61.9	16.6	70	Calm			0		9						
Godthaab, (Greenland)			29.58	751.3	40.3	4.6	92	S			4		10					Raining	
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.84	757.5	50.0	10.0	70	N			4		8						
Vestervig			29.82	757.4	60.1	15.6	81	SW			2		7						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.88	759.0	64.0	17.8	52	SW			3		8		SW	0	0		Normal School.
Amiens			29.78	751.2	68.4	20.2	65	WSW			2		10			0.142	3.6		Normal School.
Beaumette, (near Angers)			29.37	758.7	56.7	13.7	68	SW	6.0	2.7			10		SW	0.087	2.2	Raining	Beaumette Observatory.
Bennrais			29.81	759.8	61.6	15.9	71	SSE			1		10		SSE	0.020	0.50		Normal School.
Besançon			29.98	761.4	62.2	16.8	73	N			2		8		NE	1.193	30.3		Normal School.
Bourg en Bresse			29.97	761.3	57.4	14.1	91	NE			1		10		SE	0.685	17.4	Raining	Normal School.
Bourges			29.85	758.3	60.1	15.6	81	WSW			2		8		E	0	0		Normal School.
Brest			29.87	758.1	57.4	14.1	60	NNW			3		8		NNW	0.026	0.5		Naval Observatory.
Caen			29.85	758.1	63.7	17.6	82	NW			2		5		W	0.827	21.0		Normal School
Chartres			29.89	759.2	59.9	15.5		WSW			1		3k		SW	0.055	1.4		Normal School.
Chaumont			29.97	761.1	64.4	18.0		W			2		10kn		W	0.669	17.00		Normal School.
Commercy			29.39	761.7	60.4	15.8	77	WNW			1		10			0.502	12.75		Normal School.
Le Mans			30.01	762.2	62.2	16.8	59	W			4		5		SSW	0.807	20.5		Normal School.
Lons-Le Saulnier			29.91	759.7	55.8	13.2	76	WSW			1		10			0.543	13.8	Raining	Normal School.
Mâcon			29.91	760.4	62.6	17.0	81	W			2		10			0.886	22.5		
Mirecourt			29.91	759.7	62.6	17	64	NNW			2		10		NE	0.472	12.0		Normal School.
Orleans			29.87	758.7	65.8	18.8	54	WSW			3		5		WNW	0	0		Normal School.
Paris Observatory			29.85	758.3	61.4	18.4		W			1		8k		W	0.061	1.55		National Observatory.
Parthenay			29.95	760.6	63.0	17.2	87	SW			2		5		SW	0.098	2.5		Normal School.
La Roche sur Yon			29.92	760.0	63.0	17.2	61	WNW			6		8		ENE	0.268	6.8		Normal School.
Rouen			29.85	758.3	62.1	16.4	56	S			2		10		S	0.059	1.5		Normal School.
Saint Lo			29.86	758.5	66.2	19	57	NW			1		5		NW		0		Normal School.
Villefranche			29.97	761.3	62.6	17.0	84	SE			1		10		N	0.921	23.40		Normal School
Sub-Series.																			
Gorée, (Senegambia)					43.3	6.2	94	NW	22.4	10.00			10		SW	0.224	5.7		Frère Pascali.
Mont-Louis	24.77	629.2			66.0	18.9	52	WSW			3		10k, kn		WSW	0.031	0.8		—. Faïguère.
Montsouris Observatory			29.85	758.3	66.9	19.4	58	WNW	11.2	5.00			8		WNW	0.142	3.6		Marié Davy.
Perpignan			29.93	760.3	64.9	18.1	64	SW			1		10			0.035	0.9		Dr. Fines.
Saint Maur, (near Paris)			29.86	758.4															E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.88	759.0	66.4	19.1	38	SW			2		10		WSW	0.004	0.1		C. Marquet.
Versailles, (near Paris)			29.87	758.8	61.2	16.2	71	NW			2		9			0.048	1.21		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.73	755.1	71.6	22.0	95	W	4.0	1.8			2ck		NW	2.035 / 2.246	51.7 / 57.0		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.72	754.8	74.3	23.5	53	W			4		5			0.551	14.0		Prof. Hoh.
Berlin			29.80	756.8	84.4	29.1	41	SW			4		4			0.024	0.6		Prof. Arndt.
Breslau			29.89	759.2	85.8	29.9	43	SE			2		7			0	0		Dr. P. Neugebauer.
Carlsruhe			29.89	759.1	63.3	17.4	84	W			1		10			0.264	6.7	Rainy	A. Senz.
Cassel			29.72	754.9	66.2	19.0	70	NW			2		8			0.498	12.64		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.83	757.7	69.8	21.0	78	W					7			0.791	20.1		M. Wilhelm.
Hamburg			29.81	758.0	57.9	14.4	88	NNW			3		9k			0.327	8.3	Rainy	W. Reinert.
Kiel			29.80	756.8	57.7	14.3	85	SW			4		10			0	0		Prof. G. Karsten.
Königsberg			29.92	760.0	72.7	22.6	57	SE			1		0			0.189	4.8		Prof. E. Luther.
Köslin			29.98	761.5	77.0	25.0		SE			2		5			0	0		Dr. Tägert.
Leipsic			29.79	756.6	80.4	26.9	46	NW			2		5			0	0		Prof. Bruhns.
Münster			29.89	759.1	64.4	18.0	82	SW			1		6			0	0		Prof. E. Heis.
Posen			29.87	758.8	84.9	29.4	48	SW			6		9			0.139	3.5	Thunder-storm	Dr. Magener.
Strassburg, (in Alsace)			29.90	759.4	63.9	17.7	69	N					10			0.439	11.14		Hartwig and Tück.
Stuttgart			29.87	758.6	63.9	17.7	80	N					10			0.488	12.4	Thunder-storm	Mr. Würth.
Thorn			29.87	758.6	82.0	27.8	37	E			4		1			0	0		Dr. Dessenbalg.
Treves, (Trier)			29.90	759.4	66.4	19.1	61	SW			3		10			0.021	0.54		Prof. Flesch.
Wustrow			29.79	756.7	64.9	18.3	92	SSE			2		8k			0.075	1.9		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.82	757.3	74.1	23.4	62	ENE	2.5	1.1			9	SW		1.244	31.6	Rainy	
Mondovi			29.79	756.7	75.7	24.3	48	W			4		5	SW		0	0		
Genoa			29.89	759.3	76.8	24.9	53	SE	10.5	4.7			8	SW		0	0		
Pavia			29.86	758.4	73.0	22.8	62	NE			2		9	SW		0.150	3.8		
Verona			29.84	757.8	78.1	25.6	57	E			2		10			0	0		
Padua			29.89	759.3	69.6	20.9	77	ENE	6.3	2.8			10	SSW		0.063	1.6	Rainy	
Parma																			
Bologna			29.86	758.4	85.1	29.5	53	WNW			4		5	NW		0	0		
Leghorn																			
Urbino			29.97	760.7	78.0	25.9	47	SW			4		4			0.079	2.0		
Ancona			29.91	759.7	80.6	27.0	63	SE			4		8			0.047	1.2		
Siena			29.86	758.4	79.9	26.6	52	SW	3.8	1.7			7	SW		0	0		
Rome			29.95	760.8	84.0	29.2	57	SSW			8		5	S		0	0		
Naples, O.U.			30.01	762.3	84.2	29.0	47	SW			2		6			0	0		
Lecce			30.07	763.8	82.9	28.3	35	NNW	11.9	5.3			0			0	0		
Cosenza			29.99	761.7	91.4	33.0	36	WNW			1		3			0	0		
Catania, (Sicily)																			
Trapani			30.02	762.4	81.5	27.5	57	SE			2		1	NE		0	0		
Palermo			29.92	759.9	83.1	28.4	54	NE			2		3			0	0		
Sub-Series.																			
Naples, S. R.			30.05	763.3	82.9	28.3	44	SW			1		0c	W		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.90	759.4	60.8	16.0		NW			3								
Groningen			29.79	756.6	61.9	16.6		W			2								
Helder			29.86	758.5	61.0	16.1		WSW			2								
Utrecht			29.82	757.4	67.1	19.5	63	W			3		5						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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			29.71	754.6	58.3	14.6	77	SSW	15.7	7.0			10			0.236	6.0		
Christiania			29.87	758.6	59.0	15.0	81	SSE	3.6	1.6			10			0	0		
Tromsö			29.58	751.2	52.5	11.4	91	SE			6		9			0.276	7.0	Raining	

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.08	764.0	65.5	18.6	30	NNE	27.3	12.2		1							

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			29.88	758.9	84.6	29.2	49	SE	9	4			3						Astronomical Obs.
Wilna			29.92	759.9	81.9	27.7	48	Calm	0	0			2						Astronomical Obs.
Dorpat			29.95	760.7	81.0	27.2	52	SSW	2	1			8						Physical Cabinet.
St. Petersburg			29.98	761.4	75.9	24.4	51	SSE	7	3			7						Central Physical Obs.
Kuopio			29.89	759.1	64.4	18.0	90	W					10		N	0.228	5.80	Raining	Ch. Forsten.
Kieff			30.00	762.1	85.3	29.6	38	E	7	3			7						Physical Cabinet.
Nikolaiev			30.00	762.1	90.1	32.3	31	NE	4	2			3						Kurdakof.
Kertch			29.97	761.3	77.5	25.3	57	NNE	13	6			0						Lagorio.
Moscow			30.06	763.6	71.1	21.7	41	NW	8	3.5			1						Meteorological Obs.
Lugan			29.87	758.7	78.4	25.8	30	N	13	6			1						Meteorological Obs.
Archangel			30.10	764.4	74.5	23.6	56	Calm	0	0			4						Ogorodnikof.
Tiflis			29.85	758.1	74.8	23.8	67	NW	8	3.5			8						Physical Obs.
Astrakhan			29.88	758.9	78.4	25.8	32	N	17	7.5			3						Sebastianof.
Kasan			29.64	752.9	69.4	20.8	37	N	20	9			6						Physical Cabinet.
Orenburg			29.32	744.8	71.6	22.0	86	W	8	3.5			10						Tschernischef.
Ekaterinburg																			Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.69	754.0	87.1	30.6	54	Calm		0			6						Michelson.
Barnaul			29.75	755.7	70.3	21.3	55	Calm		0			4						Meteorological Obs.
Yeniseisk			29.50	749.4	71.1	21.7	66	SE	10	4.5			6						Marks.
Irkutsk			29.61	752.0	68.7	20.4	56	Calm		0			3						Usolzef.
Oorga			29.75	755.6	58.3	14.6	52	Calm		0			0						Mossin.
Peking, (China)			29.52	749.9	81.0	27.2	26	NW	8	3.5			0						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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	73.9	23.3	27	N	6.7	3.0		0	7			0	0		Royal Observatory.
San Fernando																			The Naval Observatory

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.83	757.6	59.0	15.0	83	SW			5		3			0	0		
Hernosand			29.81	757.1	60.1	15.6	60	S			3		4			0.03	0.8		
Stockholm			29.90	759.3	71.6	22.0	46	SE			2		1			0	0		
Visby			29.95	760.8	64.8	18.2	57	NE			2		1			0	0		
Sub-Series.																			
Upsala			29.91	759.7	72.1	22.3	43	SSE			4		1		WSW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.50	723.8			61.0	16.1	88	SE			2		10			0.130	3.3		The Observatory.
Zurich	28.29	718.5			65.3	18.5	70	W			1		7			0.626	15.9		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.8mm.; Thermometer, —1°.8 C.; Relative Humidity, +33 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.71	754.7	85.6	29.8	68	SW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			29.95	760.8	78.4	25.8	63	ENE	17.9	8			5		NE	0	0		
Fao, (Persian Gulf)			29.63	752.5	100.4	38.0		NW			6		0						
Salonica					94.1	34.5		S			2		0						
Valona			30.01	762.3	83.8	28.8		W			1		0						
Varna			30.04	763.0	89.6	32.0		S			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Brockville, Ontario			30.10	764.5	59	15.0		N	4	1.8		2c	0	S		0	0		
Chatham, N. B.			29.80	756.9	59	15.0	62	W	7	3.1		2k	0	W		0	0		
Charlottetown, P. E. Island			29.81	757.2	58	14.4	61	SW	8	3.6		8k	0			0	0		
Fort Garry, Manitoba			30.04	763.0	55	12.8	90	SE	11	4.9		0	2s		SE	0	0		
Halifax, N. S.			29.73	755.1	61	16.1	53	NW	9	4.0		0	0			0	0		
Kingston, Ontario			30.07	763.8	54	12.2	94	NE	6	2.7		Haze	Sm'e	NE		0	0		
Montreal, Quebec			30.04	763.0	59	15.0	61	NW	4	1.8		Haze	Haze			0	0		
Ottawa, Ontario			30.02	762.5	56	13.3	54	SW	10	4.5		2k	0			0	0		
Parry Sound, Ontario			30.05	763.3	58	14.4	53	SE	8	3.6		5ek	Sm'e	W		0	0		
Port Dover, Ontario			29.97	761.2	55	12.8	50	NE	7	3.1		Haze	Haze	W		0	0		
Port Stanley, Ontario			29.98	761.5	59	15.0	53	E	2	0.9			Sm'e			0	0		
Quebec, Quebec			30.00	762.0	56	13.3	63	SW	2	0.9		0	0			0	0		
Saugeen, Ontario			30.06	763.5	49	9.4	97	Calm	0	0			10n			0.16	4.1	Heavy rain.	
Stayner, Ontario			30.04	763.0	52	11.1	92	Calm	0	0			10n			0.14	3.6	Light rain.	
Sydney, C. B.			29.77	756.1	57	13.9	61	N	4	1.8		0	2ks			0	0		
Toronto, Ontario			30.07	763.8	53	11.7	74	NE	4	1.8			10n			0.05	1.3	Light rain.	

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.99	761.7	57	13.9	69	N	1	0.4		Haze	Haze			0	0		
Alpena, Mich.			30.02	762.5	53	11.7	73	E	6	2.7			10s			0	0		
Atlantic City, N. J.			30.02	762.5	71	21.7	57	N	4	1.8		0	0			0	0		
Augusta, Ga.			30.00	762.0	74	23.3	72	N	2	0.9		5c	0	N		0	0		
Baltimore, Md.			30.00	762.0	68	20.0	79	W	3	1.3		0	Sm'e			0	0		
Barnegat, N. J.			30.01	762.2	70	21.1	52	Calm	0	0		0	Haze			0	0		
Benton, Montana			29.92	760.0	60	15.6	82	E	12	5.4			10s			0.06	1.5		
Bismarck, Dakota			29.67	753.6	63	17.2	57	NE	2	0.9		5c	Haze	NE		0	0		
Boston, Mass.			29.99	761.7	65	18.3	40	NE	3	1.3		0	0			0	0		
Breckenridge, Minn.			29.89	759.2	57	13.9	93	SE	12	5.4		5k	0	S		2.71	68.8		
Buffalo, N. Y.			30.00	762.0	54	12.2	55	NE	7	3.1			10s			0	0		
Burlington, Vt.			30.03	762.7	56	13.3	69	N	4	1.8		0	2s			0	0		
Cairo, Ill.			30.00	762.0	68	20.0	90	S	4	1.8			1ks		NW	1.35	34.3		
Cape Hatteras, N. C.			30.00	762.0	70	21.1	84	NE	8	3.6		5ck	0	W		0	0		
Cape Henry, Va.			30.05	763.3	70	21.1	66	NE	4	1.8		8c	0			0	0		
Cape May, N. J.			30.03	762.7	66	18.9	90	SW	3	1.3		0	0			0	0		
Charleston, S. C.			30.02	762.5	75	23.9	72	N	4	1.8		2c	0			0.24	6.1		
Cheyenne, W. T.			29.95	760.7	61	16.1	33	SW	4	1.8		5c	0			0	0		
Chicago, Ill.			29.88	758.9	62	16.7	77	NE	2	0.9		0	8s			0	0		
Cincinnati, Ohio			29.88	758.9	68	20.0	90	E	6	2.7		0	5ks		E	0.35	8.9		
Cleveland, Ohio			29.90	759.4	62.2	16.8	54	SE	9	4.0		2c	Sm'e	SW		0	0		
Colorado Springs, Col.			29.94	760.5	56	13.3	51	N	3	1.3		8k	2ks	W		0	0		
Corsicana, Texas			30.01	762.2	74	23.3	85	S	8	3.6		0	0			0	0		
Davenport, Iowa			29.81	757.2	69	20.6	84	NE	8	6.3			10s			0.27	6.9		
Denver, Col.			29.95	760.7	61	16.1	31	S	5	2.2		5cs	0	SW		0	0		
Detroit, Mich.			29.90	759.4	63	17.2	62	E	4	1.8		5ck	Haze	W		0	0		
Dodge City, Kansas			29.36	745.7	79	26.1	51	SW	8	3.6		0	0			0	0		
Dubuque, Iowa			29.86	758.4	68	20.0	84	W	4	1.8		5cs	0			0	0		
Duluth, Minn.			30.03	762.7	50	10.0	64	NE	12	5.4		2ck	5s	N	N	0	0		
Eastport, Me.			29.[illegible]0	759.4	56	13.3	57	N	7	3.1		0	0			0	0		
Erie, Penn.			29.92	760.0	61	16.1	61	NW	4	1.8		8ck	Sm'e	NW		0	0		
Escanaba, Mich.			29.99	761.7	55	12.8	87	NE	4	1.8			10s		NW	0.16	4.1		
Fort Gibson, I. T.			29.91	759.7	77	25.0	72	S	6	2.7		5ck	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.65	753.1	70	21.1	75	E	12	5.4			8s			0	0		
Galveston, Texas			30.05	763.3	83	28.3	70	SW	4	1.8		0	0			0	0		
Grand Haven, Mich.			29.90	759.4	59	15.0	66	E	2	0.9		5k	0	N		0	0		
Indianapolis, Ind.			29.86	758.4	74	23.3	76	SW	8	3.6			Haze			0	0		
Indianola, Texas			30.03	762.7	84	28.9	71	S	10	4.5		2k	0	S		0	0		
Jacksonville, Fla.			30.08	764.0	85	29.4	64	SW	8	3.6		0	0			0	0		
Keokuk, Iowa			29.83	757.7	70	21.1	81	Calm	0	0		10cs	0			0.11	2.8		
Key West, Fla.			30.10	764.5	83.3	28.5	64	E	5	2.2		5ck	Haze			0	0		
Kittyhawk, N. C.			30.04	763.0	65	18.3	84	E	6	2.7		8ck	0			0	0		
Knoxville, Tenn.			30.01	762.0	64	17.8	89	NW	12	5.4			10ks		NW	0.49	12.4		
La Crosse, Wis.			29.88	758.9	65	18.3	94	NE	3	1.3		2c	0	N		0.21	5.3	Clearing	
Leavenworth, Kan.			29.85	758.2	72	22.2	81	S	8	3.6		0	2s			0.41	10.2		
Lexington, Ky.			29.95	760.7	71	21.7	71	W	8	3.6		5ck	0	W		0	0		
Long Branch, N. J.			30.03	762.7	66	18.9	64	NW	3	1.3		2k	Haze	NW		0	0		
Louisville, Ky.			29.89	759.2	74	23.3	72	SE	3	1.3		5ck	10s	S		0	0		
Lynchburg, Va.			30.01	762.2	69	20.6	85	SW	2	0.9			0			0.04	1.0		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	47	8.3	85	NW	4	1.8			10s		SE	0.29	7.4		
Memphis, Tenn.			30.03	762.7	77	25.0	77	SW	3	1.3		5ck	2s			0	0		
Milwaukee, Wisconsin			29.91	759.7	61	16.1	45	E	6	2.7		8ck	Haze	NE		0	0		
Mobile, Ala.			30.09	764.3	79	26.1	73	W	5	2.2		0	0			0	0		
Montgomery, Ala.			30.06	763.5	79	26.1	51	W	4	1.8		0	Haze			0	0		
Morgantown, W. Virginia			29.97	761.2	63	16.7	88	Calm	0	0			Fog			0.04	1.0	Foggy	
Mt. Washington, N. H.			30.06	763.5	27	— 2.8	88	NW	46	20.6		0	8k			0	0		
Nashville, Tenn.			29.96	761.0	71	21.7	80	S	4	1.8		8k	2s	W		1.26	32.0		
New Haven, Conn.			30.03	762.7	67	19.4	50	Calm	0	0		0	Sm'e			0	0		
New London, Conn.			30.06	763.5	66	18.9	49	N	4	1.8		0	Haze			0	0		
New Orleans, La.			30.09	764.3	79.5	26.4	72	W	6	2.7		5c	0	NW		0	0		
Newport, R. I.																			
New York, N. Y.			30.08	764.0	68	20.0	38	E	4	1.8		0	Fog			0	0		
Norfolk, Va.			30.07	763.8	69	20.6	70	SE	4	1.8		5c	0			0.04	1.0		
North Platte, Neb.			29.34	745.2	69	20.6	95	E	4	1.8			Fog			0	0		
Omaha, Neb.			29.80	756.9	70	21.1	79	SE	10	4.5		0	0			0.36	9.1		
Oswego, N. Y.			30.02	762.5	56.1	13.4	65	NNE	1	0.4			Fog			0	0	Foggy	
Peck's Beach			30.05	763.3	65	18.3	94	N	1	0.4		0	0			0	0		
Pembina, D. T.			30.10	764.5	59	15.0	80	SE	8	3.6		2c	0			0.06	1.5		
Philadelphia, Penn.			30.01	762.2	69	20.6	65	E	6	2.7		0	0			0	0		
Pike's Peak, C. T.			30.19	766.8	31	— 0.6	76	SW	22	9.8		5cs	2s	W		0	0		
Pittsburgh, Penn.			29.95	760.7	56	13.3	80	Calm	0	0						0	0	Dense smok	
Port Huron, Mich.			29.9[illegible]	760.7	59	15.0	54	NE	6	2.7			10s			0	0		
Portland, Maine			29.99	761.7	61	16.1	50	N	6	2.7		0	Haze			0	0		
Portland, Or.			30.17	766.3	56	13.3	87	S	2	0.9			10s			0.53	13.5		
Punta Rassa, Fla.			30.12	765.[illegible]	80.2	26.8	82	NE	6	2.7		2cs	Haze			0	0		
Rochester, N. Y.			30.01	762.2	55	12.8	62	NE	2	0.9			10s			0	0		
Salt Lake City, Utah			29.83	757.7	60	15.6	33	NW	4	1.8		0	0			0	0		
Sandy Hook, N. J.			30.00	762.0	67	19.4	54	N	6	2.7		5k	Haze	NW		0	0		
San Diego, Cal.			30.06	763.5	56	13.3	87	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.12	765.0	54	12.2	93	Calm	0	0		Haze	2s			0.03	0.8		
Santa Fe, N. M.			29.82	757.4	68	20.0	34	SW	4	1.8		5c	Haz	SW		0	0		
Savannah, Georgia			30.01	762.2	80	26.7	61	N	6	2.7		0	0			0	0		
Shreveport, La.			30.08	764.0	77	25.0	82	SSW	4	1.8		0	Haze			0	0		
Springfield, Mass.			30.02	762.5	60	15.6	70	Calm	0	0			Sm'e			0	0		
St. Louis, Mo.			29.87	758.7	69	20.6	79	S	12	5.4			10s			0.93	23.6		
St. Marks, Fla.			30.06	763.5	79	26.1	86	NW	6	2.7		0	0			0	0		
St. Paul, Minn.			29.86	758.4	54	12.2	93	N	8	3.6			Fog			0.53	13.2	Foggy	
St. Paul's Island, Alaska			29.59	751.6	39	3.9	90	SE	27	12.1		8	10s			0.28	7.1		
Squan Beach, N. J.			30.01	762.2	65	18.3	63	NW	2	0.9		0	Haze			0	0		
Toledo, Ohio			29.86	758.4	69	20.6	60	E	4	1.8		5c	0	W		0	0		
Tybee Island, Ga.			30.00	762.0	85	29.4	79	NE	6	2.7		2k	0	SW		0	0		
Vicksburg, Miss.			30.14	765.5	83	28.3	55	SW	4	1.8		0	0			0	0		
Virginia City, Mon.			29.66	753.4	53	11.7	53	SE	6	2.7		0	0			0	0		
Washington, D. C.			30.01	762.2	68.5	20.3	79	S	5	2.2		Haze	0			0	0		
Wilmington, N. C.			30.03	762.7	70	21.1	90	NE	4	1.8			10s			0.07	1.8		
Wood's Hole, Mass.			30.00	762.0	59	15.0	76	N	3	1.3		0	Sm'e			0	0	Smoky	
Wytheville, Va.			29.78	756.4	67	19.4	79	W	5	2.2		5k	0	W		0	0		
Yankton, D. T.			29.90	759.4	64	17.8	83	E	16	7.2		0	8s			0	0		

NOTE.—The observers give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					80	26.7	86	E	7	3.1			10n			0	0		E. Racker.
Pointe-à Pitre, G'd'Loupe, do			30.04	763.0	81	27.2	74	E				8k	2s	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	82	27.8	62	NE	9.6	4.3		10ck	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.32	770.1	80	26.7	82	SE	12	5.4		2ck	5k	SE		0.01	0.3		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	758.4	81	27.2	74	NE	3.6	1.6			5s			Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.10	764.5	75.2	24.0	86	SW	8.3	3.7		0	5k			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.07	763.8	65	18.3	73	NE	8	3.6		10n	5k, n			0.06	15.2	Threatening	E. P. Church.
Makawao, Maui, H. I.			29.99	761.7	65.5	18.6	90	E	6	2.7		2ck	2n	SW	E	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.13	765.3	53.0	11.7	70	W	6	2.7		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.07	763.8	68	20.0	90	SSE	1.0	0.4		5c	2k	SE		0.26	6.6	Showery	C. Partridge.
St. John's, Newfoundland			29.90	759.4	48	8.9	100	E					10n			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.42	760.1	62	16.7	67	SE	4	1.8			2s			0	0		H. M. Redington.
Indianola, Iowa	28.93	734.8			74	23.3	71	NW				0	2s			0.37	9.4		G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 32° 00′, W. 71° 26′	NW by N	6	29.92	760.1	78	25.6	91	SW			7		..d		NE	Rough		Overcast & damp	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 18, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.4	77.2	25.1		NW			3		2			0	0		Charnot.
Algiers			29.93	760.2	73.8	23.2	73	NW			2		9			0.323	8.2		Peter.
La Calle			29.95	760.8	73.4	23.0		NW			2		6			0	0		Kuntz.
Tunis			29.92	759.9	80.1	26.7	65	E			4		10			0	0	Threatening	Jacques.
Sfax			29.95	760.8	84.9	29.4		NW			4		6			0	0		Chauvey.
Saïda			30.03	762.7	84.7	29.3		SSW			1		2			0	0		Grosjean.
Tebessa			29.91	759.6	87.8	31.0		S			4		6			0	0	Threatening	Colin.
Gerlville			29.93	760.2	70.7	21.5		NNE			2		3			0	0		Bernadach.
Laghouat			29.91	759.7	82.4	28.0	27	N			2		3			0	0		Poinsignon.
Biskra			29.87	758.8	88.5	31.4		NW			6		9			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.92	759.9	86.0	30.0	43	SW			4		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.88	759.0	85.1	29.5	40	SW			2		5			0	0		I. R. Observatory.
Eperies			29.93	760.1	81.7	27.6	67	S			4					0	0		Julius Mikolik.
Gratz			29.79	756.7	73.0	22.8	91	SSW			2		10			0	0		Andreas Rospini.
Hermannstadt			29.95	760.7	83.8	28.8	35	ESE			2		3			0	0		Prof. Reissenberger.
Kremsmünster			29.86	758.5	74.1	23.4	65	N			1		8			0	0		Prof. C. Wagner.
Lemberg			29.95	759.4	85.8	29.9	48	SW			2		4			0	0		Dr. T. Stanecki.
Nytregyhaza			29.96	761.0	87.4	30.8	45	E			2		3			0	0		Habzsuda Daniel.
Pola			29.98	761.4	81.5	27.5	69	SE			2		7cks			0	0		I.R. Hydrographic Office
Szegedin			29.93	760.3	87.4	30.8	41	S			1		3			0	0		Karl Stancel.
Trieste			29.93	760.2	80.6	27.0	63	NW			1		6			0	0		Prof. V. Farolfi.
Vienna			29.85	758.1	83.7	28.7	42	E			2		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.02	762.5	63.3	17.4	57	WNW			1		9k	SSW	NNW	0.394	10.00	Clearing	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.05	763.3	53.4	11.9		SSE	14	6.3			6			0.100	2.54		William Boswell.
Annanhill																			
Ardrossan			30.06	763.5	59	15.0		SSW			2		4						William McNeil.
Armagh Observatory			30.09	764.3	57.2	14.0		WSW	5	2.2			10						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.09	764.3	56.3	13.5		W			2		2						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.12	765.0	56.8	13.8		SW			1		10						J. Dreyer and I. Mitchell
Bradford			30.04	763.0	58.7	14.8		E			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	81	27.2		NE			4		10						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.05	763.3	54	12.2		Calm			0		10						H. Todd.
Cape Town, (Cape Colony)			30.15	765.8	57	13.9		NW			3		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.25	768.3	57.1	13.9	64	SSW	11	4.9			10			Blank	Blank	Thunder and lightning	Th. Staff, for E. J. Stone.
Cardington			30.06	763.5	63.6	17.6		NE					8						John McLaren.
Carlisle			30.06	763.5	58.9	14.9		W					9			0.02	0.51	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.99	761.7	56.7	13.7		WSW			1		10					Thunder-storm	Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.94	759.4	78.6	25.9		SW			3		8						Sgt. W. F. Hopkins
Dartmoor			30.16	766.1	55.5	13.1		NW			2		5						R. E. Power.
Donaghadee			30.07	763.8	58	14.4		SE			2		6						J. Mac Gowan, Jr.
Dover			29.94	760.5	62	16.7		SE			2		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.07	763.8	56.1	13.4		SW	2.4	1.1			10						Thomas Mackereth
Falmouth Observatory			30.14	765.5	60.3	15.7		NW	17	7.6			5						The Staff.
Fort Napier, (Natal)			30.04	763.0	67.6	19.8		SE			3		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.86	758.4	82	27.8		NW					8						Lieut. B. G. Clare, for Prof. Curry.
Galway, Queen's College			29.74	755.4	63	17.2		W			5		8						
Gibraltar, (Mediterranean)			30.04	763.0	72.5	22.5		SW			6		0						Sergt. E. G. Baker.
Glasgow Observatory			30.02	762.5	60.4	15.8		WSW			2		5						Lewis Stewart.
Great Yarmouth			30.05	763.3	61	16.1		ESE			2		3						G. T. Watson.
Greenwich Royal Obs.			30.03	762.7	63.6	17.6		W			1		9					Misty	The Staff, for G. B. Airy.
Guernsey			30.08	764.0	60	15.6		NNW			2		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.07	763.8	63.3	17.4		SW					8					Hazy	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			30.11	764.8	65	18.3		NW			4		2						Dr. W. B. Moyle.
Holyhead			30.14	765.5	57	13.9		WNW			3		3						John Tilston.
Hull Park																			
Kew Observatory			30.01	763.0	61.1	16.2		S	6	2.7			9					Misty	The Staff.
Kingstown			30.15	765.8	57	13.9		NW			2		9					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			30.08	764.0	61	16.1		NE			1		4						William J. Harrison.
Llandudno			30.10	764.5	59.4	15.2		NW					1						Dr. James Nicol.
Malta, (Mediterranean)			29.99	761.7	82.8	28.2		SE			2		8k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.15	765.8	84.1	28.9		E			1		5						Surg.-Maj. Henry.
North Shields			30.06	763.5	57	13.9		E			3		5						John Wm. Irvine.
Nottingham			30.08	764.0	65.3	18.5		NNE			3		7ks		ESE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.06	763.5	58.6	14.8		N			2		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.02	762.5	60	15.6		N			2		8						J. Lucas, for R. Main
Plymouth			30.10	764.5	64.5	18.1		NW			2		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.12	765.0	56	13.3		SW			2		8						W. Kennedy.
Saint Ann's Head			30.14	765.5	58	14.4		NNW			1		1						John C. Walker.
Saint Helier, (Jersey)			30.06	763.5	63	17.2		NNE			2		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			30.08	764.0	57.4	14.1		ENE			1		2						F. Shaw.
Scutari, (Turkey)			29.99	761.7	85.4	29.7		NE			2		2						Sergt. W. H. Lyne.
Sheffield			30.04	763.0	60.3	15.7		SW			1		8			Blank	Blank		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.15	763.3	66.5	19.2		W			2		2			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.02	762.5	63.7	17.6		NNE			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			30.04	763.0	60.2	15.7		SW			2		6					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			30.04	763.0	57.7	14.3		N			1-2		8					Thunder-storm	Rev. Charles H. Griffith.
Streatley Vicarage			30.06	763.5	63.8	17.7		N			2		7						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			30.00	762.0	55	12.8		NNW			1		5						John Trotter.
Truro, Royal Institution			30.08	764.0	65	18.3		NW			6		5						W. Newcombe.
Valencia Observatory			30.14	765.5	55.8	13.2		SSW	11	4.9			10					Misty	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			29.96	761.0	59.4	15.2	88	W			2		7						
Fanöe			30.00	761.0	60.4	15.8	71	NW			4		9						
Godthaab, (Greenland)			29.67	753.5	37.0	2.8	93	S			2		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.94	760.4	50.9	10.5	73	SE			4		8						
Vestervig			29.96	760.9	60.4	15.8	75	W			2		6						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.07	763.6	65.8	18.8	42	SW			4		8		SW	0	0		Normal School.
Amiens			29.99	761.6	66.6	19.2	69	SSW			2		10			0.898	22.8		Normal School.
Beaumette, (near Angers)			30.06	763.5	62.8	17.1	55	NW	6.0	2.7			10		NW	0.098	2.5	Showery.	Beaumette Observatory.
Beauvais			30.10	764.3	58.1	14.5	72	E			1		10			0.148	3.75		Normal School.
Besançon			30.13	765.4	66.2	19.0	60	S			2		8		W	0.047	1.2		Normal School.
Bourg en Bresse			30.08	764.0	65.3	18.5	77	N			2		8		S	0.256	6.5		Normal School.
Bourges			30.05	763.2	65.3	18.5	90	SW			2		8		E	0.394	10.0		Normal School.
Brest			30.10	764.4	62.1	16.7	58	NNW			2		5		N	0.098	2.50		Naval Observatory.
Caen			30.06	763.5	63.7	17.6	89	NNW			2		5		W	0.630	16.0		Normal School.
Chartres			30.06	763.5	62.6	17.0		W			2		5kn		W	0.098	0.2		Normal School.
Chaumont			30.11	764.8	63.5	17.5		W			2		5ck		SW	0.079	2.00		Normal School.
Commercy			30.12	765.1	61.9	16.6	70	W			1		5		E	0.098	2.50		Normal School.
Le Mans			30.19	766.9	62.6	17	57	SW			3		2		W	0	0		Normal School.
Lons-Le Saulnier			30.[illegible]7	763.6	60.6	15.9	68	NNW			1		5		SW	0	0		Normal School.
Mâcon			30.13	765.2	63.7	17.6	68	WNW			4		5		E	0.433	11.0		Normal School.
Mirecourt			30.11	764.8	63.1	17.3	46	W			1		10		E	0.051	1.3		Normal School.
Orleans			30.07	763.6	59.0	15	76	SSW			2		8		S	0	0		Normal School.
Paris Observatory			30.04	763.0	57.4	14.1		S			1		10n			0.342	8.68	Light rain	National Observatory.
Parthenay			30.09	764.2	62.6	17	90	SW			2		5		SW	0	0		Normal School.
La Roche sur Yon			30.08	763.9	65.5	18.6	64	WNW			4		8		E	0.047	1.2		Normal School.
Rouen			30.04	763.0	64.0	17.8	65	NW			2		10			0.114	2.9		Normal School.
Saint Lo			30.07	763.7	64.4	18	74	NW			1		5		NW	0	0		Normal School.
Villefranche			30.09	764.3	65.3	18.5	93	N			3		5		N	0.157	4.00		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.89	632.1			48.6	9.2	83	NNW	24.2	10.83			4		SSW	0.445	11.3		—. Faignère.
Montsouris Observatory			30.03	762.7	58.6	14.8	74	SSW			1		10		SW	0.370	9.4	Light rain	Marié Davy.
Perpignan			30.05	763.3	71.4	21.8	36	WNW	11.2	5.00			3ck		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.03	762.8	59.9	15.5	70	WNW			1		8			0.244	6.2		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.04	763.5	65.1	18.4	51	W			2		8		WNW	0	0		C. Marquet.
Versailles, (near Paris)			30.04	763.0	59.7	15.4	58	WNW			1		10			0.095	2.42		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.76	755.9	71.6	22.0	88	SE	4.7	2.1			5ck, 8		W	0 0	0 0	Lunar corona	H. Le Lee, S. J.

Note.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.46 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.91	759.6	65.3	18.5	72	W			3		9			0.315	8.0		Prof. Hoh.
Berlin			30.08	763.9	65.5	18.6	71	NW			4		8			0.102	2.6	Raining	Prof. Arndt.
Breslau			30.00	761.9	74.5	23.6	64	NW			5		9			0	0		Dr. P. Neugebauer.
Carlsruhe			30.07	763.6	60.4	15.9	80	SW			2		10			1.575	14.6		A. Senz.
Cassel			29.91	759.8	63.7	17.6	82	NW			1		10			0.197	5.00		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.08	764.0	55.4	13.0	95	NW					10			0.925	23.5	Raining	M. Wilhelm.
Hamburg			29.99	761.8	66.4	19.1	69	SE			2		10kn			0.043	1.1		W. Reinert.
Kiel			29.91	759.8	63.5	17.5	70	NNE			3		10			0	0		Prof. G. Karsten.
Königsberg			29.84	758.0	80.6	27.0	68	SE			1		5			0.004	0.1		Prof. E. Luther.
Köslin			30.13	765.2	56.8	13.8		NW			4		10			0.886	22.5		Dr. Tägert.
Leipsic			30.00	762.1	69.4	20.8	61	NNE			1		8			0.516	13.1		Prof. Bruhns.
Münster			30.01	762.3	67.1	19.5	67	SW			1		6			0.012	0.3		Prof. E. Heis.
Posen			29.88	758.9	72.1	22.3	67	NW			5		5			0.114	2.9		Dr. Magener.
Strassburg, (in Alsace)			30.[illegible]7	763.7	63.6	17.2	73	SW					10			0.163	4.14		Hartwig and Tü k.
Stuttgart			30.04	763.1	59.9	15.5	75	N					10			0.295	7.5	Raining	Mr. Würth.
Thorn			29.82	757.1	88.3	31.3	50	S			4		5			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.98	761.6	65.8	18.8	57	NE			3		2			0.022	0.56		Prof. Flesch.
Wustrow			29.99	761.8	65.3	18.5	71	W			2		5s			0	0		E. F. Schütz.

Note.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.90	759.5	69.6	20.9	78	ESE	1.3	0.6			9	W		0.465	11.8	Raining	
Mondovi			29.89	759.2	68.0	20.0	69	NNW			2		9	SW		0	0	Raining	
Genoa			29.92	760.0	69.4	20.8	93	SE	7.4	3.3			10	SW		0.571	14.5		
Pavia			29.93	760.1	64.9	18.3	88	N			1		10			1.165	29.6	Raining	
Verona			29.91	759.6	80.1	26.7	56	E			2		10			0	0		
Padua			29.95	760.6	76.6	24.8	68	E	8.1	3.6			10	SW		0	0		
Parma																			
Bologna			30.00	761.9	77.9	25.5	59	ENE			6		5	N		0	0		
Leghorn			29.94	760.4	73.8	23.2	75	E	3.1	1.4			10			0.031	0.8		
Urbino			29.98	761.5	80.2	26.8	47	SSW			2		4			0	0		
Ancona			29.97	761.1	82.4	28.0	51	SE			4		2			0	0		
Siena			29.92	760.0	77.5	25.3	57	S	0.7	0.3			10	S		0.008	0.2		
Rome			29.97	761.2	90.1	32.3	30	S			8		8	W		0	0		
Naples, O.U.			30.01	762.3	90.7	32.6	28	SW			2		9	SW		0	0		
Lecce			30.02	762.6	86.4	30.2	30	SSW	12.5	5.6			0			0	0		
Cosenza			30.02	762.5	95.7	35.4	37	WNW			2		2	ESE		0	0		
Catania, (Sicily)																			
Riposto			30.03	762.8	97.2	36.2	53	ESE			4		3	NW		0	0		
Palermo			29.89	759.3	90.7	32.6	28	SE			4		10			0	0		
Sub-Series.																			
Naples, S. R.			30.05	763.3	90.1	32.3	27	SW			3		8s	NW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.07	763.8	61.2	16.2		W			2								
Groningen			29.97	761.2	61.0	16.1		N			2								
Helder			30.03	762.8	60.0	15.9		WNW			1								
Utrecht			30.00	761.9	66.7	19.3	52	NW			3		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.85	758.1	55.8	13.2	73	WNW	9.8	4.4			10			0	0		
Christiania			29.83	757.6	67.8	19.0	49	SW	7.8	3.5			2			0.004	0.1		
Tromsö			29.73	755.2	47.5	8.6	78	S			6		10			0.083	2.1		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.15	765.9	66.2	19.0	38	NNW	18.0	8.3			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.84	757.8	88.9	31.6	34	S	18	8			7						Astronomical Obs.
Wilna			29.87	758.6	88.3	31.3	35	S	7	3			5						Astronomical Obs.
Dorpat			29.86	758.5	85.3	29.6	42	SSW	9	4			3						Physical Cabinet.
St. Petersburg			29.85	758.3	81.5	27.5	54	SSW	7	3			3						Central Physical Obs.
Kuopio			29.8	757.0	75.6	24.2	69	ENE					8		W	0	0		Ch. Forsten.
Kiew			30.06	763.4	85.5	29.7	42	SW	7	3			5						Physical Cabinet.
Nikolaiev			30.08	763.9	90.5	32.5	29	N	4	2			2						Kurdukof.
Kertch			30.02	762.5	79.7	26.5	45	N	18	8			0						Lagorio.
Moscow			30.05	763.2	77.4	25.2	43	WSW	4	2			3						Meteorological Obs.
Lugan			29.91	759.6	81.1	27.3	22	NW	13	6			0						Meteorological Obs.
Archangel			29.93	760.2	77.4	25.2	66	Calm	0	0			10						Ogorodnikof.
Tiflis			29.97	761.1	74.1	23.4	67	SE	8	3.5			9						Physical Obs.
Astrakhan			29.93	760.3	79.5	26.4	28	NNE	13	6			4						Sebastianof.
Kasan			29.74	755.4	70.3	21.3	42	NNE	13	6			5						Physical Cabinet.
Orenburg			29.38	746.2	68.9	20.5	81	NW	4	2			10						Tscherniischef.
Ekaterinburg			29.53	750.1	60.3	15.6	83	NE	10	4.5			9						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.80	757.0	89.2	31.8	24	Calm	0	0			0						Michelson.
Barnaul			29.81	757.1	75.0	23.9	58	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.56	750.8	66.9	19.4	81	W	13	6			7						Marks.
Irkutsk			29.59	751.6	61.5	16.4	81	Calm	0	0			0						Usolzef.
Oorga			29.63	752.5	59.5	15.3	44	Calm	0	0			8						Mossin.
Peking, (China)			29.64	752.9	77.9	25.5	48	Calm	0	0			6						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.00	762.1	73.8	23.2	23	N	9.6	4.3		0	2			0	0		Royal Observatory.
San Fernando																			The Naval Observatory

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.82	757.5	56.7	13.7	88	SSW			1		10			0.01	0.3	Light rain	
Hernosand			29.84	758.0	55.9	13.3	93	S			2		10			0.06	1.6	Raining	
Stockholm			29.79	756.7	72.3	22.4	57	S			1		10			0	0		
Visby			29.86	758.4	61.2	16.2	81	WSW			1		10			0	0		
Sub-Series.																			
Upsala			29.81	757.1	68.7	20.4	57	WSW			2		10		SSW			Raining	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.68	728.4			55.4	13.0	84	NNW			2		10			0.630	16.0	Raining	The Observatory.
Zurich	28.45	722.7			58.1	14.5	82	NW			1		10			1.024	26.0	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.8mm.; Thermometer, —8°.0 C.; Relative Humidity, +29 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.74	755.4	81.2	29.0	62	SW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			30.02	762.5	78.1	25.6	62	NE	17.9	8			2		NE	0	0		
Bag. (Persian Gulf)			29.68	753.9	101.8	38.8		NW			4		0						
Salonica					90.1	32.3		S			3		0						
Valona			30.05	763.2	86.2	30.1		W			1		0						
Varna			30.08	764.0	87.8	31.0		NE			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12: the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily to the Office of the Chief Signal Officer, U. S. Army, except Brockville, Charlottetown and Stayner.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.02	762.5	55	12.8		Calm	0	0		8c	2s	W	W	0	0		
Chatham, N. B.			30.03	762.7	63	17.2	59	SW	3	1.3		0	0			0	0		
Charlottetown, P. E. Island			30.10	764.5	58	14.4	62	SW				0	0			0	0		
Fort Garry, Manitoba			30.10	764.5	57	13.9	75	SE	7	3.1		0	Haze			0	0		
Halifax, N. S.			30.05	763.3	60	15.6	68	SE	4	1.8		0	0			0	0		
Kingston, Ontario			30.00	762.0	55	12.8	78	NE	4	1.8		5c	Sm'e			0	0		
Montreal, Quebec			29.99	761.7	55	12.8	78	S	7	3.1		Haze	Haze			0	0		
Ottawa, Ontario			29.99	761.7	56	13.3	52	E	4	1.8		0	Sm'e			0	0		
Parry Sound, Ontario			30.04	763.0	61	16.1	50	NE	5	2.2		0	0			0	0		
Port Dover, Ontario			30.03	762.7	54	12.2	67	N	8	3.6		0	0			0	0		
Port Stanley, Ontario			30.03	762.7	54	12.2	79	W	6	2.7			Sm'e			0.12	3.0		
Quebec, Quebec			30.01	762.2	60	15.6	65	E	1	0.4		5ck	0	E		0	0		
Saugeen, Ontario			30.07	763.8	51	10.6	72	Calm	0	0		0	0			0.11	2.8		
Stayner, Ontario			30.02	762.5	56	13.3	81	Calm	0	0		0	Haze			0.08	2.0		
Sydney, C. B.			30.11	764.8	69	20.6	47	SW	10	4.5		0	0			0	0		
Toronto, Ontario			30.02	762.5	56	13.3	74	N	4	1.8		2ck	Haze	W		0.47	11.9		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.88	758.9	53	11.7	100	N	6	2.7			10n			1.20	30.5	Heavy rain	
Alpena, Mich.			30.07	763.8	59	15.0	58	W	6	2.7		0	Sm'e			0	0		
Atlantic City, N. J.			29.81	757.2	64	17.8	100	S	10	4.5			10s			0.09	2.3		
Augusta, Ga.			29.92	760.0	75	23.9	81	NW	2	0.9		5c	0	W		0.03	0.8		
Baltimore, Md.			29.81	757.2	70	21.1	75	NW	5	2.2		2c	2ks		NW	0.32	8.1		
Barnegat, N. J.			29.81	757.2	62	16.7	100	SE	10	4.5			10n		SE	0.40	10.2	Light rain	
Benton, Montana			30.05	763.3	54	12.2	73	W	8	3.6		0	0			0.39	9.9		
Bismarck, Dakota			29.76	755.9	59	15.0	94	E	6	2.7			10n			0.12	3.0	Light rain	
Boston, Mass.			29.98	761.5	57	13.9	87	E	10	4.5			10s		E	0.09	2.3	Threatening	
Breckenridge, Minn.			29.36	745.7	58	14.4	81	SE	20	8.9			10s			0	0		
Buffalo, N. Y.			29.96	761.0	52	11.1	79	Calm	0	0		2c	Haze			0.30	7.6		
Burlington, Vt.			29.98	761.5	53	11.7	80	Calm	0	0			10n			0.03	0.8	Light rain	
Cairo, Ill.			29.98	761.5	73	22.8	85	W	8	3.6			10n		W	0	0	Heavy rain	
Cape Hatteras, N. C.			29.89	759.2	77	25.0	86	S	11	4.9		5ck	0	S		0	0		
Cape Henry, Va.			29.87	758.7	74	23.3	76	SW	11	4.9		2k	5s		NW	0	0		
Cape May, N. J.			29.82	757.4	64	17.8	94	S	12	5.4			10s			0	0		
Charleston, S. C.			29.92	760.0	75	23.9	81	SE	4	1.8		2k	5s		E	0.62	15.7	Clearing	
Cheyenne, W. T.			29.95	760.7	51	10.6	48	NW	28	12.5		0	0			0.01	0.3		
Chicago, Ill.			30.09	764.3	55	12.8	80	NE	10	4.5		10cs	0			0	0		
Cincinnati, Ohio			29.93	761.5	63	17.2	72	NE	2	0.9			10s		NE	0.55	14.0		
Cleveland, Ohio			30.02	762.5	57.7	14.3	67	N	11	4.9		2k	Haze	N		0.01	0.3		
Colorado Springs, Col.			29.98	761.5	58	14.4	42	N	12	5.4		0	0			0	0		
Corsicana, Texas			29.96	761.0	78	25.6	82	S	7	3.1		10k	0			0	0		
Davenport, Iowa			30.06	763.5	58	14.4	81	E	16	7.2			10s			0	0		
Denver, Col.			30.04	763.0	61	16.1	16	Calm	0	0		0	0			0	0		
Detroit, Mich.			30.08	764.0	55	12.8	68	N	4	1.8		0	0			0.07	1.8		
Dodge City, Kansas			29.46	748.3	70	21.1	61	S	8	3.6		0	0			0	0		
Dubuque, Iowa			30.07	763.8	58	14.4	76	E	6	2.7			10s			0	0		
Duluth, Minn.			30.21	767.3	50	10.0	64	NE	4	1.8		8c	Haze			0	0		
Eastport, Me.			30.10	764.5	54	12.2	73	S	6	2.7		8c	2s	SW	SW	0	0		
Erie, Penn.			29.98	761.5	55	12.8	73	N	16	7.2		0	Haze			0.19	4.8		
Escanaba, Mich.			30.28	769.1	57	13.9	57	N	10	4.5		0	0			0	0		
Fort Gibson, I. T.			29.86	758.4	79	26.1	73	SE	8	3.6		1c	0			0	0		
Fort St. Michael, Alaska																			
Fort Sullivan, D. T.			29.66	753.4	63	17.2	88	E	40	17.9			10n		E	0.45	11.4	Light rain	
Galveston, Texas			30.00	762.0	84	28.9	73	S	9	4.0		0	0			0	0		
Grand Haven, Mich.			30.13	765.3	60	15.6	70	E	3	1.3		Haze	Sm'e			0	0		
Indianapolis, Ind.			30.03	762.7	62	16.7	71	NE	7	3.1		Haze	Haze			0.17	4.3		
Indianola, Texas			30.00	762.0	84	28.9	75	S	12	5.4		2k	0	S		0	0		
Jacksonville, Fla.			30.00	762.0	79	26.1	74	SW	4	1.8		4k	4s	SW	SW	0.01	0.3		
Keokuk, Iowa			29.93	760.2	62	16.7	83	E	10	4.5		5c	2s	W	SE	0.22	5.6		
Key West, Fla.			30.07	763.8	84.0	28.9	64	E	5	2.2		0	2ks			0	0		
Kittyhawk, N. C.			29.90	759.4	75	23.9	90	W	14	6.3		8k	0	SW		0	0		
Knoxville, Tenn.			29.98	761.5	65	18.3	94	SW	3	1.3			10s		SW	0.21	5.3		
La Crosse, Wis.			30.10	764.5	59	15.0	65	E	8	3.6		Haze	Haze			0	0		
Leavenworth, Kan.			29.83	757.7	74	23.3	63	S	12	5.4			10s		S	0	0		
Lexington, Ky.			29.95	760.7	69	20.6	90	NW	6	2.7			10s			0.49	12.4		
Long Branch, N. J.			29.83	757.7	64	17.8	94	S	19	8.5			10n		S	0.06	1.5	Light rain	
Louisville, Ky.			29.96	761.0	71	21.7	72	SE	3	1.3		5ck	0	S		0	0		
Lynchburg, Va.			29.84	757.9	72	22.2	71	W	4	1.8		2k	0	W		0.61	15.5		
Malone, N. Y.																			
Marquette, Mich.			30.18	766.6	58	14.4	47	W	4	1.8		0	0			0	0		
Memphis, Tenn.			30.00	762.0	78	25.6	73	SW	1	0.4		5cs	Haze			0	0		
Milwaukee, Wisconsin			30.16	766.1	52	11.1	72	NE	10	4.5		5cs	Haze			0	0		
Mobile, Ala.			30.04	763.0	79	26.1	78	W	5	2.2		2c	0			0	0		
Montgomery, Ala.			30.02	762.5	81.5	27.5	54	W	4	1.8		5c	Haze			0	0		
Morgantown, W. Virginia			29.95	760.7	58	14.4	87	N	7	3.1			10s			0.12	3.0		
Mt. Washington, N. H.			30.17	766.3	35	1.7	100	SW	40	17.9			10n		SW	0.20	5.1	Light rain	
Nashville, Tenn.			29.95	760.7	71	21.7	95	Calm	0	0			Fog			0.29	7.4	Foggy	
New Haven, Conn.			29.89	759.2	64	17.8	78	E	8	3.6			10s			0.02	0.5		
New London, Conn.			29.93	760.2	62	16.7	88	E	16	7.2			10s			0.06	1.5		
New Orleans, La.			30.06	763.5	83.5	26.9	76	N	3	1.3		2k	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.81	757.2	64	17.8	100	SE	4	1.8			10n			0.10	2.5	Light rain	
Norfolk, Va.			29.88	758.9	76	24.4	73	SW	12	5.4		8c	0	SW		0	0		
North Platte, Neb.			29.27	743.4	68	20.0	79	W	14	6.3		0	0			0	0		
Omaha, Neb.			29.81	757.2	67	19.4	84	SE	10	4.5			10s		S	5.12	130.0		
Oswego, N. Y.			29.96	761.0	50.5	10.3	93	NNE	4	1.8			10s			0.36	9.1	Threatening	
Peck's Beach			29.82	757.4	64	17.8	94	S	18	8.0			10s			0.12	3.0		
Pembina, D. T.			30.04	763.0	64	17.8	62	E	12	5.4		0	2s			0	0		
Philadelphia, Penn.			29.81	757.2	66	18.9	94	W	6	2.7			10n		W	0.16	4.1	Light rain	
Pike's Peak, C. T.			30.03	762.7	19	−7.2	70	W	42	18.8		0	Haze			0	0		
Pittsburgh, Penn.			29.92	760.0	57	13.9	81	N	7	3.1			10s		N	0.33	8.4		
Port Huron, Mich.			30.10	764.5	53	11.7	60	N	9	4.0		0	0			0.10	2.5		
Portland, Maine			30.09	764.3	56	13.3	89	SW	4	1.8			10n			0.22	5.6	Light rain	
Portland, Or.			30.14	765.5	54	12.2	74	Calm	0	0		8k	0			0	0		
Punta Rassa, Fla.			30.09	764.3	81.1	27.3	74	NW	2	0.9		2ck	Haze	NW		0	0		
Rochester, N. Y.			29.95	760.7	52	11.1	86	NW	8	3.6			10s			3.16	80.3		
Salt Lake City, Utah			30.09	764.3	57	13.9	52	S	4	1.8		0	0			0.13	3.3		
Sandy Hook, N. J.			29.81	757.2	64	17.8	94	S	13	5.8			10n		S	0.09	2.3	Light rain	
San Diego, Cal.			30.03	762.7	60	15.6	88	Calm	0	0			10s			0	0		
San Francisco, Cal.			30.03	762.7	53	11.7	93	Calm	0	0			Fog			0	0	Foggy	
Santa Fe, N. M.			29.85	758.2	59	15.0	18	N	10	4.5		0	0			0	0		
Savannah, Georgia			29.97	761.2	78	25.6	72	E	4	1.8		8ck	0	W		0	0		
Shreveport, La.			30.02	762.5	79	26.1	78	SSW	4	1.8		5c	0	W		0	0		
Springfield, Mass.			29.92	760.0	56	13.3	87	N	4	1.8			10n		SE	0.34	8.6	Threatening	
St. Louis, Mo.			29.87	758.7	65	18.3	94	NE	36	16.1			10n			3.50	88.9	Light rain	
St. Marks, Fla.			30.02	762.5	77	25.0	90	W	6	2.7		2c	0			0	0		
St. Paul, Minn.			30.03	762.7	57	13.9	68	E	8	3.6		5c	0			0	0		
St. Paul's Island, Alaska			29.82	757.4	40	4.4	91	E	21	9.4			8ks	10s		1.46	37.1		
Squan Beach, N. J.			29.83	757.7	61	16.1	100	S	14	6.3			10n		S	0.28	7.1	Heavy rain	
Toledo, Ohio			30.07	763.8	56	13.3	74	N	10	4.5		Haze	Haze			0	0		
Tybee Island, Ga.			29.96	761.0	80	26.7	74	SE	12	5.4		2k	0	W		0.02	0.5		
Vicksburg, Miss.			30.09	764.3	87	30.6	55	SW	1	0.4		0	0			0	0		
Virginia City, Mon.			29.85	758.2	49	9.4	64	Calm	0	0			10ks		W	0.07	1.8		
Washington, D. C.			29.84	757.9	66	18.9	84	W	4	1.8		2c	5s		W	0.12	3.0		
Wilmington, N. C.			29.92	760.0	77	25.0	72	SW	4	1.8		0	5ks		W	0.01	0.3		
Wood's Hole, Mass.			29.93	761.7	61	16.1	87	E	8	3.6			10s			0	0		
Wytheville, Va.			29.69	754.1	65	18.3	83	NW	6	2.7		2k	0			0	0		
Yankton, D. T.			29.76	755.9	66	18.9	94	E	25	11.2			10n		E	0.20	5.1	Heavy rain	

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	.....	.....	.....	.....	83	28.3	74	E	6	2.7	.....	.....	10n	.....	.....	0	0	.....	E. Racker.
Pointe-à-Pitre, Guadeloupe	.....	.....	30.02	762.5	82	27.8	70	E	.....	.....	.....	2k	0	.....	.....	0.01	0.3	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.78	756.4	81	27.2	74	E	3.6	1.6	.....	0	0	.....	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.31	769.9	81	27.2	67	E	14	6.3	.....	5ck	2k	SE	.....	0	0	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.87	758.7	77	25.0	78	SW	4.8	2.1	.....	.....	10n	.....	.....	0	0	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	30.15	765.8	77	25.0	84	S	9.2	4.1	.....	0	8k	.....	.....	0	0	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Honolulu, Oahu, H. I.	.....	.....	30.07	763.8	65	18.3	68	NE	8	3.6	.....	5c	5k	NE	NE	0	0	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.18	4.6	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Macpherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	30.17	766.3	35.0	1.7	100	E	10	4.5	.....	.....	Fog	.....	.....	0	0	.....	J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.07	763.8	68	20.0	90	SSE	2.0	0.9	.....	5c	2k	SE	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	30.11	764.8	53	11.7	90	NW	.....	.....	.....	5c	5s	.....	.....	0	0	.....	John Delaney.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	.....	H. M. Redington.
Elyria, Ohio	.....	.....	30.03	762.7	57	13.9	43	N	8	3.6	.....	.....	10s	.....	.....	0	0	.....	G. C. Carpenter.
Indianola, Iowa	28.99	736.3	.....	.....	70	21.1	78	SE	.....	.....	.....	.....	10n	.....	.....	0.24	6.1	.....	
U. S. Marine Series.	**True course towards.**	**Hourly rate in knots.**														**State of ocean.**	**Direction of swell from—**		
Schooner Addie Fuller, N. 33° 28', W. 72° 43'	NW½N	7	29.91	759.7	77	25.0	91	SSW	.....	.....	7	5c	.....	NE	.....	Rough	.....	.....	James Jorgensen, Mate.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 19, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.13	765.4	77.2	25.1		SE			3		2			0	0		Charnot.
Algiers			30.19	766.7	74.5	23.6	60	N			2		4			0	0		Peter.
La Calle			30.11	764.9	73.6	23.1		NW			3		2			0	0		Kuntz.
Tunis			30.11	764.8	78.8	26.0	51	N			4		5			0.114	2.9	Hazy	Jacques.
Sfax			30.10	764.5	88.7	31.5		N			5		6			0	0		Chauvey.
Safda			30.13	765.2	79.7	26.5		SSE			2		1			0	0		Grosjean.
Tebessa			30.07	763.7	70.7	21.5		NNE			2		3			0	0	Hazy	Colin.
Geriville			30.11	764.7	76.1	24.5		NNW			3		2			0	0		Bernadach.
Laghouat			30.13	765.2	80.6	27.0	26	NW			2		1			0	0		Poinsignon.
Biskra			30.08	764.0	94.1	34.5		NW			5		2			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.87	758.8	86.7	30.4	47	SW			2		5			0.008	0.2		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.93	760.2	86.9	30.5	44	NE			1		3			0.055	1.4		I. R. Observatory.
Eperies			29.94	760.4	85.5	29.7	65	S			4					0	0		Julius Mikölik.
Gratz			29.89	759.2	73.9	23.3	85	SW			2		10			0	0		Andreas Rospini.
Hermannstadt			29.98	761.4	87.4	30.8	28	SE			1		4			0	0		Prof. Reissenberger.
Kremsmünster			29.97	761.1	60.8	16.0	85	WNW			2		10			0.087	2.2		Prof. C. Wagner.
Lemberg			29.91	759.8	87.8	31.0	48	S			2		4			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.97	761.2	92.1	33.4	40	E			2		6			0	0		Habzsuda Daniel.
Pola			29.91	759.6	81.1	27.3	66	ESE			2		8cks			0.055	1.40		I.R. Hydrographic Office
Szegedin			29.93	760.2	90.3	32.4	37	S			1		5			0	0		Karl Stancel.
Trieste			29.93	760.2	79.7	26.5	61	N			1		7			0.465	11.8		Prof. V. Faroff.
Vienna			29.90	759.5	75.7	24.3	64	NE			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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.15	765.7	64.8	18.2	55	NNE			1		7k		N	0.453	11.50		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.90	759.4	63.0	17.2		S	20	8.9			4			0	0		William Boswell.
Annanhill																			
Ardrossan			29.94	760.5	57	13.9		S			4		8						
Armagh Observatory			29.92	760.0	59.9	15.5		S	14	6.3			10						William McNeil.
Banbridge																		Raining	S. Cal., for Dr. Robinson.
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			30.06	763.5	63.8	17.7		SSW			2		9						
Birr Castle, (Parsonstown)			29.97	761.2	61.4	16.3		SW			1		10					Drizzling	John Hartnup, Jr.
Bradford			30.03	762.7	66.3	19.1		S			1		4						J. Drever and I. Mitchell
Bridgetown, (Barbadoes)			30.04	763.0	83	28.3		NE			4		5						J. Mc. Landsborough.
Bywell																			T. H Hunt.
Cambridge Observatory			30.14	765.5	68.0	20.0		SSW			1		2						
Cape Town, (Cape Colony)			30.05	763.3	57.8	14.3		NW			4		7						H. Todd.
Cape Good Hope Obs.			30.10	764.5	58	14.4	70	WNW	13	5.8			9						Sgt. D. E. Hunt.
Cardington			30.15	765.8	70.0	21.1		NW					7						Th Staff, for E. J. Stone.
Carlisle			30.01	762 2	68.4	20.2		S					9						John McLaren.
Chatham, School M. E.			30.15	765.8	64.7	18.2		NE			1		7			0	0		T Bell, for J. Cartmell.
Colombo, (Ceylon)			29.90	759.4	84.6	29.2		SW			4		7						Qr. Mast Sgt. J. Wood.
Dartmoor			30.26	768.6	49.0	9.4		SW			1		10					Drizzling	Sgt. W. F. Hopkins
Donaghadee			29.93	760.2	58	14.4		S			4		10						R. E. Power.
Doyer			30.17	766.3	63	17.2		SSE			2		0					Raining	J. Mac Gowan, Jr.
Dublin																			J. Costello.
Durham Observatory																			
Eccles, (near Manchester)			30.06	763.5	66.8	19.3		SSW	4.4	2.0			5						G. D. Goldney.
Falmouth Observatory			30.19	766.8	58.2	14.6		SSW	14	6.3			10						Thomas Mackereth.
Fort Napier, (Natal)			30.04	763.0	74.6	23.7		N			4		1					rizzling	The Staff.
Freetown, (Sierra Leone)			29.85	758.2	85	29.4		N					6						Pvt. G. Salmon.
Galway, Queen's College			29.84	757 9	62	16.7		W			6		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.14	765.5	75.5	24.2		NE			4		3						
Glasgow Observatory			29.9	760.0	59.6	15.3		SW			2		10						Sergt. E. G. Baker.
Great Yarmouth			30.16	766.1	61	16.1		SE			2		2						Lewis Stewart.
Greenwich Royal Obs.			30.15	765.8	68.6	20.3		WNW			1		5						G. T. Watson.
Guernsey			30.22	767.6	59.5	15.3		WSW			1		8						The Staff, for G. B. Airy.
Halifax, Moorside Obs.			30.08	764.0	67.5	19.7		SW					5						Dr. S. E. Hoskins. [ley.
Halifax, (Nova Scotia)																			F. J. Page, for L. J. Cross-
Helston			30.15	765 8	61	16.1		S			4		10						Corp'l J Y. Thompson.
Holyhead			30.05	763.3	57	13.9		S			5		10					Fog & rain	Dr. W. B. Moyle.
Hull Park																		Misty	John Tilston.
Kew Observatory			30.13	765.3	68.0	20.0		NW	8	3.6			5						
Kingstown			30.00	762.0	62.0	16.7		SSE			2		10					Drizzling	The Staff.
Lampeter																			George Mitchell.
Leicester Museum			30.12	765 0	66.0	18.9		SW			1		5						
Llandudno			30.07	763 8	62.5	16.9		S					10					Misty	William J. Harrison.
Malta, (Mediterranean)			29.98	761.5	81.6	27.6		SE			2		8k						Dr. James Nicol.
Markree Castle																			Fred Travis, Pvt A.H.C.
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.19	766.8	79.3	26.3		S			1		6						William D. Penny.
North Shields			30.02	762.5	66	18.9		SW			4		8						Surg.-Maj. Henry.
Nottingham			30.11	764.8	70	21.1		S			3		7k		S				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, St Mary's College			30.10	764.5	68.1	20.1		S			3		4					Hazy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.11	764.8	67	19.4		SW			1		7						J. Lucas, for R. Main
Plymouth			30.20	767.1	57	13.9		SSW			1		10					Threatening	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.07	763.8	56	13.3		SW			3		10					Foggy	W. Kennedy.
Saint Ann's Head			30.12	765.0	56	13.3		SW			2		10					Raining	John C. Walker.
Saint Helier, (Jersey)			30.22	767.6	62.8	17.1		W			3		5						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			30.06	763 5	66.9	19.4		SW			2		5						F. Shaw.
Scutari, (Turkey)			30.06	763.5	84.0	28.9		NE			2		1						Sergt. W. H. Lyne.
Sheffield			30.09	764.3	68	20.0		SW			3		2			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.01	762.2	64	17.8		SW			5		5			0.233	5.9		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.15	765.8	65	18.3		SSE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.05	763.3	63.4	17.4		S			3		9					Hazy	The Staff.
Stornoway, Lews C. (Hebr)																			John Smith.
Strathfield Turgiss			30.15	765.8	66.9	19.4		W			1		5						Rev Charles H. Griffith
Streatley Vicarage			30.16	766.1	69.7	20.9		SSW			4		1						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.76	755.9	67	19.4		S			4		4						John Trotter.
Truro Royal Institution			30.13	765.3	60	15 6		W			4		10						W Newcombe.
Valencia Observatory			30.02	762.5	57.2	14.0		SW	26	11.6								Drizzling	The Staff.
Wick																			
Wisbeach																			
Worthing																			
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			30.10	764.6	62.6	17.0	54	Calm			0		3						
Fanöe			30.14	765.5	58.6	14.8	68	WNW			4		1						
Godthaab, (Greenland)			29.81	757.1	37.9	3.3	83	S			4		8						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.62	752.3	52.9	11.6	87	SE			4		10					Raining	
Vestervig			30.09	764 3	50.5	15.3	71	W			4		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.22	767.6	63.7	17.6	61	NE			2		8		NE	0	0		Normal School.
Amiens			30.09	764.2	72.3	22.4	54	W			2		5		N	0.057	1.4		Normal School.
Beaumette, (near Angers)			30.23	767.8	66.6	19.[illegible]	43	N	2.2	1.0			10		N	0.248	6.3		Beaumette Observatory.
Beauvais			30.22	767.6	66.9	19.4	45	ENE			1		5		NNW	0.104	2.65		Normal School.
Besançon			30.17	760.4	65.7	18.8	57	NE			2		8		NW	0	0		Normal School.
Bourg en Bresse			30.14	765.5	65.3	18.5	49	N			2		10		S	0	0		Normal School.
Bourges			30.14	765.5	64.8	18.[illegible]	64	W			2		5		SE	0.043	1.1		Normal School.
Brest			30.19	766.9	62.8	17.1	72	WSW			1		10		SW	0	0		Naval Observatory.
Caen			30.23	767.8	63.7	17.6	80	NW			2		5		NW	0	0		Normal School.
Chartres			30.20	767.[illegible]	66.7	19.3		N			3		4k		NNW	0.189	4.8		Normal School.
Chaumont			30.18	766.5	64.4	18.0		NNW			4		5k		NW	0	0		Normal School.
Commercy			30.22	767.6	61.9	16.6	63	N			4		5		S	0.059	1.5		Normal School.
Le Mans			30.31	770.5	64.4	18	72	NE			2		5		NE	0	0		Normal School.
Lons-Le Saulnier			30.10	764.4	59.9	15.5	66	NE			2		5		E	0	0		Normal School.
Mâcon			30.17	766.3	63.7	17.6	63	S			4		10			0	0		Normal School.
Mirecourt			30.11	764.7	64.4	18	52	N			2		10		SE	0	0		Normal School.
Orleans			30.01	762.3	66.2	19	57	NNW			3		8		N	0.252	6.4		Normal School.
Paris Observatory			30.17	763.3	64.6	18.1		N			2		8k		N	0.059	1.49		National Observatory
Parthenay			30.26	768.5	61.4	18.[illegible]	70	S			2		2		N	0.189	4.8		Normal School.
La Roche sur Yon			30.26	768.5	68.2	20.1	43	NW			4		8		SE	0.063	1.6		Normal School.
Rouen			30.17	766.4	70.5	21.4	39	WSW			2		2		N	0	0		Normal School.
Saint Lo			30.24	768.0	65.9	18.7	54	NW			1		10		NW	0.173	4.4		Normal School.
Villefranche			30.16	766.0	69.4	20.8	54	NW			4		8		N	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)	24.96	634.0			49.8	9.9	66	NNW	18.6	8.33			4		SW	0.307	7.8		Frère Pascall.
Mont-Louis			30.16	766.1	66.9	19.4	46	NNE			2		8k		N	0.012	0.3		—. Falguère.
Montsouris Observatory			30.15	765.7	70.0	21.1	50	W	16.8	7.50			2ck		W	0	0		Marié Davy.
Perpignan			30.17	766.4	66.6	19.2	52	NE			2		8			0.008	0.2		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.17	766.2	68.4	20.2	47	NW			1		5		N	0.031	0.8		C. Marquet.
Versailles, (near Paris)			30.17	766.2	66.6	19.2	50	NNW			2		8			0.260	6.62		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.78	756.5	69.4	20.8	91	E	7.6	3.4			10k		E	0.004 / 0.006	0.1 / 0.15	Misty	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.99	761.8	59.0	15.0	98	W			2		10			0.323	8.2		Prof. Hoh.
Berlin			30.16	766.0	68.2	20.1	57	NE			1		8			0.122	3.1		Prof. Arndt.
Breslau			30.11	764.8	61.7	16.5	91	NNW			2		10			0.079	2.0	Raining	Dr. P. Neugebauer.
Carlsruhe			30.10	764.6	63.7	17.6	72	NW			1		10			0	0		A. Senz.
Cassel			30.00	762.1	71.2	21.8	51	NW			3		8			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.14	765.6	53.6	12.0	95	N			2		10			1.083	27.5	Raining	M. Wilhelm.
Hamburg			30.15	765.9	63.3	17.4	58	WNW			2		7k		NNW	0.559	14.2		W. Reinert.
Kiel			30.08	764.1	61.7	16.5	62	NE			2		1			0	0		Prof. G. Karsten.
Königsberg			30.04	763.1	67.8	19.9	63	N			1		5			0.981	25.0		Prof. E. Luther.
Köslin			30.15	765.8	62.2	16.8		N			4		10			0.002	0.04		Dr. Tägert.
Leipsic			30.10	764.5	58.5	14.7	99	N			2		10			0.862	21.9	Raining	Prof. Bruhns.
Münster			30.15	765.8	68.7	20.4	61	NW			1		4			0	0		Prof. E. Heis.
Posen			30.10	764.5	67.1	19.5	67	NW			5		10			0.012	0.3		Dr. Magener.
Strassburg, (in Alsace)			30.11	764.7	66.0	18.9	55	N					10			0.335	8.52		Hartwig and Tü k.
Stuttgart			29.08	764.1	62.6	17.0	73	N					10			0.102	2.6	Raining	Mr. Würth.
Thorn			30.02	762.5	77.0	25.0	48	NE			3		5			0	0		Dr. Hesenbalg.
Treves, (Trier)			30.06	763.4	68.2	20.1	45	SW			4		10			0	0		Prof. Flesch.
Wustrow			30.16	766.1	62.8	17.1	71	W			2		3cs			0	0		F. F. chütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.87	758.8	68.7	20.4	61	ENE	5.6	2.5		7		SW		0.980	24.9		
Mondovi			29.85	758.1	60.1	15.6	98	ESE			2	9		S		0.602	15.3	Hail-storm	
Genoa			29.90	759.4	66.4	19.1	81	SE	0	0		10		SE		0.642	16.3		
Pavia			29.89	759.2	64.9	18.3	85	N			1	9		W		0.579	14.7		
Verona			29.82	757.5	72.1	22.3	85	E			2	10				0.047	1.2	Raining	
Padua			29.86	758.4	74.3	23.5	75	SE	12.5	5.6		10		SW		0	0		
Parma																			
Bologna			29.88	758.9	79.3	26.3	58	ESE			6	5		W		0	0		
Leghorn			29.93	760.3	70.3	21.3	68	W	6.9	3.1		10				0.276	7.0	Hail-storm	
Urbino			29.95	760.7	77.9	25.5	59	SW			6	10				0	0		
Ancona			29.92	759.9	80.6	27.0	67	SE			4	10				0.039	1.0	Showery	
Siena			29.89	759.3	79.3	21.3	65	SW	4.3	1.9		9		SW		0.004	0.1		
Rome			30.03	762.7	70.9	21.6	84	S			2	10				0.138	3.5	Raining	
Naples, O.U.			30.00	762.1	88.2	31.2	38	SW			2	3				0	0		
Lecce			29.97	761.3	91.4	33.0	22	NNW	16.8	7.5		0				0	0		
Cosenza			29.99	761.8	95.7	35.4	32	SW			2	3		SE		0	0		
Catania, (Sicily)																			
Tiposto			30.04	763.0	87.8	31.0	37	SW			4	5		NE		0	0		
Palermo			29.95	760.7	81.1	27.3	61	N			4	2				0	0		
Sub-Series.																			
Naples, S. R.			30.05	763.2	87.4	30.8	50	SW			4		8	W		0.008	0.2	Foggy	Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing		...	30.19	766.8	62.8	17.1		WNW			2								
Groningen			30.12	765.0	62.6	17.0		N			1								
Helder			29.17	766.2	61.2	16.2		NE			2								
Utrecht			29.12	765.0	65.5	18.6	50	NE			2		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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	61.5	16.4	56	SSW	20.1	9.0			10			0	0		
Christiania			29.91	759.6	69.1	20.6	55	SW	7.2	3.2			3			0	0		
Tromsö			29.80	757.0	48.2	9.0	84	SW			6		9			0	0		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.19	766.9	76.6	24.8	25	NE	8.7	3.9			3						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			29.96	761.0	79.2	26.2	60	NNW	4	2			5						Astronomical Obs.
Wilna			29.91	759	80.4	26.9	60	NW	2	1			10						Astronomical Obs.
Dorpat			29.83	759.3	71.4	21.9	59	W	9	4			7						Physical Cabinet.
St. Petersburg			29.80	757.0	63.7	17.6	82	NW	9	4			9						Central Physical Obs.
Kuopio			29.74	755.5	64.8	18.2	69	N					5		S	0	0		Ch. Forsten.
Kieff			30.01	762.2	90.5	32.5	45	SW	4	2			7						Physical Cabinet.
Nikolaiev			30.07	763.8	93.4	34.1	30	NW	4	2			2						Kurd·kof.
Kertch			30.08	763.9	81.1	27.3	40	N	9	4			0						Lagorio.
Moscow			29.93	760.3	83.5	28.6	53	W	8	3.5			7						Meteorological Obs.
Lugan			29.91	759.7	87.3	30.7	25	NW	8	3.5			0						Meteorological Obs.
Archangel			29.68	753.8	58.8	14.9	91	W	20	9			10					Raining	Ogorodnikof.
Tiflis			29.89	759.3	82.4	28.0	44	S	8	3.5			3						Physical Obs.
Astrakhan			29.95	760.7	82.9	28.3	21	NNE	13	6			1						Sebastianof.
Kasan			29.76	7 6.0	80.2	26.8	34		8	3.5			2						Physical Cabinet.
Orenburg			29.60	751.8	72.5	22.5	94	SE	10	4.5			5						Tschernischef.
Ekaterinburg			29.66	753.4	60.6	15.9	76	NW	4	2			9					Raining	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.87	758.8	79.7	26.5	34	NW	13	6			8						Michelson.
Barnaul			29.69	754.0	82.2	27.9	48	NE	13	6			0						Meteorological Obs.
Yeniseisk			29.66	753.4	70.2	21.2	63	NW	8	3.5			1						Marks.
Irkutsk			29.70	754.4	60.4	15.8	71	W	10	4.5			7						Usolzef.
Oorga			29.75	755.6	52.5	11.4	54	Calm	0	0			0						Mossin.
Peking, (China)			29.56	750.8	84.7	29.3	23	S	8	3.5			0						Physical Observatory
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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	765.2	75.9	24.4	29	N	3.8	1.7		0	1			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.82	757.5	63.3	17.4	52	NW			3		6			0	0		
Hernosand			29.86	758.5	64.0	17.8	67	E			1		6			0.01	0.3		
Stockholm			29.87	758.8	67.6	19.8	41	WSW			2		0			0	0		
Wisby			30.02	762.5	63.0	17.2	78	W			4		4			0	0		
Sub-Series.																			
Upsala			29.88	759.0	71.6	22.0	41	SSW			6		3		W				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.66	728.0			60.4	15.8	58	N			4		9			0.016	0.4		The Observatory.
Zurich	28.50	723.9			53.4	11.9	90	SE			1		10			6.440	38.0	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.3 mm.; Thermometer, —[illegible] C.; Relative Humidity, +3 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.74	755.1	[illegible]	29.9	65	SW			2		2						Prof. C. N. A. Van Dyck.
Constantinople			30.09	764.2	[illegible]	[illegible]	45	NE	19.0	8.5			0			0	0		
Fao, (Persian Gulf)			29.65	753.0	[illegible]	40.2		SE			3		0						
Salonica					89.8	32.1		NW			2		0						
Valona			30.03	762.7	88.7	31.5		S			2		2						
Varna			30.12	765.0	82.4	28.0		NE			2		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			29.89	759.2	63	17.2		N	1	0.4		2c	0	W		0	0		
Chatham, N. B.			29.61	752.1	50	10.0	96	N	14	6.3			8s			0.52	13.2	Light rain	
Charlottetown, P. E. Island			29.51	749.5	53	11.7	93	E					10n			1.175	29.8	Heavy rain	
Fort Garry Manitoba			30.05	763.3	57	13.9	81	SE	5	2.2		Haze	2s			0	0		
Halifax, N. S.			29.33	745.0	54	12.2	96	SE	9	4.0			Fog			1.968	50.0		
Kingston, Ontario			29.92	760.0	59	15.0	82	NW	7	3.1		0	Sm'e			0	0		
Montreal, Quebec			29.76	755.9	57	13.9	80	N				2k	Haze			0	0		
Ottawa, Ontario			29.85	758.2	63	17.2	57	S	10	4.5		0	Sm'e			0	0		
Parry Sound, Ontario			30.04	763.0	58	14.4	53	N	23	10.3		0	0			0	0		
Port Dover, Ontario			30.02	762.5	60	15.6	39	NW	13	5.8		0	0			0	0		
Port Stanley, Ontario			30.07	763.8	63	17.2	84	W	15	6.7		0	0			0	0		
Quebec, Quebec			29.72	754.9	54	12.2	87	NW	4	1.8			10n		NW	0	0		
Saugeen, Ontario			30.09	764.3	48	8.9	93	Calm	0	0		0	2s			0	0		
Stayner, Ontario			30.06	763.5	57	13.9	63	NW	8	3.6		2c	0	N		0	0		
Sydney, C. B.			29.74	755.4	52	11.1	97	E	17	7.6			10n		SE	0.12	3.0	Light rain	
Toronto, Ontario			30.01	762.2	61	16.1	55	NW	10	4.5		0	0			0	0		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.77	756.1	60	15.4	66	NW	7	3.1		2cs	2k		NW	0.46	11.7		
Alpena, Mich.			30.11	764.8	62	16.7	46	W	4	1.8		0	Sm'e			0	0		
Atlantic City, N. J.			29.92	760.0	60	15.6	59	NW	12	5.4		Haze	Sm'e			0.20	5.1		
Augusta, Ga.			30.06	763.5	75	23.9	64	E	4	1.8		5c	0	NE		0.02	0.5		
Baltimore, Md.			30.09	764.0	62	16.7	50	NW	5	2.2		Haze	Haze			0	0		
Barnegat, N. J.			29.90	759.4	62	16.7	57	NW	20	8.9		5c	Sm'e	W		0	0		
Benton, Montana			30.06	763.5	55	12.8	80	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.81	752.7	56	13.3	80	E	3	1.3			10s			0.64	16.3		
Boston, Mass.			29.60	751.8	54	12.2	73	NW	20	8.9			10s		NW	0.50	12.7		
Breckenridge, Minn.			29.90	759.4	56	13.3	87	SE	10	4.5			10s			0.23	5.8		
Buffalo, N. Y.			29.99	761.7	57	13.9	57	W	12	5.4		8k	0	NW		0	0		
Burlington, Vt.			29.75	755.6	56	13.3	75	N	1	0.4			10s			0.31	7.9		
Cairo, Ill.			30.02	762.5	69	20.6	100	NE	4	1.8			10n		W	0.61	15.5	Heav rain	
Cape Hatteras, N. C.			30.09	764.3	70	21.1	52	NE	8	3.6		Haze	Haze			0.12	3.0		
Cape Henry, Va.			30.08	764.0	68	20.0	69	N	11	4.9		Haze	0			1.50	38.1		
Cape May, N. J.			29.96	761.0	63	17.2	57	NW	18	8.0			Sm'e			0	0	Dense smoke	
Charleston, S. C.			30.08	764.0	74	23.3	81	NE	12	5.4		5k	5s	E	NE	0	0		
Cheyenne, W. T.			30.12	765.0	55	12.8	38	NW	8	3.6		0	0			0	0		
Chicago, Ill.			30.10	764.5	59	15.0	70	NE	5	2.2		8cs	0			0	0		
Cincinnati, Ohio			30.10	764.5	62	16.7	67	NE	2	0.9		Haze	Sm'e			0	0		
Cleveland, Ohio			30.10	764.5	58.2	14.6	63	S	4	1.8		5c	Sm'e	W		0	0		
Colorado Springs, Col.			30.12	765.0	54	12.2	38	SE	6	2.7		0	0			0	0		
Corsicana, Texas			30.00	762.0	75	23.9	86	S	6	2.7		5cs	2k			0	0		
Davenport, Iowa			30.03	762.7	60	29.6	76	E	8	3.6		5k	5s	W	SE	0	0		
Denver, Col.			30.16	766.1	54	12.2	38	Calm	0	0		0	0			0	0		
Detroit, Mich.			30.10	764.5	57	13.9	57	NW	4	1.8		2c	Haze			0	0		
Dodge City, Kansas			29.59	751.6	71	21.7	67	NE	9	4.0		0	0			0	0		
Dubuque, Iowa			30.04	763.0	62	16.7	61	SE	14	6.3			10s			0	0		
Duluth, Minn.			30.13	765.3	51	10.6	59	NE	4	1.8		0	0			0	0		
Eastport, Me.			30.36	771.1	47	8.3	92	NE	21	9.4			10n		NE	1.67	42.4	Light rain	
Erie, Penn.			30.02	762.5	60	15.6	54	SW	12	5.4		0	Haze			0	0		
Escanaba, Mich.			30.14	766.5	59	15.0	54	N	4	1.8		0	0			0	0		
Fort Gibson, I. T.			29.94	760.5	68	20.0	94	SE	5	2.2		0	6ks		SW	1.16	29.5		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.79	756.7	58	14.4	94	NW	14	6.3			10n		NW	0.28	7.1	Light rain	
Galveston, Texas			30.05	763.3	83	28.3	70	S	4	1.8		0	0			0	0		
Grand Haven, Mich.			30.13	765.3	63	17.2	57	W	1	0.4		0	0			0	0		
Indianapolis, Ind.			30.11	764.8	62	16.7	61	E	1	0.4			10s			0	0		
Indianola, Texas			30.03	762.7	84	28.9	71	S	10	4.5		5k	0	S		0	0		
Jacksonville, Fla.			30.06	763.5	80	26.7	82	Calm	0	0		6k	4s		SW	0.85	21.6		
Keokuk, Iowa			29.93	760.2	64	17.8	88	SE	10	4.5			10n			0.20	5.1	Light rain	
Key West, Fla.			30.11	765.8	82.0	27.8	67	S	6	2.7		2k	Haze	SE		0	0		
Kittyhawk, N. C.			30.08	764.0	65	18.3	68	NW	10	4.5		0	0			0.51	13.0		
Knoxville, Tenn.			30.10	764.5	62	16.7	71	NE	9	4.0		2k	0	NW		0.16	4.1		
La Crosse, Wis.			30.04	763.0	63	17.2	51	S	10	4.5		8k	0	S		0	0		
Leavenworth, Kan.			29.86	758.4	71	21.7	79	S	8	3.6		0	5s		SW	0.01	0.3		
Lexington, Ky.			30.18	766.1	63	17.2	57	E	1	0.4			Haze			0	0		
Long Branch, N. J.			29.88	758.9	61	16.1	60	NW	15	6.7		Haze	Haze			0.10	2.5		
Louisville, Ky.			30.09	764.3	63	17.2	57	NE	4	1.8			10s			0	0		
Lynchburg, Va.			30.11	764.8	65	18.3	49	NW	6	2.7		2c	0	W		0.05	1.3		
Malone, N. Y.																			
Marquette, Mich.			30.14	765.5	58	14.4	53	W	2	0.9		0	0			0	0		
Memphis, Tenn.			29.93	760.2	83	28.3	67	SW	6	2.7			10s			0	0		
Milwaukee, Wisconsin			30.15	765.8	56	13.3	45	NE	8	3.6		2ck	Haze	SW		0	0		
Mobile, Ala.			30.06	763.5	82	27.8	70	NW	8	3.6		0	0			0	0		
Montgomery, Ala.			30.06	763.5	79	26.1	62	SE	6	2.7		5k	Haze	W		0	0		
Morgantown, W. Virginia			30.12	765.0	62	16.7	67	Calm	0	0		1c	Sm'e	W		0	0		
Mt. Washington, N. H.			29.73	755.1	30	− 1.1	100	NE	50	22.4			10n		NE	1.25	31.7	Light snow	
Nashville, Tenn.			30.00	762.0	68	20.0	90	E	6	2.7			10s			0	0		
New Haven, Conn.			29.79	756.7	64	17.8	52	NW	12	5.4		2cs	0	NW		0.36	9.1		
New London, Conn.			29.76	755.9	63	17.2	57	NW	16	7.2		2c	0	NW		0.29	7.4		
New Orleans, La.			30.07	763.8	81	27.2	74	W	4	1.8		2k	0	W		0	0		
Newport, R. I.																			
New York, N. Y.			29.88	758.8	60	15.6	49	NW	10	4.5			Fog			0.25	6.3		
Norfolk, Va.			30.10	764.5	66	18.9	59	NW	6	2.7		Haze	0			0.11	2.8		
North Platte, Neb.			29.49	749.0	65	18.3	67	NW	16	7.2			8ks		W	0	0		
Omaha, Neb.			29.77	756.1	70	21.1	75	S	14	6.3		0	2s		S	0	0		
Oswego, N. Y.			29.92	760.0	51	10.6	64	WNW	9	4.0			8s			0	0	Foggy	
Peck's Beach			29.95	760.7	59	15.0	58	NW	18	8.0			10s			0	0		
Pembina, D. T.			29.99	761.7	63	17.2	67	SE	8	3.6		5k	2s	SW		0	0		
Philadelphia, Penn.			29.95	760.7	61	16.1	49	NW	20	8.9		Haze	Sm'e	NW		0.01	0.3		
Pike's Peak, C. T.			30.24	768.1	31	− 0.6	68	N	6	2.7		0	Haze			0	0		
Pittsburgh, Penn.			30.08	764.0	56	13.3	62	NW	4	1.8		0	Sm'e			0	0		
Port Huron, Mich.			30.09	764.3	60	15.6	49	NW	8	3.6		Haze	0			0	0		
Portland, Maine			29.53	750.0	52	11.1	90	N	20	8.9			10n		N	1.51	38.4	Light rain	
Portland, Or.			30.14	765.5	52	11.1	79	SW	6	2.7			10s			0.08	2.0	Threatening	
Punta Rassa, Fla.			30.12	765.0	82.1	27.8	70	N	4	1.8		Haze	5ks			0	0		
Rochester, N. Y.			29.93	760.2	59	15.0	59	[illegible]	10	4.5		2k	Haze	W		0	0		
Salt Lake City, Utah			30.00	762.0	55	12.8	38	NW	2	0.9		0	0			0	0		
Sandy Hook, N. J.			29.86	758.4	61	16.1	55	NW	25	11.2		Haze	Haze			0.13	3.3		
San Diego, Cal.			30.06	763.5	60	15.6	87	NE	4	1.8			10s			0	0		
San Francisco, Cal.			30.14	765.5	53	11.7	80	W	16	7.2		0	0			0	0		
Santa Fe, N. M.			29.89	759.2	61	16.1	12	N	4	1.8		0	Haze			0	0		
Savannah, Georgia			30.04	763.0	83	28.3	61	NW	2	0.9		8k	0			0	0		
Shreveport, La.			30.03	762.7	82	27.8	78	SW	6	2.7		5k	2ks	SW		0	0		
Springfield, Mass.			29.74	755.4	62	16.7	61	NW	12	5.4		8cs	0			1.66	42.2		
St. Louis, Mo.			29.99	761.7	66	18.9	83	SE	16	7.2			10n			0.97	24.6	Light rain	
St. Marks, Fla.			30.06	763.5	78	25.6	90	W	4	1.8			5s		W	0	0		
St. Paul, Minn.			29.95	760.7	58	14.4	64	E	8	3.6			10s		S	0	0		
St. Paul's Island, Alaska			29.76	738.1	42	5.6	82	S	12	5.4		0	10s			0.08	2.0	Showery	
Squan Beach, N. J.			29.88	758.9	61	16.1	45	NW	8	3.6		Haze	Sm'e			0.80	20.3		
Toledo, Ohio			30.12	765.0	60	15.6	65	SW	3	1.3		Haze	Sm'e			0	0		
Tybee Island, Ga.			30.04	763.0	80	26.7	78	NE	12	5.4		2k	5ks			0	0		
Vicksburg, Miss.			30.08	764.0	82	27.2	70	SW	4	1.8		0	0			0	0		
Virginia City, Mon.			29.82	757.4	50	10.0	64	SE	1	0.9		0	0			0	0		
Washington, D. C.			30.04	763.0	61.5	16.4	57	NW	14	6.3		Haze	Sm'e			0	0		
Wilmington, N. C.			30.13	765.3	67	19.4	79	NE	8	3.6			10s		W	0	0		
Wood's Hole, Mass.			29.62	752.3	56	13.3	74	SW	21	9.4			10s			0.54	13.7		
Wytheville, Va.			29.95	760.7	54	12.2	79	NW	1	0.9		0	Sm'e			0	0		
Yankton, D. T.			29.72	754.9	62	16.7	88	S	5	2.2			10s		SW	2.90	48.3		

NOTE.—The original give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					84	28.9	67	NE	6	2.7		5k	2s	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.03	762.7	82	27.8	82	E				10k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.81	757.2	82	27.8	82	E	3.6	1.6		2k	0	E		0.20	5.1		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.30	769.6	81	27.2	70	E	10	4.5		2ck	5kn	E		0.10	2.5		W. S. Cameron.
Santiago de Cuba, W. I.			29.88	758.9	80	26.7	74	Calm	0	0		8c	0			Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.15	765.8	76.5	24.7	82	WSW	9.4	4.2		0	2cs			0.025	6.3		C. F. Allen.
Honolulu, Oahu, H. I.			30.07	763.8	65	18.3	79	NE	5	2.2		5c	5k	NE	NE	0	0		E. P. Church.
Makawao, Maui, H. I.																0.45	11.4		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.85	758.2	64.0	17.8	58	SW	10	4.5		8k	Haze	N		0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.07	763.8	68	20.0	90	SSE	0.5	0.2		0	0			0	0		C. Partridge.
St. John's, Newfoundland			30.46	773.7	53	11.7	78	E				Sm'o	Sm'o			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.11	764.8	58.5	14.7	69	SW	4	1.8			2s			0	0		H. M. Redington.
Indianola, Iowa	28.90	734.0			70	21.1	84	SE					8n			0.06	1.5		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 35° 03', W. 73° 20'	WNW	2	29.92	760.0	74	23.3	81	N			2	0	0			Long swell			James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 20, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.07	763.7	77.7	25.4		NE			4		2			0	0		Charnot.
Algiers			30.11	764.7	76.6	24.8	71	NNE			2		2			0	0		Peter.
La Calle			30.12	765.0	74.3	23.5		NE			4		0			0	0		Kuntz.
Tunis			30.13	765.4	77.4	25.2	47	NE			4		1			0	0		Jacques.
Sfax			30.14	765.5	77.2	25.1		ENE			5		5			0	0		Chauvey.
Saida			30.07	763.8	90.5	32.5		ESE			2		0			0	0		Grosjean.
Tebessa			30.11	764.8	79.7	26.5		NE			2		1			0	0		Colin.
Geriville			30.12	765.0	81.5	27.5		SE			2		0			0	0		Bernadach.
Laghouat			30.21	767.3	84.2	29.0	27	NE			1		1			0	0		Poinsignon.
Biskra			30.18	766.6	90.5	32.5		N			3		0			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Arvain			29.87	758.7	78.6	25.9	36	SW			2		4			0	0		Prof. Ivan Stozir.
Buda-Posth																			I. R. Cen. M. I., Hungary
Cracow			29.78	756.5	88.2	31.2	56	NE			2		6			0.638	16.2		I. R. Observatory.
Eperies			29.81	757.2	86.7	30.4	64	S			2					0.598	15.20		Julius Mikolik.
Gratz			29.81	757.1	75.7	24.3	68	SSW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.81	757.1	88.5	31.4	38	SE			4		2			0	0		Prof. Reissenberger.
Kronsmünster			29.82	757.5	67.3	19.6	56	W			3		3			0	0		Prof. C. Wagner.
Lemberg			29.80	756.8	89.2	31.8	46	SE			3		4			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.83	757.7	91.8	33.[illegible]	44	SW			3		4			0.338	8.57		Habzsuda Daniel.
Pola			29.[illegible]7	761.1	74.7	23.7	56	SW			1		3cks			1.149	3.79		I.R. Hydrographic Of'ce
Szegedin			29.80	756.8	87.1	30.6	53	Calm			0		3			1.226	31.00		Karl Stancel.
Trieste			29.95	760.8	74.8	23.8	64	SW			1		4			0	0		Prof. V. Farolfi
Vienna			29.80	756.9	77.0	25.0	59	NE			2		1			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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.96	761.0	65.3	18.5	54	WSW			2		2k		WSW	0.020	0.50		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.81	757.2	60.4	15.8		SSE	18	8.0			1			0.090	2.29		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			29.88	758.9	58.0	14.4		SW	10	4.5									S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.93	760.2	58.1	14.5		WNW			2		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.93	760.2	58.8	14.9		WSW			1		6						J. Dreyer and I. Mitchell
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.03	762.7	84	28.9		NE			2		6						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.90	759.4	61.0	16.1		NNW			1		10					Raining	H. Todd.
Cape Town, (Cape Colony)			30.13	765.3	56.8	13.8		NW			2		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.21	767.3	60	15.6	80	SSW	7	3.1			7						The Staff, for E. J. Stone.
Cardington			29.92	760.0	67.0	19.4		NW					7						John McLaren.
Carlisle			29.88	758.9	62.5	16.9		W					4			0.09	2.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.91	759.7	60.2	15.7		W			1		10					Raining	Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.88	758.9	80.2	26.8		SW			3		8						Sgt. W. F. Hopkins
Dartmoor			30.07	763.8	55.0	12.8		W			1		4						R. E. Power.
Donaghadee			29.88	758.9	63	17.2		SSW			3		5						J. Mac Gowan, Jr.
Dover			29.93	760.2	56	13.3		SW			3		9					Drizzling	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.91	759.7	58.4	14.7		SW	3.2	1.4			10						Thomas Mackereth
Falmouth Observatory			30.02	762.5	60.5	15.8		WNW	15	6.7			7						The Staff.
Fort Napier, (Natal)			29.92	760.0	75.4	24.1		E			2		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)			29.85	758.2	86	30.0		E					8						[illegible]
Galway, Queen's College			29.89	759.2	57	13.9		W3W			1		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.06	763.5	75.0	23.9		ENE			4		5						Sergt. E. G. Baker.
Glasgow Observatory			29.85	758.2	59.2	15.1		WSW			2		7						Lewis Stewart.
Great Yarmouth			29.90	759.4	60	15.6		SW			2		8					Rainy	G. T. Watson.
Greenwich Royal Obs.			29.92	760.0	64.3	17.8		WSW			1		10			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			30.00	762.0	60	15.6		WSW			1		6						Dr. S. E. Hoskins. [illegible]
Halifax, Moorside Obs.			29.92	760.0	60.2	15.7		WNW					10						F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			30.02	762.5	63	17.2		NW			4		8						Dr. W. B. Moyle.
Holyhead			29.96	761.0	60	15.6		SSW			2		3						John Tilston.
Hull Park																			
Kew Observatory			29.91	759.7	62.4	16.9		W	4	1.8			10					Threatening	The Staff.
Kingstown			29.99	761.7	60	15.6		SE			2		6					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			29.92	760.0	63.2	17.3		W			1		7						William J. Harrison.
Llandudno																			Dr. James Nicol.
Malta, (Mediterranean)			29.96	761.0	80.0	26.7		NE			1		4k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.24	768.1	84.4	29.1		SE			2		4						Surg.-Maj. Henry.
North Shields																			John Wm. Irvine.
Nottingham			29.92	760.0	67.7	19.8		WSW			2		7ks		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			29.92	760.0	63.3	17.4		NW			1		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.88	758.9	66	18.9		Calm			0		8						J. Lucas, for R. Main.
Plymouth			29.99	761.7	67	19.4		WNW			2		5						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.00	762.0	57	13.9		SW			3		8					Showery	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.02	762.5	59.5	15.3		WNW			2		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.94	760.5	86.0	30.0		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.88	758.9	63.7	17.6		NW			2		6			0	0	Showery	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.90	759.4	66.7	19.3		SW			3		2			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.89	759.2	61.0	16.1		SSW			1		10					Raining	Rev. C. J. Steward.
Stonyhurst Observatory			29.9[illegible]	759.4	59.4	15.2		W			2		4						The Staff.
Stornoway, Lews C. (Heb.)																			John Smith.
Strathfield Turgiss			29.92	760.0	66.2	19.0		W			1		9						Rev. Charles H. Griffith
Streatley Vicarage			29.92	760.0	67.6	19.8		WSW			1		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.72	754.9	62	16.7		SW			5		4						John Trotter.
Truro, Royal Institution			29.99	761.2	65	18.3		W			4		6						W. Newcombe.
Valencia Observatory			29.98	761.5	55.2	12.9		WNW	20	8.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			29.94	760.4	63.3	17.4	72	NE			2		10						
Fanöe			29.94	760.5	63.9	17.7	64	WSW			2		1						
Godthaab, (Greenland)			29.81	757.1	42.1	5.6	80	S			2		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.42	747.3	54.5	12.5	70	SW			7–9		5						
Vestervig			29.90	759.5	63.7	17.6	61	W			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.08	764.1	57.9	14.4	84	SW			3		10			0.315	8.0		Normal School.
Alençon			29.98	761.5	61.5	16.4	78	SSW			2		10			0.165	4.2		Normal School.
Amiens			30.02	762.6	61.9	16.6	85	SW	6.3	2.8			10		SW	0.059	1.5		Beaumette Observatory.
Beaumette, (near Angers)			30.07	763.8	64.6	18.1	65	WSW			2		10		WSW	0	0		Normal School.
Beauvais			30.13	765.3	64.4	18.0	62				2		8		W	0	0		Normal School.
Besançon			30.11	764.9	63.7	17.6	62	W			2		5			0	0		Normal School.
Bourg en Bresse			30.09	764.2	66.2	19	67	W			4		5		NE		0		Normal School.
Bourges			29.98	761.5	64.6	18.1	88	SW			1		10		WNW	0.059	1.50	Rainy & misty	Naval Observatory.
Brest			30.03	762.7	60.4	15.8	93	S			2		10		W	0.083	2.1		Normal School
Caen			30.07	763.7	68.0	20.0		WSW			3		10			0	0		Normal School.
Chartres			30.08	764.0	64.8	18.2		W			4		5ks			0	0		Normal School.
Chaumont			30.08	764.0	65.8	18.8	49	W			6		5		E	0	0		Normal School.
Commercy			30.22	767.6	60.3	15.7	81	SW			3		8		SW	0	0		Normal School.
Le Mans			30.07	763.7	59.2	15.1	55	NNW			1		5			0.118	3.0		Normal School.
Lons-Le Saulnier			29.897	759.32	60.1	15.6	81	W			2		10			0	0		Normal School.
Mâcon			29.99	761.8	63.0	17.2	43	NNW			3		5		SSE	0	0		Normal School.
Mirecourt			30.04	763.1	69.8	21	48	NNW			4		5		W	0	0		Normal School.
Orleans			30.02	762.6	66.7	19.3		W			2		10k		W	0	0		National Observatory
Paris Observatory			30.09	765.2	58.1	14.5	82	NW			4		10			0.018	0.45		Normal School.
Parthenay			30.11	764.8	63.1	17.3	88	S			4		10			0.079	2.0		Normal School.
La Roche sur Yon			30.00	762.1	59.7	15.4	85	SSW			2		10			0	0		Normal School.
Rouen			30.01	762.2	62.2	16.8	81	W			2		5		NW	0.063	1.6		Normal School.
Saint Lo			30.15	765.9	67.6	19.8	54	NW			4		8		NW	0.055	1.40		Normal School
Villefranche																			
Sub-Series.																			Frère Pascall.
Gorée, (Senegambia)					55.9	13.3	51	WSW	7.4	3.33			4		NNW	0.028	0.7		—. Falguère.
Mont-Louis	24.96	634.0			66.9	19.4	63	W			3		10kn		WSW	0	0		Marié Davy.
Montsouris Observatory			30.02	762.5	73.0	22.8	26	N	9.3	4.17			2c		NW	0	0		Dr. Fines.
Perpignan			30.10	764.6	66.4	19.1	78	SW			2		10			0	0		E. Renou.
Saint Maur, (near Paris)			30.02	762.6															
Saint Pierre, (Martinique)					64.2	17.9	56	WNW			2		10		W	0	0		C. Marquet.
Tours			30.09	764.2	67.3	19.6	58	W			3		9			0	0		Dr. A. Bérigny.
Versailles, (near Paris)			30.02	762.5	69.8	21.0	98	E	10.3	4.6			10n			0 / 0	0 / 0	Rainy	H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai)			29.79	756.6															

Note.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.72	755.0	57.6	14.2	99	NW			2		10			1.024	36.0		Prof. Hoh.
Berlin			29.87	758.6	66.0	18.9	82	E			1		8			0.571	14.5		Prof. Arndt.
Breslau			29.86	758.5	81.3	27.4	59	SE			3		7			0.362	9.2	Thunder-storm	Dr. P. Neugebauer.
Carlsruhe			29.97	761.3	55.4	13.0	90	W			1		10			0.972	50.1	Raining	A. Senz.
Cassel			29.76	755.9	58.3	14.6	85	NW			2		10			0.404	10.26		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.07	763.6	52.7	11.5	88	W					10			0.268	6.8	Raining	M. Wilhelm.
Hamburg			29.95	760.7	56.8	13.8	80	NE			3		10			0.043	1.1	Raining	W. Reinert.
Kiel			29.98	761.5	62.8	17.1	61	NE			4		10			0	0		Prof. G. Karsten.
Königsberg			29.96	760.9	71.6	22.0	65	NE			1		6			0.001	0.02		Prof. E. Luther.
Köslin			29.93	760.2	72.5	22.5		E			4		2			0.001	0.02		Dr. Tägert.
Leipsic			29.80	756.9	66.9	19.4	76	SW			2		8			0.102	28.0		Prof. Bruhns.
Münster			29.89	759.2	67.8	18.8	69	NE			1		10			0	0		Prof. E. Heis.
Posen			29.83	757.7	82.4	28.0	54	SE			3-4		6			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.01	762.2	57.9	14.4	88	SW					10			0.803	20.40		Hartwig and Tük.
Stuttgart			29.97	761.1	53.6	12.0	88	W					10			2.555	64.9	Raining	Mr. Würth.
Thorn			29.83	759.7	77.9	25.5	58	E			3		3			0.047	1.2		Dr. Rosenbalg.
Treves, (Trier)			29.89	759.3	65.5	18.6	53	NW			5		10			0.066	1.69		Prof. Flesch.
Wustrow			29.95	760.6	56.5	13.6	73	NNW			4		10			0.012	0.3	Raining	F. F. Schütz.

Note.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.95	760.6	65.5	18.6	63	ESE	0	0			9	NW		0.780	19.8		
Mondovi			29.91	759.7	63.9	17.7	50	NW			2		10	NNE		0	0		
Genoa			29.94	760.5	70.2	21.2	48	NE	0.7	0.3			4			0	0		
Pavia			29.95	760.8	67.5	19.7	59	SE			1		9	SW		0	0		
Verona			29.91	759.7	72.5	22.5	58	SW			1		5			0	0		
Padua			29.91	759.7	72.3	22.4	45	SW	7.4	3.3			3	S		0	0		
Parma																			
Bologna			29.9	760.7	75.4	24.1	65	WSW			8		6	E		0	0		
Leghorn			29.98	761.4	65.5	18.6	65	SW	10.5	4.7			8			0.118	3.0		
Urbino			29.96	761.0	74.7	23.7	43	SW			4		4			0	0		
Ancona			29.93	760.3	79.5	26.4	41	SE			2		3			0	0		
Siena			30.31	769.8	61.7	16.5	77	NW	3.8	1.7			10	SW		0	0		
Rome			30.04	763.0	74.5	23.6	51	SW			2		8	W		0	0		
Naples, O.U.			29.93	760.3	76.6	24.8	34	NW			2		1			0	0		
Lecce			29.89	759.3	81.5	27.5	43	ESE	15.0	6.7			1	E		0	0		
Cosenza			30.04	762.9	83.3	28.5	57	NW			2		4	SW		0	0		
Catania, (Sicily)																			
Trapposto			29.95	760.7	78.3	25.7	68	E			6		4	NW		0	0		
Palermo			30.03	762.8	74.3	23.5	59	N			2		9			0	0		
Sub-Series.																			
Naples, S. R.			30.04	762.9	78.1	25.6	41	W			6		0			0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.99	761.8	61.2	16.2		WNW			2								
Groningen			29.88	758.9	65.3	18.5		N			1								
Helder			29.93	760.2	63.7	17.6		SW			2								
Utrecht			29.90	759.5	71.8	22.1	54	WSW			2		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.84	758.0	54.7	12.6	96	S	19.9	8.9			10			1.063	27.0	Foggy	
Christiania			29.85	758.1	70.5	21.4	50	SSW	14.5	6.5			0			0	0		
Tromsö			29.87	758.7	45.3	7.4	94	NE			2		3			0	0		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.13	765.3	83.5	28.6	18	NE	15.0	6.7			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.85	758.3	74.7	23.7	78	N	13	6			6						Astronomical Obs.
Wilna			29.96	761.0	79.0	26.1	46	Calm	0	0			7						Astronomical Obs.
Dorpat			30.00	762.0	71.6	22.0	46	WSW	4	2			3						Physical Cabinet.
St. Petersburg			29.92	759.9	67.6	19.8	69	WNW	9	4			1						Central Physical Obs.
Kuopio			29.88	759.0	55.6	13.1	78	N					10			0	0		Ch. Forsten.
Kieff			29.92	760.0	88.5	31.4	44	NNW	4	2			9						Physical Cabinet.
Nikolaiev			30.08	764.1	95.9	35.5	27	SSW	10	4.5			2						Kurdukof.
Kertch			30.00	761.9	85.8	29.9	35	NNE	9	4			2						Lagorio.
Moscow			29.86	758.5	69.8	21.0	74	WNW	8	3.5			8					Light rain	Meteorological Obs.
Lugan			29.77	756.2	92.7	33.7	25	WNW	9	4.5			0						Meteorological Obs.
Archangel			29.87	758.7	55.6	13.1	67	WNW	17	7.5			0						Ogorodnikof.
Tiflis			29.92	759.9	84.9	29.4	31	S	13	6			1						Physical Obs.
Astrakhan			29.95	760.7	89.8	32.1	19	NNE	4	2			0						Sebastianof.
Kasan			29.72	754.8	74.8	28.8	68	W	10	4.5			5						Physical Cabinet.
Orenburg			29.68	753.8	77.0	25.0	43	NW	4	2			4						Tschernischef.
Ekaterinburg			29.44	746.9	73.6	23.1	45	SW	4	2			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.88	758.9	79.2	26.2	39	NW	13	6			9						Michelson.
Barnaul			29.69	751.9	84.9	29.4	47	SW	13	6			3						Meteorological Obs.
Yeniseisk			29.54	750.4	85.5	29.7	55	SE	13	6			0						Marks.
Irkutsk			29.77	756.2	64.4	18.0	72	Calm	0	0			0						Usolzef.
Oorga			29.87	758.8	52.3	11.3	70	Calm	0	0			8						Mossin.
Peking, (China)			29.56	750.8	88.0	31.1	42	Calm	0	0			7						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.08	764.1	78.6	25.9	31	E	5.1	2.3		2	0	SE		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.90	759.4	59.7	15.4	62	SW			2		10			0.04	0.9		
Hernosand			29.86	758.5	64.2	17.9	52	E			3		2			0	0		
Stockholm			29.89	759.4	71.6	22.0	36	SW			2		0			0	0		
Wisby			30.02	762.4	61.2	16.2	58	N			2		0			0	0		
Sub-Series.																			
Upsala			29.90	759.4	72.7	22.6	27	SSW			4		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.67	728.2			63.0	17.2	68	NNW			1		9			0.043	1.1		The Observatory.
Zurich	28.44	722.4			51.4	10.8	89	SE			1		10			0.630	16.0	Raining	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.4 mm.; Thermometer, —4°.0 C.; Relative Humidity, +13 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			29.98	761.5	78.1	25.6	57	NNE	13.4	6			2		NE	0	0		
Fao, (Persian Gulf)			29.63	752.5	96.8	36.0		SE			3		0						
Salonica					88.0	31.0		S			2		0						
Valona			30.00	761.9	82.8	28.2		NW			2		2						
Varna			30.04	763.0	93.2	34.0		SE			3		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			30.18	766.6	61	16.1		NW	1	0.4		0	Sm'e			0	0		
Chatham, N. B.			29.64	752.8	58	14.4	67	NW	20	8.9		8k	2ks	NW	NW	0.66	16.8		
Charlottetown, P. E. Island			29.57	751.1	53	11.7	86	W					10n			0.045	1.2		
Fort Garry, Manitoba			29.93	760.2	67	19.4	90	S	2	0.9		2ck	5ks	SW	SW	0	0		
Halifax, N. S.			29.62	752.3	56	13.3	83	W	10	8.5			8ks		NW	0.068	1.7	Clearing	
Kingston, Ontario			30.21	767.3	63	17.2	67	NW	5	2.2		0	Sm'e			0	0		
Montreal, Quebec			30.06	763.5	62	16.7	60	N.	8	3.6		2c	0	N		0	0		
Ottawa, Ontario			30.12	765.0	61	16.1	66	SW	8	3.6		0	Sm'e			0	0		
Parry Sound, Ontario			30.17	766.3	57	13.9	69	S	5	2.2		0	0			0	0		
Port Dover, Ontario			30.20	767.1	56	13.3	63	Calm	0	0		0	0			0	0		
Port Stanley, Ontario			30.18	766.6	60	15.6	70	Calm	0	0		0	0			0	0		
Quebec, Quebec			29.95	760.7	65	18.3	49	S	14	6.3		0	0			0.15	3.8		
Saugeen, Ontario			30.18	766.6	59	15.0	70	Calm	0	0		2ks	0			0	0		
Stayner, Ontario																			
Sydney, C. B.			29.46	748.3	52	11.1	93	SW	16	7.2			10n		W	0.70	17.8		
Toronto, Ontario			30.21	767.3	58	14.4	59	SW	3	1.3		5cs	Haze			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.12	765.0	61	16.1	66	Calm	0	0		Haze	Haze			0	0		
Alpena, Mich.			30.14	765.5	60	15.6	59	SE	2	0.9		0	Sm'e			0	0		
Atlantic City, N. J.			30.19	766.8	65	18.3	58	NW	2	0.9		0	0			0	0		
Augusta, Ga.			30.12	765.0	71	21.7	95	SW	1	0.4			10s		SW	1.23	31.2		
Baltimore, Md.			30.19	766.8	68	20.0	46	NE	2	0.9		5c	Sm'e			0	0		
Barnegat, N. J.			30.18	766.6	67	19.4	59	Calm	0	0		Haze	Haze			0.01	0.3		
Benton, Montana			30.07	763.8	53	11.7	79	W	8	3.6			10s			0	0		
Bismarck, Dakota			29.79	756.7	58	14.4	53	S	6	2.7			10s		S	0	0		
Boston, Mass.			30.06	763.5	64	17.8	45	NW	9	4.0		0	0			0.02	0.5		
Breckenridge, Minn.			29.90	759.4	61	16.1	94	S	3	1.3			10s			0.02	0.5		
Buffalo, N. Y.			30.18	766.6	55	12.8	68	S	4	1.8		0	Haze			0	0		
Burlington, Vt.			30.08	764.0	60	15.6	71	N	4	1.8		2c	2s			0	0		
Cairo, Ill.			30.05	763.3	65	18.3	94	E	5	2.2			10s		E	0.24	6.1		
Cape Hatteras, N. C.			30.19	766.8	73	22.8	67	SW	5	2.2		10cs	0	SW		0	0		
Cape Henry, Va.			30.20	767.1	71	21.7	66	W	5	2.2		5ck	5s			0	0		
Cape May, N. J.			30.19	766.8	67	19.4	50	N	5	2.2		2c	Sm'e	W		0	0		
Charleston, S. C.			30.14	765.5	75	23.9	75	NW	4	1.8		5c	5s			0.02	0.5		
Cheyenne, W. T.			30.03	762.7	57	13.9	30	W	8	3.6		0	0			0	0		
Chicago, Ill.			30.10	764.5	67	19.4	64	SE	5	2.2		0	0			0	0		
Cincinnati, Ohio			30.06	763.5	65	18.3	58	E	8	3.6		0	0			0	0		
Cleveland, Ohio			30.15	765.8	58.2	14.6	66	SE	7	3.1		0	0			0	0		
Colorado Springs, Col.			30.03	762.7	55	12.8	50	SE	7	3.1		0	0			0	0		
Corsicana, Texas			29.98	761.5	76	24.4	81	SW	6	2.7			10s		S	0	0		
Davenport, Iowa			30.02	762.5	60	15.6	82	E	12	5.4		5c	5s	W		0.05	1.3		
Denver, Col.			30.06	763.5	56	13.3	29	[illegible]	4	1.8		0	0			0	0		
Detroit, Mich.			30.14	765.5	62	16.7	83	NE	2	0.9		0	Haze			0	0		
Dodge City, Kansas			29.52	749.8	79	26.1	54	SW	17	7.6		0	0			0	0		
Dubuque, Iowa			30.02	762.5	64	17.8	67	SE	10	4.5		8ck	0	S		0	0		
Duluth, Minn.			30.05	763.3	53	11.7	60	NE	5	2.2		0	0			0	0		
Eastport, Me.			29.84	757.9	60	15.6	66	NW	16	7.2		0	5s			0.22	5.6		
Erie, Penn.			30.15	765.8	62	16.7	46	SE	8	3.6		0	Haze			0	0		
Escanaba, Mich.			30.11	764.8	64	17.8	57	S	6	2.7		0	0			0	0		
Fort Gibson, I. T.			29.90	759.4	73	22.8	76	Calm	0	0		8cs	0	W		0.41	10.4		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.88	758.9	58	14.4	94	NW	3	1.3			10s		NW	0.10	2.5		
Galveston, Texas			30.04	763.0	84	28.9	67	S	8	3.6		2c	2ks	S	S	0	0		
Grand Haven, Mich.			30.12	765.0	66	18.9	54	E	3	1.3		0	0			0	0		
Indianapolis, Ind.			30.08	764.0	68	20.0	51	E	5	2.2		2c	0			0	0		
Indianola, Texas			30.04	763.0	82	27.8	78	S	8	3.6		5ck	2k			0	0		
Jacksonville, Fla.			30.16	766.1	80	26.7	65	Calm	0	0		0	0			0.26	6.6		
Keokuk, Iowa			29.93	760.2	63	17.2	88	S	15	6.7			10s		S	0.01	0.3		
Key West, Fla.			30.16	766.1	85.0	29.4	61	E	8	3.6		2c	2ks	N		0	0		
Kittyhawk, N. C.			30.22	767.6	71	21.7	85	Calm	0	0		10c	Haze			0	0		
Knoxville, Tenn.			30.06	763.5	66	18.9	90	E	3	1.3			10s			0.60	15.2		
La Crosse, Wis.			30.03	762.7	65	18.3	63	SE	6	2.7		Haze	Haze			0	0		
Leavenworth, Kan.			29.86	758.4	72	22.2	71	S	4	1.8		0	0			0.05	1.3		
Lexington, Ky.			30.09	764.3	68	20.0	74	S	6	2.7		2c	5s			0	0		
Long Branch, N. J.			30.18	766.6	64	17.8	57	W	5	2.2		Haze	Haze			0	0		
Louisville, Ky.			30.06	763.5	68	20.0	56	NE	6	2.7		5ck	0	NE		0.05	1.3		
Lynchburg, Va.			30.18	766.6	66	18.9	73	W	1	0.4			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.08	764.0	59	15.0	59	E	4	1.8		0	0			0	0		
Memphis, Tenn.			30.05	763.3	73	22.8	85	S	1	0.4		2ck	8ks		SW	0.36	9.1		
Milwaukee, Wisconsin			30.14	765.5	60	15.6	48	Calm	0	0			Fog			0	0	Foggy	
Mobile, Ala.			30.12	765.0	81	27.2	70	SW	3	1.3		2k	8s	SW	SW	0	0		
Montgomery, Ala.			30.13	765.3	75	23.9	84	S	3	1.3			10s		W	0.21	5.3		
Morgantown, W. Virginia			30.17	766.3	64	17.8	72	N	1	0.4		5c	Sm'e	W		0	0		
Mt. Washington, N. H.			30.09	764.3	31	— 0.6	89	N	52	23.3		0	8s		N	0.20	5.1		
Nashville, Tenn.			30.01	762.2	73	22.8	80	W	3	1.3		10k	0	W		1.14	29.0		
New Haven, Conn.			30.13	765.3	60	15.6	59	NW	8	3.6			10s			0.02	0.5		
New London, Conn.			30.13	765.3	63	17.2	57	NW	6	2.7		Haze	Haze			0	0		
New Orleans, La.			30.09	764.3	80	26.7	72	SW	1	0.4		8ck	0	NW		0.19	4.8		
Newport, R. I.																			
New York, N. Y.			30.19	766.8	60	15.6	55	NW	4	1.8			Fog			0	0		
Norfolk, Va.			30.20	767.1	69	20.6	79	SW	2	0.9			10s			0	0		
North Platte, Neb.			29.57	751.1	57	13.9	87	Calm	0	0		0	Fog			0	0	Foggy	
Omaha, Neb.			29.83	757.7	62	16.7	88	W	5	2.2		5ck	0	W		0	0		
Oswego, N. Y.			30.19	766.8	55.8	13.2	62	W	8	3.6			Haze			0	0		
Peck's Beach			30.20	767.1	68	20.0	50	NE	4	1.8		Haze	0			0	0		
Pembina, D. T.			29.90	759.4	68	20.0	74	Calm	0	0		0	Haze			0	0		
Philadelphia, Penn.			30.21	767.3	66	18.9	41	N	10	4.5		0	0			0.01	0.3		
Pike's Peak, C. T.			30.26	768.6	35	1.7	70	NW	8	3.6		0	0			0	0		
Pittsburgh, Penn.			30.17	766.3	54	12.2	79	N	1	0.4		Haze	Haze			0	0	Hazy	
Port Huron, Mich.			30.18	766.6	56	13.3	62	Calm	0	0		0	0			0	0		
Portland, Maine			30.01	762.2	65	18.3	48	W	9	4.0		0	Haze			0.08	2.0		
Portland, Or.			30.38	771.6	50	10.0	85	SW	2	0.9			10s			0.62	15.7		
Punta Rassa, Fla.			30.16	766.1	80.2	26.8	78	E	8	3.6		0	5ks		E	0.80	20.3		
Rochester, N. Y.			30.18	766.6	55	12.8	68	SW	7	3.1		Haze	Haze			0	0		
Salt Lake City, Utah			30.02	762.5	60	15.6	47	S	8	3.6		0	0			0	0		
Sandy Hook, N. J.			30.16	766.1	61	16.1	55	NW	10	4.5		Haze	Haze			0	0		
San Diego, Cal.			29.98	761.5	61	16.1	88	NE	4	1.8			10s			0	0		
San Francisco, Cal.			30.09	764.3	55	12.8	80	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.86	758.4	74	23.3	8	SW	8	3.6		0	Haze			0	0		
Savannah, Georgia			30.15	765.8	77	25.0	69	SW	8	3.6		5c	2k		S	0.01	0.3		
Shreveport, La.			30.05	763.3	77	25.0	86	S	5	2.2			10s		S	0.83	21.1		
Springfield, Mass.			30.13	765.3	62	16.7	61	Calm	0	0		Haze	Haze			0.16	4.1	Hazy	
St. Louis, Mo.			30.06	763.5	64	17.8	88	SE	7	3.1			10s			0	0		
St. Marks, Fla.			30.12	765.0	74	23.3	81	E	2	0.9		8k	0	E		0.07	1.8		
St. Paul, Minn.			29.92	760.0	63	17.2	66	E	10	4.5		0	Haze			0	0		
St. Paul's Island, Alaska			29.22	742.2	40	4.4	91	SE	19	8.5		0	10s			0.08	2.0		
Squan Beach, N. J.			30.18	766.6	63	17.2	52	NW	4	1.8		0	Haze			0.10	2.5		
Toledo, Ohio			30.13	765.3	68	20.0	65	S	1	0.4		0	0			0	0		
Tybee Island, Ga.			30.17	766.3	76	24.4	96	S	4	1.8		2ks	8ks			0.68	17.3		
Vicksburg, Miss.			30.12	765.0	75	23.9	90	SW	8	3.6			10ks		SW	0.25	6.3		
Virginia City, Mon.			29.80	756.9	44	6.7	67	S	1	0.4		2c	0	SW		0	0		
Washington, D. C.			30.21	767.3	65.5	18.6	54	Calm	0	0		8c	2s	W		0	0		
Wilmington, N. C.			30.18	766.6	73	22.8	90	E	6	2.7			10n		SE	0.09	2.3	Heavy rain.	
Wood's Hole, Mass.			30.11	764.8	63	17.2	72	W	5	2.2		0	Sm'e			0	0		
Wytheville, Va.			29.96	761.0	60	15.6	82	NE	2	0.9			10s			0.08	2.0		
Yankton, D. T.			29.85	758.2	61	16.1	94	NW	4	1.8			Fog			0.48	12.2	Foggy	

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					80	26.7	78	N	7	3.1			10n			0	0	Light rain	E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.03	762.7	79	26.1	69	E					10n			0	0	Foggy	L. V. Bigard.
Havana, Cuba, W. I.			29.80	756.9	82	27.8	78	E	7.2	3.2		10ck	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.33	770.4	80	26.7	74	E	8	3.6		0	8k, n			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.92	760.0	81	27.2	78	Calm	0	0		8c	0	W		0	0		Robert Mason.
St. Georges, Bermudas			30.24	768.1	75.5	24.2	86	SW	4.6	2.1			10n			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.04	763.0	64	17.8	79	NE	8	3.6		5c	5ks	NE	NE	Blank	Blank		E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Mc[illegible]herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.59	751.6	53.5	11.9	97	NW	18	8.0			10n			0	0		J. Fortescue.
Clifton, Jamaica, W. I.																			C. Partridge.
St. John's, Newfoundland			29.99	761.5	59	15.0	59	SE				5k	5s	SE		0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			30.16	766.6	62	16.7	71	SW	4	1.8			0			0	0		H. M. Redington.
Indianola, Iowa	28.91	734.3			67	19.4	90	SE					10n			0.94	23.9	Showery	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 35° 00′, W. 73° 16′	NNW	1	30.00	762.0	76	24.4	73	SSW			1	Haze	Haze			Tranquil.		Hazy, smoky	James Jorgensen, Mate.

Note.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 21, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.92	760.0	77.7	25.4		SE			5		2			0	0		Charnot.
Aiglers			29.84	757.9	78.4	25.8	67	WNW			2		2			0	0		Peter.
La Calle			29.89	759.2	71.6	22.0		NW			4		2			0	0	Sirocco	Kuntz.
Tunis			30.00	761.9	80.6	27.0	50	E			4		0			0	0		Jacques.
Sfax			30.03	762.7	79.5	26.4		SE			2		1			0	0	Threatening	Chauvey.
Saïda			29.96	761.0	93.2	34.0		WSW			3		0			0	0		Grosjean.
Tebessa			29.98	761.5	86.2	30.1		W			4		1			0	0		Colin.
Gerlville			30.00	762.0	83.7	28.7		SE			3		5			0	0		Bernadach.
Laghouat			30.08	763.9	91.4	33.0	27	SSW			5		6			0	0	Sirocco	Poinsignon.
Biskra			30.00	762.0	91.6	33.1		E			4		6			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.89	759.2	81.0	27.2	37	NE			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.6	77.5	25.3	57	WSW			2		4			0.346	8.8		I. R. Observatory.
Eperies			29.85	758.3	78.8	2[illegible].0	70	SE			3					0.364	9.24		Julius Mikolik.
Gratz			29.89	759.1	70.5	21.4	77	SSW			2		5			0	0		Andreas Rospini.
Hermannstadt			29.79	756.6	85.6	29.8	39	ESE			3		6			0	0		Prof. Reissenberger.
Kremsmünster			29.91	759.8	66.9	19.4	51	ENE			2		3			0	0		Prof. C. Wagner.
Lemberg			30.08	764.0	80.8	27.1	60	SE			3		5			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.85	758.1	83.8	28.8	55	E			1		6			0.799	20.30		Habzsuda Daniel.
Pola			29.95	760.7	72.0	22.[illegible]	67	W			2		1ks			0.328	8.34		I.R. Hydrographic Office
Szegedin			29.86	758.5	75.2	24.0	69	W			3		10			0.295	7.50		Karl Stancel.
Trieste			29.95	760.7	73.0	22.8	66	WNW			1		4			0	0		Prof. V. Farolfi.
Vienna			29.93	760.3	71.7	21.7	49	ENE			1		2			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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.81	757.1	61.2	16.2	81	W			1		10ks		NW	0.331	8.40		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
A[illegible]			29.74	755.4	63.0	17.2		S	20	8.9			2			0	0		William Boswell.
Ballinhill																			
Ardrossan			29.83	757.7	56	13.3		SW			2		6						William McNeil.
Armagh Observatory			29.87	758.7	57.2	14.0		WNW	4	1.8			10					Showery	S. Cal., for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			29.87	758.7	58.0	14.4		WNW			2		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.92	760.0	55.8	13.2		NW			1		8					Showery	J. Dreyer and I. Mitchell
Bradford			29.80	756.9	60.0	15.6		W			1		8						J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.01	762.2	84	28.9		NE			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			29.86	758.4	58.5	14.7		NW			5		10					Thunder	H. Todd.
Cape Town, (Cape Colony)			29.96	761.0	60.8	16.0		N			2		9					Hazy	Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.03	762.7	63.2	17.3	65	SE	9	4.0			10						Th Staff, for E. J. Stone.
Cardington			29.88	758.9	63.8	17.7		NE					7						John McLaren.
Carlisle			29.83	758.4	62.8	17.1		W					1			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			29.81	757.2	56.5	13.6		NE			1		10					Threatening	Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.88	758.9	79.5	26.4		SW			3		5						Sgt. W. F. Hopkins
Dartmoor			30.00	762.0	55.2	12.9		NW			3		5						R. E. Power.
Donaghadee			29.86	758.4	58	14.4		WSW			3		10					Raining	J. Mac Gowan, Jr.
Dover			29.82	757.4	57	13.9		NE			1		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.81	757.9	61.4	16.3		W	4.8	2.1			6						Thomas Mackereth
Falmouth Observatory			29.97	761.2	59.4	15.2		WNW	17	7.6			4						The Staff.
Fort Napier, (Natal)			30.10	764.5	66.0	18.9		E			2		3						Pvt. G. Salmon.
Freetown, (Sierra Leone.			29.86	758.4	78	25.6		W					10					Light rain	[illegible]
Galway, Queen's College			29.87	758.7	63	17.2		W-W			2		4						B. G. Clare, for Prof. Carr.
Gibraltar, Mediterranean			29.94	760.5	79.0	26.1		SSW			2		5						Sergt. E. G. Baker.
Glasgow Observatory			29.80	756.9	57.7	14.3		WSW			1		8						Lewis Stewart.
Great Yarmouth			29.83	757.7	58	14.4		WNW			2		6						G. T. Watson.
Greenwich Royal Obs.			29.86	758.4	54.7	12.6		N			1		10			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			29.92	760.0	59	15.0		NNW			4		0						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			29.84	757.9	62.7	17.1		WNW					7						F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)																			Corp'l J Y. Thompson.
Helston			29.92	760.0	64	17.8		NW			4		4						Dr. W. B. Moyle.
Holyhead			29.93	760.2	59	15.0		SW			3		1						John Tilston.
Hull Park																			
Kew Observatory			29.88	758.9	54.8	12.7		NNW	4	1.8			10					Threatening	The Staff.
Kingstown			29.93	760.2	57	13.9		W			2		7						George Mitchell.
Lampeter																			
Leicester Museum			29.85	758.2	63.0	17.2		NW			1		7						William J. Harrison.
Llandudno			29.90	759.4	59.2	15.1		WNW					2						Dr. James Nicol.
Malta, (Mediterranean)			30.02	762.5	79.6	26.4		NW			1		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.21	767.3	83	28.3		E			2		6						Surg.-Maj. Henry.
North Shields			29.82	757.4	59	15.0		SE			2		7						John Wm. Irvine.
Nottingham			29.86	758.4	65.3	18.5		NW			2		7k		WNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.86	758.4	59.3	15.2		NW			1		9					rizzling	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.84	757.9	60	15.6		Calm			0		10						J. Lucas, for R. Main
Plymouth			29.82	757.2	65	18.3		NW			2		3						John Merrifield.
Portlishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.93	760.2	58	14.4		NW			5		5						W. Kennedy.
Saint Ann's Head			29.94	760.5	56	13.3		W			2		3						John C. Walker.
Saint Helier, (Jersey)			29.91	759.7	68.5	20.3		N			2		3						A. P. Amy.
Sandwick Manse (Orkneys																			Rev. C. Clouston
Scarborough			29.83	758.2	58.0	14.4		SE			1		9						F. Shaw.
Scutari, (Turkey)			29.87	758.7	86.0	30.0		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.82	757.4	59.4	15.2		NW			1		8			0	0	Showery	W. F. Cooper.
Sidmouth																			
Siloth Rectory			29.85	758.2	64.6	18.1		W			3		2			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.83	757.7	59.1	15.1		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.84	757.9	60.5	15.8		W			3		5						The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.89	759.2	53.7	12.1		S			1		10						Rev Charles H. Griffith
Streatley Vicarage			29.88	758.9	60.6	15.9		SSW			1		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.68	753.9	59	15.0		WNW			3		7						John Trotter.
Truro Royal Institution			29.93	760.2	64	17.8		NW			6		4						W Newcombe.
Valencia Observatory			30.02	762.5	56.3	13.5		WNW	22	9.4			4						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			29.78	756.4	61.7	16.5	76	S			2		10						
Fanöe			29.78	756.4	65.3	18.5	61	W			4		5						
Godthaab, (Greenland)			29.12	739.7	47.1	8.4	69	Calm			0		8						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.46	748.3	54.9	12.7	78	SW			6		10					Raining	
Vestervig			29.76	755.8	63.9	17.7	64	W			2		2						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.93	760.2	57.9	14.4	65	NE			3		8		NE	0	0		Normal School.
Amiens			29.76	755.9	59.4	15.2	76	W			3		10			0.378	9.6		Normal School.
Beaumette, (near Angers)			29.88	759.0	58.3	14.6	74	N	8.7	3.9			10		N	0.677	17.2		Beaumette Observatory.
Beauvais			29.93	760.2	58.6	14.8	76	W			1		10		W	0.384	9.75		Normal School.
Besançon			29.96	761.0	72.0	22.2	44	NE			3		2		S	0.087	2.2		Normal School.
Bourg en Bresse			29.92	759.9	75.2	24.0	37	S			4		5		N	0	0		Normal School.
Bourges			29.89	759.1	63.5	17.5	77	SW			2		10		E	0	0		Normal School.
Brest			29.92	760.0	59.2	15.1	61	NW			3		5		NW	0.089	2.25		Naval Observatory.
Caen			29.89	759.2	58.3	14.6	84	NW			2		8		NW	0.165	4.2		Normal School.
Chartres			29.89	759.3	57.6	14.1		N			1		10			0.571	14.5		Normal School.
Chaumont			29.93	760.2	65.3	18.5		W			1		10kn		W	0	0		Normal School.
Commercy			30.04	763.1	63.0	17.2	78	WSW			2		10			0	0	Raining	Normal School.
Le Mans			30.02	762.5	57.0	13.9	80	NE			2		8		NE	0.496	12.6		Normal School.
Lons-Le Saulnier			29.90	759.4	60.6	15.9	50	W			1		2			0	0		Normal School.
Mâcon			30.142	765.62	71.6	22.0	66	S			4		0			0.020	0.5		Normal School.
Mirecourt			29.87	758.6	66.6	19.2	50	S			1		5		N	0	0		Normal School.
Orleans			29.87	758.8	61.5	16.4	83	SSW			2		8		S	0.185	4.7		Normal School.
Paris Observatory			29.[illegible]7	758.6	57.7	14.3		W			1		10			0.382	9.69	Raining	National Observatory.
Parthenay			29.88	759.0	58.1	14.5	89	W			2		10			0.394	10.0		Normal School.
La Roche sur Yon			29.92	760.0	61.9	16.6	63	WNW			2		8		N	0.535	13.6		Normal School.
Rouen			29.90	759.5	59.2	15.1	76	W			2		10		W	0.276	7.0		Normal School.
Saint Lo			29.98	761.5	61.0	16.1	69	NW			1		5		W	0	0		Normal School.
Villefranche			29.97	761.0	76.3	24.6	68	ESE			2		10			0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.75	628.7			53.4	11.9	93	E	9.3	4.17			10		SSW	0	0		—. Falguère.
Montsouris Observatory			29.86	758.5	57.6	14.2	81	WNW			2		10kn		WNW	0.437	11.1	Raining	Marié Davy.
Perpignan			29.86	758.4	70.2	21.2	67	NE	7.4	3.3			10c		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.87	758.8	57.9	14.4	90	W			1		10			0.374	9.5	Rainy	E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.86	758.4	61.5	16.4	79	W			1		10		SSE	0.516	13.1		C. Marquet.
Versailles, (near Paris)			29.87	758.7	57.6	14.2	89	NW			1		10			0.538	13.66		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.66	763.4	75.2	24.0	98	S	4.0	1.8			7kn			1.067 / 1.297	27.1 / 32.95		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to fre zing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Low'r 0—10.	Direction. Upper From—	Lower. From—	Rain-fall. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.84	758.0	59.0	15.0	89	SW			2		6			0.488	12.4		Prof. Hoh.
Berlin			29.95	76[illegible].7	70.5	21.4	51	S			2		8			0	0		Prof. Arndt.
Breslau			30.00	762.1	71.2	21.8	50	W			2		6			0	0		Dr. P. Neugebauer.
Carlsruhe			29.87	758.6	70.9	21.6	59	SE			1		5			0.799	20.3		A. Senz.
Cassel			29.76	755.9	65.8	18.8	72	SW			2		4			0.029	0.74		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.92	759.9	54.5	12.5	70	W					1			0	0	Light rain	M. Wilhelm.
Hamburg			29.82	757.5	67.1	19.5	67	WSW			4		8ks		SSW	0.213	5.4		W. Reinert.
Kiel			29.83	757.7	65.3	18.5	68	W			4		9			0	0		Prof. G. Karsten.
Königsberg			29.86	758.5	70.3	21.3	84	NW			1		9			0.063	1.6		Prof. E. Luther.
Köslin			29.89	759.3	68.0	20.0		SW			4		5			0.001	0.02		Dr. Tägert.
Leipsic			29.90	759.5	70.9	21.6	59	SW			3		9			0	0		Prof. Bruhns.
Münster			29.82	757.3	69.4	20.8	74	SE			1		10			0.008	0.2		Prof. E. Heis.
Posen			29.94	760.4	73.0	22.8	45	W			5		2			0.002	0.04		Dr. Magener.
Strassburg, (in Alsace)			29.87	758.7	72.0	22.2	47	SW					3			0	0		Hartwig and Tülk.
Stuttgart			29.85	758.3	70.7	21.5	44	W					2			0.102	2.6		Mr. Würth.
Thorn			29.88	758.9	77.0	25.0	49	SW			4		2			0.024	0.6		Dr. Hesenbalg.
Treves, (Trier)			29.82	757.4	67.8	19.9	66	SW			4		10			0.086	2.17		Prof. Plesch.
Wustrow			29.87	758.7	62.6	17.0	73	SW			3		3ck			0	0		F. F. chütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Winds. Direction. From—	Velocity. Miles per hour.	Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Low'r 0—10.	Direction. Upper From—	Lower. From—	Rain-fall. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.94	760.5	69.6	20.9	57	E	0.7	0.3			7	SE		0	0	Light rain	
Mondovi			29.92	759.9	66.6	19.2	64	SE			2		6	NW		0	0		
Genoa			30.01	762.2	72.1	22.3	56	SW	1.3	0.6			2	SE		0	0		
Pavia			29.93	760.2	73.0	22.8	46	E			1		0			0	0		
Verona			29.91	759.6	78.8	26.0	49	E			1		6			0	0		
Padua			29.89	759.1	72.5	22.5	48	SW	1.3	0.6			5	W		0	0		
Parma																			
Bologna			29.97	761.1	72.7	22.6	60	NNW			4		5	W		0	0		
Leghorn			29.98	761.4	71.2	21.8	57	SW	6.3	2.8			4			0	0		
Urbino			29.99	761.8	69.3	20.7	49	SSW			4		8			0	0		
Ancona			29.96	760.9	73.1	23.2	70	ENE			2		2			0	0		
Siena			29.98	761.5	66.4	19.1	61	N	1.8	0.8			7	N		0	0		
Rome			30.00	762.1	70.2	21.2	75	W	11.2	5.0			10			0.118	3.0	Raining	
Naples, O.U.			30.02	762.4	77.7	25.4	54	W			2		3	NW		0	0		
Lecce			29.97	761.2	73.0	22.8	70	NE	12.5	5.6			8	N		0	0		
Cosenza			30.02	762.5	79.2	26.2	36	WNW			4		4	SE		0	0		
Catania, (Sicily)																			
Riposto			29.95	760.7	83.8	28.8	50	NE			2		4	SE		0	0		
Palermo			29.98	761.5	76.1	24.5	49	NE			4		0			0	0		
Sub-Series.																			
Naples, S. R.			30.06	763.5	76.6	24.8	43	W			6		[illegible]	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.84	757.9	61.9	16.6		NW			2								
Groningen			29.74	755.3	64.4	18.0		WNW			2								
Helder			29.81	757.0	59.4	15.2		W			2								
Utrecht			29.76	756.0	67.1	19.5	74	SW			2		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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			29.77	756.1	57.6	14.2	80	SSE	7.6	3.4			10			0	0		
Christiania			29.69	754.2	66.2	19.0	52	NE	7.4	3.3			6			0	0	Hazy	
Tromsö			29.82	757.4	60.1	15.6	93	NE			2		5			0.055	1.4		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.12	765.1	63.5	17.5	41	N	44.7	20.0			4						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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	759.1	76.5	24.7	64	WSW	4	2			7						Astronomical Obs.
Wilna			29.91	759.8	80.6	27.0	60	E	2	1			8						Astronomical Obs.
Dorpat			30.02	762.5	79.2	26.2	37	ESE	7	3			4						Physical Cabinet.
St. Petersburg			30.09	764.2	72.5	22.5	53	ESE	2	1			1						Central Physical Obs.
Kuopio			30.05	763.2	69.1	20.8	68	SE					5		NW	0.016	0.40		Ch. Forsten.
Kieff			29.94	760.4	89.1	31.7	45	ESE	7	3			4						Physical Cabinet.
Nikolaiev			29.94	760.4	97.7	36.5	23	SW	4	2			3						Kurdokof.
Kertch			29.93	760.2	90.1	32.3	40	SE	4	2			1						Lagorio.
Moscow			30.10	764.4	70.7	21.5	41	N	8	3.5			1						Meteorological Obs.
Lugan			29.77	756.2	89.1	31.7	43	NW	13	6			7						Meteorological Obs.
Archangel			30.26	768.5	55.9	13.3	61	WNW	10	4.5			0						Ogorodnikof.
Tiflis			29.82	757.5	87.4	30.8	28	S	4	2			0						Physical Obs.
Astrakhan			29.86	758.4	91.9	33.3	36	S	8	3.5			5						Sebastianof.
Kasan			29.87	758.7	61.5	16.4	42	N	16	7			7						Physical Cabinet.
Orenburg			29.72	754.9	71.6	22.0	76	NW	0	0			10						Tschernischef.
Ekaterinburg			29.50	749.3	51.3	10.7	82	W	13	6			10					Foggy	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			30.07	763.6	77.5	25.3	43	Calm	0	0			10						Michelson.
Barnaul			29.65	753.2	71.4	21.9	70	SW	8	3.5			4						Meteorological Obs.
Yeniseisk			29.46	748.3	81.0	27.2	64	N	4	2			10						Marks.
Irkutsk			29.65	753.2	70.5	21.4	75	Calm	0	0			0						Usolzef.
Oorga			29.76	755.9	60.1	15.6	52	Calm	0	0			0						Mossin.
Peking, (China)			29.60	751.9	70.0	21.1	80	Calm	0	0			1						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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	756.5	70.9	21.6	41	WNW	11.9	5.3		0	8			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.96	761.0	57.4	14.1	77	S			3		4			0	0		
Hernosand			29.88	759.0	61.5	16.4	60	S			3		6			0.05	1.2		
Stockholm			29.82	757.3	58.3	14.6	83	E			3		10			0.27	6.8		
Wisby			29.84	758.0	64.0	17.8	72	W			3		6			0.01	0.2		
Sub-Series.																			
Upsala			29.86	758.4	61.5	16.4	81	E			4		8	SW	ESE				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.40	723.7			66.2	18.9	46	N			2		2			0	0		The Observatory.
Zurich	28.30	718.9			70.3	21.3	51	W			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —3.1mm.; Thermometer, —2°.4 C.; Relative Humidity, —9 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.78	756.6	82.9	28.3	66	W			1		2						Prof. C. N. A. Van Dyck.
Constantinople			29.91	759.6	79.0	26.1	60	NE	16.8	7.5			0			0	0		
Fao, (Persian Gulf)			29.72	755.0	102.2	39.0		E			1		0						
Salonica					90.1	32.3		SE			2		0						
Valona			29.98	761.4	65.8	18.8		NW			2		10						
Varna			30.01	763.0	87.8	31.0		S			3		0					Raining	

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			30.16	766.1	64	17.8		SW	5	2.2		0	0			0	0		
Chatham, N. B.			29.85	758.2	70	21.1	57	SW	12	5.4		2c	Haze	SW		0	0		
Charlottetown, P. E. Island			29.94	760.5	61	16.1	68	SW	10	4.5			8cs			0	0		
Fort Garry, Manitoba			29.85	758.2	65	18.3	92	SW	5	2.2		2c	2s	SW		0	0		
Halifax, N. S.			29.94	760.5	63	17.2	70	W	7	3.1		5cs	0			0	0		
Kingston, Ontario			30.15	765.8	58	14.4	82	SW	2	0.9		0	Sm'e			0	0		
Montreal, Quebec			30.03	762.7	61	16.1	65	W	12	5.4		Haze	Haze			0	0		
Ottawa, Ontario			30.06	763.5	60	15.6	68	S	14	6.3		0	Sm'e			0	0		
Parry Sound, Ontario			30.08	764.0	62	16.7	61	S	8	3.6		Haze	Sm'e	S		0	0		
Port Dover, Ontario			30.12	765.0	57	13.9	63	N	5	2.2		0	0			0	0		
Port Stanley, Ontario			30.11	764.8	59	15.0	66	E	10	4.5		Haze	0			0	0		
Quebec, Quebec			29.98	761.5	60	15.6	68	W	6	2.7			Haze			0	0	Foggy	
Saugeen, Ontario			30.07	763.8	60	15.6	63	Calm	0	0		Haze	Haze			0	0		
Stayner, Ontario			30.07	763.8	64	17.8	65	Calm	0	0		0	Haze			0	0		
Sydney, C. B.			29.95	760.7	70	21.1	74	SW	15	6.7		8ck	5s	NW		0	0		
Toronto, Ontario			30.12	765.0	61	16.1	63	Calm	0	0		0	Sm'e			0	0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.12	765.0	63	17.2	72	S	1	0.4		Haze	Haze			0	0		
Alpena, Mich.			30.02	762.5	60	15.6	65	Calm	0	0			Sm'e			0	0		
Atlantic City, N. J.			30.21	767.3	67	19.4	84	SW	3	1.3		0	0			0	0		
Augusta, Ga.			30.15	765.8	73	22.8	90	Calm	0	0			10s		W	0.39	9.9		
Baltimore, Md.			30.20	767.1	69	20.6	69	Calm	0	0			Sm'e			0	0		
Barnegat, N. J.			30.21	767.3	71	21.7	66	SW	2	0.9		0	Sm'e			0	0		
Benton, Montana			29.89	759.2	58	14.4	36	SW	26	11.6		0	0			0.01	0.3		
Bismarck, Dakota			29.72	754.9	64	17.8	78	SE	3	1.3		8k	0	S		0	0		
Boston, Mass.			30.11	764.8	68	20.0	61	NW	9	4.0		0	Haze			0	0		
Breckenridge, Minn.			29.88	758.9	63	17.2	100	SW	3	1.3			Fog			0	0	Foggy	
Buffalo, N. Y.			30.09	764.3	62	16.7	51	SE	4	1.8		1c	Haze	NE		0	0		
Burlington, Vt.			30.10	764.5	64	17.8	73	SE	6	2.7		2ck	5s			0	0		
Cairo, Ill.			29.98	761.5	73	22.8	90	S	12	5.4			10n		S	0	0	Light rain	
Cape Hatteras, N. C.			30.17	766.3	73	22.8	90	S	6	2.7			1ks		S	0.12	3.0		
Cape Henry, Va.			30.21	767.3	73	22.8	63	SE	10	4.5		5c	Haze	W		0	0		
Cape May, N. J.			30.22	767.6	66	18.9	90	S	4	1.8		0	Sm'e			0	0		
Charleston, S. C.			30.18	766.6	75	23.9	76	W	4	1.8		8ck	Haze	W		0.02	0.5		
Cheyenne, W. T.			30.00	762.0	55	12.8	19	W	8	3.6		0	0			0	0		
Chicago, Ill.			29.92	760.0	63	17.2	72	SE	7	3.1			10s			0	0		
Cincinnati, Ohio			30.01	762.2	73	22.8	71	S	8	3.6			10ks		S	0	0		
Cleveland, Ohio			30.06	763.5	65	18.3	63	SE	6	2.7		0	Sm'e			0	0		
Colorado Springs, Col.			29.99	761.7	60.0	15.6	44	NW	6	2.7		0	0			0	0		
Corsicana, Texas			30.01	762.2	76	24.4	86	S	7	3.1		0	0			0	0		
Davenport, Iowa			29.86	758.4	65	18.3	90	E	4	1.8			10n			0.09	2.3	Light rain	
Denver, Col.			30.04	763.0	59	15.0	28	S	6	2.7		0	0			0	0		
Detroit, Mich.			30.05	763.3	64	17.8	73	E	5	2.2		2c	Haze			0	0		
Dodge City, Kansas			29.50	749.3	79	26.1	58	S	17	7.6		0	0			0.18	4.6		
Dubuque, Iowa			29.91	759.7	63	17.2	83	SE	6	2.7		2ck	5s	SE		0.47	11.9		
Duluth, Minn.			29.95	760.7	61	16.1	77	Calm	0	0		7ck	Haze	SW		0	0		
Eastport, Me.			30.00	762.0	59	15.0	76	SW	2	0.9		Haze	8s	SW	SW	0	0		
Erie, Penn.			30.06	763.5	67	19.4	55	S	4	1.8		0	Sm'e			0	0		
Escanaba, Mich.			30.00	762.0	64	17.8	52	SW	4	1.8		0	0			0	0		
Fort Gibson, I. T.			29.88	758.9	80	26.7	74	S	6	2.7		8ck	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.82	757.4	65	18.3	84	SW	1	0.4		0	0			0	0		
Galveston, Texas			30.05	763.3	83	28.3	70	S	8	3.6		0	0			0	0		
Grand Haven, Mich.			29.98	761.5	69	20.6	58	SE	6	2.7		8ck	0			0	0		
Indianapolis, Ind.			29.98	761.5	67	19.4	90	SE	10	4.5			10s		W	0.06	1.5		
Indianola, Texas			30.04	763.0	85	29.4	71	S	4	1.8		2k	0	S		0	0		
Jacksonville, Fla.			30.17	766.3	82	27.8	67	SE	1	0.4		0	0			0.10	2.5		
Keokuk, Iowa			29.83	757.7	67	19.4	94	NW	4	1.8			10s		NW	2.44	62.0	Threatening	
Key West, Fla.			30.12	765.0	83.6	28.7	68	E	10	4.5		5c	Haze	E		0	0		
Kittyhawk, N. C.			30.21	767.3	70	21.1	85	E	10	4.5		5k	0	E		0	0		
Knoxville, Tenn.			30.13	765.3	68	20.0	90	Calm	0	0		1cs	Fog	NW		0.05	1.3	Foggy	
La Crosse, Wis.			29.90	759.	65	18.3	73	NE	6	2.7		Haze	Haze			0	0		
Leavenworth, Kan.			29.86	758.4	75	23.9	69	Calm	0	0		0	0			0.08	2.0		
Lexington, Ky.			30.07	763.8	69	20.6	85	S	4	1.8		8k	0	W		0	0		
Long Branch, N. J.			30.20	767.1	70	21.1	60	SW	2	0.9		0	Sm'e			0	0		
Louisville, Ky.			30.00	762.0	74	23.3	68	Calm	0	0		5k	0			0	0		
Lynchburg, Va.			30.19	766.8	67	19.4	79	Calm	0	0			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.96	761.0	63	17.2	57	SE	4	1.8		0	0			0	0		
Memphis, Tenn.			30.06	763.5	76	24.4	81	SW	5	2.2			10s		SW	0	0		
Milwaukee, Wisconsin			29.99	761.7	57	13.9	63	E	4	1.8		8ks	Sm'e	SW		0	0		
Mobile, Ala.			30.13	765.3	78	25.6	86	SW	4	1.8			10s		SW	0	0	Threatening	
Montgomery, Ala.			30.15	765.8	76	24.4	77	S	2	0.9		5cs	0	W		0.07	1.8		
Morgantown, W. Virginia			30.10	764.5	68	20.0	69	Calm	0	0		0	0			0	0		
Mt. Washington, N. H.			30.32	770.1	43	6.1	59	N	40	17.9			Fog			0	0		
Nashville, Tenn.			30.05	763.3	73	22.8	80	SW	3	1.3		0	10s		W	0	0		
New Haven, Conn.			30.18	766.6	66	18.9	68	NW	1	0.4		Haze	Fog			0	0		
New London, Conn.			30.19	766.8	64	17.8	73	Calm	0	0			Haze			0	0		
New Orleans, La.			30.10	764.5	81	27.2	78	SE	2	0.9		5ck	2k		SE	0	0		
Newport, R. I.																			
New York, N. Y.			30.20	767.1	64	17.8	63	SW	4	1.8		0	Fog			0	0		
Norfolk, Va.			30.21	767.3	76	24.4	68	SE	8	3.6		2ck	Haze			0	0		
North Platte, Neb.			29.42	747.3	67	19.4	79	SE	12	5.4		0	0			0	0		
Omaha, Neb.			29.86	758.4	64	17.8	90	N	4	1.8			Fog			0	0		
Oswego, N. Y.			30.13	765.3	61	16.1	70	S	4	1.8		Haze	Haze			0	0		
Peck's Beach			30.24	768.1	65	18.3	89	SE	4	1.8		Haze	Haze			0	0		
Pembina, D. T.			29.82	757.4	69	20.6	74	Calm	0	0		5c	0			0	0		
Philadelphia, Penn.			30.22	767.6	66	18.9	68	W	7	3.1		0	Haze			0	0		
Pike's Peak, C. T.			30.26	768.6	35	1.7	34	S	8	3.6		0	0			0	0		
Pittsburgh, Penn.			30.09	764.3	60	15.6	81	Calm	0	0			Haze			0	0		
Port Huron, Mich.			30.09	764.3	60	15.6	49	Calm	0	0		0	0			0	0		
Portland, Maine			30.08	764.0	60	15.6	65	W	4	1.8			10s			0	0		
Portland, Or.			30.33	770.4	46	7.8	84	Calm	0	0			10s			0	0		
Punta Rassa, Fla.			30.15	765.8	79.7	26.5	78	E	8	3.6		10cs	Sm'e	NE		0.45	11.4		
Rochester, N. Y.			30.11	764.8	62	16.7	61	W	5	2.2		Haze	Haze			0	0		
Salt Lake City, Utah			29.96	761.0	53	11.7	48	SW	2	0.9		0	0			0	0		
Sandy Hook, N. J.			30.18	766.6	65	18.3	73	W	8	3.6		0	Haze			0	0		
San Diego, Cal.			29.96	761.0	62	16.7	88	S	4	1.8			10s		S	0	0		
San Francisco, Cal.			29.90	759.4	55	12.8	80	S	2	0.9		0	0			0	0		
Santa Fe, N. M.			29.83	757.7	62	16.7	14	SW	4	1.8		2c	Haze	SW		0	0		
Savannah, Georgia			30.00	762.0	78	25.6	65	SW	9	4.0		5c	Haze		SW	0	0		
Shreveport, La.			30.08	764.0	77	25.0	90	SE	3	1.3		8ck	0			0.01	0.3		
Springfield, Mass.			30.16	766.1	65	18.3	68	SW	4	1.8		Haze	Haze			0	0		
St. Louis, Mo.			29.88	758.9	71	21.7	75	S	8	3.6		8c	2s			0.82	20.8		
St. Marks, Fla.			30.15	765.8	76	24.4	90	Calm	0	0		5k	0	SW		0	0		
St. Paul, Minn.			29.85	758.2	67	19.4	73	E	2	0.9		8ck	0	SE		0	0		
St. Paul's Island, Alaska			29.14	740.1	40	4.4	91	WSW	10	4.5		10ck	10s	SW		0.08	2.0		
Squan Beach, N. J.			30.19	766.8	65	18.3	73	SW	3	1.3		0	Haze			0	0		
Toledo, Ohio			30.02	762.5	70	21.1	61	E	4	1.8		2c	0			0	0		
Tybee Island, Ga.			30.20	767.1	73	22.8	90	Calm	0	0			10s			0.49	12.4	Threatening	
Vicksburg, Miss.			29.16	766.1	77	25.0	86	S	1	0.4			10s		S	0.92	23.4		
Virginia City, Mon.			29.77	756.1	44	6.7	30	N	7	3.1		0	0			0	0		
Washington, D. C.			30.21	767.3	68.5	20.3	67	Calm	0	0		0	Sm'e			0	0		
Wilmington, N. C.			30.16	766.1	73	22.8	90	NE	2	0.9			10s			1.43	36.3		
Wood's Hole, Mass.			30.16	766.1	62	16.7	82	SW	7	3.1		0	Sm'e			0	0	Smoky	
Wytheville, Va.			29.9[illegible]	760.7	61	16.1	94	E	3	1.3			10s			0.43	10.9		
Yankton, D. T.			29.89	759.2	66	18.9	84	Calm	0	0		0	0			0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	.....	.....	.....	.....	86	30.0	72	E	7	3.1	.....	5k	5ks	E	.....	0	0	.....	E. Racker.
Pointe-à Pitre, Guadeloupe, do	.....	.....	29.99	761.7	81	27.2	64	E	.....	.....	.....	10cs	0	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.82	757.4	82	27.8	78	SE	3.0	1.6	.....	2k	0	E	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.20	769.4	80	26.7	78	E	12	5.4	.....	2ck	2kn	E	.....	0.01	0.5	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.87	758.7	79	26.1	74	N	3.0	1.6	.....	10c	0	NE	.....	0	0	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Georges, Bermudas	.....	.....	30.13	765.3	75.5	24.2	88	SE	3.2	1.4	.....	.....	8k	.....	.....	0.712	18.1	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu, Oahu, H. I.	.....	.....	30.07	763.8	63	17.2	73	NE	11	4.9	.....	5c	5ks	NE	.....	0	0	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
York Factory, B. A.	.....	.....	30.09	762.0	34.5	1.4	95	N	6	2.7	.....	.....	10s	.....	.....	0	0	.....	J. Fortescue.
Clifton, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	30.02	762.5	67	19.4	52	SW	.....	.....	.....	0	0	.....	.....	0	0	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	30.05	763.3	66.5	19.2	64	S	4	1.8	.....	0	0	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	28.90	734.0	.....	.....	68	20.0	84	NW	.....	.....	.....	.....	10n	.....	.....	0.05	1.3	.....	G. C. Carpenter.
U. S. Marine Series.	**True course towards.**	**Hourly rate in knots.**														**State of ocean.**	**Direction of swell from—**		
Schooner Addie Fuller, N. 36° 5′, W. 73° 31′	N½W	4	30.02	762.5	71	21.7	85	ENE	.....	.....	4	Haze	Haze	.....	.....	Smooth	.....	Hazy, smoky	James Jorgensen, Mate.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory when below —19° Fahrenheit are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 22, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.09	764.3	76.1	24.5		NW			5		2			0	0		Charnot.
Algiers			30.03	762.8	69.4	20.8	71	SE			3		7			0.020	0.5		Peter.
La Calle			30.04	763.0	79.7	26.5		SSE			6		6			0	0	Sirocco	Kuntz.
Tunis			30.01	762.2	88.9	31.6	39	S			3		8			0	0		Jacques.
Sfax			30.08	764.0	81.3	27.4		ESE			5		2			0	0		Chauvey.
Gafsa			30.07	763.7	70.5	21.4		SSW			3		2			0	0		Grosjean.
Tebessa			30.03	762.7	88.2	31.2		S			5		3			0	0	Sirocco	Colin.
Geriville			30.07	763.8	71.8	22.1		NW			4		5			0	0		Bernadach.
Laghouat			30.08	764.0	84.2	29.0	24	NW			3		5			0	0		Poinsignon.
Biskra			30.04	763.0	101.1	38.4		S			5		6			0	0	Sand-storm	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.03	762.7	82.0	28.3	40	SW			3		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.10	764.6	70.7	21.5	60	W			3		4			1.220	5.6		I. R. Observatory.
Sperles			30.03	762.7	75.2	24.0	75	S			3					0	0		Julius Mikolik.
Gratz			29.99	761.7	73.6	23.1	72	SSW			2		0			0	0		Andreas Rospini.
Hermannstadt			29.95	760.7	83.5	28.6	38	NE			3		5			0	0		Prof. Reissenberger.
Kremsmünster			29.98	761.6	74.1	23.4	41				3		3			0	0		Prof. C. Wagner.
Lemberg			29.97	761.2	82.2	27.9	50	SW			2		1			1.248	6.3	Rain & hail	Dr. T. Stanecki.
Nyiregyhaza			30.15	765.7	80.6	27.0	63	W			2		3			0	0		Habzsuda Daniel.
Pola			30.12	765.1	76.3	24.6	63	SW			1		4cks			0	0		I.R. Hydrographic Of'ce
Szegedin			30.04	763.1	79.6	26.1	54	Calm			0		3			0	0		Karl Stancel.
Trieste			30.12	765.0	77.9	25.5	62	NW			1		1			0	0		Prof. V. Farolfi.
Vienna			30.02	762.5	79.5	26.4	42	ESE			2		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.17	766.2	59.4	15.2	44	W			1		10s		N	0.148	3.7		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.89	759.2	59.0	15.0		SW	23	10.3			5			0.210	5.33		William Boswell.
Annanhill																			
Ardrossan			29.96	761.0	54	12.2		SSW			4		9					Raining	William McNeil.
Armagh Observatory			30.00	762.0	56.7	13.7		SSW	13	5.8			9						S. Cab, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			30.11	764.8	60.7	15.9		W			3								John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.07	763.8	58.3	14.6		WSW			1		10					Threatening	J. Dreyer and I. Mitchell
Bradford			30.07	763.8	62.0	16.7		W			1		8						J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.04	763.0	82.0	28.1		S			4		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.14	765.5	68.0	20.0		SW			1		7						H. Todd.
Cape Town, (Cape Colony)			29.95	760.7	56.2	13.4		W			3		10						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.00	762.0	56.5	13.6	89	WNW	10	4.5			10						Th Staff, for E. J. Stone.
Cardington			30.17	766.3	70.0	21.1		W					6						John McLaren.
Carlisle			30.06	763.5	58.9	14.9		W					8			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.10	764.5	70.2	21.2		SW			1		7						Qr. Mast Sgt. J. Wood.
Colombo, (Ceylon)			29.92	760.0	80.4	26.9		SW			4		4						Sgt. W. F. Hopkins
Dartmoor			30.00	762.0	57.5	14.2		W			2		8						R. E. Power.
Donaghadee			30.01	762.2	55	12.8		SW			4		10						J. Mac Gowan, Jr.
Dover			30.16	766.1	62	16.7		Calm			0		3						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.09	764.3	65.0	18.3		SW	7.4	3.3			5						Thomas Mackereth.
Falmouth Observatory			30.26	768.6	62.0	16.7		WSW	16	7.2			9						The Staff.
Fort Napier, (Natal)			30.03	762.7	78.8	26.0		E			1		0						Pvt. G. Salmon.
Freetown, (Sierra Leone)			29.85	758.2	85	29.4		N					7					Light rain	
Galway, Queen's College			29.85	758.2	60	15.6		SW			5		10					Misty	B. G. Clare for Prof. Curtis.
Gibraltar, (Mediterranean)			30.10	764.5	71.5	21.9		WNW			2		0						Sergt. E. G. Baker.
Glasgow Observatory			29.94	760.5	55.0	12.8		SW			3		10						Lewis Stewart.
Great Yarmouth			30.14	765.5	61	16.1		E			2		1						G. T. Watson.
Greenwich Royal Obs.			30.16	766.1	71.8	22.1		SSW			1		7						The Staff, for G. B. Airy.
Guernsey			30.23	767.8	61	16.1		WNW			2		3						Dr. S. E. Hoskins. Rev.
Halifax, Moorside Obs.			30.10	764.5	63.6	17.6		WSW					9						F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)																			Corp'l J. Y. Thompson.
Helston			30.22	767.6	62	16.7		SW			2		8						Dr. W. B. Moyle.
Holyhead			30.12	765.0	59	15.0		SSW			5		10						John Tilston.
Hull Park																			
Kew Observatory			30.16	766.1	66.2	19.0		WSW	10	4.5			4						The Staff.
Kingstown			30.12	765.0	59	15.0		SSW			1		9						George Mitchell.
Lampeter																			
Leicester Museum			30.15	765.8	65.0	18.3		SW			1		9						William J. Harrison.
Llandudno			30.06	763.5	63.7	17.6		W					2						Dr. James Nicol.
Malta, (Mediterranean)			30.09	764.3	80.8	27.1		SE			1		6k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			William D. Penny.
Nassau, (Bahamas)			30.17	766.3	81.9	27.7		E			3		6						Surg.-Maj. Henry.
North Shields			30.03	762.7	62	16.7		SW			4		8						John Wm. Irvine.
Nottingham			30.12	765.0	71.3	21.8		SSW			4		7ks, n		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.12	765.0	62.0	16.7		SW			4		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.13	765.3	70	21.1		SW			1		7						J. Lucas, for R. Main
Plymouth			30.23	767.8	64	17.8		W			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.13	765.3	60	15.6		SW			4		8					Rainy	W. Kennedy.
Saint Ann's Head			30.19	766.8	59	15.0		SW			3		10						John C. Walker.
Saint Helier, (Jersey)			30.23	767.8	66.5	19.2		W			2		2						A. P. Amy.
Sandwick Manse (Orkneys)																			Rev. C. Clouston.
Scarborough			30.07	763.8	63.6	17.6		WSW			2		7						F. Shaw.
Scutari, (Turkey)			29.94	760.5	90	32.2		NE			2		1						Sergt. W. H. Lyne.
Sheffield			30.08	764.0	66	18.9		SW			3		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.03	762.7	63.3	17.4		SW			5		8			0.025	0.6		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.13	765.3	67.0	19.4		ESE			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			30.08	764.0	60.1	15.6		SW			3		8					Hazy	The Staff.
Stornoway, Lews C. (Heb.)																			John Smith.
Strathfield Turgiss			30.17	766.3	67.1	19.5		W			1		7						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			William Lawrence.
Taunton College																			
Thurso			29.75	755.6	59	15.0		SSW			4		8						John Trotter.
Truro, Royal Institution			30.17	766.3	66	18.9		W			4		6						W Newcombe.
Valencia Observatory			30.13	765.3	58.2	14.6		WSW	17	7.6								Misty	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.04	762.9	68.2	20.1	74	WSW			2		10						
Fanöe			30.10	764.6	62.2	16.8	68	W			4		5						
Godthaab, (Greenland)			29.51	749.5	41.2	5.1	90	S			2		10					Raining	
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.51	749.5	50.2	10.1	94	S			4		10					Raining	
Vestervig			30.06	763.5	61.9	16.6	68	W			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.22	767.6	66.9	19.	47	NW			3		5		NW	0	0		Normal School.
Amiens			30.03	762.8	67.3	19.6	64	WNW			3		10			0	0		Normal School.
Beaumette, (near Angers			30.17	766.4	67.1	19.5	49	N	13.6	5.8			10		NE	0.063	1.6		Beaumette Observatory.
Beauvais			29.92	759.9	60.6	15.9	71	SW			2		10		W	0.039	1.0		Normal School.
Besançon			30.19	766.7	69.8	21.0	62	NE			2		2		N	0.158	4.0		Normal School.
Bourg en Bresse			30.08	764.1	63.5	17.5	82	N			4		10		SW	0	0	Rain	Normal School.
Bourges			29.95	760.7	62.1	17	79	NW			2		10		SW	0.433	11.0		Normal School.
Brest			30.22	767.6	63.5	17.5	67	NW			2		8		NW	0	0		Naval Observatory.
Caen			30.23	767.8	63.7	17.6	80	N			2		2		N	0	0		Normal School
Chartres			30.18	766.6	64.0	18.1		N			2		6ki		N	0.020	0.5		Normal School.
Chaumont			30.21	767.4	65.3	18.5		NW			1		10ki		NW	0.217	5.50		Normal School.
Commercy			30.06	763.5	65.1	18.4	69	WNW			2		10			0.138	3.50		Normal School.
Le Mans			30.32	770.2	65.1	18.4	60	N			3		5		N	0.02	0.5		Normal School.
Lons-Le Saulnier			30.10	764.5	61.7	16.5	53	N			1		10			0.014	0.35		Normal School.
Mâcon			30.10	764.5	63.5	17.5	80	NW			2		10			0.102	2.6		Normal School.
Mirecourt			30.09	764.3	66.0	18.9	57	NW			2		5		SE	0.157	4.0		Normal School.
Orleans			30.15	765.9	63.7	17.6	67	N			4		8		N	0.224	5.7		Normal School.
Paris Observatory			30.16	766.0	64.0	17.8		NW			2		10			0.052	1.42	Misty	National Observatory.
Parthenay			30.11	764.8	64.4	18.	72	N			4		5			0.323	8.2		Normal School.
La Roche sur Yon			30.22	767.6	69.3	20.7	49	NNW			4		5		SE	0.008	0.2		Normal School.
Rouen			30.16	766.1	67.5	19.7	58	N			2		5		N	0	0		Normal School.
Saint Lo			30.24	767.9	67.8	19.9	55	NE			1		5		NW	0	0		Normal School.
Villefranche			30.16	766.0	66.0	19.2	75	NNW			2		5		N	0	0		Normal School
Sub-Series.																			
Gorée, (Senegambia)					38.3	3.5	93	NNE	1.4	0.82			10			1.854	47.1		Frère Pascall.
Mont-Louis	24.82	630.4			64.6	17.8	59	NW			3		10kn		NW	0.028	0.7		—. Falguère.
Montsouris Observatory			30.16	766.0	52.0	11.2	94	WNW	16.8	7.50			10			0.158	4.0	Raining	Marié Davy.
Perpignan			29.97	761.1	65.7	18.7	64	NW			1		9			0.177	4.5		Dr. Fines.
Saint Maur, (near Paris)			30.16	760.0															E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.17	766.2	66.7	19.3	57	NNE			1		5		N	1.012	25.7		C. Marquet.
Versailles, (near Paris)			30.17	766.3	67.3	19.6	57	N			2		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			29.75	755.6	71.4	21.9	98	NW	0.2	0.1			10n			0.291 / 0.319	7.4 / 8.2	Misty	H. Le Lec, S. J.

Note.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to the zero. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Corrected for instrumental errors. Inches.	Corrected for instrumental errors. Millimeters.	Reduced to sea-level. Inches.	Reduced to sea-level. Millimeters.	Fahrenheit.	Centigrade.	Relative Humidity.	Direction.	Velocity. Miles per hour.	Velocity. Meters per second.	Force.	Amount. Upper	Amount. Lower	Direction. Upper	Direction. Lower	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Bamberg			29.95	760.6	71.6	22.0	51	E			2		3			0	0		Prof. Hoh.
Berlin			30.14	765.5	79.3	26.3	40	S			1		3			0	0		Prof. Arndt.
Breslau			30.19	766.7	72.5	22.5	55	E			2		7			0	0		Dr. P. Neugebauer.
Carlsruhe			30.03	762.7	76.6	24.8	54	NE			1		9			0	0		A. Senz.
Cassel			29.97	761.3	77.7	25.4	52	NW			3		6			1.113	28.26		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.01	762.3	68.0	20.0	77	W					1			0	0		M. Wilhelm.
Hamburg			30.10	764.4	69.8	21.0	67	W			3		10ks			0	0	Foggy	Deutsche Seewarte.
Kiel			30.05	763.2	69.3	20.7	68	W			4		10			0	0		Prof. G. Karsten.
Königsberg			30.11	764.8	64.0	18.1	77	N			1		9			0.063	1.6		Prof. E. Luther.
Köslin			30.13	765.2	73.9	23.3		SW			2		5			0	0		Dr. Tägert.
Leipsic			30.09	764.2	77.9	25.5	47	SSE			1		4			0	0		Prof. Bruhns.
Münster			30.13	765.3	68.0	20.0	76	NW			1		4			0	0		Prof. E. Heis.
Posen			30.22	767.6	71.8	23.8	43	E			1		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.04	763.1	75.2	24.0	45	NE					8			0.008	0.19		Hartwig and Tülk.
Stuttgart			30.00	762.0	75.7	24.3	45	N					6			0	0		Mr. Würth.
Thorn			30.12	765.1	66.7	19.3	66	ENE			2		10			0.087	2.2		Dr. Rosenbalg.
Treves, (Trier)			30.04	763.1	69.8	21.0	71	NE			2		10			0.018	0.45		Prof. Plesch.
Wustrow			30.11	764.7	73.0	22.8	62	SW			2		4o			0	0		Dr. F. Schütz.

Note.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations.	Corrected for instrumental errors. Inches.	Corrected for instrumental errors. Millimeters.	Reduced to sea-level. Inches.	Reduced to sea-level. Millimeters.	Fahrenheit.	Centigrade.	Relative Humidity.	Direction.	Velocity. Miles per hour.	Velocity. Meters per second.	Force.	Amount. Upper	Amount. Lower	Direction. Upper	Direction. Lower	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Moncalieri			30.14	765.5	61.7	16.5	69	SW	0.7	0.3			10	SE		0	0		
Mondovi			30.11	764.7	60.4	15.8	82	NW			4		10			0.071	1.8		
Genoa			30.13	765.3	68.5	20.3	75	Calm	0	0			10	S		0.059	1.5		
Pavia			30.10	764.6	74.5	23.6	53	ESE			1		9	SW		0.031	0.8		
Verona			30.08	764.0	80.1	26.7	51	E			2		4			0	0		
Padua			30.10	764.6	75.7	24.3	57	SW	7.4	3.3			5	W		0	0		
Parma																			
Bologna			30.08	764.0	78.8	26.0	50	SW			4		4	N		0	0		
Leghorn			30.10	764.5	73.4	23.0	66	S	7.4	3.3			10			0	0		
Urbino			30.13	765.2	73.6	23.1	40	SSW			2		4			0	0		
Ancona			30.10	764.6	78.1	25.6	56	SE			2		2			0	0		
Siena			30.10	764.4	75.7	24.3	47	SSE	0.7	0.3			7	SW		0	0		
Rome			30.09	764.2	82.4	28.0	42	S	10.5	4.7			2			0	0		
Naples, O.U.			30.14	765.6	77.9	25.5	33	SW			2		1	SE		0	0		
Lecce			30.12	765.0	77.9	25.5	35	ENE	10.5	4.7			1	N		0	0		
Cosenza			30.12	765.0	83.8	28.8	42	NW			1		0			0	0		
Catania, (Sicily)																			
Lipari			30.08	764.1	79.9	26.5	64	SE			1		2	NW		0	0		
Palermo			30.09	762.0	77.9	25.5	68	NE			1		5			0	0		
Sub-Series.																			
Naples, S. R.			30.17	766.3	81.0	27.2	32	SW			4		0			0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.20	767.0	64.0	17.8		NE			2								
Groningen			30.10	764.5	63.9	17.7		N			2								
Helder			30.15	765.9	61.9	16.6		WNW			1								
Utrecht			30.12	765.0	65.7	18.7	56	N			3		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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	60.8	16.0	77	SSW	26.6	11.9			10			0.472	12.0		
Christiania			29.81	757.1	70.5	21.[illegible]	48	SSW	14.8	6.6			2			0.067	1.7		
Tromsö			29.66	753.3	50.2	10.[illegible]	99	Calm			0		10			0.010	0.4	Raining	

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.28	769.2	67.3	19.6	33	N	19.9	8.9			0						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			30.01	762.2	70.5	21.4	70	N	11	5			10						Astronomical Obs.
Wilna			30.[illegible]0	761.9	86.2	30.1	48	Calm	0	0			9						Astronomical Obs.
Dorpat			30.02	762.6	77.4	25.2	58	WNW	9	4			4						Physical Cabinet.
St. Petersburg			29.95	760.7	79.3	26.3	61	S	7	3			9						Central Physical Obs.
Kuopio			29.82	757.5	70.9	21.6	79	S					8		NNW	0	0		Ch. Forsten.
Kiel			30.07	763.6	86.2	30.1	49	SE	9	4			5						Physical Cabinet.
Nikolaiev			30.03	762.[illegible]	97.7	36.5	31	ENE	4	2			4						Kurdukof.
Kertch			30.01	762.3	88.0	31.6	52	NNE	9	4			2						Lagorio.
Moscow			30.26	768.6	75.2	24.0	46	SSW	8	3.5			0						Meteorological Obs.
Lugan			30.00	762.1	86.7	30.4	27	E	17	7.5			0						Meteorological Obs.
Archangel			30.11	764.8	73.8	23.2	67	S	4	2			5						Ogorodnikof.
Tiflis			29.86	758.4	92.1	33.4	20	E	8	3.5			5						Physical Obs.
Astrakhan			30.20	767.0	78.1	25.6	25	NE	4	2			0						Sebastianof.
Kasan			30.12	765.1	64.4	18.0	35	NNW	11	5			0						Physical Cabinet.
Orenburg			30.00	762.0	72.5	22.5	39	N	[illegible]	2			2						Tschernischef.
Ekaterinburg			29.83	757.6	46.6	8.1	59	NW	13	6			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.89	759.2	81.0	27.2	52	Calm	0	0			0						Michelson.
Barnaul			29.66	753.3	73.4	23.0	60	S	13	6			2						Meteorological Obs.
Yeniseisk			29.57	751.0	76.3	24.6	67	W	10	4.5			2						Marks.
Irkutsk			29.69	754.0	65.5	18.6	57	Calm	0	0			0						Usolzef.
Oorga			29.64	752.9	59.4	15.7	53	Calm	0	0			0						Mossin.
Peking, (China)			29.52	749.9	71.6	22.0	59	Calm	0	0			0						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			30.11	764.8	66.0	18.9	27	N	23.0	10.3		0	2			0	0		Royal Observatory.
San Fernando																			The Naval Observatory

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.77	756.1	58.3	14.0	89	S			5		8			0	0		
Hernosand			29.73	755.2	67.6	19.8	67	SW			3		8			0.09	2.3		
Stockholm			29.89	759.3	68.0	20.0	55	SW			3		4			0	0		
Visby			30.01	76 .2	64.4	18.0	75	W			2		0			0	0		
Sub-Series.																			
Upsala			29.89	759.1	70.5	21.4	51	SW			6		3	W	WSW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.65	727.8			64.4	18.0	75	NNE			2		9			0.075	1.9		The Observatory.
Zurich	28.35	720.1			71.7	21.7	49	NW			1		7			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.0mm.; Thermometer, —3°.4 C.; Relative Humidity, +20 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.87	758.7	83.8	28.8	58	N			1		0						Prof. C. N. A. Van Dyck.
Constantinople			29.98	761.4	8 .6	27.	63	NE	7.8	3.5			0			0	0		
Fao, (Persian Gulf)			29.74	755.5	1 2.6	39.2		NW			3		0						
Salonica					87.4	30.8		NW			2		2						
Valona			30.10	764.5	77.0	25.0		NW			2		2						
Varna			30.04	763.0	91.4	33.		SE			3		10						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			29.98	761.5	74	23.3		SW	1	0.4		5c	0	S		0	0		
Chatham, N. B.			29.92	760.0	61	16.1	81	NE	4	1.8		8k	Haze	N		0	0		
Charlottetown, P. E. Island			29.96	761.0	63	17.2	67	N	8	3.6		0	0			0	0		
Fort Garry, Manitoba			29.55	750.6	56	13.3	87	W	16	7.2		2k	2ks	W	W	0.042	1.1		
Halifax, N. S.			29.86	758.4	60	15.6	80	W	3	1.3		Haze	Haze			0	0		
Kingston, Ontario			29.99	761.7	64	17.8	78	S	1	0.4		2c	Sm'e			0	0		
Montreal, Quebec			29.93	760.2	62	16.7	70	W	12	5.4		Haze	Haze			0	0		
Ottawa, Ontario			29.94	760.5	58	14.4	54	Calm	0	0		0	Sm'e			0	0		
Parry Sound, Ontario			29.86	758.4	66	18.9	51	SE	6	2.7		2ck	2s	NW	NW	0	0		
Port Dover, Ontario			29.89	759.2	65	18.3	94	Calm	0	0			10n			0	0	Light rain	
Port Stanley, Ontario			29.89	759.2	64	17.8	90	Calm	0	0			10n			0.08	2.0	Light rain	
Quebec, Quebec			29.94	760.2	63	17.2	67	Calm	0	0			Haze			0	0	Foggy	
Saugeen, Ontario			29.83	757.7	68	20.0	65	N	5	2.2		2cs	2s			0	0		
Stayner, Ontario			29.85	758.2	63	17.2	78	Calm	0	0		8c	Haze	S		0	0		
Sydney, C. B.			29.92	760.0	67	19.4	62	E	5	2.2			Sm'e			0	0		
Toronto, Ontario			29.92	760.0	59	15.0	70	SE	3	1.3		5ck	5n	W	W	0	0		

Note.—The originals 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 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. Upper. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.06	762.0	73	22.8	63	S	6	2.7		Haze	Haze			0	0		
Alpena, Mich.			29.76	755.9	67	19.4	64	Calm	0	0		0	Sm'e			0	0		
Atlantic City, N. J.			30.11	764.8	66	18.9	94	S	7	3.1		0	0			0	0		
Augusta, Ga.			30.08	764.0	72	22.2	90	Calm	0	0		0	Haze			0.03	0.8		
Baltimore, Md.			30.07	763.8	72	22.2	80	SW	4	1.8		0	8ks		SW	0	0		
Barnegat, N. J.			30.12	765.0	72	22.2	53	SW	1	0.4		2k	0	SW		0	0		
Benton, Montana			30.03	762.7	54	12.2	73	Calm	0	0		2c	0	W		0	0		
Bismarck, Dakota			29.71	754.6	55	12.8	55	W	5	2.2		0	Haze			0.41	10.4		
Boston, Mass.			30.02	762.5	73	22.8	55	W	8	3.6		0	Haze			0	0		
Breckenridge, Minn.			29.73	755.1	60	15.6	81	NW	4	1.8			10s			0	0		
Buffalo, N. Y.			29.86	758.4	71	21.7	71	SW	9	4.0		2k	8s	SW	SW	0	0		
Burlington, Vt.			29.97	761.2	68	20.0	69	S	5	2.2		2c	0			0	0		
Cairo, Ill.			29.95	760.7	76	24.4	81	SW	8	3.6		2c	0	NE		0.03	0.8		
Cape Hatteras, N. C.			30.10	764.5	76	24.4	81	NE	4	1.8		5k	0	[illegible]		0	0		
Cape Henry, Va.			30.12	765.0	76	24.4	77	SE	8	3.6		2k	0	SE		0	0		
Cape May, N. J.			30.10	764.5	66	18.9	90	S	12	5.4		0	0			0	0		
Charleston, S. C.			30.11	764.8	77	25.0	74	W	4	1.8		2c	Haze			0	0		
Cheyenne, W. T.			30.01	762.2	57	13.9	48	SW	20	8.9			10s			0	0		
Chicago, Ill.			29.83	757.7	63	17.2	78	NW	4	1.8		0	0			1.7	43.2		
Cincinnati, Ohio			29.84	757.9	71	21.7	85	SW	8	3.6			10s			1.12	28.4	Threatening	
Cleveland, Ohio			29.84	757.9	65	18.3	92	SE	10	4.5			10ks		S	0.15	3.8		
Colorado Springs, Col.			29.94	760.5	63	17.2	47	NW	6	2.7			10s			0	0		
Corsicana, Texas			30.01	762.2	76	24.4	86	S	5	2.2		5k	0	S		0	0		
Davenport, Iowa			29.85	758.2	65	18.3	90	SE	4	1.8			10s			0	0		
Denver, Col.			30.01	762.2	62	16.7	27	NE	2	0.9		5k	0	S		0	0		
Detroit, Mich.			29.79	756.7	67	19.4	90	SE	5	2.2			10s			0.29	7.4		
Dodge City, Kansas			29.42	747.3	79	26.1	58	S	11	4.9		0	0			0	0		
Dubuque, Iowa			29.84	757.9	63	17.2	89	S	4	1.8			10s			0	0		
Duluth, Minn.			29.67	753.6	71	21.7	75	SW	4	1.8		Haze	Haze			0	0		
Eastport, Me.			29.95	760.7	61	16.1	70	W	2	0.9			Sm'e			0	0		
Erie, Penn.			29.87	758.7	69	20.6	84	SE	8	3.6			10n			0.03	0.8	Light rain	
Escanaba, Mich.			29.76	755.9	66	18.9	68	S	8	3.6		0	Sm'e			0	0		
Fort Gibson, I. T.			29.90	759.4	80	26.7	74	S	3	1.3		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.81	757.2	62	16.7	51	N	16	7.2		0	0			0	0		
Galveston, Texas			30.02	762.5	83	28.3	70	S	4	1.8		0	0			0.04	1.0		
Grand Haven, Mich.			29.80	756.9	68	20.0	74	[illegible]	5	2.2		0	Haze			0	0		
Indianapolis, Ind.			29.83	757.7	69	20.6	90	W	4	1.8			10s		W	0.26	6.6		
Indianola, Texas			30.02	762.5	85	29.4	71	S	6	2.7		2c	0	S		0	0		
Jacksonville, Fla.			30.13	765.3	81	27.2	74	NE	7	3.1		2c	0	NE		0.16	4.1		
Keokuk, Iowa			29.78	756.4	75	23.9	76	S	4	1.8		5c	0	W		0	0		
Key West, Fla.			30.09	764.3	83.2	28.4	67	E	10	4.5		2ck	2ks	SE		0	0		
Kittyhawk, N. C.			30.13	765.3	71	21.7	90	SE	8	3.6		2k	0	SE		0	0		
Knoxville, Tenn.			30.02	762.5	71	21.7	79	SW	8	3.6			8s		NW	0	0		
La Crosse, Wis.			29.79	756.7	68	20.0	79	S	8	3.6			10s		S	0	0		
Leavenworth, Kan.			29.78	756.4	80	26.7	70	S	10	4.5		0	0			0.01	0.3		
Lexington, Ky.			29.91	759.7	63	20.0	81	SW	20	8.9			10s			0.25	6.3		
Long Branch, N. J.			30.12	765.0	64	17.8	83	SW	2	0.9		2k	Haze	SW		0	0		
Louisville, Ky.			29.88	758.9	74	23.3	76	S	4	1.8		5k	0			1.24	31.5		
Lynchburg, Va.			30.04	763.0	72	22.2	80	S	2	0.9			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.69	754.1	73	22.8	50	SW	16	7.2		0	0			0	0		
Memphis, Tenn.			30.01	760.2	80	26.7	70	SW	10	4.5		2c	Haze			0	0		
Milwaukee, Wisconsin			29.82	757.4	65	18.3	58	W	3	1.3			Fog			0	0	Foggy	
Mobile, Ala.			30.12	765.0	80	26.7	78	S	3	1.3		2k	0			0.62	15.7		
Montgomery, Ala.			30.12	765.0	75.5	24.2	81	SE	1	0.4		2k	Haze	SW		0.35	8.9		
Morgantown, W. Virginia			29.89	759.2	78	25.6	64	S	7	3.1		8c, cs	0	SW		0	0		
Mt. Washington, N. H.			30.36	771.1	57	13.9	36	S	8	3.6		0	Sm'e			0	0		
Nashville, Tenn.			29.97	761.2	73	22.8	85	SE	2	0.9		5k	5s	W		0.01	0.3		
New Haven, Conn.			30.10	764.5	72	22.2	63	S	3	1.3		0	0			0	0		
New London, Conn.			30.12	765.0	72	22.2	67	SW	4	1.8		0	Haze			0	0		
New Orleans, La.			30.08	764.0	80	26.7	78	SE	4	1.8		2cs	5ks		SE	0.05	1.3		
Newport, R. I.																			
New York, N. Y.			30.10	764.5	65	18.3	78	SW	6	2.7		0	Sm'e			0	0		
Norfolk, Va.			30.11	764.8	78	25.6	78	SE	6	2.7		0	8s		SE	0	0		
North Platte, Neb.			29.23	742.4	72	22.2	71	NE	2	0.9		5ck	2s	SW	SW	0	0		
Omaha, Neb.			29.68	753.9	76	24.4	88	S	8	3.6		5c	0	W		0	0		
Oswego, N. Y.			29.94	760.5	72	22.2	67	SSE	6	2.7			10s			0	0		
Peck's Beach			30.12	765.0	68	20.0	84	S	12	5.4		Haze	Sm'e			0	0		
Pembina, D. T.			29.57	751.1	56	13.3	74	SW	12	5.4		0	0			0	0		
Philadelphia, Penn.			30.10	764.5	64	17.8	94	SW	3	1.3			10s		SW	0	0		
Pike's Peak, C. T.			30.23	767.6	36	2.2	62	SW	16	7.2		8cs	2s	W		0	0		
Pittsburgh, Penn.			29.88	758.9	72	22.2	67	S	6	2.7			10s		S	0	0		
Port Huron, Mich.			29.83	757.7	63	17.2	94	S	2	0.9			10n			0.69	15.2	Light rain	
Portland, Maine			30.00	762.0	68	20.0	60	SW	1	0.4		Haze	Haze			0	0		
Portland, Or.			30.33	770.4	46	7.8	81	Calm	0	0			10s			0.04	1.0		
Punta Rassa, Fla.			30.12	765.0	77.2	25.1	86	E	8	3.6		8k	0	NW		0.25	6.3		
Rochester, N. Y.			29.87	758.7	73	22.8	67	S	4	1.8		8c	Haze			0	0		
Salt Lake City, Utah			29.89	756.9	77	25.0	42	W	4	1.8		2c	0			0	0		
Sandy Hook, N. J.			30.09	764.3	65	18.3	83	W	4	1.8		5k	Haze	SW		0	0		
San Diego, Cal.			29.94	760.5	61	16.1	70	Calm	0	0			10s			0	0		
San Francisco, Cal.			29.83	757.7	53	11.7	80	SW	8	3.6		Haze	0			0	0		
Santa Fe, N. M.			29.79	756.7	68	20.0	26	SW	8	3.6			10s		SW	0	0		
Savannah, Georgia			30.01	762.2	72	22.2	85	NW	4	1.8			10ks			0.84	21.3		
Shreveport, La.			30.05	763.3	78	25.6	82	SSW	6	2.7		0	Haze			0	0		
Springfield, Mass.			30.07	763.8	69	20.6	70	S	4	1.8		1cs	Haze	W		0	0		
St. Louis, Mo.			29.88	758.9	78	25.6	81	NW	8	3.6		10k	0	NW		0.01	0.3		
St. Marks, Fla.			30.11	764.8	76	24.4	90	Calm	0	0		5k	0	SW		0	0		
St. Paul, Minn.			29.74	755.4	67	19.4	84	SW	5	2.2			1s		SW	0	0		
St. Paul's Island, Alaska			29.28	743.7	41	5.0	82	SW	16	7.2		...ck	10s	WSW		0.12	3.0		
Squan Beach, N. J.			30.10	764.5	68	20.0	60	S	2	0.9		5cs	Haze	SW		0	0		
Toledo, Ohio			29.79	756.7	68	20.0	90	S	7	3.1			10s		S	0.32	8.1	Threatening	
Tybee Island, Ga.			30.09	764.3	76	24.4	86	S	4	1.8		2c	2ks	W		0	0		
Vicksburg, Miss.			30.14	765.5	80	26.7	70	SW	2	0.9		0	2s		SW	0	0		
Virginia City, Mon.			29.73	755.1	50	10.0	38	SE	8	3.6		8ck	0	W		0	0		
Washington, D. C.			30.06	763.5	74.5	23.6	79	S	6	2.7		2k	0	SW		0	0		
Wilmington, N. C.			30.09	764.3	73	22.8	90	E	2	0.9		2k	8ks	W	W	2.99	75.9		
Wood's Hole, Mass.			30.10	764.5	64	17.8	83	SW	7	3.1		0	Sm'e			0	0		
Wytheville, Va.			29.83	757.7	64	17.8	89	Calm	0	0			Fog			0	0		
Yankton, D. T.			29.68	753.9	69	20.6	92	NE	10	4.5		5cs	8s	NW	NW	0.22	5.6		

NOTE.—The original give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Bb'does, W. I.	.....	.....	.....	.....	83	28.3	87	NE	8	3.6	.....	5k	5ks	E	.....	0	0	.....	E. Racker.
Pointe-à Pitre, Gd'loupe, do	.....	.....	29.99	761.7	81	27.2	78	E	.....	.....	.....	8ks	0	.....	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.79	756.7	80	26.7	78	E	4.8	2.1	.....	2ck	0	E	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Gall.
St. Thomas, St. T., W. I.	.....	.....	30.27	768.8	80	26.7	74	E	9	4.0	.....	2ck	2kn	E	.....	0.31	7.9	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.85	758.2	79	26.1	70	NE	4.8	2.1	.....	0	2k	.....	.....	0	0	.....	Robert Mason.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Georges, Bermudas	.....	.....	30.20	767.1	74	23.3	88	SW	5.4	2.4	.....	.....	10k	.....	.....	0.300	7.6	.....	C. F. Allen.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Honolulu, Oahu, H. I.	.....	.....	30.04	763.0	72	22.2	72	NE	15	6.7	.....	8c	8ks	NE	NE	0	0	.....	E. P. Church.
Makawao, Maui, H. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. L. Clarke.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
York Factory, B. A.	.....	.....	29.87	758.7	34	1.1	95	E	10	4.5	.....	6	Fog	E	.....	0	0	.....	J. Fortescue.
Clifton, Jamaica, W. I.	27.34	694.4	30.06	763.5	70	21.1	90	SSE	1.5	0.7	.....	0	8k	.....	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	29.89	759.2	50	10.0	67	W	.....	.....	.....	Sm'e	Sm'e	.....	.....	0	0	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	29.81	757.2	68	20.0	84	SE	4	1.8	.....	.....	5ks	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	28.87	733.3	.....	.....	75	23.9	81	SE	.....	.....	.....	3ks	3kn	W	.....	0	0	.....	G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.	Observer.
Schooner Addie Fuller, N. 38° 18', W. 73° 46'	N	3	Smooth	.....	.....	James Jorgensen, Mate
.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 23, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.17	766.3	77.0	25.0		SSE			3		2			0	0		Charnot.
Algiers			30.18	766.5	72.7	22.6	77	NW			1		1			0	0		Peter.
La Calle			30.17	766.2	70.0	21.1		SSE			3		5			0	0		Kuntz.
Tunis			30.18	766.6	82.0	27.8	44	NE			3		6			0	0	Threatening	Jacques.
Sfax			30.10	764.5	80.6	27.0		N			5		8			0	0		Chauvey.
Saïda			30.16	766.0	74.7	23.7		N			1		0			0	0		Grosjean.
Tebessa			30.10	764.5	86.2	30.1		W			4		3			0.039	1.0	Rainy	Cölin.
Geriville			30.16	766.0	86.0	30.0		NNW			3		0			0	0		Bernadach.
Laghouat			30.16	766.1	73.4	23.0	25	NW			3		5			0	0		Poinsignon.
Biskra			30.10	764.5	77.0	25.0		NW			5		6			0.039	1.0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.00	764.3	86.7	30.4	32	SW			4		1			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.13	765.2	79.7	26.5	51	NE			2		3			0	0		I. R. Observatory.
Eperies			30.10	764.4	80.1	26.7	37	Calm			0					0	0		Julius Mikolik.
Gratz			30.08	764.0	77.0	25.5	71	SW			2		0			0	0		Andreas Rospini.
Hermannstadt			30.04	763.0	86.4	30.2	37	ESE			3		2			0	0		Prof. Reissenberger.
Kremsmünster			29.94	760.4	81.7	27.6	40	NE			3		6			0	0		Prof. C. Wagner.
Lemberg			30.07	763.8	80.8	27.1	48	N			2		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.12	765.1	85.3	29.6	46	Calm			0		0			0	0		Habzsuda Daniel.
Pola			30.16	766.0	80.4	26.9	51	E			1		7cks			0	0		I.R. Hydrographic Office
Szegedin			30.11	764.7	82.4	28.0	57	S			1		5			0	0		Karl Stancel.
Trieste			30.17	766.4	82.6	28.1	68	NW			1		8			0	0		Prof. V. Faroifi.
Vienna			30.01	762.3	86.4	30.2	40	S			3		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.15	765.8	67.1	19.5	61	NNE			1		9k, ks	ENE	NNE	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.96	761.0	62.7	17.1		SW	24	10.7			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.11	764.8	58	14.4		W			3		7						William McNeil.
Armagh Observatory			30.18	766.6	57.9	14.4		SW	10	4.5			10						S. Cal., for Dr. Robinson
Banbridge																			
Barnstaple																			
Batterseа, St. John's Col.																			
Bidston, Liverpool Obs.			30.19	766.8	59.2	15.1		W			3		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.23	767.8	57.8	14.3		W			1		10						J. Dreer and J. Mitchell
Bradford			30.13	765.3	61	16.1		W			2		9						J. McLandsborough.
Bridgetown, (Barbadoes)			30.04	763.0	82	27.8		NE			4		5						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.18	766.6	67.0	19.4		Calm			0		5						H. Todd.
Cape Town, (Cape Colony)			29.91	759.7	60.6	15.9		W			4		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.06	764.5	53.7	12.1	74	WSW	10	4.5			9						Th Staff, for E. J. Stone
Cardington			30.19	766.8	71.0	21.7		W					8						John McLaren.
Carlisle			30.04	763.0	58.9	14.9		SW					10			0	0	Threatening	T Bell, for J. Cartmell.
Chatham, School M. E.			30.1	765.5	62.3	17.3		WNW			1		10					Threatening	Qr. Mast Sgt. J. Wood.
Colombo, (Ceylon)			29.91	759.7	80.5	26.9		SW			3		7						Sgt. W. F. Hopkins
Dartmoor			30.34	770.6	55	12.8		NW			2		10						R. E. Power.
Donaghadee			30.14	765.5	59	15.0		W			4		8						J. Mac Gowan, Jr.
Dover			29.18	766.6	64	17.8		SSW			3		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.17	766.3	62.9	17.2		SW	9.4	4.2			10						Thomas Mackereth.
Falmouth Observatory			30.27	768.8	63.4	17.4		WNW	21	9.4			9						The Staff.
Fort Napier, (Natal)			29.92	760.0	78.0	25.6		NW			4		1						Pvt. G. Salmon, A. H. C.
Freetown, (Sierra Leone)			29.85	758.2	84	28.9		E					8					Light rain	
Galway, Queen's College			29.83	757.7	62	16.7		S			3		2						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.14	765.5	79.0	26.1		E			2		0						Sergt. E. G. Baker.
Glasgow Observatory			30.06	763.5	56.9	13.8		SW			5		10					Squally	Lewis Stewart.
Great Yarmouth			30.16	766.1	61	16.1		SE			3		5						G. T. Watson.
Greenwich Royal Obs.			30.19	766.8	72.0	22.2		NW			1		9						The Staff, for G. B. Airy.
Guernsey			30.25	768.3	63	17.2		WNW			2		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.15	765.8	61.6	16.4		WNW					8						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			
Helston			30.22	767.6	66	18.9		NW			4		6						Dr. W. B. Moyle.
Holyhead			30.21	767.3	61	16.1		SW			3		10						John Tilston.
Hull Park																			
Kew Observatory			30.19	766.8	66.6	19.2		NW	2	0.9			7						The Staff.
Kingstown			30.24	768.1	59	15.0		W			3		10						George Mitchell.
Lampeter																			
Leicester Museum			30.18	766.6	67.0	19.4		W			1		5					Misty	William J. Harrison.
Llandudno			30.20	767.1	65.9	18.8		W					9						Dr. James Nicol.
Malta, (Mediterranean)			30.12	765.0	80.0	26.7		SE			2		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.19	766.8	82.3	27.9		E			1		4						Surg.-Maj. Henry.
North Shields			30.11	764.8	63	17.2		WSW			5		7						John Wm. Irvine.
Nottingham			30.18	766.6	70.1	21.2		SW			1		7c, k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.18	766.6	62.8	17.1		NW			2		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.16	766.1	68	20.0		NW			1		10						J. Lucas, for R. Main
Plymouth			30.24	768.1	65	18.3		NW			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.23	767.8	62	16.7		SW			2		5						W. Kennedy.
Saint Ann's Head			30.27	768.8	59	15.0		WNW			1		7						John C. Walker.
Saint Helier, (Jersey)			30.24	768.1	65.0	18.3		NW			3		8						A. P. Amy.
Sandwick Manse (Orkneys)																			
Scarborough			30.12	765.0	68.0	20.0		WSW			2		7						F. Shaw.
Scutari, (Turkey)			29.98	761.5	89.4	31.9		SSW			3		1						Sergt. W. H. Lyne.
Sheffield			30.14	765.5	65.5	18.6		WNW			2		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.13	765.3	59	15.0		SW			3		8			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.18	766.6	70	21.1		SSW			1		6						Rev. C. J. Steward.
Stonyhurst Observatory			30.18	766.6	57.9	14.4		W			3		10						The Staff.
Stornoway, Lews C. (Heb.)																			John Smith.
Strathfield Turgiss			30.19	766.8	70.7	21.5		NW			1		8						Rev Charles H. Griffith
Streatley Vicarage			30.20	767.1	67.8	19.9		W			2		5						Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			29.93	760.2	56	13.3		WNW			3		8						John Trotter.
Truro, Royal Institution			30.21	767.3	66	18.9		NW			6		8						W. Newcombe.
Valencia Observatory			30.29	769.4	58.3	14.6		W	12	5.4			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.15	765.7	66.4	19.1	53	SE			2		1						
Fanöe			30.17	766.2	64.0	17.8	68	WSW			4		1						
Godthaab, (Greenland)			29.31	744.4	40.8	4.9	82	WSW			2		10					Foggy	
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.74	755.3	55.0	12.8	82	SW			4		7					Rainy	
Vestervig			30.07	763.8	62.2	16.8	79	SW			4		1						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.24	768.0	63.0	17.2	68	NE			3		8		NE	0	0		Normal School.
Amiens			30.10	764.5	72.3	22.4	62	NNW			3		2		NNW	0	0		Normal School.
Beaumette, (near Angers)			30.21	767.3	63.7	17.6	72	NNE	6.5	2.9			10		NNE	0	0		Beaumette Observatory.
Beauvais			30.22	767.6	66.0	18.9	56	ENE			1		10		NE		0		Normal School.
Besançon			30.11	764.8	74.1	23.4	66	N			2		2		NE	0.094	2.4		Normal School.
Bourg en Bresse			30.15	765.9	68.9	20.5	73	S			6		5		NE	0.083	2.1		Normal School.
Bourges			30.14	765.6	57.4	14.1	86	NW			2		10		W	0	0		Normal School.
Brest			30.24	768.0	62.1	16.7	69	WNW			3		10		NNW	0.010	0.25		Naval Observatory.
Caen			30.22	767.6	62.2	16.8	92	NW			2		10		W	0	0		Normal School.
Chartres			30.19	766.8	64.9	18.3		N			2		10			0	0		Normal School.
Chaumont			30.10	764.6	67.1	19.5		NW			4		10c,p		NW	0.010	0.25		Normal School.
Commercy			30.13	765.4	68.7	20.4	71	NNE			4		10			0	0		Normal School.
Le Mans			30.34	770.5	58.5	14.7	78	NNE			3		5		NNE	0	0		Normal School.
Lons-Le Saulnier			30.09	764.2	65.3	18.5	83	NW			2		5		S	0.059	1.5	Foggy	Normal School.
Mâcon			30.10	764.4	67.3	19.6	68	NW			4		10			0	0		Normal School.
Mirecourt			30.00	761.9	70.0	21.1	54	NNE			3		8		SSE	0	0		Normal School.
Orleans			30.16	766.1	62.6	17	72	NNW			4		8		N	0	0		Normal School.
Paris Observatory			30.15	765.8	68.0	20.0		N			3		10			0	0	Misty	National Observatory.
Parthenay			30.18	766.6	66.2	19.0	63	NW			4		2		NW	0	0		Normal School.
La Roche sur Yon			30.26	768.5	67.6	19.8	65	NW			2		8		SE	0	0		Normal School.
Rouen			30.19	766.7	67.8	19.9	50	WNW			2		10			0	0		Normal School.
Saint Lo			30.21	767.2	64.0	18.1	82	N			2		5		NE	0.008	0.2		Normal School.
Villefranche			30.16	766.0	68.9	20.5	63	SE			2		8		SW	0.120	3.2		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.94	633.4			44.6	7.0	87	NNE	9.3	4.1			10		W	1.933	4.91		—. Falguère.
Montsouris Observatory			30.15	765.7	67.6	19.8	39	NNE			3		10k, kn		SSW	0	0		Marié Davy.
Perpignan			30.08	764.0	63.5	17.5	66	WNW	13.0	5.8			10			2.120	54.0		Dr. Fines.
Saint Maur, (near Paris)			30.13	765.4	67.6	19.8	47	N			2		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.20	767.1	63.3	17.4	63	NW			1		10		NW	0	0		C. Marquet.
Versailles, (near Paris)			30.16	766.0	68.7	20.4	47	N			3		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.79	756.7	73.4	23.0	96	S	2.7	1.2			9kn			0.063 / 0.071	1.6 / 1.8	Misty	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations	Corrected Inches	Corrected Millimeters	Reduced Inches	Reduced Millimeters	Fahrenheit	Centigrade	Humidity	Direction	Miles per hour	Meters per second	Force	Amount Upper	Amount Lower	Direction Upper	Direction Lower	Rain Inches	Rain Millimeters	Weather	Observer
Bamberg			29.96	760.9	68.4	20.2	73	E			3		3			0	0		Prof. Hoh.
Berlin			30.19	766.7	79.9	26.6	71	E			2		6			0	0		Prof. Arndt.
Breslau			30.18	766.6	80.6	27.0	46	NE			1		9			0	0		Dr. P. Neugebauer.
Carlsruhe			29.98	761.5	77.0	25.0	66	NW			2		8			0	0		A. Senz.
Cassel			30.01	761.9	80.6	27.0	58	NE			1		9			0.213	5.40		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.98	761.6	68.0	20.0	81	E			3		9			0.075	1.9	Thunder-storm	M. Wilhelm.
Hamburg			30.19	766.9	68.0	20.0	52	NE			3		3c		SW	0.002	0.04		Deutsche Seewarte.
Kiel			30.14	765.6	57.4	14.1	51	WNW			1		4			0	0		Prof. G. Karsten.
Königsberg			30.14	765.6	77.0	25.0	54	SW			1		0			0.024	0.6		Prof. E. Luther.
Köslin			30.22	767.6	72.5	22.5		N			2		5			0	0		Dr. Tägert.
Leipsic			30.10	764.5	81.0	27.2	42	NE			2		8			0	0		Prof. Bruhns.
Münster			30.15	765.8	73.6	23.1	48	NE			1		4			0	0		Prof. E. Heis.
Posen			30.19	766.7	81.7	27.6	56	SSE			3→		4			0	0		Dr. Magever.
Strassburg, (in Alsace)			29.97	761.2	76.3	24.6	55	NE					6			0.559	14.20		Hartwig and Tülk.
Stuttgart			29.97	761.2	76.1	24.5	62	N					4			0	0	Thunder-storm	Mr. Würth.
Thorn			30.15	765.9	80.4	26.9	39	SW			2		6			0	0		Dr. Hesenbalg.
Treves, (Trier)			30.02	762.6	73.0	22.8	67	NE			8		9			0.267	6.77		Prof. Flesch.
Wustrow			30.24	768.0	65.8	18.8	67	W			2		6cs			0	0		L. F. chütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

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

Stations	Corrected Inches	Corrected Millimeters	Reduced Inches	Reduced Millimeters	Fahrenheit	Centigrade	Humidity	Direction	Miles per hour	Meters per second	Force	Amount Upper	Amount Lower	Direction Upper	Direction Lower	Rain Inches	Rain Millimeters	Weather	Observer
Moncalieri			30.17	766.2	62.2	16.8	70	ENE	3.1	1.4			10	SE		1.909	48.5		
Mondovi			30.12	765.1	61.9	16.6	77	NW			2		10	NW		0	0		
Genoa			30.15	765.8	68.0	20.2	76	Calm	0	0			10	S		0.051	1.3	Raining	
Pavia			30.13	765.4	66.2	19.0	85	SW			1		10			0.189	4.8		
Verona			30.10	764.5	82.2	27.9	51	E			2		10			0	0		
Padua			30.15	765.9	77.0	25.0	48	SW	8.7	3.9			10	SW		0	0		
Parma																			
Bologna			30.13	76[illegible].3	79.7	26.5	55	SSE			4		6	E		0	0		
Leghorn			30.14	765.5	72.9	22.7	74	NW	5.6	2.5			9			0	0		
Urbino			30.15	765.8	77.0	25.0	57	SE			2		10			0	0		
Ancona			30.15	765.9	78.8	26.0	67	SE			2		5			0	0		
Siena			30.13	765.4	78.6	25.9	50	S	2.5	1.1			9	S		0	0		
Rome			30.15	765.8	88.2	31.2	39	SW	11.2	5.0			8	S		0	0		
Naples, O.U.			30.17	766.2	87.8	31.0	33	SW			2		8			0	0		
Lecce			30.17	766.2	80.1	26.7	41	N	13.7	6.1			0			0	0		
Cosenza			30.17	766.2	86.9	30.5	35	WNW			1		4			0	0		
Catania, (Sicily)																			
Riposto			30.15	765.8	79.5	26.4	63	SSE			2		3	W		0	0		
Palermo			30.09	764.3	78.8	26.0	67	NE			2		7			0	0		
Sub-Series.																			
Naples, S. R.			30.23	767.8	85.6	29.8	38	SW			3		[illegible]c	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.21	767.3	66.9	19.4		N			2								
Groningen			30.12	765.0	69.3	20.7		E			1								
Helder			30.17	766.4	65.7	18.7		WSW			2								
Utrecht			30.13	765.2	71.1	21.7	55	N			2		2						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.91	759.7	58.3	14.6	74	SW	14.8	6.6			10			0.177	4.5		
Christiania			29.95	760.7	62.6	17.0	66	S	10.[illegible]	4.6			10			0	0		
Tromsö			29.69	754.0	54.3	12.4	94	SW			6		10			0.394	10.0	Raining	

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.28	769.0	76.1	24.5	22	NE	15.0	6.7			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.16	766.0	77.4	25.2	53	SW	4	2			5						Astronomical Obs.
Wilna			30.11	764.8	72.5	22.5	46	NW	2	1			5						Astronomical Obs.
Dorpat			30.01	762.3	72.9	22.7	57	WNW	9	4			9						Physical Cabinet.
St. Petersburg			29.93	760.3	66.0	18.9	74	NW	9	4			2						Central Physical Obs.
Kuopio			29.84	758.0	67.6	19.8	63	W					1		SSE	0.100	2.70		Ch. Forsten.
Kieff			30.05	763.2	84.4	29.1	51	WNW	11	5			3						Physical abinet.
Nikolaiev			30.06	763.5	94.5	34.7	34	ENE	4	2			8						Kurdokof.
Kertch			30.02	762.5	83.3	28.5	50	NE	18	8			0						Lagorio.
Moscow			30.00	762.0	78.1	25.6	56	SSW	10	4.5			1						Meteorological Obs.
Lugan			29.98	761.4	86.2	30.1	23	NE	8	3.5			0						Meteorological Obs.
Archangel			29.78	756.4	63.9	17.7	88	NW	20	9			10					Raining	Ogorodnikof.
Tiflis			29.9	759.5	87.1	30.6	32	S	10	4.5			3						Physical Obs.
Astrakhan			30.16	766.0	79.0	26.1	24	Calm	0	0			1						Sebastianof.
Kasan			29.9[illegible]	759.5	73.6	23.1	35	NNW	10	4.5			3						Physical Cabinet.
Orenburg			30.00	762.0	71.6	22.0	52	NW	0	0			4						Tschernischef.
Ekaterinburg			29.79	756.6	42.1	5.6	88	W	10	4.5			10					Raining	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.88	758.9	72.7	22.6	50	Calm	0	0			10						Michelson.
Barnaul			29.65	753.2	80.1	26.7	65	NE	8	3.5			4						Meteorological Obs.
Yeniseisk			29.64	752.9	77.0	25.0	67	NE	13	6			5						Marks.
Irkutsk			29.65	755.0	69.4	20.8	63	Calm	0	0			0						Usolzef.
Oorga			29.89	759.3	52.2	11.2	72	Calm	0	0			5						Mossin.
Peking, (China)			29.67	753.7	75.9	24.4	55	Calm	0	0			4						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.21	767.3	70.2	21.2	27	N	20.8	9.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.87	758.7	61.2	16.[illegible]	75	SW			2		2			0.66	16.7		
Hernosand			29.80	757.0	65.5	18.[illegible]	66	SE			2		2			0.08	2.0		
Stockholm			29.93	760.3	68.4	20.2	36	WSW			5		2			0.03	0.7		
Wisby			30.11	764.9	65.1	18.4	84	W			3		0			0	0		
Sub-Series.																			
Upsala			29.93	760.3	69.1	20.6	41	WSW			7		1		WSW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.65	727.8			66.6	19.2	71	SSW			4		10			0.228	5.8	Raining	The Observatory.
Zurich	28.39	721.0			78.6	25.9	59	SE			1		5			0.020	0.5		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.9mm.; Thermometer, —2°.2 C.; Relative Humidity, +16 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.79	756.6	86.5	30.3	64	W			1		0						Prof. C. N. A. Van Dyck.
Constantinople			30.04	762.9	81.7	27.6	56	NE	16.8	7.5			2		NE	0	0		
Fao, (Persian Gulf)			29.57	751.0	102.2	39.0		NW			4		0						
Salonica					95.5	35.3		S			1		0						
Valona			30.13	765.2	84.4	29.1		W			2		0						
Varna			30.01	763.0	78.8	26.0		N			6		10					Stormy	

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			29.85	758.2	66	18.3		SW	4	1.8			10s		SW	0.01	0.3		
Chatham, N. B.			29.82	757.4	63	17.2	83	SW	8	3.6		8k	Haze	SW		0	0		
Charlottetown, P. E. Island			29.91	759.7	66	18.9	81	SW	18	8.0			8cs			0	0		
Fort Garry, Manitoba			29.79	756.7	54	12.2	93	S	8	3.6		5k	2cs	S	S	0	0		
Halifax, N. S.			29.95	760.7	64	17.8	73	S	9	4.0		2ck	0	S		0	0		
Kingston, Ontario			29.86	758.4	57	13.9	97	S	2	0.9			Fog			0.04	1.0	Foggy	
Montreal, Quebec			29.76	755.9	69	20.6	72	SW	7	7		2k	Haze	SW		0.16	4.1		
Ottawa, Ontario			29.76	755.9	68	20.0	59	S	10	4.5		5k	5n	W	W	0	0	Threatening	
Parry Sound, Ontario			29.72	754.9	68	20.0	74	W	4	1.8		0	0			0	0		
Port Dover, Ontario			29.93	760.2	64	17.8	94	S	11	4.9			Fog			0.11	2.8	Foggy	
Port Stanley, Ontario			29.85	758.2	66	18.9	94	W	9	4.0			Fog			0	0	Foggy	
Quebec, Quebec			29.77	756.1	70	21.1	82	Calm	0	0			10n		SW	0	0		
Saugeen, Ontario			29.73	755.1	69	20.6	78	SW	14	6.3		5k	5s	W		0	0		
Stayner, Ontario			29.71	754.6	74	23.3	76	NW	8	3.6		5c	0	W		Blank	Blank		
Sydney, C. B.			29.95	760.7	66	18.9	66	SW	19	8.5		8cs	0			0	0		
Toronto, Ontario			29.78	756.4	63	17.2	93	SW	6	2.7		8cs	Haze			0.06	1.5		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.89	759.2	71	21.7	85	S	4	1.8			10ks			0.02	0.5		
Alpena, Mich.			29.72	754.9	71	21.7	53	W	12	5.4		8c	Sm'e	NW		0	0		
Atlantic City, N. J.			30.00	762.0	68	20.0	90	S	12	5.4		2cs	0	S		0	0		
Augusta, Ga.			30.03	762.7	73	22.8	95	S	1	0.4		5k	0	SW		1.57	39.9		
Baltimore, Md.			29.96	761.0	74	23.3	85	SW	3	1.3		5ck	5ks	W	SW	0	0		
Barnegat, N. J.			29.99	761.7	68	20.0	84	S	8	3.6		8k	0	S					
Benton, Montana			29.81	757.2	60	15.6	70	W	2	0.9		0	0			0	0		
Bismarck, Dakota			29.50	749.3	55	12.8	93	S	8	3.6			10n		S	0.32	8.1	Heavy rain.	
Boston, Mass.			29.96	761.0	74	23.3	72	W	11	4.9		2c	5s	W	W	0	0		
Breckenridge, Minn.			29.77	756.1	57	13.9	93	SE	4	1.8			10s			0.03	0.8		
Buffalo, N. Y.			29.80	756.9	68	20.0	84	SW	8	3.6		5c	Haze	SW		0.17	4.3		
Burlington, Vt.			29.82	757.4	72	22.2	71	S	8	3.6		2k	2s			0.11	2.8		
Cairo, Ill.			29.99	761.7	78	25.6	82	S	2	0.9		2c	0	NW		0	0		
Cape Hatteras, N. C.			30.00	762.0	77	25.0	86	SE	10	4.5		2c	5ks		SW	0.13	3.3		
Cape Henry, Va.			30.00	762.0	79	26.1	78	SW	5	2.2		8k	2s	SW	SW	0	0		
Cape May, N. J.			29.99	761.7	67	19.4	90	S	6	2.7			10s			0	0		
Charleston, S. C.			30.06	763.5	78	25.6	78	SW	4	1.8		2k	5ks	S	SW	0	0		
Cheyenne, W. T.			29.90	759.4	60	15.6	44	W	16	7.2		0	2s		W	0	0		
Chicago, Ill.			29.80	756.9	72	22.2	71	NW	20	8.9			10s			0.30	7.6	Threatening	
Cincinnati, Ohio			29.88	758.9	75	23.9	81	SW	1	0.4		5ck	0			0.01	0.3		
Cleveland, Ohio			29.88	758.9	71.2	21.8	81	S	10	4.5			10ks		W	0	0		
Colorado Springs, Col.			29.95	760.7	56	13.3	87	NW	1	0.4		2c	2ks	S		0.07	1.8		
Corsicana, Texas			30.00	762.0	76	24.4	86	S	6	2.7		0	0			0	0		
Davenport, Iowa			29.83	757.7	73	22.8	85	Calm	0	0			10s			0	0		
Denver, Col.			29.95	760.7	63	17.2	62	S	4	1.8		2k	0	SW		0.15	3.8		
Detroit, Mich.			29.82	757.4	70	21.1	79	SW	8	3.6			10n		W	0.01	0.3	Light rain.	
Dodge City, Kansas			29.38	746.2	80	26.7	48	SW	11	4.9		2c	0			0	0		
Dubuque, Iowa			29.82	757.4	69	20.6	95	SW	2	0.9			10s			0.76	19.6		
Duluth, Minn.			29.83	757.7	60	15.6	70	Calm	0	0		8k	0			0	0		
Eastport, Me.			29.93	760.2	56	13.3	93	S	10	4.5			10s			0	0		
Erie, Penn.			29.80	756.9	74	23.3	76	S	8	3.6		8ck	Haze	S		0.07	1.8		
Escanaba, Mich.			29.77	756.1	65	18.3	58	N	16	7.2		0	0			0	0		
Fort Gibson, I. T.			29.90	759.4	79	26.1	73	SE	6	2.7		2cs	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.65	753.1	62	16.7	72	SE	12	5.4			8s		SE	0	0		
Galveston, Texas			30.04	763.0	82	27.8	74	S	4	1.8		1ck	0	SE		0	0		
Grand Haven, Mich.			29.82	757.4	63	17.2	83	W	3	1.3			10s			0	0		
Indianapolis, Ind.			29.88	758.9	76	24.4	77	SW	6	2.7		2k	Haze			0	0		
Indianola, Texas			30.03	762.7	84	28.9	71	S	8	3.6		2k	0	S		0	0		
Jacksonville, Fla.			30.09	764.3	79	26.1	78	S	6	2.7		5c	0	S		0.40	10.2		
Keokuk, Iowa			29.81	757.2	80	26.7	74	SW	4	1.8		2c	0			0	0		
Key West, Fla.			30.09	764.3	80.1	26.7	74	SE	8	3.6			8ks			0.09	2.3		
Kittyhawk, N. C.			30.01	762.2	72	22.2	95	S	10	4.5		0	5ks		SW	0	0		
Knoxville, Tenn.			30.02	762.5	69	20.6	84	Calm	0	0		0	8ks		NW	0	0		
La Crosse, Wis.			29.77	756.1	66	18.9	68	S	2	0.9			10s		N	0	0		
Leavenworth, Kan.			29.78	756.4	80	26.7	65	S	12	5.4		0	0			0	0		
Lexington, Ky.			29.95	760.7	74	23.3	84	SW	7	3.1		Haze	0			0	0		
Long Branch, N. J.			30.00	762.0	63	17.2	94	SW	15	6.7		0	8s		SW	0	0		
Louisville, Ky.			29.94	760.5	79	26.1	78	S	4	1.8		0	0			0	0		
Lynchburg, Va.			29.96	761.0	77	25.0	77	SW	2	0.9		0	0			0.48	12.2		
Malone, N. Y.																			
Marquette, Mich.			29.77	756.1	64	17.8	57	S	8	3.6		0	0			0	0		
Memphis, Tenn.			30.03	762.7	81	27.2	74	SW	6	2.7		5c	0	SE		0	0		
Milwaukee, Wisconsin			29.85	758.2	70	21.1	100	W	10	4.5			10ks			0.09	2.3	Threatening	
Mobile, Ala.			30.11	761.8	76	24.4	86	NW	3	1.3		8ck	0			0	0		
Montgomery, Ala.			30.09	764.3	77	25.0	84	W	4	1.8		2c	Haze	W		0.37	9.4		
Morgantown, W. Virginia			29.94	760.5	71	21.7	80	SW	10	4.5			10s*			0.05	1.3		
Mt. Washington, N. H.			30.16	766.1	51	10.6	100	W	60	26.8			Fog			0.10	2.5		
Nashville, Tenn.			29.99	761.7	80	26.7	74	Calm	0	0		8ck	0	W		0.08	2.0		
New Haven, Conn.			30.02	762.5	69	20.6	84	S	4	1.8		Haze	Sm'e			0	0		
New London, Conn.			30.04	763.0	66	18.9	92	S	8	3.6		5k	2s	SW		0	0		
New Orleans, La.			30.08	764.0	79.5	26.4	76	S	1	0.4		2k	2s		S	0.30	7.6		
Newport, R. I.																			
New York, N. Y.			29.99	761.7	68	20.0	100	S	4	1.8			10n			0.20	5.1	Heavy rain.	
Norfolk, Va.			30.00	762.0	77	25.0	86	SW	4	1.8			10s			0	0		
North Platte, Neb.			29.31	744.5	66	18.9	78	Calm	0	0		0	8ks		W	0	0		
Omaha, Neb.			29.64	752.8	79	26.1	65	S	8	3.6		0	0			0	0		
Oswego, N. Y.			29.82	757.4	73.5	23.1	86	WSW	6	2.7		Haze	Haze			0.64	16.3		
Peck's Beach			30.01	762.2	67	19.4	90	S	14	6.3		Haze	5s			0	0		
Pembina, D. T.			29.77	756.1	56	13.3	81	Calm	0	0		5c	5s			0	0		
Philadelphia, Penn.			29.98	761.5	71	21.7	90	SW	10	4.5			10s		SW	0.01	0.3		
Pike's Peak, C. T.			30.12	765.0	30	— 1.1	89	W	20	8.9		0	2s			0.05	1.3		
Pittsburgh, Penn.			29.89	759.2	70	21.1	84	W			1					0.17	1.8	Dense smoke	
Port Huron, Mich.			29.80	756.9	70	21.1	84	S	15	6.7			10s		W	0	0		
Portland, Maine			29.94	760.5	66	18.9	78	S	9	4.0		0	10s			0	0		
Portland, Or.			30.09	764.3	57	13.9	81	SW	6	2.7			10s			0.06	1.5		
Punta Rassa, Fla.			30.12	765.0	79.6	26.4	80	E	8	3.6		0	2ks			0.01	0.3		
Rochester, N. Y.			29.78	756.4	74	23.3	76	SW	10	4.5		0	Haze			0.38	9.7		
Salt Lake City, Utah			29.91	759.7	57	13.9	43	S	10	4.5		0	0			0	0		
Sandy Hook, N. J.			29.98	761.5	71	21.7	90	SE	6	2.7		1c	8ks		SW	0	0	Threatening	
San Diego, Cal.			30.00	762.0	62	16.7	66	NE	4	1.8			10s			0	0		
San Francisco, Cal.			29.94	760.5	54	12.2	87	SW	6	2.7		0	5s		SW	0	0		
Santa Fe, N. M.			29.79	756.7	68	20.0	30	SW	12	5.4		0	0			0	0		
Savannah, Georgia			30.10	764.5	65	18.3	90	NW	8	3.6			10s			0.03	0.8		
Shreveport, La.			30.05	763.3	77	25.0	86	SSW	4	1.8		2k	0	SW		0	0		
Springfield, Mass.			29.97	761.2	73	22.8	67	S	4	1.8			10s			0	0		
St. Louis, Mo.			29.93	760.2	81	27.2	94	W	8	3.6		0	0			0	0		
St. Marks, Fla.			30.09	764.3	76	24.4	86	Calm	0	0		5c	0			0	0		
St. Paul, Minn.			29.75	755.6	63	17.2	72	Calm	0	0		0	0			0	0		
St. Paul's Island, Alaska			29.53	750.0	38	3.3	81	NNW	11	4.9			10k			0.02	0.5		
Squan Beach, N. J.			30.00	762.0	65	18.3	90	SW	11	4.9		8k	2s	SW	SW	0	0		
Toledo, Ohio			29.91	759.7	69	20.6	90	SW	16	7.2			10n		SW	0.11	2.8	Heavy rain.	
Tybee Island, Ga.			30.09	764.3	76	24.4	90	S	4	1.8		2c	2ks	W		0.02	0.5		
Vicksburg, Miss.			30.15	765.8	76	24.4	85	S	3	1.3			10s		S	0	0		
Virginia City, Mon.			29.66	753.4	44	6.7	75	Calm	0	0		5c	0	SW		0.05	1.3		
Washington, D. C.			29.96	761.0	76	24.4	76	SW	2	0.9		2c	5s			0.01	0.3		
Wilmington, N. C.			30.02	762.5	78	25.6	77	W	6	2.7		2ck	2ks	W	SW	0.39	9.9		
Wood's Hole, Mass.			30.06	763.5	66	18.3	89	SW	12	5.4		0	Fog			0	0	Foggy	
Wytheville, Va.			29.77	756.1	69	20.6	79	W	3	1.3		0	0			0.11	2.8		
Yankton, D. T.			29.70	754.4	63	17.2	78	NE	10	4.5			10s		NW	0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Bb'dOes, W. I.					84	28.9	79	NE	9	4.0		2k	2ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'Ploupe, do			29.98	761.5	80	26.7	78	E				10cs	2k			0.02	0.5		L. V. Bigard.
Havana, Cuba, W. I.			29.80	756.9	82	27.8	74	SE	7.2	3.2		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.30	769.6	80	26.7	78	N	10	4.5		2ck	2kn	SE		0.16	4.1		W. S. Cameron.
Santiago de Cuba, W. I.			29.87	758.7	80	26.7	74	NE	8.4	3.8		0	2k			0	0		Robert Mason.
St. Georges, Bermudas			30.24	767.8	75.5	24.2	91	S	8.6	3.8			10ks			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.03	762.7	7[illegible]	21.1	79	NE	13	5.8		8c	8ks	NE	NE	0	0		E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.68	753.9	60	15.6	72	SW	4	1.8		5c	0	S		0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.07	763.8	71	21.7	90	SSE	1.0	0.4		0	10k			0.25	6.1		C. Partridge.
St. John's, Newfoundland			30.05	763.3	57	13.9	73	NE				Fog	Fog			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.86	758.4	70	21.1	84	S	4	1.8			10ks			0.02	0.5		H. M. Redington.
Indianola, Iowa	28.82	732.0			82	27.8	78	SE					8kn		SW	0	0		G. C. Carpenter.

U. S. Marine Series.	True course towards.	Hourly rate in knots.	State of ocean.	Direction of swell from—	Weather.	Observer.
Schooner Addie Fuller, N. Y. outer harbor	N	4	Smooth		Drizzling rain	James Jorgensen, Mate

Note.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 24, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.10	764.5	75.2	24.0		NE			4		1			0	0		Charnot.
Algiers			30.19	766.8	74.5	23.6	58	WNW			2		2			0	0		Peter.
La Calle			30.16	766.0	68.0	24.0		NW			1		6			0	0		Kuntz.
Tunis			30.12	765.0	80.6	27.0	45	NW			4		6			0.406	10.3	Raining	Jacques.
Sfax			30.14	765.6	79.7	26.5		NE			5		0			0	0		Chauvey.
Saïda			30.09	764.2	77.4	25.2		NNW			1		0			0	0		Grosjean.
Tebessa			30.08	764.0	68.2	20.1		NE			2		6			0	0	Foggy	Colin.
Geriville			30.16	766.0	75.6	24.2		NNW			3		1			0	0		Bernadach.
Laghouat			30.20	767.0	82.4	28.0	22	NW.			3		0			0	0		Poinsignon.
Biskra			30.14	765.5	89.6	32.0		W			3		2			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.90	759.5	91.8	33.2	39	SW			1		2			0.020	0.5		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.90	759.5	85.1	29.5	62	NE			2		0			0	0		I. R. Observatory.
Eperies			29.90	759.5	84.2	29.0	58	S			2					0	0		Julius Mikolik.
Gratz			29.86	758.5	83.8	28.8	61	NW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.84	758.0	92.3	33.5	36	SE			3		4			0	0		Prof. Reissenberger.
Kremsmünster			29.88	759.0	74.1	23.4	70	NNW			1		7			0	0		Prof. C. Wagner.
Lemberg			29.92	759.0	81.0	27.2	53	N			2		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.95	760.8	87.4	30.8	44	W			1		0			0	0		Habzsuda Daniel.
Pola			30.04	763.1	68.0	20.0	87	NW			4		108			0.004	0.09		I.R. Hydrographic Of'ce
Szegedin			29.91	759.7	86.7	30.4	72	S			2		0			0	0		Karl Stancel.
Trieste			30.09	764.2	70.2	21.2	87	W			2		10			0.091	2.3		Prof. V. Farolfi.
Vienna			29.84	757.8	91.8	33.2	32	SSE			3		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.13	765.3	63.3	17.4	73	NE			1		108		NE	0.002	0.05		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.03	762.7	69.0	20.6		SSW	10	4.5			3			0.170	4.32		William Boswell.
Annanhill																			
Ardrossan			30.14	765.5	57	13.9		SW			2		8						William McNeil.
Armagh Observatory			30.16	766.1	63.3	17.4		S	10	4.5			9						S. Cali, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.22	767.6	65.0	18.3		W			1		2						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.17	766.3	69.8	21.0		WSW			1		7						J. Dreyer and I. Mitchell
Bradford			30.13	765.3	68.9	20.5		SW			1		4						J. McLandsborough.
Bridgetown, (Barbados)			30.06	763.5	83	28.3		NE			4		5						T. H. Hunt.
Bywell																			
Cambridge Observatory			30.20	767.1	68	20.0		NW			1		10						H. Todd.
Cape Town, (Cape Colony)			29.98	761.5	60	15.6		NW			4		6ck						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.06	763.5	59.4	15.2	87	WSW	10	4.5			5						Th. Staff, for E. J. Stone.
Cardington			30.21	767.3	70.0	21.1		N					7						John McLaren.
Carlisle			30.14	765.5	70	21.1		W					2			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.17	766.3	67.4	19.7		NE			1		10					Threatening	Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.90	759.4	80.2	26.8		SW			3		6						Sgt. W. F. Hopkins
Dartmoor			30.32	770.1	61.5	16.4		NW			1		6						R. E. Power.
Donaghadee			30.14	765.5	67	19.4		WSW			3		10						J. Mac Gowan, Jr.
Dover			30.18	766.6	65	18.3		NE			4		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.17	766.3	68.8	20.4		W	1.8	0.8			5					Misty	Thomas Mackereth.
Falmouth Observatory			30.29	769.4	60.4	15.8		WSW	12	5.4			10						The Staff.
Fort Napier, (Natal)			29.82	757.4	70.0	21.1		E			4		0						Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	79	26.1		E					10					Light rain	[ius.
Galway, Queen's College			29.82	757.4	64	17.8		SW			1		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.07	763.8	70.5	21.4		NE			3		0						Sergt. E. G. Baker.
Glasgow Observatory			30.10	764.5	58.0	14.4		W			1		10						Lewis Stewart.
Great Yarmouth			30.19	766.8	64	17.8		NNE			2		3						G. T. Watson.
Greenwich Royal Obs.			30.20	767.1	70.7	21.5		NNE			1		8						The Staff, for G. B. Airy.
Guernsey			30.26	768.6	62	16.7		NW			2		0						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.17	766.3	69.0	20.6		WSW					8					Hazy	F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)																			
Helston			30.30	769.6	62	16.7		SW			3		10					Hazy	Dr. W. B. Moyle.
Holyhead			30.27	767.3	61	16.1		SSW			3		10						John Tilston.
Hull Park																			
Kew Observatory			30.21	767.3	67.7	19.8		NW	7	3.1			8					Misty	The Staff.
Kingstown			30.22	767.6	64	17.8		SSE			1		9					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			30.22	767.6	65.2	18.4		Calm			0		5						William J. Harrison.
Llandudno			30.21	767.3	69.0	20.6		WSW					9						Dr. James Nicol.
Malta, (Mediterranean)			30.04	763.0	78.2	25.7		NE			2		8k						Fred Travis, Pvt. A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.26	768.6	82.1	27.8		SE			2		6						Surg.-Maj. Henry.
North Shields			30.14	765.5	63	17.2		SE			1		8						John Wm. Irvine.
Nottingham			30.20	767.1	71	21.7		SSW			2		4c		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.19	766.8	69	20.6		S			2		0					Hazy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.24	767.1	65	18.3		NW			1		10						J. Lucas, for R. Main.
Plymouth			30.26	768.6	67	19.4		S			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.23	767.8	63	17.2		SW			3		5						W. Kennedy.
Saint Ann's Head			30.24	768.1	60	15.6		SW			1		10						John C. Walker.
Saint Helier, (Jersey)			30.24	768.1	69	20.6		N			3		2						A. P. Amy.
Sandwick Manse (Orkneys)																			
Scarborough			30.17	766.3	61.4	16.3		SE			2		4						F. Shaw.
Scutari, (Turkey)			29.88	758.9	90.2	32.3		NNE			3		1						Sergt. W. H. Lyne.
Sheffield			30.19	766.8	72	22.2		WNW			2		4						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.14	765.5	68	20.0		W			5		2			0.030	0.8		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.18	766.6	67	19.4		NNE			1		4						Rev. C. J. Steward.
Stonyhurst Observatory			30.14	765.5	64.1	17.8		W			2		7					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			30.23	767.8	69.7	20.9		N			1		10					Misty	Rev. Charles H. Griffith
Streatley Vicarage			30.23	767.8	68.7	20.4		NNW			2		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			29.96	761.0	66	18.9		SSW			2		7						John Trotter.
Truro Royal Institution			30.24	768.1	67	19.4		NW			4		7						W. Newcombe.
Valencia Observatory			30.22	767.6	58.4	14.7		SW	21	9.4			10					Misty	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.10	764.4	62.6	17.0	77	N			2		6						
Fanöe			30.11	764.9	64.8	18.2	69	W			4		1						
Godthaab, (Greenland)			29.76	755.9	38.8	3.8	77	WSW			2		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.71	754.5	55.6	13.1	87	S			6		6						
Vestervig			30.08	764.1	64.0	17.8	74	W			2		1						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.22	767.6	69.8	21.0	49	NE			3		2		NE	0	0		Normal School.
Amiens			30.10	764.4	70.9	21.6	87	NW			3		5		NNW	0	0		Normal School.
Beaumette, (near Angers)			30.18	766.6	68.9	20.5	53	NW	4.3	1.9			10		N	0	0		Beaumette Observatory.
Beauvais			30.21	767.3	68.0	20	55	N			3		10		NE	0	0		Normal School.
Besançon			30.17	766.3	65.1	18.4	73	SSW			3		5		SW	0.079	2.0		Normal School.
Bourg en Bresse			30.17	766.4	62.1	16.7	81	W			2		5		E	0.150	3.8		Normal School.
Bourges			30.02	762.6	55.4	13	90	W			2		10		SE	1.181	30.0		Normal School.
Brest			30.23	767.9	60.3	15.7	70	N			2		10		N	0	0		Naval Observatory.
Caen			30.22	767.6	66.0	18.9	88	N					2		N	0	0		Normal School.
Chartres			30.25	768.4	62.8	17.1		NNE			2		10			0.079	2.0		Normal School.
Chaumont			30.15	765.8	60.8	16.0		W			4		10n		W	0.679	17.25		Normal School.
Commercy			30.14	765.6	60.1	15.6	85	W			4		10			1.201	30.50		Normal School.
Le Mans			30.32	770.2	67.5	19.7	55	NE			2		8		NE	0	0		Normal School.
Lons-Le Saulnier			30.12	765.0	61.7	16.5	72	N			1		5		W	0.425	10.8		Normal School.
Mâcon			30.17	766.2	60.1	15.6	87	WNW			2		5		W	0.059	1.5		Normal School.
Mirecourt			30.05	763.3	64.8	18.2	74	SSW			3		10		E	0.551	14.0		Normal School.
Orleans			30.19	766.7	58.6	14.8	84	NNW			3		8		N	0.382	9.7		Normal School.
Paris Observatory			30.12	765.1	60.3	15.7		NW			2		10			0.465	11.80	Misty	National Observatory.
Parthenay			30.17	766.4	67.1	19.5	85	W			2		2		W	0	0		Normal School.
La Roche sur Yon			30.28	769.0	66.4	19.1	68	NW			2		2		S	0	0		Normal School.
Rouen			30.15	765.8	73.0	22.8	53	NW			2		2		N	0	0		Normal School.
Saint Lo			30.32	770.0	68.0	20	67	E			3		10		NW	0	0		Normal School.
Villefranche			30.18	766.6	66.9	19.4	73	NW			4		8		N	0.254	6.40		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	25.00	634.9			52.5	11.4	72	NNW	16.8	7.50			6		NW	0.024	0.6		—, Falguère.
Montsouris Observatory			30.15	765.9	66.7	19.3	89	WNW			2		10			0.654	16.6		Marié Davy.
Perpignan			30.18	766.6	67.0	19.8	61	WNW	13.0	5.83			5kn		W	2.571	65.3		Dr. Fines.
Saint Maur, (near Paris)			30.16	766.0	58.6	14.8	95	NNW			1		10			0.740	18.8	Misty	E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.20	767.0	66.4	19.1	63	NNW			1		10		NNW	0.016	0.4		C. Marquet.
Versailles, (near Paris)			30.16	766.1	62.6	17.0	90	N			2		10			0.331	8.40		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.83	757.7	69.6	20.9	90	E	4.7	2.1			10n			{0.598 / 0.701}	{15.2 / 17.8}		H. Le Lec, S. J.

Note.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.90	759.4	68.0	20.0	82	NW			3		10			0.976	24.8		Prof. Hoh.
Berlin			30.09	764.2	64.9	18.3	83	N			4		8			0.350	8.9		Prof. Arndt.
Breslau			29.94	760.5	87.4	30.8	41	SSW			2		1			0	0		Dr. P. Neugebauer.
Carlsruhe			30.01	762.3	73.8	23.2	80	SW			2		10			2.067	53.0		A. Senz.
Cassel			29.95	760.8	64.4	18.0	84	N			2		10			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.06	763.5	64.4	18.0	85	W					10			0.055	1.4	Raining	M. Wilhelm.
Hamburg			30.10	764.6	69.6	20.9	54	NE			3		8k		NE	0	0		Deutsche Seewarte.
Kiel			30.15	765.8	64.6	18.1	64	NNE			4		9			0	0		Prof. G. Karsten.
Königsberg			30.02	762.5	73.9	23.3	65	NE			1		4			0	0		Prof. E. Luther.
Koslin			30.08	764.0	63.5	17.5		NE			2		10			0	0		Dr. Tägert.
Leipsic			29.98	761.4	70.3	21.3	74	NNE			2		10			0.122	3.1		Prof. Bruhns.
Münster			30.09	764.2	65.3	18.5	72	N			1		10			0.591	15.0		Prof. E. Heis.
Posen			29.95	760.8	87.0	30.9	40	S			2		10			0.134	3.4		Dr. Magener.
Strassburg, (in Alsace)			30.03	762.8	71.0	22.0	67	S					10			0.042	1.07		Hartwig and Tülk.
Stuttgart			29.99	761.7	67.1	19.5	74	W					10			0.161	4.1	Raining	Mr. Würth.
Thorn			29.94	760.5	83.1	28.4	45	SE			3		8			0	0		Dr. Hessenbalg.
Treves, (Trier)																0.823	20.89		Prof. Flesch.
Wustrow			30.13	765.4	68.0	20.0	54	NW			3		3c			0	0		F. Schütz.

Note.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	Barometer. Reduced to sea-level. Inches.	Millimeters.	Temperature of the Air. Fahrenheit.	Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	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 24 hours. Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.04	763.1	66.6	19.2	71	WNW	1.8	0.8			9	N		0.295	7.5	Rainy	
Mondovi			30.01	762.2	61.9	16.6	75	NW			2		10			0	0	Rainy	
Genoa			30.07	763.7	70.7	21.5	58	Calm	0	0			10	S		0.051	1.3	Raining	
Pavia			30.02	762.6	72.5	22.5	47	NE			1		4	SE		0.059	1.5		
Verona			29.98	761.5	76.3	24.6	66	E			2		10			0	0		
Padua			30.02	762.5	68.4	20.2	77	SW	2.5	1.1			10	SW		0.232	5.9		
Parma																			
Bologna			30.06	763.4	74.1	23.4	80	NNW			4		5	ESE		0	0		
Leghorn			30.07	763.6	71.6	22.0	60	W	4.3	1.9			9			0	0		
Urbino			30.07	763.6	71.2	21.8	68	SSE			4		10			0.453	11.5		
Ancona			30.05	763.3	71.6	22.0	77	NW			2		10			0.098	2.5		
Siena			30.05	763.3	71.1	21.7	70	NNW	0	0			9	S		0	0		
Rome			30.08	763.9	81.7	27.6	51	SSW	9.4	4.2			9	SW		0	0		
Naples, O.U.			30.13	765.2	81.9	27.7	67	N			2		8	S		0	0		
Lecce			30.03	762.7	84.6	29.2	33	NW	10.5	4.7			0			0	0		
Cosenza			30.11	764.9	85.6	29.8	40	NNW			6		8			0	0		
Catania, (Sicily)																			
Lipporto			30.00	762.1	83.3	28.5	53	NE			6		6	SW		0	0		
Palermo			30.03	762.8	79.3	26.3	38	NE			4		8			0	0		
Sub-Series.																			
Naples, S. R.			30.16	766.1	77.9	25.5	74	NW			3		..k	WNW		0	0		Prof. F. Brioschi.

Note.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.18	766.6	68.0	20.0		NNE			2								
Groningen			30.09	764.3	65.1	18.4		N			2								
Helder			30.16	766.0	64.0	17.8		NNW			2								
Utrecht			30.10	764.5	68.4	20.2	57	NNE			4		5						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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			30.01	762.2	59.4	15.2	62	SSW	11.9	5.3			5			0	0		
Christiania			29.99	761.8	68.9	20.5	37	SSW	6.3	2.8			0			0.016	0.4		
Tromsö			29.57	751.0	51.4	10.8	99	SW			6		10			0.012	0.3	Raining	

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.14	765.6	83.8	28.8	20	NE	13.7	6.1			0						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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	760.8	81.7	27.6	53	SE	4	2			0						Astronomical Obs.
Wilna			29.97	761.1	76.1	24.5	57	Calm	0	0			10						Astronomical Obs.
Dorpat			29.91	759.6	71.8	22.1	43	WSW	13	6			4						Physical Cabinet.
St. Petersburg			29.80	757.0	65.3	18.5	66	WNW	12	5			2						Central Physical Obs.
Kuopio			29.65	753.2	61.5	16.4	75	WNW					10			0	0		Ch. Forsten.
Kieff			30.01	762.3	76.5	24.7	52	N	4	2			5						Physical Cabinet.
Nikolaiev			30.04	762.9	90.1	32.3	29	NW	10	4.5			0						Kurdakof.
Kertch			29.88	759.0	86.2	30.1	33	N	7	3			1						Lagorio.
Moscow			29.80	756.8	70.9	21.6	45	NW	13	6			2						Meteorological Obs.
Lugan			29.68	753.9	87.8	31.0	36	NW	17	7.5			6						Meteorological Obs.
Archangel			29.82	757.4	59.2	15.1	83	N	8	3.5			10						Ogorodnikof.
Tiflis			29.83	757.6	82.9	28.3	34	SW	8	3.5			0						Physical Obs.
Astrakhan			29.91	759.8	78.3	25.7	34	S	20	9			0						Sebastianof.
Kasan			29.59	751.6	70.2	21.1	73	SSW	3	1.5			7						Physical Cabinet.
Orenburg			29.78	756.3	74.3	23.5	99	N	4	2			3						Tschernischef.
Ekaterinburg			29.73	755.2	52.0	11.1	63	E	4	2			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.99	761.8	75.7	24.3	42	Calm	0	0			0						Michelson.
Barnaul			29.54	750.2	82.6	28.1	45	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.48	748.9	84.0	28.9	66	NW	8	3.5			1						Marks.
Irkutsk			29.67	753.5	72.0	22.2	55	Calm	0	0			0						Usolzef.
Oorga			29.9[illegible]	759.8	57.2	14.0	72	E	4	2			10						Mossin.
Peking, (China)			29.76	755.8	80.4	26.9	55	SE	8	3.5			7						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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	765.2	77.5	25.3	27	N	7.4	3.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.76	756.6	63.0	17.2	54	NW			5		6			0	0		
Hernosand			29.85	758.2	69.3	20.7	31	WNW			5		6			0	0		
Stockholm			29.94	760.4	62.8	17.1	58	N			3		4			0.004	0.1		
Wisby			30.03	762.7	63.7	17.6	63	W			4		0			0	0		
Sub-Series.																			
Upsala			29.95	760.6	64.8	18.2	45	N			4		2						Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.68	728.5			61.5	16.4	74	SE			2		10			0.091	2.3	Raining	The Observatory.
Zurich	28.46	722.9			61.3	16.3	83	W			1		10			0.110	2.8		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.6mm.; Thermometer, —5°.1 C.; Relative Humidity, +19 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.64	752.9	70.5	31.4	61	SW			2		5						Prof. C. N. A. Van Dyck.
Constantinople			29.94	760.5	80.2	26.8	55	NE	17.9	8			0			0	0		
Fao, (Persian Gulf)			29.53	750.0	100.4	38.0		NW			1		0						
Salonica					93.9	34.4		SW			1		0						
Valona			30.01	762.2	82.4	28.0		W			2		0						
Varna			30.00	762.0	96.8	36.0		SE			3		10						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the 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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.97	761.2	65	18.3		SW	1	0.4			10s		SW	0	0		
Chatham, N. B.			29.72	754.9	70	21.1	81	SW	13	5.8		2k	8ks	SW	SW	0.12	3.0		
Charlottetown, P. E. Island			29.81	757.2	67	19.4	83	SW	13	5.8			10s			0	0		
Fort Garry, Manitoba			29.63	752.6	60	15.6	94	S	6	7.7	Z	0	0			0.608	15.4		
Halifax, N. S.			29.81	757.2	66	18.9	89	S	10	4.5		0	2ks		S	0	0		
Kingston, Ontario			29.95	760.7	59	15.0	95	Calm	0	0			10n			0.10	2.5	Light rain	
Montreal, Quebec			29.88	758.9	68	20.0	77	Calm	0	0		Haze	Haze			0	0		
Ottawa, Ontario			29.87	758.9	65	18.3	46	Calm	0	0			Sm'e			0	0		
Parry Sound, Ontario			29.77	756.1	63	17.2	84	SW	8	3.6		2ck	5s	W	W	0.06	1.5		
Port Dover, Ontario			29.91	759.7	63	17.2	91	S	5	2.2		5ck	0	NW		0.12	3.0		
Port Stanley, Ontario			29.90	759.4	67	19.4	89	E	12	5.4		8k	0	E		0.43	10.9		
Quebec, Quebec			29.88	758.9	70	21.1	66	SW	8	3.6			Haze			0.50	12.7		
Saugeen, Ontario			29.85	758.2	69	20.6	80	SE	2	0.9		5ks	0			0.20	5.1		
Stayner, Ontario			29.76	755.9	81	27.2	55	S	5	2.2		10c	0	W		0	0		
Sydney, C. B.			29.89	759.2	70	21.1	7[illegible]	SW	15	6.7		2cs	8ks	W	SW	0.01	0.3		
Toronto, Ontario			29.87	758.7	69	20.6	87	S	5	2.2		2cs	2ks	NW	NW	0.05	1.3		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.94	760.5	78	25.6	77	Calm	0	0		5c	Haze			0	0		
Alpena, Mich.			29.63	752.6	60	15.6	94	Calm	0	0			10s			1.00	25.4		
Atlantic City, N. J.			30.06	763.5	66	18.9	100	S	4	1.8			Fog			0.11	2.8	Foggy	
Augusta, Ga.			30.09	764.3	77	25.0	82	SE	1	0.4		0	2s		SE	0	0		
Baltimore, Md.			30.04	763.0	79	26.1	77	S	1	0.4		0	Sm'e			0	0		
Barnegat, N. J.			30.03	762.7	69	20.6	84	SE	7	3.1		0	Fog			0	0		
Benton, Montana			29.77	756.1	66	18.9	49	SW	12	5.4		0	0			0	0		
Bismarck, Dakota			29.55	750.6	65	18.3	48	W	5	2.2		0	Haze			1.23	31.2		
Boston, Mass.			29.94	760.5	80	26.7	70	SW	6	2.7		5c	0	SW		0	0		
Breckenridge, Minn.			29.66	753.4	65	18.3	83	SW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.86	758.4	70	21.1	84	S	8	3.6		5c	0	SW		0.17	4.3		
Burlington, Vt.			29.90	759.4	72	21.7	71	SW	1	0.4		0	2s			0	0		
Cairo, Ill.			29.98	761.5	78	25.6	77	S	8	3.6		0	0			0	0		
Cape Hatteras, N. C.			30.12	765.0	79	26.1	82	SW	19	8.5		2k	2s		SW	0	0		
Cape Henry, Va.			30.06	763.5	89	31.7	59	SW	4	1.8		2c	Haze			0	0		
Cape May, N. J.			30.06	763.5	68	20.0	94	S	5	2.2		0	Fog			0	0	Light fog	
Charleston, S. C.			30.15	765.8	81	32.2	74	S	4	1.8		0	2ks			0	0		
Cheyenne, W. T.			30.03	762.7	55	12.8	38	NW	16	7.2		0	0			0	0		
Chicago, Ill.			29.71	754.6	78	25.6	69	SW	6	2.7		5k	2s	SW		0	0		
Cincinnati, Ohio			29.92	760.0	78	25.6	77	SE	4	1.8		0	0			0	0		
Cleveland, Ohio			29.86	758.4	80	26.7	70	SW	12	5.4		2c	0	W		0.15	3.8		
Colorado Springs, Col.			30.07	763.8	56	13.3	45	N	5	2.2		0	0			0	0		
Corsicana, Texas			30.02	762.5	77	25.0	86	S	8	3.6			10s		S	0	0		
Davenport, Iowa			29.76	755.9	71	21.7	80	SW	20	8.9			10s			0.13	3.3		
Denver, Col.			30.08	764.0	58	14.4	37	S	6	2.7		0	0			0	0		
Detroit, Mich.			29.78	756.4	78	25.6	70	SW	12	5.4		8c	0	NW		0.09	2.3		
Dodge City, Kansas			29.47	748.5	78	25.6	37	S	4	1.8		0	0			0.03	0.8		
Dubuque, Iowa			29.69	754.1	70	21.1	85	S	10	4.5			10s			0.27	6.9		
Duluth, Minn.			29.71	754.6	51	10.6	78	NE	8	3.6		Haze	8ks		NE	0	0		
Eastport, Me.			29.84	757.9	54	12.2	93	S	6	2.7			Fog			0.02	0.5	Foggy	
Erie, Penn.			29.84	757.9	80	26.7	74	S	14	6.3		2c	Haze			0	0		
Escanaba, Mich.			29.66	753.4	59	15.0	94	NE	6	2.7			10n		NE	0.38	9.7	Light rain	
Fort Gibson, I. T.			29.90	759.4	76	24.4	68	NW	10	4.5			10ks		NW	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.74	755.4	62	16.7	83	Calm	0	0		0	0			0.43	10.9		
Galveston, Texas			30.06	763.5	84	28.9	70	S	11	4.9		0	0			0.03	0.8		
Grand Haven, Mich.			29.72	754.9	63	17.2	83	SW	5	2.2			8s		W	0	0		
Indianapolis, Ind.			29.87	758.7	82	27.8	60	S	8	3.6		2ck	0	W		0	0		
Indianola, Texas			30.05	763.3	85	29.4	71	S	4	1.8		2k	0	S		0.03	0.8		
Jacksonville, Fla.			30.16	766.1	81	27.2	74	SW	8	3.6		4c	0	SW		2.27	57.7		
Keokuk, Iowa			29.75	755.6	72	22.2	80	E	5	2.2		5ck	2ks	S	S	0.15	3.8		
Key West, Fla.			30.16	766.1	82.0	27.8	67	SE	13	5.8		Haze	2ks			0.08	2.0		
Kittyhawk, N. C.			30.10	764.5	79	26.1	82	SW	16	7.2		2k	0	SW		0	0		
Knoxville, Tenn.			30.10	764.5	67	19.4	90	Calm	0	0		1cs	Fog			0.11	2.8	Foggy	
La Crosse, Wis.			29.67	753.6	68	20.0	84	SW	6	2.7		5cs	2s	SW	SW	2.51	63.8	Clearing	
Leavenworth, Kan.			29.75	755.6	80	26.7	65	S	4	1.8		0	5s		NW	0	0		
Lexington, Ky.			30.02	762.5	77	25.0	74	S	10	4.5		0	0			0	0		
Long Branch, N. J.			30.03	762.7	67	19.4	90	SW	3	1.3		2c	0	SW		0	0		
Louisville, Ky.			29.96	761.0	84	28.9	68	SE	7	3.1		0	0			0	0		
Lynchburg, Va.			30.05	763.3	79	26.1	70	NW	3	1.3		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.69	754.1	49	9.4	93	Calm	0	0			10n			0.31	7.9	Heavy rain	
Memphis, Tenn.			30.05	763.3	79	26.1	69	SW	8	3.6		8k	0	SW		0	0		
Milwaukee, Wisconsin			29.67	753.6	70	21.1	79	SW	6	2.7		8ck	0	N		0.13	3.3		
Mobile, Ala.			30.16	766.1	76	24.4	81	W	4	1.8		2ck	8s		W	0	0		
Montgomery, Ala.			30.14	765.5	79	26.1	74	W	8	3.6		5cs	0			0.30	7.6		
Morgantown, W. Virginia			30.00	762.0	81	27.2	66	S	2	0.9		0	8s			0	0		
Mt. Washington, N. H.			30.18	766.6	51	10.6	100	NW	68	30.4			Fog			0	0		
Nashville, Tenn.			30.01	762.2	84	82.9	64	S	2	0.9		0	0			0	0		
New Haven, Conn.			30.01	762.2	71	21.7	85	S	4	1.8			Fog			0	0	Foggy	
New London, Conn.			30.03	762.7	67	19.4	97	SW	6	2.7			Fog			0.02	0.5	Foggy	
New Orleans, La.			30.13	765.3	79.5	26.4	78	E	1	0.4		5ck	Haze	NW		0.06	1.5		
Newport, R. I.																			
New York, N. Y.			30.03	762.7	70	21.1	100	SW	8	3.6			Fog			0.14	3.6	Foggy	
Norfolk, Va.			30.08	764.0	84	28.9	68	SW	6	2.7		0	0			0	0		
North Platte, Neb.			29.51	749.5	62	16.7	77	Calm	0	0		0	0			0	0		
Omaha, Neb.			29.77	756.1	66	18.3	89	N	11	4.9		0	8s		N	0.39	9.9		
Oswego, N. Y.			29.87	758.7	72	22.2	83	SSE	6	2.7			10s			0.15	3.8	Threatening	
Peck's Beach			30.08	764.0	70	21.1	95	S	8	3.6			Fog			0	0	Foggy	
Pembina, D. T.			29.59	751.6	62	16.7	77	SE	12	5.4		0	0			0.04	1.0		
Philadelphia, Penn.			30.06	763.5	74	23.3	90	SW	9	4.0		2k	Sm'e	W		0.01	0.3		
Pike's Peak, C. T.			30.19	766.8	31	— 0.6	68	SW	16	7.2		0	Haze			0	0		
Pittsburgh, Penn.			29.94	760.5	76	24.4	72	S	6	2.7		0	Sm'e			0	0		
Port Huron, Mich.			29.78	756.4	76	24.4	81	S	16	7.2		5c	2s	NW		0.20	5.1		
Portland, Maine			29.91	759.7	73	22.8	85	SW	8	3.6		8cs	Haze	W		0	0		
Portland, Or.			30.26	768.6	54	12.2	61	Calm	0	0		5k	0			0	0		
Punta Rassa, Fla.			30.21	767.3	80	26.7	78	E	12	5.4		1k	Sm'e		E	0	0		
Rochester, N. Y.			29.85	758.2	74	23.3	76	SW	8	3.6		5ck	2s	SW		0	0		
Salt Lake City, Utah			29.93	760.2	60	15.6	44	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.00	762.0	75	23.9	90	S	2	0.9		1c	Haze			0.77	19.6		
San Diego, Cal.			30.04	763.0	62	16.7	78	Calm	0	0			10s			0	0		
San Francisco, Cal.			29.99	761.7	56	13.3	87	SW	10	4.5			10s			0	0		
Santa Fe, N. M.			29.82	757.4	68	20.0	23	N	4	1.8		0	Haze			0	0		
Savannah, Georgia			30.16	766.1	72	22.2	75	W	4	1.8		0	0			0	0		
Shreveport, La.			30.08	764.0	79	26.1	86	S	4	1.8			10s		S	0	0		
Springfield, Mass.			29.98	761.5	70	21.1	90	S	4	1.8			10s			0	0		
St. Louis, Mo.			29.88	758.9	82	27.8	70	SW	16	7.2		5c	0			0	0		
St. Marks, Fla.			30.14	765.5	80	26.7	82	SW	1	0.4		5c	0			0	0		
St. Paul, Minn.			29.64	752.8	60	15.6	88	NW	2	0.9			10s		NW	0.74	18.8		
St. Paul's Island, Alaska			29.67	753.6	40	4.4	91	N	11	4.9		...ck	10s	NNE		0	0	Showery	
Squan Beach, N. J.			30.02	762.5	60	15.6	100	SE	2	0.9		0	Fog			0	0		
Toledo, Ohio			29.80	756.9	83	28.3	67	SW	20	8.9		5c	0	SW		0.06	1.5		
Tybee Island, Ga.			30.13	765.3	81	27.2	82	S	4	1.8		2c	2ks	SW		0.30	7.6		
Vicksburg, Miss.			30.18	766.6	72	22.2	90	S	6	2.7		0	5s		S	0.27	6.9		
Virginia City, Mon.			29.66	753.4	61	16.1	31	SW	8	3.6		5c	0	W		0	0		
Washington, D. C.			30.05	763.3	82	27.8	70	Calm	0	0		0	0			0	0		
Wilmington, N. C.			30.13	765.3	79	26.1	78	S	14	6.3		5ck	2ks	NW		0	0		
Wood's Hole, Mass.			30.03	762.7	63	17.2	100	SW	7	3.1			Fog			0	0	Foggy	
Wytheville, Va.			29.88	758.9	68	20.0	79	W	2	0.9		0	0			0	0		
Yankton, D. T.			29.80	756.9	64	17.8	89	W	2	0.9		0	0			0.11	2.8		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					85	29.4	75	NE	4	1.8		2k	2ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.06	763.5	80	26.7	82	E				8ks	5k	E		0.01	0.3		L. V. Bigard.
Havana, Cuba, W. I.			29.86	758.4	84	28.9	78	SE	4.8	2.1		8ck	0	SE		0.31	7.9		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.35	770.9	81	27.2	70	NNE	9	4.0		2ck	5k	W		0.03	0.8		W. S. Cameron.
Santiago de Cuba, W. I.			29.93	760.2	78	25.6	82	NNE	6.0	2.7			10ks		N	0	0		Robert Mason.
St. Georges, Bermudas			30.35	770.9	76	24.4	86	SSW	5.7	2.5			1k			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.06	763.5	72	22.2	71	NE	14	6.3		8ck	8ks	NE		Blank	Blank		E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Me'cherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.58	751.3	43	6.1	92	NE	16	7.2			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.42	696.6	30.11	764.8	74	23.3	86	E	0.5	0.2		2c	5k	E		0	0		C. Partridge.
St. John's, Newfoundland			30.19	766.8	73	22.8	58	SW				2c	2s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.87	758.7	80	26.7	69	S	8	3.6			2s			0.50	12.7		H. M. Redington.
Indianola, Iowa	28.78	731.0			77	25.0	85	NE					10k			0.55	14.0		G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 25, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.5	77.7	25.4		NE			3		0			0	0		Charnot.
Algiers			30.07	763.7	76.3	24.6	74	W			2		1			0	0		Peter.
La Calle			30.08	764.0	77.7	25.4		NE			4		0			0	0		Kuntz.
Tunis			30.10	764.5	80.1	26.7	41	NW			4		4			0	0	Hazy	Jacques.
Sfax			30.13	765.2	77.4	25.2		NE			3		0			0	0		Chauvey.
Saïda			30.03	762.8	94.1	34.5		E			4		6			0	0	Sirocco	Grosjean.
Tebessa			30.06	763.4	79.7	26.5		NNE			3		1			0	0		Colin.
Geriville			30.13	765.2	90.5	32.5		S			2		0			0	0		Bernadach.
Laghouat			30.13	765.4	89.6	32.0	19	WSW			1		0			0	0	Sirocco	Poinsignon.
Biskra			30.15	765.7	89.6	32.0		NW			3		6			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.76	755.9	80.6	27.0	54	NE			3		4			0.701	17.8		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hung
Cracow			29.82	757.5	85.1	29.5	57	NE			3		9			0.248	6.3		I. R. Observatory.
Eperies			29.76	755.9	87.3	30.7	58	S			1					0	0		Julius Mikolik.
Gratz			29.79	756.7	73.9	23.3	7[illegible]	E			2		2			0	0		Andreas Rospini.
Hermannstadt			29.71	754.5	91.6	33.1	33	ESE			1		3			0	0		Prof. Reissenberger.
Kremsmünster			29.85	758.2	68.7	20.4	73	WSW			2		8			0.236	6.0		Prof. C. Wagner.
Lemberg			29.78	756.5	85.1	29.5	54	SE			3		4			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.77	756.1	91.4	33.0	42	W			1		0			0.835	21.20		Habzsuda Daniel.
Pola			29.86	758.4	71.4	21.9	80	NW			1		7ks			0.207	5.26		I. R. Hydrographic Of
Szegedin			29.71	754.5	87.4	30.8	51	Calm			0		6			0	0		Karl Stancel.
Trieste			29.87	758.6	72.1	22.3	69	NW			1		10			0.421	10.7		Prof. V. Farolfi.
Vienna			29.78	756.4	75.9	24.4	57	NW			3		5			0.055	1.4		I. R. Central Institut

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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.06	763.4	62.6	17.0	73	NNE			1		10s		NNE	0.004	0.10		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.85	758.2	62.4	16.9		S	20	8.9			9			0	0		William Boswell.
Annanhill																			
Ardrossan			29.87	758.7	58	14.4		S			3		8					Rainy	William McNeil.
Armagh Observatory					60.8	16.0		SSW	16	7.2			10					Squally	S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.98	761.5	69.5	20.8		WNW			1		6						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.91	759.7	62.2	16.8		SW			1		10					Threatening	J. Dreyer and I. Mitchell
Bradford			29.94	760.5	69.0	20.6		SW			1		6						J. McLandsborough.
Bridgetown, (Barbadoes)			30.04	763.0	84	28.9		E			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.02	762.5	72.1	22.3		SW			1		1						H. Todd.
Cape Town, (Cape Colony)			29.96	761.0	66.8	19.3		SE			2		4c						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.03	762.8	67.2	19.6	53	SE	6	2.7			6						The Staff, for E. J. Stone.
Cardington			30.06	763.5	74.0	23.3		SW					3						John McLaren.
Carlisle			29.93	760.2	73	22.8		W					8			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.01	762.2	74.2	23.4		W			1		5						Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.91	759.7	80.5	26.9		SW			4		8						Sgt. W. F. Hopkins
Dartmoor			30.19	766.8	53	11.7		W			1		10					Drizzling	R. E. Power.
Donaghadee			29.94	760.5	60	15.6		WSW			4		10						J. Mac Gowan, Jr.
Dover			30.05	763.3	64	17.8		SSW			3		3						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.98	761.5	70.2	21.2		SW	2.8	1.3			7					Misty	Thomas Mackereth.
Falmouth Observatory			30.12	765.0	62.2	16.8		WNW	11	4.9			9						The Staff.
Fort Napier, (Natal)			29.94	760.5	59.6	15.3		E			2		10						Pvt. G. Salmon, A. H. C. [tis.
Free Town, (Sierra Leone)			29.86	758.4	78	25.6		SW					10					Light rain	
Galway, Queen's College			29.85	758.2	62	16.7		W			4		5					Rain	B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.00	762.0	71.5	21.4		ENE			4		6						Sergt. E. G. Baker.
Glasgow Observatory			29.84	757.9	63.0	17.2		SW			1		10						Lewis Stewart.
Great Yarmouth			30.02	762.5	63	17.2		SSE			3		4						G. T. Watson.
Greenwich Royal Obs.			30.05	763.3	74.7	23.7		W			3		6						The Staff, for G. B. Airy.
Guernsey			30.15	765.8	61.5	16.4		WSW			2		8						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			29.97	761.2	72.0	22.2		WSW					5						F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)																			
Helston			30.11	764.8	66	18.9		SW			3		8					Showery	Dr. W. B. Moyle.
Holyhead			30.00	762.0	61	16.1		SSW			5		10					Misty	John Tilston.
Hull Park																			
Kew Observatory			30.05	763.3	68.2	20.1		WSW	11	4.9			5					Misty	The Staff.
Kingstown			29.95	760.7	66	18.9		SW			3		9						George Mitchell.
Lampeter																			
Leicester Museum			30.02	762.5	69.0	20.6		W			2		3						William J. Harrison.
Llandudno																			Dr. James Nicol.
Malta, (Mediterranean)			29.95	760.7	79.6	26.4		NW			2		2k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.27	768.8	83.3	28.5		SE			3		6						Surg.-Maj. Henry.
North Shields			29.92	760.0	75	23.9		SSW			3		6						John Wm. Irvine.
Nottingham			30.01	762.2	72.7	22.6		WNW			4		3k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.00	762.0	70.5	21.4		SW			3		7						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.02	762.5	69	20.6		WSW			1		8						J. Lucas, for R. Main.
Plymouth			30.12	765.0	60	15.6		S			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.00	762.0	58	14.4		WSW			4		10						W. Kennedy.
Saint Ann's Head			30.05	763.3	61	16.1		SW			2		8						John C. Walker.
Saint Helier, (Jersey)			30.05	763.3	62.5	16.9		WNW			1		10						A. P. Amy.
Sandwick Manse (Orkneys)																			
Scarborough			29.96	761.0	71.9	22.2		SW			2		6						F. Shaw.
Scutari, (Turkey)			29.80	756.9	90.2	32.3		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.97	761.2	72	22.2		W			3		2			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.94	760.5	61.1	16.2		SW			5		10			0.203	5.2		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.01	762.2	68.7	20.4		ESE			1		5						Rev. C. J. Steward.
Stonyhurst Observatory			29.96	761.0	66.9	19.4		SW			1		6					Hazy	The Staff.
Stornoway, Lews C. (Hebr.)																			John Smith.
Strathfield Turgiss			30.08	764.0	62.3	16.8		W			1		6						Rev Charles H. Griffith
Streatley Vicarage			30.18	766.6	70.8	21.6		SW			4		5						Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			29.74	755.4	58	14.4		S			2		9					Rainy	John Trotter.
Truro, Royal Institution			30.08	764.0	65	18.3		W			5		5						W. Newcombe.
Valencia Observatory			29.92	760.0	57	13.9		SSW	30	13.4			10					Misty	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

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. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			30.01	762.3	68.0	20.0	58	SE			2		8						
Fanöe			30.02	762.4	66.4	19.1	57	W			4		8						
Godthaab, (Greenland)			29.58	751.4	38.8	3.8	82	WSW			2		10						
Stykkisholm, (Iceland)																			
Thorshavn, (Faröe)			29.63	752.7	54.3	12.4	73	SE			2		4						
Vestervig			30.02	762.5	65.5	18.6	62	SW			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.14	765.5	71.0	22.0	39	SW			2		2		SW	0	0		Normal School.
Amiens			30.04	762.9	78.4	25.8	55	N			4		0			0	0		Normal School.
Beaumette, (near Angers)			30.10	764.5	69.8	21.0	54	W	6.0	2.7			5		W	0	0		Beaumette Observatory.
Beauvais			30.16	766.0	73.0	22.8	53	NNE			1		5		NW	0	0		Normal School.
Besançon			30.14	765.5	55.9	15.5	89	S			2		8		SW	0.008	0.2		Normal School.
Bourg en Bresse			30.13	765.4	59.4	15.2	89	W			1		10		E	0.138	3.5	Rain	Normal School.
Bourges			30.12	765.1	66.9	19.4	73	W			2		8		SE	0.177	4.5		Normal School.
Brest			30.12	765.0	62.8	17.1	67	SW			2		10		WSW	0	0		Naval Observatory.
Caen			30.11	764.9	68.7	20.4	87	NW			2		5		W	0	0		Normal School.
Chartres			30.10	764.6	71.8	22.0		NNE			1		8k		NW	0	0		Normal School.
Chaumont			30.14	765.6	53.2	11.8		NW			1		10n		NW	0.010	0.25	Light rain	Normal School.
Commercy			30.14	765.5	57.4	14.1	95	NW			2		10			0.040	0.75	Raining	Normal School.
Le Mans			30.25	768.4	66.6	19.2	56	N			2		0			0.012	0.3		Normal School.
Lons-Le Saulnier			30.07	763.7	58.8	14.9	89	W			2		10		NW	0	0	Foggy	Normal School.
Mâcon			29.93?	760.2?	59.7	15.4	91	NW			2		10			0	0		Normal School.
Mirecourt			30.15	765.9	61.3	16.3	71	NW			2		10		E	0	0		Normal School.
Orleans			30.05	763.2	69.1	20.6	57	NNW			3		5		N	1.012	0.3		Normal School.
Paris Observatory			30.07	763.8	68.9	20.5		NNW			2		5k		NNW	0.163	4.13		National Observatory.
Parthenay			30.11	764.9	72.7	22.6	73	W			4		5		N	0	0		Normal School.
La Roche sur Yon			30.15	765.8	75.9	24.4	53	W			2		8		SE	0	0		Normal School.
Rouen			30.08	764.1	70.9	21.6	63	WSW			2		0			0	0		Normal School.
Saint Lo			30.13	765.2	63.9	17.7	72	NW			3		5		NE	0	0		Normal School.
Villefranche			30.12	765.1	62.6	17.0	76	NW			4		8		N	0.197	5.00		Normal School
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.96	634.0			55.8	13.2	74	NE	11.2	5.00			5		W	0	0		—, Falguère.
Montsouris Observatory			30.07	763.8	69.3	20.7	60	NW			2	..ck	10k, kn		NW	0.035	0.9		Marié Davy.
Perpignan			30.09	764.3	73.0	22.8	51	W	7.5	3.33			8kn		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.07	763.8	70.2	21.2	68	N			2		9			0.378	9.6		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.79	756.6	72.7	22.7	54	W			1		5		NNW	0.008	0.2		C. Marquet.
Versailles, (near Paris)			30.08	764.1	69.4	20.8	67	N			2		8			0.006	0.15		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.87	758.6	68.0	20.0	99	NE	5.1	2.3			10n			1.331 / 1.602	33.8 / 40.7	Heavy rain	H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.90	759.4	62.2	16.8	98	NW			2		10			0.008	0.2		Prof. Hoh.
Berlin			29.96	760.9	65.1	18.4	89	E			2		10			0.681	17.3		Prof. Arndt.
Breslau			29.92	759.9	80.6	27.0	59	NNW			2		9			0.559	14.2		Dr. P. Neugebauer.
Carlsruhe			29.97	761.2	64.4	18.0	78	NW			1		10			0	0		A. Senz.
Cassel			29.86	758.4	61.2	16.2	82	N			1		10			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.96	760.9	66.2	19.0	86	W					9			.386	9.8	Raining	M. Wilhelm.
Hamburg			29.99	761.8	65.8	18.8	67	N			3		10			0.001	0.02	Light rain	Deutsche Seewarte.
Kiel			30.04	763.1	65.7	18.7	61	N			5		10			0	0		Prof. G. Karsten.
Königsberg			30.02	762.4	73.0	22.8	55	NE			1		9			0.001	0.2		Prof. E. Luther.
Köslin			30.00	761.9	65.8	18.8		E			2		7			0.098	2.5		Dr. Tägert.
Leipsic			29.93	760.1	61.9	16.6	89	WSW			1		9			0.815	20.7		Prof. Bruhns.
Münster			30.03	762.7	64.0	17.8	82	NE			1		10			0	0		Prof. E. Heis.
Posen			29.95	760.7	75.7	24.3	70	S			5		10			0.118	3.0		Dr. Magener.
Strassburg, (in Alsace)			30.00	761.9	64.2	17.9	72	N					10			0	0		Hartwig and Tülk.
Stuttgart			29.95	760.8	63.9	17.7	73	N					10			0	0	Raining	Mr. Würth.
Thorn			29.91	759.7	77.0	25.0	57	E			4		5			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.98	761.6	62.2	16.8	71	NW			4		10			0.289	7.33		Prof. Flesch.
Wustrow			30.02	762.6	61.3	16.3	83	NE			2		10			0.055	1.4	Rainl g	L. F chütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.87	758.8	67.1	19.5	70	ESE	1.8	0.8			7	N		0.102	2.6	Raining	
Mondovi			29.88	759.0	67.8	19.9	44	NW			4		5	N		0	0		
Genoa			29.92	760.0	71.2	21.8	56	Calm	0	0			2	W		0	0		
Pavia			29.87	758.6	74.5	23.6	44	SW			2		1	SW		0	0		
Verona			29.82	757.5	77.0	25.0	55	E			1		10			0.217	5.5		
Padua			29.83	757.7	72.3	22.4	64	NE	3.8	1.7			8	SSE		0.031	0.8		
Parma																			
Bologna			29.91	759.8	73.6	23.1	70	WNW			4		6	NE		0	0		
Leghorn			29.93	760.2	72.1	22.3	57	W	7.4	3.3			5			0	0		
Urbino			29.91	759.8	67.6	19.8	65	NE			2		8			0.787	20.0		
Ancona			29.89	759.2	74.1	23.4	75	NNW			2		2			0.315	8.0		
Siena			29.91	759.8	65.8	18.8	73	NW	2.5	1.1			8	SW		0.291	7.4		
Rome			29.93	760.2	78.3	25.7	50	W	11.9	5.3			4	W		0	0		
Naples, O.U			30.00	761.9	80.6	27.0	51	SW			4		2			0	0		
Lecce			29.90	759.5	79.7	26.5	52	NE	16.8	7.5			2	N		0	0		
Cosenza			29.96	760.9	82.8	28.2	58	WNW			4		6	SE		0	0		
Catania, (Sicily)																			
Liposto			30.87	758.7	84.2	29.0	46	NNW			2		6	S		0	0		
Palermo			29.95	760.8	76.1	24.5	53	NW			2		6			0	0		
Sub-Series.																			
Naples, S. R.			30.00	762.0	75.7	24.3	50	NW			4		..c	W		0.319	8.1		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing		...	30.09	764.2	64.9	18.3		NW			2								
Groningen			29.98	761.6	64.2	17.9		N			1								
Helder			30.04	763.0	65.8	18.8		NNE			1								
Utrecht			30.01	762.2	69.6	20.9	64	NNW			2		8						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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			29.94	760.5	65.5	18.6	64	SSW	19.2	8.6			10			0	0		
Christiania			29.98	761.6	69.1	20.6	56	SSW	10.5	4.7			1			0	0		
Tromsö			29.78	756.4	50.9	10.5	94	SW			6		10			0.083	2.1	Raining	

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			29.99	761.7	83.5	28.6	28	SSW	13.7	6.1			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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	759.3	76.6	24.8	68	E	7	3			7						Astronomical Obs.
Wilna			29.99	761.7	72.5	22.5	43	N	2	1			1						Astronomical Obs.
Dorpat			30.02	762.4	69.6	20.9	35	N	11	5			0						Physical Cabinet.
St. Petersburg			29.88	759.0	65.3	18.5	63	WNW	9	4			6						Central Physical Obs.
Kuopio			29.91	759.6	65.7	18.3	51	N					5		S	0.102	2.60		Ch. Forsten.
Kieff			29.89	759.1	83.7	28.7	41	N	4	2			4						Physical Cabinet.
Nikolaiev			29.89	759.1	93.0	33.9	25	N	4	2			2						Kurdakof.
Kertch			29.83	757.7	84.9	29.4	43	NNE	13	6			0						Lagorio.
Moscow			29.78	756.3	65.5	18.6	53	NW	13	6			7						Meteorological Obs.
Lugan			29.65	753.0	82.8	28.2	26	NNW	25	11			1						Meteorological Obs.
Archangel			29.81	757.2	65.7	18.7	57	NW	13	6			0						Ogorodnikof.
Tiflis			29.64	752.9	87.8	31.0	30	SE	10	4.5			7						Physical Obs.
Astrakhan			29.71	754.7	80.1	26.7	59	SSW	13	6			5						Sebastianof.
Kasan			29.37	746.0	61.7	16.5	96	SSE	2	1			10						Physical Cabinet.
Orenburg			29.60	751.8	73.4	23.0	66	SE	4	2			10						Tscherischef.
Ekaterinburg			29.65	753.1	55.4	13.0	56	Calm	0	0			9						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			30.01	762.2	80.2	26.8	31	Calm	0	0			0						Michelson.
Barnaul			29.83	757.7	74.1	23.4	53	SSE	8	3.5			4						Meteorological Obs.
Yeniseisk			29.60	751.7	88.0	31.1	60	NW	4	2			6						Marks.
Irkutsk			29.69	754.1	72.7	22.6	61	Calm	0	0			0						Usolzef.
Oorga			29.91	759.6	60.1	15.6	73	NW	10	4.5			10						Mossin.
Peking, (China)			29.83	757.6	72.1	22.3	79	Calm	0	0			3					Rainy	Physical Observatory.
Nertchinsk																			Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			29.95	760.7	87.6	30.9	27	SW	6.0	2.7		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.96	760.9	56.5	13.6	75	S			5		2			0	0		
Hernosand			29.99	761.8	62.6	17.0	52	SW			3		2			0	0		
Stockholm			30.05	763.2	68.0	20.0	29	WSW			3		2			0	0		
Wisby			30.11	764.8	60.1	15.6	87	NW			3		0			0	0		
Sub-Series.																			
Upsala			30.01	762.3	73.8	23.2	61	WSW			4		2		SW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.63	727.2			63.5	17.5	71	S			2		10			1.098	27.9		The Observatory.
Zurich	28.39	721.0			65.7	18.7	73	W			1		8			0.083	2.1		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.2mm.; Thermometer, —4°.1 C.; Relative Humidity, —17 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.62	762.4	69.8	31.0	58	N			2		5						Prof. C. N. A. Van Dyck.
Constantinople			29.84	758.0	81.0	27.2	42	NE	8.9	4			0			0	0		
Fao, (Persian Gulf)			29.57	751.0	102.2	39.0		SE			3		0						
Salonica					95.4	35.2		SW			1		0						
Valona			29.87	758.8	82.2	27.9		W			2		2						
Varna			29.92	760.0	86.0	30.0		NE			3		5						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			29.95	760.7	63	17.2		NW	1	0.4		0	5s		NW	0.39	7.6		
Chatham, N. B.			29.72	754.9	56	13.3	93	N	8	3.6		2cs	8ks	NE	NE	0.13	3.3		
Charlottetown, P. E. Island			29.70	754.4	62	16.7	90	S	2	0.9			10n			0.200	5.1	Light rain	
Fort Garry, Manitoba			29.65	753.1	57	13.9	75	W	16	7.2		0	0			0	0		
Halifax, N. S.			29.67	753.6	56	13.3	88	W	1	0.4			8n			0	0		
Kingston, Ontario			29.92	760.0	70	21.1	81	W	4	1.8		5k	0	W		0.25	6.3		
Montreal, Quebec			29.80	756.9	63	17.2	79	NW	15	6.7		2k	8ks	NW		0.46	11.7		
Ottawa, Ontario			29.91	759.7	65	18.3	65	W	16	7.2		5k	0	W		0.47	11.9	Clearing	
Parry Sound, Ontario			29.96	761.0	59	15.0	82	NE	13	5.8		5k	5ks	SE	SE	0.18	4.6		
Port Dover, Ontario			29.94	760.5	67	19.4	95	Calm	0	0		8ck	0	NW		0.31	7.9		
Port Stanley, Ontario			29.95	760.7	65	18.3	94	Calm	0	0			10n			0.53	13.5		
Quebec, Quebec			29.67	753.6	56	13.3	97	Calm	0	0			10n			0.71	18.0		
Saugeen, Ontario			29.97	761.2	56	13.3	92	Calm	0	0		10k	0	NW		0.34	8.6		
Stayner, Ontario			29.95	760.7	59	15.0	97	Calm	0	0			10n			0.18	4.6	Foggy	
Sydney, C. B.			29.78	756.4	64	17.8	97	SE	6	2.7			10n			0.01	0.3	Light rain	
Toronto, Ontario			29.96	761.0	69	20.6	85	NW	4	1.8		5k	0	NW		0.85	21.6		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.85	758.2	79	26.1	73	Calm	0	0		2ck	0	W		0.09	2.3		
Alpena, Mich.			29.94	760.5	59	15.0	87	W	2	0.9			10s			0	0		
Atlantic City, N. J.			29.98	761.5	69	20.6	90	SW	12	5.4		0	0			0	0		
Augusta, Ga.			30.17	766.3	78	25.6	82	S	5	2.2		5k	0	S		0	0		
Baltimore, Md.			29.99	761.7	84	28.9	64	SW	5	2.2		5c	0	W		0	0		
Barnegat, N. J.			29.96	761.0	83	28.3	74	SW	4	1.8		2c	Haze	SW		0	0		
Benton, Montana			30.07	763.8	57	13.9	57	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.72	754.9	61	16.1	49	NW	6	2.7		2k	0	N		0.01	0.3		
Boston, Mass.			29.81	757.2	83	28.3	53	NW	9	4.0		2k	2s	W		0	0		
Breckenridge, Minn.			29.72	754.9	62	16.7	83	NE	10	4.5		10k	0	W		0.14	3.6		
Buffalo, N. Y.			29.93	760.2	65	18.3	89	SW	8	3.6			10ks		W	0.60	15.2		
Burlington, Vt.			29.78	756.4	70	21.1	70	SW	6	2.7		5k	2s			1.25	31.7		
Cairo, Ill.			30.02	762.5	73	22.8	95	SW	8	3.6			10s		SW	0.96	24.4		
Cape Hatteras, N. C.			30.15	765.8	80	26.7	82	SW	20	8.9		0	Haze			0	0		
Cape Henry, Va.			30.08	764.0	83	28.3	71	SW	16	7.2		2c	0			0	0		
Cape May, N. J.			29.99	761.7	72	22.2	90	E	6	2.7		0	0			0	0		
Charleston, S. C.			30.19	766.8	82	27.8	74	SW	8	3.6		5k	0	SW		0	0		
Cheyenne, W. T.			30.06	763.5	56	13.3	43	NW	16	7.2		0	0			0	0		
Chicago, Ill.			29.91	759.7	64	17.8	83	NE	5	2.2			Fog			0.05	1.3	Foggy	
Cincinnati, Ohio			29.96	761.0	81	27.2	70	SW	8	3.6		2c	0			0	0		
Cleveland, Ohio			29.92	760.0	73.7	33.1	81	SW	4	1.8		2c	0	W		0.28	4.6		
Colorado Springs, Col.			30.01	762.2	60	15.6	44	N	6	2.7		0	0			0	0		
Corsicana, Texas			30.04	763.0	78	25.6	82	S	5	2.2		2k	0	S		0	0		
Davenport, Iowa			29.93	760.2	71	21.7	85	N	1	0.4		1k	0			0	0		
Denver, Col.			30.04	763.0	61	16.1	35	SE	7	3.1		0	0			0	0		
Detroit, Mich.			29.93	760.2	68	20.0	94	NW	3	1.3			8ks		SW	1.39	35.3		
Dodge City, Kansas			29.49	749.0	80	26.7	50	S	4	1.8		0	0			0	0		
Dubuque, Iowa			29.92	760.0	65	18.3	89	NW	2	0.9			Fog			0	0	Foggy	
Duluth, Minn.			29.81	757.2	51	10.6	86	NE	4	1.8			Fog			0	0	Foggy	
Eastport, Me.			29.69	754.1	54	12.2	100	S	6	2.7			10s		NW	0.01	0.3		
Erie, Penn.			29.90	759.4	74	23.3	72	SW	8	3.6			10ks		SW	2.31	58.7		
Escanaba, Mich.			29.95	760.7	57	13.9	87	SW	6	2.7			Haze			0.05	1.3		
Fort Gibson, I. T.			29.94	760.5	79	26.1	77	SE	6	2.7		0	5ks		SE	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.78	756.4	62	16.7	46	N	20	8.9		5k	0	NW		0	0		
Galveston, Texas			30.07	763.8	84	28.9	75	S	6	2.7		0	0			0	0		
Grand Haven, Mich.			29.95	760.7	62	16.7	94	Calm	0	0			10s			0	0	Foggy	
Indianapolis, Ind.			29.94	760.5	79	26.1	69	SW	8	3.6		2cs	0			0.98	24.9		
Indianola, Texas			30.06	763.5	83	28.3	83	SE	10	4.5		5k	0	SE		0	0		
Jacksonville, Fla.			29.24	768.1	79	26.1	78	SE	4	1.8		4k	0	SE		0	0		
Keokuk, Iowa			29.86	758.4	78	25.6	69	Calm	0	0		0	0			0	0		
Key West, Fla.			30.18	766.6	80.8	27.1	74	SE	13	5.8			10ks			0	0		
Kittyhawk, N. C.			30.14	765.5	78	25.6	86	W	16	7.2			10ks			0.05	1.3		
Knoxville, Tenn.			30.10	764.5	75	23.9	76	SW	6	2.7		0	2ks		SW	0	0		
La Crosse, Wis.			29.90	759.4	66	18.9	100	S	5	2.2			Fog			0	0	Foggy	
Leavenworth, Kan.			29.85	758.2	80	26.7	70	S	4	1.8		0	0			0	0		
Lexington, Ky.			30.04	763.0	79	26.1	77	SW	8	3.6		2k	0	SW		0.20	5.1		
Long Branch, N. J.			29.95	760.7	83	28.3	74	SW	5	2.2		5c	0	SW		0	0		
Louisville, Ky.			29.99	761.7	83	28.3	67	S	12	5.4		0	0			0	0		
Lynchburg, Va.			30.04	763.0	83	28.3	67	SW	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.98	758.9	59	15.0	82	S	4	1.8		0	0			0.40	10.2		
Memphis, Tenn.			30.07	763.8	81	27.2	66	SW	3	1.3		5ck	2s	E		0	0		
Milwaukee, Wisconsin			29.98	761.5	56	13.3	93	N	4	1.8			Fog			0.02	0.5	Foggy	
Mobile, Ala.			30.17	766.3	74	23.3	90	S	4	1.8			10n			0.02	0.5	Light rain	
Montgomery, Ala.			30.18	766.6	76	24.4	86	S	2	0.9			10s		S	0.01	0.3		
Morgantown, W. Virginia			29.96	761.0	84	28.9	60	S	8	3.6		2c, cs	0	W		0	0		
Mt. Washington, N. H.			30.08	764.0	50	10.0	100	NW	60	26.8			Fog			0.70	17.8		
Nashville, Tenn.			30.02	762.5	84	28.9	64	S	1	0.4		2k	0			0	0		
New Haven, Conn.			29.90	759.4	82	27.8	67	S	4	1.8		2c	2s			0	0		
New London, Conn.			29.91	759.7	77	25.0	77	SW	8	3.6		2c	0			0	0		
New Orleans, La.			30.13	765.3	78.5	25.8	82	SE	2	0.9		2cs	2k		SE	0.64	16.3		
Newport, R. I.																			
New York, N. Y.			29.95	760.7	76	24.4	82	SW	6	2.7		2c	0			0	0		
Norfolk, Va.			30.09	764.3	83.5	28.6	73	SW	16	7.2		5ck	0			0	0		
North Platte, Neb.			29.38	746.2	71	21.7	61	NW	4	1.8		2c	0	S		0	0		
Omaha, Neb.			29.78	756.4	79	26.1	76	S	10	4.5		2c	0	W		0	0		
Oswego, N. Y.			29.94	760.5	60.5	15.9	94	W	12	5.4			10s			0.54	13.7	Threatening, fog	
Peck's Beach			30.01	762.2	81	26.7	78	W	20	8.9		Haze	Haze			0	0		
Pembina, D. T.			29.67	753.6	61	16.1	66	SW	12	5.4		0	0			0.23	5.8		
Philadelphia, Penn.			29.97	761.2	80	26.7	78	W	7	3.1		5c	Sm'e	SW		0	0		
Pike's Peak, C. T.			30.24	768.1	37	2.8	37	NW	12	5.4		0	Haze			0	0		
Pittsburgh, Penn.			29.95	760.7	74	23.3	59	Calm	0	0		5c	Sm'e	NW		0	0		
Port Huron, Mich.			29.98	761.5	56	13.3	100	NE	8	3.6			Fog			0.20	5.1	Foggy	
Portland, Maine			29.77	756.1	73	22.8	85	SW	4	1.8			10s		NW	0.02	0.5		
Portland, Or.			30.25	768.3	49	9.4	64	S	2	0.9		2k	0			0	0		
Punta Rassa, Fla.			30.21	767.3	80	26.7	78	E	12	5.4		1k	Sm'e			0	0		
Rochester, N. Y.			29.92	760.0	70	21.1	90	W	8	3.6			10s		W	0.80	20.3		
Salt Lake City, Utah			29.93	760.2	65	18.3	53	SW	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.93	760.2	77	25.0	77	W	12	5.4		5cs	Haze			0	0		
San Diego, Cal.			30.01	762.2	61	16.1	83	NE	4	1.8			10s		NE	0	0		
San Francisco, Cal.			29.95	760.7	54	12.2	87	SW	6	2.7		5cs	2s			0	0		
Santa Fe, N. M.			29.82	757.4	70	21.1	17	E	5	2.2		0	Haze			0	0		
Savannah, Georgia			30.18	766.6	75	23.9	63	[illegible]	3	1.3		0	0			0	0		
Shreveport, La.			30.09	764.3	78	25.6	86	S	4	1.8		5ck	0	E		0.04	1.0		
Springfield, Mass.			29.87	758.7	77	25.0	77	S	4	1.8		2ck	2s		W	0	0		
St. Louis, Mo.			29.95	760.7	77	25.0	85	SW	4	1.8			10s			0.03	0.8		
St. Marks, Fla.			30.20	767.1	74	23.3	92	E	6	2.7		0	10n			2.23	56.8	Light rain	
St. Paul, Minn.			29.75	755.6	69	20.6	79	E	4	1.8		0	0			0	0		
St. Paul's Island, Alaska			29.71	754.6	40	4.4	82	NNW	11	4.9		...ck	10k	N		0	0		
Squan Beach, N. J.			29.94	760.5	82	27.8	70	W	10	4.5		2c	0	NW		0	0		
Toledo, Ohio			29.92	760.0	78	25.6	77	SW	7	3.1		0	2s		SW	0.77	19.6		
Tybee Island, Ga.			30.22	767.6	81	27.2	91	W	4	1.8		2c	2k			0	0		
Vicksburg, Miss.			30.21	767.3	77	25.0	86	S	3	1.3		0	5s		S	0	0		
Virginia City, Mon.			29.76	755.9	45	7.2	37	SE	5	1.8		1c	0	W		0	0		
Washington, D. C.			30.01	762.2	83	28.3	68	S	3	1.3		0	1s			0	0		
Wilmington, N. C.			30.18	766.6	80	26.7	78	SW	16	7.2		2k	8ks	SW	SW	0	0		
Wood's Hole, Mass.			29.93	760.2	65	18.3	94	SW	12	5.4			Fog			0	0		
Wytheville, Va.			29.88	758.9	73	22.8	76	W	2	0.9		0	0			0	0		
Yankton, D. T.			29.70	754.4	76	24.4	77	S	11	4.9		1c	0	W		0	0		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					85	29.4	79	E	9	4.0		5k	2ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.06	763.5	81	27.2	78	E				0	2ks			0.44	11.2		L. V. Bigard.
Havana, Cuba, W. I.			29.87	758.7	82	27.8	82	SE	3.6	1.6		0	0			0.30	7.6		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.34	770.6	81	27.2	67	N	12	5.4		5ck	2k	NW		0.04	1.0		W. S. Cameron.
Santiago de Cuba, W. I.			29.93	760.2	80	26.7	74	NE	4.8	2.1		10cs		NE		0	0		Robert Mason.
St. Georges, Bermudas			30.40	772.1	76	24.4	84	S	4.2	1.9			5ks			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.10	764.5	63	17.2	90	NE	11	4.9		0	5k		NE	0	0		E. P. Church.
Makawao, Maui, H. I.																0.08	2.0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.15	739.9	38	3.3	100	E	8	3.6			10n			0.81	20.6		J. Fortescue.
Clifton, Jamaica, W. I.	27.44	697.0	30.09	764.3	80	26.7	61	E	0.5	0.2		5c	2k	E		0	0		C. Partridge.
St. John's, Newfoundland			29.80	756.9	68	20.0	79	SW				5c	2s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.95	760.7	76	24.4	81	SW	8	3.6			2c			0.33	8.4		H. M. Redington.
Indianola, Iowa	28.93	734.8			80	26.7	76	SE					8n			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

NOTE.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 26, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.05	763.2	77.0	25.0		NE			2		0			0	0		Charnot.
Algiers			29.97	761.3	76.3	24.6	74	ENE			2		4			0	0		Peter.
La Calle			29.99	761.7	74.7	23.7		NNE			2		0			0	0		Kuntz.
Tunis			29.99	761.8	82.8	28.2	42	E			3		0			0	0		Jacques.
Sfax			30.06	763.5	77.5	25.3		NE			3		1			0	0		Chauvey.
Saïda			30.03	762 7	86.4	30.2		NW			2		0			0	0		Grosjean.
Tebessa			29.97	761.2	90.5	32.5		N			3		6			0	0	Threatening	Colin.
Geriville			30.07	763.6	90.0	32.2		NNW			6		6			0	0	Threatening	Bernadach.
Laghouat			30.05	763.2	95.0	35.0	24	SW			5		5			0	0	Sirocco	Poinsignon.
Biskra			30.04	763.0	93.2	34.0					4		6			0	0	Threatening	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.71	754.6	78.7	26.0	55	SW			2		6			0.138	3.5		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.73	755.1	80.6	27.0	70	NE			3		8			0.024	0.6		I. R. Observatory.
Eperies			29.71	754.6	78.8	26.0	72	Calm			0					0.116	2.95		Julius Mikolik.
Gratz			29.71	754.6	75.4	24.1	50	WNW			5		8			0	0		Andreas Rospini.
Hermannstadt			29.69	754.2	68.4	20.2	82	W			1		8			0.488	12.40		Prof. Reissenberger.
Kremsmünster			29.89	759.1	60.4	15.8	79	WNW			2		10			1.622	41.2		Prof. C. Wagner.
Lemberg			29.68	753 8	80.6	27.0	58	NE			4		8			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.71	754.7	81.0	27.2	63	NW			3		2			0.124	3.16		Habasuda Daniel.
Pola			29.76	756.0	72.0	22.2	77	SW			1		6ks			1.315	33.41		I.R. Hydrographic Of'ce
Szegedin			29.67	753.5	80.6	27.0	54	SW			2		6			0.258	6.55		Karl Stancel.
Trieste			29.78	756.3	72.0	22.2	75	N			1		10			0.134	3.4		Prof. V. Farolfi.
Vienna			29.76	756.0	69.4	20.8	66	W			5		8			0.496	12.6		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.97	761.1	63.3	17.4	72	SW			1		8k, ks		W	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.73	755.1	48.5	9.2		S	7	3.1			9			0.330	8.89	Rain	William Boswell.
Annanhill																			
Ardrossan			29.82	757.4	55.5	13.1		W			2		5					Rainy	William McNeil.
Armagh Observatory			29.90	759.1	50.2	15.1		WSW	12	5.4			6						S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.92	760.0	57.2	14.0		W			4		3						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.98	761.5	57.8	14.3		W			1		8						J. Dreer and J. Mitchell
Bradford			29.86	758.4	60.0	15.6		W			2		7						J. McLandsborough.
Bridgetown, (Barbadoes)			30.02	762.5	85	29.4		E			4		4						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.89	759.2	68.2	20.1		SW			1		7						H. Todd.
Cape Town, (Cape Colony)			30.13	765.3	58	14.4		NW			3		3						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.19	766.8	61.0	16.1	75	SSE	15	6.7			4						The Staff, for E. J. Stone.
Cardington			29.93	760.2	74.0	23.3		SW					4						John McLaren.
Carlisle			29.83	757.7	60.1	15.6		W					8			0.11	2.8		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.92	760.0	68.0	20.0		WSW			2		5						Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.89	759.2	81.3	27.4		SW			4		7						Sgt. W. F. Hopkins
Dartmoor			30.10	764.5	55.2	12.9		NW			3		6						R. E. Power.
Donaghadee			29.88	758.9	60	15.6		NNW			3		4						J. Mac Gowan, Jr.
Dover			29.94	760.5	61	16.1		WSW			3		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.90	759.4	61.7	16.5		WSW	10.0	4.5			7						Thomas Mackereth.
Falmouth Observatory			30.06	763.5	60.7	15.9		WNW	15	6.7			8						The Staff.
Fort Napier, (Natal)			29.96	761.0	70.0	21.1		NE			3		2						Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.85	758.2	84	28.9		N					8						
Galway, Queen's College			29.89	759.2	59	15.0		SW			6		10					Raining	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.04	763.0	75.0	23.9		WSW			4		0						Sergt. E. G. Baker.
Glasgow Observatory			29.78	756.4	50.8	10.4		W			1		8						Lewis Stewart.
Great Yarmouth			29.90	759.4	68	20.0		WSW			3		5						G. T. Watson.
Greenwich Royal Obs.			29.92	760.0	68.8	20.4		SSW			1		10						The Staff, for G. B. Airy.
Guernsey			30.02	762.5	61.5	16.4		WSW			1		6						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.90	759.4	60.0	15.6		WNW					6						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)																			
Helston			30.02	762.5	65	18.3		NW			4		4						Dr. W. B. Moyle.
Holyhead			29.98	761.5	60	15.6		SW			3		2						John Tilston.
Hull Park																			
Kew Observatory			29.92	760.0	64.7	18.2		SSW	12	5.4			8					Showery	The Staff.
Kingstown			29.97	761.2	59	15.0		W			4		5						George Mitchell.
Lampeter																			
Leicester Museum			29.92	760.0	65.0	18.3		W			5		2						William J. Harrison.
Llandudno			29.94	760.5	58.5	14.7		W					7						Dr. James Nicol.
Malta, (Mediterranean)			29.92	760.0	76.6	24.8		NW ?					0						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.12	765.0	84	28.9		E			2		7						Surg.-Maj. Henry.
North Shields			29.81	757.2	62	16.7		W			5		5						John Wm. Irvine.
Nottingham			29.92	760.0	67.0	19.4		W			2		7k		W				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.92	760.0	64.8	18.2		W			4		7						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.90	759.4	65	18.3		W			3		10						J. Lucas, for R. Main.
Plymouth			30.02	762.5	66	18.9		NW			4		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			30.02	762.5	57	13.9		WNW			4		5						W. Kennedy.
Saint Ann's Head			30.02	762.5	57	13.9		WNW			2		2						John C. Walker.
Saint Helier, (Jersey)			30.03	762.7	59	15.0		WSW			4		10					Raining	A. P. Amy.
Sandwick Manse (Orkneys)																			
Scarborough			29.83	757.7	65.0	18.3		W			2		6						F. Shaw.
Scutari, (Turkey)			29.62	752.3	89.2	31.8		NE			2		1						Sergt. W. H. Lyne.
Sheffield			29.91	759.7	64.8	18.2		WNW			3		4						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.84	757.9	59.5	15.3		W			5		5			0.130	3.3		Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.88	758.9	66	18.9		SSW			1		9						Rev. C. J. Steward.
Stonyhurst Observatory			29.89	759.2	56.9	13.8		W			4		5						The Staff.
Stornoway, Lewis C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.94	760.5	66.2	19.0		W			1		5						Rev. Charles H. Griffith.
Streatley Vicarage			29.94	760.5	68.2	20.1		WSW			6		5						Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			29.68	753.9	54	12.2		W			2		7						John Trotter.
Truro Royal Institution			30.01	762.2	65	18.3		NW			6		6						W. Newcombe.
Valencia Observatory			30.06	763.5	56.9	13.8		WNW	17	7.6			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			29.80	757.0	60.4	15.8	96	NW			2		10						
Fanöe			29.84	757.9	64.8	18.2	68	W			4		1						
Godthaab, (Greenland)			29.37	745.9	36.7	2.6	96	SSW			4		10					Raining	
Stykkisholm, (Iceland)			29.65	753.0	49.3	9.6	79	E			6		5						
Thorshavn, (Faröe)			29.50	749.4	51.8	11.0	79	WNW			4		5						
Vestervig			29.79	756.6	65.3	18.5	63	SW			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.09	764.2	65.8	18.8	59	SW			2		8		SW	0	0		Normal School.
Alençon			30.01	762.3	67.3	19.6	64	WSW			2		10		S	0	0		Normal School.
Amiens			30.05	763.2	67.3	19.6	57	NW	2.7	1.2			10		WSW	0	0		Beaumette Observatory.
Beaumette, (near Angers)			30.08	764.0	67.3	19.6	55	SW			1		10		SW	0	0		Normal School.
Beauvais			30.09	764.2	70.9	21.6	54	ENE			2		8		S	0.043	1.1		Normal School.
Besançon			30.08	764.1	72.1	22.3	67	NE			2		2		SE	0	0		Normal School.
Bourg en Bresse			30.06	763.5	71.8	22.1	70	W			1		8		NW	0	0		Normal School.
Bourges			30.02	762.6	77.5	25.3	78	N			2		10		W	0	0		Naval Observatory.
Brest			30.06	763.5	66.2	19.0	87	SW			1		8			0	0		Normal School.
Caen			30.07	763.8	64.4	18.0		NW			1		10			0	0		Normal School.
Chartres			30.07	763.8	65.3	18.5		W			3		8kn		W	0.012	0.30		Normal School.
Chaumont			30.11	764.9	62.6	17.0	76	WNW			4		10			0.030	0.75		Normal School.
Commercy			30.21	767.2	66.0	19.2	60	N			3		8		N	0	0		Normal School.
Le Mans			30.03	762.7	60.6	15.9	58	NNE			2		5		NNE	0	0		Normal School.
Lons-Le Saulnier			30.10	764.5	70.5	21.4	77	N			4		5		N	0	0		Normal School.
Mâcon			30.00	761.9	65.3	18.5	56	NW			2		8		E	0	0		Normal School.
Mirecourt			30.05	763.2	68.0	20	58	WNW			3		5		W	0	0		Normal School.
Orleans			30.04	763.0	64.4	17.9		WSW			1		10k		NW	0	0		National Observatory.
Paris Observatory			30.07	763.6	66.0	19.4	63	SW			4		5		W	0	0		Normal School.
Parthenay			30.10	764.5	67.1	19.5	67	SW			2		8		SE	0	0		Normal School.
La Roche sur Yon			30.03	762.7	64.6	18.1	65	WNW			2		10			0	0		Normal School.
Rouen	29.91	759.6						E			2		8		NW	0	0		Normal School.
Saint Lo			30.03	762.8	72.5	22.5	60	N			3		10		N	0	0		Normal School
Villefranche																			
Sub-Series.																			Frère Pascall.
Gorée, (Senegambia)					60.1	15.9	67	NNW	14.8	6.6			2		NNE	0	0		—. Faiguère.
Mont-Louis	24.93	633.2						W			2		10k, n		W	0	0		Marié Davy.
Montsouris Observatory			30.04	763.0	63.5	17.5	68	WNW	9.3	4.1			0			0	0		Dr. Fines.
Perpignan			29.98	761.6	78.8	26.0	37	W			1		10			0	0		E. Renou.
Saint Maur, (near Paris)			30.04	763.1	61.5	16.4	69												
Saint Pierre, (Martinique)								NW			1		5		W	0	0		C. Marquet.
Tours			30.04	763.1	72.0	22.2	61	NW			2		10			0	0		Dr. A. Bérigny.
Versailles, (near Paris)			30.05	763.2	63.3	17.1	70									0.021 / 1.020	23.4 / 25.9		H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai			29.79	756.7	75.6	24.2	98	SSE	6.9	3.1			9kn						

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.87	758.8	65.8	18.8	72	NW			2		10			0.016	0.4		Prof. Hoh.
Berlin			29.94	760.4	67.6	19.8	77	W			1		8			0	0		Prof. Arndt.
Breslau			29.89	759.1	64.0	17.8	96	W			5		10			0.256	6.5	Raining	Dr. P. Neugebauer.
Carlsruhe			29.98	761.5	64.4	18.0	78	SW			1		10			0.118	3.0	Light rain	A. Senz.
Cassel			29.80	757.0	70.5	21.4	61	NW			2		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.00	762.1	61.7	16.5	87	W					10			0.429	10.9	Raining	M. Wilhelm.
Hamburg			29.89	759.2	66.2	19.0	66	NW			2		8kn		W	0.110	2.8		Deutsche Seewarte.
Kiel			29.89	759.2	65.3	18.5	69	W			3		10			0	0		Prof. G. Karsten.
Königsberg			29.91	759.7	76.1	24.5	42	E			1		0			0	0		Prof. E. Luther.
Köslin			29.85	758.2	70.3	21.3		S			2		8			0.012	0.3		Dr. Tägert.
Leipsic			29.92	759.9	61.5	16.4	77	NW			2		9			0	0		Prof. Bruhns.
Münster			29.93	760.2	63.3	17.4	86	SE			1		10			0	0		Prof. E. Heis.
Posen			29.87	758.6	77.[illegible]	25.1	67	S			3-4		10			1.693	43.0		Dr. Magener.
Strassburg, (in Alsace)			30.01	762.2	66.7	19.3	70	E					10			0.065	1.64		Hartwig and Tülk.
Stuttgart			30.00	761.9	61.3	16.3	84	W					10			0.154	3.9	Light rain	Mr. Würth.
Thorn			29.80	757.0	83.5	28.6	43	ESE			3		4			0.071	1.8		Dr. Rosenbalg.
Treves, (Trier)			29.91	759.8	71.6	22.0	56	NW			5		5			0	0		Prof. Flesch.
Wustrow			29.88	758.9	62.2	16.8	87	WNW			3		10			0	0		J. F[illegible]chütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.79	756.7	75.7	24.3	42	W	1.8	0.8			2	SW		0.252	6.4		
Mondovi			29.78	756.5	74.1	23.4	41	NW			4		1	SW		0	0		
Genoa			29.82	757.5	73.9	23.3	54	SW	1.3	0.6			0			0	0		
Pavia			29.73	755.2	76.8	24.9	50	NE			1		6	NE		0	0		
Verona			29.74	755.5	76.8	24.9	66	E			2		10			0	0		
Padua			29.73	755.2	76.8	24.9	50	NE	0	0			6	NE		0	0		
Parma																			
Bologna			29.79	756.7	74.1	23.4	65	WNW			4		6	S		0	0		
Leghorn			29.84	757.8	72.7	22.6	60	WSW	6.9	3.1			8			0.177	4.5		
Urbino			29.84	757.8	63.1	17.3	82	NNE			4		10			0.079	2.0		
Ancona			29.78	756.5	74.5	23.6	70	NNE			2		5			0	0		
Siena			29.82	757.4	68.4	20.2	68	SW	20.6	9.2			9	N		0.240	6.1		
Rome			29.83	757.6	78.1	25.6	54	WSW	4.3	1.9			7	N		0	0		
Naples, O.U.			29.85	758.3	79.2	26.2	50	W			2		4	NW		0	0		
Lecce			29.84	757.9	78.1	25.6	40	ENE	8.7	3.9			5	NE		0	0		
Cosenza			29.91	759.6	76.8	24.9	60	WNW			1		9			0	0		
Catania, (Sicily)																			
Ripopto			29.84	757.8	80.6	27.0	52	SE			4		3	NE		0	0		
Palermo			29.80	759.2	75.6	24.2	51	NW			2		3			0	0		
Sub-Series.																			
Naples, S. R.			29.90	759.5	75.2	24.0	62	W			6		[illegible]	NW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.98	761.6	63.5	17.5		WNW			2								
Groningen					68.9	20.5		W			3								
Helder			29.89	759.1	62.4	18.0		SW			4								
Utrecht			29.90	759.5	61.5	16.4	86	SW			2		10						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.08	764.1	67.3	19.6	55	S	20.8	9.3			10			0	0		
Christiania			29.87	758.7	65.1	18.4	54	SE	7.4	3.3			0			0	0		
Tromsö			29.83	757.7	55.8	13.2	86	W			2		5			0.118	3.0		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.09	764.3	72.9	22.7	51	NNW	24.8	11.1			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.81	757.1	78.4	25.8	53	E	18	8			3						Astronomical Obs.
Wilna			29.93	760.3	74.5	23.6	32	N	2	1			1					Smoke, haze	Astronomical Obs.
Dorpat			30.05	763.2	71.8	22.1	31	NNE	7	3			0						Physical Cabinet.
St. Petersburg			30.03	762.8	69.6	20.9	41	NNE	2	1			0						Central Physical Obs.
Kuopio			30.01	762.3	70.2	21.4	62	E					0			0	0		Ch. Forsten.
Kieff			29.88	759.0	72.5	22.5	40	NE	7	3			1						Physical Cabinet.
Nikolaiev			29.78	756.3	87.6	30.9	36	N	10	4.5			4						Kurdakof.
Kertch			29.70	754.3	89.8	32.1	32	NNW	9	4			4						Lagorio.
Moscow			29.73	755.2	67.6	19.8	54	N	17	7.5			8						Meteorological Obs.
Lugan			29.57	751.1	77.5	25.3	24	NNW	20	9			1						Meteorological Obs.
Archangel			30.10	764.4	60.6	15.9	59	WNW	13	6			0						Ogorodnikof.
Tiflis			29.63	752.6	92.7	33.7	27	S	10	4.5			4						Physical Obs.
Astrakhan			29.71	754.7	84.4	29.2	26	SE	4	2			2						Sebastianof.
Kasan			29.39	746.6	65.1	18.4	79	SSW	6	2.5			9						Physical Cabinet.
Orenburg																			Tschernischef.
Ekaterinburg			29.61	752.0	61.5	16.4	86	NE	4	2			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.76	755.9	88.3	31.3	30	Calm	0	0			0						Michelson.
Barnaul			29.95	760.7	71.1	21.7	45	SW	8	3.5			1						Meteorological Obs.
Yeniseisk			29.72	754.9	71.8	22.1	71	SW	13	6			10						Marks.
Irkutsk			29.63	752.6	73.8	23.2	61	Calm	0	0			0						Usolzef.
Oorga																			Mossin.
Peking, (China)			29.83	757.6	75.6	24.2	70	Calm	0	0			7						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.88	759.0	85.8	29.9	27	SE	6.7	3.0		3	7	SW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.06	761.0	63.3	17.4	68	SW			1		6			0	0		
Hernosand			29.01	759.7	64.4	18.0	57	S			5		6			0	0		
Stockholm			29.05	760.6	70.3	21.3	34	S			3		4			0.04	0.9		
Wisby			29.08	761.5	72.0	22.2	53	S			3		0			0	0		
Sub-Series. Upsala			29.07	761.1	73.0	23.3	50	S			4		9	SW					Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.60	726.5			66.6	19.2	58	N			2		8			0	0		The Observatory.
Zurich	28.39	721.0			66.0	18.9	64	W			1		9			0.008	0.2		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, −0.5 mm.; Thermometer, −2°.5 C.; Relative Humidity, +4 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.63	752.6	89.8	32.1	62	SW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			29.67	753.5	79.3	26.3	56	NE	13.4	6			0			0	0		
Fao, (Persian Gulf)			29.65	753.0	93.2	34.0		SE			3		0						
Salonica					93.6	34.2		SW			2		2						
Valona			29.80	756.8	79.7	26.5		W			2		5						
Varna			29.80	757.0	91.4	33.0		SE			3		0						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			30.00	762.0	66	18.9		Calm	0	0			10s		SW	0	0		
Chatham, N. B.			30.02	762.5	51	10.6	96	Calm	0	0			Haze			0.23	5.8		
Charlottetown, P. E. Island			30.00	762.0	54	12.2	60	N	10	4.5		0	0			0.430	10.9		
Fort Garry, Manitoba			29.90	759.4	55	12.8	74	W	8	3.6		0	2s			0	0		
Halifax, N. S.			29.85	758.2	59	15.0	62	N	10	4.5		0	0			Blank	Blank		
Kingston, Ontario			29.95	760.7	66	18.9	92	Calm	0	0		10cs	0			Blank	Blank		
Montreal, Quebec			29.97	761.2	65	18.3	81	Calm	0	0		5cs	Haze			0	0		
Ottawa, Ontario			29.96	761.0	65	18.3	70	Calm	0	0		10k	0			0	0		
Parry Sound, Ontario			29.86	758.4	72	22.2	80	S	7	3.1		2cs	0	W		0	0		
Port Dover, Ontario			29.91	759.7	68	20.0	95	Calm	0	0		8k	0	SW		0	0		
Port Stanley, Ontario			29.91	759.7	69	20.6	91	E	5	2.2			10n		W	0.07	1.8		
Quebec, Quebec			30.00	762.0	64	17.8	78	Calm	0	0		0	0			0.02	0.5		
Saugeen, Ontario			29.86	758.4	71	21.7	84	SW	2	0.9		2k	8n		E	0	0		
Stayner, Ontario			29.83	757.7	78	25.6	73	SE	5	2.2		5c	0	W		0	0		
Sydney, C. B.			29.96	761.0	48	8.9	91	NE	7	3.1			10n		NE	0.20	5.1		
Toronto, Ontario			29.92	760.0	62	16.7	95	E	3	1.3			Fog			0	0	Foggy	

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.00	762.0	70	21.1	75	Calm	0	0		8k	Haze	SW		0	0		
Alpena, Mich.			29.77	756.1	67	19.4	84	S	1	0.4		0	Haze			0	0		
Atlantic City, N. J.			30.01	762.2	71	21.7	90	S	2	0.9		2c	0	S		0.04	1.0		
Augusta, Ga.			30.18	766.6	79	26.1	78	SW	5	2.2		2k	0	SW		0	0		
Baltimore, Md.			30.01	762.2	82	27.8	74	W	4	1.8		5ck	0	W		0	0		
Barnegat, N. J.			30.02	762.5	70	21.1	79	NE	4	1.8		2c	Fog			0	0		
Benton, Montana			30.13	765.3	52	11.1	72	W	12	5.4			10s			0.03	0.8		
Bismarck, Dakota			29.86	758.4	55	12.8	81	S	2	0.9			10s			0	0		
Boston, Mass.			30.07	763.8	73	22.8	54	E	5	2.2		5c	0	N		0	0		
Breckenridge, Minn.			29.90	759.4	53	11.7	86	SW	1	0.4			10s			0	0		
Buffalo, N. Y.			29.89	759.2	70	21.1	90	Calm	0	0		8k	2s	SW	SW	0.13	3.3		
Burlington, Vt.			29.97	761.2	68	20.0	69	SW	4	1.8		2c	0			0	0		
Cairo, Ill.			30.02	762.5	75	23.9	85	[illegible]	8	3.6		2c	2ks		S	0.24	6.1		
Cape Hatteras, N. C.			30.15	765.8	79	26.1	86	SW	19	8.5		0	0			0	0		
Cape Henry, Va.			30.07	763.8	85	29.4	64	SW	14	6.3		Haze	0			0	0		
Cape May, N. J.			30.02	762.5	76	24.4	86	S	4	1.8		0	0			0	0		
Charleston, S. C.			30.20	767.1	82	27.8	79	S	7	3.1		8k	0	S		0	0		
Cheyenne, W. T.			30.00	762.0	53	11.7	73	NW	4	1.8		0	0			0	0		
Chicago, Ill.			29.83	757.7	75	23.9	81	SW	9	4.0		2c	0	SW		0	0		
Cincinnati, Ohio			29.95	761.0	78	25.6	77	SW	12	5.4		2c	2s		S	0	0		
Cleveland, Ohio			29.89	759.2	72.2	22.3	89	SW	14	6.3			10ks		SW	1.34	34.0	Clearing	
Colorado Springs, Col.			29.96	761.0	62	16.7	46	N	7	3.1		0	0			0	0		
Corsicana, Texas			30.02	762.5	77	25.0	86	S	12	5.4			10s		S	0	0		
Davenport, Iowa			29.88	761.5	77	25.0	57	N	14	6.3		2c	2s	W		0	0		
Denver, Col.			30.04	763.0	58	14.4	58	N	3	1.3		0	0			0	0		
Detroit, Mich.			29.85	758.2	70	21.1	95	SW	6	2.7		0	10ks		SW	0.21	5.3		
Dodge City, Kansas			29.42	747.3	83	28.3	60	S	13	5.8		0	0			0	0		
Dubuque, Iowa			29.86	758.4	74	23.3	63	NW	2	0.9			10s			0	0		
Duluth, Minn.			29.84	757.9	65	18.3	68	NW	12	5.4		5ck	Haze	W		0.23	5.8		
Eastport, Me.			30.03	762.7	59	15.0	76	Calm	0	0		2c	0			0.17	4.3		
Erie, Penn.			29.84	757.9	77	25.0	69	SE	16	7.2			10n		SE	0.46	11.7	Light rain	
Escanaba, Mich.			29.79	756.7	65	18.3	83	NW	10	4.5		2c	5s	NW	NW	0	0		
Fort Gibson, I. T.			29.91	759.7	79	26.1	77	SE	5	2.2		2k	2ks	SE	S	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.80	756.9	64	17.8	58	E	8	3.6		5ck	0	S		0	0		
Galveston, Texas			30.08	764.0	84	28.9	75	S	8	3.6		2k	0	S		0	0		
Grand Haven, Mich.			29.85	758.2	69	20.6	79	SW	5	2.2			10s			0	0		
Indianapolis, Ind.			29.92	760.0	74	23.3	85	S	6	2.7			10s		SW	0.54	13.7		
Indianola, Texas			30.08	764.0	85	28.9	68	S	10	4.5		2k	0	S		0	0		
Jacksonville, Fla.			30.22	767.6	78	25.6	90	SE	2	0.9		5k	0	SW		0.51	13.0		
Keokuk, Iowa			29.84	757.9	77	25.0	65	W	7	3.1		0	0			0	0		
Key West, Fla.			30.16	766.1	84.6	28.9	68	SE	12	5.4		5c	5ks	N		0.02	0.5		
Kittyhawk, N. C.			30.11	764.8	79	26.1	78	W	20	8.9		0	0			0	0		
Knoxville, Tenn.			30.12	765.0	73	22.8	85	SW	4	1.8		8ck	0	NW		0	0		
La Crosse, Wis.			29.87	758.7	70	21.1	85	NW	3	1.3		5k	0	NW		0.27	6.9		
Leavenworth, Kan.			29.86	758.4	74	23.3	81	SE	6	2.7			10s		NW	0	0	Threatening	
Lexington, Ky.			30.04	763.0	67.5	19.7	73	S	12	5.4		8k	0	W		0	0		
Long Branch, N. J.			30.03	762.7	70	21.1	75	N	1	0.4		5c	0			0	0		
Louisville, Ky.			30.00	762.0	80	26.7	74	Calm	0	0			10s		W	0	0		
Lynchburg, Va.			30.06	763.5	83	28.3	64	SW	3	1.3		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.79	756.7	68	20.0	69	W	4	1.8		5ck	0	SW		0	0		
Memphis, Tenn.			30.07	763.8	78	25.6	77	S	8	3.6		2c	0			0.19	4.8		
Milwaukee, Wisconsin			29.82	757.4	72	22.2	80	NW	8	3.6		2k	0	NW		0	0		
Mobile, Ala.			30.16	766.1	77	25.0	86	S	1	0.4		2k	5s			0.73	18.5		
Montgomery, Ala.			30.19	766.8	79.5	26.4	78	S	5	2.2		8k	0	SW		0.01	0.3		
Morgantown, W. Virginia			29.99	761.7	83	28.3	63	SW	11	4.9		2cs	0	NW		0	0		
Mt. Washington, N. H.			30.34	770.6	47	8.3	77	N	20	8.9		5c	2s	W		0.48	12.2		
Nashville, Tenn.			30.04	763.0	82	27.8	63	S	4	1.8		2ck	2s	W		0.01	0.3		
New Haven, Conn.			30.08	764.0	76	24.4	49	SE	9	4.0		Haze	0			0	0		
New London, Conn.			30.10	764.5	71	21.7	58	E	13	5.8		2c	2k		W	0	0		
New Orleans, La.			30.12	765.0	77	25.0	86	SE	3	1.3		5cs	2k		SE	0	0		
Newport, R. I.																			
New York, N. Y.			30.04	763.0	72	22.2	67	E	12	5.4		2c	Sm'e			0	0		
Norfolk, Va.			30.08	764.0	85	29.4	68	SW	12	5.4		0	0			0	0		
North Platte, Neb.			29.33	745.0	67	19.4	68	Calm	0	0		0	8ks			0.03	0.8	Clearing	
Omaha, Neb.			29.85	758.2	67	19.4	84	N	8	3.6		5c	5s	W	N	0.54	13.7	Clearing	
Oswego, N. Y.			29.94	760.5	70.2	21.2	93	S	6	2.7			10s			0.10	2.5		
Peck's Beach			30.03	762.7	73	22.8	85	SE	4	1.8		2c	Fog			0	0		
Pembina, D. T.			29.90	759.4	56	13.3	68	Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.01	762.2	78	25.6	82	E	6	2.7		2c	Sm'e	W		0	0		
Pike's Peak, C. T.			30.19	766.8	36	2.2	62	W	32	14.3		0	Haze			0	0		
Pittsburgh, Penn.			29.92	760.0	80	26.7	65	S	12	5.4		5c	0	W		0	0		
Port Huron, Mich.			29.85	758.2	70	21.1	95	S	8	3.6			10s		SW	0	0		
Portland, Maine			30.10	764.5	66	18.9	69	E	1	0.4		2c	0			0	0		
Portland, Or.			30.32	770.1	50	10.0	64	N	1	0.4		5c	0			0	0		
Punta Rassa, Fla.			30.20	767.1	79.1	26.2	82	E	8	3.6		5cs	Haze	NE		0	0		
Rochester, N. Y.			29.90	759.4	72	22.2	90	S	4	1.8			10n			0.06	1.5	Light rain	
Salt Lake City, Utah			29.98	761.5	63	17.2	37	SW	4	1.8		0	0			0	0		
Sandy Hook, N. J.			30.02	760.5	69	20.6	79	E	12	5.4		2cs	Haze	W		0	0		
San Diego, Cal.			29.99	761.7	62	16.7	83	Calm	0	0			10s			0	0		
San Francisco, Cal.			29.94	760.5	53	11.7	80	SW	4	1.8		Haze	Haze			0	0		
Santa Fe, N. M.			29.83	757.7	71	21.7	15	S	8	3.6		0	Haze			0	0		
Savannah, Georgia			30.11	764.8	77	25.0	56	SW	8	3.6		2ck	0	W		0	0		
Shreveport, La.			30.09	764.3	78	25.6	86	SW	4	1.8		2k	0	SW		0	0		
Springfield, Mass.			30.07	763.8	75	23.9	59	S	4	1.8		2cs	0			0	0		
St. Louis, Mo.			29.98	761.5	73	22.8	85	W	3	1.3			10n			0.10	2.5	Light rain	
St. Marks, Fla.			30.20	767.1	77	25.0	88	Calm	0	0		8ck	0			0.01	0.3		
St. Paul, Minn.			29.85	757.7	67	19.4	73	Calm	0	0		0	0			0	0		
St. Paul's Island, Alaska			29.86	758.4	42	5.6	66	WSW	1	0.4		2ck	[illegible]k	NW		0.01	0.3		
Squan Beach, N. J.			30.01	762.2	66	18.9	83	NE	6	2.7		0	Haze			0	0		
Toledo, Ohio			29.88	758.9	73	22.8	90	SW	12	5.4			10s		SW	0.92	23.4	Threatening	
Tybee Island, Ga.			30.23	767.8	76	24.4	86	Calm	0	0		5cs	2ks			0	0		
Vicksburg, Miss.			30.18	766.6	80	26.7	70	S	5	2.2		2c	0	W		0	0		
Virginia City, Mon.			29.83	757.7	46	7.8	40	SE	2	0.9		2k	0	W		0	0		
Washington, D. C.			30.01	762.5	81	27.2	72	W	3	1.3		0	0			0	0		
Wilmington, N. C.			30.18	766.6	80	26.7	78	SW	14	6.3		2k	0	SW		0	0		
Wood's Hole, Mass.			30.09	764.3	68	20.0	65	SE	6	2.7		2c	0	NW		0	0		
Wytheville, Va.			29.89	759.2	73	22.8	81	W	6	2.7		2c	0	W		0	0		
Yankton, D. T.			29.83	757.7	64	17.8	91	N	11	4.9			10s			0.03	0.8		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					87	30.6	72	NE	7	3.1		5k	8ks	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.00	762.0	80	26.7	74	E				2cs	5ks			0.21	5.3		L. V. Bigard.
Havana, Cuba, W. I.			29.85	758.2	82	27.8	78	E	4.8	4.8		8c	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.30	769.6	80	26.7	74	SE	9	4.0		2c	2kn	SE		0.19	4.8		W. S. Cameron.
Santiago de Cuba, W. I.			29.91	759.7	81	27.2	70	NE	7.2	3.2		0	2k		NE	0	0		Robert Mason.
St. Georges, Bermudas			30.29	769.4	77	25.0	80	S	4	1.8		0	2k			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.08	764.0	63	17.2	73	NE	10	4.5		0	5k		NE	0	0		E. P. Church.
Makawao, Maui, H. I.																0.20	5.1		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																0.30	7.6		J. Fortescue.
York Factory, B. A.			29.95	760.7	41.5	5.3	87	N	7	3.1		0	2k			0	0		C. Partridge.
Clifton, Jamaica, W. I.	27.40	696.0	30.05	763.3	74	23.3	76	NE	0.5	0.2		2c	0	NE		1.28	32.5		John Delaney.
St. John's, Newfoundland			29.99	761.7	41.5	5.3	91	NE				Haze	Haze						Leon M. Acuña.
St. John's, Porto Rico, W. I.																1.28	32.5		H. M. Redington.
Elyria, Ohio			29.92	760.0	75	23.9	74	SW	12	5.4			5cs			0.05	1.3		G. C. Carpenter.
Indianola, Iowa	28.88	733.6			71	21.7	75	SW					10kn						
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 27, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.1	83.1	28.4		NE			2		0			0	0		Charnot.
Algiers			30.06	763.4	74.5	23.6	70	NNW			2		1			0	0		Peter.
La Calle			30.00	762.1	76.1	24.5		NW			4		0			0	0		Kuntz.
Tunis			29.95	760.8	83.8	28.8	40	NW			5		5			0	0		Jacques.
Sfax			30.02	762.5	68.7	20.4		N			2		9			0.157	4.0	Rainy	Chauvey.
Saida			30.04	763.1	81.3	27.4		NNW			2		0			0	0		Grosjean.
Tebessa			29.99	761.7	92.3	33.5		SSW			4		3			0	0		Colin.
Geriville			30.05	763.2	76.5	24.7		N			3		0			0	0		Bernadach.
Laghouat			30.04	763.1	100.4	38.0	33	NE			3		1			0	0		Poinsignon.
Biskra			30.06	763.5	92.7	33.7		NE			5		9			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.87	758.6	62.8	17.1	89	NE			1		10			0.343	8.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.8	70.2	21.2	82	W			2		10			0.043	1.1		I. R. Observatory.
Eperies			29.76	756.0	80.2	26.8	62	Calm			0					0.116	2.95		Julius Mikolik.
Gratz			29.88	758.9	64.4	18.0	82	NW			5		10			0	0		Andreas Rospini.
Hermannstadt			29.71	754.6	72.1	22.3	67	SE			1		7			0.151	3.85		Prof. Reissenberger.
Kremsmünster			29.99	761.7	57.6	14.2	92	W			3		10			0.528	13.4		Prof. C. Wagner.
Lemberg			29.80	756.9	79.7	26.5	42	SE			2		3			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.76	755.9	86.4	30.2	64	E			3		3			0	0		Habzsuda Daniel.
Pola			29.84	757.9	66.0	18.9	82	NNE			1		10ks			0.032	0.81		I.R. Hydrographic Of'ce
Szegedin			29.75	755.6	79.2	26.2	62	Calm			0		8			0	0		Karl Stancel.
Trieste			29.90	759.4	66.9	19.4	81	N			1		10			0.094	2.4		Prof. V. Farolfi.
Vienna			29.92	760.0	61.5	16.4	86	WNW			4		10			0.260	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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.04	763.1	68.0	20.0	59	S			1		4k		S	0	0		Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.86	758.4	56.7	13.7		S	17	7.6			4			0.870	22.1		William Boswell.
Annanhill																			William McNeil.
Ardrossan													10					Raining	S. Cali, for Dr. Robinson
Armagh Observatory			29.76	755.9	52.7	11.5		SSE	18	8.0									
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.			29.92	760.0	56.3	13.5		SSW			2		10					Raining	John Hartnup, Jr.
Bilston, Liverpool Obs.			29.69	754.1	56.0	13.3		SSE			1–2		10					Showery	J. Dreer and I. Mitchell
Birr Castle, (Parsonstown)																			J. McLandsborough.
Bradford													4						T. H. Hunt.
Bridgetown, (Barbadoes)			30.01	762.2	86	30.0		NE			2								
Bywell													5						H. Todd.
Cambridge Observatory			29.98	761.5	70.0	21.1		S			1		9					Showery	Sgt. D. E. Hunt.
Cape Town, (Cape Colony)			30.19	766.8	55.4	13.0		N			3		10						Th Staff, for E. J. Stone.
Cape Good Hope Obs.			30.25	768.3	56.9	13.8	95	SW	2	0.9			4						John McLaren.
Cardington			29.99	761.7	72.6	22.6		SW					10			0	0	Raining	T. Bell, for J. Cartmell.
Carlisle			29.89	759.2	54.7	12.6		S			1		8						Qr. Mast. Sgt. J. Wood.
Chatham, School M. E.			29.98	761.5	68.9	20.5		W			3		10						Sgt. W. F. Hopkins
Colombo, (Ceylon)			29.90	759.4	82.3	27.9		SW			4		10						R. E. Power.
Dartmoor			30.09	764.3	52.5	11.4		SW			3		10						J. Mac Gowan, Jr.
Donaghadee			29.80	756.9	54	12.2		SSW			3		2						J. Costello.
Dover			30.03	762.7	64	17.8		SW											
Dublin																			G. D. Goldney.
Durham Observatory													10						Thomas Mackereth.
Eccles, (near Manchester)			29.95	760.2	60.8	16.0		SW	0.8	0.4			10						The Staff.
Falmouth Observatory			30.00	762.0	58.9	14.4		S	25	11.2			10						Pvt. G. Salmon, A. H. C.
Fort Napier, (Natal)			29.89	759.2	61.5	16.4		NW			5		10					Light rain	[ups.
Free Town, (Sierra Leone)			29.86	758.4	79	26.1		NW					9						B. G. Clare, for Prof. Cur-
Galway, Queen's College			29.94	760.5	62	16.7		SW			6		10						Sergt. E. G. Baker.
Gibraltar, (Mediterranean)			30.06	763.5	74.0	23.3		SW			4		0					Raining	Lewis Stewart.
Glasgow Observatory			29.82	757.4	53.7	12.1		S			1		10						G. T. Watson.
Great Yarmouth			30.02	762.5	62	16.7		SE			3		2						The Staff, for G. B. Airy.
Greenwich Royal Obs.			30.09	764.3	73.4	23.0		S			2		6						Dr. S. E. Hoskins.
Guernsey			29.94	760.5	62	16.7		SW			2		3						F. J. Page, for L. J. Cross- [ley.
Halifax, Moorside Obs.			29.94	760.5	62.4	17.1		SSW					10						
Halifax, (Nova Scotia)																			Dr. W. B. Moyle.
Helston			29.97	761.2	64	17.8		S			6		10					Raining	John Tilston.
Holyhead			30.87	758.7	58	14.4		SSW			5		10						
Hull Park																			The Staff.
Kew Observatory			30.00	762.0	65.8	18.3		SSW	13	5.8			5						
Kingstown			29.79	756.7	56	13.3		SSE			4		9					Raining	George Mitchell.
Lampeter																			
Leicester Museum			29.98	761.5	63.1	17.3		SW			3		10						William J. Harrison.
Llandudno			29.90	759.4	59.0	15.0		SW					10					Threatening	Dr. James Nicol.
Malta, (Mediterranean)			29.90	759.4	74.2	23.4		NW			2		10k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.19	766.8	83.3	28.5		E			3		4						Surg.-Maj. Henry.
North Shields																			John Wm. Irvine.
Nottingham			29.96	761.0	56.9	13.8		SSE			4		9k, ek		S				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.96	761.0	62	16.7		S			3		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.97	761.2	66	18.9		SW			2		8						J. Lucas, for R. Main.
Plymouth			30.01	762.2	62.5	16.9		SSW			2		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.90	754.4	55	12.8		S			6		10					Raining	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.06	763.5	64.6	18.1		WSW			1		5						A. P. Amy.
Sandwick Manse (Orkneys)																			
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.62	752.3	84.6	29.2		NE			2		9						Sergt. W. H. Lyne.
Sheffield			29.94	760.5	66	18.9		SW			2		8					Hazy	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.89	759.2	55.3	12.4		SW			5		10			0.097	2.4	Raining	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.01	762.2	67	19.4		ESE			1		1						Rev. C. J. Steward.
Stonyhurst Observatory			29.90	759.4	58.7	14.8		SW			2		10						The Staff.
Stornoway, Lewis C. (Hebr.)																			John Smith.
Strathfield Turgiss			30.02	762.5	66.1	19.1		SW			1		6						Rev Charles H. Griffith
Streatley Vicarage			30.01	762.2	65.9	18.8		SSW			6		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			29.79	756.7	55	12.8		NW			2		7					Showery	John Trotter.
Truro, Royal Institution			29.96	761.0	60	15.6		S			6		10						W. Newcombe.
Valencia Observatory			29.65	753.1	57.3	14.1		SW	23	10.3			10					Raining	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.04	763.0	64.0	17.8	53	NW			2		4						
Fanöe			30.06	763.4	62.8	17.1	65	W			4		3						
Godthaab, (Greenland)			29.30	744.3	44.2	6.8	50	NE			4		2						
Stykkisholm, (Iceland)			29.61	752.1	51.1	10.6	95	SE			4		8					Raining	
Thorshavn, (Faröe)			29.62	752.4	51.4	10.8	75	NW			2–4		9					Raining	
Vestervig			30.97	761.3	61.9	16.6	62	WSW			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			30.10	764.6	67.6	19.8	70	SW			2		8		SW	0	0		Normal School.
Amiens			30.01	762.3	65.8	18.8	57	WSW			3		8		NW	0	0		Normal School.
Beaumette, (near Angers)			30.04	763.0	69.4	20.8	67	SW	4.0	1.8			10		SW	0	0		Beaumette Observatory.
Beauvais			30.12	765.0	72.1	22.3	47	SSW			1		8		SW	0	0		Normal School.
Besançon			30.15	765.7	69.8	21.0	67	NE			4		2		NE	0.024	0.6		Normal School.
Bourg en Bresse			30.10	764.4	71.4	21.9	75	S			2		1kn		S	0	0		Normal School.
Bourges			30.08	764.0	70.2	21.2	71	NE			6		8		SE	0	0		Normal School.
Brest			29.98	761.	66.7	19.3	57	SW			3		1		SW	0.020	0.50		Naval Observatory.
Caen			30.08	764.1	66.0	18.9	83	W					5		W	0	0		Normal School.
Chartres			30.11	764.7	70.3	21.3		W			1		8k		WNW	0.008	0.2		Normal School.
Chaumont			30.14	765.6	65.3	18.5		NW			3		10kn		NW	0	0		Normal School.
Commercy			30.10	764.4	66.7	19.3	63	WNW			4		8		E	0	0		Normal School.
Le Mans			30.24	768.1	69.4	20.8	58	S			2		8		SW	0	0		Normal School.
Lons-Le Saulnier			30.02	762.6	61.7	16.5	61	NNE			2		5		E	0	0		Normal School.
Mâcon			30.13	765.2	71.6	22.0	72	N			2		5		N	0.039	1.0		Normal School.
Mirecourt			30.07	763.7	65.5	18.6	47	NNE			1		2		S	0	0		Normal School.
Orleans			30.09	764.2	69.4	20.8	61	WNW			3		2		W	0	0		Normal School.
Paris Observatory			30.09	764.2	68.2	20.1		WSW			1		8k		NW	0	0		National Observatory.
Parthenay			30.09	764.2	67.6	19.8	66	W			2		0			0	0		Normal School.
La Roche sur Yon			30.13	765.3	69.4	20.8	61	SW			1		8		E	0	0		Normal School.
Rouen			30.06	763.5	68.0	20.0	49	WNW			2		5		W	0	0		Normal School.
Saint Lo			30.04	763.0	70.7	21.5	94	W			2		10		W	0	0		Normal School.
Villefranche			30.09	764.2	72.5	22.5	65	NW			4		10		NW	0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.91	632.4			64.0	17.8	50	NNW	5.6	2.50			8		NNW	0	0		—. Faiguère.
Montsouris Observatory			30.08	764.0	70.3	21.3	63	SW			1		8k,kn		SW	0	0		Marié Davy.
Perpignan			30.02	762.6	74.1	23.4	51	WSW	11.2	5.00			5c			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.08	764.1	68.7	20.4	67	SW			1		9			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours													8						C. Marquet.
Versailles, (near Paris)			30.09	764.2	70.2	21.2	50	S			2		8			0.014	0.36		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.85	758.3	70.0	21.1	90	NE	2.2	1.0			5kn			0.283 0.295	7.2 7.5		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to tre zing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.91	759.5	66.0	19.2	72	W			2		10			0	0		Prof. Hoh.
Berlin			30.13	765.3	72.1	22.3	49	NW			3		7			0	0		Prof. Arndt.
Breslau			30.07	763.7	64.8	18.2	83	NNW			5		10			0.016	0.4		Dr. P. Neugebauer.
Carlsruh			30.06	763.5	70.5	21.4	63	NE			1		10			0	0		A. Senz.
Cassel			30.01	762.2	70.7	21.5	63	N			2		8			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.01	762.9	65.3	18.5	80	W					10			0.079	0.2	Raining	M. Wilhelm.
Hamburg			30.10	764.4	68.0	20.0	64	W			2		7ck,k		W	0.004	0.1		Deutsche Seewarte.
Kiel			30.05	763.3	67.1	19.5	53	W			3		3			0	0		Prof. G. Karsten.
Königsberg			29.91	759.5	75.2	24.0	55	SW			1		10			0	0		Prof. E. Luther.
Köslin			30.07	763.8	62.6	17.0		NW			3		8			0.925	23.5		Dr. Tägert.
Leipsic			30.08	764.1	69.8	20.8	74	N			2		9			0.063	1.6		Prof. Bruhns.
Münster			30.06	763.4	68.0	20.0	80	SW			1		0			0	0		Prof. E. Heis.
Posen			30.05	763.3	70.7	21.4	67	NW			8		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.07	763.6	69.0	20.9	60	NE					5			0	0		Hartwig and Tülk.
Stuttgart			30.05	763.2	67.0	19.8	65	E					10			0	0		Mr. Würth.
Thorn			29.91	760.4	71.0	22.0	72	NW			4		9			0.020	0.5		Dr. Hesenbalg.
Treves, (Trier)			30.03	762.7	70.7	21.5	52	E			3		8			0	0		Prof. Flesch.
Wustrow			30.12	765.0	63.5	17.5	66	W			2		3k			0	0		E. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.84	758.0	75.7	24.3	50	ESE	4.3	1.9			3	E		0	0		
Mondovi			29.85	758.1	71.3	23.5	36	NW			4		2	E		0	0		
Genoa			29.85	758.2	70.9	21.6	62	Calm	0	0			10	NE		0	0		
Pavia			29.83	757.7	77.9	25.5	48	SE			2		4	E		0	0		
Verona			29.85	758.1	77.7	25.4	62	E			2		10			0.146	3.7	Raining	
Padua			29.84	757.8	75.4	24.1	55	NNE	3.1	1.4			10	NNE		0	0		
Parma																			
Bologna			29.90	759.4	67.3	19.6	72	ESE			4		5	SW		0	0		
Leghorn			29.81	757.9	73.0	22.8	62	WNW	4.3	1.9			8			0.177	4.5		
Urbino			29.87	758.8	58.1	14.5	95	NNE			2		10			0.512	13.0		
Ancona			29.81	757.9	69.4	20.8	75	NW			2		10			0.697	17.7		
Siena			29.82	757.3	68.9	20.5	58	NE	0	0			8	E		0	0		
Rome			29.78	756.5	77.0	25.0	59	SW	8.1	3.6			9	W		0	0		
Naples, O. U.			29.84	757.8	79.2	26.2	53	SW			2		3	WNW		0	0		
Lecce			29.83	757.6	78.3	25.7	55	SSE	10.5	4.7			7	SE		0	0		
Cosenza			29.87	758.6	79.9	26.6	68	NW			4		5			0	0		
Catania, (Sicily)																			
Lipari			29.80	756.9	77.7	25.4	64	E			4		2	NW		0	0		
Palermo			29.81	757.1	77.4	25.2	56	WNW			2		2			0	0		
Sub-Series.																			
Naples, S. R.			29.88	758.9	75.2	24.0	66	SW			4		..ck	W		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.07	763.6	68.4	20.2		SE			2								
Groningen			30.01	762.2	68.9	20.5		W			2								
Helder			30.07	763.7	63.0	17.2		WNW			1								
Utrecht			30.02	762.5	70.3	21.3	60	ESE			2		5						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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	756.5	55.4	13.0	73	SW	20.4	9.1			10			0.787	20.0	Raining	
Christiania			29.76	755.8	67.2	19.6	37	SW	16.6	7.4			2			0.205	5.2		
Tromsö			29.62	752.3	56.3	13.5	95	NE			2		4			0.031	0.8		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.19	766.8	69.8	21.0	57	NNW	26.2	11.7			0						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			29.86	758.5	84.2	29.0	53	SE	4	2			2						Astronomical Obs.
Wilna			29.94	760.5	79.5	26.4	38	Calm	0	0			0					Smoke-haze.	Astronomical Obs.
Dorpat			29.99	761.8	77.0	25.0	35	SSE	9	4			0						Physical Cabinet.
St. Petersburg			29.98	761.6	76.3	24.6	41	SSE	2	1			1						Central Physical Obs.
Kuopio			29.89	759.3	72.9	22.7	58	ESE					2			0	0		Ch. Forsten.
Kieff			29.89	759.3	75.4	24.1	39	N	7	3			4						Physical Cabinet.
Nikolaiev			29.98	756.5	83.7	28.7	32	NNE	10	4.5			3						Kurdakof.
Kertch			29.69	754.2	82.2	27.9	40	N	7	3			4						Lagorio.
Moscow			29.90	759.5	73.9	23.3	35	NE	10	4.5			1						Meteorological Obs.
Lugan			29.55	750.5	74.7	23.7	49	NW	10	4.5			8						Meteorological Obs.
Archangel			30.04	762.9	75.6	24.2	60	WNW	8	3.5			0						Ogorodnikof.
Tiflis			29.52	749.8	90.3	32.4	28	SW	8	3.5			8						Physical Obs.
Astrakhan			29.66	753.4	87.6	30.9	39	W	4	2			2						Sebastianof.
Kasan			29.66	753.4	71.4	21.9	61	E	8	3.5			5						Physical Cabinet.
Orenburg			29.69	754.0	73.4	23.0	66	WSW	13	6			10						Tschernischef.
Ekaterinburg			29.76	756.0	74.[illegible]	23.4	49	W	4	2			2						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.74	755.5	87.1	30.6	52	Calm	0	0			0						Michelson.
Barnaul			29.85	758.2	80.1	26.7	30	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.75	755.7	73.0	22.8	54	SW	10	4.5			0						Marks.
Irkutsk			29.84	758.0	64.8	18.2	76	NW	8	3.5			10						Usolzef.
Oorga																			Mossin.
Peking, (China)			29.73	755.2	77.5	25.3	62	S	8	3.5			5						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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	760.5	89.4	31.9	23	SSW	6.3	2.8		1	2	(?)		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.79	756.6	56.1	13.4	85	S			2		10			0	0		
Hernosand			29.69	754.1	55.[illegible]	13.0	96	S			5		10			0.28	7.2	Raining	
Stockholm			29.83	757.7	65.5	18.6	87	WSW			1		10			0.18	4.5		
Wisby			29.94	760.5	62.6	17.0	81	NW			1		4			0	0		
Sub-Series.																			
Upsala			29.81	757.2	64.4	18.0	87	SSW			4		8		SW			Rainy	Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.63	726.2			70.2	21.2	49	NNE			4		5			0	0	Misty	The Observatory.
Zurich	28.16	722.8			68.5	20.3	54	NE			1		7			0.039	1.0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.9mm.; Thermometer, —0°.5 C.; Relative Humidity, —5 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			Prof. C. N. A. Van Dyck.
Constantinople			29.64	752.8	79.5	26.	56	NE	16.8	7.5			8		NE	0	0		
Fao, (Persian Gulf)			29.66	754.3	96.8	36.0		SE			3		0						
Salonica					91.4	33.		SW			1		0						
Valona			29.84	757.8	80.8	27.0		W			2		2						
Varna			29.80	757.0	86.0	30.0		NE			6		5						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																		

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			29.90	759.4	70	21.1		SW	3	1.3			10s		SW	0	0		
Chatham, N. B.			29.82	757.4	69	20.6	77	SW	5	2.2		2c	0	W		0	0		
Charlottetown, P. E. Island			29.89	759.2	61	16.1	74	SW	15	6.7		0	0			0	0		
Fort Garry, Manitoba			30.15	765.8	44	6.7	84	NW	6	2.7		0	0			0	0		
Halifax, N. S.			29.89	759.2	54	12.2	87	W	7	3.1			8n		W	Blank	Blank	Threatening	
Kingston, Ontario			29.90	759.4	63	17.2	97	SW	1	0.4			Fog			0	0	Foggy	
Montreal, Quebec			29.81	757.2	71	21.7	92	SW	10	4.5		Haze	Haze			Blank	Blank		
Ottawa, Ontario			29.82	757.4	76	24.4	60	W	10	4.5		10k	0	W		0	0		
Parry Sound, Ontario			29.85	758.2	65	18.3	80	SW	5	2.2		5k	5ks	S	S	0	0		
Port Dover, Ontario			29.85	758.2	65	18.3	94	S	6	2.7		10k	0	SW		0	0		
Port Stanley, Ontario			29.87	758.7	67	19.4	99	SE	1	0.4			Fog			0	0	Foggy	
Quebec, Quebec			29.83	757.7	69	20.6	90	Calm	0	0			10n			0	0		
Saugeen, Ontario			29.82	757.4	61	16.1	85	Calm	0	0		5cs	0			0.56	14.2		
Stayner, Ontario																0.30	7.6		
Sydney, C. B.			29.90	759.4	69	20.6	61	SW	12	5.4		2c	0			0	0		
Toronto, Ontario			29.85	758.2	66	18.9	93	Calm	0	0			10n			0.12	3.0		

Note.—The originals 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 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.86	758.4	73	22.8	90	S	1	0.4			Fog			0.11	2.8	Foggy	
Alpena, Mich.			29.79	756.7	70	21.1	55	W	2	0.9		8c	0			0	0		
Atlantic City, N. J.			29.95	760.7	76	24.4	81	SW	4	1.8		0	0			0	0		
Augusta, Ga.			30.16	766.1	75	23.9	86	SW!	4	1.8		8k	0	SW		0.49	12.4		
Baltimore, Md.			29.97	761.2	85	29.4	61	NW	7	3.1		2c	0			0	0		
Barnegat, N. J.			29.94	760.5	76	24.4	72	S	4	1.8		0	Haze			0	0		
Benton, Montana			30.15	765.8	60	15.6	44	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.04	763.0	52	11.1	60	NW	3	1.3		2k	0			0.37	9.4		
Boston, Mass.			29.90	759.4	72	22.2	81	NW	4	1.8		8ck	0	W		0	0		
Breckenridge, Minn.			29.98	761.5	55	12.8	87	NE	10	4.5			10s			0	0		
Buffalo, N. Y.			29.83	757.7	72	22.2	85	SW	8	3.6		2ck	5s		SW	0.03	0.8		
Burlington, Vt.			29.84	757.9	72	22.2	71	S	2	0.9		2k	5s			0	0		
Cairo, Ill.			29.98	761.5	75	23.9	90	S	8	3.6		10cs	0	W		0.33	8.4		
Cape Hatteras, N. C.			30.11	764.8	79	26.1	86	SW	21	9.4		2ck	Haze			0	0		
Cape Henry, Va.			30.04	763.0	86	30.0	65	SW	18	8.0		2c	0			0	0		
Cape May, N. J.			29.97	761.2	74	23.3	85	SW	4	1.8		0	0			0	0		
Charleston, S. C.			30.17	766.3	81.5	27.5	70	SW	6	2.7		0	0			0.18	4.6		
Cheyenne, W. T.			30.25	768.3	41	5.0	75	NW	12	5.4		0	0			0.26	6.6		
Chicago, Ill.			29.76	755.9	73	22.8	81	SE	4	1.8			10s			0	0		
Cincinnati, Ohio			29.89	759.2	75	23.9	81	S	8	3.6			10s		S	0.11	2.8	Threatening	
Cleveland, Ohio			29.84	757.9	74.8	23.7	79	S	12	5.4			10ks			0.03	0.8		
Colorado Springs, Col.			30.22	767.6	49	9.4	64	N	20	8.9			8ks			0	0		
Corsicana, Texas			29.98	761.5	77	25.0	82	S	9	4.0			10s			0	0		
Davenport, Iowa			29.68	753.9	74	23.3	76	S	4	1.8			10s		SW	0.11	2.8		
Denver, Col.			30.31	769.9	53	11.7	48	NE	3	1.3			8ks			0	0		
Detroit, Mich.			29.81	757.2	72	22.2	75	SW	4	1.8		5c	2k	W	W	0	0		
Dodge City, Kansas			29.71	754.6	64	17.8	73	N	21	9.4		10k	0	N		0	0		
Dubuque, Iowa			29.66	753.4	69	20.6	90	NE	8	3.6			10s			0.13	3.3	Threatening	
Duluth, Minn.			29.92	760.0	59	15.0	70	Calm	0	0			10s			0	0		
Eastport, Me.			29.93	760.2	51	10.6	93	S	4	1.8			10s			0.05	1.3		
Erie, Penn.			29.82	757.4	76	24.4	76	SE	12	5.4			10ks		SE	0.17	4.3		
Escanaba, Mich.			29.82	757.4	62	16.7	66	N	16	7.2		0	8s		NW	0	0		
Fort Gibson, I. T.			29.90	759.4	80	26.7	70	SE	4	1.8		0	1s		SE	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.10	764.5	57	13.9	69	N	8	3.6		1c	0	NW		0.12	3.0		
Galveston, Texas			30.05	763.3	82	27.8	78	S	7	3.1		0	0			0.03	0.8		
Grand Haven, Mich.			29.89	756.9	69	20.6	84	S	6	2.7		2c	8ks	NW	SW	0	0		
Indianapolis, Ind.			29.85	758.2	73	22.8	85	S	8	3.6			10s		W	1.29	32.8		
Indianola, Texas			30.05	763.3	83	28.3	74	S	16	7.2		2c	2k	W		0	0		
Jacksonville, Fla.			30.20	767.1	81	27.2	78	SE	8	3.6		0	0			0	0		
Keokuk, Iowa			29.69	754.1	71	21.7	75	W	21	9.4			10n		W	0.65	16.5	Light rain	
Key West, Fla.			30.14	765.5	82.1	27.9	70	E	12	5.4		0	5ks			0	0		
Kittyhawk, N. C.			30.09	764.3	80	26.7	78	W	16	7.2		2c	0	W		0	0		
Knoxville, Tenn.			30.07	763.8	74	23.3	81	SW	6	2.7			8s		SW	0	0		
La Crosse, Wis.			29.73	755.1	64	17.8	100	N	8	3.6			10n		N	1.43	36.3	Heavy rain	
Leavenworth, Kan.			29.75	755.6	68	20.0	84	NW	12	5.4		0	5s			1.25	31.7		
Lexington, Ky.			29.97	761.2	78	25.6	78	SW	7	3.1			10n			0.48	12.2	Light rain	
Long Branch, N. J.			29.94	760.5	80	26.7	78	W	1	0.4		2c	0			0	0		
Louisville, Ky.			29.92	760.0	78	25.6	73	S	12	5.4		0	0			0.96	24.4		
Lynchburg, Va.			29.99	761.7	84	28.9	64	SW	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.84	757.9	57	13.9	81	Calm	0	0			8s		SW	0	0		
Memphis, Tenn.			30.06	763.5	78	25.6	77	SW	4	1.8		2cs	8ks		SW	0	0		
Milwaukee, Wisconsin			29.79	756.7	64	17.8	78	NE	5	2.2			10ks		E	0	0		
Mobile, Ala.			30.15	765.8	79	26.1	82	S	2	0.9		5k	0	SW		0.20	5.1		
Montgomery, Ala.			30.17	766.3	78	25.6	82	SW	5	2.2		5k	0	SW		0.38	9.7		
Morgantown, W. Virginia			29.94	760.5	80	26.7	66	SW	11	4.5		10c	0	SW		0.26	6.6		
Mt. Washington, N. H.			30.23	767.8	53	11.7	100	NW	20	8.9			Fog			0.28	7.1		
Nashville, Tenn.			30.01	762.2	81	27.2	74	S	4	1.8		5k	0	SW		0.47	11.9		
New Haven, Conn.			29.94	760.5	74	23.3	72	S	8	3.6		8k	0	W		0.29	7.4		
New London, Conn.			29.96	761.1	71	21.7	90	SW	4	1.8		8c	Fog			0.10	2.5	Clearing	
New Orleans, La.			30.12	765.0	77	25.0	86	SE	3	1.3			10ks		SE	0.21	5.3		
Newport, R. I.																			
New York, N. Y.			29.95	760.7	72	22.2	90	SW	6	2.7		2c	0			0.10	2.5		
Norfolk, Va.			30.05	763.3	86	30.0	61	SW	12	5.4		5c	0			0	0		
North Platte, Neb.			29.78	756.4	53	11.7	93	NW	14	6.3			10n			0.49	12.4	Light rain	
Omaha, Neb.			29.84	757.9	61	16.1	88	N	20	8.9			10s		NE	0.80	20.3		
Oswego, N. Y.			29.86	758.4	77	25.0	77	SW	4	1.8			10s			0	0		
Peck's Beach			29.95	760.7	83	28.3	74	W	12	5.4		2cs	Haze			0	0		
Pembina, D. T.			30.12	765.0	48	8.9	77	NW	4	1.8		0	0			0	0		
Philadelphia, Penn.			29.95	760.7	79	26.1	77	SW	7	3.1		2ck	Sm'e	W		0	0		
Pike's Peak, C. T.			30.19	766.8	29	−1.7	89	W	32	14.3		Haze	10s			0	0		
Pittsburgh, Penn.			29.89	759.2	77	25.0	72	SW	8	3.6		2k	0	SW		0	0		
Port Huron, Mich.			29.84	757.9	62	16.7	88	N	8	3.6			10s		NW	0.05	1.3		
Portland, Maine			29.91	759.7	60	15.6	88	Calm	0	0			Fog			0.75	19.1	Foggy	
Portland, Or.			30.26	768.6	53	11.7	54	Calm	0	0		2c	0			0	0		
Punta Rassa, Fla.			30.17	766.3	80	26.7	78	E	8	3.6		5cs	Haze			0.18	4.6		
Rochester, N. Y.			29.83	757.7	74	23.3	85	SW	7	3.1		5ck	2s	SW	SW	0.09	2.3		
Salt Lake City, Utah			30.11	764.8	68	20.0	34	S	4	1.8		0	0			0	0		
Sandy Hook, N. J.			29.93	760.2	74	23.3	85	SW	3	1.3		8cs	Haze	W		0.05	1.3		
San Diego, Cal.			30.00	762.0	61	16.1	88	NE	4	1.8			10s			0	0		
San Francisco, Cal.			29.91	759.7	58	14.4	81	SW	12	5.4		5c	0			0	0		
Santa Fe, N. M.			29.88	758.9	69	20.6	12	SW	16	7.2		0	Haze			0	0		
Savannah, Georgia			30.19	766.8	83	28.3	67	S	4	1.8		0	0			0	0		
Shreveport, La.			30.06	763.5	79	26.1	82	SW	5	2.2		0	0			0	0		
Springfield, Mass.			29.91	759.7	71.5	21.9	92	S	4	1.8			10ks			0.19	4.8		
St. Louis, Mo.			29.89	759.2	76	24.4	76	W	9	4.0			10s			0.20	5.1		
St. Marks, Fla.			30.17	766.3	78	25.6	86	SE	6	2.7		0	0			0	0		
St. Paul, Minn.			29.83	757.7	57	13.9	87	N	8	3.6			10n		NE	0.25	6.3	Light rain	
St. Paul's Island, Alaska			30.00	762.0	42	5.6	82	W	13	5.8			10s			0.04	1.0		
Squan Beach, N. J.			29.93	760.2	77	25.0	86	SW	1	0.4		2c	0			0.10	2.5		
Toledo, Ohio			29.84	757.9	75	23.9	85	S	9	4.0		2c	5s	SE	S	0	0		
Tybee Island, Ga.			30.16	766.1	62	16.7	100	Calm	0	0			10ks			0	0		
Vicksburg, Miss.			30.15	765.8	78	25.6	82	S	3	1.3		2c	2s	S	S	0	0		
Virginia City, Mon.			29.97	761.2	40	4.4	56	SE	2	0.9		0	0			0	0		
Washington, D. C.			29.98	761.5	84	28.9	67	Calm	0	0		0	0			0.11	2.8		
Wilmington, N. C.			30.14	765.5	82	27.8	74	SW	10	4.5		5k	0	SW		0.04	1.0		
Wood's Hole, Mass.			29.94	760.5	67	19.4	94	SW	4	1.8		0	Fog			0	0		
Wytheville, Va.			29.83	757.7	73	22.8	81	W	3	1.3		0	0			0	0		
Yankton, D. T.			30.04	763.0	55	12.8	93	NW	16	7.2			10s			0.70	17.8		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
ridgetown, B'b'does, W. I.					79	26.1	82	NE	7	3.1		5ck	2s	E		0	0		E. Racker.
ointe-à-Pitre, G'd'loupe, do			29.99	761.7	81	27.2	70	E				0	5k			0	0		L. V. Bigard.
ayana, Cuba, W. I.			29.85	758.2	81	27.2	82	E	4.8	2.1		2ck	0	E		0	0		Charles Hasselbrink.
ingston, Jamaica, W. I.																			James Gall.
-Thomas, St. T., W. I.			30.29	769.4	79	26.1	74	E	9	4.0		2ck	2k	E		0.01	0.3		W. S. Cameron.
antiago de Cuba, W. I.			29.88	758.9	78	25.6	69	NE	7.2	3.2		0	2k			0	0		Robert Mason.
, Georges, Bermudas			30.27	768.8	76.5	24.7	77	SW	4.8	2.1		0	2k			0	0		C. F. Allen.
onolulu, Oahu, H. I.			30.04	763.0	68	20.0	84	NE	12	5.4		2k		NE		0	0		E. P. Church.
akawao, Maui, H. I.																0.86	21.8		F. L. Clarke.
umberland, B. A.																			
t. Chippewyan, B. A.																			
t. Mc. herson, B. A.																			
t. Simpson, B. A.																			
ork Factory, B. A.			29.96	761.0	50	10.0	58	W	8	3.6		10ck	0	NW		0	0		J. Fortescue.
lifton, Jamaica, W. I.	27.38	695.4	30.06	763.5	69	20.6		S	2.0	0.9		0	Haze			0.02	0.5		C. Partridge.
t. John's, Newfoundland			29.94	760.5	67	19.4	55	SW				0	0			0	0		John Delaney.
t. John's, Porto Rico, W. I.																			Leon M. Acuña.
lyria, Ohio			29.86	758.4	77	25.0	65	SW	12	5.4			2ks			0	0		H. M. Redington.
ndianola, Iowa																			G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 28, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30,00	762.1	84.6	29.2		NE			2		0			0	0		Charnot.
Alglers			29.95	760.9	84.9	29.4	58	WNW			2		2			0	0		Peter.
La Calle			29.99	761.8	81.3	27.4		NW			2		0			0	0		Kuntz.
Tunis			29.98	761.5	84.2	29.0	38	N			3		0			0	0	Hazy.	Jacques.
Sfax			30.02	762.5	77.7	25.4		E			3		0			0	0		Chauvey.
Saïda			29.01	762.5	86.0	30.0		SSW			1		0			0	0		Grosjean.
Tebessa			30.04	763.0	79.5	26.4		NNE			2		0			0	0		Colin.
Geriville			30.05	763.3	77.0	25.0		NNE			2		2			0	0		Bernadach.
Laghount			30.07	763.6	81.3	27.4	29	NE			2		2			0	0		Poinsignon.
Biskra			30.01	762.9	88.7	31.5		NW			2		0			0	0		Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.84	757.9	78.8	26.0	63	NE			3		6			1.095	27.8		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.96	760.9	78.8	26.0	49	NE			3		2			0	0		I. R. Observatory.
Eperies			29.88	758.9	80.2	26.8	48	N			1					0	0		Julius Mikolik.
Gratz			29.88	758.9	69.1	20.6	72	SW			2		10			0	0		Andreas Rospini.
Hermannstadt			29.82	757.4	79.5	26.4	35	E			2		3			0	0		Prof. Reissenberger.
Kremsmünster			29.89	759.3	67.8	19.8	78				5		3			0.094	2.4		Prof. C. Wagner.
Lemberg			29.91	759.8	79.0	26.1	42	NE			3		2			0	0		Dr. T. Stanecki.
Nylregyhaza			29.87	758.6	81.6	29.2	51	E			2		2			0	0		Habzsuda Daniel.
Pola			29.81	757.9	76.1	24.5	67	WNW			1		7ks, n			0	0		I.R. Hydrographic Of'ce
Szegedin			29.82	757.3	78.8	26.0	60	Cdm			0		4			0.272	6.90		Karl Stancel.
Trieste			29.85	758.2	74.7	23.7	79	E			1		9			0	0		Prof. V. Farolfi.
Vienna			29.89	759.1	74.8	23.8	68	NW			2		3			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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.92	760.0	73.4	23.0	52	SSE			1		9c, ks		S	0	0	Clearing	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.98	761.5	53.7	12.1		ENE	15	6.7			1			0.140	3.56		William Boswell.
Annanhill																			
Ardrossan			29.89	759.2	62	16.7		E			3		7						
Armagh Observatory			29.86	758.4	58.9	14.9		ENE	10	4.5			10					Misty	William McNeil.
Banbridge																			S. Cali, for Dr. Robinson.
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.81	757.2	61	16.1		ESE			2		10						
Birr Castle, (Parsonstown)			29.83	757.7	63.4	17.4		NNW			1		10					Raining	John Hartnup, Jr.
Bradford			29.83	757.7	59.0	15.0		E			2		10						J. Dreer and I. Mitchell
Bridgetown, (Barbadoes)			30.03	762.7	85	29.4		NE			2		7						J. McLandsborough.
Bywell																			T. H Hunt.
Cambridge Observatory			29.84	757.9	66.0	18.9		SE			1		10					Raining	H. Todd.
Cape Town, (Cape Colony)																			Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.37	768.8	69.5	20.8	75	SW	10	4.5			1						Th Staff, for E. J. Stone.
Cardington			29.85	758.2	63.4	17.4		SE					10					Drizzling	John McLaren.
Carlisle			29.85	758.2	65.2	18.4		E					10			0.17	4.3	Threatening	T Bell, for J. Cartmell.
Chatham, School M. E.			29.83	757.7	65.7	18.7		WSW			3		8						Qr. Mast Sgt. J. Wood.
Colombo, (Ceylon)			29.89	759.2	80.0	26.7		SW			5		7						Sgt. W. F. Hopkins
Dartmoor			29.92	760.0	55	11.7		W			1		10					Raining	R. E. Power.
Donaghadee			29.86	758.4	58	14.4		ESE			2		10						J. Mac Gowan, Jr.
Dover			29.88	758.9	62	16.7		SSW			2		7						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.81	757.2	61.6	16.1		SE	1.0	0.4			10						Thomas Mackereth.
Falmouth Observatory			29.84	757.9	60.4	15.6		SSW	10	4.5			9						The Staff.
Fort Napier, (Natal)			29.51	749.5	65.0	18.3		E			3		2						Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone			29.85	758.2	82	27.8		N					7					Heavy rain	
Galway, Queen's College			30.04	763.0	67	19.4		S			1		1						B. G. Clare, for Prof. Cur.
Gibraltar, (Mediterranean)			30.03	762.7	74.5	23.6		SW			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.89	759.2	57.4	14.1		ESE			2		9					Misty	Lewis Stewart.
Great Yarmouth			29.90	759.4	62	16.7		SSE			4		7						G. T. Watson.
Greenwich Royal Obs.			29.84	757.9	60.8	16.0		SSE			1		10					Drizzling	The Staff, for G. B. Airy.
Guernsey			29.85	758.2	62.5	16.9		WSW			2		6						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.86	758.4	59.0	15.0		ESE					10					Drizzling	F. J. Page, for L. J. Cross-ley.
Halifax, (Nova Scotia)																			
Helston			29.81	757.2	62	16.7		SW			4		10					Showery	Dr. W. B. Moyle.
Holyhead			29.84	757.9	58	14.4		WNW			2		4						John Tilston.
Hull Park																			
Kew Observatory			29.83	757.7	62.3	16.8		S	13	5.8			10					Drizzling	The Staff.
Kingstown			29.85	758.2	59	15.0		SSE			1		10					Raining	George Mitchell.
Lampeter																			
Leicester Museum			29.85	758.2	59.1	15.1		E			1		10					Drizzling	William J. Harrison.
Llandudno			29.82	757.4	60.5	15.8		NW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.89	759.2	76.6	24.8		NW			2		4k						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.16	766.1	83	28.3		E			4		5						Surg.-Maj. Henry.
North Shields			29.92	760.0	58	14.4		SE			2		10						John Wm. Irvine.
Nottingham			29.85	758.2	61	16.1		SE			2		10k, d		SE			Showery	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.82	757.4	59.2	15.1		E			1		10					Light rain	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.82	757.4	66	18.9		SE			1		10						J. Lucas, for R. Main.
Plymouth			29.82	757.4	61.5	16.4		SW			1		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.82	757.4	62	16.7		W			2		5						W. Kennedy.
Saint Ann's Head			29.81	757.2	62	16.7		NW			1		2						John C. Walker.
Saint Helier, (Jersey)			29.85	758.2	68.6	20.3		W			3		8						A. P. Amy.
Sandwick Manse (Orkneys																			
Scarborough			29.90	759.4	54	12.2		SE			2		10					Raining	F. Shaw.
Scutari, (Turkey)			29.79	756.7	90.4	32.4		NE			2		7					Hazy	Sergt. W. H. Lyne.
Sheffield			29.83	757.7	61	16.1		SE			1		10			0.19	4.8	Drizzling	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.85	758.2	64.8	18.2		SE			3		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.88	758.9	66	18.9		ESE			2		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.11	764.8	58.6	14.8		NE			1		10					Threatening	The Staff.
Stornoway, Lews C. (Hebr).																			John Smith.
Strathfield Turgiss			29.82	757.4	66.1	18.9		S			1		10					Showery	Rev Charles H. Griffith
Streatley Vicarage			29.81	757.2	67.8	19.9		S			3		10						Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			29.98	761.5	57	13.9		N			2		2						John Trotter.
Truro Royal Institution			29.79	756.7	67	19.4		NW			6		5						W Newcombe.
Valencia Observatory			29.84	757.9	60.4	15.8		WNW	3	1.3			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.08	764.1	66.0	18.9	48	S			2		0						
Fanöe			30.00	762.1	66.6	19.2	83	SW			2		9						
Godthaab, (Greenland)			29.55	750.5	34.2	1.2	96	SSW			6		10					Snowing	
Stykkisholm, (Iceland)			29.67	753.6	51.1	10.6	95	SE			2		8						
Thorshavn, (Faröe)			29.98	761.5	53.8	12.1	79	W			2		3						
Vestervig			29.93	760.3	68.4	20.2	62	SSW			4		4						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.93	760.1	65.5	18.6	72	SW			4		10			0.413	10.5		Normal School.
Amiens			29.90	759.5	74.5	23.6	65	W			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.91	759.7	62.8	17.1	92	SW	12.1	5.4			10		SW	0	0	Raining	Beaumette Observatory.
Beauvais			29.96	761.0	74.8	23.8	48	SSW			1		10		SW	0	0		Normal School.
Besançon			30.02	762.4	74.5	23.6	55	NE			3		2		NE	0	0		Normal School.
Bourg en Bresse			30.10	764.4	83.8	28.8	48	S			4		..k		W	0	0		Normal School.
Bourges			29.97	761.1	74.5	23.6	63	S			1		8		E	0	0		Normal School.
Brest			29.83	757.7	66.0	18.9	73	W			3		10n		W	0.246	6.25		Naval Observatory.
Caen			29.88	759.0	63.5	17.5	92	N			2		10			0	0		Normal School.
Chartres			29.95	761.8	71.8	22.1		SW			3		9kn		SW	0	0		Normal School.
Chaumont			30.03	762.8	67.1	19.5		WNW			3		5kn		NW	0	0		Normal School.
Commercy			30.04	762.9	70.0	21.1	61	NNE			1		5		W	0	0		Normal School.
Le Mans			29.94	760.5	67.1	19.5	63	S			2		8		S	0	0		Normal School.
Lons-Le Saulnier			29.92	759.9	65.3	18.5	59	N			1		5		E	0	0		Normal School.
Mâcon			30.06	763.5	75.2	24.0	56	N			2		5		N	0	0		Normal School.
Mirecourt			29.88	758.9	68.9	20.5	53	N			1		2		S	0	0		Normal School.
Orleans			29.94	760.4	72.3	22.4	55	SSW			4		5		S	0	0		Normal School.
Paris Observatory			29.93	760.2	71.2	21.8		SSW			3		10k		SW	0	0		National Observatory
Parthenay			29.91	759.8	65.7	18.7	73	NW			4		5		SW	0	0		Normal School.
La Roche sur Yon			30.08	763.9	63.0	17.2	96	SE			4		8		NE	0	0		Normal School.
Rouen			29.84	759.0	68.7	20.4	69	SSW			2		2		S	0	0		Normal School.
Saint Lo			29.85	758.1	59.9	15.7	93	NNE			2		10		W	0	0		Normal School.
Villefranche			30.00	762.0	77.0	25.6	65	N			3		8		N	0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)													8		WNW	0	0		Frère Pascall.
Mont-Louis	24.87	631.8			58.0	14.8	82	ENE	7.4	3.33					SW	0	0		—. Falguère.
Montsouris Observatory			29.93	760.3	71.4	21.9	63	S			2		10c,ck,k			0	0		Marié Davy.
Perpignan			29.98	761.5	73.8	23.2	52	WNW	5.6	2.50			9c			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.94	760.4	71.6	22.0	63	SSE			2		9			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.93	760.3	71.1	21.7	46	SW			3		10		WSW	0	0		C. Marquet.
Versailles, (near Paris)			29.94	760.4	72.3	22.4	74	S			3		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai			29.82	757.5	73.4	23.0	96	ENE	5.4	2.4		..ks	..kn			0.075 / 0.087	1.9 / 2.2		H. Le Lec, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.88	759.0	71.1	22.0	60	W			3		7			0	0		Prof. Hoh.
Berlin			30.10	764.6	72.1	22.3	40	E			2		1			0	0		Prof. Arndt.
Breslau			30.08	763.9	73.6	23.1	71	ENE			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.93	760.2	71.2	21.8	70	E			1		10			0	0		A. Senz.
Cassel			29.87	758.8	76.3	24.6	46	SE			2		4			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.95	760.8	66.2	19.0	81	W					7			0	0		M. Wilhelm.
Hamburg			30.03	762.7	72.1	22.3	53	SE			4		6k, ck		SW	0	0		Deutsche Seewarte.
Kiel			30.05	763.2	71.4	21.9	56	SE			3		9			0	0		Prof. G. Karsten.
Königsberg			30.05	763.2	71.8	22.1	68	NW			1		10			0.004	0.1		Prof. E. Luther.
Köslin			30.08	764.1	68.0	20.0		N			4		2			0	0		Dr. Tägert.
Leipsic			30.02	762.4	71.6	22.0	44	NE			1		0			0	0		Prof. Bruhns.
Münster			29.97	761.4	73.4	23.0	80	NE			1		6			0.094	2.4		Prof. E. Heis.
Posen			30.07	763.6	73.9	23.3	67	N			1		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.93	760.3	71.4	21.9	68	NE					10			0	0		Hartwig and Tülk.
Stuttgart			29.93	760.2	65.8	18.8	77	W					10			0.118	3.0	Raining	Mr. Würth.
Thorn			30.01	762.3	77.0	25.3	59	NE			3		5			0.004	0.1		Dr. Rosenbalg.
Treves, (Trier)			29.99	759.4	72.7	22.6	58	N			4		10			0.063	1.62		Prof. Plesch.
Wustrow			30.11	761.7	73.0	22.8	45	ESE			2		7k			0	0		F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.89	759.3	74.1	23.4	57	ESE	1.3	0.6			5	SE		0	0		
Mondovi			29.89	759.2	71.4	21.9	54	W			2		8	ESE		0	0		
Genoa			29.86	758.5	78.1	25.6	50	NW	0.7	0.3			6	E		0	0		
Pavia			29.87	758.7	76.6	24.8	51	SW			4		2	NE		0.142	3.6		
Verona			29.84	757.8	78.4	25.8	62	W			1		10			0	0		
Padua			29.85	758.1	71.2	21.8	75	NW	5.6	2.5			10	E		0.323	8.2		
Parma																			
Bologna			29.91	759.6	70.9	21.6	74	NW			1		6	E		0.157	4.0		
Leghorn			29.87	758.6	75.1	24.1	47	W	3.8	1.7			5			0	0		
Urbino			29.91	759.6	66.4	19.1	71	NE			4		10			0	0		
Ancona			29.88	758.9	69.1	20.6	82	NW			2		10			0.185	4.7		
Siena			29.85	758.2	66.7	19.3	76	NNW	1.3	0.6			9	W		0	0		
Rome			29.88	759.0	67.6	19.8	83	SSW	3.1	1.4			8			0.110	2.8		
Naples, O.U.			29.88	759.0	73.4	23.0	66	SW			2		10	W		0	0		
Lecce			29.88	759.0	76.6	24.8	63	WSW	3.8	1.7			8	E		0.157	4.0		
Cosenza			29.91	759.6	80.4	26.9	40	NW			4		7	SE		0	0		
Catania, (Sicily)																			
Liposto			29.85	758.3	77.9	25.5	51	NE			4		4	S		0	0		
Palermo			29.85	758.1	76.6	24.8	58	NW			2		2			0	0		
Sub-Series.																			
Naples, S. R.			29.91	759.7	69.4	20.8	83	ESE			6		..k	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing		...	29.95	760.6	70.7	21.5		S			2								
Groningen			29.93	760.2	72.3	22.4		SE			1								
Helder			29.95	760.7	69.3	20.7		ESE			1								
Utrecht			29.91	759.6	76.3	24.6	47	S			3		5						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.89	759.3	59.0	15.0	63	SSW	10.3	4.6			8			0.551	14.0		
Christiania			29.98	761.6	61.2	16.2	55	SW	12.1	5.4			10			0	0		
Tromsö			29.54	750.3	50.9	10.5	94	W			6		10			0	0	Raining	

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.18	766.5	70.9	21.6	71	N	12.5	5.6			8						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.97	761.2	81.3	27.4	44	ENE	4	2			3						Astronomical Obs.
Wilna			29.99	761.8	85.6	20.[illegible]	28	Calm	0	0			5					Smoke, haze	Astronomical Obs.
Dorpat			30.01	762.3	79.0	26.1	48	WSW	4	2			10						Physical Cabinet.
St. Petersburg			29.98	761.4	74.5	23.6	50	NW	9	4			4						Central Physical Obs.
Kuopio			29.90	759.5	70.9	21.6	53	W					0			0	0		Ch. Forsten.
Kieff			29.96	760.9	76.3	24.6	40	NNE	7	3			8						Physical Cabinet.
Nikolaiev			29.85	758.1	83.3	28.5	30	N	10	4.5			5						Kurdakof.
Kertch			29.74	755.3	79.3	26.3	55	N	7	3			2						Lagorio.
Moscow			29.97	761.3	75.9	24.4	43	NW	10	4.5			2						Meteorological Obs.
Lugan			29.63	752.6	78.3	25.7	36	ENE	8	3.5			5						Meteorological Obs.
Archangel			29.91	759.6	74.5	23.6	59	S	10	4.5			6						Ogorodnikof.
Tiflis			29.54	750.3	86.7	30.4	39	NE	10	4.5			6						Physical Obs.
Astrakhan			29.70	754.3	84.0	28.9	47	NE	8	3.5			5						Sebastianof.
Kasan			29.75	755.6	74.3	23.5	56	NNE	10	4.5			7						Physical Cabinet.
Orenburg			29.71	754.6	75.2	24.0	60	Calm	0	0			8						Tschernischef.
Ekaterinburg			29.86	758.4	72.1	22.3	61	NW	4	2			7						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.61	752.1	91.6	33.1	50	Calm	0	0			0						Michelson.
Barnaul			29.76	755.9	89.6	32.0	59	NW	8	3.5			3						Meteorological Obs.
Yeniseisk			29.58	751.2	72.0	22.2	71	SW	10	4.5			10					Thunder-storm	Marks.
Irkutsk			29.67	753.7	71.2	21.8	75	WNW	13	6			10						Usolzef.
Oorga			29.60	751.7	67.3	19.6	62	E	4	2			10						Mossin.
Peking, (China)			29.71	754.7	79.3	26.3	58	SSW	8	3.5			2						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.91	759.6	84.2	29.0	18	W	4.0	1.8		3	0	W		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.87	758.6	60.4	15.8	74	WSW			2		8			0.16	4.0		
Hernosand			29.85	758.3	59.7	15.4	66	S			3		10			0	0		
Stockholm			29.97	761.3	68.4	20.2	40	SW			2		2			0	0		
Wisby			30.08	764.0	63.7	17.6	51	WNW			2		0			0	0		
Sub-Series.																			
Upsala			29.98	761.6	68.4	20.2	42	SW			6		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Geneva	28.51	724.8			69.1	20.6	57	NNW			2		2			0	0		The Observatory.
Zurich	28.35	720.2			69.1	20.6	64	NE			1		6			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.3mm.; Thermometer, —1°.3 C.; Relative Humidity, +3 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.80	756.9	86.9	30.5	57	SW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			29.81	757.2	80.8	27.1	58	NE	11.2	5			8		NE	0	0		
Fao, (Persian Gulf)			29.72	755.0	99.3	37.4		NW			4		0						
Salonica					98.5	36.9		NW			1		5						
Valona			29.88	758.9	78.4	25.8		W			2		2					Stormy	
Varna			29.92	760.0	89.6	32.0		SE			4		2						

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12: the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

GREEK SERIES.

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

Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the Chief Signal Officer, U. S. Army.

Brockville, Ontario			29.70	754.4	67	19.4		NW	5	2.2			10s		NW	0.07	1.8	Light rain	
Chatham, N. B.			29.65	753.1	64	17.8	92	S	6	2.7			Haze			0	0		
Charlottetown, P. E. Island			29.75	755.6	61	16.1	87	S	11	4.9			8cs			0	0		
Fort Garry, Manitoba			29.89	759.2	54	12.2	74	S	15	6.7		2c	2ks	S	S	0	0		
Halifax, N. S.			29.72	754.9	55	12.8	100	E	2	0.9			Fog			0.29	7.4	Foggy	
Kingston, Ontario			29.81	757.2	69	20.0	86	W	3	1.3		5k	0	W		0.03	0.8		
Montreal, Quebec			29.52	749.8	75	23.9	84	W	15	6.7		5k	5ks	W		0.17	4.3		
Ottawa, Ontario			29.73	755.1	69	20.6	57	W	16	7.2		5k	5n	W		0	0	Threatening	
Parry Sound, Ontario			29.91	759.7	57	13.9	81	NW	8	3.6		5k	2ks	NW		0.22	5.6		
Port Dover, Ontario			29.91	759.7	64	17.8	78	NW	10	4.5		10k	0	NW		0	0		
Port Stanley, Ontario			29.95	760.7	61	16.1	84	W	12	5.4			10n		NW	0	0		
Quebec, Quebec			29.44	747.8	75	23.9	81	S	20	8.9			10n		S	0.01	0.3	Threatening	
Saugeen, Ontario			29.96	761.0	49	9.4	91	N	3	1.3			10s			0.62	15.7		
Stayner, Ontario			29.90	759.4	56	13.3	90	NW	13	5.8			10n		W	Blank	Blank	Light rain	
Sydney, C. B.			29.81	757.2	60	15.6	90	S	4	1.8			10n		S	0	0		
Toronto, Ontario			29.89	759.2	64	17.8	73	NW	22	9.8		5ck	2ks	NW		0	0		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.73	755.1	81	27.2	74	S	4	1.8		2ck	2k		S	0	0		
Alpena, Mich.			29.96	761.0	57	13.9	81	N	14	6.3		8k	0	NW		0.73	18.5		
Atlantic City, N. J.			29.92	760.0	73	22.8	81	SW	10	4.5		0	0			0	0		
Augusta, Ga.			30.12	765.0	78	25.6	78	S	5	2.2		0	0			0	0		
Baltimore, Md.			29.91	759.7	80	26.7	70	SW	4	1.8		2c	0			0.05	1.3		
Barnegat, N. J.			29.90	759.4	86	30.0	65	W	8	3.6		0	0			0	0		
Benton, Montana			30.00	762.0	60	15.6	58	N	8	3.6		0	0			0	0		
Bismarck, Dakota			29.63	752.6	60	15.6	60	SE	10	4.5		2k	0			0	0		
Boston, Mass.			29.73	755.1	84	28.9	61	SW	10	4.5		0	0			0.08	2.0		
Breckenridge, Minn.			29.98	761.5	53	11.7	93	S	10	4.5		5k	0	S		0	0		
Buffalo, N. Y.			29.8[illegible]	757.9	67	19.4	68	NW	10	4.5		2cs	2ks		NW	0.03	0.8		
Burlington, Vt.			29.61	752.1	76	24.4	69	S	11	4.9		5k	0			0.39	9.9		
Cairo, Ill.			29.95	760.7	69	20.6	90	W	8	3.6			8ks		SW	0.08	2.0		
Cape Hatteras, N. C.			30.11	764.8	80	26.7	82	SW	20	8.9		Haze	Haze			0	0		
Cape Henry, Va.			30.02	762.5	85	29.4	64	SW	15	6.7		2k	0			0	0		
Cape May, N. J.			29.93	760.2	74	23.3	90	S	8	3.6		0	0			0	0		
Charleston, S. C.			30.16	766.1	83	28.3	79	SW	12	5.4		5k	0	SW		0	0		
Cheyenne, W. T.			30.07	763.8	52	11.1	48	W	8	3.6		0	0			0	0		
Chicago, Ill.			30.03	762.7	54	12.2	73	N	14	6.3			10s		N	0.11	2.8		
Cincinnati, Ohio			29.87	758.7	73	22.8	80	SE	8	3.6		2c	5s			0.37	9.4		
Cleveland, Ohio			29.93	760.2	64.5	18.1	79	N	4	1.8			10ks		N	0.01	0.3	Clearing	
Colorado Springs, Col.			30.10	764.5	48	8.9	56	N	6	2.7		0	0			0	0		
Corsicana, Texas			30.07	763.8	71	21.7	67	N	7	3.1		0	0			0	0		
Davenport, Iowa			30.[illegible]5	763.3	62	16.7	71	NE	12	5.4		2c	0			0	0		
Denver, Col.			30.10	764.5	55	12.8	39	Calm	0	0		0	0			0	0		
Detroit, Mich.			29.94	760.5	63	17.2	78	N	4	1.8			10s			0.37	9.4		
Dodge City, Kansas			29.83	757.7	66	18.9	54	S	4	1.8		0	0			0	0		
Dubuque, Iowa			30.07	763.8	61	16.1	71	N	6	2.7		0	0			0.04	1.0		
Duluth, Minn.			30.09	764.3	53	11.7	72	NE	4	1.8		0	0			0	0		
Eastport, Me.			29.68	753.9	52	11.1	93	S	7	3.1			Fog			0	0	Fogg	
Erie, Penn.			29.88	758.9	66	18.9	73	NW	8	3.6		2c	5ks		W	0.78	19.8		
Escanaba, Mich.			30.10	764.5	50	10.0	71	N	12	5.4		5k	0	N		0.90	22.9		
Fort Gibson, I. T.			30.10	764.5	63	17.2	72	NW	4	1.8		0	0			0.01	0.3		
Fort St. Michael, Alaska																			
Fort Sullivan, F.			29.81	757.2	67	19.4	60	SE	12	5.4		0	0			0	0		
Galveston, Texas			30.08	764.0	82	27.8	74	SW	4	1.8		0	0			0	0		
Grand Haven, Mich.			30.01	762.2	56	13.3	80	N	7	3.1		10cs	0	N		0.05	1.3		
Indianapolis, Ind.			29.90	759.4	67	19.4	90	NW	4	1.8			10s		NW	1.14	29.0	Threatening	
Indianola, Texas			30.10	764.5	85	29.4	71	S	4	1.8		1k	0	S		0	0		
Jacksonville, Fla.			30.17	766.3	81	27.2	74	SE	6	2.7		0	4cs			0	0		
Keokuk, Iowa			30.00	762.0	60	15.6	88	NE	10	4.5			10n		NE	0.09	2.3	Light rain	
Key West, Fla.			30.13	765.3	82.4	28.0	63	E	12	5.4			5ks			0	0		
Kittyhawk, N. C.			30.07	763.8	81	27.2	70	W	20	8.9		0	0			0	0		
Knoxville, Tenn.			30.04	763.0	73	22.8	76	SW	8	3.6			10s		SW	0	0		
La Crosse, Wis.			30.08	764.0	55	12.8	100	NE	4	1.8			Fog			0.29	7.4	Foggy	
Leavenworth, Kan.			30.08	764.0	62	16.7	83	NW	4	1.8		0	0			0.02	0.5		
Lexington, Ky.			29.96	761.0	73	22.8	81	W	4	1.8		5k	5s			0	0		
Long Branch, N. J.			29.87	758.7	84	28.9	86	SW	13	5.8		0	0			0	0		
Louisville, Ky.			29.90	759.4	72	22.2	85	E	6	2.7			10n			1.18	30.0	Light rain	
Lynchburg, Va.			29.96	761.0	84	28.9	60	SW	3	1.3		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.12	765.0	48	8.9	78	NW	8	3.6		5k	0	NE		0	0		
Memphis, Tenn.			30.00	762.0	73	22.8	85	NW	7	3.1			10n			0.01	0.3	Light rain	
Milwaukee, Wisconsin			30.05	763.3	55	12.8	80	NE	14	6.3			10ks			0	0		
Mobile, Ala.			30.14	765.5	75	23.9	85	SW	3	1.3		0	2s			0	0		
Montgomery, Ala.			30.15	765.8	77	25.0	77	SW	5	2.2		8k	0	SW		0	0		
Morgantown, W. Virginia			29.90	759.4	79	26.1	73	SW	9	4.0		0	8s			0.12	3.0		
Mt. Washington, N. H.			30.04	763.0	56	13.3	100	NW	52	23.3			Fog			0.86	21.8		
Nashville, Tenn.			29.94	760.5	77	25.0	77	S	8	3.6		10k	0	S		0	0		
New Haven, Conn.			29.81	757.2	85	29.4	61	W	8	3.6		Haz	0			0.52	13.2		
New London, Conn.			29.87	758.7	79	26.1	74	SW	10	4.5		2c	2cs	W		0	0		
New Orleans, La.			30.12	765.0	75.5	24.2	84	S	1	0.4			10ks		SW	0.54	13.7	Threatening	
Newport, R. I.																			
New York, N. Y.			29.86	758.4	76	24.4	82	SW	12	5.4		0	0			0.03	0.8		
Norfolk, Va.			30.03	762.7	85	29.4	64	SW	12	5.4		5c	0			0	0		
North Platte, Neb.			29.67	753.6	58	14.4	75	SW	12	5.4		0	0			0.07	1.8		
Omaha, Neb.			30.09	764.3	61	16.1	77	Calm	0	0		0	0			0.18	4.6		
Oswego, N. Y.			29.77	756.1	61	16.1	84	W	19	8.5			8s			0.17	4.3	Threatening	
Peck's Beach			29.93	760.2	83	28.3	67		16	7.2		2c	0	W		0	0		
Pembina, D. T.			29.88	758.9	53	11.7	79	SE	16	7.2		2c	2s	S		0	0		
Philadelphia, Penn.			29.90	759.4	80	26.7	73	W	8	3.6		2c	0			0	0		
Pike's Peak, C. T.			30.25	768.3	37	2.8	54	NW	32	14.3		0	Haze			0	0		
Pittsburgh, Penn.			29.84	757.9	79	26.1	69	W	6	2.7			10s		W	0	0		
Port Huron, Mich.			30.00	762.0	61	16.1	82	NE	9	4.0			8s		N	0.02	0.5		
Portland, Maine			29.69	754.1	69	2[illegible].6	84	SW	6	2.7		Haze	0			0	0		
Portland, Or.			30.31	769.9	52	11.1	66	N	8	3.6		2ck	0			0	0		
Punta Rassa, Fla.			30.17	766.3	79.2	26.2	78	E	8	3.6		1cs	0			0.39	9.9		
Rochester, N. Y.			29.79	756.7	68	20.0	74	W	24	10.7		0	2ks		W	0.40	10.2		
Salt Lake City, Utah			29.99	761.7	64	17.8	43	NE	3	1.3		0	0			0	0		
Sandy Hook, N. J.			29.85	758.2	79	26.1	73	W	15	6.7		0	0			0.01	0.3		
San Diego, Cal.			29.98	761.5	65	18.3	90	N	4	1.8			10s		NW	0	0		
San Francisco, Cal.			29.91	759.7	54	12.2	93	SW	12	5.4			Fog			0	0		
Santa Fe, N. M.			29.96	761.0	63	17.2	38	S	5	2.2		0	Haze			0	0		
Savannah, Georgia			30.16	766.1	82	27.8	70	S	6	2.7		0	0			0	0		
Shreveport, La.			30.05	763.3	79	26.1	78	SW	5	2.2		2ck	0	W		0	0		
Springfield, Mass.			29.76	755.9	82	27.8	70	S	4	1.8		2ck	0			0.01	0.3		
St. Louis, Mo.			29.93	760.2	64	17.8	83	N	16	7.2			10s			0.09	2.3		
St. Marks, Fla.			30.15	765.8	76	24.4	95	Calm	0	0		8cs	0			0.50	12.7		
St. Paul, Minn.			30.00	762.0	59	15.0	76	NW	2	0.9		0	0			0.18	4.6		
St. Paul's Island, Alaska			30.19	766.8	43	6.1	83	SW	2	0.9		...c	10s			0	0		
Squan Beach, N. J.			29.87	758.7	82	27.8	63	W	13	5.8		0	0			0	0		
Toledo, Ohio			29.92	760.0	65	18.3	78	NW	8	3.6		8c	5s		NW	0.32	8.1		
Tybee Island, Ga.			30.12	765.0	61	16.1	100	Calm	0	0			10s			0.01	0.3		
Vicksburg, Miss.			30.14	765.5	76	24.4	81	SW	2	0.9			10s		SW	0.17	4.3		
Virginia City, Mon.			29.76	755.9	57	13.9	40	N	1	0.4		1k	0	W		0	0		
Washington, D. C.			29.93	760.2	81	27.2	67	S	8	3.6		1c	0			0.05	1.3		
Wilmington, N. C.			30.15	765.8	82	27.8	70	SW	12	5.4		5k	0			0	0		
Wood's Hole, Mass.			29.83	757.7	69	20.6	84	SW	12	5.4		0	0			0	0		
Wytheville, Va.			29.80	756.9	72	22.2	75	W	8	3.6		2k	0	W		0	0		
Yankton, D. T.			30.09	764.3	59	15.0	82	SE	1	0.4		0	0			0.50	12.7		

NOTE.—The originals give the cloudiness by the scale 0 to 4.

UNITED STATES SUB-SERIES.

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—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					83	28.3	83	NE	4	1.8		5c	2s	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.02	762.5	81	27.2	74	E				2k	5ks			0.06	1.5		L. V. Bigard.
Havana, Cuba, W. I.			29.83	757.7	83	28.3	74	SE	6.0	2.7		8c	0	SE		0.31	7.9		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.30	769.6	79	26.1	82	E	4	1.8		2ck	8kn	SE		0.10	2.5		W. S. Cameron.
Santiago de Cuba, W. I.			29.91	759.7	79	26.1	78	Calm	0	0		4ck	0	S		0	0		Robert Mason.
St. Georges, Bermudas			30.32	770.1	77	25.0	75	SW	4.2	1.9		0	1k			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.03	762.7	71	21.7	76	NE	7	3.1		0	2k		NE	0	0		E. P. Church.
Makawao, Maui, H. I.																0.29	7.4		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Mc'herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.81	757.2	55	12.8	62	SW	2	0.9		6c	0	W		0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.05	763.3	72	22.2	85												C. Partridge.
St. John's, Newfoundland			30.06	763.5	68.5	20.3	64	W				0	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.94	760.5	65	18.3	52	NE	4	1.8			10n			0	0		H. M. Redington.
Indianola, Iowa																			G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

Note.—The altitude of the barometer at Makawao is 2,210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 29, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.97	761.2	86.4	30.2		NE			2		0			0	0		Charnot.
Algiers			29.95	760.7	81.0	27.2	73	NE			1		0			0	0		Peter.
La Calle			30.00	762.0	81.7	27.6		SSE			1		1			0	0		Kuntz.
Tunis			29.99	761.8	86.4	30.2	34	NW			3		2			0	0	Hazy	Jacques.
Sfax			30.04	763.0	79.7	26.5		S			5		3			0	0		Chauvey.
Saida			29.98	761.4	89.6	32.0		NW			1		0			0	0		Grosjean.
Tebessa			30.07	763.7	73.4	23.0		NNE			3		2			0	0		Colin.
Gerlville			30.04	763.0	86.4	30.2		NNW			2		2			0	0		Bernadach.
Laghouat			30.07	763.6	89.6	32.0	24	NE			1		1			0	0		Poinsignon.
Biskra			30.03	762.7	93.4	34.1		E			3		1			0	0	Sirocco	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.84	758.0	78.3	25.7	67	SW			3		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.7	80.3	26.8	41	NE			2		0			0	0		I. R. Observatory.
Eperies			29.85	758.2	79.9	26.6	44	N			1					0	0		Julius Mikolik.
Gratz			29.85	758.2	75.0	23.9	82	SW			2		5			0	0		Andreas Rosphni.
Hermannstadt			29.80	757.0	76.3	24.6	35	SW			1		7			0.043	1.10		Prof. Reissenberger.
Kremsmünster			29.78	756.3	77.0	25.0	61	ENE			3		3			0	0		Prof. C. Wagner.
Lemberg			29.86	758.4	79.2	26.2	41	NE			2		4			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.81	757.8	84.6	29.2	38	NE			1		2			0	0		Habzsuda Daniel.
Pola			29.87	758.8	69.1	20.6	92	ESE			1		8cks			0	0		I.R. Hydrographic Of'ce
Szegedin			29.79	756.7	83.1	28.4	45	S			1		5			0.012	0.30		Karl Stancel.
Trieste			29.88	758.9	73.4	23.0	74	SW			1		3			0.469	11.9		Prof. V. Farolfi.
Vienna			29.84	758.0	77.9	25.5	61	SE			2		4			0.028	0.7		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.

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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.85	758.1	68.5	20.3	83	SW			1		10ks, n		SSW	0.032	0.05	Light rain	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.10	764.5	54.1	12.3		ENE	13	5.8			9			0	0		William Boswell.
Annanhill																			
Ardrossan			29.96	761.0	68	20.0		E			3		5					Misty	William McNeil.
Armagh Observatory			29.93	760.2	60.7	15.9		E	9	4.0			9						S. Cali, for Dr. Robinson.
Bambridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.88	758.9	66.7	19.3		E			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.87	758.7	64.8	18.2		E			1		8						J. Dreyer and I. Mitchell
Bradford			29.89	759.2	61.8	16.6		NE			1		10					aining	J. McLandsborough.
Bridgetown, (Barbadoes)			30.0	763.0	84	28.9		NE			4		5					Showery	T. H. Hunt.
Bywell																			
Cambridge Observatory			29.86	758.4	65.0	18.3		E			1		10						H. Todd.
Cape Town, (Cape Colony)			30.16	766.1	61.8	16.6		N			1		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.23	767.8	64.5	18.1	66	SE	3	1.3			6						Th. Staff, for E. J. Stone.
Cardington			29.8	758.4	66.4	19.1		SE					10						John McLaren.
Carlisle			29.94	760.5	68.8	20.4		E					9			0.01	0.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.82	757.4	69.6	20.6		W			1		6						Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.94	760.5	82.5	28.1		SW			4		7						Sgt. W. F. Hopkins
Dartmoor			29.89	759.2	55	12.8		W			1		10						R. E. Power.
Donaghadee			29.93	760.2	59	15.0		NE			2		10						J. Mac Gowan, Jr.
Dover			29.87	58.7	62	16.7		SW			3		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester			29.87	758.7	66.8	19.3		ENE	5.0	2.2			10						Thomas Mackereth.
Falmouth Observatory			29.93	760.2	61.7	16.4		WSW	6	2.7			9						The Staff.
Fort Napier, (Natal)			30.11	764.8	65.6	18.3		E			3		0						Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	81	27.2		W					10					Heavy rain	
Galway, Queen's College			29.93	760.2	58	14.4		SW			6		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean			29.95	760.7	78.8	26.0		SW			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.98	761.5	60.7	16.0		E			2		5						Lewis Stewart.
Great Yarmouth			29.88	758.9	60	15.6		Calm			0		8					Rainy	G. T. Watson.
Greenwich Royal Obs.			29.86	758.4	71.1	21.7		SSW			1		6						The Staff, for G. B. Airy.
Guernsey			29.93	760.2	61.7	16.4		W W			1		8						Dr. S. E. Hoskins, Dey.
Halifax, Moorside Obs.			29.9	760.	61.0	16.4		ENE					10					Raining	F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)																			
Helston			29.90	759.4	65	18.9		SW			3		6						Dr. W. B. Moyle.
Holyhead			29.89	759.2	64	17.8		N E			2		10					Misty	John Tilston.
Hull Park																			
Kew Observatory			29.86	758.4	67.7	19.7		SW	17	7.6			7						The Staff.
Kingstown			29.93	760.2	59	15.0		E			1		10					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			29.86	758.4	65.7	18.8		N			1		10						William J. Harrison.
Llandudno			29.88	758.9	68.0	20.0		E E					8						Dr. James Nicol.
Malta, (Mediterranean)			29.95	760.7	77.0	25.0		NW			1		4						Fred Travis, Pvt A.H.C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.17	766.3	78.	25.6		SE			4		10						Surg.-Maj. Henry.
North Shields			29.99	761.7	58	14.4		E			1		7						John Wm. Irvine.
Nottingham			29.88	758.9	62.0	16.7		NNE			3		10d		NE			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College.			29.86	758.4	62.1	16.7		NE			2		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.83	757.7	64	17.8		Calm			0		10						J. Lucas, for R. Main.
Plymouth			29.90	759.4	65	18.3		WSW			2		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm.																			
Roche's Point			29.88	758.9	64	17.8		SW			2		8						W. Kennedy.
Saint Ann's Head			29.89	759.2	65	18.3		W W			2		7						John C. Walker.
Saint Helier, (Jersey)			29.94	760.5	66.4	19.1		W			3		8						A. P. Amy.
Sandwick Manse, (Orkneys																			
Scarborough			29.95	760.7	62	16.7		NNE			2		10						F. Shaw.
Scutari, (Turkey)			29.82	757.4	81.0	27.2		SW			1		7						Sergt. W. H. Lyne.
Sheffield			29.90	759.4	60.7	15.9		E			2		10			0.72	18.3	Drizzling	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.91	760.5	67	19.4		E			6		10			0.19	4.2	Misty	Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.85	758.2	62.2	16.7		ENE			1		10					Rainy	Rev. C. J. Steward.
Stonyhurst Observatory			29.89	759.2	65.1	18.4		E			2		9					Rain	The Staff.
Stornoway, Lewis C. (Hebr.)																			John Smith.
Strathfield Turgiss			29.86	758.4	63.7	17.6		W			1		9						Rev. Charles H. Griffith
Streatley Vicarage			29.88	758.9	67.3	19.6		WSW			1		9						Rev. John Slatter.
Sumburgh Head, (Shetland																			
Taunton College																			
Thurso			30.09	764.3	60	15.6		ESE			3		4						John Trotter.
Truro, Royal Institution			29.85	758.2	64	17.8		W			6		10					Rainy	W. Newcombe.
Valencia Observatory			29.84	757.9	60.2	15.7		SE	18	8.0			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.03	762.7	67.1	19.5	63	ENE			2		0						
Fanöe			29.97	761.3	72.7	22.6	51	ESE			4		5						
Godthaab, (Greenland)			29.54	750.2	39.0	3.9	87	NE			4		2						
Stykkisholm, (Iceland)			29.72	754.9	52.5	11.4	98	S			6		10					Raining	
Thorshavn, (Faröe)			30.14	765.6	55.8	13.2	80	W			2		2						
Vestervig			30.02	762.5	67.6	19.8	74	N			2		0						

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio													8		SW	0.055	1.4		Normal School.
Alençon			30.00	762.0	63.7	17.6	65	SW			3		8		NW	0.472	12.0		Normal School.
Amiens			29.94	760.5	70.9	21.6	46	W			3		8		WSW	0.063	1.6		Beaumette Observatory.
Beaumette, (near Angers)			29.96	761.0	64.2	17.9	63	SW	5.8	2.6			10		W	0.329	8.35		Normal School.
Beauvais			29.97	761.1	68.7	20.4	61	SW			1		10		NW	0.008	0.2		Normal School.
Besançon			30.08	764.0	65.8	18.8	67	SSW			2		2		N	0	0		Normal School.
Bourg en Bresse			30.03	762.8	66.0	18.9	94	S			2		..k		NE	0	0		Normal School.
Bourges			30.01	762.2	68.0	20	69	W			2		8		WSW	0.010	0.25		Naval Observatory.
Brest			29.91	759.7	64.0	18.1	78	SW			2		10n		NW	0.524	13.3		Normal School.
Caen			29.95	760.7	64.4	18.0	86	WNW			2		8		W	0.197	5.0		Normal School.
Chartres			29.97	761.2	67.0	19.8		W			2		9k		SW	0	0		Normal School.
Chaumont			30.08	764.1	66.2	19.0		SW			2		8ck		N	0.118	3.00		Normal School.
Commercy			30.04	763.1	66.9	19.3	70	WSW			4		8		W	0.303	7.7		Normal School.
Le Mans			30.12	765.1	64.2	17.9	62	W			2		8		SW	0	0		Normal School.
Lons-Le Saulnier			30.00	762.0	60.6	15.9	65	W			1		5		S	0	0		Normal School.
Mâcon			29.86	758.47	68.4	20.2	56	W			2		5		NE	0	0		Normal School.
Mirecourt			29.95	760.8	67.8	19.9	58	WSW			3		2		WSW	0.012	0.3		Normal School.
Orleans			29.92	761.0	66.9	19.4	74	WSW			4		5		W	0.225	5.72		National Observatory
Paris Observatory			29.94	760.5	66.0	18.9		S			2		10kn		SW	0	0		Normal School.
Parthenay			30.00	762.1	62.6	17	70	SW			2		5		NE	0.060	1.5		Normal School.
La Roche sur Yon			30.11	764.7	68.0	20.0	57	W			4		8		W	0.213	5.4		Normal School.
Rouen			29.92	759.9	66.2	19.0	61	WSW			2		2		NW	0.795	20.2		Normal School.
Saint Lo			29.90	759.4	64.0	17.8	76	W			3		10		NNE	0	0		Normal School
Villefranche			30.05	763.3	73.6	23.1	69	NNW			2		8						
Sub-Series.																			Frère Pascall.
Gorée, (Senegambia)													8		SW	0	0		—, Faignère.
Mont-Louis	24.89	632.2			59.4	15.2	90	E	18.6	8.33					SW	0.173	4.4		Marié Davy.
Montsouris Observatory			29.94	760.4	66.2	19.0	72	SW			2		10k, kn		NW	0	0		Dr. Fines.
Perpignan			30.01	762.3	69.4	20.8	60	WNW	7.4	3.33			10c			0.118	3.0		E. Renou.
Saint Maur, (near Paris)			29.95	760.6	64.4	18.0	88	SSW			1		10						
Saint Pierre, (Martinique)															WSW	0	0		C. Marquet.
Tours								W			1		10			0.092	2.34		Dr. A. Bérigny.
Versailles, (near Paris)			29.95	760.6	67.3	19.6	72	NW			2		9			1.331 / 1.323	33.8 / 33.6		H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai)			29.79	756.6	76.6	24.8	96	E	5.1	2.3		..k	..kn						

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to freezing. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.79	756.7	75.2	24.0	60	SE			3		4			0	0		Prof. Hoh.
Berlin			29.96	760.9	83.8	28.8	40	E			1		1			0	0		Prof. Arndt.
Breslau			30.04	762.9	82.8	28.2	36	E			2		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.87	758.7	73.9	23.3	59	SW			2		10			0	0		A. Senz.
Cassel			29.74	755.5	71.8	23.8	31	S			2		8			0.321	8.15		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			29.92	760.0	69.8	21.0	82	W					10			0.327	8.3	Light rain	M. Wilhelm.
Hamburg			29.91	759.8	76.1	24.5	66	NE			4		7k		NW	0	0		Deutsche Seewarte.
Kiel			29.98	761.5	70.7	21.5	65	NE			4		1			0	0		Prof. G. Karsten.
Königsberg			29.98	761.6	68.9	20.5	67	NW			1		0			0	0		Prof. E. Luther.
Köslin			30.00	762.0	77.9	25.5		NE			4		2			0	0		Dr. Tägert.
Leipsic			29.85	758.3	83.5	28.6	52	E			3		3			0	0		Prof. Bruhns.
Münster			29.85	758.2	72.1	22.3	80	W			2		6			0.150	3.8		Prof. E. Heis.
Posen			30.00	761.9	83.8	28.8	42	SE			6-7		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.92	759.9	66.6	19.2	85	NE					10			0.198	5.02		Hartwig and Tülk.
Stuttgart			29.83	758.4	71.6	22.0	74	N					10			0.378	9.6	Raining.	Mr. Würth.
Thorn			29.96	760.9	84.7	29.3	32	E			4		4			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.86	758.4	76.3	24.6	57	SW			7		7			0	0		Prof. Flesch.
Wustrow			30.00	761.9	73.0	22.8	54	NE			4		3cs			0	0		F. Feschütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.87	758.8	77.5	25.3	58	ESE	4.3	1.9			9	S		0	0		
Mondovi			29.85	758.3	74.7	23.7	51	E			2		4	NNW		0	0		
Genoa			29.90	759.4	72.7	22.6	73	SW	1.3	0.6			10	N		0	0		
Pavia			29.86	758.4	79.0	26.1	48	NE			1		6	NE		0	0		
Verona			29.84	757.9	80.8	27.1	62	E			1		10			0	0		
Padua			29.85	758.2	76.3	24.6	64	ESE	5.6	2.5			10	ESE		0	0		
Parma																			
Bologna			29.90	759.4	77.9	25.5	65	WNW			1		3	W		0	0		
Leghorn			29.90	759.5	74.8	23.8	66	WSW	5.6	2.5			5			0.157	4.0		
Urbino			29.91	759.7	68.9	20.5	66	ENE			2		9			0	0		
Ancona			29.87	758.7	73.6	23.1	83	N			2		4			0.146	3.7		
Siena			29.88	758.9	70.3	21.3	73	W	0	0			7	E		0	0		
Rome			29.89	759.3	74.7	23.7	70	SW	11.2	5.0			9	WNW		0.012	0.3		
Naples, O.U.			29.94	760.4	75.2	24.0	62	SW			2		7	WSW		0.039	1.0		
Lecce			29.91	759.8	73.4	23.0	74	NE	0.4	4.2			10			0.217	5.5		
Cosenza			29.92	760.0	82.0	27.8	44	WSW			4		8			0	0		
Catania, (Sicily)																			
Siposto			29.87	758.7	78.4	25.8	67	E			4		5	SE		0	0		
Palermo			29.87	758.7	76.3	24.6	56	W			2		8						
Sub-Series.																			
Naples, S. R.			29.97	761.2	72.5	22.5	77	ESE			6		..k	S		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.89	759.1	66.2	19.0		NW			2								
Groningen			29.84	757.9	68.5	20.1		NE			4								
Helder			29.87	758.6	68.4	20.2		ENE			3								
Utrecht			29.81	757.1	68.4	20.2	80	E			3		8						

NOTE.—The originals give the wind-pressure in kilograms per square meter; the 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			29.92	760.0	62.6	17.0	66	NNW	15.0	6.8			0			0	0		
Christiania			30.04	763.0	72.5	22.5	38	ESE	4.5	2.0			4			0	0		
Tromsö			29.9	761.4	50.2	10.1	86	SW			2		10			0.461	11.7		

NOTE.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2 h. p. m., local time.

PORTUGUESE SERIES.

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

Lisbon			30.10	764.4	74.8	23.8	52	N	22.4	10.0			0						

NOTE.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

RUSSIAN SERIES.

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

Warsaw			29.93	761.3	84.0	29.2	39	E	4	2			5						Astronomical Obs.
Wilna			29.91	759.8	82.0	28.1	45	N	2	1			4					Smoke, haze	Astronomical Obs.
Dorpat			29.98	761.6	73.8	23.2	44	NW	7	3			5						Physical Cabinet.
St. Petersburg			29.89	759.2	68.	20.4	54	WNW	9	4			0						Central Physical Obs.
Kuopio			29.79	756.7	56.1	13.4	99	N					10			0.17	4.50	Thunder-storm	Ch. Forsten.
Kieff			29.87	758.6	79.0	26.1	69	NNE	9	4			8						Physical Cabinet.
Nikofiev			29.8	756.9	85.7	29.7	28	NE	13	6			6						Kurdjukof.
Kertch			29.71	754.0	82.9	28.3	50	NNE	7	3			6						Lagorio.
Moscow			29.89	759.4	78.8	26.0	39	NW	8	3.5			2						Meteorological Obs.
Lugan			29.60	751.8	79.9	26.6	33	NE	10	4.5			6						Meteorological Obs.
Archangel			29.83	757.0	74.7	23.6	56	NW	4	2			7						Ogorodnikof.
Tiflis			29.6	751.8	78.1	25.6	49	W	10	4.5			8						Physical Obs.
Astrakhan			29.71	754.0	83.8	28.8	40	NE	8	3.5			9						Sveasmnol.
Kasan			29.67	753.7	74.8	23.8	61	SSE	6	2.5			5						Physical Cabinet.
Orenburg			29.67	753.7	75.2	24.0	77	SE	4	2			9						Tschernischef.
Ekaterinburg			29.80	757.0	77.4	25.0	54	SE	8	3.5			3						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.48	748.7	91.4	33.1	58	Calm	0	0			0						Michelson.
Barnaul			29.61	752.2	84.1	26.7	47	Calm	0	0			3						Meteorological Obs.
Yeniseisk			29.44	747.8	67.2	19.6	79	NW	8	3.5			5						Marks.
Irkutsk			29.54	750.4	68.4	20.2	85	Calm	0	0			10					Thunder-storm	Isolzef.
Oorga			29.57	751.1	73.9	23.3	50	E	4	2			10						Mossin.
Peking, (China)			29.8	756.9	79.9	26.6	64	Calm	0	0			4						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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			29.87	758.8	87.3	30.7	22	W	2.7	1.2		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.92	759.9	59.[illegible]	15.2	60	N			1		6			0.05	1.3		
Hernosand			29.99	761.7	66.[illegible]	19.[illegible]	40	NNW			5		6			0	0		
Stockholm			29.98	761.5	72.[illegible]	22.2	45	SW			2		6			0	0	Light rain	
Wisby			30.10	764.4	65.[illegible]	18.8	70	NW			4		0			0	0		
Sub-Series.																			
Upsala			30.00	762.1	70.5	21.4	42	NNW			2		8		W				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.54	725.0			71.2	21.8	58	N			2		5			0.126	3.2		The Observatory.
Zurich	28.35	720.0			65.3	18.5	88	W			1		10			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, −2.2 mm.; Thermometer, −0°.1 C.; Relative Humidity, +4 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.81	757.0	86.9	30.5	57	SW			3		5						Prof. C. N. A. Van Dyck.
Constantinople			29.85	758.1	77.[illegible]	25.[illegible]	60	SSW	5.6	2.5			10		NNW	0	0	Stormy	
Fao, (Persian Gulf)			29.66	753.3	95.7	35.[illegible]		NW			4		0						
Salonica																			
Valona			29.90	759.4	77.9	2[illegible]		W			2		2						
Varna			29.92	760.0	68.[illegible]	20.[illegible]		E			3		10					Raining	

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the 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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.20	767.1	62	16.7		NW	1	0.4		2c	0	W		0.02	0.5		
Chatham, N. B.			30.16	766.1	61	16.1	71	W	3	1.3		0	0			0	0		
Charlottetown, P. E. Island			30.15	765.8	60	15.[illegible]	44	N	10	4.5		0	0			0	0		
Fort Garry, Manitoba			29.71	754.6	58	14.4	76	W	21	9.4		5k	5ks	NW	NW	0	0		
Halifax, N. S.			30.05	763.3	61	16.1	59	N	5	2.2		0	0			0	0		
Kingston, Ontario			30.16	766.1	65	18.3	78	Calm	0	0		5c	0			0	0		
Montreal, Quebec			30.19	766.8	62	16.7	69	E	2	0.9		0	Haze			0	0		
Ottawa, Ontario			30.18	766.6	53	11.7	55	E	7	3.1		2cs	0			0	0		
Parry Sound, Ontario			30.09	764.3	61	16.1	68	SE	13	5.8		2cs	0	SE		0	0		
Port Dover, Ontario			30.05	763.3	59	15.0	76	N	11	4.9		10k	0	NW		0	0		
Port Stanley, Ontario			30.03	762.7	62	16.7	75	NE	6	2.7			10n		SW	0	0		
Quebec, Quebec			30.20	767.1	62	16.7	72	Calm	0	0		0	0			0.03	0.8		
Saugeen, Ontario			30.04	763.0	61	16.1	76	SE	6	2.7		5cs	0	N		0	0		
Stayner, Ontario			30.07	764.8	61	15.6	79	SE	8	3.6		2ck	0	W		Blank	Blank		
Sydney, C. B.			30.08	764.0	59	15.0	54	NE	6	2.7		0	0			0	0		
Toronto, Ontario			30.09	764.3	57	13.9	78	E	11	4.9		5cs	5s			0	0		

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.16	766.1	62	16.7	88	Calm	0	0		10k	0	SW		0	0		
Alpena, Mich.			30.02	762.5	55	12.8	73	S	5	2.2		5c	0	W		0	0		
Atlantic City, N. J.			30.12	765.0	67	19.4	90	NE	10	4.5		2cs	0	E		0.34	8.6		
Augusta, Ga.			30.16	766.1	77	25.0	82	SE	4	1.8		2k	0	SE		0	0		
Baltimore, Md.			30.06	763.5	79	26.1	77	E	8	3.6			10ks		E	0	0		
Barnegat, N. J.			30.14	765.5	65	18.3	94	NE	2	0.9		8cs	0	S		0.46	11.7		
Benton, Montana			30.19	766.8	56	13.3	62	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.96	761.0	58	14.4	53	NW	4	1.8		0	Haze			0	0		
Boston, Mass.			30.23	767.8	68	20.0	52	E	10	4.5		0	0			0.04	1.0		
Breckenridge, Minn.			29.95	760.7	60	15.6	66	NW	6	2.7		0	0			0	0		
Buffalo, N. Y.			30.03	762.7	60	15.6	81	NE	6	2.7		10cs	0	SW		0	0		
Burlington, Vt.			30.18	766.6	63	17.2	67	S	2	0.9		2k	0			0	0		
Cairo, Ill.			30.10	764.5	64	17.8	94	W	4	1.8			8ks		NW	0.07	1.8		
Cape Hatteras, N. C.			30.20	767.1	80	26.7	82	SW	17	7.6		2c	Haze			0	0		
Cape Henry, Va.			30.12	765.0	84	28.9	68	SW	16	7.2		2c	0			0	0		
Cape May, N. J.			30.09	764.3	70	21.1	84	SE	6	2.7		2c	0	W		0	0		
Charleston, S. C.			30.21	767.1	82.5	28.1	74	[illegible]	8	3.6		5k	Haze	SW		0	0		
Cheyenne, W. T.			30.19	766.8	54	12.2	70	N	16	7.2		2c	0			0	0		
Chicago, Ill.			30.01	762.2	55	12.8	74	N	8	3.6			10s			0	0		
Cincinnati, Ohio			29.93	760.2	71	21.7	75	S	8	3.6		5c	2s	S		0.09	2.3		
Cleveland, Ohio			30.07	763.8	64	17.8	92	NE	4	1.8			10ks		SE	0.14	3.6		
Colorado Springs, Col.			30.08	764.0	63	17.2	33	N	4	1.8		5k	0	NW		0	0		
Corsicana, Texas			30.03	762.7	74	23.3	68	NE	3	1.3		2k	0	NE		0	0		
Davenport, Iowa			30.06	763.5	62	16.7	78	E	4	1.8		0	0			0	0		
Denver, Col.			30.16	766.1	63	17.2	37	NE	3	1.3		5k	0	SW		0	0		
Detroit, Mich.			29.98	761.5	60	15.6	88	NE	4	1.8		2ck	5ks	SW	SW	0	0		
Dodge City, Kansas			29.59	751.6	74	23.3	51	S	10	4.5		0	0			0	0		
Dubuque, Iowa			30.04	763.0	63	17.2	78	E	4	1.8		0	5s			0	0		
Duluth, Minn.			29.82	757.4	64	17.8	78	S	8	3.6		0	0			0	0		
Eastport, Me.			30.20	767.1	59	15.0	64	N	9	4.0		0	0			0.20	5.1		
Erie, Penn.			29.96	761.0	69	20.6	75	NE	4	1.8			10ks			0	0		
Escanaba, Mich.			30.00	762.0	60	15.6	70	SW	12	5.4		0	0			0	0		
Fort Gibson, I. T.			30.14	765.5	68	20.0	74	E	4	1.8		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.01	762.2	63	17.2	46	NW	12	5.4		2k	0	NW		0	0		
Galveston, Texas			30.08	764.0	82	27.8	74	SW	8	3.6		0	0			0	0		
Grand Haven, Mich.			30.01	762.2	62	16.7	77	SE	5	2.2			10s			0	0		
Indianapolis, Ind.			29.94	760.5	67	19.4	90	SW	1	0.4			10n			0.50	12.7	Light rain	
Indianola, Texas			30.09	764.3	86	30.0	72	S	8	3.6		2k	0	S		0	0		
Jacksonville, Fla.			30.18	766.6	82	27.8	70	SE	4	1.8		0	0			0	0		
Keokuk, Iowa			30.01	762.2	70	21.1	71	Calm	0	0		0	0			0.01	0.3		
Key West, Fla.			30.13	765.3	82.1	27.8	70	E	7	3.1		Haze	2ks			0	0		
Kittyhawk, N. C.			30.18	766.6	79	26.1	78	NW	20	8.9		0	0			0	0		
Knoxville, Tenn.			30.02	762.5	70	21.1	95	SW	12	5.4			10n		SW	0.37	9.4	Light rain	
La Crosse, Wis.			30.00	762.0	62	16.7	88	S	5	2.2			Fog			0	0	Foggy	
Leavenworth, Kan.			30.03	762.7	66	18.9	73	S	1	0.4		0	0			0	0		
Lexington, Ky.			30.01	762.2	67	19.4	90	S	12	5.4			10s			0.73	18.5		
Long Branch, N. J.			30.17	766.3	66	18.9	84	E	13	5.8			10s		E	0.20	5.1		
Louisville, Ky.			29.99	761.7	69	20.6	75	S	12	5.4			10s			0.72	18.3		
Lynchburg, Va.			30.06	763.5	82	27.8	67	S	4	1.8		0	0			0.03	0.8		
Malone, N. Y.																			
Marquette, Mich.			29.88	758.9	61	16.1	66	SW	16	7.2		0	0			0	0		
Memphis, Tenn.			30.12	765.0	72	22.2	75	Calm	0	0		0	0			0.54	13.7		
Milwaukee, Wisconsin			30.03	762.7	55	12.8	73	NW	6	2.7		8cs	0	SW		0	0		
Mobile, Ala.			30.15	765.8	77	25.0	77	W	3	1.3		0	0			0	0		
Montgomery, Ala.			30.15	765.8	77	25.0	82	S	4	1.8		5c	0			0	0		
Morgantown, W. Virginia			29.99	761.7	82	27.8	66	SE	1	0.4			10s			0.07	1.8		
Mt. Washington, N. H.			30.38	771.6	42	5.6	83	NW	12	5.4		0	2s			0	0		
Nashville, Tenn.			30.06	763.5	69	20.6	79	W	6	2.7		10k	0	SW		0.23	5.8		
New Haven, Conn.			30.19	766.8	71	21.7	67	E	12	5.4		8k	0	W		0.08	2.0		
New London, Conn.			30.21	767.3	69	20.6	65	E	12	5.4		5c	5s	W	W	0	0		
New Orleans, La.			30.13	765.3	76.5	24.7	84	S	3	1.3		2k	0	SW		0.64	16.3		
Newport, R. I.																			
New York, N. Y.			30.19	766.8	69	20.6	70	SE	12	5.4		2c	2s	W		0.02	0.5		
Norfolk, Va.			30.13	765.3	84	28.9	64	SW	12	5.4		0	0			0	0		
North Platte, Neb.			29.55	750.6	66	18.9	68	NE	5	2.2		0	0			0	0		
Omaha, Neb.			29.97	761.2	66	18.9	78	S	6	2.7		2c	0			0	0		
Oswego, N. Y.			30.13	765.3	65	18.3	73	SSE	8	3.6		5cs	5s	W		0	0		
Peck's Beach			30.12	765.0	70	21.1	84	E	8	3.6		5c	0	W		0.08	2.0		
Pembina, D. T.			29.76	755.9	58	14.4	58	W	20	8.9		0	0			0	0		
Philadelphia, Penn.			30.12	765.0	70	21.1	84	E	12	5.4		5k	5s	E		1.33	33.8		
Pike's Peak, C. T.			30.34	770.6	38	3.3	46	N	6	2.7		0	2ks			0	0		
Pittsburgh, Penn.			29.97	760.2	73	22.8	81	S	8	3.6			10s		SW	0.03	0.8		
Port Huron, Mich.			30.02	762.5	59	15.0	87	NE	6	2.7			10s		N	0	0		
Portland, Maine			30.25	768.3	63	17.2	62	E	6	2.7		2cs	0			0	0		
Portland, Or.			30.09	764.3	57	13.9	46	N	8	3.6		0	0			0	0		
Punta Rassa, Fla.			30.17	766.3	79.5	26.4	76	NE	12	5.4		5cs	Sm'e			0.38	9.7		
Rochester, N. Y.			30.07	763.8	60	15.6	82	E	10	4.5			10s		SE	0	0		
Salt Lake City, Utah			29.98	761.5	69	20.6	39	S	2	0.9			10s			0	0		
Sandy Hook, N. J.			30.15	765.8	68	20.0	49	E	11	4.9		5ck	5s			0.25	6.3		
San Diego, Cal.			30.00	762.0	65	18.3	90	NE	8	3.6		2k	5s	W		0	0		
San Francisco, Cal.			29.96	761.0	54	12.2	87	SW	12	5.4			10s			0	0		
Santa Fe, N. M.			29.89	759.2	71	21.7	33	Calm	0	0		5c	Haze	SW		0	0		
Savannah, Georgia			30.19	766.8	82	27.8	74	S	8	3.6		5k	0	S		0	0		
Shreveport, La.			30.08	764.0	80	26.7	78	ESE	4	1.8			10s			0.01	0.3		
Springfield, Mass.			30.22	767.6	68	20.0	65	NE	4	1.8		5ck	5ks	W	NW	0	0		
St. Louis, Mo.			30.07	763.8	66	18.9	83	N	4	1.8		0	0			0.35	8.9		
St. Marks, Fla.			30.15	765.8	80	26.7	82	E	2	0.9		0	0			1.35	34.3		
St. Paul, Minn.			29.88	758.9	66	18.9	73	S	6	2.7		2ck	0	NW		0	0		
St. Paul's Island, Alaska			29.75	755.6	41	5.0	19	ESE	19	8.5		4ck	10s	SSE		0.13	3.3		
Squan Beach, N. J.			30.15	765.8	66	18.9	90	E	5	2.2			10s			0.91	23.1		
Toledo, Ohio			29.96	761.0	65	18.3	89	NE	11	4.9			10s		NE	0	0		
Tybee Island, Ga.			29.27	768.8	47	8.3	92	N	8	3.6			10s			0	0		
Vicksburg, Miss.			30.15	765.8	73	22.8	90	Calm	0	0			10s			0.02	0.5		
Virginia City, Mon.			29.87	758.7	51	10.6	33	SE	12	5.4		1c	0	W		0	0		
Washington, D. C.			30.06	763.5	82	27.8	70	SW	5	2.2		5c	0	W		0	0		
Wilmington, N. C.			30.20	767.1	80	26.7	74	SW	10	4.5		10k	0	SW		0	0		
Wood's Hole, Mass.			30.22	767.6	67	19.4	68	N	6	2.7		0	5s			0.14	3.6		
Wytheville, Va.			29.85	758.2	69	20.6	79	W	2	0.9		0	0			0.03	0.8		
Yankton, D. T.			29.94	760.5	68	20.0	74	SE	1	0.4		2ck	0	NW		0	0		

NOTE.—The origin[illegible] give the cloudiness [illegible] the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					81	27.2	91	E	3	1.3						0.14	3.6		E. Racker.
Pointe-à Pitre, G'd'loupe, do					81	27.2	78	E				0	5ks			0.06	1.5		L. V. Bigard.
Havana, Cuba, W. I.			30.05	763.3	83	28.3	78	SE	4.8	2.1		2ck	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			29.83	755.1															James Gall.
St. Thomas, St. T., W. I.					80	26.7	84	SE	8	3.6		2ck	5kn	SE		0.13	3.3	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			30.32	770.1	80	26.7	78	NW	1.2	0.5		5c	0	W		0	0		Robert Mason.
St. Georges, Bermudas			29.91	759.7															C. F. Allen.
Honolulu, Oahu, H. I.			30.34	770.6	76	24.4	76	Calm	0	0		0	2k			0	0		E. P. Church.
Makawao, Maui, H. I.			30.03	762.7	66	18.9	85	NE	6	2.7						0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Me'herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.64	752.8	48	8.9	81	NE	5	2.2		8ck	Haze	W		0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.36	694.9	30.08	764.0	67	19.4	90												C. Partridge.
St. John's, Newfoundland			29.81	757.2	62.3	16.8	64	W				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.98	761.5	66	18.9	52	SE	4	1.8			10n			0.48	12.2		H. M. Redington.
Indianola, Iowa																			G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory when below —40° Fahrenheit are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON JUNE 30, 1875.

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 M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.98	761.5	79.0	26.1		NE			2		2			0	0		Charnot.
Algiers			29.99	761.8	80.2	26.8	76	W			1		1			0	0		Peter.
La Calle			30.00	762.0	74.7	23.7		NE			3		2			0	0		Kuntz.
Tunis			29.01	762.2	86.0	30.0	41	NE			2		2			0	0		Jacques.
Sfax			30.07	763.7	81.0	27.2		SE			4		1			0	0		Chauvey.
Saïda			29.96	761.0	95.0	35.0		WNW			2		2			0	0	Sirocco	Grosjean.
Tebessa			30.04	763.0	89.6	32.0		W			4		2			0	0	Sirocco	Colin.
Geriville			30.04	763.0	88.7	31.5		NW			2		2			0	0		Bernadach.
Laghouat			30.06	763.5	95.0	35.0	24	W			1		1			0	0		Poinsignon.
Biskra			30.07	763.6	97.7	36.5		E			3		1			0	0	Sirocco	Coulon.

NOTE.—In the originals the distinction between upper and lower clouds is not made. 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.89	759.2	82.0	27.8	51	SW			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary.
Crácow			29.94	760.5	82.4	28.0	43	NE			2		0			0	0		I. R. Observatory.
Eperies			29.87	758.8	81.3	27.4	42	NE			1					0	0		Julius Mikolik.
Gratz			29.91	759.6	77.7	2.54	70	SSW			2		2			0	0		Andreas Rospini.
Hermannstadt			29.81	757.1	79.9	26.6	32	NNW			3		7			0.134	3.40		Prof. Reissenberger.
Kremsmünster			29.94	760.4	72.3	22.4	66	W			1		3			0	0		Prof. C. Wagner.
Lemberg			29.83	757.6	82.0	27.8	42	N			2		3			0.232	5.9		Dr. T. Stanecki.
Nyiregyhaza			29.88	758.9	86.4	30.2	35	NE			2		1			0	0		Habzsuda Daniel.
Pola			29.93	760.1	75.4	24.1	77	WNW			2		2ks			0.002	0.05		I.R. Hydrographic Office
Szegedin			29.82	757.5	84.2	29.0	40	S			1		6			0	0		Karl Stancel.
Trieste			29.95	760.6	77.0	25.0	80	WNW			1		6			0.020	0.5		Prof. V. Farolfi.
Vienna			29.90	759.5	80.4	26.9	56	W			2		2			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.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelot, 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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.96	760.9	70.0	21.1	63	S			1		9k, ks		SW	0.014	0.35	Clearing	Royal Observatory.

NOTE.—The originals give the wind-pressure in kilograms per square foot; the weather in general notes. The distinction between upper and lower clouds is not made.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.89	759.2	54.0	12.2		N	14	6.3			10			0.06	0.15	Raining	William McDowell.
Annanhill																			
Ardrossan			29.68	758.0	58.2	14.6		ENE			1		7					Rainy, misty	William McNeil.
Armagh Observatory			29.88	758.9	59.8	15.4		ENE	7	3.1			10						S. Cal., for Dr. Robinson.
Bambridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.81	757.2	56.6	13.7		NE			1		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.82	757.4	62.7	17.1		ENE			1		10						J. Dreyer and T. Mitchell.
Bradford			29.77	756.1	51.9	12.		N			1		10						J. McLandsborough.
Bridgetown, (Barbadoes)			30.01	763.8	84.6	29.2		NE			2		6						T. H. Hunt.
Bywell																			
Cambridge Observatory			29.84	757.9	67.2	19.6		S			1		10			Blank	Blank		H. Todd.
Cape Town, (Cape Colony)			30.20	767.1	65	18.3		SE			4		48						Sgt. D. E. Hunt.
Cape Good Hope Obs.			30.27	768.8	65.6	18.7	60	SE	6	2.7			5						Th. Staff, for E. J. Stone.
Cardington			29.84	757.9	72.0	22.2		SW					8			Blank	Blank		John McLaren.
Carlisle			29.84	757.9	53.7	12.1		NE					10			0.63	16.0	Raining	T. B. H. for J. Cartmell.
Chatham, School M. E.			29.84	757.7	67.2	19.6		W			3		9					Threatening	Qr. Mast. Sgt. J. Wood.
Colombo, (Ceylon)			29.88	758.9	82.8	28.2		SW			3		5						Sgt. W. F. Hopkins.
Dartmoor			29.89	759.2	56	13.3		SW			2		10					Drizzling	R. E. Power.
Donaghadee			29.85	758.1	59	15.0		NE			3		10						J. Mac Gowan, Jr.
Dover			29.88	758.9	63	17.2		S			3		7						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.80	756.9	58	14.4		ENE	0.2	0.1			10						Thomas Mackereth.
Falmouth Observatory			29.80	756.9	61.6	16.4		SW	17	7.6			10						The Staff.
Fort Napier, (Natal)			30.13	765.1	68.5	20.3		E			2		0						Pvt. G. Salmon, A. H. C.
Free Town, (Sierra Leone)			29.86	758.4	80.0	26.7		N					8					Light rain	[illegible]
Galway, Queen's College			29.83	757.7	65	18.3		S			1		3						B. G. Clare for Prof. Cor[illegible]
Gibraltar, (Mediterranean)			29.84	758.0	77	25.0		NE			5		0						Sergt. E. G. Baker.
Glasgow Observatory			29.86	758.4	57.2	14.0		ENE			1		10						Lewis Stewart.
Great Yarmouth			29.87	758.7	62	16.7		SSE			5		4						G. T. Watson.
Greenwich Royal Obs.			29.87	758.7	64.9	18.3		S			2		10						The Staff, for G. B. Airy.
Guernsey			29.86	758.4	63	17.2		SSW			1		10					Misty	Dr. S. E. Hoskins, [illegible]
Halifax, Moorside Obs.			29.84	757.2	55.3	12.9		NNE					10					Drizzling	F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)																			
Helston			29.76	755.9	65	18.3		S			4		10					Showery	Dr. W. B. Moyle.
Holyhead			29.34	757.9	60	15.6		ENE			4		10					Misty	John Tilston.
Hull Park																			
Kew Observatory			29.86	758.4	63.8	17.7		S	15	6.7			10					Threatening	The Staff.
Kingstown			29.84	757.9	57	13.9		ENE			3		10					Hazy	George Mitchell.
Lampeter																			
Leicester Museum			29.84	757.9	57.8	14.3		SW			1		10			Blank	Blank		William J. Harrison.
Llandudno			29.81	757.2	57.5	14.2		N					10						Dr. James Nicol.
Malta, (Mediterranean)			29.78	756.4	78.0	25.9		NW			1		2						Fred Travis, Pvt. A. H. C.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.16	766.1	75.5	24.2		S			4		10n					Thunder-storm	Surg.-Maj. Henry.
North Shields			29.82	757.4	53	11.7		NNE			5		10						John Wm. Irvine.
Nottingham			29.82	757.4	60	15.6		S			2		10d		S			Raining	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			29.84	757.7	56	13.3		Calm			0		10			Blank	Blank	Foggy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.81	757.2	64	17.8		S			1		10						J. Lucas, for R. Main.
Plymouth			29.80	756.9	62	16.7		S			1		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel Farm																			
Roche's Point			29.77	756.1	59	15.0		E			4		10						W. Kennedy.
Saint Ann's Head			29.79	756.7	65	18.3		SE			2		8						John C. Walker.
Saint Helier, (Jersey)			29.87	758.7	64.2	17.9		SW			4		10						A. P. Amy.
Sandwick Manse (Orkney)																			
Scarborough			29.80	756.9	56.5	13.6		N			2		10						F. Shaw.
Scutari, (Turkey)			29.80	756.9	79.8	26.6		N			1		4					Hazy	Sergt. W. H. Lyne.
Sheffield			29.80	756.9	57.3	14.1		NNE			1		10			0	0	Drizzling	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.84	757.9	55	12.8		E			1		10			0.140	3.6	Raining	Rev. Francis Redford.
Somerleyton, (Lowestoft)			29.84	757.9	68.6	20.3		SSW			2		9						Rev. C. J. Steward.
Stonyhurst Observatory			29.80	756.9	55.4	13.0		NE			1		10					Threatening	The Staff.
Stornoway, Lewis C. (Heb.)																			John Smith.
Strathfield Turgiss			29.85	758.2	61.8	16.6		S			1		10					Raining	Rev. Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)																			
Taunton College																			
Thurso			30.07	763.8	54	12.2		ENE			2		8						John Trotter.
Truro, Royal Institution			29.76	755.9	64	17.8		S			6		10						W. Newcombe.
Valencia Observatory			29.76	755.9	60.9	16.1		E	16	7.2			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity. Except in a few cases, 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 distinction between upper and lower clouds is not made. The rain-fall is measured at 10 a. m. at Aberdeen.

DANISH SERIES.

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

Copenhagen			30.02	762.5	74.1	23.4	53	ESE			2		6						
Fanöe			29.99	761.7	63.0	17.2	96	WSW			2		9						
Godthaab, (Greenland)			29.29	744.0	55.6	12.0	84	NW			6		10					Foggy	
Stykkisholm, (Iceland)			29.71	754.7	55.8	13.2	89	SE			7		10						
Thorshavn, (Faröe)								SE			2		10					Foggy	
Vestervig			29.95	760.8	61.9	16.6	96	SSW			2		10					Thunder-storm	

NOTE.—The originals give the wind-force by the scale 0 to 6, and the weather by the Vienna symbols. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio																			Normal School.
Alençon			29.39	761.8	68.7	20.4	76	SW			4		8		SW	0.142	3.6		Normal School.
Amiens			29.91	760.5	71.2	21.8	74	SSW			6		5		NW	0	0		Normal School.
Beaumette, (near Angers)			29.95	760.6	69.1	20.6	69	S	12.8	5.7			10		SW	0	0		Beaumette Observatory.
Beauvais			29.92	760.6	67.6	19.8	72	S			1		10		SW	0.020	0.50		Normal School.
Besançon			30.10	762.6	76.1	24.5	43	S			2		2		SW		0		Normal School.
Bourg en Bresse			30.06	763.4	86.2	30.1	83	SW			2								Normal School.
Bourges			30.02	762.4	73.4	23	70	S			6		5		E	0	0		Normal School.
Brest			29.80	756.8	61.3	16.3	83	SW			3		10		SW	0.206	6.75	Foggy, rainy	Naval Observatory.
Caen			29.92	759.9	69.4	20.8	80	SW			2		10		SW	0.110	2.8		Normal School.
Chartres			30.02	762.4	66.7	19.3		SW			3		10			0	0		Normal School.
Chaumont			30.10	764.6	68.2	20.1		S			1		10kn		SW	0	0		Normal School.
Commercy			30.12	765.0	68.0	20.5	46	WSW			2		8		NE	0	0		Normal School.
Le Mans			30.11	764.8	68.4	20.2	72	S			2		8		SW	0.102	2.6		Normal School.
Lons-Le Saulnier			30.02	762.4	61.3	16.3	53	W			1		0			0	0		Normal School.
Mâcon			30.02	762.6	76.6	24.7	66	W			2		0			0	0		Normal School.
Mirecourt			30.02	762.4	69.1	20.6	42	SW			1		1		NNE	0	0		Normal School.
Orleans			30.00	762.0	71.2	21.	61	SSW			4		5		WSW	0	0		Normal School.
Paris Observatory			29.99	761.7	67.5	19.7		SW			3		10kn		SW	0.083	2.12		National Observatory.
Parthenay			29.99	761.7	68.4	20.2	80	SW			4		8		SW	0	0		Normal School.
La Roche sur Yon			30.11	764.9	64.8	18.2	88	SW			6		5		SE	0.020	0.5		Normal School.
Rouen			29.91	760.2	66.9	19.4	74	S			2		10			0.039	1.0		Normal School.
Saint Lo			29.87	758.7	67.6	19.8	89	WSW			2		10		SW	0.102	2.6		Normal School.
Villefranche			30.12	765.1	73.4	23.0	61	NW			2		2		N	0	0		Normal School.
Sub-Series.																			
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.93	634.3			66.7	19.3	77	ESE	13.0	5.83			2		SW	0	0		—. Falguères.
Montsouris Observatory			29.98	761.6	66.9	19.	68	SSW			1		10kn		SW	0.079	2.0		Marié Davy.
Perpignan			30.00	762.0	76.1	24.5	52	ENE	1.9	0.85			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.99	761.7	69.8	21.0	70	SSW			2		10			0.087	2.2		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.95	761.8	70.5	21.4	65	SW			1		10		W	0.047	1.2		C. Marquet.
Versailles (near Paris)			29.98	761.6	70.5	21.4	65	SW			2		10			0.109	2.70		Dr. A. Bérigny.
Zi-Ka-Wei (near Shanghai)			29.8	756.8	78.6	25.9	91	SE	13.7	6.1			3k			{ 0 / 0	0 / 0 }		H. Le Leo, S. J.

NOTE.—The originals give the wind-force by the scale 0 to 7; the weather in general terms; the wind-velocity for Beaumette, Mont-Louis, Perpignan and Zi-Ka-Wei in meters per second; not any distinction generally between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and the barometer is reduced to the zero. The rain-fall at Zi-Ka-Wei is given as recorded by two different guages.

GERMAN SERIES.

Furnished by the coöperation of the Direktorium der Deutschen Seewarte, Hamburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.92	759.9	74.3	23.5	46	SW			3		3			0	0		Prof. Hoh.
Berlin			30.0	762.4	81.5	27.4	62	SW			4		9			0	0		Prof. Arndt.
Breslau			30.03	762.7	82.1	27.9	36	ENE			1		3			0	0		Dr. P. Neugebauer.
Carlsruhe			30.04	762.9	69.8	20.8	69	SE			1		10			0.295	7.5		A. Senz.
Cassel			29.80	759.3	77.	25.4	44	S			2		6			0	0		Dr. H. Möhl.
Cologne																			Dr. Garthe.
Emden																			Prof. Prestel.
Frankfort on the Main																			Physical Society.
Friedrichshafen			30.00	762.1	68.4	20.5	91	W					4			0	0		M. Wilhelm.
Hamburg			30.02	762.5	71.	22.1	69	W			3		8k		SW	2.362	60.0		Deutsche Seewarte.
Kiel			30.01	762.3	67.1	19.5	93	W			1		10			0	0	Thunder-storm	Prof. G. Karsten.
Königsberg			30.03	762.8	74.7	23.5	56	NE			1		5			0	0		Prof. E. Luther.
Köslin			30.02	762.5	81.7	27.5		NE			4		4			0	0		Dr. Tägert.
Leipsic			29.98	761.5	77.9	25.5	60	NW			1		7			0	0		Prof. Bruhns.
Münster			30.02	762.5	72.7	22.5	62	NW			1		0			0	0		Prof. E. Heis.
Posen			30.0	762.1	85.	29.8	34	ESE			2		2			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.03	762.9	74.3	23.4	60	SE					10			0	0		Hartwig and Tülk.
Stuttgart			30.0	762.5	72.7	22.5	75						8			0	0		Mr. Würth.
Thorn			29.94	760.5	88.	31.4	34	NE			4		5			0	0		Dr. Greenbalg.
Treves, (Trier)			29.97	761.2	73.9	23.2	40	W			6		6			0	0		Prof. Flesch.
Wustrow			29.98	761.6	79.3	26.3	62	ENE			3		3			0	0		L. F. Schütz.

NOTE.—The originals do not show any distinction between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.92	760.0	79.0	26.1	48	WSW	1.8	0.8			7	NE		0	0		
Mondovi			29.95	760.7	75.4	24.1	53	WNW			4		1	NW		0	0		
Genoa			29.98	761.4	73.8	23.2	67	W	6.7	0.3			4	NW		0	0		
Pavia			29.94	760.4	79.9	26.6	52	E			1		1	NE		0	0		
Verona			29.91	759.8	84.9	29.4	57	E			1		5			0	0		
Padua			29.92	760.0	77.7	25.4	62	ENE	4.9	2.2			2	E-E		0	0		
Parma											1		6	SW		0	0		
Bologna			29.97	761.2	76.1	24.5	66	WNW					3			0	0		
Leghorn			29.97	761.1	75.6	24.2	61	WSW	5.6	2.5						0	0		
Urbino			29.99	761.7	69.3	20.7	76	NNE			4					0	0		
Ancona			29.96	761.0	71.5	23.0	80	N			2		3			0	0		
Siena			29.95	760.6	75.4	24.1	64	W	0	0			7	W		0	0		
Rome			29.95	760.7	79.3	26.3	55	W	8.1	3.6			3			0	0		
Naples, O. U.			29.96	761.0	80.1	26.7	48	SW			2		2	W		0	0		
Lecce			29.93	760.1	76.1	24.5	57	N	11.9	5.3			3	N		0	0		
Cosenza			29.95	760.8	81.9	27.7	50	WNW			2		8			0	0		
Catania, (Sicily)																			
Liposto			29.92	759.9	79.9	26.6	63	SSE			4		5	SW		0	0		
Palermo			29.93	760.3	77.7	25.4	62	NE			2		2			0	0		
Sub-Series.																			
Naples, S. R.			30.01	762.3	79.2	26.2	59	W			4		..k	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the wind-force by the scale 0 to 4, and in some cases the velocity in kilometers per hour; the cloudiness occasionally by the scale 0 to 4, and generally without distinguishing between upper and lower clouds; the weather in various general terms. The rain-fall for Naples, S. R., is for the five hours preceding.

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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.96	760.9	68.7	20.4		S			4								
Groningen			29.91	759.8	69.8	21.0		SW			4								
Helder			29.95	760.8	66.9	19.4		SW			4								
Utrecht			29.92	760.0	70.3	21.3	66	SSW			3		8						

Note.—The originals give the wind-pressure in kilograms per square meter; the 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 in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.94	760.4	71.6	22.0	43	WNW	4.5	2.0			10			0	0		
Christiania			30.08	764.1	74.5	23.6	36	ENE	4.0	1.8			3			0	0		
Tromsö			30.17	766.2	50.7	10.4	95	SW			2		10			0.051	1.3		

Note.—The originals give the wind-velocity in meters per second and its force by the scale 0 to 6; the cloudiness without distinguishing between upper and lower clouds; the weather in general terms. The cloudiness and weather at Bergen refer to 2h. p. m., local time.

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. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon			30.04	762.9	69.3	20.7	60	NNW	27.3	12.2			2						

Note.—The originals give the wind-velocity in kilometers per hour; the weather by the Vienna symbols; the cloudiness without distinguishing between upper and lower clouds.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.92	759.9	85.3	28.6	41	E	4	2			5						Astronomical Obs.
Wilna			29.97	761.2	72.5	22.5	39	N	4	2			3						Astronomical Obs.
Dorpat			29.98	761.6	69.8	21.0	38	N	9	4			6						Physical Cabinet.
St. Petersburg			29.84	757.9	66.7	19.3	51	N	4	2			9						Central Physical Obs.
Kuopio			29.93	760.2	61.9	16.6	69	N					10		S	0.252	6.40		Ch. Forsten.
Kief			29.83	757.6	73.4	23.0	48	NE	9	4			9						Physical Cabinet.
Nikolaiev			29.78	756.5	88.0	31.1	29	N	4	2			4						Kurdukof.
Kertch			29.73	755.2	81.1	27.3	55	N	4	2			6						Lagorio.
Moscow			29.74	755.4	70.0	21.1	52	NW	8	3.5			7						Meteorological Obs.
Lugan			29.55	750.6	87.6	30.9	28	NE	10	4.5			7						Meteorological Obs.
Archangel			29.82	757.3	56.7	13.7	71	NNE	20	9			10						Ogorodnikof.
Tiflis			29.69	754.1	71.2	21.8	62	NNW	25	11			6						Physical Obs.
Astrakhan			29.65	753.0	88.3	31.3	30	NW	4	2			8						Sebastianof.
Kasan			29.45	748.0	76.8	24.9	59	W	10	4.5			5						Physical Cabinet.
Orenburg			29.59	751.6	77.9	25.5	44	N	4	2			2						Tschernischef.
Ekaterinburg			29.61	752.2	73.9	23.3	60	SE	13	6			6						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend			29.44	747.8	92.1	33.4	35	S	8	3.5			8						Michelson.
Barnaul			29.27	743.1	75.4	24.1	54	Calm	0	0			2						Meteorological Obs.
Yeniseisk			29.33	744.9	73.2	22.9	60	S	13	6			1						Marks.
Irkutsk			29.41	747.1	7[illegible].2	21.8	82	Calm	0	0			10						Usolzef.
Oorga			29.44	747.8	70.9	21.6	64	E E	8	3.5			10						Mossin.
Peking, (China)			29.81	757.1	72.7	22.6	89	Calm	0	0			2						Physical Observatory.
Nertchinsk																			Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			

Note.—The originals give the wind-velocity in meters per second, except Kuopio by an unknown scale; the 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.

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.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.80	756.9	90.0	32.2	25	SW	7.2	3.2		0	3			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals for Madrid give the wind-velocity in kilometers per hour; the rain-fall for the previous 8 hours; the weather in general terms.

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 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.15	765.7	59.4	15.1	76	SSE			2		10			0	0		
Hernosand			30.17	766.3	67.3	19.6	55	ESE			3		0			0	0		
Stockholm			30.10	764.5	70.7	21.5	51	SE			1		6			0	0		
Wisby			30.13	765.2	62.6	17.0	86	NNE			3		0			0	0		
Sub-Series.																			
Upsala			30.09	764.3	72.1	22.3	40	NNE			2		3	NW	NW				Dr. Hildebrandsson.

Note.—The originals give the wind-force by the scale 0 to 10, except Upsala 0 to 6; the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given by the scale 0 to 5, and 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.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.61	726.8			70.7	21.5	47	N			2		1			0	0		The Observatory.
Zurich	28.41	722.4			66.4	19.1	84	NW			1		9			0.366	9.3		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.4mm.; Thermometer, —0°.5 C.; Relative Humidity, —7 per cent.

Note.—The originals give the wind-force by the scale 0 to 4; the 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 barometric readings are reduced to freezing.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.75	755.6	87.3	30.7	52	S			2		0						Prof. C. N. A. Van Dyck.
Constantinople			29.83	757.6	76.8	24.9	62	S	5.6	2.5			8		N	0.189	4.8		
Fao, (Persian Gulf)			29.63	752.5	95.0	35.0		NW			6		0						
Salonica					82.8	28.2		S			1		2						
Vienna			29.91	759.6	75.2	24.0		NE			2								
Varna			29.88	759.0	77.0	25.0		NE			3		8					Raining	

Note.—The originals give the wind-force by the scale 0 to 7 and 0 to 12; the weather and cloudiness (except Beirut by the scale 0 to 10) in general terms; it is assumed that the barometer is reduced to sea level. The distinction between upper and lower clouds is not made.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

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, and telegraphed daily, except Brockville, Charlottetown and Stayner, to the Office of the 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.	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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.96	761.0	68	20.0		SW	4	1.8			8s			0.33	8.4		
Chatham, N. B.			30.07	763.8	52	11.1	96	S	5	2.2			10ks		SW	0.10	2.5		
Charlottetown, P. E. Island			30.16	766.1	55	12.8	68	S	14	6.3			10s			0	0		
Fort Garry, Manitoba			30.09	764.3	52	11.1	80	W	6	2.7		0	2s		W	0	0		
Halifax, N. S.			30.12	765.0	51	10.6	91	SE	9	4.0			8n			0.20	5.1		
Kingston, Ontario			30.00	762.0	64	17.8	90	SW	1	0.4		2k	5s	SW		1.51	38.4		
Montreal, Quebec			29.88	758.9	66	18.9	96	SW	4	1.8			10n		W	0.22	5.6	Clearing	
Ottawa, Ontario			29.89	759.2	68	20.0	60	SW	8	3.6		5k	0	SW		0	0		
Parry Sound, Ontario			29.92	760.0	65	18.3	75	W	7	3.1		0	0			0.17	4.3		
Port Dover, Ontario			30.00	762.0	66	18.9	49	W	10	4.5		0	0			0.11	2.8		
Port Stanley, Ontario			30.01	762.2	64	17.8	86	SW	10	4.5			10n			0.37	9.4	Heavy rain	
Quebec, Quebec			29.90	759.4	60	15.6	94	Calm	0	0			0			0	0		
Saugeen, Ontario			29.95	760.7	61	16.1	76	SW	7	3.1		0	0			0.11	2.8		
Stayner, Ontario			29.91	759.7	71	21.7	64	NW	8	3.6		2k	0	W		0	0		
Sydney, C. B.			30.25	768.3	65	18.3	52	SW	9	4.0		5c	2s	W		0.07	1.8		
Toronto, Ontario			29.96	761.0	63	17.2	84	SW	8	3.6		0	0						

Note.—The originals 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 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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.96	761.0	66	18.9	90	S	6	2.7			10s			0.20	5.1		
Alpena, Mich.			29.94	760.5	64	17.8	62	W	10	4.5		0	Haze			0	0		
Atlantic City, N. J.			30.08	764.0	68	20.0	94	SW	4	1.8			10s		SW	0.22	5.6		
Augusta, Ga.			30.20	767.1	77	25.0	82	S	5	2.2		5cs	0	S		0.10	2.5		
Baltimore, Md.			30.08	764.0	77	25.0	69	W	8	3.6		2c	0	W		0.40	10.2		
Barnegat, N. J.			30.06	763.5	73	22.8	70	SW	3	1.3		8k	0	SW		0.20	5.1		
Benton, Montana			30.07	763.8	60	15.6	70	SW	4	1.8		2k	0			0	0		
Bismarck, Dakota			29.97	761.2	55	12.8	44	SE	10	4.5		5k	Haze	S		0	0		
Boston, Mass.			30.03	762.7	65	18.3	90	SW	8	3.6			10s		NW	0	0		
Breckenridge, Minn.			30.12	765.0	56	13.3	73	SW	2	0.9		2k	0	S		0	0		
Buffalo, N. Y.			29.98	761.5	62.5	16.9	94	SW	12	5.4			Haze			0.58	14.7		
Burlington, Vt.			29.92	760.0	65	18.3	78	S	8	3.6			10s			0.09	2.3		
Cairo, Ill.			30.22	767.6	71	21.7	84	Calm	0	0		2ck	Haze	W		0	0		
Cape Hatteras, N. C.			30.20	767.1	81	27.2	78	SW	20	8.9		2k	Haze	SW		0	0		
Cape Henry, Va.			30.13	765.3	83	28.3	67	SW	14	6.3		2k	0	W		0	0		
Cape May, N. J.			30.10	764.5	66	18.9	94	SW	8	3.6			10s		SW	0.53	13.5		
Charleston, S. C.			30.23	767.8	82	27.8	74	S	6	2.7		5ck	0	SW		0	0		
Cheyenne, W. T.			30.11	764.8	59	15.0	81	S	4	1.8			10s			0	0		
Chicago, Ill.			30.09	764.3	70	21.1	66	W	4	1.8		2k	0	W		0	0		
Cincinnati, Ohio			30.14	765.5	70	21.1	70	W	3	1.3		0	0			0.09	2.3		
Cleveland, Ohio			30.04	763.0	68.1	20.1	78	SW	14	6.3		5k	0	W		0.41	10.4		
Colorado Springs, Col.			30.11	764.8	58	14.4	82	SW	2	0.9		2k	5ks	W		0.11	2.8		
Corsicana, Texas			30.08	764.0	78	25.6	82	S	6	2.7		5k	0	N		0	0		
Davenport, Iowa			30.15	765.8	70	21.1	67	NW	1	0.4		2c	2s	W		0	0		
Denver, Col.			30.11	764.8	66	18.9	54	N	6	2.7		1cs	0	SW		0	0		
Detroit, Mich.			30.01	762.2	68	20.0	75	W	8	3.6		5k	0	NW		0	0		
Dodge City, Kansas			29.26	752.3	78	25.6	57	S	10	4.5		5c	0	S		0	0		
Dubuque, Iowa			30.14	765.5	66	18.9	64	W	4	1.8		5k	0	NW		0	0		
Duluth, Minn.			30.05	763.3	62	16.7	61	SW	6	2.7		0	0			0	0		
Eastport, Me.			30.07	763.8	49	9.4	93	S	6	2.7			10s		S	0	0	Threatening	
Erie, Penn.			30.00	762.0	70	21.1	75	SW	16	7.2		2c	5ks	W	W	0.46	11.7		
Escanaba, Mich.			29.96	761.0	65	18.3	48	W	16	7.2		0	0			0	0		
Fort Gibson, I. T.			30.07	763.8	73	22.8	71	E	8	3.6		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.07	763.8	61	16.1	50	SE	12	5.4			10s		SE	0	0		
Galveston, Texas			30.13	765.3	83	28.3	70	S	4	1.8		0	0			0	0		
Grand Haven, Mich.			30.07	763.8	63	17.2	62	W	12	5.4		0	0			0	0		
Indianapolis, Ind.			30.14	765.5	71	21.7	71	W	2	0.9		0	0			0.42	10.7		
Indianola, Texas			30.15	765.8	84	28.9	67	S	4	1.8		1c	5ks			0	0		
Jacksonville, Fla.			30.24	768.1	82	27.8	70	E	4	1.8		2k	0	E		0	0		
Keokuk, Iowa			30.10	764.5	74	23.3	72	Calm	0	0		5ck	0	W		0	0		
Key West, Fla.			30.16	766.1	76.5	24.7	90	S	9	4.0			10n			0.44	11.2	Light rain	
Kittyhawk, N. C.			30.19	766.8	79	26.1	78	W	16	7.2		0	0s		S	0	0		
Knoxville, Tenn.			30.21	767.3	69	20.6	79	NE	4	1.8		0	1ks			0.02	0.5		
La Crosse, Wis.			30.16	766.1	63	17.2	72	SW	5	2.2		0	0			0	0		
Leavenworth, Kan.			30.11	764.8	72	22.2	71	Calm	0	0		2c	2ks	NW		0	0		
Lexington, Ky.			30.24	768.1	71	21.7	75	SW	4	1.8		5k	0	S		0	0		
Long Branch, N. J.			30.06	763.5	72	22.2	90	NW	5	2.2			10ks			0.21	5.3		
Louisville, Ky.			30.20	767.1	70	21.1	75	S	2	0.9			10s			0	0		
Lynchburg, Va.			30.13	765.3	79	26.1	56	W	2	0.9		0	0			0.36	9.1		
Malone, N. Y.																			
Marquette, Mich.			29.95	760.7	62	16.7	51	W	16	7.2		0	0			0	0		
Memphis, Tenn.			30.21	767.3	73	22.8	75	Calm	0	0		0	0			0	0		
Milwaukee, Wisconsin			30.10	764.5	65	18.3	63	NW	9	4.0		2c	0	SE		0	0		
Mobile, Ala.			30.19	766.8	81	27.2	74	S	4	1.8		2k	0			0	0		
Montgomery, Ala.			30.22	767.5	79	26.1	78	Calm	0	0		2s	Haze	W		0	0		
Morgantown, W. Virginia			30.13	765.3	71	21.7	80	SW	6	2.7			10s			0.24	6.1		
Mt. Washington, N. H.			30.22	767.6	50	10.0	100	NW	48	21.5			Fog			0	0		
Nashville, Tenn.			30.19	766.8	70	21.1	75	Calm	0	0		0	0			0	0		
New Haven, Conn.			30.03	762.7	71	21.7	75	W	6	2.7			10s			0.04	1.0		
New London, Conn.			30.05	763.3	72	22.2	85	W	8	3.6		5c	5s	W		0.04	1.0		
New Orleans, La.			30.16	766.1	77.5	25.3	84	SE	3	1.3		2c	2k	W	NE	0.02	0.5		
Newport, R. I.																			
New York, N. Y.			30.05	763.3	68	20.0	100	NW	10	4.5			10s		W	0.19	4.8		
Norfolk, Va.			30.14	765.5	82	27.8	71	SW	12	5.4		2k	2ks	S		0	0		
North Platte, Neb.			29.81	752.1	68	20.0	79	Calm	0	0			10ks			0	0		
Omaha, Neb.			30.10	764.5	72	22.2	80	S	2	0.9		10cs	0	SW		0	0		
Oswego, N. Y.			29.98	761.5	63	17.2	94	W	5	2.2			10s			0.26	6.6	Threatening	
Peck's Beach			30.11	764.8	67	19.4	90	S	8	3.6		0	8s			0.31	7.9		
Pembina, D. T.			30.08	764.0	52	11.7	79	W	4	1.8		5k	2s	W		0	0		
Philadelphia, Penn.			30.07	763.8	72	22.2	90	W	6	2.7		2c	2k	W		1.37	34.8		
Pike's Peak, C. T.			30.29	769.4	36	2.2	62	SW	28	12.5		5cs	Haze	W		0.30	7.6		
Pittsburgh, Penn.			30.05	763.3	71	21.7	75	SW	9	4.0		5k	0	W		0.06	1.5		
Port Huron, Mich.			29.98	761.5	67	19.4	74	W	10	4.5		0	0			0	0		
Portland, Maine			30.02	762.5	62	16.7	88	Calm	0	0			Fog			0.13	3.3	Light rain	
Portland, Or.			30.17	766.3	52	11.1	53	Calm	0	0		5c	0			0	0		
Punta Rassa, Fla.			30.19	766.8	77.6	25.3	76	E	8	3.6		2cs	Sm'e	SW		0.34	8.6		
Rochester, N. Y.			29.95	760.7	68	20.0	84	S	8	3.6		Haze	2ks		S	0.47	11.9		
Salt Lake City, Utah			30.05	763.3	65	18.5	88	E	6	2.7			10n			0.14	3.6	Light rain	
Sandy Hook, N. J.			30.05	763.3	69	20.6	95	W	11	4.9			10s			0.46	11.7		
San Diego, Cal.			30.04	763.0	64	17.8	88	N	4	1.8		0	0			0	0		
San Francisco, Cal.			30.04	763.0	53	11.7	86	S	8	3.6			10s			0	0		
Santa Fe, N. M.			29.92	760.0	70	21.1	34	S	12	5.4			10s			0	0		
Savannah, Georgia			30.23	767.8	84	28.9	67	S	3	1.3		5ck	0			0	0		
Shreveport, La.			30.16	766.1	78	25.6	86	SE	4	1.8		5ck	0	NW	SE	0	0		
Springfield, Mass.			30.02	762.5	64	17.8	94	S	4	1.8			10ks			0.02	0.5		
St. Louis, Mo.			30.19	766.8	72	22.2	75	SW	3	1.3		0	0			0	0		
St. Marks, Fla.			30.21	767.3	77	25.0	76	E	6	2.7		0	0			0	0		
St. Paul, Minn.			30.08	764.0	64	17.8	67	SW	4	1.8		6c	0	NW		0	0		
St. Paul's Island, Alaska			29.78	756.4	43	6.1	91	SE	8	3.6		10cs	10s			0.07	1.8	Showery	
Squan Beach, N. J.			30.06	763.5	70	21.1	95	SW	4	1.8		2c	2s			0.25	6.3		
Toledo, Ohio			30.04	763.0	72	22.2	71	S	12	5.4		0	2s			0.01	0.3		
Tybee Island, Ga.			30.29	769.4	57	13.9	100	NW	4	1.8			10s			0	0	Threatening	
Vicksburg, Miss.			30.25	768.3	73	22.8	90	SE	3	1.3			10s		SE	0.25	6.3	Threatening	
Virginia City, Mon.			29.82	757.4	58	14.4	42	SE	6	2.7		8cs	0	SW		0	0		
Washington, D. C.			30.11	764.8	75	23.9	87	Calm	0	0		2c	2k			0.40	10.2		
Wilmington, N. C.			30.22	767.6	80	26.7	74	SW	12	5.4		2ks	2ks		SW	0	0		
Wood's Hole, Mass.			30.06	763.5	68	20.0	94	SW	8	3.6			Fog			0	0	Foggy	
Wytheville, Va.			29.99	761.7	67	19.4	79	W	4	1.8		5k	0	W		1.09	27.7		
Yankton			30.15	765.8	72	16.7	72	E	12	5.4			10s		S	0	0		

NOTE.—The origi[illegible] give the cloudin[illegible] the scale 0 to 4.

UNITED STATES SUB-SERIES.

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 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.					84	28.9	70	NE	8	3.6		5k	5ks	SE		0.98	24.9		E. Racker.
Pointe-à-Pitre, G'l'oupe, do			30.05	763.3	81	27.2	67	E				0	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.5	758.2	81	20.7	78	E	2.7	1.2		2c	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.																			James Gall.
St. Thomas, St. T., W. I.			30.33	770.4	89	26.7	70	E	9	4.0		2c	2k	E		0.32	8.1		W. S. Cameron.
Santiago de Cuba, W. I.			29.92	760.0	80	26.7	78	Calm	0	0		0	2k		W	0	0		Robert Mason.
St. Georges, Bermudas			30.36	771.1	77	25.0	75	SW	1.2	0.5		0	5ks			0	0		C. F. Allen.
Honolulu, Oahu, H. I.			30.01	762.2	65	18.3	79	NE	7	3.1						0	0		E. P. Church.
Makawao, Maui, H. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.04	763.0	46.5	8.1	77	W	2	0.9		1c	0	NE		0	0		J. Fortescue.
Clifton, Jamaica, W. I.	27.30	693.4	29.99	761.7	68	20.0	79									0	0		C. Partridge.
St. John's, Newfoundland			30.43	772.9	64	17.8	49	E				0	0						John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Elyria, Ohio			29.96	761.0	67	19.4	84	SW	12	5.4			5ks			1.57	39.9		H. M. Redington.
Indianola, Iowa																			G. C. Carpenter.

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

NOTE.—The altitude of the barometer at Makawao is 2 210 feet, or 673.6 meters; that at Indianola is unknown; that at Clifton, Jamaica, W. I., is about 2,895 feet, or 882 meters. The temperatures at York Factory when below —10° Fahrenheit, are as given by a spirit thermometer. The rain-fall at St. John's, Porto Rico, is measured at 5:25 p. m. on the same day. The barometers at Clifton and Indianola are reduced to freezing.

The originals give the cloudiness by the scale 0 to 4, except Indianola and York Factory. Elyria, O., records all the clouds as lower.

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.

Albert J. Myer

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