2100

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35, A. M., JANUARY 1, 1875.

QC
982
B85
1875
(Jan.-Feb.)

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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 co-operation of M. le Général Farré, Commandant Supérieur du Gé[illegible]

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

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

AUSTRIAN SERIES.

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

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.22	767.5	27.1	— 2.7	91	Calm			0		10		.055	1.4	Snow	Prof. Ivan Stozir.
Cracow			30.36	771.1	14.4	— 9.8	57	NNE			5		10		0	0		I. R. Observatory.
Eperies			30.19	766.8	25.0	— 3.9	80	N			5		6		0	0		Julius Mikolik.
Gratz			30.20	767.2	29.5	— 1.4	84	SW			4		10		0	0		Andreas Rospini.
Hermannstadt			30.10	764.5	27.0	— 2.8	79	E			2		10		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.36	771.2	20.5	— 6.4	98	WNW			1		10		0	0		Prof. C. Wagner.
Lemberg			30.27	768.9	12.2	—11.0	95	E			5		8		0	0		Dr. T. Stanecki.
Nyir-Egyhaza			30.05	763.2	29.1	— 1.6	96	N			4		3		0	0		Habzsuda Daniel.
Pola			30.00	762.1	40.6	4.8	59	NE			5		5		0	0		I. R. Hydrographical Office.
Szegedin			30.07	763.9	29.1	— 1.6	100	E			4		10		.051	1.30		Karl Stancel.
Trieste			30.07	763.8	37.2	2.9	56	ENE			0		10		0	0		Prof. V. Faroffi.
Vienna			30.29	769.3	22.5	— 5.3	82	NW			4		10		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.

BELGIAN SERIES.

Furnished by co-operation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.11	764.7			27.1	— 2.7	90	S			1		3	WSW	0	0	Clear	Royal Observatory.

NOTE.—The originals give the wind force in kilogrammes per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by co-operation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.86	758.4	34.2	1.2		SSE	33	14			4		0	0		William Boswell.
Annanhill			29.82	757.4	30.5	— 0.8		ESE			3		10				Rain	W. H. Dunlop.
Ardrossan			29.78	756.4														William McNeil.
Armagh Observatory			29.50	749.3	38.2	3.4		SE	42	18			10				Rain	Stillman Call.
Bangbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.82	757.4	31.0	— 0.6		ESE			6		10					The Liverpool Observatory
Birr Castle			29.42	747.2	46.8	8.2		ESE			6		10					J. Drever.
Bradford			29.96	761.0	26.3	— 3.7		E			1		10					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			30.11	764.8	29.0	— 1.7		SS			1		10					H. Todd.
Cape Town																		Sgt. D. E. Hunt
Cape Good Hope Observatory	29.84	757.9			70.6	21.4	65	NW	8	3			9					The Royal Observatory.
Cardington			30.11	764.8	29.0	— 1.7		SE			2		10					John McLaren.
Carlisle			29.84	757.9	31.0	— 0.6		S	6	2			10		0.50	12.7	Threatening	T. Bell.
Chatham			30.18	766.6	29.2	— 1.6		SE			1		9					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.98	761.5	75.0	23.9		NE			4		0					Sgt. W. F. Hopkins
Dartmoor			29.91	759.7	33.6	0.9		E			6		10				Rain	R. E. Power.
Donaghadee			29.62	752.3	37	2.8		SE			6		10				Rain	J. Mac Gowan, Jr.
Dover			30.20	767.1	30	— 1.1							5					J. Costello.
Dublin																		
Durham Observatory			30.02	762.5	19.2	— 7.1		S			1		10					G. Goldney.
Eccles, (near Manchester)			29.95	760.7	31.8	— 0.1		ESE	12.6	5.6			10				Mist	Thomas Mackereth.
Falmouth Observatory			29.72	754.9	47.7	8.7		SSE	25	11			10				Rain	The Falmouth Observatory
Fort Napier, (Natal)			29.77	756.1	80.0	26.7		SE			3		3					Pvt. G. Salmon.
Galway			29.80	756.9	39	3.9		SE			8		10					Queen's College.
Gibraltar, (Mediterranean Sea)			30.29	769.3	59.4	15.2		SSW					0					Sgt. J. Brewster.
Glasgow Observatory			29.86	758.4	29.5	— 1.4		SW			1		10				Snow	The Glasgow Observatory
Gloucester, the G. Co. Asylum			29.95	761.4	34.0	1.1		SW	4	1			10				Sleet	F. Toller.
Great Yarmouth			30.17	766.3	32	0.0		SSE			3		4					G. T. Watson.
Greenwich Royal Observatory			30.12	765.0	30.9	— 0.6		S			3		10					The Royal Observatory.
Guernsey			29.94	760.5	35	1.7		SSE			6		10				Sleet	Dr. S. E. Hoskins.
Halifax, England			30.00	762.0	24.2	— 4.3		ESE			3		10					Mooreside Observatory.
Halifax, Nova Scotia			30.12	765.0	12.4	—10.9		NW			5		1					Corp'l J. Y. Thompson.
Helston			29.74	755.4	48	8.9		SE			4		10				Rain	W. B. Moyle.
Holyhead			29.65	753.1	37	2.8		SSE			6		7				Rain	John Tilston.
Hull Park																		
Kew Observatory			30.12	765.0	31.7	— 0.2		ESE	16	7			10					The Meteorological Office
Kingstown			29.60	751.8	40	4.4		SSE			8		10				Rain	George Mitchell.
Lampeter																		
Leicester			30.04	763.0	29.0	— 1.7		SE			3		10					William J. Harrison
Llandudno			29.58	751.3	33.6	0.9		S			6		10					Dr. James Nicol.
Malta, (Mediterranean Sea)					54.0	12.2		NW			2		10					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.61	752.1	31	— 0.6		SE			2		2					William D. Penny.
Nassau			30.26	768.6	72.0	22.2		NE			3		8					Surgeon I. Jameson.
North Shields			30.06	763.5	26	— 3.3		SSW			4		8				Rainy	John Wm. Irvine.
Nottingham			30.07	763.8	27.3	— 2.6		SE			3		10					E. J. Lowe.
Osborne, New Barn Cottage			30.01	762.2	35.0	1.7		SE			2		10				Rain	J. R. Mann.
Oscott, (near Birmingham)			30.01	762.2	20.0	— 1.7		SSE			5		10				Foggy	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.00	758.1	33	0.6		SE			3		10					Radcliffe Observatory.
Plymouth			29.82	757.4	41	5.0		SE			5		10				Rainy	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.47	748.5	47	8.3		S			6		10				Rain	W. Kennedy.
Saint Ann's Head			29.64	752.8	40	4.4		SE			7		10				Rain	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.89	759.2	34.8	1.6		SSE	48	21			4					Rev. Dr. Clouston.
Scarboro'			30.11	764.8	28.5	— 1.9		S			4		6					F. Heard.
Scutari, Turkey			29.89	759.2	44.8	7.1		N			4		10				Rain	W. H. Lyne.
Sheffield			30.03	762.7	27.8	— 2.3		S			2		8				Rain	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.84	757.9	34.2	1.2		SE			5		10		0.25	6.3		Francis Redford.
Somerleyton, (Lowestoft)			30.16	766.0	31.0	— 0.6		ESE			1		8					Rev. C. J. Steward.
Stonyhurst Observatory			29.89	759.2	30.4	— 0.9		E			2		10				Hazy	Stonyhurst Observatory
Stornoway, Lews Castle, Hebr.			29.57	751.1	35	1.7		SE			5		10					John Smith.
Strathfield Turgiss			30.03	762.7	35.0	1.7		SE			2		10				Snow	Charles H. Griffith.
Streatley Vicarage			30.03	762.7	34.0	1.1		SSE			8		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.97	761.2	37	2.8		SE			8		10				Rain	William Lawrence.
Taunton College																		
Thurso			29.86	758.4	34	1.1		SSE			6		5					John Trotter.
Truro, Royal Institution			29.66	753.3	50	10.0		SE			4		10				Rain	Royal Institution.
Valencia			29.34	745.2	54.0	12.2		SSW	37	16			10				Rain	Meteorological Observatory
Wick																		
Wisbech																		
Worthing			30.12	765.0	27.1	— 2.7		E			1		10					S. H. Miller.
York			30.10	764.5	35.5	1.9		SSE			5		10					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. Occasionally the barometer is reduced to sea-level.

DANISH SERIES.

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

Copenhagen			30.46	773.7	27.3	— 2.6	85	ESE			2		1					
Fanö			30.42	772.7	25.3	— 0.5	95	SSE			4		10					
Thorshavn, (Faro)			29.79	756.7	40.1	4.5	70	ESE			7		5					
Vestervig			29.41	772.3	25.9	— 3.4	100	ESE			6		10					
Stykkisholm, (Iceland)			29.46	748.4	35.2	1.8	82	SE			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 co-operation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and MM. Marié Davy, E. Renou, Dr. Fines, Dr. Berigny,, and Pére Pascall

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.20	767.1	27.3	— 2.6	96	S			2		10		0.732	18.6		Normal School.
Amiens			30.07	763.8	48.9	+ 9.4	94	SE			2		0		0	0		Normal School.
Baumette, (near Angers)			30.14	765.6	31.1	— 0.5	97	SSE	5.4	2.4			10		0.330	8.4	Rain	Baumette Observatory.
Beauvais			30.32	770.0	19.6	— 6.9		SE			0		5		0	0		Normal School.
Bourges			30.30	769.5	25.9	— 3.4	93	SE			2		10		0	0		Normal School.
Brest			29.87	758.7	38.3	3.5	86	SE			2		10		0.39	10	Rain	Naval Observatory.
Caen																		Normal School
Carsonne																		
Chatres																		
Gorée, (Senegambia)			29.97	761.3	70.0	21.1	65	NNE			4		1		0	0		Pere Pasc ll
Le Mans			30.21	767.3	27.9	— 2.3	92	SE			4		10		0	0		Normal School.
Mont-Louis	24.85	631.3			37.2	2.9	79	NNW	18.6	8.3			8		0	0		M. Falguere.
Montsouris, (near Paris)			30.28	769.0	25.0	— 3.9	86	SE	1.9	0.8				NW	0	0		Marie Davy.
Orleans			30.30	769.5	25.5	— 3.6	87	SE			2		5		0	0		Normal School.
Paris			30.28	769.2	24.1	— 4.4	66	SE			2		5		0	0		National Observatory.
Parthenay			30.15	765.7	43.7	6.5	87	SW			6		10		0	0		Normal School.
Perpignan	30.03	762.8			44.6	7.0	74	WNW	18.6	8.3			8		0.008	0.2	Clearing	Dr. Fines.
Roche sur Yon			30.18	766.6	30.2	— 1.0	96	E			2		10		0	0		Normal School.
Rouen			30.23	767.8	23.2	— 4.9		SE			2		0		0	0		Normal School.
Saint Lo			30.08	764.0	31.7	— 0.5	100	SW			3		10		0	0		Normal School.
Saint Maur, (near Paris)			30.29	769.3	26.6	— 3.0	68	SE			1		3		0	0	Fair	M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			29.98	761.6	52.9	11.6	64	W			4		8		0.445	11.3	Rainy	M. Jacques.
Versailles, (near Paris)			30.24	768.2	25.5	— 3.6	73	SE			1		5		0	0	Clear	Dr. A. Berigny.

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 kilometres per hour, but by Beaumette Mont-Louis and Perpignan in metres per second. No distinction is generally made between upper and lower clouds.

GERMAN SERIES.

Furnished by co-operation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.20	769.3	18.5	— 7.5	78	NW			1		10		0	0		Prof. Hoh.
Berlin			30.49	774.4	18.7	— 7.4	94	N			2		10		0	0		Prof. Arndt.
Breslau			30.41	772.4	12.0	—11.1	93	NE			2		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.38	771.6	19.9	— 6.7	91	NE			2.5		0		0.008	0.2		A. Leuz.
Cassel			30.36	771.1	25.2	— 3.8	83	S			0		8		0	0		Dr. H. Mohl.
Cologne			30.39	771.8	28.4	— 2.0	97	SW			3		8		0.059	1.5		Dr. Gaithe.
Emden			30.49	774.4	23.9	— 4.5	91	SE			1		10		0	0		Prof. Prestel.
Frankfort			30.49	774.5	22.1	— 5.5	78	SE			2		4		0.071	1.8		Physical Society.
Friedrichshafen			30.36	771.1	16.7	— 8.5	85	NE					3		0	0		M. Wilhelm.
Hamburg			30.44	773.2	21.4	— 5.9	90	ESE			3		10		0	0	Fog	W. Reinart.
Kiel			30.38	771.6	26.1	— 3.3	82	SE			4		10		0	0		Prof. G. Karsten.
Königsberg			30.53	775.5	3.0	—16.1	82	NE			2		2		0	0		Prof. E. Luther.
Köslin			30.78	781.8	0.5	—17.5		E			2		0		0	0		Dr. Tägert.
Leipsic			30.44	773.1	21.4	— 5.9	98	NE			1		10		0	0	Fog	Prof. Bruhns.
Münster			30.28	769.1	29.3	— 1.5	85	NW			1		10		0	0		Prof. E. Heis.
Posen			30.50	774.8	1.0	—17.2	100	N			2		0		0.098	2.5		Dr. Magener.
Strassburg, in E.			30.39	771.9	19.2	— 7.1	92	NE					6		0.153	3.9		Hartwig and Fulks.
Stuttgart			30.33	770.3	21.2	— 6.0	69	E					5		0	0		Mr. Wurth.
Thorn			30.47	773.9	3.7	—15.7	78	NE			3		5		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.32	770.1	16.0	— 8.9	93	NW			2		10		0.016	0.4		Prof. Flesch.
Wustrow			30.49	774.5	18.3	— 6.6	100	ESE			2		10		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by co-operation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau. and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Moncalieri			30.16	766.0	30.6	— 0.8	75	E	4.4	2.0			2		0	0		
Mondovi			30.15	765.9	36.0	2.2	60				2		0		0	0		
Genoa			30.03	762.7	43.3	6.3	59	NE	7.5	3.3			0		0.268	6.8		
Pavia			30.12	765.0	37.4	3.0	83	NW			0		10		0	0		
Padua			30.05	763.2	37.6	3.1	86	N	5.6	2.5			5	ENE	0	0		
Parma			30.13	765.4	35.6	2.0		SW			4		10		0	0		
Bologna			30.08	764.0	37.6	3.1	56	W			4		10		0	0		
Urbino			30.05	763.2	32.9	0.5	100	N			3		10		0	0		
Ancona			30.14	765.6	39.7	4.3	74	NW			4		4		0	0		
Florence			30.02	762.4	42.8	6.0	73	NE			2		5	W	0	0		
Livorno			29.94	760.6	45.0	7.2	52	NE	8.1	3.6			4		0	0		
Rome			29.85	758.3	44.2	6.8	88	N			2		10	E	0.031	0.8		
Naples, O.U.			29.87	758.7	50.9	10.5	71	SW			2		9	SW	0.012	0.3		
Naples, S. R	29.34	745.3			48.6	9.2	76	ENE			2		10	NE	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			29.94	760.5	44.1	6.7	87	SE			4		10		.209	5.3		
Catania, (Sicily)			29.94	760.4	53.8	12.1	54	Varia.					10		0	0		
Palermo			29.91	759.6	50.7	10.4	64	W			4		10	W	0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometres 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.

NETHERLAND SERIES.

Furnished by co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.32	770.2	28.9	— 1.7		S			3							
Groningen			30.29	769.4	40.3	+ 4.6		SE			0							
Helder			30.29	769.4	35.2	+ 1.8		SE			2							
Utrecht			30.29	769.3	25.0	— 3.9	89	S			2		8					

NOTE.—The originals give the force of the wind in kilogramms per square metre, 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 co-operation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen																		
Christiania			30.57	776.5	2.1	—16.6	100	ENE	4.0	1.77			8		0	0		
Tromsö																		

NOTE.—The originals give the velocity of the wind in metres 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.

PORTUGUESE SERIES.

Furnished by co-operation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.00	762.1			50.7	10.4	73	Calm	0	0			10					

NOTE.—The originals give the wind velocity in kilometres 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.

RUSSIAN SERIES.

Furnished by co-operation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.45	773.4	5.9	—14.5	87	NE	4.	2			6					
Wilna			30.52	775.3	1.2	—17.1	86	ENE	4.	2			5					
Dorpat			30.43	772.9	20.3	— 6.5	97	NNW	4.	2			10					
St. Petersburg			30.29	769.3	18.3	— 7.6	97	NW	10.1	4.5			9					
Kieff			30.35	771.0	8.8	—12.9	100	N	11.	5			5				Snow	
Nikolaiev			30.13	765.3	19.0	— 7.2	90	N	10.1	4.5			10					
Kertch			29.81	757.1	40.1	4.5	94	SE	4.	2			10					
Moscow			30.27	768.8	5.2	—14.9	87	WNW	7.8	3.5			10				Snow	
Lugan			30.06	763.6	19.6	— 6.9	68	ENE	20.	9			10					
Archangel			30.04	762.9	15.4	— 9.2	94	N	13.	6			10					
Tiflis			30.00	762.0	46.8	8.2	58	N	7.8	3.5			7					
Astrakhan			30.27	768.8	20.1	— 6.6	73	NNE	7.8	3.5			7					
Kasan			30.05	763.3	15.3	— 9.3	91	WSW	7.	3			4					
Orenburg			30.24	768.1	2.8	—16.2	90	NW	4.	2			0					
Ekaterinburg			30.00	761.9	1.0	—17.2	84	SW	13.	6			10					
Kasaly			30.07	763.7	42.1	5.6	89	Calm	0	0			10					
Taschkend																		
Barnaul			30.12	765.0	20.3	— 6.5	82	SW	4.	2			10				Snow	
Yeniseisk			30.15	765.9	—20.0	—28.9	89	SE	7.8	3.5			0					
Irkutsk			30.42	772.7	— 0.2	—17.9	72	E					10					
Oorga			30.66	778.8	— 5.4	—20.8	77	NW	4.	2			0					
Peking, (China)			30.44	773.3	22.1	— 5.5	41	Calm	0	0			0					
Nertchinsk			30.44	773.2	—24.7	—31.5	89	Calm	0	0			0					
Vladivostock					5.0	—15.0	69	N	4.	2			5					
Nikolaievsk					—23.6	—30.9		NW	10.1	4.5			0					

NOTE.—The originals give the velocity of the wind in metres 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 co-operation of M. A. Aguilar, Director of the Royal Observatory at Madrid.

Madrid			30.38	771.7	37.8	3.2	81	E	3.1	1.4		1	0	NE	-0	0.0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometres per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.35	770.8	16.2	— 8.8	100	Calm			0		9		0	0		Dr. H. H. Hildebrandsson.
Hernosand			30.40	772.2	2.8	—16.2	95	Calm			0		1		0	0		
Upsala			30.46	773.8	2.3	—16.5	100	Calm			0		0		0	0		
Stockholm			30.43	772.9	11.8	—11.2	100	W			2		8		0	0		
Wisby			30.51	775.0	27.0	— 2.8	96	SE			4		7		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.83	732.2			22.6	— 5.2	78	NNE			3		10		0	0	Fog.	The Observatory.
Zurich	28.59	726.1			18.9	— 7.3	83	SW			1		7		0	0	Cloudy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.02	762.6	56.8	13.8	65	S			1		10					
Constantinople			29.89	759.1	43.9	6.6	94	NNW	22.	10			10				Rain	
Fao, (Persian Gulf)			30.16	766.0	66.7	19.3		SE			3		5					
Salonica			29.81	757.2	50.2	10.1		S			0		10					
Avlona			29.84	757.9	51.4	10.8		NW			2		5					
Varna			30.04	763.0	28.4	— 2.0		NW			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by co-operation of M. le Général Farré, Commandant Supérieur du Génie en Algérie.

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. Metres per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el Had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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. Metres per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.39	772.0	27.7	— 2.4	85	NE			2		10		0	0		Prof. Ivan Stozir.
Cracow			30.43	772.9	5.0	—15.0	23	NE			5		0		0	0		I. R. Observatory.
Eperies			30.36	771.1	45.3	7.4	72	Calm			0		0		0	0		Julius Mikolik.
Gratz			30.34	770.7	26.1	— 3.3	74	S			4		10		0	0		Andreas Rospini.
Hermannstadt			30.30	769.6	28.4	— 2.0	74	E			5		5		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.30	769.7	18.3	— 7.6	95	ESE			2		7		.047	1.20		Prof. C. Wagner.
Lemberg			30.44	773.3	8.4	—13.1	100	NE			4		2		0	0		Dr. T. Stanecki.
Nyir-Egyhaza			30.33	770.5	24.4	— 4.2	91	N			4		0		0	0		Habzsuda Daniel.
Pola			30.20	767.1	42.0	5.9	66	SE			2		9		0	0		I. R. Hydrographical Office.
Szegedin			30.30	769.5	25.5	— 3.6	82	E			4		4		.020	0.50		Karl Stancel.
Trieste			30.21	767.4	35.4	1.9	67	E			2		10		0	0		Prof. V. Farolfi.
Vienna			30.36	771.2	13.8	—10.1	79	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.

BELGIAN SERIES.

Furnished by co-operation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

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. Metres per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.83	757.8			36.1	2.3	100	SW			1		10		0.255	6.50	Cloudy	Royal Observatory.

NOTE.—The originals give the wind force in kilogrammes per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by co-operation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.31	744.5	36.9	2.7		SW	22	9			9		0.575	14.6		William Boswell.
Annanhill			29.64	752.8	44.0	6.7		WSW			4		5					W. H. Dunlop.
Ardrossan			29.61	752.1	46	7.8		WSW			3		5					William McNeil.
Armagh Observatory			29.66	753.3	44.0	6.7		SSW	20	8			0					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.81	757.2	45.2	7.3		SW			3		3					The Liverpool Observatory.
Birr Castle			29.73	755.1	46.6	8.1		SW			3		5					J. Dreyer.
Bradford			29.70	754.4	40.1	4.5		SW			2		0					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.93	760.2	38.0	3.3		SW			2		3					H. Todd.
Cape Town			29.92	759.5	81	27.3		NE			3		3					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.95	760.7			85.7	29.8	44	S	6	2			5					The Royal Observatory.
Cardington			29.96	761.0	39.0	3.9		SW			2		2					John McLaren.
Carlisle			29.70	754.4	45.1	7.3		W	5.8	2.6			4		0	0		T. Bell.
Chatham			29.97	761.2	43.2	6.2		SW			1		9					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.99	761.7	74.6	23.7		NE			4		3					Sgt. W. F. Hopkins
Dartmoor			29.99	761.7	42.6	5.9		SW			3		9					R. E. Power.
Donaghadee			29.56	750.8	44	6.7		SSW			6		4					J. Mac Gowan, Jr.
Dover			30.01	762.2	41	5.0							5					J. Costello.
Dublin																		
Durham Observatory			29.68	753.9	41.1	5.1		SW			4		0					G. Goldney.
Eccles, (near Manchester)			29.84	757.9	41.1	5.1		S	0.8	0.4			10				Misty	Thomas Mackereth
Falmouth Observatory			29.99	761.7	49.9	9.9		SW	15	6			9					The Falmouth Observatory.
Fort Napier, (Natal)			29.79	756.6	77.7	25.0		SE			2		4					Pvt. G. Salmon.
Galway			29.59	751.6	40	4.4		SE			5		7				Rainy	Queen's College.
Gibraltar, (Mediterranean Sea)			30.35	770.9	58.2	14.6		NNW					8					Sgt. J. Brewster.
Glasgow Observatory			29.56	750.8	42.0	5.6		SE			2		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.92	760.6	44.2	6.8		W			1		2					F. Toller.
Great Yarmouth			29.92	759.9	38	3.3		WSW			2		3				Misty	G. T. Watson.
Greenwich Royal Observatory			29.98	761.5	43.8	6.6		WSW			1		2					The Royal Observatory.
Guernsey			30.05	763.3	51	10.6		SSW			1		6					Dr. S. E. Hoskins.
Halifax, England			29.72	754.9	46.5	8.1		WSW			4		1					Mooreside Observatory.
Halifax, Nova Scotia			30.15	765.8	14.6	— 9.7		NW			1		9				Hazy	Corp'l J. Y. Thompson.
Helston			29.99	761.7	52	11.1		SW			4		8					W. B. Moyle.
Holyhead			29.80	756.9	48	8.9		SW			3		4					John Tilston.
Hull Park																		
Kew Observatory			30.00	762.0	40.8	4.9		SW	9	4			3					The Meteorological Office.
Kingstown			29.72	754.9	48	8.9		W			4		6					George Mitchell.
Lampeter																		
Leicester			29.90	759.4	41.0	5.0		SW			2		2					William J. Harrison
Llandudno			29.79	756.6	46.7	8.2		SW			3		9					Dr. James Nicol.
Malta, (Mediterranean Sea)					58.0	14.4		NW			3		4					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.34	745.2	42	5.6		SW			2		4					William D. Penny.
Nassau			30.23	767.8	71.5	21.9		NE			2		9					Surgeon I. Jameson.
Nottingham			29.88	758.9	42.0	5.6		SW			3		1				Misty	E. J. Lowe.
North Shields			29.68	753.9	39	3.9		SW			3		3					John Wm. Irvine.
Osborne, New Barn Cottage			30.01	762.2	50.3	10.2		SW			2		7					J. R. Mann.
Oscott, (near Birmingham)			29.91	759.7	43.7	6.5		SW			4		7				Foggy	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.95	760.7	53	6.1		SW			1		7					Radcliffe Observatory.
Plymouth			29.97	761.2	47	8.3		SW			1		10				Foggy	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.76	755.9	46	7.8		WSW			5		9					W. Kennedy.
Saint Ann's Head			29.88	758.9	48	8.9		SW			4		9					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.31	744.5	38.0	3.3		S	35	15			10				Rainy	Rev. Dr. Clouston.
Scarboro'			29.76	755.9	37.8	3.2		SW			1		1					F. Heard.
Scutari, Turkey			30.07	763.8	36.8	2.7		NNW			5		10				Sleet	W. H. Lyne.
Sheffield			29.82	757.4	42.8	6.0		S			2		2				Rain	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.69	754.1	44.3	6.8		WSW			5		0		0.100	2		Francis Redford.
Somerleyton, (Lowestoft)			29.96	761.0	42.0	5.6		SSW			1		0					Rev. C. J. Steward.
Stonyhurst Observatory			29.27	756.1	40.9	4.9		SE			2		3				Rain	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.23	742.4	44	6.7		WSW			4		6					John Smith.
Strathfield Turgiss			30.03	762.7	42.9	6.1		SW			1		10					Charles H. Griffith.
Streatley Vicarage			30.00	762.0	46.2	7.9		W			1		2					Rev. John Satter.
Sumburgh Head, Shetland Is.			29.31	744.5	40	4.4		SE			6		10					William Lawrence.
Taunton College																		
Thurso			29.25	742.9	39	3.9		S			5		8					John Trotter.
Truro, Royal Institution			29.88	758.9	54	12.2		SW			4		10					Royal Institution.
Valencia			29.72	754.9	48.9	9.4		SSW	22	9			10					Meteorological Observatory.
Wick																		
Wisbech			29.90	759.4	37.1	2.8		S			1		2					S. H. Miller.
Worthing			30.03	762.7	44.9	7.2		W			1		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. Occasionally the barometer is reduced to sea-level.

DANISH SERIES.

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

Copenhagen			30.17	766.3	22.1	— 5.5	83	SSE			4		3					
Fanö			29.95	760.7	17.8	— 7.9	94	S			6		10					
Thorshavn, (Faro)			29.06	738.1	42.4	5.8	85	SE			6		10					
Vestervig			29.91	759.8	21.6	— 5.8	95	SE			7		10					
Stykkisholm, (Iceland)			28.90	734.0	35.6	2.0	89	NE			7		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 co-operation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and MM. Marié Davy, E. Renou, Dr. Fines, Dr. Berigny,, and Père Pascall

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.18	766.5	39.0	4.4	97	W			1		10		0.43	11.0		Normal School.
Amiens			30.01	762.3	46.4	8.0	82	WSW			3		10		0.256	6.5		Normal School.
Baumette, (near Angers)			30.17	766.3	49.6	9.8	100	W	0.0	0.0			10		0.51	13.0	Fog	Baumette Observatory.
Beauvais			30.15	765.7	39.7	4.3	98	WSW			0		10		0.35	9.0		Normal School.
Bourges			30.20	767.0	42.3	5.7	96	SW			2		10		1.00	25.4		Normal School.
Brest			30.02	762.4	52.3	11.3	93	SW			3		10		1.2	30.0		Naval Observatory.
Caen			30.11	764.7	43	6.1	100	SSW			2		0		0.08	2.0		Normal School
Carsonne																		
Chatres																		
Gorée, (Senegambia)			29.95	760.8	69.3	20.7	65	W			4		0		0	0		Pere Pascall
Le Mans			30.18	766.0	44.1	6.7	94	SSW			2		10		0.973	24.7		Normal School.
Mont-Louis	25.06	636.5			44.6	7.0	79	SW	4.7	2.1			7		0	0		M. Falguere.
Montsouris, (near Paris)			30.13	765.2	43.0	6.1	94	Calm	0.5	0.2					0.43	11.0		Marie Davy.
Orleans			30.20	767.2	43.5	6.4	85	SSW			2		10		0.16	4.0		Normal School.
Paris			30.14	765.6	21.0	— 6.1	90	ENE			1		10		0	0		National Observatory.
Parthenay			30.34	770.7	49.1	9.5	93	W			2		10		0.835	21.2		Normal School.
Perpignan	30.16	766.1			51.4	10.8	71	SW	3.8	1.7			7		0	0		Dr. Fines.
Roche sur Yon			30.23	767.8	51.4	10.8	97	S			2		10		1.177	37.5		Normal School.
Rouen			30.13	765.2	33.8	1.0	100	S			0		10		0.51	13.0		Normal School.
Saint Lo			30.07	763.7	49.6	9.8	97	W			3		3		1.14	29.0		Normal School.
Saint Maur, (near Paris)			30.14	765.6	39.7	4.3	100	SE			0		10		0.390	9.9	Cloudy	M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			29.27	768.8	54.9	12.7	64	NW			6		6		0.008	0.2	Fair	M. Jacques.
Versailles, (near Paris)			30.14	765.6	42.8	6.0	97	W			0		0		0.593	15.07	Rain	Dr. A. Berigny.

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 kilometres per hour, but by Beaumette Mont-Louis and Perpignan in metres per second. No distinction is generally made between upper and lower clouds.

GERMAN SERIES.

Furnished by co-operation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.23	768.9	23.0	— 5.0	81	W			5		9		0	0		Prof. Hoh.
Berlin			30.24	768.1	9.7	—12.4	92	N			1		8		0	0		Prof. Arndt.
Breslau			30.25	770.9	0.3	—17.6	92	ESE			2		0		0	0		Dr. P. Neugebauer.
Carlsruhe			30.20	767.0	19.0	— 7.2	95	NW			1		10		0.08	2.0		A. Leuz.
Cassel			30.07	763.9	23.7	— 4.6	94	S			9		10		0	0		Dr. H. Mohl.
Cologne			30.01	762.3	24.4	— 4.2	100	SW			2		10		0	0	Snow	Dr. Gaithe.
Emden			30.04	763.0	28.6	— 1.9	100	SSW			1		10		1.46	3.7	Snow	Prof. Prestel.
Frankfort			30.30	769.7	22.6	— 5.2	92	SW			1		10		0	0		Physical Society.
Friedrichshafen			30.20	767.2	17.6	— 8.0	85	E					10		0.24	0.6	Snow	M. Wilhelm.
Hamburg			30.08	764.0	15.8	— 9.0	93	SE			7		10		0	0	Fog	W. Reinart.
Kiel			30.01	762.3	21.0	— 6.1	70	SSE			3		10		0	0		Prof. G. Karsten.
Königsberg			30.43	772.9	6.1	—14.4	83	SE			2		0		0	0		Prof. E. Luther.
Köslin			30.54	775.8	8.6	—13.0		SE			2		0		0	0		Dr. Tägert.
Leipsic			30.15	765.8	16.9	— 8.4	82	SE			2		8		0	0		Prof. Bruhns.
Münster			29.91	759.6	30.9	— 0.6	91	S			1		10		0.279	7.1	Snow	Prof. E. Heis.
Posen			30.41	772.4	2.5	—16.4	100	SE			6 & 7		0		0	0		Dr. Magener.
Strassburg, in E.			30.20	767.0	25.9	— 3.4	93	NE					10		0.114	2.9		
Stuttgart			30.12	765.1	25.7	— 3.5	90	NW					10		0.075	1.9	Snow	Mr. Wurth.
Thorn			30.43	772.8	3.9	—15.6	66	E			1		0		0	0		Dr. Hagenbalg.
Treves, (Trier)			30.07	763.7	28.6	— 2.2	95	W			2		10		0.346	8.8		Prof. Flesch.
Wustrow			30.21	767.3	4.8	—15	100	SE			4		8		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by co-operation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau. and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.14	765.6	34.9	1.6	72	E					8		0	0		
Mondovi			30.23	767.9	38.7	3.7	52	S			3		4		0	0		
Genoa			30.22	767.7	46.9	8.3	71	E	1.8	0.8			10		0	0		
Pavia			30.26	768.6	29.3	—15.1	92	E			0		10		0	0		
Padua			30.23	767.8	33.3	0.7	81	NNE	5.0	2.2			10		0	0		
Parma			30.29	769.3	32.2	0.1		SW			3		9		0	0		
Bologna			30.29	769.4	31.6	— 0.2	35	W			5		6	S	0	0		
Urbino			30.26	768.6	33.3	3.5	75	SW			3		6		0	0		
Ancona			30.24	768.1	40.1	4.5	71	NW			3		1		0	0		
Florence			30.26	768.6	43.7	6.5	82	E			3				0	0	Fog	
Livorno			29.22	767.6	44.8	7.1	71	NE	0	0			10		0	0		
Rome			30.21	767.3	48.9	9.4	56	NE			3		4		0	0		
Naples, O.U.			30.20	767.0	53.4	11.9	48	N			0		2		0	0		
Naples, S. R.	29.67	753.6			49.1	9.5	65	NE			4		6	E	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.17	766.3	48.2	9.0	71	NW			4		5		0	0		
Catania, (Sicily)			30.15	765.9	52.3	11.3	68	NW					2		0	0		
Palermo			30.15	765.7	52.9	11.6	66	NW			4		7	WNW	0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometres 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.

NETHERLAND SERIES.

Furnished by co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.85	758.2	35.6	2.0		S			3							
Flushing			30.03	762.8	39.5	4.0		W			4							
Helder			29.87	758.7	39.4	4.1		S			3							
Utrecht			29.92	760.0	34.5	1.4	91	SSW			2		10				Fog	

NOTE.—The originals give the force of the wind in kilogrammes per square metre, 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 co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.22	767.6	10.0	−12.2	92		9.2	4.13			10		0	0		
Tromsö																		

NOTE.—The originals give the velocity of the wind in metres 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.

PORTUGUESE SERIES.

Furnished by co-operation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.06	763.6			49.6	9.8	78	NNE	7.5	3.3			1					

NOTE.—The originals give the wind velocity in kilometres 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.

RUSSIAN SERIES.

Furnished by co-operation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.46	773.7	5.9	−14.5	96	ENE	4.	2			2					
Wilna			30.49	774.4	12.7	−10.7	92	Calm	0	0			10				Snow	
Dorpat			30.27	768.8	24.1	− 4.4	95	WNW	6.	3			6					
St. Petersburg			30.11	764.8	22.8	− 5.1	98	WNW	8.	4			10				Snow	
Kieff			30.44	773.1	7.3	−13.7	92	NW	6.	3			9				Snow	
Nikolaiev			30.30	769.7	24.6	− 4.0	64	N	10.1	4.5			4					
Kertch			30.07	763.7	32.4	0.2	85	NE	6.	3			10					
Moscow			30.23	767.9	14.7	− 9.6	87	W	7.8	3.5			10				Snow	
Lugan			30.07	763.9	15.8	− 9.0	78	N	13.	6			9				Snow	
Archangel			29.88	758.7	5.2	−14.9	91	ESE	7.8	3.5			0					
Tiflis			29.98	761.6	47.5	8.6	69	Calm	0	0			4					
Astrakhan			30.18	766.6	22.3	− 5.4	71	NNE	7.8	3.5			7					
Kasan			29.93	760.2	13.8	−10.1	97	NW	2.	1			10					
Orenburg			30.17	766.4	− 6.3	−21.3	100	SW	4.	2			10					
Ekaterinburg			29.99	761.8	4.6	−15.2	91	Calm	0	0			10					
Kasaly			30.07	763.9	37.8	3.2	81	Calm	0	0			10					
Taschkend																		
Barnaul			30.48	774.2	1.6	−16.9	75	SW	10.1	4.5			0					
Yeniseisk			29.99	761.8	− 0.9	−18.3	93	SE	7.8	3.5			10				Snow	
Irkutsk			30.16	766.0	2.3	−16.5	87	Calm	0	0			10					
Oorga			30.69	779.5	−12.3	−24.6	99	Calm	0	0			0					
Peking, (China)			30.48	774.2	26.6	− 3.0	46	SW	7.8	3.5			0					
Nertchinsk			30.53	775.5	−26.7	−32.6	90	Calm	0	0			0					
Vladivostock					10.9	−11.7	73	N	7.8	3.5			5					
Nikolaievsk					−28.1	−33.4		W	4.	2			1					

NOTE.—The originals give the velocity of the wind in metres 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 co-operation of M. A. Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.49	774.4	42.3	5.7	76	E	5.2	2.3		2	0	SE	0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometres per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, 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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.06	763.4	1.0	—17.2	89	N			2		1					Dr. H. H. Hildebrandsson.
Hernosand			30.07	763.8	— 8.3	—22.4	100	NE			2		0					
Upsala			30.34	768.2	10.6	—11.9	96	WSW			2		10				Snow	
Stockholm			30.24	768.0	13.1	—10.5	97	WSW			4		10				Fog	
Wisby			30.30	769.7	28.8	— 1.8	100	SW			4		7					

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.80	731.5			31.3	— 0.4	94	WNW			3		9		0	0	Fog	The Observatory.
Zurich	28.49	723.7			26.8	— 2.9	98	NW			1		10		.04	1.00	Snowing	B. Billwiller.

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.

TURKISH SERIES.

Furnished by coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.80	757.0	61.2	16.2	56	SW			8		10					
Constantinople			30.04	763.1	35.1	1.7	91	N	31.	14			10				Rain	
Fao, (Persian Gulf)			30.13	765.4	67.3	19.6		SE			3		10					
Salonica			30.04	762.9	43.2	6.2		N			3		10					
Avlona			29.99	761.8	48.7	9.3		NW			1		2					
Varna			30.20	767.0	24.8	— 4.0		NW			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by co-operation of M. le Général Farré, Commandant Supérieur du Génie en Algérie.

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. Metres per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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. Metres per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.52	775.2	22.3	— 5.4	90	NE			4		10		0	0		Prof. Ivan Stozir.
Cracow			30.43	772.8	7.2	—13.8	49	NE			3		0		0	0		I. R. Observatory.
Eperies			30.47	773.9	50.0	10.0	71	Calm			0		3		0	0		Julius Mikolik.
Gratz			30.40	774.5	20.1	— 6.6	66	SE			4		5		0	0		Andreas Rospini.
Hermannstadt			30.46	773.7	26.6	— 3.0	72	ESE			2		0		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.33	770.4	29.1	— 1.6	100	Calm			0		5		0.071	1.80		Prof. C. Wagner.
Lemberg			30.43	773.0	16.7	— 8.5	96	S			4		1		0	0		Dr. T. Stanecki.
Nyir-Egyhaza			30.40	774.4	23.4	— 4.8	95	Calm			0		0		0.089	2.26		Habzsuda Daniel.
Pola			30.33	770.5	45.5	7.5	49	NE			4		7		0	0		I. R. Hydrographical Office.
Szegedin			30.46	773.6	25.2	— 3.8	91	S			4		8		0	0		Karl Stancel.
Trieste			30.34	770.7	40.6	4.8	50	E			2		6		0	0		Prof. V. Farolfi.
Vienna			30.41	772.4	24.8	— 4.0	84	Calm			0		5		0.090	2.30		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.

BELGIAN SERIES.

Furnished by co-operation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

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. Metres per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.82	757.4			43.7	6.5	100	SW			1		10		0.040	1.25	Cloudy	Royal Observatory.

NOTE.—The originals give the wind force in kilogrammes per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by co-operation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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. Metres per sec.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.28	743.7	40.3	4.6		SSW	23	10			2		0.100	2.5		William Boswell.
Annanhill																		W. H. Dunlop.
Ardrossan																		William McNeil.
Armagh Observatory			29.79	756.6	45.2	7.3		SW	27	12								Stillman Gall.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.83	757.7	47.0	8.3		WSW			6		0					The Liverpool Observatory.
Birr Castle			29.88	758.9	45.5	7.5		SE			1		5					J. Dreyer.
Bradford																		J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.95	760.7	46.8	8.2		WSW			2		2					H. Todd.
Cape Town			29.88	758.9	75	23.9		SE			4		8					Sgt. R. E. Haat
Cape Good Hope Observatory	29.95	760.7			71	21.7		S	13	5			9.5					The Royal Observatory.
Cardington			29.97	761.2	44.4	6.9		W			2		1					John McLaren.
Carlisle			29.72	754.9	45.4	7.4		W	8.2	3.7			3		0	0		T. B. H.
Chatham			29.98	761.5	48.9	9.4		W			2		7					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.99	761.7	77.0	25.0		NE			5		10					Sgt. W. F. Hopkins
Dartmoor			30.08	764.0	45	7.2		SW			4		10					R. E. Power.
Donaghadee			29.69	754.1	45	7.2		W			6		5					J. Mac Gowan, Jr.
Dover			30.02	762.5	47	8.3							5					J. Castelle.
Dublin																		
Durham Observatory			29.67	753.6	42.1	5.6		SW			4		0					G. Giddney.
Eccles, (near Manchester)			29.85	758.2	46.7	8.2		SW	6.0	2.8			10				Misty	Thomas Mackereth.
Falmouth Observatory			30.06	763.5	51.5	10.8		SW	9	4			10					The Falmouth Observatory.
Fort Napier, (Natal)			29.79	756.6	80.0	26.7		E			3		1					Pvt. G. Salmon.
Galway			29.74	755.4	41	5.0		S			6		3					Queen's College.
Gibraltar, (Mediterranean Sea)			30.32	770.1	57.6	14.2		ENE					10					Sgt. J. Brewster.
Glasgow Observatory			29.52	749.8	45.0	7.2		WSW			6		3					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.97	761.9	47.5	8.6		W			1		2					J. Toller.
Great Yarmouth			29.88	758.9	41	5.0		W			4		3				Misty	G. T. Watson.
Greenwich Royal Observatory			30.00	762.0	49.3	9.6		W			4		2					The Royal Observatory.
Guernsey			30.10	764.5	53	11.7		WSW			1		8				Misty	Dr. S. E. Hoskins.
Halifax, England			29.77	756.1	41.3	5.2		WSW			2		1					Mooreside Observatory.
Halifax, Nova Scotia			29.54	750.3	23.1	— 4.9		NW			6		9					Corp'l J. Y. Thompson.
Helston			30.05	763.3	53	11.7		WSW			3		8				Fog	W. B. Moyle.
Holyhead			29.81	759.7	47	8.3		WSW			4		3					John Tilston.
Hull Park																		
Kew Observatory			30.02	762.5	49.2	9.6		WSW	14	6			3					The Meteorological Office
Kingstown			29.87	758.7	48	8.9		W			4		3					George Mitchell.
Lampeter																		
Leicester			29.93	760.2	44.9	7.2		SW			3		0					William J. Harrison
Llandudno			29.88	758.9	47.8	8.8		SW			4		0					Dr. James Nicol.
Malta, (Mediterranean Sea)					59.0	15.0		NW			2		8				Threatening	Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.21	741.9	43	6.1		W			4		10				Rain	William D. Penny.
Nassau			30.20	767.1	70.3	21.3		Calm			0		1					Surgeon I. Jameson.
Nottingham			29.90	759.4	45.3	7.4		SW			3		0					E. J. Lowe.
North Shields																		John Wm. Irvine.
Osborne, New Barn Cottage			30.06	763.5	48.6	9.2		SW			1		5				Rain	J. R. Mann.
Oscott, (near Birmingham)			29.93	760.2	46.4	8.0		SW			5		0				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.95	760.7	47	8.3		W			2		7					Radcliffe Observatory.
Plymouth			30.05	763.3	50	10.0		WSW			1		10				Fog	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.92	759.9	47	8.3		WSW			3		6					W. Kennedy.
Saint Ann's Head																		John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.97	761.2	39	3.9		S	25	11			10				Rainy	Rev. Dr. Clouston.
Scarboro'																		F. Heard.
Scutari, Turkey			30.38	771.6	41.8	5.4		NNE			5		10				Rain	W. H. Lyne.
Sheffield			29.85	758.2	45.2	7.3		WNW			3		0					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.70	754.4	44.0	6.7		W			5		1		0.265	6.73	Rain	Francis Redford.
Somerleyton, (Lowestoft)			29.89	759.2	49.8	8.9		WSW			1		0					Rev. C. J. Steward.
Stonyhurst Observatory			29.78	756.4	42.8	6.0		SW			3		5				Rain	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.18	741.2	44	6.7		W			8		9					John Smith.
Stratfield Turgiss			30.02	762.5	49.3	9.6		W			2		0					Charles H. Griffith.
Streatley Vicarage			30.01	762.2	51.6	10.9		W			6		5					Rev. John Slater.
Sumburgh Head, Shetland Is.			29.10	739.1	44	6.7		S			4		10					William Lawrence.
Taunton College																		
Thurso			29.01	736.8	40	4.4		SSW			5		8					John Trotter.
Truro, Royal Institution			29.97	761.2	52	11.1		S			4		8					Roy'l Institution.
Valencia			29.87	758.7	50.2	10.1		S	18	8			10					Meteorological Observatory
Wick																		
Wisbech			29.91	759.7	43.3	6.3		SW			1		0					S. H. Miller
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. Occasionally the barometer is reduced to sea-level.

DANISH SERIES.

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

Copenhagen			29.87	758.8	31.1	— 0.5	100	S			2		10				Fog	
Fanö			29.65	753.0	32.7	0.4	100	SSW			7		10					
Thorshavn, (Faro)			29.21	742.0	42.8	6.0	91	E			2		10					
Vestervig			29.57	751.2	32.4	0.2	96	S			6		10				Snow	
Stykkisholm, (Iceland)			28.80	731.5	30.7	— 0.7	98	NE			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 co-operation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and MM. Marie Davy, E. Renou, Dr. Fines, Dr. Bérigny,, and Père Pascall

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alengon			30.16	766.1	48.2	9.0	97	SW			1		10		0.39	1.0		Normal School.
Amiens			30.00	762.1	43.9	6.6	94	WSW			2		10		0.458	11.5		Normal School.
Baumette, (near Angiers)			30.22	767.5	52.2	11.2	100	SW	10.3	4.6			10		0.106	2.7	Rain	Baumette Observatory.
Beauvais			30.16	766.1	46.2	7.9	94	WSW			3		10		0.197	5.0		Normal School.
Bourges			30.31	769.9	48.6	9.2	90	NW			2		10		0.244	6.2		Normal School.
Brest			30.07	763.7	53.1	11.7	93	SW			2		10		0.307	7.8		Naval Observatory.
Caen																		Normal School.
Carcassonne																		
Chartres																		
Gorée, (Senegambia)			29.97	761.3	71.8	22.1	59	N			2		1		0	0		Père Pascall
Le Mans			30.24	768.2	51.3	10.7	97	SW			2		10		0.327	8.3		Normal School.
Mont-Louis	25.13	638.2			45.7	7.6	75	SW	7.4	3.3			0		0	0		M. Falguere.
Montsouris, (near Paris)			30.17	766.4	50.0	10.0	95	WSW	5.0	2.2				SW	0.134	3.4		Marie Davy.
Orleans			30.17	767.4	48.7	9.3	96	SW			2		10		0.563	14.31		Normal School.
Paris			30.26	768.6	46.4	8.0	97	W			2		10		0.197	5.0		National Observatory.
Parthenay	30.19	766.7			64.0	17.8	69	SSE	1.8	0.8			1		0	0	Clear	Normal School.
Perpignan			30.30	769.6	52.0	11.1	95	SW			2		10		0.394	10.0		Dr. Fines.
Roche sur Yon			30.15	765.9	39.9	4.4	100	SSE			0		10		0.177	4.5		Normal School.
Rouen			30.20	767.2	53.8	12.1	95	W			3		10		0.118	3.0		Normal School.
Saint Lo			30.19	766.7	46.8	8.2	100	SSW			0		10		0.079	2.0	Cloudy	Normal School.
Saint Maur, (near Paris)																		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.23	767.8	57.0	13.9	86	NW			4		60		0	0	Threatening	
Tunis, (Africa)			30.17	766.3	49.3	9.6	100	SW			0		10		0.132	3.36	Cloudy	M. Jacques.
Versailles, (near Paris)			30.26	768.5	48.9	9.4	97	SSW			2		10		0.441	11.2		Dr. A. Berigny.

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 kilometres per hour, but by Beaumette Mont-Louis and Perpignan in metres per second. No distinction is generally made between upper and lower clouds.

GERMAN SERIES.

Furnished by co-operation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.17	766.3	34.9	1.6	90	S			4		10		0.047	1.2	Snow	Prof. Hoh.
Berlin			30.11	764.9	31.6	− 0.2	82	S			2		8		0.122	3.1	Rain	Prof. Arndt.
Breslau			30.26	768.7	27.5	− 2.5	89	SSE			2		10		0.114	2.9		Dr. P. Neugebauer.
Carlsruhe			30.17	766.3	38.1	3.4	100	SW			2.5		10		0.378	9.6	Rain	A. Leuz.
Cassel			30.04	763.1	37.2	2.9	85	S			8		10		0.012	0.3	Rain	Dr. H. Mohl.
Cologne			30.03	762.7	40.6	4.8	80	SW			4		10		0.084	2.4	Rain	Dr. Gaithe.
Emden			29.93	760.2	36.7	2.6	100	WSW			3		10		0.370	9.4	Rain	Prof. Prestel.
Frankfort			30.24	768.1	34.7	1.5	94	NW			0		10		0.323	8.2	Fog	Physical Society.
Friedrichshafen			30.28	769.0	37.4	3.0	91	SW					10		0.059	1.5	Rain	M. Wilhelm.
Hamburg			29.87	758.7	35.1	1.8	96	S			4		10		0.260	6.6		W. Reinart.
Kiel			29.80	756.8	36.1	2.3	84	S			5		10		0	0		Prof. G. Karsten.
Königsberg			30.30	769.5	7.9	−13.4	76	E			2		2		0	0		Prof. E. Luther.
Köslin			30.36	771.1	15.8	9.0		SE			2		10		0	0		Dr. Tägert.
Leipsic			30.11	764.9	36.0	2.2	68	SSW			3		10		0	0	Rainy	Prof. Bruhns.
Münster			29.87	758.8	40.3	4.6	88	SW			1		10		0.016	0.4	Rain	Prof. E. Heis.
Posen			30.25	768.3	23.7	− 4.6	100	SE			2		10		0.098	2.5		Dr. Magener.
Strassburg, in E.			30.22	767.5	38.7	3.7	100	S					10		0.547	13.9		
Stuttgart			30.26	768.7	39.2	4.0	90	W					8		0.110	2.8	Rain	Mr. Wurth.
Thorn			30.25	768.4	13.0	−10.2	75	SE			1		10		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.09	764.4	38.7	3.7	96	SW			1		10		0.394	10.0		Prof. Flesch.
Wustrow			29.96	761.1	29.5	− 1.4	98	SSW			4		10		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by co-operation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.42	772.7	29.7	− 1.3	84	NNW	0.6	0.3			1		0	0		
Mondovi			30.41	772.3	34.9	1.6	64	NNW			2		1	NNE	0	0		
Genoa			30.32	770.0	50.7	10.4	61	Calm					2		0	0		
Pavia			30.41	772.3	23.7	− 4.6	86	S			0		10		0	0		
Padua			30.37	771.3	33.6	0.9	83	NE	2.5	1.1			10	NNW	0	0		
Parma			30.37	771.4	30.7	− 0.7		W			2		3		0	0		
Bologna			30.40	772.2	31.6	− 0.2	29	W			4		6	N	0	0		
Urbino			30.40	772.2	37.6	3.1	78	SE			2		2		0	0		
Ancona			30.34	770.6	39.4	4.1	65	W			3		1		0	0		
Florence			30.33	770.5	45.0	7.2	61	E			2		1		0	0		
Livorno			30.29	769.3	51.8	11.0	59	ENE	1.9	0.8			4		0	0		
Rome			30.27	768.8	51.3	10.7	62	S			2		0		0	0		
Naples, O.U.			30.24	768.0	52.7	11.5	35	NE			4		1		0	0		
Naples, S. R.	29.68	753.9			49.6	9.8	50	NE			6		0		0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.17	766.4	47.3	8.5	69	NW			2		2		0	0		
Catania, (Sicily)			30.15	765.7	52.3	11.3	61	NW					2		0	0		
Palermo			30.16	766.0	53.6	12.0	83	NW			2		10		0.008	0.2		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometres 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.

NETHERLAND SERIES.

Furnished by co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.77	756.1				SW			4							
Flushing			30.00	762.1	43.5	6.4		W			5							
Helder			29.84	758.0	49.1	9.5		SW			4							
Utrecht			29.88	758.9	39.7	4.3	100	SW			6		10				Fog.	

Note.—The originals give the force of the wind in kilogrammes per square metre, 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 co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			29.84	757.9	17.2	— 8.2	97	E	1.7	0.76			10		0	0		
Tromsö																		

Note.—The originals give the velocity of the wind in metres 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.

PORTUGUESE SERIES.

Furnished by co-operation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.96	761.1			45.0	7.2	86	NNE	7.5	3.3			10					

Note.—The originals give the wind velocity in kilometres 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.

RUSSIAN SERIES.

Furnished by co-operation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.36	771.1	10.4	—12.0	93	SE	8.	4			0					
Wilna			30.50	774.8	3.0	—16.1	83	Calm	0	0			3					
Dorpat			30.28	769.2	22.5	— 5.3	88	SW	8.	4			10					
St. Petersburg			30.16	766.1	18.9	— 7.3	100	WNW	4.	2			10				Fog.	
Kieff			30.56	776.2	8.8	—12.9	96	NW	4.	2			10				Snow.	
Nikolaiev			30.50	774.7	18.0	— 7.8	80	N	10.1	4.5			0					
Kertch			30.31	769.8	26.8	— 2.9	89	NE	11.	5			10					
Moscow			30.25	768.3	22.3	— 5.4	87	WNW	7.8	3.5			10					
Lugan			30.32	770.0	16.3	— 8.4	76	NNE	10.1	4.5			3					
Archangel			29.87	758.7	20.1	— 6.6	89	SW	7.8	3.5			10				Snow.	
Tiflis			30.09	764.4	48.6	9.2	67	SE	4.	2			6					
Astrakhan			30.40	772.2	20.8	- 6.2	79	NNE	7.8	3.5			2					
Kasan			30.03	762.8	13.3	—10.4	100	SSW	2.	1			5					
Orenburg			30.32	770.0	9.5	—12.5	100	Calm	0	0			10					
Ekaterinburg			30.20	767.2	1.8	—16.8	80	SW	13.	6			1					
Kasaly			30.14	765.5	14.2	— 9.9	84	NNW	7.8	3.5			3					
Taschkend																		
Barnaul			30.10	764.6	22.5	— 5.3	80	Calm	0	0			4					
Yeniseisk			30.07	763.7	— 3.1	—19.5	91	E	4.	2			0					
Irkutsk			30.29	769.4	5.2	—14.9	88	NW					10				Fog.	
Oorga			30.70	779.9	— 6.5	—21.4	100	Calm	0	0			0					
Peking, (China)			30.31	769.8	22.1	— 5.5	62	Calm	0	0			0					
Nertchinsk			30.46	773.8	—29.9	—34.4	90	Calm	0	0			0					
Vladivostock					6.8	—14.0	71	Calm	0	0			0					
Nikolaievsk					—16.4	—26.9		NW	13.	6.			5					

Note.—The originals give the velocity of the wind in metres 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 co-operation of Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.38	771.7	49.3	9.6	72	E	2.2	1.0		1	0	SW	0	0		Royal Observatory.

Note.—The originals give the velocity of the wind in kilometres per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.78	756.4	7.9	—13.4	100	SW			2		10		0	0		
Hernosand			29.77	756.1	13.5	—10.3	90	SSW			4		8		0	0		
Upsala			29.92	759.9	21.2	— 6.0	74	SE			2		10				Snow	Dr. H. H. Hildebrandsson.
Stockholm			29.91	759.8	27.3	— 2.6	92	S			4		10		0.098	2.5	Snow	
Wisby			30.03	762.7	27.3	— 2.6	96	SW			2		7		0			

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.92	734.6			39.7	4.3	98	SW			3		10		0.457	11.6	Rainy	The Observatory.
Zurich	28.59	726.3			38.1	3.4	98	SE			1		10		0.189	4.8	Rainy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																		
Constantinople			30.04	763.1	40.3	4.6	86	NNE	44	20			10				Rainy	
Fao, (Persian Gulf)			30.04	763.0	73.4	23.0		SE			4		10					
Salonica			30.16	766.1	39.6	4.2		N			2		10					
Avlona			30.00	762.1	45.7	7.6		NW			3		0					
Varna			30.32	770.0	28.4	— 2.0		N			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by co-operation of M. le Général Farré, Commandant Supérieur du Génie en Algérie.

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.33	770.3	23.4	— 4.8	84	SW			2		5		0	0		Prof. Ivan Stozir.
Cracow			30.17	766.3	35.6	2.0	91	ESE			3		0		0.028	0.7		I. R. Observatory.
Eperies			30.27	768.9	40.1	4.5	88	Calm			0		10		0.049	1.25		Julius Mikolik.
Grätz			30.31	769.9	26.6	— 3.0	77	S			4		7		0	0		Andreas Rospini.
Hermannstadt			30.33	770.5	40.3	— 4.6	81	ESE			2		10		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.20	767.1	35.4	1.9	93	NE			2		10		0	0		Prof. C. Wagner.
Lemberg			30.11	764.9	29.3	— 1.5	89	NW			4		10		0.016	0.4		Dr. T. Stanecki.
Nyir-Egyhaza			30.35	770.8	27.0	— 2.8	96	SW			2		10		0	0		Habzsuda Daniel.
Pola			30.27	768.9	45.3	7.4	66	NW			4		6		0	0		I. R. Hydrographical Office.
Szegedin			30.31	769.8	26.2	— 3.2	87	S			4		4		0	0		Karl Stancel.
Trieste			30.28	769.2	43.7	6.5	78	S			2		10		0	0		Prof. V. Farolfi.
Vienna			30.26	768.7	27.5	— 2.5	97	SW			2		10		0.069	1.7	Mist	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.

BELGIAN SERIES.

Furnished by co-operation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.70	756.6			46.0	7.8	99	SW			1		10		0.157	4.00	Cloudy	Royal Observatory.

NOTE.—The originals give the wind force in kilogrammes per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by co-operation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.54	750.3	41.0	5.0		S	10	4			10		0.020	0.51	Mist	William Boswell.
Annanhill			29.53	750.0	44.3	6.8		WNW			1		10				Rain	W. H Dunlop.
Ardrossan			29.50	749.3	40	4.4		NE			2		10				Rain	William McNeil.
Armagh Observatory			29.46	748.3	48.0	8.9		S	2	1			10				Rain	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.62	752.3	46.2	7.9		ESE			2		10					The Liverpool Observatory
Birr Castle			29.48	748.8	49.1	9.5		SS			1		10				Rain	J. Dreyer.
Bradford			29.63	752.6	48.0	8.9		S			1		10					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.79	756.6	49.2	9.6		SW			2		10					H. Todd.
Cape Town			29.90	759.4	72	22.2		SE			7		3					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.98	761.5			74.0	23.3	53	S	28	13			1.5					The Royal Observatory.
Cardington			29.79	756.6	50.0	10.0		S			2		9					John McLaren.
Carlisle			29.59	751.6	46.8	8.2		S	2.7	1.2			10		0.21	5.3	Threatening	T Bell.
Chatham			29.83	757.7	50.0	10.0		W			2		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.96	761.0	75.3	24.1		NE			5		8					Sgt. W. F. Hopkins
Dartmoor			29.82	757.4	46.5	8.1		SW			7		10				Rain	R. E. Power.
Donaghadee			29.44	747.8	48	8.9		SW			3		10				Rain	J. Mac Gowan, Jr.
Dover			29.06	738.1	47	8.3							6					J. Costello.
Dublin																		
Durham Observatory			29.59	751.6	41.4	5.2		S			2		10					G. Goldney.
Eccles, (near Manchester)			29.68	753.9	46.3	7.9		SSE	5.2	2.3			10				Mist	Thomas Mackereth
Falmouth Observatory			29.71	754.6	51.5	10.8		W	3.4	1.5			10				Rain	The Falmouth Observatory
Fort Napier, (Natal)			29.69	754.1	87.6	30.9		E			3		4					Pvt. G. Salmon.
Galway			29.73	755.1	44	6.9		S			6		10				Rain	Queen's College.
Gibraltar, (Mediterranean Sea)			30.31	744.5	58.0	14.4		NNW					10				Rain	Sgt. J. Brewster.
Glasgow Observatory			29.51	749.5	38.1	3.4		NE			1		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.73	755.1	51.1	10.8		SW			2		10				Rain	E. Toller.
Great Yarmouth			29.83	757.7	42	5.6		SSW			2		8				Mist	G. T. Watson.
Greenwich Royal Observatory			29.84	757.9	50.0	10.0		SW			4		7					The Royal Observatory.
Guernsey			29.86	758.4	50	10.0		SSW			2		8					Dr. S. E. Hoskins.
Halifax, England			29 64	752.8	47.8	8.8		SW			2		10					Mooreside Observatory.
Halifax, Nova Scotia			30.16	766.0	17.8	—7.9		NW			2		8					Corp'l J. Y. Thompson.
Helston			29.72	754.9	53	11.7		S			6		10				Fog	W. B. Moyle.
Holyhead			29.56	750.8	49	9.4		SW			4		10				Mist	John Tilston.
Hull Park																		
Kew Observatory			29.84	757.9	49.9	9.9		SSW	15	7			10					The Meteorological Office.
Kingstown			29.49	749.0	49	9.4		SSE			1		10					George Mitchell.
Lampeter																		
Leicester			29.75	755.6	48.8	9.3		SW			4		10					William J. Harrison
Llandudno			29.59	751.6	53.2	11.8		SW			1		9					Dr. James Nicol.
Malta, (Mediterranean Sea)					56.0	13.3		NE			2		2					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.48	748.8	41	5.0		Calm			0		9					William D. Penny.
Nassau			30.16	766.0	68.3	20.2		Calm			0		5					Surgeon I. Jameson.
Nottingham			29.72	754.9	49.3	9.6		S			3		10					E. J. Lowe.
North Shields			29.63	752.6	41	5.0		S			1		8					John Wm. Irvine.
Osborne, New Barn Cottage			29.84	757.9	50.0	10.0		SW			2		10				Rain	J. R. Mann.
Oscott, (near Birmingham)			29.74	755.4	46.9	8.3		S			3		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.26	743.2	51	10.6		S			3		10					Radcliffe Observatory.
Plymouth			29.77	756.1	50.5	10.3		SSE			5		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.51	749.5	49	9.4		SW			5		10					W. Kennedy.
Saint Ann's Head			29.63	752.6	49	9.4		SSW			5		10				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.54	750.3	40.2	4.0		SSE	20	9			10				Fog	Rev. Dr. Clouston.
Scarboro'			29.68	753.9	43.0	6.1		SW			4		9					F. Heard.
Scutari, Turkey			30.13	765.3	40.0	4.4		NNE			3		10				Rainy	W. H. Lyne.
Sheffield			29.69	754.1	46.8	8.2		SW			2		10					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.54	750.3	48.5	9.2		SW			5		10		0.100	2.5		Francis Redford.
Somerleyton, (Lowestoft)			29.83	757.7	49.0	9.4		SSW			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.60	751.8	44.8	7.1		S			3		10				Hazy	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.40	746.7	45	7.2		SSW			5		10					John Smith.
Strathfield Turgiss			29.80	756.9	49.7	9.8		SW			1		10					Charles H. Griffith.
Streatley Vicarage																		Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.50	749.3	43	6.1		SSE			4		10					William Lawrence.
Taunton College																		
Thurso			29.49	749.0	40	4.4		SE			2		9					John Trotter.
Truro, Royal Institution			29.67	753.6	52	11.1		SW			7		10				Rain	Royal Institution.
Valencia			29.44	747.8	50.2	10.1		SSW	30	13			10				Rain	Meteorological Observatory
Wick																		
Wisbech			29.76	755.9	46.7	8.2		SW			0		10					S. H. Miller.
Worthing			29.85	758.2	5.6	—14.7		SSW			3		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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			29.83	757.7	36.9	2.7	89	WNW			5		10					
Fanö			29.89	759.1	35.8	2.1	94	Calm			0		9					
Thorshavn, (Faro)			29.39	746.6	43.2	6.2	88	SSE			6		10				Rain	
Vestervig			29.84	758.0	33.4	0.8	100	ESE			2		10					
Stykkisholm, (Iceland)			29.00	736.7	36.0	2.2	93	SE			6		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 co-operation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and MM. Marié Davy, E. Renou, Dr. Fines, Dr. Bérigny,, and Père Pascall

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.98	761.6	48.2	9.0	97	SW			1		10		0	0.00		Normal School.
Amiens			30.03	762.7	35.6	2.0	89	WSW			2		10		0.079	2.0		Normal School.
Baumette, (near Angiers)			30.01	762.2	49.3	9.6	92	SW	5.8	2.6			10		0.008	0.2		Baumette Observatory.
Beauvais			30.01	762.2	46.2	7.9	94	S			0		10		0.020	0.50		Normal School.
Bourges			30.09	764.4	47.1	8.4	94	SE			2		5		0.008	0.2		Normal School.
Brest			29.78	756.5	51.3	10.7	86	SW			4		10		0.059	1.5		Naval Observatory.
Caen			29.94	760.6	50.2	10.1	95	S			2		8		0	0		Normal School.
Carcassonne																		
Chartres																		
Gorée, (Senegambia)			29.97	761.3	70.9	21.6	56	NNE			2		1		0	0		Père Pascall
Le Mans			30.00	762.1	48.2	9.0	92	SSW			4		10		0.075	1.9		Normal School.
Mont-Louis	24.05	633.7			43.5	6.4	76	SW	15.0	6.7			8		0	0		M. Falguère.
Montsouris, (near Paris)			30.01	762.2	45.5	7.5	97	S	6.9	3.1					0	0		Marié Davy.
Orleans			30.04	763.1	46.4	8.0	91	S			2		5		0	0		Normal School.
Paris			30.01	762.2	45.5	7.5	94	S			2		8	SSW		0.37		National Observatory.
Parthenay			30.10	764.6	52.7	11.5	93	SW			2		10		0.015	1.0		Normal School.
Perpignan	30.05	763.2			52.7	11.5	86	ENE	1.8	0.8			7		0	0		Dr. Fines.
Roche sur Yon			30.25	768.4	49.3	9.6	97	SE			2		10		0.075	1.9		Normal School.
Rouen			29.97	761.2	44.6	7.0	100	SSE			0		10		0	0		Normal School.
Saint Lo			29.98	761.4	51.8	11.0	85	SW			2		5		0.008	0.2	Clearing	Normal School.
Saint Maur, (near Paris)			30.01	762.2	45.9	7.7	94	S			1		8		0.020	0.5		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.28	769.1	56.8	13.8	81	N			3		4		0.012	0.3	Fair	M. Jacques.
Versailles, (near Paris)			30.00	761.9	46.8	8.2	100	SW			1		9		0	0	Fog	Dr. A. Bérigny.

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 kilometres per hour, but by Beaumette Mont-Louis and Perpignan in metres 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.

GERMAN SERIES.

Furnished by the co-operation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.18	766.5	41.0	5.0	91	S			2		10		0.102	2.6	Rain	Prof. Hoh.
Berlin			30.07	763.9	37.8	3.2	85	S			2		10		0.177	4.5	Rain	Prof. Arndt.
Breslau			30.12	765.1	38.1	3.4	72	SW			3		10		0	0	Fog	Dr. P. Neugebauer.
Carlsruhe			30.28	769.1	39.9	4.4	99	Calm			0		10		0.028	0.7	Fog	A. Lenz.
Cassel			30.03	762.7	38.7	3.7	91	SE			2		10		0.134	3.4	Rain	Dr. H. Mohl.
Cologne			30.02	762.6	41.9	5.5	74	SW			3		10		0	0		Dr. Gaithe.
Emden			30.04	762.9	35.4	1.9	100	SW			1		10		0.185	4.7	Fog.	Prof. Prestel.
Frankfort			30.28	769.1	37.4	3.0	96	SE			0		10		0.071	1.8	Fog	Physical Society.
Friedrichshafen			30.16	766.1	39.2	4.0	100	N					10		0.287	7.3	Rain	M. Wilhelm.
Hainburg			30.00	762.1	38.3	3.5	91	SW			3		10		0.002	0.06	Fog	W. Reinart.
Kiel			29.91	759.7	38.8	3.8	87	SW			2		10		0	0		Prof. G. Karsten.
Königsberg			29.80	756.9	34.5	1.4	84	SW			2		10		0.071	1.8	Snow	Prof. E. Luther.
Köslin			30.17	766.3	34.5	1.4		W			4		10		0.185	4.7		Dr. Tägert.
Leipsic			30.09	764.3	36.0	2.2	98	S			2		10		0.197	5.0		Prof. Bruhns.
Münster			29.82	757.4	44.8	7.1	91	SW			3		10		0.063	1.6	Rain	Prof. F. Heis.
Posen			30.07	763.7	36.5	2.5	91	W			1		10		0.102	2.6		Dr. Magener.
Strassburg, in E.			30.12	765.1	40.8	4.9	98	Calm					9		0.339	8.6		Hartwig and Fulk.
Stuttgart			30.20	767.2	38.3	3.5	85	E					8		0	0	Rain	Mr. Wurth.
Thorn			29.97	761.3	35.6	2.0	91	W			0		10		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.05	763.3	38.3	3.5	100	S			1		10		0.083	2.1		Prof. Flesch.
Wustrow			30.00	762.0	36.3	2.4	95	SW			2		7		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the co-operation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.33	770.5	31.3	— 0.4	87	ENE	0	0			9		0	0		
Mondovi			30.33	770.4	36.5	2.5	60	Calm					5		0	0		
Genoa			30.27	768.9	50.0	10.0	63	Calm					10	SW	0.004	0.1		
Pavia			30.34	770.6	27.5	— 2.5	87	NW			0		9		0	0		
Padua			30.28	769.2	31.8	— 0.1	98	NNW	1.2	0.5			8		0	0		
Parma			30.30	769.6	33.4	0.8		SSW			2		3		0	0		
Bologna			30.37	771.4	31.8	— 0.1	28	WSW			4		4	N	0	0		
Urbino			30.36	771.1	34.2	1.2		S			4		4		0	0		
Ancona			30.23	767.8	47.2	8.5	82	SSE			2		10		0	0		
Florence			30.31	769.8	43.7	6.5	68	E			2		2		0	0		
Livorno			30.28	769.0	52.9	11.6	45	NE	2.5	1.1			4		0	0		
Rome			30.32	770.0	50.2	10.1	62	ENE					1		0	0		
Naples, O.U.			30.30	769.5	54.5	12.5	37	N			2		0		0	0		
Naples, S. R.	29.76	755.8			50.9	10.5	59	NW			2		0		0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.32	770.0	48.9	9.4	52	NW			1		0		0	0		
Catania, (Sicily)			30.28	769.2	50.4	10.2	65	W			1		0		0	0		
Palermo			30.25	768.4	55.0	12.8	55	NNE			2		0		0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometres 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.

NETHERLAND SERIES.

Furnished by co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen					37.0	2.8												
Flushing			29.97	761.2	42.1	5.6		S			4							
Helder			29.89	759.1	42.8	6.0		SSW			4							
Utrecht			29.91	759.7	43.5	6.4	98	SSW			3		8					

Note.—The originals give the force of the wind in kilogrammes per square metre, 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 co-operation 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			29.84	757.9	22.6	— 5.2	85	NE	0.3	0.15			0		0.177	4.5		
Tromsö																		

Note.—The originals give the velocity of the wind in metres 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.

PORTUGUESE SERIES.

Furnished by co-operation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.94	760.5			52.5	11.4	87	NNE	1.2	0.5			10					

Note.—The originals give the wind velocity in kilometres 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.

RUSSIAN SERIES.

Furnished by co-operation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.98	781.5	34.0	1.1	98	W	13.	6			10					
Wilna			29.90	759.4	17.1	— 8.8	87	SE	7.8	3.5			10				Snow.	
Dorpat			29.96	761.1	7.0	—13.9	87	ESE	4.	2			10					
St. Petersburg			29.98	761.4	10.6	—11.9	96	SSE	13.	6			10					
Kieff			30.31	769.9	10.2	—12.1	93	SSW	4.	2			2				Snow	
Nikolaiev			30.34	770.6	13.6	—10.2	83	Calm	0	0			0					
Kertch			30.45	773.5	27.3	— 2.6	92	NE	11.	5			10					
Moscow			30.32	770.2	14.9	— 9.5	81	SW	10.1	4.5			10				Snow	
Lugan			30.24	768.2	14.0	—10.0	74	ESE	13.	6			2					
Archangel			29.92	760.0	15.8	— 9.0	94	W	13.	6			10				Snow	
Tiflis			30.03	762.8	38.1	3.4	83	S	7.8	3.5			10				Snow & rain.	
Astrakhan			30.44	773.2	14.2	— 9.9	84	NE	10.1	4.5			10					
Kasan			30.23	767.8	20.8	— 6.2	100	SW	2.	1			10					
Orenburg			30.51	774.9	13.1	—10.5	97	Calm	0	0			10				Snow	
Ekaterinburg			30.41	772.4	— 2.6	—19.2	88	SW	4.	2			2					
Kasaly			30.28	769.0	13.3	—10.4	83	NNE	7.8	3.5			3					
Tashkend																		
Barnaul			30.24	768.1	9.3	—12.6	81	Calm	0	0			3					
Yeniseisk			29.74	755.3	15.4	— 9.2	96	SE	7.8	3.5			10				Snow	
Irkutsk			30.33	770.3	— 6.0	—21.1	88	Calm	0	0			0					
Oorga			30.86	783.8	—19.1	—28.4	100	Calm	0	0			0					
Peking, (China)			30.46	773.7	27.0	— 2.8	39	NNW	10.1	4.5			0					
Nertchinsk			30.54	775.6	—29.4	—34.1	90	Calm	0	0			0					
Vladivostock					7.2	—13.8	81	N	4.	2			8					
Nikolaievsk					—24.7	—31.5		W	4.	2			0					

Note.—The originals give the velocity of the wind in metres 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 co-operation of Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.33	770.3	43.3	6.3	86	NW	1.5	0.7			10		0	0		Royal Observatory.

Note.—The originals give the velocity of the wind in kilometres per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, 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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.81	757.3	5.7	—14.6	100	NW			2		10		0	0		Dr. H. H. Hildebrandsson.
Hernosand			29.80	757.0	3.6	—15.8	100	Calm			0		6		0	0		
Upsala			29.80	757.0	28.6	— 1.9	100	NNE			1		10				Fog	
Stockholm			29.77	756.1	29.8	— 1.2	100	NNE			1		10			0.2		
Wisby			29.81	757.3	33.1	0.6	96	S			2		7		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.76	730.4			38.5	3.6	98	SSW			3		9		0.016	0.4	Fog	The Observatory.
Zurich	28.48	723.3			39.0	3.9	98	NW			1		10		0.260	6.6	Foggy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.73	755.1	57.9	14.4	64	SE			10		10				Rainy	
Constantinople			30.09	764.4	37.8	3.2	76	N		8.5			10				Rainy	
Fao, (Persian Gulf)			30.08	764.0	71.6	22.0		SE			4		10					
Salonica			30.17	766.4	41.4	5.2		N			0		0					
Avlona			30.09	764.3	47.8	8.8		N			3		0					
Varna			30.24	768.0	26.6	— 3.0		N			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the co-operation of M. le Général Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerlville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.07	763.7	29.5	— 1.4	80	NW			4		10		0	0		Prof. Ivan Stozir.
Cracow			30.02	762.6	32.5	0.3	91	E			4		10		0	0		I. R. Observatory.
Eperies			30.08	764.0	36.5	2.5	89	S			4		10		0.057	1.44		Julius Mikolik.
Gratz			30.05	763.2	33.8	1 0	70	S			4		10		0	0		Andreas Rospini.
Hermannstadt			30.07	763.8	29.8	— 1.2	80	ESE			2		10		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.06	763.6	39.6	4.2	93	W			2		10		0.220	5.60		Prof. C. Wagner.
Lemberg			30.04	761.3	31.1	— 0.5	92	W			6		9		0.047	1.2		Dr. T. Stanecki.
Nyir-Egyhaza			30.11	764.7	28.4	— 2.0	100	S			2		10		0 080	2.03		Habzsuda Daniel.
Pola			30.07	763.9	45.7	7.6	85	E			4		10		0	0		I. R. Hydrographic Office.
Szegedin			30.02	762.4	30.2	— 1.0	84	S			2		8		0	0		Karl Stancel.
Trieste			30.09	764.2	43.9	6.6	71	E			0		10		0.166	4.22	Foggy	Prof. V. Farolfi.
Vienna			30.12	765.0	28.6	— 1.9	94	SW			2		10		0.134	3.4	Fog	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.

BELGIAN SERIES.

Furnished by the co-operation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.81	757.3			44.6	7.0	100	SW			1		10		0.024	0.60	Cloudy	Royal Observatory.

NOTE.—The originals give the wind force in kilogrammes per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the co-operation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.74	755.4	41.1	5.1		SW	8	4			9		0.130	3.30	Mist	William Boswell.
Annanhill			29.77	756.1	47.6	8.7		SSW			1		9					W. H. Dunlop.
Ardrossan			29.75	755.6	47	8.3		SW			2		6					William McNeil.
Armagh Observatory			29.70	754.4	48.3	9.1		S	28	13			10					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.86	758.4	45.4	7.4		SSE			2		5					The Liverpool Observatory.
Birr Castle			29.68	753.9	50.2	10.1		SSE			3		10					J. Dreyer.
Bradford			29.84	757.9	44.7	7.1		S			1		5					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.97	761.2	45.1	7.3		SW			1		7					H. Todd.
Cape Town			29.92	759.9	75	23.9		SE			3		2					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.97	761.2			77.3	25.2	45	S	26	12			2					The Royal Observatory.
Cardington			29.98	761.5	46.0	7.8		W			1		4					John McLaren.
Carlisle			29.82	757.4	44.9	7.2		W			3		10		0.05	1.3		T. Bell.
Chatham			29.98	761.5	48.2	9.0		W			1		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.95	760.7	77.0	25.0		NE			1		9					Sgt. W. F. Hopkins
Dartmoor			30.02	762.5	44.8	7.1		SW			6		10					R. E. Power.
Donaghadee			29.71	754.6	46	7.8		SSW			5		9					J. Mac Gowan, Jr.
Dover			30.01	762.2	47	8.3							5					J. Costello.
Dublin																		
Durham Observatory			29.84	757.9	42.8	6.0		SSE			1		10					G. Goldney.
Eccles, (near Manchester)			29.89	759.2	44.7	7.1		SW	14	6.6			5				Mist	Thomas Mackereth
Falmouth Observatory			29.98	761.5	51.2	10.7		SSW	24	11			8					The Falmouth Observatory.
Fort Napier, (Natal)			29.82	757.4	67.6	19.8		SE			4		10					Pvt. G. Salmon.
Galway			29.78	756.4	45	7.2		SW			3		10				Rain	Queen's College.
Gibraltar, (Mediterranean Sea)			30.18	766.6	58.8	14.9		NNW					0					Sgt. J. Brewster.
Glasgow Observatory			29.74	755.4	45.5	7.5		S			3		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.89	759.2	49.1	9.5		SW			3		3					F. Toller.
Great Yarmouth			29.96	761.0	45	7.2		W			2		8				Mist	G. T. Watson.
Greenwich Royal Observatory			30.01	762.2	47.7	8.7		WSW			1		4					The Royal Observatory.
Guernsey			30.04	763.0	49.5	9.7		SSW			1		0					Dr. S. E. Hoskins.
Halifax, England			29.83	757.7	44.0	6.7		WSW			1		9				Mist	Moorside Observatory
Halifax, Nova Scotia			30.15	765.8	17.3	— 8.2		NW			2		6					Corp'l J. Y. Thompson.
Helston			29.95	760.7	53	11.7		SW			6		5					W. B. Moyle.
Holyhead			29.84	757.9	48	8.9		SSW			5		7				Misty	John Tilston.
Hull Park																		
Kew Observatory			30.01	762.2	47.6	8.7		WSW	8	4			4					The Meteorological Office.
Kingstown			29.77	756.1	50	10.0		S			2		9					George Mitchell.
Lampeter																		
Leicester			29.95	760.7	47.5	7.6		SW			1		4					William J. Harrison
Llandudno																		Dr. James Nicol.
Malta, (Mediterranean Sea)					60.0	15.6		SW			1		8					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.66	753.3	41	5.0		Calm			0		9					William D. Penny.
Nassau			30.16	766.0	69.7	20.9		Calm			0		4					Surgeon I. Jameson.
Nottingham			29.93	760.2	45.2	7.3		SSW			4		4				Mist	E. J. Lowe.
North Shields			29.84	757.9	42	5.6		SW			1		6					John Wm. Irvine.
Osborne, New Barn Cottage			30.02	762.5	48.9	9.4		SW					10					J. R. Mann.
Oscott, (near Birmingham)			29.94	760.5	43.6	6.4		SSW			4		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y.			29.95	760.7	46	7.8		S			1		9					Radcliffe Observatory.
Plymouth			29.98	761.5	50	10.0		SSW			1		8					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.75	755.6	48	8.9		SSW			6		8				Mist	W. Kennedy.
Saint Ann's Head			29.89	759.2	49	9.4		SW			3		7					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.68	753.9	42	5.6		W	6	3			3					Rev. Dr. Clouston.
Scarboro'			29.86	758.4	42.4	5.8		WSW			2		7					F. Heard.
Scutari, Turkey			30.14	765.5	40.0	4.4		NE			2		9				Rainy	W. H. Lyne.
Sheffield			29.90	759.4	45.4	7.4		SW			2		5					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.80	756.9	47.8	8.8		SW			4		10		0.00	0.00		Francis Redford.
Somerleyton, (Lowestoft)			29.94	760.5	48.0	8.9		SSW			1		6					Rev. C. J. Steward.
Stonyhurst Observatory			29.82	757.4	45.3	7.4		S			1		8				Haze	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.56	750.8	45	7.2		SW			5		10				Rain	John Smith.
Strathfield Turgiss			30.01	762.2	46.7	8.2		W			1		10					Charles H. Griffith.
Streatley Vicarage			29.99	761.7	46.2	7.9		WSW			1		6					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.54	750.3	46	7.8		N			1		10					William Lawrence.
Taunton College																		
Thurso			29.66	753.3	40	5.0		Calm			0		9					John Trotter.
Truro, Royal Institution			29.91	759.7	52	11.1		S			6		7					Royal Institution.
Valencia			29.58	751.3	50.6	10.3		S	47	21			10				Mist	Meteorological Observatory
Wick																		
Wisbech			29.93	760.2	45.0	7.2		WSW			1		7					S. H. Miller.
Worthing			30.03	762.7	44.0	6.7		S			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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.84	758.0	34.2	1.2	96	SSW			2		10				Rain	
Fanö			29.80	756.8	37.0	2.8	100	WSW			2		10				Fog	
Thorshavn, (Faro)			29.59	751.5	42.8	6.0	93	SE			4		10					
Vestervig			29.73	755.1	36.0	2.2	96	SW			2		10				Fog	
Stykkisholm, (Iceland)			29.07	738.4	37.2	2.9	82	E			6		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 co-operation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and MM. Marié Davy, E. Renou, Dr. Fines, Dr. Bérigny,, and Père Pascall

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.11	764.8	48.9	9.4	86	NW			1		8		0.063	1.6		Normal School.
Amiens			30.01	762.2	41.4	5.2	86	SW			2		3		0.134	3.4		Normal School.
Baumette, (near Angiers)			30.13	765.4	48.6	9.2	92	SW	0	0					0.110	2.8	Fog	Baumette Observatory.
Beauvais			30.10	764.6	47.3	8.5	83	W			0		5		0.039	1.00		Normal School.
Besançon			30.17	766.2	43.7	6.5	96	SW			2		8		0.476	12.1		Normal School.
Bourges			30.20	767.1	46.8	8.2	89	NW			2		5		0.063	1.6		Normal School.
Brest			30.03	762.7	52.0	11.1	82	SW			3		10		0.118	3.0		Naval Observatory.
Caen			30.11	764.8	48.4	9.1	89	WSW			2		3		0.098	2.5		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.09	764.4	44.8	7.1		SW			2		10		0.150	3.8	Fog	Normal School.
Gorée, (Senegambia)			29.97	761.3	71.8	22.1	65	N			2		2		0	0		Père Pascall
Le Mans			30.15	765.8	45.5	7.5	91	W			2		10		0	0		Normal School.
Mirecourt			30.04	762.9	41.4	5.2		SSW			1		10		0.20	5.0		M. Falgnère.
Mont-Louis	24.88	632.0			37.6	3.1	88	W	9.4	4.2			5		0.031	0.8		Normal School.
Montsouris, (near Paris)			30.09	764.4	49.1	9.5	70	WNW	5.0	2.2				NW	0.031	0.8		Marié Davy.
Orleans			30.14	765.6	48.6	9.2	76	W			2		10		0	0		Normal School.
Paris			30.09	764.4	48.7	9.3	75	W			2		8	NW	0.046	1.18		National Observatory.
Parthenay			30.20	767.2	54.5	12.5	79	W			1		5		0.087	2.2		Normal School.
Perpignan	29.99	761.8			56.3	13.5	58	NW	11.2	5.0			8		0.012	0.3	Clearing	Dr. Fines.
Roche sur Yon			30.13	765.4	52.0	11.1	98	SE			2		3		0	0		Normal School.
Rouen			30.08	764.1	46.4	8.0	94	NNW			0		5		0.079	2.0		Normal School.
Saint Lo			30.15	765.9	50.7	10.4	86	NW			3		5		0	0		Normal School.
Saint Maur, (near Paris)			30.09	764.4	48.0	8.9	79	WNW			1		10		0.063	1.6		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.12	765.1	58.5	14.7	81	W			3		9		0.047	1.2	Fog	M. Jacques.
Versailles, (near Paris)			30.10	764.5	48.2	9.0	78	NW			1		8		0.035	0.89	Cloudy	Dr. A. Bérigny.
Villefranche			30.06	763.5	45.3	7.4	95	SE			1		10		0.094	2.4		Normal School.

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.

GERMAN SERIES.

Furnished by the co-operation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.07	763.8	36.5	2.5	95	SE			1		10		0.378	9.6	Rain	Prof. Hoh.
Berlin			29.97	761.3	38.5	3.6	96	S			1		10		0.283	7.2	Rain & Fog	Prof. Arndt.
Breslau			30.01	762.3	36.7	2.6	100	SW			0		10		0.043	1.1		Dr. P. Neugebauer.
Carlsruhe			30.09	764.4	51.7	5.4	96	SW			1.7		10		0.169	4.3	Rain & Fog	A. Leuz.
Cassel			30.01	762.2	41.0	5.0	88	S			2		10		0	0		Dr. H. Mohl.
Cologne			29.99	761.7	47.3	8.5	94	SSW			3		9		0	0		Dr. Gaithe.
Emden			30.02	762.5	36.5	2.5	100	WSW			2		10		0	0	Fog	Prof. Prestel.
Frankfort			30.17	766.4	39.2	4.0	95	SW			2		10		0.153	3.9	Fog	Physical Society.
Friedrichshafen			30.13	765.4	38.3	3.5	100	W					10		0.161	4.1	Rain	M. Wilhelm.
Hamburg			29.92	760.0	37.4	3.0	100	W			3		10		0.197	5.0	Fog & Rain	W. Reinart.
Kiel			29.85	758.2	39.7	4.3	86	SW			2		10		0.276	7.0		Prof. G. Karsten.
Königsberg			30.04	763.0	20.8	— 6.2	87	NE			2		10		0.142	3.6		Prof. E. Luther.
Köslin			30.20	767.1	34.2	1.2		S			2		10		0.008	0.2		Dr. Tägert.
Leipsic			30.01	762.2	37.6	3.1	100	SSW			2		10		0.295	7.5	Rain	Prof. Bruhns.
Münster			29.82	757.4	46.6	8.1	90	SW			3		10		0.012	0.3	Rain & Fog	Prof. P. Heis.
Posen			30.02	762.5	35.8	2.1	96	SE			5		10		See	Jan 6		Dr. Mager.
Strassburg, in E.			30.11	764.8	43.7	6.5	99	SW					9		0.165	4.2		Hartwig and Fulk.
Stuttgart			30.16	766.0	41.0	5.0	95	W					10		0.185	4.7	Rain	Mr. Wurth.
Thorn			29.99	761.7	34.7	1.5	84	W			1		10		0	0		Dr. Hagenbalg.
Treves, (Trier			30.04	763.1	41.2	5.1	100	W			2		10		0.012	0.3		Prof. Flesch.
Wustrow			29.91	759.6	34.2	1.2	100	W			0		10		0.059	1.5	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the co-operation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.08	764.0	35.1	1.7	72	WNW	0.6	0.3			10		0	0		
Mondovi			30.09	764.3	37.4	3.0	60	Calm					7		0	0		
Genoa			29.99	761.8	48.8	9.1	81	S	2.5	1.1			10	SE	0.098	2.5		
Pavia			30.08	764.1	33.5	0.7	90	NE			0		10		0	0	Rain	
Padua			30.07	763.7	34.2	1.2	78	N	3.7	1.6			10		0	0		
Parma			30.08	764.1	35.6	2.0		NE			4		10		0	0	Rain	
Bologna			30.13	765.2	35.4	1.4	34	WNW			4		1	WNW	0	0		
Urbino			30.12	765.0	44.1	6.7	78	SW			4		10		0	0		
Ancona			30.04	763.0	46.9	8.3	82	SSE			2		9		0	0		
Florence			30.09	764.3	42.3	5.7	89	E			2				0.020	0.5	Fog	
Livorno			30.03	762.7	52.2	11.2	90	S	4.4	2.0			10		0.157	4.0		
Rome			30.13	765.2	46.8	8.2	79	E			2		10	S	0	0		
Naples, O.U.			30.17	766.2	57.4	14.1	68	S			2		6	S	0	0		
Naples, S. R.	29.63	752.7			51.1	10.6	80	SW			2		8	NW	0.008	0.2		Prof. F. Brioschi.
Lecce																		
Cosenza			30.13	765.3	52.0	11.6	70	SE			2		7		0	0		
Catania, (Sicily)			30.15	765.7	52.3	11.3	57	W			4		5		0	0		
Palermo			30.10	764.6	55.2	12.9	61	NE			1		10		0	0		

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.

NETHERLAND SERIES.

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

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.86	758.5	38.7	3.7		SW			3							
Flushing			30.02	762.4	42.1	5.6		W			3							
Helder			29.91	759.7	35.2	1.8		WSW			2							
Utrecht			29.92	760.0	35.2	6.0	98	SW			2		10					

NOTE.—The originals give the force 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 co-operation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			29.92	759.9	24.1	— 4.4	90	ENE	2.9	1.29			10		0	0	Snow	
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the co-operation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.88	759.0			53.4	11.9	98	ESE	8.7	3.9			9					

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

Furnished by the co-operation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.98	761.4	33.4	0.8	100	W	4.	2			10					
Wilna			30.05	763.4	24.1	— 4.4	90	Calm	0	0			10					
Dorpat			30.00	762.1	15.3	— 9.3	87	WNW	4.	2			10					
St. Petersburg			29.96	760.9	13.5	—10.3	97	Calm	0	0			10					
Kieff			30.22	767.7	20.5	— 6.4	95	N	7.	3			10					
Nikolaiev			30.17	766.4	16.5	— 8.6	100	?	?	?			10					
Kertch			30.10	764.5	27.5	— 2.5	92	NE	7.	3			10					
Moscow			30.16	766.0	7.5	—13.6	88	SW	7.8	3.5			5					
Lugan			30.13	765.3	17.6	— 8.0	80	ESE	7.8	3.5			10					
Archangel			29.98	761.6	6.6	—14.1	83	WNW	4.	2			4					
Tiflis			30.06	763.4	42.8	6.0	75	N	16.8	7.5			6					
Astrakhan			30.26	768.6	17.2	— 8.2	94	N	13.	6			10					
Kasan			30.14	765.6	17.6	— 8.0	88	WSW	7.	3			10				Snow	
Orenburg			30.44	773.3	0.5	—17.5	100	NE	4.	2			10					
Ekaterinburg			30.22	767.6	12.0	—11.1	79	SW	13.	6			10					
Kasaly			30.09	764.2	17.8	— 7.9	83	NE	13.	6			10					
Tashkend																		
Barnaul			30.37	771.3	- 0.6	—18.1	84	WSW	4.	2			4					
Yeniseisk			29.91	759.8	— 8.0	—22.2	89	NE	4.	2			7					
Irkutsk			29.90	759.5	8.4	—13.1	80	ENE					0					
Oorga			30.68	779.2	—14.6	—25.9	100	Calm	0	0			0					
Peking, (China)			30.47	773.9	23.0	— 5.0	64	Calm	0	0			0					
Nertchinsk			30.55	775.9	—27.6	—33.1	89	Calm	0	0			0					
Vladivostock					3.9	—15.6	68	N	13.	6			1					
Nikolaievsk					— 2.9	—19.4		W	16.8	7.5			10				Snow	

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 co-operation of Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.35	770.9	38.1	3.3	97	N	0.4	0.2			10		0	0		Royal 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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.06	763.6	15.4	— 9.2	94	N			2		10		0.028	0.7	Snow	Dr. H. H. Hildebrandsson.
Hernosand			30.06	763.5	8.6	—13.0	92	N			2		10		0	0		
Upsala			30.01	762.2	20.7	— 6.3	100	N			2		10				Fog	
Stockholm			29.96	761.0	24.8	— 4.0	95	NNE			2		10		0.029	0.5	Sleet	
Wisby			30.02	762.4	31.6	— 0.2	89	SW			2		7		0.039	1.0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.69	728.7			46.8	8.2	73	SSW			3		9		0.449	11.4	Cloudy	The Observatory.
Zurich	28.44	722.4			38.8	3.8	98	NW			1		10		0.642	16.3	Rainy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.85	758.1	59.4	15.2	56	SW			8		10					
Constantinople			30.10	764.6	39.0	3.9	86	ENE	10.1	4.5			10					
Fao, (Persian Gulf)			30.00	762.0	70.3	21.3		SE			4		10					
Salonica			30.11	764.8	46.0	7.8		NW			3		0					
Avlona			30.04	763.1	52.3	11.3		N			2		5					
Varna			30.08	764.0	37.4	3.0		NW			2		8					

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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the co-operation of M. le Général Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.06	763.4	34.7	1.5	93	SW			4		10		0.000	1.01		Prof. Ivan Stozir.
Cracow			29.99	761.8	34.4	0.8	90	E			4		10		0.302	9.2		I. R. Observatory.
Eperies			30.02	762.6	36.0	2.2	89	Calm			0		10		0.159	4.05		Julius Mikolik.
Gratz			30.05	763.2	37.0	3.3	83	S			4		5		0.177	4.50		Andreas Rospini.
Hermannstadt			29.99	761.8	31.6	− 0.2	92	ESE			0		10		0.071	1.80	Snow	Prof. C. L. Reissenberger.
Kremsmünster			30.12	765.0	38.1	3.4	90	WNW			4		10		0	0		Prof. C. Wagner.
Lemberg			29.96	761.0	31.1	− 0.5	92	NE			4		10		0	0		Dr. T. Stanecki.
Nyiregyhazn			30.03	762.7	31.3	− 0.4	100	E			2		10		0.160	4.06		Habzsuda Daniel.
Pola			30.02	762.6	50.0	10.0	82	NW			2		10		0.009	0.23		I. R. Hydrographic Office.
Szegedin			29.97	761.3	33.1	0.6	89	SW			4		10		0.177	4.50		Karl Stancel.
Trieste			30.04	763.1	47.8	8.8	96	S			0		10		0	0	Foggy	Prof. V. Farolfi.
Vienna			30.04	762.9	39.9	4.4	89	WNW			3		10		0.626	15.9		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.

BELGIAN SERIES.

Furnished by the co-operation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.93	760.2			41.2	5.1	98	SW			0		10		0.002	0.05	Clearing	Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

BRITISH SERIES.

Furnished by the co-operation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.78	756.4	44.0	6.7		S	7	3			9				Mist	William Boswell.
Annanhill			29.73	755.1	48.2	9.0		SSE			3		9				Rain	W. H Dunlop.
Ardrossan			29.68	753.9	48	8.9		SSE			3		8					William McNeil.
Armagh Observatory			29.60	751.8	49.8	9.9		SSE	13	6			10				Rain	Stillman Cull.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.82	757 4	50.4	10.2		SS			4		2					The Liverpool Observatory.
Birr Castle			29.59	751.6	49.5	9.7		SSW			1		10				Rain	J. Dre er.
Bradford			29.86	758.4	47.6	8.7		E			2		10					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			30.00	762.0	46.0	7.8		S			1		9					H. Todd.
Cape Town			29.87	758.7	78	25.6		SE			1		1					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.93	760.2			76.3	24.6	41	S	24	11			1					Th Royal Observatory.
Cardington			30.00	762.0	49.0	9.4		S			1		4					John McLaren.
Carlisle			29.81	757.2	51.2	10.7		S			5		9		0	0		T. Bell.
Chatham			30.02	762.5	46.5	8.1		W			2		5					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.96	761.0	77.6	25.3		NE			2		4					Sgt. W. F. Hopkins
Dartmoor			29.90	759.4	45.2	7.3		SE			8		9					R. E. Power.
Donaghadee			29.62	752.3	49	9.4		S			8		10					J. Mac Gowan, Jr.
Dover			30.08	764.0	41	5.0							10					J. Costello.
Dublin																		
Durham Observatory			29.85	758.2	42.0	5.6		S			2		10					G. Goldney.
Eccles, (near Manchester)			29.87	758.7	49.0	9.4		SSE	9.2	4.1			10					Thomas Mackereth
Falmouth Observatory			29.82	757.4	51.0	10.6		SE	34	15			10					The Fa mouth Observatory.
Fort Napier, (Natal)			29.80	756.9	74.6	23.7		E			4		8					Pvt. G. Salmon.
Galway			29.83	757.7	47	8.3		SW			2		10				Fog	Queen's College.
Gibraltar, (Mediterranean Sea)			30.12	765.0	62.4	16.9		WNW					4					Sgt. J. Brewster.
Glasgow Observatory			29.71	754.6	48.1	8.9		SSE			3		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.96	761.0	49.8	9.9		SW			3		8				Rainy	F. Toller.
Great Yarmouth			30.05	763.3	41	5.0		S			2		10				Mist	G. T. Watson.
Greenwich Royal Observatory			30.03	762.7	48.5	9.2		SSW			2		3					The Royal Observatory.
Guernsey			29.98	761.5	44.5	6.9		SE			4		8				Mist	Dr. S. E. Hoskins.
Halifax, England			29.86	758.4	47.8	8.8		WSW			1		10					Moorside Observatory.
Halifax, Nova Scotia			30.32	770.1	17.9	−7.8		N			5		1					Corp't J. Y. Thompson.
Helston			29.82	757.4	54	12.2		S			4		10					W. B. Moyle.
Holyhead			29.75	755.6	51	10.6		SSE			6		5					John Tilston.
Hull Park																		
Kew Observatory			30.03	762 7	49.1	9.5		S	16	7			3					The Meteorological Office.
Kingstown			29.62	752.3	51	10.6		S			5		10				Rainy	George Mitchell.
Lampeter																		
Leicester			29.95	760.7	48.0	8.9		S			3		9					William J. Harrison
Llandudno			29 78	756.4	54.4	12.4		SSW			1		10					Dr. James Nicol.
Malta, (Mediterranean Sea)					62.2	16.8		NW			1		4					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.64	752.8	48	8.9		SW			2		6					William D. Penny.
Nassau			30.18	766.6	70.3	21.3		Calm			0		5					Surgeon I. Jameson.
Nottingham			29.94	760.5	50.0	10.0		SSE			4		8					E. J. Lowe.
North Shields			29.87	758.7	44	6.7		SSW			4		7					John Wm. Irvine.
Osborne, New Barn Cottage			30.00	762.0	48.3	9.1		SSW			1		3					J. R. Mann.
Oscott, (near Birmingham)			29.93	760.2	46.1	7.8		SSE			3		9				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.94	760.5	50	10.0		SSW			2		9					Radcliffe Observatory.
Plymouth			29.86	758.4	51	10.6		SSE			5		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.65	753.1	49	9.4		SSW			6		10				Rain	W. Kennedy.
Saint Ann's Head			30.74	755.4	49	9.4		SSE			5		10				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.70	754.4	43.2	6.2		SE	21	9			8				Haze	Rev. Dr. Clouston.
Scarboro'			29.94	760.5	43.5	6.4		SSW			2		10					F. Heard.
Scutari, Turkey			30.06	763.5	46.6	8.1		WSW			2		9					W. H. Lyne.
Sheffield			29.91	759.7	46.4	8.0		S			2		10					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.76	755.9	52.0	11.1		S			4		5		0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.05	763.3	42.4	5.8		SSE			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.83	757.7	47.3	8.5		S			1		4					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.53	750.0	48	8.9		S			5		10				Rain	John Smith.
Strathfield Turgiss			30.01	762.2	44.9	7.2		SW			1		9					Charles H. Griffith.
Streatley Vicarage																		Rev. John S'atter.
Sumburgh Head, Shetland Is.			29.71	754.6	46	7.8		S			6		10					William Lawrence.
Taunton College																		
Thurso			29.66	755.9	43	6.1		SSE			3		8					John Trotter.
Truro, Royal Institution			29.88	758.9	52	11.1		SE			7		10				Rain	Royal Institution.
Valencia			29.53	750.0	50.2	10.1		SSW	31	14			10					Meteorological Observatory.
Wick																		
Wisbech																		
Worthing			29.99	761.7	47.0	8.3		S			1		6					S. H. Miller.
York			30.07	763.8	42.8	6.0		SSE			4		10					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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			30.10	764.5	33.6	0.9	94	ENE			2		10				Rain.	
Faröe			30.12	765.0	33.8	1.0	100	N			2		10				Fog	
Thorshavn, (Faröe)			29.54	750.3	45.3	7.4	99	S			2		10				Rain	
Vestervig			30.12	765.0	33.4	0.8	94	E			2		10					
Stykkisholm, (Iceland)			29.21	742.0	36.1	2.3	91	SE			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 co-operation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and MM. Marié Davy, E. Renou, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.07	763.9	47.1	8.4	94	S			1		8		0	0		Normal School.
Amiens			30.06	763.4	41.7	5.4	91	SW			4		10		0	0		Normal School.
Baumette, (near Angiers)			30.03	762.8	44.8	7.1	79	E	5.8	2.6			5		0	0		Baumette Observatory.
Beauvais			30.15	765.7	40.3	4.0	93	SSW			0		10		0.010	0.25		Normal School.
Besançon			30.21	767.4	42.4	5.8	85	NE			2		8		0.043	1.1		Normal School.
Bourges			30.10	764.5	41.7	5.4	89	E			2		5		0	0		Normal School.
Brest			29.84	758.0	49.8	9.9	84	SSE			3		10		0	0		Normal School.
Caen			30.07	763.8	44.3	6.8	91	SSE			4		10		0	0		Naval Observatory.
Carcassonne																		Normal School.
Chartres																		
Chaumont			30.14	765.5	43.7	6.5		S			3		10		0.016	0.4		Normal School.
Gorée, (Senegambia)			29.96	761.1	70.7	21.5	65	NNE			4		2		0	0		Père Pascall
Le Mans			30.10	764.5	45.0	7.2	85	E			2		8		0.008	0.2		Normal School.
Mirecourt			30.03	762.8	42.1	5.6		ESE			2		10		0	0		M. Falguère.
Mont-Louis	24.77	629.2			37.8	3.2	54	WSW	12.5	5.6			0		0	0		Normal School.
Montsouris, (near Paris)			30.11	764.8	41.7	5.4	94	S	0	0					0	0		Marié Davy.
Orleans			30.13	765.4	44.2	6.8	71	E			2		0		0.189	4.8		Normal School.
Paris			30.12	765.0	41.2	5.1	88	SSE			2		10		0.009	0.22		National Observatory.
Parthenay			29.91	759.7	50.9	10.5	76	E			2		3		0	0		Normal School.
Perpignan	29.91	759.7			52.2	11.2	54	ESE	3.8	1.7			0		0	0		Dr. Fines.
Roche sur Yon			30.07	763.9	45.7	7.6	80	SE			2		0		0.059	1.5		Normal School.
Rouen			30.12	765.0	41.0	5.0	97	SSE			0		10		0	0		Normal School.
Saint Lo			30.09	764.2	46.2	7.9	86	S			3		5		0	0		Normal School.
Saint Maur, (near Paris)			30.12	765.0	43.7	6.5	77	S			0		10		0.012	0.5		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			29.98	761.5	57.7	14.3	84	NNW			2		9		0.142	3.6	Rainy	M. Jacques.
Versailles, (near Paris)													5		0.010	0.26		Dr. A. Bérigny.
Villefranche			30.17	766.4	43.7	6.5	94	NW			1		10		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the co-operation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.07	763.7	37.6	3.1	94	SE			1		10		0.053	1.6		Prof. Hoh.
Berlin			30.09	764.4	38.3	5.5	96	W			1		10		0.335	8.5	Rain	Prof. Arndt.
Breslau			30.05	763.3	34.5	1.4	100	WNW			0		10		0.435	10.8		Dr. P. Neugebauer.
Carlsruhe			30.16	766.0	41.4	5.2	100	SW			1		10		0.028	0.7	Fog	A. Leuz.
Cassel			30.12	765.0	43.9	6.6	83	NW			2		7		0	0		Dr. H. Mohl.
Cologne			30.15	765.9	43.5	6.4	94	SW			2		8		0	0		Dr. Gaithe.
Emden			30.22	767.7	36.5	2.5	100	Calm			0		10		0	0	Fog	Prof. Prestel.
Frankfort			30.27	768.8	38.3	3.5	100	SW			1		10		0	0	Fog	Physical Society.
Friedrichshafen			30.13	765.3	40.1	4.5	92	SW					9		0.090	4.3		M. Wilhelm.
Hamburg			30.14	765.6	36.1	2.3	96	W			2		10		0.053	1.3	Fog	W. Reinart.
Kiel			30.08	764.0	36.5	2.5	87	NNE			3		10		0.063	1.6		Prof. G. Karsten.
Königsberg			30.11	764.9	22.8	5.1	91	NE			2		8		0.008	0.2	Snow	Prof. E. Luther.
Köslin			30.23	767.9	33.8	1.0		SE			1		10		0.272	6.9		Dr. Tägert.
Leipsic			30.16	766.1	36.7	2.6	100	SW			1		10		0.209	5.3	Fog	Prof. Bruhns.
Münster			30.07	763.9	44.6	7.0	80	NW			3		10		0	0	Fog	Prof. F. Heis.
Posen			29.95	763.2	34.5	1.4	100	SW			5		10		*0.512	*13.0	*In 48 hours.	Dr. Magener.
Strassburg, in E.			30.15	765.9	42.1	5.6	97	Calm					10		0.008	0.2		Hartwig and Fulk.
Stuttgart			30.25	768.3	37.8	3.2	95	W					10		0.035	0.9	Fog & Rain	Mr. Wurth.
Thorn			30.01	762.2	32.9	0.5	95	E			3		10		0.244	6.2		Dr. Hasenbalg.
Treves, (Trier)			30.13	765.2	36.5	2.5	98	NE			1		10		0.008	0.2		Prof. Flesch.
Wustrow			30.09	764.3	34.9	1.6	100	ESE			0		10		0.075	1.9		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the co-operation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.14	765.6	35.6	2.0	98	ENE	0	0			10		0	0		
Mondovi			30.15	765.7	33.1	0.6	96	NW			2		10		0	0		
Genoa			30.00	762.0	49.8	9.9	58	NE	5.6	2.2			0		0	0		
Pavia			30.11	764.8	37.6	3.1	86	SW			0		9		0	0		
Padua			30.03	762.9	38.7	3.7	85	NW	5.6	2.2			10	NE	0	0		
Parma			30.10	764.5	39.2	4.0		SW			2		8		0	0		
Bologna			30.15	765.8	37.9	3.3	45	W			4		10		0	0		
Urbino			30.10	764.6	36.5	2.5	100	NNE			2		10		0	0		
Ancona			30.08	764.1	41.7	5.4	89	NW			2		10		0.008	0.2	Rain	
Florence			30.01	762.2	51.3	10.7	65	NE			6		4	NE	0	0.1		
Livorno			29.96	761.1	53.1	11.7	70	NE	5.6	2.5			9		0	0		
Rome			29.96	760.9	49.3	9.6	92	ENE			2		10		0.004	0		
Naples, O.U.			29.97	761.3	63.2	11.8	82	N			1		10	SW	0.024	0.6		
Naples, S. R.	29.44	747.8			50.0	10.0	94	N			2		10	NW	0.090	2.3	Rain	Prof. F. Brioschi.
Lecce																		
Cosenza			30.00	761.9	54.3	12.4	55	SE			1		10		0	0		
Catania, (Sicily)			30.02	762.4	53.8	12.1	68	W			2		10		0	0		
Palermo			30.05	763.3	56.7	13.7	81	WSW			2		10		0.012	0.3		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.07	763.9	35.6	2.0		SW			3							
Flushing			30.15	765.7	39.6	4.2		SSW			3							
Helder			30.11	764.7	33.6	0.9		SSW			2							
Utrecht			30.09	764.4	41.2	5.1	98	SW			1		10					

NOTE.—The originals give the force 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 co-operation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.27	768.8	25.7	— 3.5	89	NNE	0.8	0.37			10		0.138	3.5		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the co-operation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.74	755.4			56.8	13.8	77	W	10.0	4			8					

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

Furnished by the co-operation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.01	762.3	30.6	— 0.8	100	E	4.	2			10				Snow.	
Wilna			30.06	763.4	24.3	— 4.3	90	Calm	0	0			10					
Dorpat			30.14	765.6	15.3	— 9.3	88	NNE	4.	2			10					
St. Petersburg			30.17	766.2	13.5	—10.3	93	NE	2.	1			3				Snow	
Kieff			30.02	762.6	23.9	— 4.5	99	NNW	18.0	8			10				Snow	
Nikolaiev			30.06	763.4	27.9	— 2.3	100	Calm	0	0			10					
Kertch			30.07	763.9	38.1	3.4	68	SW	7.	3			7					
Moscow			30.06	763.4	11.7	—11.3	89	S	7.8	3.5			10					
Lugan			29.99	761.7	17.8	— 7.9	83	Calm	0	0			8				Snow	
Archangel			30.21	767.3	— 0.2	—17.9	89	SSE	10.1	4.5			10				Snow	
Tiflis			29.94	760.6	41.7	5.4	64	N	13.	6			8					
Astrakhan			30.11	764.9	19.0	— 7.2	90	N	7.8	3.5			10					
Kasan			30.06	763.5	9.1	—12.7	92	W	2.	1			10					
Orenburg			30.21	767.4	— 9.0	—22.8	100	NW	4.	2			5					
Ekaterinburg			30.18	766.5	8.6	—13.0	84	SW	7.8	3.5			10				Snow	
Kasaly			29.88	759.0	12.7	—10.7	86	N	7.8	3.5			3					
Tashkend																		
Barnaul			30.41	772.4	— 4.5	—20.3	78	S	7.8	3.5			4					
Yeniseisk			30.07	763.9	— 6.7	—21.5	91	SE	7.8	3.5			10					
Irkutsk			30.22	767.6	8.1	—13.3	82	W					10				Snow	
Oorga			30.06	763.6	1.6	—16.9	95	WNW	7.8	3.5			0					
Peking, (China)			30.39	771.8	24.6	— 4.1	46	Calm	0	0			0					
Nertchinsk			30.23	767.9	—21.5	—29.7	90	Calm	0	0			0					
Vladivostock					6.4	—14.2	56	N	10.1	4.5			0					
Nikolaievsk					12.1	—24.6		W	10.1	4.5			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 co-operation of Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.21	767.4	36.7	2.6	94	N	1.5	0.7			10		0.008	0.2		Royal 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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.38	771.7	— 5.4	—20.8	86	Calm			0		0		0.063	1.6		Dr. H. H. Hildebrandsson.
Hernosand			30.38	771.7	10.6	—11.9	96	N			2		10		0	0		
Upsala			30.26	768.7	24.6	— 4.1	97	NNW			2		10					
Stockholm			30.22	767.7	24.8	— 4.0	91	N			2		10		0	0		
Wisby			30.21	767.4	31.6	— 0.2	85	E			2		7		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.66	728.0			39.0	3.9	90	NE			3		10		0	0	Cloudy	The Observatory.
Zurich	28.44	722.4			37.2	2.9	96	NW			1		7		0	0	Foggy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.04	763.0	58.5	14.7	85	SE			3		10				Rain	
Constantinople			30.04	763.3	46.2	7.9	71	SSW	9	4			10					
Fao, (Persian Gulf)			30.16	766.0	62.6	17.0		NW			3		5					
Salonica			29.99	761.8	46.2	7.9		W			0		10					
Valona			29.94	760.4	52.7	11.5		SW			0		10					
Varna			30.04	763.0	39.2	4.0		N			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Laraache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.19	766.6	37.6	3.1	94	SE			4		10		0.037	1.2		Prof. Ivan Stozir.
Cracow			30.34	770.7	25.2	— 3.8	67	NE			4		10		0.098	2.5		I. R. Observatory.
Eperies			30.22	767.0	37.4	3.0	78	N			6		0		0	0		Julius Mikolik.
Gratz			30.17	766.2	36.5	2.5	59	SE			4		8		0	0		Andreas Rospini.
Hermannstadt			29.99	761.8	29.8	— 1.2	92	NW			2		10		0.205	5.20	Snow	Prof. C. L. Reissenberger.
Kremsmünster			30.23	767.8	36.3	2.4	93	Calm			0		10		0	0		Prof. C. Wagner.
Lemberg			30.19	766.9	19.8	— 6.8	94	N			6		10		0.110	2.8		Dr. T. Stanecki.
Nyiregyhaza			30.15	765.7	29.5	— 1.4	84	N			7		0		0	0		Habasuda Daniel.
Pola			30.11	764.7	46.0	8.1	86	Calm			2		1		0.010	0.25		I. R. Hydrographic Office.
Szegedin			30.10	764.5	32.7	0.4	83	W			4		8		0.016	0.40		Karl Stancol.
Trieste			30.12	765.1	37.5	8.6	63	E			2		0		0	0		Prof. V. Farolfi.
Vienna			29.85	758.3	36.1	2.3	67	NNE			4		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.96	760.9			40.1	4.5	86	S			0		10	SSE	0	0	Clearing	Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.02	762.5	40.7	4.8		SSE	19	8			10		0.060	1.52	Mist	William Boswell.
Annanhill			30.00	762.0	43.6	6.4		SSE			2		9					W. H Dunlop.
Ardrossan			29.97	761.2	45	7.2		SE			2		8					William McNeil.
Armagh Observatory			29.95	760.7	45.6	7.6		S	10	4			4					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.02	762.5	41.8	5.4		SE			2		10				Rain	The Liverpool Observatory.
Birr Castle			29.96	761.0	43.9	6.6		SSE			1		0		0	0		J. Drever.
Bradford			30.00	762.0	41.9	5.5		E			1		10		0	0		J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			30.10	764.5	40.5	4.7		SSE			1		10					H. Todd.
Cape Town			29.93	760.2	79	26.1		SE			4		3					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.97	761.2			79.2	26.2	45	SE	2.3	1.0			1					The Royal Observatory.
Cardington			30.20	767.1	41.0	5.0		S			1		10					John McLaren.
Carlisle																		T. Bell.
Chatham			30.06	763.5	40.2	4.6		SE			1		10				Mist	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.95	760.7	76.5	24.7		NE			4		1					Sgt. W. F. Hopkins
Dartmoor			30.02	762.5	43	6.1		SE			1		10					R. E. Power.
Donaghadee			29.95	760.7	45	7.2		SSE			4		8					J. Mac Gowan, Jr.
Dover			30.08	764.0	38	3.3							6					J. Costello.
Dublin																		
Durham Observatory			30.04	763 0	38.6	3.7		SSW			3		10					G. Goldney.
Eccles, (near Manchester)			30.04	763.0	41.9	5.5		SE	3.6	1.6			10					Thomas Mackereth.
Falmouth Observatory			30.00	762.0	48.4	9.1		NW	6	2.7			9					The Fa mouth Observatory.
Fort Napier, (Natal)			29.79	756.6	79.0	26.1		E			2		2					Pvt. G. Salmon.
Galway			29.91	759.7	48	8.9		SW			5		3					Queen's College.
Gibraltar, (Mediterranean Sea)			30.22	767.6	59 5	15.3		WNW					0					Sgt. J. Brewster.
Glasgow Observatory			29.95	760.7	43.8	6.6		SSE			2		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.08	764.0	43.1	6.2		S			2		10					E. Toller.
Great Yarmouth			30.12	765.0	38	3.3		SE			3		10				Fog	G. T. Watson.
Greenwich Royal Observatory			30.08	764.0	40.7	4.8		SE			1		10					The Royal Observatory.
Guernsey			30.00	762.0	44	6.7		SSE			1		10				Mist	Dr. S. E. Hoskins.
Halifax, England			30.01	762.2	40.7	4.8		ESE			1		10				Fog	Moorside Observatory.
Halifax, Nova Scotia			30.52	775.2	14.4	9.8		SE			1		8				Haze	Corp'l J. Y. Thompson.
Helston			29.97	761.2	53	11.7		S			4		8					W. B. Moyle.
Holyhead			30.01	762.2	47	8.3		S			2		6				Mist	John Tilston.
Hull Park																		
Kew Observatory			30.08	764.0	42.6	5.9		ESE	8	4			10				Mist	The Meteorological Office.
Kingstown			29.97	761.2	47	8.3		E			1		3					George Mitchell.
Lampeter																		
Leicester			30.07	763.8	41.4	5.2		SE			2		10					William J. Harrison
Llandudno			30.00	762.0	47.1	8.4		W			0		10					Dr. James Nicol.
Malta, (Mediterranean Sea)					58.0	14.4		NW			1		7					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.90	759.4	47	8.3		SSW			2		6					William D. Penny.
Nassau			30.21	767 3	72.4	22.4		Calm			0		7					Surgeon I. Jameson.
Nottingham			30.09	764.3	42.5	5.8		SSE			2		10					E. J. Lowe.
North Shields			30.06	763.5	41	5.0		SSW			2		8					John Wm. Irvine.
Osborne, New Barn Cottage			30.04	763.0	43.6	6.4		SW					10					J. R. Mann.
Oscott, (near Birmingham)			30.07	763.8	40.1	4.5		SE			2		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.32	762.5	43	6.1		SE			1		10					Radcliffe Observatory.
Plymouth			29.99	761.7	48	8.9		SE			1		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			30.00	762.0	45	7.2		WNW			2		5					W. Kennedy.
Saint Ann's Head			29.99	761.7	46	7.1		E			2		10					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.93	760.2	43.0	6.1		SSE	20	9			10				ain	Rev. Dr. Clouston.
Scarboro'			30.09	764 3	39.9	4.4		S			2		10				Rain	F. Heard.
Scutari, Turkey			29.89	759.2	44.0	6.7		N			2		10				Rain	W. H. Lyne.
Sheffield			30.05	763 3	43.1	6.2		S			1		10					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.99	761.7	44.0	6.7		Calm			0		10		0.105	2.67	Rain	Francis Redford.
Somerleyton, (Lowestoft)			30.12	765.0	40.4	4.7		SSE			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			30.00	762.0	41.2	5.1		S			1		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.86	758.4	45	7.2		SW			4		7					John Smith.
Strathfield Turgiss			30.10	764.5	42.1	5.6		E			2		10					Charles H. Griffith.
Streatley Vicarage																		Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.91	759.7	47	8.3		S			6		10					William Lawrence.
Taunton College																		
Thurso			29.92	759.9	43	6.1		SSE			2		9					John Trotter.
Truro, Royal Institution			29.92	759.9	51	10.6		NW			2		8					Royal Institution.
Valencia			29.91	759.7	47.4	8.6		S	18	8			10				Rain	Meteorological Observatory.
Wick																		
Wisbech			30.07	763.8	40.2	4.6		SE			1		10					S. H. Miller.
Worthing			30.06	763.5	42.5	5.8		SE			2		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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			30.43	773.0	35.1	1.7	82	ESE			2		2					
Fanöe			30.25	770.9	33.3	0.7	94	SSE			4		9					
Thorshavn, (Faröe)			29.57	751.0	45.3	7.4	89	S			2		10					
Vestervig			29.96	761.1	32.2	0.1	89	SE			4		10					
Stykkisholm, (Iceland)			29.50	749.2	34.9	1.6	71	SE			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 MM. Marié Davy, E. Renou, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.11	764.9	37.2	2.9	96	S			1		10		0	0		Normal School.
Amiens			30.14	765.5	39.2	4.0	93	SE			3		10		0	0		Normal School.
Baumette, (near Angiers)			30.09	764.2	45.5	7.5	97	S	2.2	1.0			10		0.024	0.6		Baumette Observatory.
Beauvais			30.13	765.4	35.6	2.0	95	SSE			6		10		0	0		Normal School.
Besançon			30.28	769.0	0.0	0.0	94	ENE			2		10		0	0		Normal School.
Bourges			30.10	766.0	41.4	5.2	93	ENE			2		3		0	0		Normal School.
Brest			29.98	761.0	46.9	8.3	91	SSW			0		10		0.150	3.8		Naval Observatory.
Caen			30.06	763.4	42.8	6.0	85	SE			4		3		0	0		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.14	765.6	40.5	4.7		S			2		0		0	0		Normal School.
Gorée, (Senegambia)			29.96	760.9	69.8	21.0	65	NNE			3		3		0	0		Père Pascall
Le Mans			30.13	765.4	35.2	1.8	96	SE			2		10		0.008	0.2		Normal School.
Mirecourt			30.04	763.1	39.4	4.1		NNW			2		10		0	0		M. Falguère.
Mont-Louis	24.89	632.2			37.2	2.9	80	NNW	11.6	5.2			4		0	0		Normal School.
Montsouris, (near Paris)			30.11	764.7	34.2	1.2	98	SE	0.7	0.3					0	0		Marié Davy.
Orleans			30.15	765.9	34.2	1.2	93	SW			2		10		0	0		Normal School.
Paris			30.10	764.7	34.5	1.4	100	SSE			2				0.004	0.10	Fog	National Observatory.
Parthenny			30.22	766.6	46.4	8.0	93	SW			4		10		0	0		Normal School.
Perpignan	30.04	762.9			55.0	12.8	61	WSW	9.4	4.2			7		0	0		Dr. Fines.
Roche sur Yon			30.11	764.9	49.8	9.9	84	SE			2		3		0.020	0.5		Normal School.
Rouen	30.12	765.0			35.6	2.0	96	SSE			0		10		0	0		Normal School.
Saint Lo			30.05	763.2	43.2	6.2	88	S			3		10		0	0		Normal School.
Saint Maur, (near Paris)			30.12	765.0	34.9	1.6	98	E			0		10		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.04	763.1	57.0	13.9	69	NW			4		6		0.421	10.7		M. Jacques.
Versailles, (near Paris)			30.10	764.6	35.6	2.0	96	?			1		10		0.003	0.08	Fog	Dr. A. Bérigny.
Villefranche			30.24	768.2	32.9	0.5	97	SE			1		10		0.024	0.6		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.19	766.9	36.5	2.5	84	E					0					Prof. Hoh.
Berlin			30.44	773.2	32.7	0.4	78	SE			2		0		0.055	1.4		Prof. Arndt.
Breslau			30.40	772.1	27.7	— 2.4	83	ENE			2		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.21	767.3	39.9	4.4	82	E			1		10		0	0		A. Leus.
Cassel			30.28	769.1	37.4	3.0	79	ESE			1		9		0.020	0.5		Dr. H. Mohl.
Cologne			30.20	767.2	43.7	6.5	80	SW			2		0		0	0		Dr. Galthe.
Emden			30.39	771.8	33.1	0.6	98	SE			1		10		0	0	Fog	Prof. Prestel.
Frankfort			30.34	770.7	41.4	5.2	90	E			3		6		0	0		Physical Society.
Friedrichshafen			30.17	766.3	33.8	1.0	90	SE					10		0	0	Fog.	M. Wilhelm.
Hamburg			30.38	771.6	34.3	1.3	90	ESE			2		10		0.008	0.2	Fog	W. Reinart.
Kiel			30.32	770.2	35.8	2.1	75	ESE			5		1		0	0		Prof. G. Karsten.
Königsberg			30.49	774.4	11.3	—11.5	86	NE			2		0		0	0		Prof. E. Luther.
Köslin			30.09	770.5	30.2	— 1.0		NE			1		10		0.008	0.2		Dr. Tägert.
Leipsic			30.37	771.3	32.4	0.2	100	NE			1		9		0	0		Prof. Bruhns.
Münster			30.13	765.4	42.6	5.9	83	E			3		7		0	0	Fog	Prof. E. Heis.
Posen			30.45	773.5	28.0	— 2.2	84	N			5		10		0	0		Dr. Magener.
Strassburg, in E.			30.20	767.2	34.5	1.4	100	Calm					9		0.004	0.1		Hartwig and Fulk.
Stuttgart			30.22	767.5	37.8	3.2	96	SW					9		0	0		Mr. Wurth.
Thorn			30.43	773.0	24.1	— 4.4	80	NE			3		9		0.071	1.8		Dr. Hasenbalg.
Treves, (Trier)			30.15	765.7	41.0	5.0	77	SE			4		3		0	0		Prof. Flesch.
Wustrow			30.46	773.8	33.3	0.7	90	ESE			2		8		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.44	765.6	34.5	1.4	67	ESE	1.9	0.8			10		0	0		
Mondovi			30.11	764.7	40.8	4.9	69	SW			2		0		0	0		
Genoa			30.07	763.8	53.6	12.0	63	Calm	0	0			0		0	0		
Pavia			30.13	765.0	33.8	1.0	92	SW			1				0	0	Fog	
Padua			30.12	765.0	31.8	— 0.1	98	N	3.7	1.6					0	0	Fog	
Parma			30.16	766.1	34.2	1.2		W			2				0	0	Fog	
Bologna			30.16	766.0	32.7	0.4	50	W			4		10		0	0		
Urbino			30.14	765.6	41.2	5.1	100	NE			2		1		0	0		
Ancona			30.17	766.4	40.3	4.6	93	NW			2		10		0	0		
Florence			30.11	764.7	49.6	9.8	67	SE			2		0		0	0		
Livorno			30.07	763.9	53.1	11.7	75	NNE	5.0	2.2			0		0	0		
Rome			30.04	763.0	53.6	12.0	67	NE			2		1		0	0		
Naples, O.U.			30.03	762.8	58.1	14.5	45	NE			4		1		0	0		
Naples, S. R.	29.51	749.6			53.2	11.8	63	NE			2		6	N	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.03	762.7	51.4	10.8	77	WNW			1		7		0.602	15.3		
Catania, (Sicily)			29.99	761.8	54.9	12.7	72	W					2		0	0		
Palermo			29.94	760.6	54.7	12.6	82	Calm			0		8		0.059	1.5		

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.

NETHERLAND SERIES.

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

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'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.22	767.7	33.8	1.0		ESE			3							
Flushing			30.17	766.4	37.0	2.8		ESE			3							
Helder			30.20	767.1	37.0	2.8		ESE			3							
Utrecht			30.16	766.0	39.4	4.1	85	SE			3.		10					

NOTE.—The originals give the force 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.

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'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.41	772.3	27.3	— 2.6	92	Calm	0	0			10		0	0		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.97	761.3			46.0	7.8	99	N	5	2.2			10				Foggy	

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.35		24.8	— 4.0	84	N	4.	2			10					
Wilna			30.39	772.0	4.3	—15.4	83	N	10.1	4.5			5					
Dorpat			30.38	771.7	6.8	—14.0	90	WSW	4.	2			10					
St. Petersburg			30.24	768.2	8.8	—12.9	92	SW	2.	1			10				Snow.	
Kieff			30.06	763.4	15.1	— 9.4	91	NNW	18.	8			10				Snow.	
Nikolaiev			29.89	759.2	25.7	— 3.5	85	N	10.	4.5			10.					
Kertch			29.75	755.7	37.9	3.3	87	Calm	0	0			10				Fog.	
Moscow			30.08	764.0	1.4	—17.0	84	N	13.	6			8.					
Lugan			29.82	757.5	23.0	— 5.0	81	Calm	0	0			10				Snow.	
Archangel			30.08	764.1	12.4	—10.9	93	W	4.	2			10					
Tiflis			30.10	764.6	41.0	5.0	55	Calm	0	0			9					
Astrakhan			30.13	765.3	21.9	— 5.0	90	W	4.	2			10					
Kasan			29.98	761.6	1.0	—17.2	95	S	7.	3			10				Snow.	
Orenburg			30.09	764.3	— 7.8	—22.1	100	NW	4.	2			10					
Ekaterinburg			30.18	766.6	3.2	—16.0	81	SW	4.	2			10					
Kasaly			30.02	762.5	20.8	— 6.2	93	Calm	0	0			10					
Tashkend																		
Barnaul			30.23	767.8	— 9.9	—23.3	82	Calm	0	0			3					
Yeniseisk			29.91	759.7	0.7	—17.4	95	SE	4.	2			10					
Irkutsk			30.26	768.5	— 7.4	—21.9	83	NNE					0					
Oorga			30.47	773.9	—11.2	—24.0	100	Calm	0	0			0					
Peking, (China)			30.07	763.7	27.1	— 2.7	68	Calm	0	0			9					
Nertchinsk			29.91	759.6	—11.4	—24.1	89	Calm	0	0			2					
Vladivostock					8.2	—13.2	59	N	4.	2			0					
Nikolaievsk					— 5.3	—20.7		NW	20.	9			4					

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 Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

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'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.32	770.2	42.4	5.8	85	N	1.5	0.7			10		0	0.		Royal 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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.39	771.9	— 0.4	—18.0	89	N			2		1		0	0		Dr. H. H. Hildebrandsson.
Hernosand			30.41	772.3	9.7	—12.4	96	NE			2		10		0	0		
Upsala			30.44	773.3	15.4	— 9.2	96	SW			1		10					
Stockholm			30.42	772.7	12.6	—10.8	93	Calm			0		8		0	0	Fog	
Wisby			30.49	774.5	27.7	— 2.4	87	NW			4		5		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.73	729.7			39.6	4.2	73	E			3		8					The Observatory.
Zurich	28.49	723.6			34.3	1.3	91	E			1		10					B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.09	764.4	60.1	15.6	81	SW			3		10				Rain	
Constantinople			29.88	759.0	43.2	6.2	94	SW	1.1	0.5			10				Rain	
Fao, (Persian Gulf)			30.35	770.8	60.1	15.6		NW			3		5					
Salonica			29.87	758.8	47.5	8.6		NW			0		10					
Valona			29.90	759.5	55.4	13.0		W			2		5					
Varna			29.92	761.0	44.6	7.0		N			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.46	773.6	30.6	— 0.8	94	NE			2		2		0	0		Prof. Ivan Stozir.
Cracow			30.41	772.4	20.8	— 6.5	63	NE			4		0		0	0		I. R. Observatory.
Eperies			30.43	773.0	47.3	8.5	79	Calm			0		10		0	0		Julius Mikolik.
Gratz			30.44	773.1	29.7	— 1.3	72	ENE			4		10		0	0		Andreas Rospini.
Hermannstadt			30.44	773.1	16.5	— 8.6	88	NNW			2		0		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.40	772.2	22.3	— 5.4	98	ENE			4		10		0	0		Prof. C. Wagner.
Lemberg			30.44	773.1	10.4	—12.0	96	NW			5		7		0.008	0.2		Dr. T. Stanecki.
Nyiregyhaza			30.45	773.5	22.3	— 5.4	96	Calm			0		0		0	0		Habasuda Daniel.
Pola			30.34	770.7	42.8	6.0	43	E			2		1		0	0		I. R. Hydrographic Office.
Szegedin			30.46	773.6	21.2	— 6.0	79	NE			4		0		0	0		Karl Stancel.
Triesto			30.36	771.1	39.2	4.0	42	E			2		0		0	0		Prof. V. Farolfi.
Vienna			30.45	773.4	18.3	— 7.0	81	Calm			0		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.99	761.7			39.9	4.4	92	S			0		10		0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.20	767.1	33.1	0.6		ESE			2							
Flushing			30.22	767.7	38.5	3.6		S			2							
Helder			30.21	767.1	33.3	0.7		SE			2							
Utrecht			30.18	766.6	34.3	1.3	96	SE			2		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.04	762.9	31.6	— 0.2	97	SSW	4.0	1.83			3		0.031	0.8		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.73	756.3			49.5	9.7	88	SE	10	5			10				Foggy	

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.45	773.5	7.9	—13.4	96	W	4.	2			10				Snow.	
Wilna			30.20	768.6	19.4	— 7.0	85	WNW	7.8	3.5			10					
Dorpat			30.15	765.7	8.6	—13.0	90	SW	2.	1			10					
St. Petersburg			29.96	761.0	13.8	—10.1	100	W	11.	5			10				Snow.	
Kieff			30.31	769.8	7.9	—13.4	72	NW	9.	4			8					
Nikolaiev			30.18	766.6	7.2	—13.8	75	NNE	31.	14			6					
Kertch			29.94	760.6	22.5	— 5.3	93	N	7.	3			10					
Moscow			30.13	765.3	4.6	—15.2	86	NW	7.8	3.5			10					
Lugan			29.76	756.0	17.2	— 8.2	82	NNW	10.1	4.5			10				Snow	
Archangel			30.03	762.6	— 2.0	—18.9	87	E	7.8	3.5			5					
Tiflis			29.81	757.1	39.9	4.4	72	Calm	0	0			10					
Astrakhan			29.78	756.5	31.3	— 0.4	94	ESE	10.1	4.5			10					
Kasan			29.96	760.9	— 1.5	—18.6	100	NE	4.	2			10					
Orenburg			30.04	762.9	6.6	—14.1	100	NE	4.	2			10					
Ekaterinburg			30.24	768.2	— 1.5	—18.6	89	SW	4.	2			10					
Kasaly			29.95	760.7	19.4	— 7.0	89	N	13.	6			3					
Tashkend																		
Barnaul			29.99	761.8	4.1	—15.5	86	N	4.	2			2					
Yeniseisk			29.86	758.5	—14.1	—25.6	91	NW	4.	2			0					
Irkutsk			29.92	760.0	9.1	—12.7	77	ENE					0					
Oorga			30.67	779.0	—18.2	—27.9	100	Calm	0	0			0					
Peking, (China)			30.21	767.4	25.7	— 3.5	37	NNW	20.	9			0					
Nertchinsk			30.09	764.4	— 6.5	—21.4	75	Calm	0	0			1					
Vladivostock					16.0	— 8.9	83	Calm	0	0			10				Snow	
Nikolaievsk					—13.9	—25.5		W	10.1	4.5			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 Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.37	771.5	36.1	2.3	96	NE	2.2	1			10		0	0		Royal 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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.27	768.8	5.4	—14.8	91	NE			2		1		0	0		Dr. H. H. Hildebrandsson.
Hernosand			30.23	767.9	19.0	— 7.2	95	ENE			4		10		0	0		
Upsala			30.09	764.2	27.0	— 2.8	96	WSW			1		10				Snow	
Stockholm			30.06	763.6	26.6	— 3.0	91	W			6		10		0.272	6.9	Snow	
Wisby			30.24	768.0	33.4	0.8	100	SW			4		7		0.031	0.8		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.87	733.3			35.2	1.8	86	SE			3		10		0	0	Fog	The Observatory.
Zurich	28.61	726.8			35.8	2.1	82	E			1		8		0	0		B. Billwiller.

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.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.76	756.0	58.5	14.7	63	S			8		10				Rain	
Constantinople			30.12	765.1	28.2	— 2.1	78	NNW	28	12			10				Snow	
Fao, (Persian Gulf)			30.19	766.7	61.7	16.5		NW			3		0					
Salonica			30.17	766.3	41.5	5.3		N			6		0					
Valona			30.07	763.7	48.6	9.2		NW			3		0					
Varna			30.28	769.0	23.0	— 5.0		NW			8		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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.30	769.6	19.6	— 6.9	92	Calm			0		10		0	0		Prof. Ivan Stozir.
Cracow			30.22	767.6	22.1	— 5.5	75	ENE			5		10		0	0		I. R. Observatory.
Eperies			30.17	766.3	46.2	7.9	94	Calm			0		0		0	0		Julius Mikolik.
Gratz			30.28	769.1	23.4	— 4.8	69	S			4		0		0	0		Andreas Rospini.
Hermannstadt			30.20	767.0	15.4	— 9.2	91	NW			2		10		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.25	768.4	31.6	— 0.2	100	Calm			0		10		0	0		Prof. C. Wagner.
Lemberg			30.07	763.8	19.4	— 7.0	97	W			7		8		0.008	0.2		Dr. T. Stanecki.
Nyiregyhaza			30.25	768.4	18.3	— 7.6	89	SW			2		10		0	0		Habzsuda Daniel.
Pola			30.23	767.9	42.4	5.8	73	Calm			0		10		0	0		I. R. Hydrographic Office.
Szegedin			30.20	767.2	26.6	— 3.0	83	W			2		10		0	0		Karl Stancel.
Trieste			30.23	767.8	40.6	4.8	70	E			0		10		0	0		Prof. V. Farolfi.
Vienna			30.26	768.5	27.1	— 2.7	85	Calm			0		10		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.90	759.4			40.4	5.2	82	S			0		5		0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.85	758.2	41.1	5.1		SSE	24	11			10		0.010	0.25	Mist	William Boswell.
Annanhill			29.79	756.6	43.0	6.1		ESE			2		10				Rain	W. H Dunlop.
Ardrossan			29.75	755.6	44	6.7		ESE			4		9				Rain	William McNeil.
Armagh Observatory			29.66	753.3	46.2	7.9		SE	23	10			10				Rain	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.80	756.9	42.9	6.1		SE			4		10					The Liverpool Observatory.
Birr Castle			29.53	750.0	49.2	9.6		SE			2		10				Rainy	J. Dreyer.
Bradford			29.84	757.9	42.1	5.6		SE			1		10				Rain	J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.07	738.4	43.0	6.1		SSE			1		10					H. Todd.
Cape Town			29.81	757.2	91	32.8		SE			3		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.86	758.4			79.2	26.2	46	S	22	10			0.5					Th Royal Observatory.
Cardington			29 94	760.5	43.0	6.1		S			1		9					John McLaren.
Carlisle			29.79	756.6	43.3	6.3		SE			4		10		0	0	Rain	T Bell.
Chatham			29.97	761.2	43.8	6.6		SE			1		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.90	759.4	74.3	23.5		NE			4		10					Sgt. W. F. Hopkins
Dartmoor			29.88	758.9	43	6.1		SE			4		9					R. E. Power.
Donaghadee			29.68	753.9	46	7.8		S			6		10				Rain	J. Mac Gowan, Jr.
Dover			30.02	762.5	43	6.1							5					J. Costello.
Dublin																		
Durham Observatory			29.85	758 2	39.8	4.3		SSE			3		10				Rain	G. Goldney.
Eccles, (near Manchester)			29.85	758.2	44.4	6.9		SE	3.6	1.6			10					Thomas Mackereth
Falmouth Observatory			29.75	755.6	49.0	9.4		SSE	2.7	12			10					The Fa mouth Observatory
Fort Napier, (Natal)			29.88	758.9	68.8	20.4		SE			1		10					Pvt. G. Salmon.
Galway			29.43	747.5	50	10.0		SE			1		4					Queen's College.
Gibraltar, (Mediterranean Sea)			30.05	763.3	57.2	14.0		E					10				Threatening	Sgt. J. Brewster.
Glasgow Observatory			29.76	755.9	40.5	4.7		ENE			1		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.92	759.9	46 7	8.2		SW			3		6					F. Toller.
Great Yarmouth			30.04	763.0	39	3.9		SSE			3		10				Mist	G. T. Watson.
Greenwich Royal Observatory			29.96	761.0	43.5	6.4		SSE			1		9					The Royal Observatory.
Guernsey			29.86	758.4	43.5	6.4		SE			4		5					Dr. S. E. Hoskins.
Halifax, England			29.85	758.2	41.4	5.2		SE			1		10				Rain	Moorside Observatory
Halifax, Nova Scotia			30.31	769.9	14.3	— 9.8		Calm			0		9					Corp'l J. Y. Thompson.
Helston			29.77	756.1	51	10.6		SE			4		10				Rainy.	W. B. Moyle.
Holyhead			29.69	754.1	47	8.3		SSE			5		7				Rainy.	John Tilston.
Hull Park																		
Kew Observatory			29.96	761.0	45.8	7.7		SE	11	5			9				Mist	The Meteorological Office.
Kingstown			29.67	753.6	46	7.8		SSE			5		10				Rain	George Mitchell.
Lampeter																		
Leicester			29.90	759.4	42.8	6.0		S			3		10					William J. Harrison
Llandudno			29.75	755.6	47.2	8.4		SE			1		8					Dr. James Nicol.
Malta, (Mediterranean Sea)					53.0	11.7		SE			1		10					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.73	755.1	43	6.1		Calm			0		8					William D. Penny.
Nassau			30.18	766.6	68.6	20.3		Calm			0		1					Surgeon I. Jameson.
Nottingham			29.92	759 9	44.2	6.8		SSE			1		10					E. J. Lowe.
North Shields			29.91	759.7	41	5.0		S			5		9					John Wm. Irvine.
Osborne, New Barn Cottage			29.92	759.9	45.7	7.6		SE					8					J. R. Mann.
Oscott, (near Birmingham)			29.88	758.9	42.7	5.9		SSE			3		10					St. Mary's College.
Oxford, the Radcliffe Obser'y			29.88	758.9	43	6.1		SE			1		10					Radcliffe Observatory.
Plymouth			29.80	756.9	48	8.9		SE			3		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.54	750.3	48	8.9		SSW			5		10				Rain	W. Kennedy.
Saint Ann's Head			29.69	754.1	46	7.8		SE			6		10				Rain	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.79	756.6	41.1	5.1		SE	30	13			10				Rainy.	Rev. Dr. Clouston.
Scarboro'			29.94	760.5	39.9	4.4		SSE			3		10					F. Heard.
Scutari, Turkey			30.19	766 8	36.4	2.4		SW			2		2					W. H. Lyne.
Sheffield			29.92	759.9	43.0	6.1		S			2		10				Rainy.	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.79	756 6	44.4	6.9		SSE			4		10		0.225	5.69	Rain	Francis Redford.
Somerleyton, (Lowestoft)			30.02	762.5	42.0	5.6		SSE			2		8					Rev. C. J. Steward.
Stonyhurst Observatory			29.82	757.4	3.8	6.6		SE			1		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.65	753.1	44	6.7		SE			2		10					John Smith.
Strathfield Turgiss			29.92	759.9	45.8	7.7		SE			1		8					Charles H. Griffith.
Streatley Vicarage			29.93	760.2	44.1	6.7		SSE			5		9					Rev. John S'atter.
Sumburgh Head, Shetland Is.			29.82	757.4	44	6.7		SE			6		10					William Lawrence.
Taunton College																		
Thurso			29.77	756.1	41	5.0		SSE			5		10					John Trotter.
Truro, Royal Institution			29.75	755.6	50	10.0		SE			8		10				Rain	Royal Institution.
Valencia			29.46	748.3	51 2	10.7		S	31	14			10				Rain	Meteorological Observatory
Wick																		
Wisbech			29.93	760.2	42.6	5.9		SE			1		10					S. H. Miller.
Worthing			29.94	760.5	44.6	7.0		SE			4		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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			30.23	767.9	31.6	— 0.2	92	ESE			4		10					
Fanöe			30.21	767.4	30.9	— 0.6	98	SSW			2		10					
Thorshavn, (Faröe)			29.69	754.2	42.6	5.9	94	SE			4		10				Rain	
Vestervig			30.20	767.2	30.7	— 0.7	96	ESE			4		10					
Stykkisholm, (Iceland)			29.57	751.2	32.4	0.2	92	NE			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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.19	766.8	43.5	6.4	79	S			1		8		0	0		Normal School.
Amiens			30.04	763.1	41.7	5.4	97	E			2		0		0	0		Normal School.
Baumette, (near Angiers)			29.93	760.1	45.1	7.3	77	S	4.0	1.8			8		0	0		Baumette Observatory.
Beauvais			30.07	763.9	39.4	4.1	83	SSE			2		8		0	0		Normal School.
Besançon			30.22	767.5	38.5	3.6	90	NE			2		8		0	0		Normal School.
Bourges			30.08	764.0	41.7	5.4	90	E			2		10		0	0		Normal School.
Brest			29.81	757.1	46.9	8.3	91	SE			2		10		0.039	1.0		Naval Observatory.
Caen			29.95	760.8	45.1	7.3	77	SSE			4		3		0	0		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.13	765.4	40.1	4.5		SSE			2		5		0	0		Normal School.
Gorée, (Senegambia)			29.91	759.8	78.4	25.8	30	E			1		1		0	0		Père Pascall
Le Mans			30.00	761.9	44.1	6.7	69	SE			3		8		0	0		Normal School.
Mirecourt			30.05	763.3	40.8	4.9		SSW			2		3		0	0		M. Falguère.
Mont-Louis	24.86	631.4			38.7	3.7	39	WSW	18.0	8.3			8		0	0		Normal School.
Montsouris, (near Paris)			30.04	762.9	39.7	4.3	81	SE	0.0	0.3					0.008	0.2		Marié Davy.
Orleans			30.06	763.4	39.6	4.2	83	E			2		5		0	0		Normal School.
Paris			30.04	763.1	39.4	4.1	83	SE			2		10		0	9		National Observatory.
Parthenay			30.04	763.1	50.0	10.0	93	SE			2		5		0	0		Normal School.
Perpignan	29.97	761.2			50.0	10.0	81	NE	1.8	0.8			8		0	0		Dr. Fines.
Roche sur Yon			29.94	760.6	45.0	7.2	85	SE			2		5		0	0		Normal School.
Rouen			30.02	762.5	41.2	5.1	78	SSE			0		10		0	0		Normal School.
Saint Lo			29.97	761.3	46.0	7.8	76	S			3		5		0	0		Normal School.
Saint Maur, (near Paris)			30.04	763.0	41.2	5.1	75	SE			0		9		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.22	767.6	52.2	11.2	90	W			3		8		0.130	3.3	Rainy	M. Jacques.
Versailles, (near Paris)			30.03	762.8	40.3	4.6	84	SE			1		8		0	0		Dr. A. Bérigny.
Villefranche			30.09	764.3	40.8	4.9	98	WNW			1		10		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.20	767.1	34.7	1.5	91	E			1		10		0.002	0.5		Prof. Hoh.
Berlin			30.28	769.2	32.9	0.5	81	S			1		10		0	0		Prof. Arndt.
Breslau			30.23	767.9	27.5	− 2.5	100	NW			2		10		0	0	Fog	Dr. P. Neugebauer.
Carlsruhe			30.20	767.2	42.4	5.8	70	SE			1		1		0.028	0.7		A. Lenz.
Cassel			30.21	767.3	37.6	3.1	83	S			2		10		0	0		Dr. H. Mohl.
Cologne			30.17	766.4	41.4	5.2	96	SSE			3		4		0	0	Fog.	Dr. Gaithe.
Emden			30.29	769.4	34.7	− 1.5	98	Calm			0		10		0.028	0.7	Fog	Prof. Prestel.
Frankfort			30.23	770.4	38.5	3.6	97	S			2		10		0	0	Fog	Physical Society.
Friedrichshafen			30.24	768.1	32.9	0.5	90	NE					10		0	0		M. Wilhelm.
Hamburg			30.26	768.7	31.6	− 0.3	91	SE			2		10		0	0	Fog	W. Reimart.
Kiel			30.17	766.4	34.0	1.1	87	WSW			1		10		0	0		Prof. G. Karsten.
Königsberg			30.25	768.4	10.6	−11.9	78	NE			2		0		0	0		Prof. E. Luther.
Köslin			30.46	773.7	31.6	− 0.2		E			1		10		0.043	1.1		Dr. Tägert.
Leipsic			30.26	768.7	34.0	1.1	79	SE			1		10		0	0		Prof. Bruhns.
Münster			30.07	763.7	42.6	5.9	91	SW			3		10		0	0	Fog	Prof. E. Heis.
Posen			30.26	768.5	27.7	− 2.4	98	W			5		10		0	0		Dr. Magener.
Strassburg, in E.			30.20	767.2	39.9	4.4	87	SW					2		0	0		Hartwig and Fulk.
Stuttgart			30.21	767.3	40.6	4.8	64	SE					1		0	0		Mr. Wurth.
Thorn			30.20	767.0	28.2	− 2.1	85	NNE			3		10		0	0		Dr. Hagenbalg.
Treves, (Trier)			30.15	765.8	36.0	2.2	96	E			1		10		0	0		Prof. Flesch.
Wustrow			30.26	768.6	32.2	0.1	98	SW			2		10		0	0	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.26	768.7	36.0	2.2	98	WNW	0	0			10		0	0		
Mondovi			30.24	768.2	37.0	2.8	91	WNW			2		10		0	0		
Genoa			30.22	767.5	48.0	8.9	64	Calm					10	S	0	0		
Pavia			30.26	768.5	36.7	2.6	84	S			1		10		0	0		
Padua			30.22	767.7	35.8	2.1	70	NNW	3.1	1.4			10		0	0		
Parma			30.26	768.6	37.2	2.9		SSW			2		10		0	0		
Bologna			30.26	769.3	37.0	2.8	41	W			4		10		0	0		
Urbino			30.13	765.4	40.8	4.9	86	SSW			2		10		0	0		
Ancona			30.24	768.2	42.1	5.6	83	WNW			2		10		0	0		
Florence			30.24	768.1	46.0	7.8	61	NE			2		10		0	0		
Livorno			30.20	767.2	44.6	7.0	79	NE	6.2	2.8			10		0	0		
Rome			30.21	768.2	53.2	11.8	69	SSE			2		9	SE	0	0		
Naples, O.U.			30.28	769.0	51.4	10.8	45	NE			1		9		0	0		
Naples, S. R.	29.72	754.9			47.7	8.7	61	NE			4		7	E	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.29	769.3	45.3	7.4	93	WNW			1		2		0	0		
Catania, (Sicily)			30.32	770.0	52.0	11.1	77	NW					10		0	0		
Palermo			30.19	766.7	56.3	13.5	53	Calm					8		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.12	765.1	35.6	2.0		SE			2							
Flushing			30.13	765.3	36.7	2.6		SSE			3							
Helder			30.13	765.3	32.7	0.4		SE			0							
Utrecht			30.11	764.8	40.3	4.6	93	SE			2		8					

NOTE.—The originals give the force 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.

Station.	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 of upper. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.29	769.3	22.3	— 5.4	85	SSW	1.3	0.57			10		0	0		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of M. Fradessa da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	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 of upper. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Lisbon	29.46	748.4			57.6	13.9	97	SE	12.4	5			10					

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

Station.	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 of upper. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Warsaw			30.13	765.4	23.0	— 5.0	100	WNW	9.	4			10				Snow.	
Wilna			30.16	766.0	9.9	—12.3	75	WNW	7.8	3.5			4					
Dorpat			30.28	769.2	— 1.3	—18.5	77	NNE	4.	2			4					
St. Petersburg			30.21	767.4	4.5	—15.3	95	E	2.	1			8					
Kieff			29.89	759.3	12.9	—10.6	90	NW	18.	8			5				Snow	
Nikolaiev			30.02	762.6	16.9	— 8.4	82	N	7.8	3.5			10				Snow	
Kertch			30.04	763.0	23.9	— 4.5	79	NW	2.	1			10					
Moscow			30.00	761.9	— 4.4	—20.2	80	NE	10.1	4.5			5					
Lugan			29.90	759.4	2.7	—16.3	76	WSW	7.8	3.5			2					
Archangel			29.98	761.6	10.6	—11.9	85	W	13.	6			10					
Tiflis			29.90	759.4	36.7	2.6	57	NNW	25.	11			10					
Astrakhan			30.00	762.1	14.7	— 9.6	84	WNW	10.1	4.5			4					
Kasan			29.72	755.0	0.9	—17.3	100	NE	11.	5			10					
Orenburg			29.66	753.4	21.0	— 6.1	100	SE	4.	2			10				Snow	
Ekaterinburg			30.19	766.7	— 0.2	—17.9	84	E	10.1	4.5			10					
Kasaly			29.77	756.1	26.8	— 2.9	85	Calm	0	0			3					
Tashkend																		
Barnaul			30.57	776.4	—16.4	—26.9	81	Calm	4	0			0					
Yeniseisk			30.50	774.6	—30.3	—34.6	87	W	2.	2			0					
Irkutsk			30.44	773.1	— 7.4	—21.9	73	NW					0					
Oorga			30.48	774.1	— 9.4	—23.0	98	Calm	0	0			0					
Peking, (China)			30.42	772.6	23.5	— 4.7	53	Calm	0	0			0					
Nertchinsk			30.32	770.1	—19.5	—28.6	89	Calm	0	0			0					
Vladivostock					14.9	— 9.5	68	N	16.8	7.5			0					
Nikolaievsk					—18.2	—27.9		NW	7.8	3.5			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 Dr. A. Aguilar, Director of the Royal Observatory at Madrid.

Station.	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 of upper. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Madrid			30.13	765.2	45.1	7.3	65	NE	6.0	3		4	3	NE		0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.19	766.8	2.1	—16.6	100	Calm			0		10		0	0	Snow	Dr. H. H. Hildebrandsson.
Hernosand			30.15	765.7	17.6	— 8.0	94	SSW			4		10		0.051	1.3		
Upsala			30.28	769.2	7.9	—13.4	100	Calm			0		9	N				
Stockholm			30.26	768.7	0.7	—12.4	96	WNW			2		5		0	0		
Wisby			30.30	769.6	23.4	— 4.8	95	SE			2		5		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.77	730.7			35.2	1.8	84	SSW			3		10		0	0	Fog	The Observatory.
Zurich	28.54	724.8			31.5	— 0.3	88	E			1		8		0	0		B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.59	751.6	50.2	10.1	61	W			8		10				Rain	
Constantinople			30.15	765.8	32.4	0.2	98	WSW	7.8	3.5			5					
Fao, (Persian Gulf)			29.91	759.8	63.7	17.6		SE			4		10					
Salonica			30.15	765.9	41.5	5.3		N			0		0					
Valona			30.15	765.9	45.3	7.4		NW			2		0					
Varna			30.08	764.1	35.6	2.0		NW			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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.39	771.8	28.6	— 1.9	90	NW			4		10		0	0		Prof. Ivan Stozir.
Cracow			30.50	774.6	4.5	—15.3	33	NE			2		0		0	0		I. R. Observatory.
Eperies			30.46	773.8	48.7	9.3	84	Calm			0		0		0.008	0.20		Julius Mikolik.
Gratz			30.39	771.9	27.5	— 2.5	75	SSW			4		10		0	0		Andreas Rospini.
Hermannstadt			30.43	773.0	18.9	— 7.3	89	NW			2		0		0.028	0.070		Prof. C. L. Reissenberger.
Kremsmünster			30.23	767.8	29.1	— 1.6	92	E			4		5		0	0		Prof. C. Wagner.
Lemberg			30.54	775.6	9.0	—12.8	81	SE			5		1		0.012	0.30		Dr. T. Stanecki.
Nyiregyhaza			30.48	774.2	14.0	—10.0	94	E			2		0		0	0		Habzsuda Daniel.
Pola			30.27	768.8	46.8	8.2	73	W			2		10		0	0		I. R. Hydrographic Office.
Szegedin			30.41	772.3	25.2	— 3.8	82	SW			4		5		0	0		Karl Stancel.
Trieste			30.28	769.2	42.4	5.8	64	E			0		10		0	0		Prof. V. Farolfi.
Vienna			30.34	770.5	25.9	— 3.4	91	SE			4		10		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.72	754.8			42.6	5.9	80	SSW			0		10		0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.72	754·9	43.0	6.1		S	3	1			9		0.340	8.6	Mist	William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan																		William McNeil.
Armagh Observatory			29.66	753.3	46.9	8.3												Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.71	754.6	42.4	5.8		SE			2		10					The Liverpool Observatory.
Birr Castle			29.62	752.3	49.0	9.4		SE			1		9				Rainy	J. Dreyer.
Bradford																		J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.78	756 4	40.0	4.4		SSE			1		10					H. Todd.
Cape Town			29.64	752.8	95.4	35.2		N			1		3					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.69	754.1			87.8	31.0	37	S	22	10			0.5					The Royal Observatory.
Cardington			29.80	756.9	42.0	5.6		S			1		10					John McLaren.
Carlisle			29.74	755.4	45.7	7.6		S			4		10		0.12	3.0		T. Bell.
Chatham			29.80	756.9	44.4	6.9		S			1		9				Fog	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.90	759.4	74.5	23.6		NE			4		10					Sgt. W. F. Hopkins
Dartmoor			29.78	756.4	43	6.1		SE			2		10				Rain	R. E. Power.
Donaghadee			29.65	753.1	46	7.8		SS			4		10					J. Mac Gowan, Jr.
Dover			29.82	757.4	45	7.2							5					J. Costello.
Dublin																		
Durham Observatory			29.74	755.4	39.2	4.0		SSW			2		10				Rain	G. Goldney.
Eccles, (near Manchester)			29.75	755.6	43.4	6.3		SE	0.6	0.2			10				Rain	Thomas Mackereth.
Falmouth Observatory			29.68	753.9	49.5	9.7		SSE	15	7			10					The Falmouth Observatory.
Fort Napier, (Natal)			29.84	757.9	63.5	17.5		E			2		10				Rain	Pvt. G. Salmon.
Galway			29.63	752.6	50	10.0		SE			1		7					Queen's College.
Gibraltar, (Mediterranean Sea)			30.01	762.2	61.2	16.2		W					5					Sgt. J. Brewster.
Glasgow Observatory			29.68	753.9	44.9	7.2		ENE			1		10				Mist	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.80	756.9	44.4	6.9		SW			3		7				Light Rain	E. Toller.
Great Yarmouth			29.84	757.9	39	3.9		S			3		10				Mist	G. T. Watson.
Greenwich Royal Observatory			29.81	757.2	44.2	6.8		SE			1		10					The Royal Observatory.
Guernsey			29.72	754.9	46	7.8		ESE			2		7					Dr. S. E. Hoskins.
Halifax, England			29.72	754.9	40.0	4.4		SE			0		10				Fog	Moorside Observatory.
Halifax, Nova Scotia			29.72	754.9	9.3	−12.6		NW			7		1					Corp'l J. Y. Thompson.
Helston			29.68	753.9	52	11.1		SSE			4		10				Mist	W. B. Moyle.
Holyhead			29.69	754.1	47	8.3		S			1		10				Rainy	John Tilston.
Hull Park																		
Kew Observatory			29.80	756.9	45.0	7.2		SE	4	2			9					The Meteorological Office.
Kingstown			29.66	753.3	46	7.8		S			0		10				Rainy	George Mitchell.
Lampeter																		
Leicester			29.77	756.1	42.0	5.6		S			1		10					William J. Harrison
Llandudno			29.68	753.9	46.2	7.9		S			0		10					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.28	769.1	57.0	13.9		SW			1		10					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.66	753.3	45	7.2		Calm			0		6					William D. Penny.
Nassau			30.16	765.3	69.5	20.8		Calm			0		5					Surgeon I. Jameson.
Nottingham			29.74	755.4	42.3	5.7		SE			1		10				Rain	E. J. Lowe.
North Shields																		John Wm. Irvine.
Osborne, New Barn Cottage			29.76	755.9	45.8	7.7		SSE					7					J. R. Mann.
Oscott, (near Birmingham)			29.76	755.9	40.8	4.9		SE			1		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.76	755.9	44	6.7		SSE			1		10					Radcliffe Observatory.
Plymouth			29.68	753.9	48	8·9		SE			1		10				Rainy	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.60	751.8	49	9.4		SE			3		10				Fog	W. Kennedy.
Saint Ann's Head																		John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.69	754.1	43.2	6.2		S	10	5			0					Rev. Dr. Clouston.
Scarboro'																		F. Heard.
Scutari, Turkey			30.31	769.9	33.6	0.9		NNE			3		10				Snow	W. H. Lyne.
Sheffield			29.75	755.6	42.8	6.0		S			1		10					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.71	754.6	45.0	7.2		Calm			0		10		0.115	2.84		Francis Redford.
Somerleyton, (Lowestoft)			29.82	757.4	42.3	5.7		SSE			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.69	754.1	42.0	5.6		N			1		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.59	751.6	47	8.3		SW			2		10					John Smith.
Strathfield Turgiss			29.78	756.4	45.3	7.4		S			1		9					Charles H. Griffith.
Streatley Vicarage			29.79	756.6	43.5	6.4		SSW			5		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.65	753.1	43	6.1		S			3		10				Rainy	William Lawrence.
Taunton College																		
Thurso			29.65	753.1	42	5.6		SSE			1		8					John Trotter.
Truro, Royal Institution			29.63	752.6	50	10.0		SE			4		10					Royal Institution.
Valencia			29.56	750.8	50.0	10.0		SSE	17	8			3					Meteorological Observatory.
Wick																		
Wisbech			29.79	756.6	41.0	5.0		SSE			1		10					S. H. Miller.
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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			30.21	767.3	31.6	−0.2	94	SSE			3		10					
Fanöe			30.05	763.2	31.3	−0.4	96	S			4		10					
Thorshavn, (Faröe)			29.48	748.8	43.2	6.2	91	Calm			0		6					
Vestervig			30.04	763.0	32.0	0.0	92	SE			4		10					
Stykkisholm, (Iceland)			29.54	750.3	33.8	1.0	81	NE			7		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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.202	767.17	46.8	8.2	80	SW			1		8		0	0		Normal School.
Amiens			29.89	759.1	39.0	4.4	90	S			2		5		0	0		Normal School.
Baumette, (near Angiers)			29.81	757.3	52.5	11.4	65	SE	3.6	1.6			10		0	0		Baumette Observatory.
Beauvais			29.93	760.1	41.2	5.1	82	SE			0		10		0	0		Normal School.
Besançon			30.08	764.0	37.6	3.1	80	NE			2		0		0	0		Normal School.
Bourges			29.97	761.3	39.6	4.2	91	E			2		5		0	0		Normal School.
Brest			29.60	751.8	51.3	10.7	84	ESE			2		10		0.012	0.3		Naval Observatory.
Caen			29.80	756.9	46.8	8.2	86	S			1		5		0	0		Normal School
Carcassonne																		
Chartres																		
Chaumont			29.98	761.5	43.9	6.6		S			8		3		0	0		Normal School.
Gorée, (Senegambia)			29.91	759.7	72.5	22.5	57	N			1		0		0	0		Père Pascall
Le Mans			29.88	758.9	46.2	7.9	80	S			2		8		0	0		Normal School.
Mirecourt			29.95	760.8	41.5	5.3		SSW			2		3		0	0		M. Falguère.
Mont-Louis	30.00	620.1			38.3	3.5	66	SW	31.1	13.9			5		0	0		Normal School.
Montsouris, (near Paris)			29.91	759.7	39.7	4.3	89	SE	6.9	3.1					0	0		Marié Davy.
Orleans			29.91	759.6	41.4	5.2	81	E			2		5		0	0		Normal School.
Paris			29.91	759.7	39.2	4.0	81	SE			2		10		0	0		National Observatory.
Parthenay			29.95	760.8	50.0	10.0	93	S			2		5		0	0		Normal School.
Perpignan	29.89	759.3			55.2	12.9	53	SE	16.8	7.5			7		0	0	Clearing	Dr. Fines.
Roche sur Yon			29.82	757.5	50.7	10.4	74	SE			4		0		0	0		Normal School.
Rouen			29.87	758.7	44.6	7.0	69	SE			0		3		0	0		Normal School.
Saint Lo			29.80	756.8	50.4	10.2	72	S			3		10		0	0		Normal School.
Saint Maur, (near Paris)			29.92	759.9	41.9	5.5	78	S			0		10		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.11	764.8	57.9	14.4	70	W			1		6		0	0		M. Jacques.
Versailles, (near Paris)			29.89	759.3	41.2	5.0	78	S			1		10		0	0		Dr. A. Bérigny.
Villefranche			30.08	764.1	45.5	7.5	94	SSE			1		10		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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.	From—	Inches.	Millimeters.	Weather.	Observer.
Bamberg			30.20	767.1	34.2	1.2	75	E			1		2		0	0		Prof. Hoh.
Berlin			30.24	768.0	35.1	1.7	68	S			4		4		0	0		Prof. Arndt.
Breslau			30.37	771.3	38.5	—3.6	89	SE			5		4		0	0		Dr. P. Neugebauer.
Carlsruhe			30.14	765.5	32.0	0.0	87	SSW			1		10		0	0	Fog	A. Lenz.
Cassel			30.09	764.4	40.3	4.6	67	S			2		4		0	0		Dr. H. Mohl.
Cologne			30.03	762.7	39.9	4.4	84	SSW			2		5		0	0		Dr. Gaithe.
Emden			30.11	764.9	33.6	0.9	93	SE			1		10		0	0		Prof. Prestel.
Frankfort			30.24	768.0	37.4	3.0	78	SE			2		3		0	0		Physical Society.
Friedrichshafen			30.18	766.5	29.3	—1.5	90	E					10		0	0		M. Wilhelm.
Hamburg			30.13	765.4	34.5	1.4	75	SE			5		8		0	0		W. Reinart.
Kiel			30.07	763.9	34.2	1.3	74	SE			4		9		0	0		Prof. G. Karsten.
Königsberg			30.46	773.6	9.7	—12.4	69	NW			2		0		0	0		Prof. E. Luther.
Köslin			30.61	777.4	15.1	—9.4		E			2		6		0	0		Dr. Tügert.
Leipsic			30.22	767.7	32.5	0.3	78	SE			1		1		0	0		Prof. Bruhns.
Münster			29.90	759.5	40.1	4.5	100	E			3		6		0	0		Prof. E. Heis.
Posen			30.42	772.7	17.2	—8.2	94	SE			0-7		3		0	0		Dr. Magener.
Strassburg, in E.			30.13	765.3	32.4	0.2	96	SE					9		0	0		Hartwig and Fulk.
Stuttgart			30.11	764.7	35.6	2.0	69	SE					2		0	0		Mr. Wurth.
Thorn			30.44	773.1	7.5	—13.6	66	E			2		1		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.02	762.4	36.3	2.4	87	NE			2		10		0	0		Prof. Flesch.
Wustrow			30.26	768.5	30.7	—0.7	92	ENE			2		7		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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.	From—	Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.38	771.6	30.7	—0.7	98	NW	1.2	0.5			10		0	0		
Mondovi			30.33	770.5	33.6	0.9	75	Calm			0		10		0	0		
Genoa			30.24	768.2	46.4	8.0	63	N	5.0	2.2			10		0.020	0.5	Fog	
Pavia			30.34	770.6	34.7	1.5	94	NE			1				0	0		
Padua			30.28	769.2	38.8	3.8	73	NW	5.6	2.5			4	N	0	0		
Parma			30.33	770.4	37.9	3.3		W			2		10		0	0		
Bologna			30.35	771.0	37.2	2.9	43	W			4		10		0	0		
Urbino			30.33	770.4	37.8	3.2	100	NE			2		10		0	0		
Ancona			30.29	769.3	41.0	5.0	81	NW			2		1		0	0		
Florence			30.27	768.8	48.6	9.2	71	E			2		2		0	0		
Livorno			30.24	768.0	49.3	9.6	83	NE	8.7	3.9			9		0	0		
Rome			30.25	768.3	54.3	12.4	72	S			2		4		0	0		
Naples, O.U.			29.96	761.1	56.5	13.6	58	SW			1		7		0	0		
Naples, S. R.	29.73	755.1			50.7	10.4	72	NE			4		6	NE	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.28	769.1	51.4	10.8	54	WNW			1		2		0	0		
Catania, (Sicily)			30.27	768.9	52.0	11.1	75	NW					2		0	0		
Palermo			30.19	766.7	54.0	12.2	60	NE			2		1		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.93	760.3	34.9	1.6		SE			2							
Flushing			29.93	760.1	38.5	3.6		S			3							
Helder			29.90	759.5	33.8	1.0		SE			2							
Utrecht			29.90	759.5	39.7	4.3	83	SE			2		8					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.14	765.6	22.3	— 5.4	90	ENE	0.3	0.15			10		0	0		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.51	749.6			56.1	13.4	72	SSW	21.1	9.4			5					

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.56	774.7	4.5	—15.3	95	SE	7.8	3.5			0					
Wilna			30.49	774.5	5.5	—14.7	80	SW	4	2			9					
Dorpat			30.35	770.8	10.9	—11.7	86	S	7	3			10					
St. Petersburg			30.36	771.1	9.7	—12.4	88	Calm	0	0			10					
Kieff			30.52	775.1	0.3	—17.6	73	N	13	6			2					
Nikolaiev			30.40	772.1	4.6	—15.2	77	N	42	19			0					
Kertch			30.09	764.3	15.3	— 9.3	94	NW	9	4			9					
Moscow			30.43	772.9	— 3.3	—19.6	87	WNW	4	2			0					
Lugan			30.05	763.2	5.2	—14.9	73	NNE	7.8	3.5			6				Snow	
Archangel			30.11	764.7	13.5	—10.3	93	WNW	16.8	7.5			10					
Tiflis			29.98	761.6	34.0	1.1	83	NNE	16.8	7.5			8					
Astrakhan			30.15	765.9	6.4	—14.2	83	NE	7.8	3.5			10					
Kasan			30.17	766.2	— 4.5	—20.3	74	N	2	1			0					
Orenburg			30.13	765.3	— 5.6	—20.9	100	SE	4	2			10					
Ekaterinburg			30.08	764.0	— 0.4	—18.0	89	SW	4	2			7					
Kasaly			29.75	755.6	21.9	— 5.6	77	NE	13	6			3					
Tashkend																		
Barnaul			30.60	777.2	— 8.1	—22.3	88	SW	4	2			0					
Yeniseisk			30.63	778.0	—36.8	—38.2	89	NE	4	2			0					
Irkutsk			30.66	778.7	— 4.0	—20.0	87	Calm	0	0			0					
Oorga			30.72	780.3	— 3.3	—19.6	100	Calm	0	0			0					
Peking, (China)			30.37	771.4	21.7	— 5.7	53	Calm	0	0			1					
Nertchinsk			30.52	775.2	—19.1	—28.4	89	Calm	0	0			0					
Vladivostock					9.5	—12.5	72	N	13	6			0					
Nikolaievsk					2.1	—16.6		W	10.1	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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.96	760.9	44.4	6.9	90	S	11.2	5.0			10		0.024	0.6		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.19	766.9	8.6	—13.0	100	NW			2		10		0.110	2.8		Dr. H. H. Hildebrandsson.
Hernosand			30.15	765.8	13.9	—10.4	93	Calm			0		10		0	0		
Upsala			30.23	767.9	15.3	— 9.3	100	WSW			4		10					
Stockholm			30.20	767.2	15.8	— 9.0	94	WSW			2		10		0	0		
Wisby			30.31	769.8	20.9	— 6.6	96	SW			4		7		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.69	728.6			32.4	0.2	88	E			3		10		0	0	Fog	The Observatory.
Zurich	28.45	722.6			28.2	— 2.1	94	NW			1		10		0	0	Foggy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																		
Constantinople			30.26	768.7	32.7	0.4	82	N	22	10			10				Snow	
Fao, (Persian Gulf)			30.18	766.6	55.4	13.0		NW			4		10					
Salonica			30.24	768.2	45.1	7.3		NW			0		0					
Valona			30.15	765.8	48.0	8.9		NW			2		5					
Varna			30.28	769.0	15.8	— 9.0		NW			6		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. No distinction is made between upper and lower clouds.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerlville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.39	771.8	31.5	– 0.3	87	SW			2		10		0	0		Prof. Ivan Stozir.
Cracow			30.43	772.8	5.9	–14.5	61	NE			4		1		0	0		I. R. Observatory.
Eperies			30.54	775.7	55.8	13.2	77	Calm			0		10		0	0		Julius Mikolik.
Gratz			30.37	771.4	27.5	– 2.5	79	S			4		10		0	0		Andreas Rospini.
Hermannstadt			30.61	777.5	6.8	–14.0	96	NW			2		0		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.26	768.5	25.2	– 3.8	95	SSE			4		10		0	0		Prof. C. Wagner.
Lemberg			30.51	775.0	11.1	–11.6	73	SE			7		3		0	0		Dr. T. Stanecki.
Nyiregyhaza			30.57	776.6	12.2	–11.0	72	N			2		0		0	0		Habzsuda Daniel.
Pola			30.33	770.5	46.8	8.2	79	NW			2		10		0	0		I. R. Hydrographic Office.
Szegedin			30.46	773.7	21.2	– 6.0	87	S			4		0		0.004	0.10		Karl Stancel.
Trieste			30.35	770.9	44.1	6.7	72	NE			0		10		0	0		Prof. V. Farolfi.
Vienna			30.34	770.5	24.3	– 4.3	79	SSE			4		10		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.76	755.8			46.2	7.9	80	SW			0		10		0	0	Clearing	Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.82	757.4	39.4	4.1		W	1	1					0.010	0.25	Fog	William Boswell.
Annanhill			29.80	756.9	43.2	6.2		ESE			1		9					W. H. Dunlop.
Ardrossan			29.77	756.1	44	6.7		ENE			2		4				Mist	William McNeil.
Armagh Observatory			29.71	754.6	45.7	7.6		ESE	6	3			10					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.78	756.4	42.0	5.6		ESE			2		10				Mist	The Liverpool Observatory.
Birr Castle			29.59	751.6	48.3	9.1		ESE			4		10					J. Dreyer.
Bradford			29.76	755.9	44.4	6.9		E			1		8					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.84	757.9	47.8	8.8		S			1		10					H. Todd.
Cape Town			29.81	757.2	77.8	25.4		SE			5		3					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.86	758.4			75.8	24.3	63	SSW	28	13			4					The Royal Observatory.
Cardington			29.88	758.9	48.0	8.9		S			1		10					John McLaren.
Carlisle			29.79	756.6	45.9	7.7		SE			2		3		0	0	Fog	T. Bell.
Chatham			29.85	758.2	49.5	9.7		SW					10					James Conroy.
Coehyfoel Farm											2							
Colombo, Ceylon			29.95	760.7	73.6	23.1		NE					10					Sgt. W. F. Hopkins
Dartmoor			29.72	754.9	44	6.7		SE			5		10					R. E. Power.
Donaghadee			29.72	754.9	46	7.8		SE			3		8					J. Mac Gowan, Jr.
Dover			29.87	758.7	48	8.9					3		4					J. Costello.
Dublin																		
Durham Observatory			29.78	756.4	41.2	5.1		NE					10				Mist	G. Goldney.
Eccles, (near Manchester)			29.79	756.6	44.8	7.1		SE	0.2	0.1	1		10				Mist	Thomas Mackereth.
Falmouth Observatory			29.72	754.9	49.1	9.5		SSE	2.2	10			10					The Falmouth Observatory.
Fort Napier, (Natal)			29.63	752.6	84.4	29.1		NW					0					Pvt. G. Salmon.
Galway			29.47	748.5	48	8.9		SE			2		2					Queen's College.
Gibraltar, (Mediterranean Sea)			30.03	762.7	61.4	16.3		NE			2		10					Sgt. J. Brewster.
Glasgow Observatory			29.78	756.4	41.9	5.5		NE					10				Mist	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.84	757.9	50.5	10.3		SW			2		7					F. Toller.
Great Yarmouth			29.84	757.9	46	7.8		SSW			3		9				Mist	G. T. Watson.
Greenwich Royal Observatory			29.85	758.2	48.3	9.1		SW			2		10					The Royal Observatory.
Guernsey			29.80	756.9	47.5	8.6		SE			1		5					Dr. S. E. Hoskins.
Halifax, England			29.75	755.6	43.6	6.4		Calm			2		9				Fog	Moorside Observatory.
Halifax, Nova Scotia			30.20	767.1	4.7	—15.2		NW			0		1					Corp'l J. Y. Thompson.
Helston			29.72	754.9	53	11.7		SSE			3		4					W. B. Moyle.
Holyhead			29.76	755.9	47	8.3		SSE			4		7				Mist	John Tilston.
Hull Park											1							
Kew Observatory			29.85	758.2	48.5	9.2		E	10	4			10					The Meteorological Office.
Kingstown			29.72	754.9	46	7.8		SSE					10				Mist	George Mitchell.
Lampeter											2							
Leicester			29.81	757.2	48.8	9.3		SW					9					William J. Harrison
Llandudno			29.76	755.9	46.4	8.0		W			1		4					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.38	771.6	58.8	14.9		SE			0		8					Sergt. E. Dowling.
Markree											1							
Marlborough College																		
Moville																		
Nairn			29.79	756.6	36	2.2		Calm					3				Fog	William D. Penny.
Nassau			30.18	766.6	70.6	21.4		Calm			0		6					Surgeon I. Jameson.
Nottingham			29.82	757.4	47.2	8.4		S			0		10				Fog	E. J. Lowe.
North Shields			29.81	759.7	42.9	5.6		NNE			1		8				Mist	John Wm. Irvine.
Osborne, New Barn Cottage											1							J. R. Mann.
Oscott, (near Birmingham)			29.81	759.7	45.5	7.5		SSW					10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.80	756.9	49	9.4		S			1		10				Mist	Radcliffe Observatory.
Plymouth			29.76	755.9	49	9.4		SE			2		10					John Merrifield.
Portishead											2							
Prospect, Bermuda																		
Roche's Point			29.60	751.8	47	8.3		S					10					W. Kennedy.
Saint Ann's Head			29.71	754.6	48	8.9		SE			6		4					John C. Walker.
St. Helier, Jersey											4							
Sandwick Manse, Orkneys			29.83	757.7	36.9	2.7		SE	3	1			10				Mist	Rev. Dr. Clouston.
Scarboro'			29.80	756.9	41.0	5.0		SW					10				Fog	F. Heard.
Scutari, Turkey			30.55	776.0	31.2	— 0.4		NNE			1		8				Rain	W. H. Lyne.
Sheffield			29.70	754.4	45.2	7.3		S			2		8					W. F. Cooper.
Sidmouth											1							
Silloth Rectory			29.78	756.4	43.5	6.4		NE					10		0.040	1.02	Mist	Francis Redford.
Somerleyton, (Lowestoft)			29.84	757.9	48.8	9.3		SSW			1		8					Rev. C. J. Steward.
Stonyhurst Observatory			29.75	755.6	44.4	6.9		E			1		10				Mist	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.94	760.5	41	5.0							10				Fog	John Smith.
Strathfield Turgiss			29.85	758.2	48.8	9.3		S			1		10					Charles H. Griffith.
Streatley Vicarage			29.84	757.9	49.5	9.7		SSW			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.77	756.1	44	6.7		SSW			2		10					William Lawrence.
Taunton College																		
Thurso			29.80	756.9	37	2.8		Calm			0		10				Fog	John Trotter.
Truro, Royal Institution			29.65	753.1	50	10.0		S			6		10				Rain	Royal Institution.
Valencia			29.38	746.2	50.6	10.3		SE	45	20			10				Rain	Meteorological Observatory.
Wick																		
Wisbech			29.82	757.4	46.7	8.2		SW			1		10					S. H. Miller.
Worthing			29.84	757.9	46.2	7.9		SE			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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			29.93	760.1	33.3	0.7	87	S			2		10					
Fanöe			29.87	758.6	33.8	1.0	100	SSW			2		10				Rain	
Thorshavn, (Faröe)			29.75	755.6	43.2	6.2	94	Calm			0		10					
Vestervig			29.82	757.4	32.7	0.4	94	SSE			4		10				Rain	
Stykkisholm, (Iceland)			29.80	756.8	28.6	— 1.9	98	NE			6		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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.127	765.07	50.7	10.4	72	SW			1		3		0	0		Normal School.
Amiens			29.90	760.8	46.4	8.0	97	SSW			2		3		0	0		Normal School.
Baumette, (near Angiers)			29.89	759.2	55.8	13.2	61	S	10.7	4.8			5		0.012	0.3		Baumette Observatory.
Beauvais			29.97	761.3	45.9	7.7	80	S			0		5		0	0		Normal School.
Besançon			30.17	766.3	48.4	9.1	62	NE			2		0		0	0		Normal School.
Bourges			30.02	762.5	48.9	9.4	82	SE			2		5		0	0		Normal School.
Brest			29.68	753.8	49.8	9.9	89	SE			2		10		0	0		Naval Observatory.
Caen			29.86	758.4	49.5	9.7	81	SSE			2		5		0	0		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.07	763.9	46.0	7.8		S			3		0		0	0		Normal School.
Gorée, (Senegambia)			29.94	760.5	72.5	22.5	55	W			1		0		0	0		Père Pascall
Le Mans			29.93	760.3	50.5	10.3	74	S			4		3		0	0		Normal School.
Mirecourt			30.02	762.6	43.9	6.6		SSW			4		3		0	0		M. Falguère.
Mont-Louis	24.82	630.4			35.4	1.9	95	WSW	11.2	5.0			4		0	0		Normal School.
Montsouris, (near Paris)			29.96	761.1	47.3	8.5	78	SSE	3.1	1.4				SW	0	0		Marié Davy.
Orleans			30.00	762.0	42.4	5.8	91	ESE			2		8		0	0		Normal School.
Paris			29.97	761.2	46.9	8.3	76	S			2		8		0	0		National Observatory.
Parthenay			30.00	762.0	54.5	12.5	88	SE			6		3		0	0		Normal School.
Perpignan	29.91	759.7			57.2	14.0	85	ESE	15.0	6.7			8		0	0	Fair	Dr. Fines.
Roche sur Yon			29.88	758.9	57.0	13.9	52	SE			6		3		0	0		Normal School.
Rouen			29.97	761.3	46.2	7.9	77	SE			0		3		0	0		Normal School.
Saint Lo			29.79	756.7	52.7	11.5	74	SW			2		5		0	0		Normal School.
Saint Maur, (near Paris)			29.98	761.4	49.3	9.6	68	SW			0		9		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.18	766.5	60.8	16.0	65	WSW			1		3		0	0		M. Jacques.
Versailles, (near Paris)			29.96	761.1	47.1	8.4	76	SW			1		9		0	0		Dr. A. Bérigny.
Villefranche			30.13	765.4	54.9	12.7	93	SSW			1		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.21	767.4	29.7	— 1.3	82	E			1		10		0	0		Prof. Hoh.
Berlin			30.11	764.8	35.4	1.9	66	S			4		8		0	0		Prof. Arndt.
Breslau			30.22	767.5	17.4	— 8.1	85	S			3		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.15	765.7	33.4	0.8	87	SE			1		10		0	0		A. Lenz.
Cassel			30.05	763.3	37.2	2.9	70	S			5		3		0	0		Dr. H. Mohl.
Cologne			30.04	762.9	40.6	4.8	88	SSE			4		4		0	0		Dr. Gaithe.
Emden			30.04	762.9	36.9	2.7	89	Calm			0		10		0	0		Prof. Prestel.
Frankfort			30.24	768.1	32.4	0.2	71	SSW			1		4		0	0	Fog	Physical Society.
Friedrichshafen			30.20	767.0	32.0	0.0	90	SW					10		0	0	Fog	M. Wilhelm.
Hamburg			30.06	762.0	40.3	4.6	72	SW			4		9		0	0		W. Reinart.
Kiel			29.93	760.1	39.2	4.0	77	SW			3		10		0	0		Prof. G. Karsten.
Königsberg			30.29	769.3	13.6	—10.2	67	SE			2		7		0	0		Prof. E. Luther.
Köslin			30.36	771.1	25.7	— 3.5		SE			2		10		0	0		Dr. Tägert.
Leipsic			30.13	765.3	34.9	1.6	71	S			3		8		0	0		Prof. Bruhns.
Münster			29.89	759.2	43.7	6.5	89	S			3		10		0.283	7.2	Rain	Prof. E. Heis.
Posen			30.06	763.5	27.7	— 2.4	72	SE			3–4		10		0	0		Dr. Magener.
Strassburg, in E.			30.14	765.6	34.0	1.1	90	NW					10		0	0		Hartwig and Fulk.
Stuttgart			30.14	765.6	36.5	2.5	78	SE					10		0	0	Fog	Mr. Wurth.
Thorn			30.20	767.2	19.9	— 6.7	72	SE			4		8		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.04	762.9	35.6	2.0	89	NE			2		10		0	0		Prof. Flesch.
Wustrow			30.02	762.6	32.0	0.0	80	SSE			2		10		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.38	771.7	36.0	2.2	79	ESE	1.2	0.5			10		0	0		
Mondovi			30.36	771.1	39.2	4.0	67	WNW			2		7	SE	0	0		
Genoa			30.29	769.4	43.9	6.6	78	N	4.4	2.0			10	S	0.05 9	1.5	Rain	
Pavia			30.38	771.6	35.8	2.1	80	W			1		10		0	0		
Padua			30.34	770.6	37.9	3.3	78	NNW	1.9	0.8			10		0	0		
Parma																		
Bologna																		
Urbino			30.40	772.1	37.9	3.3	42	W			4		10		0	0		
Ancona			30.38	771.7	39.6	4.2	100	E			2				0	0	Fog	
Florence			30.36	771.1	41.0	5.0	86	NW			2				0	0	Fog	
Livorno			30.32	770.0	49.8	9.9	88	E			2		10	SE	0	0		
Rome			30.29	769.3	50.5	10.3	81	ENE	8.1	3.6			10		0	0		
Naples, O.U.			30.33	770.3	53.6	12.0	65	ENE			4		8	SE	0	0		
Naples, S. R.			30.37	771.3	53.6	12.0	74	W			1		10	S	0.020	0.5		
Lecce	29.83	757.8			50.0	10.0	72	E			4		8	NE	0.020	0.5		Prof. F. Brioschi.
Cosenza			30.48	774.2	48.9	9.4	64	NNW	3.7	1.6			9		0	0		
Catania, (Sicily)			30.41	772.5	50.5	10.3	59	WNW			1		4		0	0		
Palermo			30.0	772.2	52.7	11.5	78	SE			1		2	W	0	0		
			30.22	767.7	58.8	14.9	57	Calm			0		9		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.87	758.8	40.1	4.5		SSW			3							
Flushing			29.95	760.8	43.2	6.2		SW			3							
Helder			29.89	759.1	41.0	5.0		SSW			4							
Utrecht			29.92	759.9	43.5	6.4	91	S			2		5					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			29.83	757.8	31.3	— 0.4	100	S	4.1	1.84			10		0.252	6.4		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.45	748.1			54.7	12.6	98	SSW	16.4	7.3			10				Rain	

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.39	771.8	11.1	—11.6	93	SE	13	6			6				Solar Corona	
Wilna			30.51	774.9	10.8	—11.8	66	E	10.7	4.5			10				Snow	
Dorpat			30.30	769.5	17.1	— 8.3	72	SSW	11	5			10				Snow	
St. Petersburg			30.25	768.3	6.6	—14.1	92	SE	11	5			10					
Kieff			30.78	781.8	— 1.3	—18.5	94	N	2	1			2				Haze	
Nikolaiev			30.70	779.7	9.0	—12.8	69	N	9	4			0					
Kertch			30.45	774.0	12.7	—10.7	97	NNW	11	5			10				Snow	
Moscow			30.68	779.3	—11.6	—24.2	82	WSW	7.8	3.5			0					
Lugan			30.37	771.5	1.0	—17.1	68	NE	20	9			8					
Archangel			30.09	764.4	5.2	—14.9	91	WSW	13	6			10					
Tiflis			30.30	769.5	29.5	— 1.4	51	NNW	10.7	4.5			7					
Astrakhan			30.45	773.4	6.1	—14.4	92	NNW	4	2			10					
Kasan			30.45	773.4	— 7.6	—22.0	92	NW	2	1			5					
Orenburg			30.20	767.0	3.4	—15.9	95	SE	4	2			10				Snow	
Ekaterinburg			30.48	774.3	— 8.3	—22.4	78	SW	7.8	3.5			2					
Kasaly			30.17	766.2	22.6	— 5.2	66	WSW	13	6			10					
Tashkend																		
Barnaul			30.44	773.2	0.3	—17.6	78	Calm	0	0			3					
Yeniseisk			30.19	766.8	— 4.7	—20.4	94	SE	13	6			10					
Irkutsk			30.70	779.7	—22.9	—30.5	83	Calm	0	0			0					
Oorga			30.96	786.4	—15.9	—26.6	100	Calm	0	0			0				Fog	
Peking, (China)			30.41	772.5	26.4	— 3.1	51	NNE	13	6			0					
Nertchinsk			30.57	776.5	—21.1	—29.5	87	Calm	0	0			0					
Vladivostock					8.6	—13.0	76	N	10.7	4.5			6					
Nikolaievsk					— 4.9	—20.5		NW	13	6			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.04	762.9	49.6	9.8	81	SE	5.2	2.3		3	4	SW	0.004	0.1		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.68	753.9	23.4	— 4.8	95	WSW			2		9		0	0		Dr. H. H. Hildebrandsson.
Hernosand			29.69	754.1	24.8	— 4.0	93	SW			2		9		0	0		
Upsala			29.80	756.3	26.6	— 3.0	25	SSW			4		10				Snow	
Stockholm			29.87	758.7	28.9	— 1.7	86	SSW			2		10		0.115	2.9	Snow	
Wisby			30.02	762.6	32.4	0.2	92	SW			4		7		0.157	4.0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.74	730.0			33.8	1.0	91	W			3		10		0	0	Fog	The Observatory.
Zurich	28.50	723.9			28.9	— 1.7	95	SW			1		10		0	0		B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.99	761.7	53.8	12.1	67	NE			2		10				Rain	
Constantinople			30.50	774.6	28.8	— 1.8	100	N	11	5			10				Snow	
Fao, (Persian Gulf)			30.24	768.0	55.4	13.0		NW			3		0					
Salonica			30.48	774.2	45.1	7.3		E			0		10					
Valona			30.28	769.2	49.5	9.7		NW			2		0					
Varna			30.59	777.0	21.2	— 6.0		N			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.

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'l.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.29	769.3	33.1	0.6	87	Calm			0		10		0	0		Prof. Ivan Stozir.
Cracow			30.18	766.5	26.1	— 3.3	78	E			2		10		0	0		I. R. Observatory.
Eperies			30.26	768.6	41.5	5.3	88	S			5		9		0	0		Julius Mikolik.
Gratz			30.28	769.1	27.7	— 2.4	82	SW			4		0		0	0		Andreas Rospini.
Hermannstadt			30.34	770.6	17.6	— 8.0	83	NW			4		10		0.083	2.10		Prof. C. L. Reissenberger.
Kremsmünster			30.26	768.7	29.8	— 1.2	96	NE			2		10		0	0		Prof. C. Wagner.
Lemberg			30.17	766.4	17.6	— 8.0	88	S			5		10		0	0		Dr. T. Stanecki.
Nyiregyhaza			30.34	770.6	20.1	— 6.6	95	E			1		10				Snow	Habzsuda Daniel.
Pola			30.28	769.1	45.0	7.2	91	Calm			0		10		0.026	0.65	Fog	I. R. Hydrographic Office.
Szegedin			30.22	767.7	28.8	— 1.8	92	W			5		10		0	0		Karl Stancel.
Trieste			30.28	769.2	44.4	6.9	90	E			0		10		0	0		Prof. V. Farolfi.
Vienna			30.28	769.2	23.4	— 4.8	93	SSE			4		10		0	0	Fog	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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.84	758.0				8.3	80	S			0		10		0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.86	758.4	42.1	5.6		SSE	11	5			10				Fog & Rain	William Boswell.
Annanhill			29.81	757.2	47.1	8.4		SSE			1		10					W. H. Dunlop.
Ardrossan			29.77	756.1	46	7.8		E			2		8				Fog	William McNeil.
Armagh Observatory			29.74	755.4	50.0	10.0		S	12	5			7					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.83	757.7	48.0	8.9		SE			2		6					The Liverpool Observatory.
Birr Castle			29.73	755.1	50.5	10.3		S			1		2					J. Dreyer.
Bradford			29.83	757.7	46.6	8.1		Calm			0		10				Rain	J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.93	760.2	46.1	7.8		S			1		10				Rain	H. Todd.
Cape Town			29.94	760.5	77	25.0		SE			4		4					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.90	759.4			78.6	25.9	52	SE	25	11			15					The Royal Observatory.
Cardington			29.94	760.5	48.4	9.1		S			1		8					John McLaren.
Carlisle			29.82	757.4	48.0	8.9		SE			4		10		0.22	5.6		T. Bell.
Chatham			29.93	760.2	46.6	8.1		S			1		10				Light rain	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.90	759.4	74.2	23.4		NE			4		8					Sgt. W. F. Hopkins
Dartmoor			29.93	760.2	46	7.8		SW			4		10				Rain	R. E. Power.
Donaghadee			29.73	755.1	48	8.9		SSE			5		9					J. Mac Gowan, Jr.
Dover			29.98	761.5	45	7.2							7					J. Costello.
Dublin																		
Durham Observatory			29.87	758.7	42.0	5.6		SSE			1		10				Rain	G. Goldney.
Eccles, (near Manchester)			29.87	758.7	48.5	9.2		SE	1.2	0.5			10				Mist	Thomas Mackereth.
Falmouth Observatory			29.88	758.9	52.6	11.4		S	18	8			9					The Falmouth Observatory.
Fort Napier, (Natal)			29.64	752.8	77.3	25.2		E			3		5					Pvt. G. Salmon.
Galway			29.63	752.6	50	10.0		SE			2		4					Queen's College.
Gibraltar, (Mediterranean Sea)			30.20	767.1	59.8	15.4		WSW					3					Sgt. J. Brewster.
Glasgow Observatory			29.79	756.6	43.5	6.4		NE			1		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.90	759.4	52.2	11.2		SW			1		7					F. Toller.
Great Yarmouth			29.94	760.5	40	4.4		S			1		8				Mist	G. T. Watson.
Greenwich Royal Observatory			29.95	760.7	47.3	8.5		S			1		10				Rain	The Royal Observatory.
Guernsey			29.95	760.7	51	10.6		SSW			1		4					Dr. S. E. Hoskins.
Halifax, England			29.84	757.9	42.8	6.0		ESE			0		10				Fog	Moorside Observatory.
Halifax, Nova Scotia			30.32	770.1	9.8	−12.3		NW			2		3					Corp'l J. Y. Thompson.
Helston			29.68	753.9	55	12.8		SW			4		10					W. B. Moyle.
Holyhead			29.84	757.9	49	9.4		SSW			3		10				Rainy	John Tilston.
Hull Park																		
Kew Observatory			29.95	760.7	48.2	9.0		S	5	2			10				Rain	The Meteorological Office.
Kingstown			29.77	756.1	49	9.4		S			2		5					George Mitchell.
Lampeter																		
Leicester			29.90	759.4	47.7	8.7		S			2		10				Rainy	William J. Harrison
Llandudno			29.85	758.2	49.8	9.9		S			0		7					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.32	770.1	58.0	14.4		SE			1		5					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.79	756.6	38	3.3		SSW			1		10					William D. Penny.
Nassau			30.19	766.8	71.5	21.9		Calm			0		7					Surgeon J. Jameson.
Nottingham			29.91	759.7	47.8	8.8		S			1		10				Rain	E. J. Lowe.
North Shields			29.86	758.4	44	6.7		SW			1		8				Rainy	John Wm. Irvine.
Osborne, New Barn Cottage			29.94	760.5	48.1	8.9		SSW			1		10				Rain	J. R. Mann.
Oscott, (near Birmingham)			29.90	759.4	46.5	8.1		SSW			2		10				Fog	St. Mary's College.
Oxford, the Radcliffe Observ'y			29.89	759.2	49	9.4		S			1		10				Mist	Radcliffe Observatory.
Plymouth			29.89	759.2	52	11.1		SSW			2		10				Fog	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.79	754.4	48	8.9		SSW			5		8					W. Kennedy.
Saint Ann's Head			29.83	757.7	49	9.4		S			2		4					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.84	757.9	41.2	5.1		SE	20	9			10				Rainy	Rev. Dr. Clouston.
Scarboro'			29.88	758.9	45.0	7.2		SSW			1		10					F. Heard.
Scutari, Turkey			30.52	775.2	34.8	1.6		NE			1		10				Snowy	W. H. Lyne.
Sheffield			29.88	758.9	48.0	8.9		SSW			1		10				Rain	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.80	756.9	46.8	8.2		E			1		10		0.010	0.25		Francis Redford.
Somerleyton, (Lowestoft)			29.94	760.5	44.0	6.7		SSW			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.81	757.2	47.6	8.7		SW			1		10					Stonyhurst Observatory.
Stornaway, Lews Castle, Hebr.			29.70	754.4	43	6.1		E			1		10				Rain	John Smith.
Strathfield Turgiss			29.96	761.0	49.3	9.6		SW			1		10				Rain	Charles H. Griffith.
Streatley Vicarage			29.94	760.5	50.3	10.2		SSW			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.86	758.4	44	6.7		SE			3		10					William Lawrence.
Taunton College																		
Thurso			29.81	757.2	42	5.6		SSE			2		10				Rain	John Trotter.
Truro, Royal Institution			29.80	756.9	55	12.8		S			6		8					Royal Institution.
Valencia			29.62	752.3	51.0	10.6		SSE	38	17			9					Meteorological Observatory
Wick																		
Wisbech			29.90	759.4	45.5	7.5		S			0		10					S. H. Miller.
Worthing			29.96	761.0	45.9	7.7		S			2		10				Rain	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. Occasionally the barometer is reduced to sea-level by the editor.*

DANISH SERIES.

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

Copenhagen			29.97	761.3	33.6	0.9	92	WNW			2		10					
Fanöe			30.02	762.5	34.9	1.6	100	WSW			2		10				Fog	
Thorshavn, (Faröe)			29.91	759.6	36.1	2.3	87	E			6		10				Snow	
Vestervig			29.95	760.8	35.2	1.8	96	W			4		8				Rain	
Stykkisholm, (Iceland)			29.73	754.2	35.4	−1.9	100	E			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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.03	762.8	48.2	9.0	74	SW			2		10		0.039	1.0		Normal School.
Amiens			30.03	762.7	46.0	7.8	77	WSW			2		10		0.120	5.6		Normal School.
Baumette, (near Angiers)			30.02	762.5	52.9	11.6	77	SSE	2.0	0.9			10		0.012	0.3		Baumette Observatory.
Beauvais			30.02	762.5	45.9	7.7	83	SSW			0		10		0.020	0.25		Normal School.
Besançon			30.19	766.9	43.2	6.2	85	ESE			2		3		0	0		Normal School.
Bourges			30.14	765.5	47.5	8.6	89	E			2		10		0	0		Normal School.
Brest			29.89	759.2	52.0	11.1	90	SW			2		10		0.118	3.0		Naval Observatory.
Caen			30.00	762.0	49.5	9.7	95	S			2		10		0.082	2.1		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.13	765.3	44.8	7.1		S			6		5		0	0		Normal School.
Gorée, (Senegambia)			29.96	761.0	72.0	22.2	57	N			2		0		0	0		Père Pascall
Le Mans			30.04	762.9	49.1	9.5	89	S			4		8		0	0		Normal School.
Mirecourt			30.08	764.0	44.8	7.1		SSW			2		3		0	0		M. Falguère.
Mont-Louis	24.86	631.4			41.2	5.1	84	SSW	37.4	16.7			9					Normal School.
Montsouris, (near Paris)			30.05	763.3	45.0	7.2	91	Calm	0.4	0.2					0.004	0.1		Marié Davy.
Orleans			30.07	763.7	46.4	8.0	81	ESE			2		8		0	0		Normal School.
Paris			30.05	763.3	44.6	7.0	88	SSE			2		10		0	0		National Observatory.
Parthenay			30.11	764.9	54.5	12.5	81	SW			2		5		0	0		Normal School.
Perpignan	29.94	760.5			57.2	14.0	68	SSE	1.8	0.8			5		0	0		Dr. Fines.
Roche sur Yon			30.02	762.5	51.1	10.6	86	SE			4		8		0	0		Normal School.
Rouen			30.04	762.9	46.6	8.1	75	SSE			0		10		0	0		Normal School.
Saint Lo			30.01	762.3	50.4	10.2	82	SW			2		5		0.157	4.0		Normal School.
Saint Maur, (near Paris)			30.06	763.4	46.9	8.3	83	S			0		10		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.15	765.8	57.4	14.1	72	SW			2		4		0	0		M. Jacques.
Versailles, (near Paris)			30.04	763.1	47.5	8.6	86	S			1		10		0.023	0.58		Dr. A. Bérigny.
Villefranche			30.11	764.7	50.2	10.1	92	N			2		10		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.24	768.1	33.4	0.8	84	E			2		6		0	0		Prof. Hoh.
Berlin			30.12	765.1	41.4	5.2	84	S			2		10		0	0		Prof. Arndt.
Breslau			30.14	765.6	34.0	1.1	79	SW			2		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.18	766.5	41.7	5.4	75	SE			1		3		0	0		A. Leuz.
Cassel			30.14	765.5	42.6	5.9	73	SSW			4		1		0	0		Dr. H. Mohl.
Cologne			30.09	764.4	46.4	8.0	83	SE			5		3		0	0		Dr. Gaithe.
Emden			30.15	765.8	41.9	5.5	94	S-W			1		10		0	0		Prof. Prestel.
Frankfort			30.27	768.9	40.5	4.7	82	SSW			1		2		0	0		Physical Society.
Friedrichshafen			30.22	767.6	34.7	1.5	82	NW					9		0	0		M. Wilhelm.
Hamburg			30.11	764.7	37.9	3.3	96	W			3		10		0.008	0.2	Fog	W. Reinart.
Kiel			30.02	762.6	39.7	4.3	90	SW			3		10		0.051	1.3		Prof. G. Karsten.
Königsberg			29.87	758.8	30.2	— 1.0	96	SW			4		10		0	0		Prof. E. Luther.
Köslin			30.24	768.0	34.0	1.1		W			5		10		0.016	0.4		Dr. Tägert.
Leipsic			30.17	766.4	37.6	3.1	83	SW			2		2		0.028	0.7		Prof. Bruhns.
Münster			29.97	761.3	44.6	7.0	97	E			3		7		0	0		Prof. E. Heis.
Posen			30.08	764.0	34.5	1.4	98	W			5		10		0.016	0.4		Dr. Magener.
Strassburg, in E.			30.17	766.4	41.5	5.3	97	Calm					1		0	0		Hartwig and Fulk.
Stuttgart			30.21	767.4	43.7	6.5	65	E					2		0	0		Mr. Wurth.
Thorn			29.99	761.8	32.7	0.4	95	W			2		10		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.10	764.6	37.4	3.0	92	NE			2		10		0	0		Prof. Flesch.
Wustrow			30.06	763.5	35.1	1.7	100	S			2		10		0.008	0.2	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.31	769.9	36.9	2.7	90	ESE	0.6	0.3			6		0	0		
Mondovi			30.28	769.2	41.4	5.2	62	S			2		3	WNW	0	0		
Genoa			30.24	768.2	47.7	8.7	77	NE	4.4	2.0			10	W	0.130	3.3		
Pavia			30.31	769.9	38.3	3.5	90	S			1		9		0	0		
Padua			30.28	769.1	39.2	4.0	76	NW	1.2	0.5			9	NW	0	0		
Parma															0	0		
Bologna			30.34	770.7	37.9	3.3	39	W			2		10		0	0	Mist	
Urbino			30.34	770.6	37.8	3.2	100	NNE			2				0	0	Fog	
Ancona			30.31	769.8	40.6	4.8	89	NW			2		10		0	0		
Florence			30.27	768.9	49.1	9.5	88	E			1		10		0.016	0.4		
Livorno			30.24	768.0	51.3	10.7	88	NE	4.4	2.0			10		0.055	1.4		
Rome			30.27	768.9	53.6	12.0	81	E			2		9	SE	0	0		
Naples, O.U.			30.32	770.2	58.8	14.9	67	S			1		9	SW	0.039	1.0		
Naples, S. R.	29.79	756.7			52.5	11.4	81	SW			4		8	NW	0.028	0.7		Prof. F. Brioschi.
Lecce			30.42	772.6	50.2	10.1	75	SSW	6.2	2.8			6		0	0		
Cosenza			30.33	770.4	50.9	10.5	58	WNW			1		6		0	0		
Catania, (Sicily)			30.37	771.4	53.4	11.9	74	SSE			1		0	W	0	0		
Palermo			30.20	767.1	59.4	15.2	51	NE			2		0		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.00	762.1	41.9	5.5		S			2							
Flushing			30.04	763.0	42.4	5.8		S			3							
Helder			30.00	762.1	34.5	1.4		S			2							
Utrecht			30.00	762.0	45.1	7.3	85	S			2		2					

Note.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			29.83	757.6	22.3	— 5.4	100	NNE	1.8	0.53			10		0	0	Fog	
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.75	755.7			54.9	12.7	85	SSW	12.4	5.5			7					

Note.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.02	762.6	27.9	— 2.3	98	SW	7	3			10				Snow	
Wilna			29.95	760.8	16.3	— 8.7	91	S	16.8	7.5			10				Snow	
Dorpat			29.78	756.4	17.2	— 8.2	86	SSW	7	3			10					
St. Petersburg			29.75	755.6	14.2	— 9.9	100	SSE	9	4			10				Snow	
Kieff			30.47	773.9	10.4	—12.0	89	SSE	11	5			7					
Nikolaiev			30.65	778.5	7.9	—13.4	76	N	4	2			0					
Kertch			30.58	776.8	18.0	— 7.8	94	NE	7	3			8				Snow	
Moscow			30.43	772.9	4.6	—15.2	72	SW	7.8	3.5			5					
Lugan			30.58	776.8	— 3.9	—19.9	68	SW	4	2			3				Fog	
Archangel			29.87	758.8	7.0	—13.9	91	SSE	10.1	4.5			10					
Tiflis			30.15	765.8	23.5	— 4.7	65	NE	16.8	7.5			10					
Astrakhan			30.57	776.5	3.6	—15.8	90	WNW	4	2			2					
Kasan			30.43	773.0	— 9.0	—22.8	100	NW	0	0			0					
Orenburg			30.24	768.0	4.5	—15.3	100	SE	4	2			10					
Ekaterinburg			30.44	773.1	—12.5	—24.7	80	S	4	2			0					
Kasaly			30.17	766.3	12.7	—10.7	86	WNW	7.8	3.5			3					
Tashkend																		
Barnaul			30.15	765.8	3.4	—15.9	76	SE	7.8	3.5			2					
Yeniseisk			30.01	762.3	2.1	—16.6	93	N	4	2			5				Snow	
Irkutsk			30.39	771.9	— 2.7	—19.3	86	Calm	0	0			0					
Oorga			30.87	784.2	—14.6	—25.9	100	Calm	0	0			0					
Peking, (China)			30.48	774.3	19.0	— 7.2	54	Calm	0	0			0					
Nertchinsk			30.50	774.8	—20.7	—29.3	77	NW	7.8	3.5			0					
Vladivostock					5.9	—14.5	77	N	13	6			0					
Nikolaievsk					— 5.6	—20.9		W	16.8	7.5			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.09	764.3	51.8	11.0	88	W	7.5	3.3		0	7		0.181	4.6		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.49	749.0	9.3	—12.6	92	Calm			0		8		0	0		Dr. H. H. Hildebrandsson.
Hernosand			29.53	750.0	30.2	— 1.0	80	SW			2		0		0	0		
Upsala			29.69	754.2	24.1	— 4.4	94	WSW			4		0	NW				
Stockholm			29.67	753.7	27.7	— 2.4	94	W			2		10		0	0		
Wisby			29.81	757.1	32.7	0.4	89	NW			4		7		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.70	731.3			31.3	— 0.4	96	S			3		10		0	0	Fog.	The Observatory.
Zurich	28 53	724.6				1.3	87	W			1		7		0	0		B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.17	766.3	34.3	6.5	68	NE			6		10				Rain	
Constantinople			30.48	774.2	32.9	0.5	96	N	1	1			10					
Fao, (Persian Gulf)			30.14	765.5	59.5	15.3		SE			3		0					
Salonica			30.37	771.5	44.6	7.0		SW			0		10					
Valona			30.27	768.9	51.8	11.0		SW			0		5					
Varna			30.47	774.0	30.2	— 1.0		S			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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerlville																		
La Calle																		
Laghount																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.33	770.5	29.3	— 1.5	100	SW			2		10		0	0	Fog	Prof. Ivan Stozir.
Cracow			30.20	767.2	36.1	2.3	89	SE			4		9		0.016	0.4		I. R. Observatory.
Eperies			30.32	770.0	40.3	4.6	93	S			2		10		0.049	1.24		Julius Mikolik.
Gratz			30.31	769.8	32.2	0.1	72	Calm			0		10		0	0		Andreas Rospini.
Hermannstadt			30.32	770.1	27.7	— 2.4	92	NW			2		2		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.28	769.2	34.2	1.2	85	Calm			0		10		0	0		Prof. C. Wagner.
Lemberg			30.16	766.1	32.7	0.4	90	W			6		10		0.307	7.8		Dr. T. Stanecki.
Nyiregyhaza			30.34	770.7	27.7	— 2.4	96	Calm			0		10		0	0		Habzsuda Daniel.
Pola			30.32	770.0	46.0	7.8	95	NNW			2		10		0.004	1.63	Fog	I. R. Hydrographic Office.
Szegedin			30.33	770.4	29.5	— 1.4	88	SE			4		4		0	0		Karl Stancel.
Trieste			30.33	770.4	46.0	7.8	94	SSE			0		10		0	0		Prof. V. Farolfi.
Vienna			30.33	770.3	23.0	— 5.0	98	S			2		10		0	0	Fog	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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.99	761.8			48.0	8.8	92	SW			0		10		0.049	1.25		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.33	760.2	43.9	6.6		S	8	4			5		0.125	3.18	Mist	William Boswell.
Annanhill			29.99	759.4	47.5	8.6		SSE			3		10				Rain	W. H. Dunlop.
Ardrossan			29.84	757.9	48	8.9		ESE			3		9				Rain	William McNeil.
Armagh Observatory			29.74	755.4	49.0	9.4		SSE	29	13			10				Rain	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.94	760.5	47.0	8.3		SE			3		10					The Liverpool Observatory.
Birr Castle			29.68	753.9	53.3	11.8		S			1		1					J. Drever.
Bradford			29.96	761.0	48.3	9.1		S			1		3					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			30.08	764.0	48.0	8.9		S			1		10					H. Todd.
Cape Town			29.79	756.6	85.8	29.9		SE			5		2					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.86	758.4			75.9	24.4	61	SSW	27	12			9					The Royal Observatory.
Cardington			30.08	764.0	49.0	9.4		S			1		8					John McLaren.
Carlisle			29.94	760.5	48.7	9.3		S			5		10		0	0		T. Bell.
Chatham			30.09	764.3	49.2	9.6		S			2		10				Mist	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.91	759.7	74.8	23.8		NE			2		9					Sgt. W. F. Hopkins
Dartmoor			30.01	762.2	45	7.2		SE			5		10				Rain	R. E. Power.
Donaghadee			29.78	756.4	48	8.9		S			5		10					J. MacGowan, Jr.
Dover			30.13	765.3	46	7.8							5					J. Costello.
Dublin																		
Durham Observatory			29.97	761.2	42.8	6.0		S			1		10					G. Goldney.
Eccles, (near Manchester)			29.99	761.7	46.9	8.3		SSE	3.2	1.4			10				Mist	Thomas Mackereth
Falmouth Observatory			29.90	759.4	50.0	10.0		SSE	34	15			10				Fog	The Falmouth Observatory.
Fort Napier, (Natal)			29.74	755.4	77.2	25.1		E			3		8					Pvt. G. Salmon.
Galway			29.63	752.6	54	12.2		SE			1		1					Queen's College.
Gibraltar, (Mediterranean Sea)			30.26	768.6	60.0	15.6		E					5					Sgt. J. Brewster.
Glasgow Observatory			29.87	758.7	48.3	9.1		E			2		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.04	763.0	48.2	9.0		SW			4		10				Rain	L. Toller.
Great Yarmouth			30.11	764.8	45	7.2		S			1		10				Fog	G. T. Watson.
Greenwich Royal Observatory			30.10	764.5	48.7	9.3		SSW			3		10					The Royal Observatory.
Guernsey			30.02	762.5	49	9.4		SSW			4		7					Dr. S. E. Hoskins.
Halifax, England			29.97	761.2	48.4	9.1		S			1		10					Moorside Observatory.
Halifax, Nova Scotia			30.34	770.6	5.1	—14.9		N			2		0					Corp'l J. Y. Thompson.
Helston			29.88	758.9	53	11.7		S			6		10				Rain	W. B. Moyle.
Holyhead			29.85	758.2	49	9.4		S			6		10				Rainy	John Tilston.
Hull Park																		
Kew Observatory			30.09	764.3	47.7	8.7		S	13	6			10				Mist	The Meteorological Office.
Kingstown			29.79	756.6	49	9.4		SSE			2		10				Rain	George Mitchell.
Lampeter																		
Leicester			30.04	763.0	48.4	9.1		S			4		10					William J. Harrison
Llandudno			29.88	758.9	50.4	10.2		SW			1		10					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.28	769.1	59.0	15.0		NE			1		7					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.86	758.4	42	5.6		SSW			1		8					William D. Penny.
Nassau			30.20	767.1	74.0	23.3		SE			1		2					Surgeon I. Jameson.
Nottingham			30.05	763.3	49.5	9.7		S			3		10					E. J. Lowe.
North Shields			29.98	761.5	43	6.1		SW			2		8				Fog	John Wm. Irvine.
Osborne, New Barn Cottage			30.06	763.5	49.0	9.4		SSW					10				Rain	J. R. Mann.
Oscott, (near Birmingham)			30.03	762.7	47.0	8.3		S			3		10					St. Mary's College.
Oxford, the Radcliffe Obser'y			30.03	762.7	48	8.9		SSE			3		10					Radcliffe Observatory.
Plymouth			29.95	760.7	51	10.6		S			4		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.68	753.9	49	9.4		SSW			5		7					W. Kennedy.
Saint Ann's Head			29.83	757.7	48	8.9		SSE			6		10				Fog	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.91	759.7	40.8	4.9		SE	14	6			10				Fog	Rev. Dr. Clouston.
Scarboro'			30.02	762.5	46.2	7.9		SSW			1		9					F. Heard.
Scutari, Turkey			30.34	770.6	39.0	3.9		SSE			3		2					W. H. Lyne.
Sheffield			30.01	762.2	48.2	9.0		SW			2		9					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.89	759.2	50.9	10.5		SW			1		6		0.150	3.81		Francis Redford.
Somerleyton, (Lowestoft)			30.10	764.5	47.0	8.3		SSW			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.94	760.5	46.9	8.3		S			3		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.75	755.6	46	7.8		SE			2		10					John Smith.
Strathfield Turgiss			30.09	764.3	48.0	8.9		SE			1		9					Charles H. Griffith.
Streatley Vicarage			30.07	763.8	48.0	8.9		SSW			2		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.90	759.4	44	6.7		SE			3		10				Fog	William Lawrence.
Taunton College																		
Thurso			29.88	758.9	42	5.6		Calm			0		5				Mist	John Trotter.
Truro, Royal Institution			29.86	758.4	52	11.1		S			7		10					Royal Institution.
Valencia			29.60	751.8	52.8	11.6		S	34	15			4					Meteorological Observatory
Wick																		
Wisbech			30.07	763.8	47.2	8.4		S			0		10					S. H. Miller.
Worthing			30.12	765.0	46.2	7.9		SSW			2		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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			30.02	762.4	34.3	1.3	98	Calm			0		10				Fog	
Fanöe								Calm			0		10				Fog	
Thorshavn, (Faröe)			29.90	759.4	43.3	6.3	98	SE			6		10				Rain	
Vestervig			30.04	763.1	34.5	1.4	100	Calm			0		10				Fog	
Stykkisholm, (Iceland)			29.72	755.0	33.6	0.9	89	SE			4		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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.14	765.5	50.0	10.0	89	SW			1		10					Normal School.
Amiens			30.11	764.8	50.0	10.0	89	SSE			2		10		0.173	4.4		Normal School.
Baumette, (near Angiers)			30.13	765.4	54.0	12.2	76	SE	0.0	0.0			8		0	0		Baumette Observatory.
Beauvais			30.19	766.8	51.3	10.7	83	S			0		8		0.010	0.25		Normal School.
Besançon			30.30	769.6	49.3	9.6	82	SW			2		8		0	0		Normal School.
Bourges			30.27	768.8	51.4	10.8	88	E			1		3		0.020	0.5		Normal School.
Brest			29.93	760.3	50.5	10.3	89	SW			3		10		0	0		Naval Observatory.
Caen			30.10	764.6	52.3	11.3	85	SSE			2		5		0	0		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.24	768.0	49.8	9.9		S			1		10		0	0		Normal School.
Gorée, (Senegambia)			29.94	760.4	75.7	24.3	45	NE			1		2		0	0		Père Pascall
Le Mans			30.17	766.2	51.4	10.8	85	S			2		5		0	0		Normal School.
Mirecourt			30.19	766.8	45.5	7.5		S			2		5		0	0		M. Falguère.
Mont-Louis	24.97	634.2			41.0	5.0	85	SW	9.4	4.2			1		0	0		Normal School.
Montsouris, (near Paris)			30.18	766.6	53.2	11.8	83	S	4.8	2.1				SW	0.071	1.8		Marié Davy.
Orleans			30.20	767.2	51.4	10.8	86	SSE			2		8		0	0		Normal School.
Paris			30.34	770.7	51.6	10.9	61	SSE			2		8		0.088	2.23		National Observatory.
Parthenny			30.22	767.5	55.4	13.0	76	SW			2		3		0	0		Normal School.
Perpignan	30.13	765.2			54.0	12.7	90	SE	5.0	2.5			10		0	0		Dr. Fines.
Roche sur Yon			30.13	765.4	52.5	11.4	80	SE			6		10		0	0		Normal School.
Rouen			29.99	761.8	50.2	10.1	84	SSE			0		3		0	0		Normal School.
Saint Lo			30.10	764.5	52.5	11.4	86	S			2		5		0	0		Normal School.
Saint Maur, (near Paris)			30.19	766.7	51.8	11.0	85	S			0		9		0.142	3.6		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.23	767.8	58.8	14.9	82	WSW			2		10		0	0	Fog.	M. Jacques.
Versailles, (near Paris)			30.17	766.4	54.0	12.2	86	S			1		7		0.045	1.14		Dr. A. Bérigny.
Villefranche			30.26	768.7	53.1	11.7	93	SE			1		0		0.008	0.2		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.20	767.0	35.2	1.8	92	SE			2		10		0	0		Prof. Hoh.
Berlin			30.13	765.4	38.7	3.7	95	S			1		10		0.043	1.1	Fog.	Prof. Arndt.
Breslau			30.16	766.0	38.8	3.8	83	SW			2		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.26	768.5	43.2	6.2	79	S			3		10		0	0		A. Lenz.
Cassel			30.12	765.1	40.3	4.6	88	SSW			2		10		0	0		Dr. H. Mohl.
Cologne			30.19	766.9	49.8	9.9	93	S			3		4		0.028	0.7		Dr. Gaithe.
Emden			30.20	767.1	41.2	5.1	100	W			1		10		0.177	4.5	Fog.	Prof. Prestel.
Frankfort			30.35	770.8	39.9	4.4	97	SW			2		10		0.067	1.7	Fog.	Physical Society.
Friedrichshafen			30.32	770.2	36.5	2.5	91	NE					10		0	0		M. Wilhelm.
Hamburg			30.11	764.9	40.8	4.9	98	W			3		10		0.043	1.1	Fog.	W. Reinart.
Kiel			30.02	762.4	39.0	3.9	95	WSW			3		10		0.031	0.8		Prof. G. Karsten.
Königsberg			30.07	763.7	33.3	0.7	95	W			2		9		0.106	2.7	Snow.	Prof. E. Luther.
Köslin			30.27	768.8	34.7	1.5		E			1		10		0.090	2.3		Dr. Tägert.
Leipsic			30.17	766.2	38.7	3.7	92	SW			2		10		0	0	Rain.	Prof. Bruhns.
Münster			30.20	767.2	45.3	7.4	98	SE			3		7		0	0		Prof. E. Heis.
Posen			30.13	765.2	37.4	3.0	92	SW			5		10		0.043	1.1		Dr. Magener.
Strassburg, in E.			30.26	768.7	44.2	6.8	85	SW					7		0	0		Hartwig and Fulk.
Stuttgart			30.30	769.7	42.8	6.0	79	E					10		0.051	1.3	Rain.	Mr. Wurth.
Thorn			30.08	764.1	36.3	2.4	87	Calm			0		10		0.114	2.9		Dr. Hasenbalg.
Treves, (Trier)			30.20	767.2	42.3	5.7	96	NE			1		10		0.134	3.4		Prof. Flesch.
Wustrow			30.08	764.0	35.4	1.9	100	SW			2		10		0.031	0.8	Fog.	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.39	771.9	32.5	0.3	97	E	1.9	0.8			10		0	0		
Mondovi			30.37	771.5	38.3	3.5	64	SSE			2		0		0	0		
Genoa			30.31	769.8	50.9	10.5	63	E	1.2	0.5			6	S	0	0		
Pavia			30.37	771.4	37.8	3.2	88	S			1		10		0	0		
Padua			30.32	770.0	41.2	5.1	78	NNW	0.6	0.3			8	SSW	0	0		
Parma															0	0		
Bologna			30.38	771.7	40.8	4.9	45	WNW			2		10		0	0		
Urbino			30.37	771.5	39.2	4.0	95	NE			2				0	0	Fog.	
Ancona			30.39	771.9	42.3	5.7	74	NW			2		10		0	0		
Florence			30.31	769.8	52.7	11.5	88	E			1		10	NW	0.024	0.6		
Livorno			30.29	769.4	53.6	12.0	74	NE	6.2	2.8			9		0	0		
Rome			30.30	769.6	56.5	13.6	78	S			2		9	SSE	0.004	0.1		
Naples, O.U.			30.31	769.9	59.7	15.4	64	WSW			1		4	NE	0	0		
Naples, S. R.	29.78	756.3			53.6	12.0	76	SW			2		5	W	0	0		Prof. F. Brioschi.
Lecce			30.32	770.0	53.2	11.8	73	E	3.7	1.6			6		0	0		
Cosenza			30.33	770.3	52.7	11.5	67	WNW					4		0	0		
Catania, (Sicily)			30.31	769.9	53.4	11.9	75	SSE			1		0		0	0		
Palermo			30.21	767.4	52.7	13.5	68	NE			2		4		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.08	764.0	42.1	5.6		WSW			2							
Flushing			30.20	767.0	45.3	7.4		SSW			2							
Helder			30.13	765.3	34.2	1.2		SSW			2							
Utrecht			30.13	765.2	47.3	8.5	89	SSW			2		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.09	764.2	17.6	— 8.0	89	ENE	6.0	2.69			0		0	0		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.81	757.3			57.7	14.3	86	S	19.9	8.9			10					

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.10	764.6	33.3	0.7	100	W	4	2			10				Snow	
Wilna			30.02	762.6	21.9	— 5.6	96	NW	7.8	3.5			10					
Dorpat			29.80	757.0	28.0	— 2.2	80	WNW	11	5			8					
St. Petersburg			29.53	750.7	18.9	— 7.3	95	WNW	18	8			1					
Kieff			30.18	766.6	23.7	— 4.6	93	SW	7	3			10					
Nikolaiev			30.31	769.9	28.8	— 1.8	92	S	7.8	3.5			10					
Kertch			30.48	774.1	21.2	— 6.0	98	SE	7	3			2					
Moscow			29.91	759.8	12.7	—10.7	80	SW	13	6			10				Snow	
Lugan			30.39	771.9	1.0	—17.2	68	Calm	0	0			5				Solar Corona	
Archangel			29.60	751.8	4.1	—15.5	90	SE	10.1	4.5			10					
Tiflis			30.39	771.9	31.3	— 0.4	85	N	9	4			1					
Astrakhan			30.64	778.3	5.4	—14.8	82	WNW	4	2			1					
Kasan			30.31	769.9	—12.8	—24.9	82	SSE	7	3			2					
Orenburg			30.49	774.5	— 6.3	—21.3	100	NE	4	2			10					
Ekaterinburg			30.49	774.4	— 4.0	—20.0	86	Calm	0	0			0					
Kasaly			30.13	765.4	9.7	—12.4	62	NW	13	6			10					
Tashkend																		
Barnaul			30.28	769.2	8.6	—13.0	84	Calm	0	0			4					
Yeniseisk			29.98	761.5	3.7	—15.7	91	N	4	2			5					
Irkutsk			30.20	767.2	— 6.0	—21.1	88	Calm	0	0			0					
Oorga			30.73	780.6	14.6	—25.9	100	Calm	0	0			0					
Peking, (China)			30.36	771.1	27.3	— 2.6	36	SW	7.8	3.5			0					
Nertchinsk			30.30	769.5	—22.7	—30.4	86	Calm	0	0			0					
Vladivostock					5.7	—14.6	72	N	16.8	7.5			6				Snow	
Nikolaievsk					— 4.7	—20.4		W	20	9			10				Snow	

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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.32	770.1	47.8	8.8	89	SW	1.5	0.7		0	10		0.024	0.6		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.61	752.1	25.2	— 3.8	82	NNW			2		1		0	0		Dr. H. H. Hildebrandsson.
Hernosand			29.77	756.2	27.3	— 2.6	92	WNW			4		0		0	0		
Upsala			29.95	760.7	19.2	— 7.1	88	WNW			2		0					
Stockholm			29.93	760.2	17.8	— 7.0	83	WNW			2		0		0	0		
Wisby			30.05	763.2	30.6	— 0.8	88	N			2		3		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.87	733.3			37.6	3.1	83	WSW			3		9		0	0		The Observatory.
Zurich	28.61	726.6			39.2	4.0	82	S			1		9		0.059	1.5	Rainy	B. Billwiller.

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.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.26	768.5	45.1	7.3	52	N			2		5					
Constantinople			30.32	770.0	36.7	2.6	74	SE	13	6			2					
Fao, (Persian Gulf)			30.43	773.0	60.8	16.0		NW			3		0					
Salonica			30.24	768.2	50.0	10.0		NW			0		0					
Valona			30.23	767.8	55.0	12.8		W			2		0					
Varna			30.28	769.0	37.4	3.0		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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Dlelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

Station.	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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.38	771.7	38.1	3.4	78	SW			2		2		0	0		Prof. Ivan Stozir.
Cracow			30.31	769.8	34.2	1.2	100	E			4		10		0.012	0.30		I. R. Observatory.
Eperies			30.29	769.3	36.7	2.6	87	Calm			0		10		0	0		Julius Mikolik.
Gratz			30.37	771.1	39.4	4.1	74	S			4		3		0	0		Andreas Rospini.
Hermannstadt			30.26	768.6	32.7	0.4	82	NW			0		10		0	0		Prof. C. L. Reissenberger.
Kremsamünster			30.40	772.1	38.1	3.4	93	Calm			0		10		0.217	5.50		Prof. C. Wagner.
Lemberg			30.16	766.0	33.1	0.6	88	NW			6		10		0.131	0 8		Dr. T. Stanecki.
Nyiregyhaza			30.33	770.5	29.1	— 1.6	96	Calm			0		10		0	0	Snow.	Habzsuda Daniel.
Pola			30.39	771.8	46.9	8.3	86	NW			1		8		0	0		I. R. Hydrographic Office.
Szegédin			30.30	769.5	35.2	1.8	93	W			4		8		0	0		Karl Stancel.
Trieste			30.41	772.3	46.2	7.9	88	WSW			0		10		0	0		Prof. V. Farolfi.
Vienna			29.33	770.3	43.0	6.1	70	W			4		0		0.087	2.2		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.

BELGIAN SERIES.

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

Station.	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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	30.00	762.1			49.6	9.8	86	SW			0		10			0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.75	755.6	45.6	7.6		SW	8	4			7		0.070	1.78	Rain	William Boswell.
Annanhill			29.83	757.7	52.6	11.4		SSW			2		5					W. H. Dunlop.
Ardrossan			29.79	756.6	49	9.4		SSW			4		5					William McNeil.
Armagh Observatory			29.82	757.4	50.0	10.0		SSW	20	9			5					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.91	759.7	55.0	12.8		WSW			3		6					The Liverpool Observatory.
Birr Castle			29.84	757.9	52.9	11.6		SSE			1		2					J. Dreyer.
Bradford			29.88	758.9	53.1	11.7		W			2		8					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			30.04	763.0	51.8	11.0		S			3		10					H. Todd.
Cape Town			29.77	756.1	89	31.7		E			1		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.80	756.9			90.9	32.7	34	SE	11	5			5					The Royal Observatory.
Cardington			29.97	761.2	52.0	11.1		SW			4		10					John McLaren.
Carlisle			29.88	758.9	51.7	10.9		W			6		5		0.05	13		T. Bell.
Chatham			30.08	764.0	51.2	10.7		S			3		10				Rain	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.90	759.4	73.5	23.1		NE			2		10					Sgt. W. F. Hopkins
Dartmoor			30.07	763.8	48	8.9		SW			4		10				Rain	R. E. Power.
Donaghadee			29.82	757.4	49	9.4		SSE			3		8					J. Mac Gowan, Jr.
Dover			30.13	765.3	47	8.3							10				Rain	J. Costello.
Dublin																		
Durham Observatory			29.88	758.9	50.3	10.2		WNW			4		8					G. Goldney.
Eccles, (near Manchester)			29.94	760.5	54.5	12.5		SSW	8.0	3.6			10				Mist	Thomas Mackereth.
Falmouth Observatory			30.03	762.7	52.6	11.4		SSW	18	8			10				Fog	The Falmouth Observatory.
Fort Napier, (Natal)			29.85	758.2	75.8	24.3		NE			2		4					Pvt. G. Salmon.
Galway			29.73	754.9	53	11.7		S			2		3					Queen's College.
Gibraltar, (Mediterranean Sea)			30.35	770.9	58.4	14.7		ENE					10					Sgt. J. Brewster.
Glasgow Observatory			29.78	756.4	51.0	10.6		SW			3		9					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.04	763.0	54.4	12.4		W			3		10					E. Toller.
Great Yarmouth			30.05	763.3	49	9.4		WSW			3		10				Mist	G. T. Watson.
Greenwich Royal Observatory			30.09	764.3	50.8	10.4		SW			4		10				Rainy	The Royal Observatory.
Guernsey			30.10	764.5	51	10.6		SSW			2		10				Rain	Dr. S. E. Hoskins.
Halifax, England			29.87	758.7	52	11.1		SW			4		8					Moorside Observatory.
Halifax, Nova Scotia			29.44	747.8	30.2	− 1.0		SE			4		10				Snow	Corp'l J. Y. Thompson.
Helston			30.02	762.5	56	13.3		S			5		10				Mist	W. B. Moyle.
Holyhead			29.94	760.5	50	10.0		SSW			2		10				Rainy	John Tilston.
Hull Park																		
Kew Observatory			30.09	764.3	50.7	10.3		SSW	15	7			10					The Meteorological Office.
Kingston			29.87	758.7	49	9.4		E			3		4					George Mitchell.
Lampeter																		
Leicester			30.00	762.0	54.0	12.2		S			4		6					William J. Harrison
Llandudno			29.90	759.4	51.6	10.9		SSW			0		1					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.43	772.9	58.4	14.7		NE			1		2					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.69	754.1	47	8.3		Calm			0		6					William D. Penny.
Nassau			30.16	766.0	73.8	23.2		Calm			0		1					Surgeon I. Jameson.
Nottingham			29.98	761.5	54.1	12.3		SSW			3		5					E. J. Lowe.
North Shields			29.86	758.4	51	10.6		WSW			4		6					John Wm. Irvine.
Osborne, New Barn Cottage			30.08	764.0	49.8	9.9		SW			2		10				Rainy	J. R. Mann.
Oscott, (near Birmingham)			29.99	761.7	51.9	11.1		SSW			4		9				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.00	762.0	52	11.1		SSW			1		10					Radcliffe Observatory.
Plymouth			30.04	763.0	52	11.1		SSW			3		10				Rain	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.81	757.2	49	9.4		SW			5		6					W. Kennedy.
Saint Ann's Head			29.96	761.0	49	9.4		S			3		10				Fog	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.72	754.9	44.2	6.8		SSE	7	3			10				Rainy	Rev. Dr. Clouston.
Scarboro'			29.90	759.4	51.3	10.7		WSW			3		10					F. Heard.
Sentari, Turkey			30.31	769.9	41.4	5.2		SW			2		9					W. H. Lyne.
Sheffield			29.91	759.7	55.0	12.8		W			4		5				Rainy	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.87	758.7	49.8	9.9		SW			5		3		0.150	3.81		Francis Redford.
Somerleyton, (Lowestoft)			30.04	763.0	50.0	10.0		SSW			2		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.89	759.0	52.0	11.1		SW			1		9					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.64	752.8	47	8.3		SW			5		5					John Smith.
Strathfield Turgiss			30.07	763.8	50.8	10.4		W			1		10				Rain	Charles H. Griffith.
Streatley Vicarage			30.06	763.5	51.0	10.6		SW			2		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.72	754.9	46	7.8		S			3		10				Fog	William Lawrence.
Taunton College																		
Thurso			29.69	754.1	44	6.7		SSE			2		8					John Trotter.
Truro, Royal Institution			29.94	760.5	54	12.2		S			7		10				Rain	Royal Institution.
Valencia			29.76	755.9	52.4	11.3		S	29	13			7					Meteorological Observatory
Wick																		
Wisbech			30.00	762.0	52.1	11.2		SW			3		10					S. H. Miller.
Worthing			30.12	765.0	47.6	8.7		SW			4		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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of 0–10 by the editor.

DANISH SERIES.

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

Copenhagen			30.12	765.0	35.6	2.0	98	Calm			0		10				Fog	
Faröe			30.07	763.9	35.4	1.9	98	SW			2		10					
Thorshavn, (Faröe)			29.64	752.9	44.6	7.0	98	ESE			4		10				Fog	
Vestervig			30.03	762.7	36.3	2.4	100	S			2		10				Fog	
Stykkisholm, (Iceland)			29.50	749.4	37.6	3.1	81	E			4		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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.22	767.6	46.4	8.0	91	SW			1		8					Normal School.
Amiens			30.22	767.7	47.5	8.6	92	SSE			2		10		0.252	6.4		Normal School.
Baumette, (near Angiers)			30.22	767.5	52.0	11.1	80	S	2.7	1.2			10		0	0	Halo	Baumette Observatory.
Beauvais			30.25	768.3	46.8	8.2	89	S			0		10		0	0		Normal School.
Besançon			30.39	771.8	41.2	5.1	94	SE			2		5		0	0		Normal School.
Bourges			30.30	769.7	41.4	5.2	92	E			2		10		0	0		Normal School.
Brest			30.02	762.5	51.6	10.9	93	SW			3		10		0.413	10.5	Light rain	Naval Observatory.
Caen			30.18	766.6	51.3	10.7	90	S			2		10		0.067	1.7		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.30	769.7	48.0	8.9		S			2		5		0	0		Normal School.
Gorée, (Senegambia)			29.95	760.8	78.6	25.9	25	SE			1		0		0	0		Père Pascall
Le Mans			30.24	768.0	46.4	8.0	86	S			2		5		0	0		Normal School.
Mirecourt			30.28	769.2	45.9	7.7		SSW			2		0		0	0		M. Falguère.
Mont-Louis	25.04	635.9			37.8	3.2	82	WSW	7.4	3.3			5		0	0		Normal School.
Montsouris, (near Paris)			30.24	768.0	44.1	6.7	93	SSE	2.2	1.0					0.004	0.1		Marié Davy.
Orleans			30.27	768.8	46.0	7.8	89	SE			2		5		0	0		Normal School.
Paris			30.24	768.2	44.6	7.0	87	S			2		10		0.010	0.25		National Observatory.
Parthenay			30.30	769.6	54.0	12.2	76	SE			2		5		0	0		Normal School.
Perpignan	30.17	766.3			55.2	12.9	76	ENE	3.8	1.7			5		0	0	Covered	Dr. Fines.
Roche sur Yon			30.19	766.9	49.3	9.6	89	SE			2		8		0	0		Normal School.
Rouen			30.22	767.5	48.6	9.2	89	SSE			0		0		0	0		Normal School.
Saint Lo			30.28	769.0	53.2	11.8	77	SW			2		5		0.197	5.0		Normal School.
Saint Maur, (near Paris)			30.24	768.2	44.6	7.0	92	SE			1		10		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.38	771.7	61.2	16.2	78	NNW			2		6		0	0	Heavy dew	M. Jacques.
Versailles, (near Paris)			30.24	768.0	47.8	8.8	86	SW			1		10		0.007	0.17		Dr. A. Bérigny.
Villefranche			30.34	770.6	44.8	7.1	91	SE			2		10		0			Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.21	767.3	37.4	3.0	91	SE			1		10		0.020	0.5	Fog	Prof. Hoh.
Berlin			30.29	769.4	42.8	6.0	92	S			2		10		0.043	1.1	Fog	Prof. Arndt.
Breslau			30.32	770.2	34.9	1.6	100	W			2		10		0.094	2.4	Fog	Dr. P. Neugebauer.
Carlsruhe			30.32	770.1	46.0	7.8	84	S			1		5		0.067	1.7		A. Leus.
Cassel			30.23	767.8	45.0	7.2	87	SW			1		10		0	0		Dr. H. Mohl.
Cologne			30.24	768.2	49.6	9.8	90	S			5		8		0.055	1.4		Dr. Gaithe.
Emden			30.22	767.5	45.0	7.2	95	WSW			1		10		0.063	1.6		Prof. Prestel.
Frankfort			30.43	772.9	41.9	5.5	97	W			0		10		0	0	Fog	Physical Society.
Friedrichshafen			30.37	771.5	35.6	2.0	100	N					10		0	0	Fog	M. Wilhelm.
Hamburg			30.22	767.7	44.2	6.8	89	S			2		9		0.047	1.2		W. Reinart.
Kiel			30.12	765.0	43.0	6.1	85	SSW			3		10		0.024	0.6		Prof. G. Karsten.
Königsberg			30.15	765.7	32.0	0.0	80	W			2		1		0.004	0.1		Prof. E. Luther.
Köslin			30.44	773.2	34.5	1.4		NW			1		10		0.299	7.6		Dr. Tägert.
Leipsic			30.32	770.1	39.0	3.9	85	SSW			1		10		0	0		Prof. Bruhns.
Münster			29.25	708.3	51.4	10.8	89	SW			3		10		0	0		Prof. E. Heis.
Posen			30.29	769.3	35.4	1.9	98	W			1		10		0.173	4.4		Dr. Magener.
Strassburg, in E.			30.32	770.1	48.4	9.1	77	SW					2		0.004	0.1		Hartwig and Fulk.
Stuttgart			30.35	770.9	46.4	8.0	79	E					2		0.055	1.4		Mr. Wurth.
Thorn			30.23	767.9	34.7	1.5	81	W			1		8		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.26	768.7	45.7	7.6	97	E			1		10		0.043	1.1		Prof. Flesch.
Wustrow			30.22	767.6	36.7	2.6	100	S			1		10		0	0	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.44	773.3	31.5	— 0.3	94	NNW	5/0	2/2					0	0		
Mondovi			30.41	772.5	41.5	5.3	55	SE			2		8	NW	0	0		
Genoa			30.41	772.3	51.8	11.0	67	Calm					10	S	0	0		
Pavia			30.44	773.2	32.0	0.0	100	SW			1				0	0	Fog	
Padua			30.41	772.3	33.8	1.0	88	WNW	1.2	0.5					0	0	Fog	
Parma																		
Bologna			30.45	773.4	41.2	5.1	45	SW			2		10		0	0		
Urbino			30.44	773.3	43.0	6.0	92	S			2		10		0	0		
Ancona			30.41	773.2	45.0	7.2	71	Calm					0		0	0		
Florence			30.42	772.7	51.4	10.8	77	ENE			2		2		0	0		
Livorno			30.40	772.1	52.0	11.6	84	NE	1.9	0.8			9		0	0		
Rome			30.39	772.0	56.5	13.6	94	ESE			2		8	NNW	0	0		
Naples, O.U.			30.41	772.5	57.9	14.4	74	E			1		10	NW	0	0		
Naples, S. R.	29.86	758.4			54.0	12.2	83	NW			4		9	SW	0	0		Prof. F. Brioschi.
Lecce			30.39	771.9	50.9	10.5	85	N	6.2	2.8			8		0.248	6.3		
Cosenza			30.39	772.0	54.3	12.4	91	W			1		10		0	0		
Catania, (Sicily)			30.41	772.4	53.4	11.9	77	SSW			1		0	SW	0	0		
Palermo			30.33	770.5	58.3	14.6	66	Calm			0		9		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.09	764.4	44.6	7.0		SSW			2							
Flushing			30.20	767.0	45.0	7.2		S			3							
Helder			30.09	764.4	43.7	6.5		S			4							
Utrecht			30.13	765.4	47.7	8.7	91	SSW			2		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania			30.09	764.4	9.7	—12.4	92	ENE			1		0		0	0		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.83	757.7			56.8	13.8	80	SE	11.2	5.0			5					

NOTE.—The originals give the wind velocity 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.

RUSSIAN SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.21	767.3	31.6	— 0.2	90	WNW	4	2			10					
Wilna			30.02	762.4	24.8	— 4.0	91	WNW	8.0	3.5			2					
Dorpat			29.80	756.9	25.2	— 3.8	80	WNW	9	4			5					
St. Petersburg			29.59	751 5	14.0	—10.0	94	WNW	11	5			1					
Kieff			30.01	762.3	30.7	— 0.7	90	NW	7	3			10					
Nikolaiev			30.07	763.9	31.6	— 0.2	83	S	4	2			7					
Kertch			30.19	766.7	36.5	2.5	84	SW	7	3			10					
Moscow			29.77	756.2	23.5	— 4.7	86	WNW	10.1	4.5			7				Snow	
Lugan			29.91	759.6	28.8	— 1.8	86	SW	16.8	7.5			10				Snow and rain.	
Archangel			29.53	750.0	— 0.2	—17.9	89	ENE	8.0	3.5			8					
Tiflis			30.45	773.4	30.9	— 0.6	92	Calm	0	0			2					
Astrakhan			30.47	773.9	17.6	— 8.0	65	SSW	2	1			9					
Kasan			29.92	760.0	3.6	—15.8	100	SSW	4	2			10					
Orenburg			30.42	772.6	—14.3	—25.7	80						4					
Ekaterinburg			30.45	773.5	— 0.8	—18.2	89	Calm	0	0			1					
Kasaly			30.24	768.0	8.8	—12.9	73	N	13	6			5					
Tashkend																		
Barnaul			30.27	768.8	0.9	—17.3	79	SW	10.1	4.5			0					
Yeniseisk			29.85	758.1	— 4.9	—20.5	91	W	4	2			4					
Irkutsk			30.01	762 2	— 9.2	—22.9	84	Calm	0	0			0					
Oorga			30.45	773.4	— 9.9	—23.3	99	Calm	0	0			0					
Peking, (China)			30.27	768.9	30.0	— 1.1	52	Calm	0	0			0					
Nertchinsk			30.28	760.0	—20.7	—29.3	79	Calm	0	0			0					
Vladivostock					2.1	—16.6	67	N	10.1	4.5			1					
Nikolaievsk					— 5.3	—20.7		W	8.0	3.5			5					

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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.38	771.6	48.4	9.1	86	NE	1.5	0.7		4	3	SW	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea	.....	.....	29.75	755.6	21.6	— 5.8	80	NW	.....	.....	2	.....	0	.....	0	0	.....	Dr. H. H. Hildebrandsson.
Hernosand	.....	.....	29.86	758.5	20.2	— 3.2	96	WNW	.....	.....	4	.....	0	.....	0	0	.....	
Upsala	.....	.....	30.09	764.4	20.7	— 6.3	79	WNW	.....	.....	4	.....	0	.....	.....	.....	.....	
Stockholm	.....	.....	29.97	761.2	15.4	— 9.2	84	W	.....	.....	4	.....	0	.....	0	0	.....	
Wisby	.....	.....	30.11	764.7	34.5	1.4	46	N	.....	.....	6	.....	0	.....	0	0	.....	

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.93	734.9	.....	.....	31.6	— 0.2	100	SW	.....	.....	3	.....	10	.....	0	0	Fog	The Observatory.
Zurich	28.67	728.1	.....	.....	33.3	0.7	96	NW	.....	.....	1	.....	4	.....	0	0	Foggy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)	.....	.....	30.20	767.1	34.7	1.5	60	W	.....	.....	3	.....	5	.....	.....	.....	.....	
Constantinople	.....	.....	30.29	769.4	40.8	4.8	60	S	7	3	.....	.....	10	.....	.....	.....	.....	
Fao, (Persian Gulf)	.....	.....	30.45	773.5	42.6	5.9	.....	NW	.....	.....	3	.....	.....	.....	.....	.....	.....	
Salonica	.....	.....	30.27	768.8	50.9	10.5	.....	N	.....	.....	2	.....	.....	.....	.....	.....	.....	
Valona	.....	.....	30.27	768.8	52.3	11.3	.....	W	.....	.....	2	.....	.....	.....	.....	.....	.....	
Varna	.....	.....	30.20	767.0	41.0	5.0	.....	NW	.....	.....	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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gertville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.33	770.3	27.5	— 2.5	95	Calm			0		10		0	0	Fog	Prof. Ivan Stozir.
Cracow			30.11	764.9	39.2	4.0	88	E			5		10		0.075	1.9		I. R. Observatory.
Eperies			30.20	767.2	37.6	3.1	100	S			4		10		0.010	0.26		Julius Mikolik.
Gratz			30.25	768.3	36.3	2.4	80	S			4		0		0	0		Andreas Rospini.
Hermannstadt			30.28	769.1	35.4	1.9	82	NW			0		10		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.29	769.4	31.6	— 0.2	100	Calm			0		7		0	0		Prof. C. Wagner.
Lemberg			29.99	761.7	32.9	0.5	98	SW			6		10		0.024	0.6		Dr. T. Stanecki.
Nyiregyhaza			30.28	769.0	30.6	— 0.8	96	W			4		10		0	0	Solar corona.	Habzsuda Daniel.
Pola			30.39	771.8	45.5	7.5	86	Calm			0		9		0	0		I. R. Hydrographic Office.
Szegedin			30.27	768.8	38.8	3.8	83	W			4		6		0	0		Karl Stancel.
Trieste			30.38	771.6	46.0	7.8	88	S			0		10		0	0		Prof. V. Farolfi.
Vienna			30.23	767.8	37.4	3.0	86	Calm			0		8		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.

BELGIAN SERIES.

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

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.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels		29.83	757.7			48.2	9.0	80	SSW			0		10		0	0	Clearing	Royal Observatory.

NOTE.—The originals give the wind force 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 on 183.9 feet.

BRITISH SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.47	748.5	46.0	7.8		SSE	26	12			10		0.050	1.27	Rain & Mist	William Boswell.
Annanhill			29.44	747.8	50.0	10.0		S			4		10				Rain	W. H. Dunlop.
Ardrossan			29.37	746.0	49	9.4		SSE			5		8					William McNeil.
Armagh Observatory			29.30	744.2	51.9	11.1		SSW	36	16			10				Rain	Stillman Call
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.57	751.1	49.3	9.6		SE			3		10				Rain	The Liverpool Observatory.
Birr Castle			29.36	745.7	48.2	9.0		SE			3		10				Rain	J. Dreyer.
Bradford			29.60	751.8	49.6	9.8		S			1		10				Rain	J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.82	757.4	49.5	9.7		S			3		10					H. Todd.
Cape Town, Cape Colony			29.81	757.2	86	30.0		SE			3		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.86	758.4			88.7	31.5	46	SSE	11	5			1					The Royal Observatory.
Cardington			29.82	757.4	50.2	10.1		S			4		10					John McLaren.
Carlisle			29.53	750.0	49.8	9.9		S			6		10		0.08	2.0	Snow	T. Bell.
Chatham			30.09	764.3	50.9	10.5		S			3		10				Threatening	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.89	758.9	75.5	24.2		NE			1		10					Sgt. W. F. Hopkins
Dartmoor			29.79	756.4	47.5	8.6		SW			7		10				Fog	R. E. Power.
Donaghadee			29.37	746.0	50	10.0		S			8		3					J. Mac Gowan, Jr.
Dover			29.93	760.2	48	8.9							7					J. Costello.
Dublin																		
Durham Observatory			29.56	750.8	47.2	8.4		S			5		10				Rain	G. Goldney.
Eccles, (near Manchester)			29.64	752.8	49.7	9.8		S	7.2	3.2			10					Thomas Mackereth
Falmouth Observatory			29.75	755.6	54.5	12.2		SSW	38	17			6					The Falmouth Observatory.
Fort Napier, (Natal)			29.82	757.4	80.6	27.0		NE			2		0					Pvt. G. Salmon.
Galway			29.60	751.8	53	11.7		S			4		10				Rain	Queen's College.
Gibraltar, (Mediterranean Sea)			30.40	772.1	59.2	15.1		ENE					0				Haze	Sgt. J. Brewster.
Glasgow Observatory			29.39	746.5	49 0	9.4		SSW			4		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.84	757.9	53.5	11.9		SW			4		10				Rain	E. Toller.
Great Yarmouth			29.86	758.4	45	7.2		SSW			3		10				Mist	G. T. Watson.
Greenwich Royal Observatory			29.86	758.4	50.3	10.2		SW			4		10					The Royal Observatory.
Guernsey			29.89	759.2	52.5	11.4		SSW			5		8					Dr. S. E. Hoskins.
Halifax, England			29.59	751.6	49.4	9.7		S			5		10					Moorside Observatory
Halifax, Nova Scotia			29.56	750.8	6.1	—14.4		N			6		4					Corp'l J. Y. Thompson.
Helston			29.75	755.6	55	12.8		SSW			4		6					W. B. Moyle.
Holyhead			29.52	749.8	50	10.0		SSW			6		4				Mist	John Tilston.
Hull Park																		
Kew Observatory			29.86	758.4	50.3	10.2		SSW	20	9			10				Rain	The Meteorological Office.
Kingston			29.41	747.0	52	11.1		SW			4		5					George Mitchell.
Lampeter																		
Leicester			29.74	755.4	49.0	9.4		S			6		10				Rainy	William J. Harrison
Llandudno			29.51	749.5	54.3	12.4		SW			4						Rainy	Dr. James Nicol.
Malta, (Mediterranean Sea)			30.41	772.4	60.0	15.6		NW			1		2					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.30	744.2	52	11.1		SSW			1		9					William D. Penny.
Nassau			30.14	765.5	66.0	18.9		Calm			0		2					Surgeon I. Jameson.
Nottingham			29.71	754.6	51.0	10.6		SSW			4		10					E. J. Lowe.
North Shields			29.61	752.1	50	10.0		SSW			6		8				Rain	John Wm. Irvine.
Osborne, New Barn Cottage			29.84	757.9	49.8	9.9		S			3		10				Rain	J. R. Mann.
Oscott, (near Birmingham)			29.70	754.4	48.2	9.0		S			6		10				Rainy	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.75	755.6	50	10.0		SSW			3		10				Rain	Radcliffe Observatory.
Plymouth			29.76	755.9	53	11.7		SW			6		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.44	747.8	48	8.9		SSW			6		9					W. Kennedy.
Saint Ann's Head			29.60	751.8	51	10.6		SSW			4		5				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.38	746.2	44.8	7.1		SE	28	13			10				Rain	Rev. Dr. Clouston.
Scarboro'			29.67	753.6	48.0	8.9		S			4		10				Rain	F. Heard.
Scutari, Turkey			30.31	769.9	46.0	7.8		WSW			1		10					W. H. Lyne.
Sheffield			29.66	753.3	49.9	9.9		SW			4		10					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.48	748.8	51.0	10.6		S			6		10		0	0		Francis Redford.
Somerleyton, (Lowestoft)			29.85	758.2	46.7	8.2		SSW			2		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.56	750.8	48.9	9.4		S			6		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.20	741.7	48	8.9		SE			4		10				Rain	John Smith.
Strathfield Turgiss			29.82	757.4	52	11.1		SW			1		9				Rain	Charles H. Griffith.
Streatley Vicarage																		Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.49	749.0	44	6.7		S			5		10					William Lawrence.
Taunton College																		
Thurso			29.38	746.2	46	7.8		SE			5		9				Rain	John Trotter.
Truro, Royal Institution			29.70	754.4	55	12.8		SW			7		6					Royal Institution.
Valencia			29.35	745.5	51.0	10.6		SW	45	20			10					Meteorological Observatory
Wick																		
Wisbech			29.78	756.4	49.0	9.4		S			4		10					S. H. Miller.
Worthing			29.87	758.7	48.0	8.9		SSW			5		10				Rain	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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10 by the editor.

DANISH SERIES.

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

Copenhagen			29.94	760.5	37.0	2.8	98	W			2		10				Rain & Fog.	
Faröe			29.96	761.0	36.3	2.4	100	SW			2		10				Fog	
Thorshavn, (Faröe)			29.49	749.1	44.2	6.8	91	E			4		10					
Vestervig			29.85	758.9	36.0	2.2	100	S			2		10				Fog	
Stykkisholm, (Iceland)			29.48	748.7	32.4	0.2	94	E			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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.06	763.6	50.7	10.4	81	SW			1		5		0.024	0.6		Normal School.
Amiens			30.03	762.82	49.3	9.6	88	SSE			2		10		0.181	4.6		Normal School.
Baumette, (near Angiers)			30.04	763.0	54.7	12.6	76	SE	3.1	1.4			10		0	0		Baumette Observatory.
Beauvais			30.07	763.8	48.0	8.9	81	S			2		5		0	0		Normal School.
Besançon			30.28	769.0	45.1	7.3	84	SSW			2		5		0	0		Normal School.
Bourges			30.15	765.8	50.4	10.2	89	S			4		3		0.008	0.2		Normal School.
Brest			29.86	758.5	34.7	12.5	86	SW			6		10		0.236	6.0		Naval Observatory.
Caen			29.98	761.6	51.3	10.7	80	S			4		10		0	0		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.21	767.3	44.8	7.1		S			2		10		0.012	0.3		Normal School.
Gorée, (Senegambia)			29.95	760.7	77.4	25.2	34	SE			1		0		0	0		Père Pascall
Le Mans			30.08	764.0	50.2	10.1	76	S			2		5		0	0		Normal School.
Mirecourt			30.12	765.1	47.5	8.6		SSW			2		10		0	0		M. Falguère.
Mont-Louis	25.04	636.1			46.6	8.1	48	NE	6.2	2.8			4		0	0		Normal School.
Montsouris, (near Paris)			30.08	764.1	48.4	9.1	79	S	6.8	3.0					0	0		Marié Davy.
Orleans			30.12	765.1	51.4	10.8	73	S			2		3		0	0		Normal School.
Paris			30.09	764.2	47.1	8.4	77	S			2		8		0.000	0.24		National Observatory.
Parthenay			30.10	764.6	55.4	13.0	70	SW			4		3		0	0		Normal School.
Perpignan	30.17	766.3			52.9	11.6	77	NW	1.8	0.8			10		0	0		Dr. Fines.
Roche sur Yon			30.22	767.5	51.1	10.6	86	W			4		5		0	0		Normal School.
Rouen			30.06	763.4	48.0	9.4	76	SSE			0		5		0.020	0.5		Normal School.
Saint Lo			30.00	761.9	53.2	11.8	78	W			3		5		0	0		Normal School.
Saint Maur, (near Paris)			30.09	764.4	48.4	9.1	77	S			2		5		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.38	771.6	59.7	15.4	67	W			2		6		0	0		M. Jacques.
Versailles, (near Paris)			30.08	764.0	50.4	10.2	90	SW			1		8		0	0		Dr. A. Bérigny.
Villefranche			30.32	770.0	48.2	9.0	93	SSE			3		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.24	768.0	35.6	2.0	85	SE			1		7		0	0		Prof. Hoh.
Berlin			30.12	765.1	48.2	9.0	90	S			2		7		0.130	3.3	Rain	Prof. Arndt.
Breslau			30.13	765.4	40.6	4.9	92	W			2		10		0.063	1.6		Dr. P. Neugebauer.
Carlsruhe			30.21	767.3	44.6	7.0	83	SSW			1		3		0	0		A. Lenz.
Cassel			30.09	764.3	44.1	6.7	85	S			4		10		0.043	1.1		Dr. H. Mohl.
Cologne			30.13	765.3	46.6	8.1	91	S			3		9		0.150	3.8		Dr. Gaithe.
Emden			30.09	764.5	45.0	7.2	97	S			1		10		0.161	4.1		Prof. Prestel.
Frankfort			30.32	770.0	41.4	5.2	94	SW			1		4		0	0		Physical Society.
Friedrichshafen			30.30	769.6	32.9	0.5	90	Calm			0		10		0	0	Fog	M. Wilhelm.
Hamburg			30.10	764.5	46.9	8.3	93	W			4		10		0.181	4.6	Rain	W. Reinart.
Kiel			29.98	761.6	45.7	7.6	93	WSW			4		10		0.153	3.9		Prof. G. Karsten.
Königsberg			30.23	767.8	33.3	0.7	100	SW			2		10		0.232	5.9		Prof. E. Luther.
Köslin			30.20	767.2	35.4	1.9		W			4		10		0.136	3.2		Dr. Tägert.
Leipsic			30.17	766.4	46.6	8.1	78	SW			1		9		0	0		Prof. Bruhns.
Münster			30.11	764.8	50.5	10.3	89	SE			1		10		0.012	0.3	Rain	Prof. E. Heis.
Posen			30.06	763.6	39.6	4.2	100	SW			1		10		0.130	3.3		Dr. Magener.
Strassburg, in E.			30.21	767.4	46.6	8.1	76	SW					3		0	0		Hartwig and Fulk.
Stuttgart			30.22	767.6	46.4	8.0	71	E					5		0	0		Mr. Wurth.
Thorn			29.95	760.8	39.2	4.0	96	WNW			4		10		0.075	1.9		Dr. Hasenbalg.
Treves, (Trier)			30.15	765.0	40.3	4.6	98	SW			2		10		0	0		Prof. Flasch.
Wustrow			30.06	763.5	36.9	2.7	100	WSW			1		10		0.012	0.3	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.43	772.8	35.6	2.0	99	ENE	0.6	0.3			10		0	0		
Mondovi			30.40	772.2	40.1	4.5	62	SW			2		2	NNW	0	0		
Genoa			30.38	771.7	51.1	10.6	90	S	1.9	0.8			10	SW	0.063	1.6		
Pavia			30.39	772.0	38.3	3.5	83	W			1		9		0	0		
Padua			30.37	771.5	35.4	1.9	72	WNW	0.6	0.3			3	W	0	0		
Parma															0	0		
Bologna			30.46	773.7	39.7	4.3	58	W			4		10		0	0		
Urbino			30.43	772.8	45.5	7.5	90	WSW			2		10		0	0		
Ancona			30.37	771.4	45.1	7.3	80	W			2		10		0	0		
Florence			30.41	772.4	51.8	11.0	75	ENE			2		10		0	0		
Livorno			30.40	772.2	52.7	11.5	79	SSW	1.2	0.5			10		0	0		
Rome			30.41	772.5	52.9	11.6	83	SSE			2		10	W	0	0		
Naples, O.U.			30.44	773.2	55.8	13.2	74	E			1		6	NW	0	0		
Naples, S. R.	29.90	759.5			51.6	10.9	82	NE			2		6	NE	0	0		Prof. F. Brioschi.
Lecce			30.24	768.1	53.1	11.9	79	NNE	11.2	5.0			4		0.072	1.8		
Cosenza			30.40	772.1	54.9	12.7	64	WNW			2		2		0	0		
Catania, (Sicily)			30.43	772.8	53.6	12.0	76	SSE			2		0	ENE	0	0		
Palermo			30.37	771.3	56.1	13.4	71	WNW			4		10		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.95	760.7	45.5	7.5		S			2							
Flushing			30.00	761.9	45.0	7.2		S			5							
Helder			29.96	761.0	39.2	4.0		S			3							
Utrecht			29.99	761.7	47.5	8.6	85	SSE			3		8					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania					18.1	— 7.7		ENE			1		3		0.067	1.7		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.89	759.1			59.4	15.2	87	SSW	13.7	6.1			10					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.92	760.0	35.2	1.8	100	W	10.1	4.5			10				Fog.	
Wilna			29.82	757.5	29.7	— 3.3	100	Calm	0	0			10					
Dorpat			29.76	755.8	29.5	— 3.4	83	WNW	7	3			9					
St. Petersburg			29.60	751.8	18.1	— 7.7	97	WNW	4	2			8					
Kieff			30.00	762.0	27.3	— 2.6	89	SW	9	4			10				Snow	
Nikolaiev			30.26	768.7	27.7	— 2.4	75	SW	4	2			4					
Kertch			30.25	768.4	33.1	0.6	82	NW	4	2			2					
Moscow			29.75	755.6	21.7	— 5.7	87	W	10.1	4.5			10				Snow	
Lugan			29.95	760.7	19.9	— 6.7	73	WSW	10.1	4.5			2				Snow	
Archangel			29.62	752.4	— 4.4	—20.2	84	ENE	7.8	3.5			2					
Tiflis			30.17	766.3	37.0	2.8	30	N	13	6			1					
Astrakhan			30.01	762.3	30.6	— 0.8	71	SSW	10.1	4.5			10					
Kasan			29.83	757.7	2.7	—16.3	95	SE	9	4			7					
Orenburg			30.20	767.2	— 0.9	—18.3	100	SE	4	2			10					
Ekaterinburg			30.37	771.4	— 7.2	—22.0	77	SW	7.8	3.5			0					
Kasaly			30.07	763.9	20.8	— 6.2	79	ESE	13	6			5					
Tashkend																		
Barnaul			30.61	777.6	—16.1	—26.7	78	Calm	0	0			0					
Yeniseisk			30.31	769.8	—24.3	—31.3	87	W	4	2			0					
Irkutsk			30.10	764.6	11.3	—11.5	72	SW					8					
Oorga			30.14	765.5	— 6.2	—21.2	100	Calm	0	0			0					
Peking, (China)			30.21	767.4	28.8	— 1.8	64	Calm	0	0			2					
Nertchinsk			30.31	769.9	—16.2	—26.8	91	Calm	0	0			3					
Vladivostock					4.1	—15.5	71	N	4	2			0					
Nikolaievsk					—12.5	—24.7		W	16.8	7.5			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.41	772.5	47.3	8.5	78	NE	3.7	1.6		0	7		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea	.....	.....	29.74	755.4	7	—14	91	NW	.....	.....	2	.....	0	.....	0	0	.....	Dr. H. H. Hildebrandsson.
Hernosand	.....	.....	29.78	756.4	4.3	—15.4	90	Calm	.....	.....	0	.....	6	.....	0	0	.....	
Upsala	.....	.....	29.82	757.5	10.2	—12.1	95	Calm	.....	.....	0	.....	9	NW	.....	.....	.....	
Stockholm	.....	.....	29.80	756.9	14.7	— 9.6	91	WNW	.....	.....	2	.....	8	.....	0	0	.....	
Wisby	.....	.....	29.90	759.4	28.8	— 1.8	92	S	.....	.....	2	.....	7	.....	0.102	2.6	.....	

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.87	733.4	.....	.....	30.0	— 1.1	100	SW	.....	.....	3	.....	10	.....	0	0	Fog.....	The Observatory.
Zurich	28.50	726.1	.....	.....	31.5	— 0.3	97	W	.....	.....	1	.....	6	.....	0	0	Foggy	B. Billwiller.

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.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)	.....	.....	30.19	766.8	51.4	10.8	59	NE	.....	.....	2	.....	5	.....	.....	.....	.....	
Constantinople	.....	.....	30.32	770.2	45.7	7.6	78	SW	0	0	.....	.....	10	.....	.....	.....	.....	
Fao, (Persian Gulf)	.....	.....	30.33	770.5	45.1	7.3	.....	NW	.....	.....	3	.....	5	.....	.....	.....	.....	
Salonica	.....	.....	30.28	769.2	55.9	13.3	.....	NW	.....	.....	0	.....	0	.....	.....	.....	.....	
Valona	.....	.....	30.31	769.8	51.1	10.6	.....	W	.....	.....	2	.....	0	.....	.....	.....	.....	
Varna	.....	.....	30.28	769.0	42.8	6.0	.....	N	.....	.....	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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.05	763.2	41.7	5.4	77	NW			1		7		0.291	7.4		Prof. Ivan Stozir.
Buda-Posth			30.06	763.2	29.8	— 1.2	96	Calm			0		10		0	0		
Cracow			29.95	760.6	41.0	5.0	77	W			2		7		0	0		I. R. Observatory.
Eperies			30.07	763.9	29.7	— 1.4	98	Calm			0		10		0	0		Julius Mikolik.
Gratz			29.98	761.6	39.2	4.0	77	S			2.5		5		0	0		Andreas Rospini.
Hermannstadt			30.07	763.9	38.8	3.8	77	NNW			1		6		0.016	0.4		Prof. C. L. Reissenberger.
Kremsmünster			29.09	764.3	33.8	1.0	100	W			2		10		0.232	5.9		Prof. C. Wagner.
Lemberg			29.84	758.0	37.2	2.9	83	S			4		9		0.120	3.3		Dr. T. Stanecki.
Nyiregyhaza			30.07	763.9	32.7	0.4	96	SW			1		10		0	0		Habzsuda Daniel.
Pola			30.13	765.3	49.5	9.7	91	Calm			0		10		0	0		I. R. Hydrographic Office.
Szegedin			30.04	763.1	35.2	1.8	93	Calm			0		7		0	0		Karl Stancel.
Trieste			30.14	766.6	43.3	6.3	94	SSE			0		10		0.445	11.3		Prof. V. Farolfi.
Vienna			29.99	761.7	32.9	0.5	86				0		10		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.51	749.6			47.1	8.4	88	SW			2		10		0	0	Rainy	Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.35	745.5	45.0	7.2		SSW	9	4.0			6		0.170	4.32		William Boswell.
Annanhill			29.43	747.5	46.2	7.9		SW			3		9				Rainy	W. H. Dunlop.
Ardrossan			29.38	746.2	47	8.3		SW			2		8					William McNeil.
Armagh Observatory			29.45	748.0	46.0	7.8		SW	15	6.7			7					Stillman Cull.
Banbridge																		
Barnstaple																		
Battersea			29.50	749.3	49.8	9.9		SW			2		5					The Liverpool Observatory.
Bidston, the Liverpool Ob'y			29.54	750.3	48.1	8.9		WSW			1		10					J. Drever.
Birr Castle			29.45	748.0	47.0	8.3		W			2		9					J. Mc. Landsborough.
Bradford																		
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.59	751.6	46.0	7.8		SSW					9				Rainy	H. Todd.
Cape Town, Cape Colony			29.81	757.2	75.4	24.1		SE			7		4					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.93	760.2			74.3	23.5	56	SSW	37	16.5			1					The Royal Observatory.
Cardington			29.56	750.8	48.0	8.9		SW			5		7					John McLaren.
Carlisle			29.46	748.3	47.0	8.3		W			6		9				Rainy	T. Bell.
Chatham			29.63	752.0	49.2	9.6		W			2		8					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.90	759.4	76.6	24.8					2		8					Sgt. W. F. Hopkins
Dartmoor			29.71	754.6	42	5.6		NE			5		10				Rainy	R. E. Power.
Donaghadee			29.42	747.2	45	7.2		W			3		7					J. Mac Gowan, Jr.
Dover			29.67	753.6	48	8.9		SE					5					J. Costello.
Dublin																		
Durham Observatory			29.42	747.2	45.7	7.6		SSW			4		10				Rain	G. Goldney.
Eccles, (near Manchester)			29.51	749.5	49.0	9.4		SW	2.6	1.2			8				Mist	Thomas Mackereth.
Falmouth Observatory			29.70	754.4	50.3	10.2		WSW	30	13.4			8					The Falmouth Observatory.
Fort Napier, (Natal)			29.74	755.4	85.8	29.9		E			2		0					Pvt. G. Salmon.
Galway			29.17	740.9	50	10.0		SW			3		10				Mist	Queen's College.
Gibraltar, (Mediterranean Sea)			30.47	773.9	63.4	17.4		NNW					0					Sgt. J. Brewster.
Glasgow Observatory			29.38	746.2	46.5	8.1		SW			2		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.65	753.1	50.7	10.4		SW			3		3					E. Toller.
Great Yarmouth			29.56	750.8	45	7.2		W			3		6					G. T. Watson.
Greenwich Royal Observatory			29.65	753.1	48.7	9.3		W			4		10				Rainy	The Royal Observatory.
Guernsey			29.78	756.4	51	10.6		SW			4		5					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng.			29.47	748.5	45.7	7.6		WSW			4		10					Moorside Observatory.
Halifax, Nova Scotia			29.76	755.9	5.9	—14.5		NW			3		3					Corp'l J. Y. Thompson.
Helston			29.66	753.3	52	11.1		SW			3		6				Showery	W. B. Moyle.
Holyhead			29.51	749.5	48	8.9		WSW			3		6					John Tilston.
Hull Park																		
Kew Observatory			29.65	753.1	49.3	9.6		WSW	15	6.7			10				Threatening	The Meteorological Office.
Kingston			29.50	749.3	49	9.4		W			4		5					George Mitchell.
Lampeter																		
Leicester			29.57	751.1	46.6	8.1		SW			2		6					William J. Harrison
Llandudno					50.0	10.0		W			2		4.5					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.37	771.4	61.0	16.1		SW			1		4					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.28	743.7	48	8.9		Calm			0		7					William D. Penny.
Nassau, (Bahamas)			30.18	766.6	71.6	22.0		NW			3		5					Surgeon I. Jamieson.
North Shields			29.56	750.8	48.0	8.9		SW			3		8				Threatening	John Wm. Irvine.
Nottingham			29.45	748.0	47	8.3		SW			2		8				Fog	E. J. Lowe.
Osborne, New Barn Cottage			29.69	754.1	49.9	9.9		WSW			2		7				Rain	J. R. Mann.
Oscott, (near Birmingham)			29.57	751.1	48.4	9.1		SSW			3		8				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.43	747.5	49	9.4		SW			3		10					Radcliffe Observatory.
Plymouth			29.69	754.1	51	10.6		SW			3		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.59	751.6	49	9.4		WSW			5		6					W. Kennedy.
Saint Ann's Head			29.58	751.3	50	10.0		WSW			4		7					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.31	744.5	43.0	6.1		SSE	14	6.3			9					Rev. Dr. Clouston.
Scarboro'			29.49	749.0	45.9	7.7		SW			3		10					F. Heard.
Scutari, Turkey			30.17	766.3	48.4	9.1		S			2		0					W. H. Lyne.
Sheffield			29.53	750.0	49	9.4		SW			3		6					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.42	747.2	48.0	8.9		SW			5		10		2.05	52.0		Francis Redford.
Somerleyton, (Lowestoft)			29.58	751.3	48.5	9.2		W			2		9					Rev. C. J. Steward.
Stonyhurst Observatory			29.43	747.5	47.1	8.4		SW			3		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.20	741.7	46	7.8		S			3		8				Rain	John Smith.
Strathfield Turgiss			29.66	753.3	50.3	10.2		SW			1		9					Charles H. Griffith.
Streatley Vicarage																		Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.24	742.7	45	7.2		SSW			1		7				Rain	William Lawrence.
Taunton College																		
Thurso			29.28	743.7	43	6.1		S			1		8					John Trotter.
Truro, Royal Institution			29.66	753.3	52	11.1		W			7		6					Royal Institution.
Valencia			29.63	752.6	50.6	10.3		W	24	10.7			5					Meteorological Observatory
Wick																		
Wisbech			29.56	750.8	45.6	7.6		SW			3		10				Rain	S. H. Miller.
Worthing			29.69	754.1	47.0	8.3		WSW			3		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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor.

DANISH SERIES.

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

Copenhagen			29.59	751.6	39.7	+ 4.3	97	SW			2		10				Fog	
Faröe			29.60	751.8	36.0	+ 2.2	100	SW			4		10				Fog	
Thorshavn, (Faröe)			29.06	738.0	47.3	+ 8.5	81	SSW			6		8				Rain	
Vestervig			29.50	749.4	37.4	+ 3.0	100	SW			4		10				Fog	
Stykkisholm, (Iceland)			29.31	744.5	32.7	+ 0.4	89	NE			7		5					
Godthaab, (Greenland)			29.38	746.2	32.9	+ 0.5		E			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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.90	759.5	50.7	10.4	82	SW			1		10		0.150	3.8		Normal School.
Amiens			29.79	756.7	50.4	10.2	95	W			3		8		0.094	2.4		Normal School.
Baumette, (near Angiers)			29.93	760.3	53.1	11.7	75	SW	44.7	20.0			10		0.016	0.4		Baumette Observatory.
Beauvais			29.83	757.9	49.8	9.9	84	W			2		10		0.049	1.50		Normal School.
Besançon			30.05	763.3	46.6	8.1	86	S			6		8		0	0		Normal School.
Bourges			30.00	762.0	49.6	9.8	91	W			2		10		0.059	1.5		Normal School.
Brest			29.82	757.4	53.1	11.7	83	W			4		10		0.236	6.0		Naval Observatory.
Caen			29.85	758.1	51.3	10.7	86	SSW			2		5		0.161	4.1		Normal School
Carcassonne																		
Chartres																		
Chaumont			29.93	760.2	46.2	7.9		SW			4		10		0.039	1.0	Rain	Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			29.92	759.9	49.6	9.8	89	SW			4		5		0.031	0.8		Normal School.
Mirecourt			29.90	759.5	43.3	6.3		SW			4		5		0	0		M. Falguère.
Mont-Louis	24.87	631.6			34.7	1.5	92	NNW	28.0	12.5			10		0	0		Normal School.
Mont-Souris, (near Paris)			29.85	758.1	49.8	9.9	85	WSW	6.5	2.9			10		0	0		Marié Davy.
Orleans			29.93	760.1	49.3	9.6	89	SW			3		8		0	0		Normal School.
Paris			29.85	758.2	50.2	10.1	80	SW			2		10		0	0		National Observatory.
Parthenay			29.94	760.5	54.5	12.5	82	W			4		8		0	0		Normal School.
Perpignan	30.01	762.2			57.2	14.0	76	NW	13.0	5.83			5		0	0		Dr. Fines.
Roche sur Yon			30.08	764.1	53.6	12.0	95	W			6		8		0	0		Normal School.
Rouen			29.82	757.4	50.4	10.2	84	WSW			3		10		0.047	1.2		Normal School.
Saint Lo			30.067	763.67	50.4	10.2	69	W			3		5		0.051	3.9		Normal School.
Saint Maur, (near Paris)			29.85	758.3	49.5	9.7	89	WSW			2		10		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			29.96	761.0	50.7	10.4	86	W			3		10		0.012	0.3		
Tunis, (Africa)			30.27	768.8	62.6	17.0	54	W			3		0		0	0		M. Jacques.
Versailles, (near Paris)			29.85	758.1	50.4	10.2	86	W			2		10		0.003	0.09		Normal School.
Villefranche			30.06	763.5	50.2	10.1	91	SE			4		5		0.047	1.2		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.99	761.8	41.2	5.1	84	SE			2		9		0	0		Prof. Hoh.
Berlin			29.82	757.4	47.3	8.5	83	S			1		7		0.016	0.4		Prof. Arndt.
Breslau			29.80	759.2	42.6	5.9	81	WSW			2		9		0.134	3.4		Dr. P. Neugebauer.
Carlsruhe			29.89	759.3	46.0	7.8	78	SW			10		10		0	0	Fog	A. Leuz.
Cassel			29.80	756.8	47.3	8.5	82	S			2		10		0	0		Dr. H. Mohl.
Cologne			29.81	757.3	48.2	9.0	90	S			3		10		0.043	1.1		Dr. Gaithe.
Emden			29.74	755.3	42.3	5.7	96	SSW			1		10		0.150	3.8		Prof. Prestel.
Frankfort			29.93	761.1	43.2	6.2	97	SW			0		10		0	0	Rain	Physical Society.
Friedrichshafen			30.06	763.4	37.4	3.0	91	NW					10		0	0	Fog and rain	M. Wilhelm.
Hamburg			29.74	755.5	43.7	6.5	92	SW			4		10		0.012	0.3		W. Reinart.
Kiel			29.68	753.9	45.0	7.2	88	SW			4		10		0.075	1.9		Prof. G. Karsten.
Königsberg			30.58	751.4	35.4	1.9	98	W			4		10		0.232	5.9		Prof. E. Luther.
Köslin			29.93	760.1	34.7	4.5		SW			2		10		0.142	3.6		Dr. Tägert.
Leipsic			29.82	757.5	45.9	7.7	80	SSW			2		9		0	0		Prof. Bruhns.
Münster			29.88	758.9	47.8	8.8	86	SE			1		10		0.386	9.8	Rain	Prof. F. Reis.
Posen			29.83	757.6	43.5	6.4	91	SW			2		9		0	0		Dr. Magener.
Strassburg, in E.			29.93	760.2	45.7	7.6	86	SW					10		0.244	6.2		Hartwig and Falk.
Stuttgart			29.92	759.9	47.3	8.5	87	W					10		0.102	2.6	Rain	Mr. Wurth.
Thorn			29.72	755.0	39.0	3.9	96	WSW			3		3		0.209	5.3		Dr. Hasenbalg.
Treves, (Trier)			29.82	757.5	45.7	7.6	91	SW			5		10		0.189	4.8		Prof. Flesch.
Wustrow			29.73	755.2	39.6	4.2	96	WSW			1		10		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Mowalteri			30.17	766.4	34.7	+ 1.5	100	ESE					10					
Mondovi			30.13	765.4	41.2	5.1	63	SSW			2		10					
Genoa			30.11	764.9	51.4	10.8	99	SW	7.5	3.3			10		0.051	1.3	Rain	
Pavia			30.16	766.0	30.0	3.9	92	E			1		10		0.106	2.7		
Verona																		
Padua			30.13	765.2	38.7	3.7	87	NNE	2.0	0.9							Fog	
Parma			30.12	765.1	39.6	4.2		NNW			2						Fog	
Bologna			30.16	766.1	38.8	3.8	57	W			2		10					
Urbino			30.19	766.7	48.2	9.0	85	SW			4		10					
Ancona			30.05	763.3	45.5	7.5	87	ESE			2		10					
Florence			30.16	766.0	53.1	11.7	78	S			2		10	S				
Liena																		
Livorno																		
Rome			30.23	767.8	55.6	12.8	76	S			2		9	W				
Naples, O.U.			30.32	770.0	57.7	14.3	71	SW			1		10	SW				
Naples, S. R.	29.75	755.7			53.1	+11.7	79	SW			4		10	W	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.29	769.3	51.3	10.7	72	SSW			1		10					
Catania, (Sicily)			30.32	770.0	53.6	12.0	60	SE			2		0	W				
Riposto																		
Palermo			30.23	767.9	57.2	14.0	62	NE			4		0					

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.69	754.2	44.6	7.0		SW			5							
Flushing			29.62	752.3	42.8	6.0		S			3							
Helder			29.61	752.0	44.6	7.0		SSW			4							
Utrecht			29.64	752.8	44.2	6.8		S			2		10					

NOTE.—The originals give the force 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																		
Christiania					24.8	— 4.0		NE			1		10		0.295	7.5		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.20	767.2			57.9	14.4	68	WNW	9.8	4.4			2					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.76	755.8	35.6	2.0	100	WSW	13.4	6			10					
Wilna			29.59	751.7	33.4	0.8	100	Calm	0	0			10				Snow	
Dorpat			29.67	753.7	4.1	—15.5	92	NE	2.2	1			10				Fog	
St. Petersburg			29.65	753.1	5.9	—11.5	91	ENE	2.2	1			2					
Kieff			29.82	757.1	34.0	1.1	92	W	13.4	6			10					
Nikolaiev			30.00	762.0	36.3	2.4	93	SW	7.8	3.5			8					
Kertch			29.96	761.0	37.9	3.3	92	W	8.9	4			10					
Moscow			29.66	753.3	18.0	— 7.8	80	WNW	10.1	4.5			10				Snow	
Lugan			29.65	753.2	32.9	0.5	89	WSW	16.8	7.5			10				Frost	
Archangel			29.74	755.4	— 1.3	—18.5	89	ENE	7.8	3.5			8				Snow	
Tiflis			30.21	767.4	38.5	3.6	55	NNW	20.1	9			6					
Astrakhan			30.09	764.4	23.7	— 4.6	74	SSW	10.1	4.5			10					
Kasan			29.70	754.4	5.0	—15.0	91	S	4.5	2			10					
Orenburg			29.81	757.2	11.3	—11.5	100	SW	4.5	2			10					
Ekaterinburg			30.20	767.0	—12.3	—24.6	78	W	10.1	4.5			0				Snow	
Kasaly			30.07	763.9	20.1	— 6.6	79	ESE	7.8	3.5			10					
Tashkend																		
Barnaul			30.46	773.7	—15.3	—26.3	80	Calm	0	0			3					
Yeniseisk			30.29	769.3	—20.9	—29.4	91	E	7.8	3.5			6					
Irkutsk			30.50	774.6	—16.4	—26.9	78	W					3					
Oorga			30.66	778.7	—18.2	—27.9	99	Calm	0	0			0					
Peking, (China)			30.17	766.4	27.1	— 2.7	74	S	7.8	3.5			0					
Nertchinsk			30.06	763.4	2.8	—16.2	95	Calm	0	0			10					
Vladivostock																		
Nikolaievsk					— 2.6	—19.2		W	13.4	6			0				Snow	

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.

Madrid			30.42	772.6	52.3	11.3	58	W	14.8	6.7		0	5		0.024	0.6		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.75	755.7	5	−15	91	NE			2		10		0	0		Dr. H. H. Hildebrandsson.
Hernosand			29.03	752.5	9.7	−12.4	92	N			2		10		0	0	Snow	
Upsala			29.51	749.6	24.3	− 4.3	96	ENE			2		10				Snow	
Stockholm			29.46	748.2	28.0	− 2.2	96	E			4		10		0.276	7.0	Snow	
Wisby			29.46	748.3	33.4	− 0.8	89	SE			2		10		0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.62	727.0			46.0	7.8	81	SW			4		10		0	0	Rain	The Observatory.
Zurich	28.35	720.0			41.0	5.0	78	SE			1		10		0	0	Rain	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.15	765.9	53.2	11.8	35	NE			1		0					
Constantinople			30.18	766.5	46.4	8.0	72	SW	11.2	5			0					
Fao, (Persian Gulf)			30.33	770.3	44.6	7.0		NW			3		0					
Salonica			30.12	765.1	54.0	12.2		Calm			0		0					
Valona			30.19	766.8	55.4	13.0		S			2		10					
Varna			30.12	765.0	46.4	8.0		W			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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerlville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			29.78	756.4	41.0	5.1	89	SW			2		7		0	0		Prof. Ivan Stozir.
Buda-Pesth			29.71	754.7	44.1	6.7	70	W			2		7		0.116	2.95		
Cracow			29.59	751.6	38.8	+ 3.8	88	W			2		10		0.220	5.6		I. R. Observatory.
Eperies			29.65	753.2	32.7	0.4	94	S			2		10		0.189	4.8		Julius Mikolik.
Gratz			29.74	755.3	39.4	+ 4.1	78	SSW			2-5		2.5		0	0		Andreas Rospini.
Hermannstadt			29.73	755.1	37.0	+ 2.8	80	ENE			1		10		0.087	2.2		Prof. C. L. Reissenberger.
Kremsmünster			29.80	756.8	39.0	+ 4.2	90	W			6		10		0.386	9.8		Prof. C. Wagner.
Lemberg			29.54	750.3	36.0	2.2	93	SW			4		10		0.189	4.8		Dr. T. Stanecki.
Nyiregyhaza			29.70	754.3	33.4	0.8	100	SW			2		10		0.178	4.51		Habæsuda Daniel.
Pola			29.85	758.2	44.8	7.1	87	NNW			1		10		06.07	15.4		I. R. Hydrographic Office.
Szegedin			29.74	755.4	39.2	4.0	100	W			2		10		0	0		Karl Stancel.
Trieste			29.87	758.8	43.9	6.6	99	SE			0		10		0	0		Prof. V. Faroffi.
Vienna			29.65	753.0	44.6	7.0	70	W			5		6		0.122	3.1		I. R. Central Institute.
																	Fog & Rain.	

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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.52	749.7			45.5	7.5	78	WNW			2		9		06.57	16.70		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.51	749.5	43.0	6.1		WSW	8	3.6			1					William Boswell.
Annanhill																		W. H. Dunlop.
Ardrossan																		William McNeil.
Armagh Observatory			29.57	751.1	45.0	7.2		S	11	4.9								Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		The Liverpool Observatory.
Bidston, the Liverpool Ob'y			29.62	752.3	46.8	8.2		S			1		10					J. Dreyer.
Birr Castle			29.56	750.8	51.6	10.9		WSW			1		10				Rain	J. Mc. Landsborough.
Bradford																		
Bridgetown, (Barbadoes)																		
Bywell																		H. Todd.
Cambridge Observatory			29.68	753.9	49.0	9.4		SW			1		10					Sgt. D. E. Hunt
Cape Town, Cape Colony			29.77	756.1	79	26.1		W			3		3					The Royal Observatory.
Cape Good Hope Observatory	29.80	756.9			87.6	30.9	36	S	23	10.3			0.5					John McLaren.
Cardington			29.62	752.3	46.0	7.8		NW			4		9					T. Bell.
Carlisle			29.56	730.8	44.1	6.7		W			4		7		0.06	1.5		James Conroy.
Chatham			29.69	754.1	49.2	9.6		W			2		10				Mist	
Cochyfoel Farm																		Sgt. W. F. Hopkins
Colombo, Ceylon			29.91	759.7	74.5	23.6		NE			2		9					R. E. Power.
Dartmoor			29.82	757.4	48	8.9		W			6		10				Rain & Fog.	J. Mac Gowan, Jr.
Donaghadee			29.54	750.3	45	7.2		SW			3		8					J. Costello.
Dover			29.70	754.4	47	8.3							7					
Dublin																		G. Goldney.
Durham Observatory			29.56	750.8	45.8	7.7		W			4							Thomas Mackereth.
Eccles, (near Manchester)			29.64	752.8	44.4	6.7		S	0	0			10					The Falmouth Observatory.
Falmouth Observatory			29.76	755.9	52.0	11.1		WSW	35	15.6			10				Rain & Fog.	Pvt. G. Salmon.
Fort Napier, (Natal)			29.88	758.9	67.0	19.4		SE			2		10					Queen's College.
Galway			29.50	749.3	53	11.7		S			1		10				Rain	Sgt. J. Brewster.
Gibraltar, (Mediterranean Sea)			29.47	773.9	64.6	18.1		SSW			2		3					The Glasgow Observatory.
Glasgow Observatory			29.55	750.6	4.0	6.7		S			1		8					E. Toller.
Gloucester, the G. Co. Asylum																		G. T. Watson.
Great Yarmouth			29.64	752.8	44	6.7		W			3		6				Mist	The Royal Observatory.
Greenwich Royal Observatory			29.70	754.4	47.8	8.8		W			0		10					Dr. S. E. Hoskins.
Guernsey			29.78	756.4	52	11.1		SW			7		10				Rain	Moorside Observatory.
Halifax, Moorside Obs., Eng			29.58	751.3	44.1	6.7		NW			4		10					Corp'l J. Y. Thompson.
Halifax, Nova Scotia			29.62	752.3	8.8	—12.9		NW			6		9					W. B. Moyle.
Helston			29.79	756.6	53	11.7		W			4		10				Rain	John Tilston.
Holyhead			29.62	752.3	46	7.8		SW			2		10				Rainy	
Hull Park																		The Meteorological Office.
Kew Observatory			29.70	754.4	47.9	8.8		WSW	7	3.1			10				Rain	George Mitchell.
Kingston			29.62	752.3	47	8.3		SSE			10		10				Rain	
Lampeter																		William J. Harrison
Leicester			29.65	753.1	45.5	7.5		SW			1		10					Dr. James Nicol.
Llandudno			29.61	752.1	47.2	8.4		W			0–6		10				Threatening	Sergt. E. Dowling.
Malta, (Mediterranean Sea)			30.10	764.5	60.0	15.6		NW			1		4					
Markree																		
Marlborough College																		
Moville																		William D. Penny.
Nairn			29.47	748.5	45	7.2		Calm			0		5					Surgeon I. Jameson.
Nassau, (Bahamas)			30.21	767.3	69.3	20.7		NW			4		3					John Wm. Irvine.
North Shields																		E. J. Lowe.
Nottingham			29.66	753.3	46.3	7.9		SW			1		10					J. R. Mann.
Osborne, New Barn Cottage			29.71	754.6	49.3	9.6		WSW			1		10		0.26	6.6	Rain	St. Mary's College.
Oscott, (near Birmingham)			29.67	753.6	45.2	7.3		S			1		10				Fog	Radcliffe Observatory.
Oxford, the Radcliffe Obser'y			29.65	753.1	49	9.4		W			1		10					John Merrifield.
Plymouth			29.72	754.9	52.5	11.4		W			4		10					
Portishead																		
Prospect, Bermuda																		W. Kennedy.
Roche's Point			29.66	753.3	53	11.7		W			5		9				Mist	John C. Walker.
Saint Ann's Head																		
St. Helier, Jersey																		Rev. Dr. Clouston.
Sandwick Manse, Orkneys			29.48	748.8	44.5	6.9		W	14	6.3			3					F. Heard.
Scarboro'																		W. H. Lyne.
Scutari, Turkey			29.97	761.2	51.0	10.6		SW			3		5					W. F. Cooper.
Sheffield			29.62	752.3	45.4	7.4		WNW			1		9					
Sidmouth																		Francis Redford.
Silloth Rectory			29.59	751.6	46.5	8.1		WSW			3		3		0.270	6.86		Rev. C. J. Steward.
Somerleyton, (Lowestoft)			29.64	752.8	46.0	7.8		SW			1		8					Stonyhurst Observatory.
Stonyhurst Observatory			29.58	751.3	43.2	6.2		SW			0		8				Haze	John Smith.
Stornoway, Lews Castle, Hebr.			29.44	747.8	43	6.1		SW			3		5					Charles H. Griffith.
Strathfield Turgiss			29.70	754.4	47.8	8.8		SW			1		10				Rain	Rev. John Slatter.
Streatley Vicarage			29.70	754.4	51.3	10.7		WNW			1		10					William Lawrence.
Sumburgh Head, Shetland Is.			29.35	745.5	44	6.7		W			1		7				Rainy	
Taunton College																		John Trotter.
Thurso			29.45	748.0	44	6.7		SW			1		6					Royal Institution.
Truro, Royal Institution			29.72	754.9	53	11.7		W			6		10				Rain	Meteorological Observatory.
Valencia			29.66	753.3	53.6	12.0		WSW	28	12.5								
Wick																		S. H. Miller.
Wisbech			29.64	752.8	45.9	7.7		WSW			2		10					William J. Harris.
Worthing																		
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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-16, by the editor.

DANISH SERIES.

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

Copenhagen			29.32	744.7	37.6	3.1	98	Calm			0		10				Fog	
Fanöe			29.43	747.5	38.7	3.7	100	WNW			4		10				Fog	
Thorshavn, (Faröe)			29.34	745.2	43.9	+ 6.6	98	Calm			0		10				Rain	
Vestervig			29.37	746.0	38.1	+ 3.4	100	W			4		10				Fog	
Stykkisholm, (Iceland)			29.39	746.6	34.0	+ 3.4	90	NE			7		2					
Godthaab, (Greenland)			29.26	743.2	22.1	— 5.5		NNE			2		8				Mist	

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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.89	759.1	50.7	10.4	90	NW			2		10		0.559	14.2		Normal School.
Amiens			29.887	758.97	51.8	11.0	93	W			3		10		0	0		Normal School.
Baumotte, (near Angiers)			29.94	760.4	52.9	11.6	90	W	19.9	8.9			10		0.398	10.1	Rain	Baumotte Observatory.
Beauvais			29.81	757.2	52.5	11.3	77	W			2		10		0.203	5.15		Normal School.
Besançon			29.96	761.1	48.4	9.1	89	S			4		8		0.598	15.2		Normal School.
Bourges			30.18	766.5	51.1	10.6	93	W			2		10		0.405	10.3		Normal School.
Brest			29.90	759.4	53.4	11.9	86	W			6		10		0.472	12.0	Fog & Rain.	Naval Observatory.
Caen			29.80	757.0	51.3	10.7	95	W			6		10		0.157	4.0		Normal School
Carcassonne																		
Chartres																		
Chaumont			29.86	758.5	47.1	8.4		S			3		10		0.701	17.8	Rain	Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			29.89	759.3	52.0	11.1	93	SW			6		8		0.425	10.8		Normal School.
Mirecourt			29.86	756.8	45.5	7.5		SW			4		10		0.787	20.0		M. Falguère.
Mont-Louis	24.98	634.6			42.1	5.6	69	WSW	11.2	5.00			7		0.153	4.4		Normal School.
Mont-Souris, (near Paris)			29.80	757.0	50.2	10.1	96	W¬W	4.5	2.0			10		0.205	5.2	Rain	Marié Davy.
Orleans			29.89	759.2	50.0	10.0		WSW			3		10		0	0		Normal School.
Paris			29.80	757.0	50.9	10.5	90	WSW			2		10		0.156	3.96	Rain	National Observatory.
Parthenay			30.05	763.2	53.6	12.0	86	SW			6		10		0.197	5.3		Normal School.
Perpignan	30.07	763.9			63.0	17.2	46	W	16.8	7.5			7		0	0		Dr. Fines.
Roche sur Yon			30.08	764.0	53.6	12.0	95	W			6		10		0.354	9.0		Normal School.
Rouen			29.78	756.6	50.7	10.4	93	SW			1		10		0.268	6.8		Normal School.
Saint Lo			29.88	758.9	52.0	11.1	83	NE			2		10		0.098	2.5		Normal School.
Saint Maur, (near Paris)			29.86	757.0	50.0	10.0	95	SW			1		10		0.179	4.6		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			29.93	760.3	52.9	11.6	87	WSW			3		10		0.173	4.4		
Tunis, (Africa)			30.11	764.8	60.8	16.0	54	NW			10		4		0	0	Rain	M. Jacques.
Versailles, (near Paris)			29.86	756.9	50.7	10.4	97	W			1		10		0.276	7.02	Rain	Normal School.
Villefranche			30.04	762.9	48.4	9.1	89	SE			4		10		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.79	754.3	39.2	4.0	93	W			7		10		0.262	6.9	Rain	Prof. Hob.
Berlin			29.46	748.2	45.3	7.4	84	SW			4		8		0.189	4.8		Prof. Arndt.
Breslau			29.53	750.1	43.0	6.1	82	SW			3		10		0	0		Dr. P. Neugebauer.
Carlsruhe			29.72	755.0	48.2	9.0	82	SW			10		10		0.319	8.1	Rain & Hail.	A. Leuz.
Cassel			29.51	749.5	41.4	5.2	81	NW			4		8		0.257	6.5		Dr. H. Mohl.
Cologne			29.76	755.9	43.5	6.4	85	W			5		8		0.376	9.4	Rain	Dr. Gaithe.
Emden			29.61	752.1	42.1	5.6	88	WNW			2		10		0.063	1.6		Prof. Prestel.
Frankfort			29.79	756.6	41.5	4.7	87	WSW			4		8		0.335	8.5		Physical Society.
Friedrichshafen			29.87	758.6	44.6	7.0	78	SW					9		0.236	6.0	Rain	M. Wilhelm.
Hamburg			29.47	748.6	42.4	5.8	92	W			5		10		0.134	3.4	Rain	W. Reinart.
Kiel			29.41	747.1	43.3	6.3	90	W			5		10		0.232	5.9		Prof. G. Karsten.
Königsberg			29.31	744.5	35.1	1.7	96	SW			2		10		0.165	4.2		Prof. E. Luther.
Kösln			29.54	750.4	37.2	2.9		W			4							Dr. Tägert.
Leipsic			29.48	748.7	44.6	7.0	96	SW			2		10		0.169	4.3	Rainy.	Prof. Bruhns.
Münster			29.60	751.9	41.7	5.4	98	SW			1		10		0.028	0.7	Rain	Prof. F. Reis.
Posen			29.44	747.7	44.6	7.0	88	SW			5		10		0.047	1.2		Dr. Magener.
Strassburg, in E.			28.77	756.1	48.0	8.9	80	SW					10		0.102	2.6		Hartwig and Falk.
Stuttgart			29.72	755.0	46.4	8.0	79	W					10		0.228	5.8	Rain	Mr. Wurth.
Thorn			29.36	745.8	39.9	4.4	94	W			3		9		0.240	6.1		Dr. Hasenbalg.
Treves, (Trier)			29.73	755.2	40.5	4.7	87	W			6		10		0.134	3.4		Prof. Flesch.
Wustrow			29.40	746.8	36.9	2.7	100	ESE			1		10		0.075	1.9	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.87	758.7	53.4	11.9	67	NNW	0.6	0.3			9		0	0		
Mondovi			29.88	759.0	53.8	12.1	36	SSW			4		2	NNW				
Genoa			29.89	759.1	55.4	13.0	45	NE	3.7	1.6			10					
Pavia			29.93	760.2	40.6	4.8	84	W			2		9					
Verona																		
Padua			29.83	757.8	41.4	5.2	89	WSW	6.8	2.0			10					
Parma			29.87	758.8	42.1	5.6		SW			2		9					
Bologna			29.92	760.0	41.2	5.1	53	NNW			2		10					
Urbino			29.93	760.3	43.5	6.4	94	SW			2		1					
Ancona			29.93	760.3	43.5	6.4	91	NW			2		10					
Florence			29.91	759.8	53.6	12.0	77	S			2		9	S				
Siena																		
Livorno			29.89	759.3	56.5	13.6	63	WNW			6		10					
Rome			29.89	759.1	55.0	12.8	65	N			4		2	WNW				
Naples, O.U.			29.80	757.0	57.9	14.4	72	SW			2		8	NE	0.059	1.5		
Naples, S. R.	29.28	743.8			52.7	11.5	86	SW			4		10	SW	0.300	7.6		Prof. F. Brioschi.
Lecce																		
Cosenza																		
Catania, (Sicily)			29.92	759.9	50.5	10.3	82	W			1		10		0.169	4.3	Rain	
Riposto			29.98	761.6	56.3	13.5	62	SW			4		0	W				
Palermo																		
			29.93	760.1	57.4	14.1	53	WNW			8		7	W				

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.73	755.2	41.9	5.5		WNW			4							
Flushing			29.50	749.2	43.2	6.2		NW			4							
Helder			29.59	751.7	41.9	5.5		W			4							
Utrecht			29.60	751.8	44.2	6.8		W			4		5					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania					25.0	— 3.9		NNE			2		7		0	0		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.25	768.3			48.0	8.9	100	N	4.9	2.2			10				Fog	

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.43	747.5	36.9	2.7	98	WSW	8.9	4			10					
Wilna			29.36	745.7	35.1	1.7	100	Calm	0	0			10					
Dorpat			29.44	747.9	13.3	—10.4	91	ESE	8.9	4			10				Snow	
St. Petersburg			29.66	753.3	— 6.3	—21.3	93	ENE	4.5	2			2					
Kieff			29.63	752.5	35.8	2.1	91	SW	6.7	3			10					
Nikolaiev			29.79	756.7	38.5	3.6	91	S	4.5	2			10					
Kertch			29.90	759.4	48.7	9.3	79	SW	8.9	4			3					
Moscow			29.74	755.5	11.3	11.5	78	SSE	10.1	4.5			10					
Lugan			29.66	753.4	36.0	2.2	87	SW	13.4	6			10				Rain & Snow	
Archangel			29.96	761.1	—14.4	—25.8	84	NE	4.5	2			6					
Tiflis			30.13	765.3	39.9	4.4	58	NNE	20.1	9			5					
Astrakhan			29.99	761.7	27.7	— 2.4	85	SSW	2.2	1			10				Snow	
Kasan			30.70	754.3	4.1	—15.5	89	NE	4.5	2			7					
Orenburg			29.80	757.0	6.8	—14.0	91	SE	4.5	2			0					
Ekaterinburg			30.03	762.7	—10.1	—23.4	77	NE	4.5	2			4					
Kasaly			30.12	765.0	23.0	— 5.0	76	Calm	0	0			10					
Tashkend																		
Barnaul			30.38	771.6	— 1.8	—18.8	76	Calm	0	0			0					
Yeniseisk			30.26	768.6	—23.8	—31.0	88	E	4.5	2			0					
Irkutsk			30.37	773.1	—18.2	—27.9	81	Calm	0	0			0					
Oorga			30.50	774.8	— 5.1	—20.6	85	Calm	0	0			0					
Peking, (China)			30.40	772.1	19.4	— 7.0	32	NNW	16.8	7.5			0					
Nertchinsk			30.28	769.1	4.4	—20.2	83	NW	7.8	3.5			6					
Vladivostock																		
Nikolaievsk					—16.6	—27.0		W	7.8	3.5			3				Fog & Halo	

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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.52	775.1	55.9	11.3	65	SW	12.1	5.4		1	1	W	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.76	756.0	1.8	—16.8	100	NE			4		10					Dr. H. H. Hildebrandsson.
Hernosand			29.64	752.8	6.4	—14.2	92	NE			4		9		0.236	6.0		
Upsala			29.37	746.1	16.0	— 8.9	98	NNE			6		10					
Stockholm			29.19	741.5	26.8	— 2.9	94	NE			6		10		0.012	0.3		
Wisby			29.30	744.2	36.0	+ 2.2	96	NW			2		10					

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.57	725.6			44.6	7.0	80	SW			2		10		0.217	5.5	Rain	The Observatory.
Zurich	28.23	717.1			43.2	6.2	81	SW			4		10		0.413	10.5	Rainy	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)									16.8	7.5								
Constantinople			29.98	761.4	49.6	9.8	60	SSW					2					
Fao, (Persian Gulf)			30.29	769.3	47.8	8.8		NW			3		0					
Salonica			29.85	758.2	55.8	13.2		N			1		0					
Valona			29.86	758.5	55.0	12.8		N			1		0					
Varna			30.28	769.0	50.9	10.5		NW			3		8					

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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.04	762.9	43.3	6.3	71	Calm			0		1		0	0		Prof. Ivan Stozir.
Buda-Pesth			29.90	759.5	39.4	4.1	79	SW			7		1		0	0		
Cracow			29.89	759.2	35.0	2.0	91	W			2		10		0.012	0.3		I. R. Observatory.
Eperies			29.84	757.8	36.7	2.6	91	Calm			0		10		0.189	4.80		Julius Mikolik.
Gratz			30.00	761.9	39.0	4.4	65	SSW			2–5		0		0	0		Andreas Rospini.
Hermannstadt			29.80	757.0	36.6	2.2	85	NW			2		8		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.04	763.0	39.9	4.4	87	W			2		8		0	0		Prof. C. Wagner.
Lemberg			29.74	755.5	34.7	1.5	98	SW			4		10		0.035	0.9		Dr. T. Stanecki.
Nyiregyhaza			29.87	758.6	36.0	2.2	96	WNW			1		10		0.053	1.35		Habzsuda Daniel.
Pola			29.99	761.8	46.9	8.3	89	NW			2		9		0	0		I. R. Hydrographic Office.
Szegedin			29.88	758.9	40.0	4.8	74	NW			3		3		0.220	5.60		Karl Stancel.
Trieste			30.02	762.6	44.4	6.9	94	NW			0		10		0	0		Prof. V. Farolfi.
Vienna			29.97	761.2	44.1	6.7	59	W			3		3		0.159	4.8		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.63	752.7			49.6	9.8	98	WSW			1		10		0.020	0.50	Rainy.	Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.16	740.6	47.0	8.3		S	12	5.4			9		0.060	1.52	Mist & Rain	William Boswell.
Annanhill																		W. H. Dunlop.
Ardrossan			29.36	745.7	51	10.6		WNW			5		8					William McNeil.
Armagh Observatory			29.49	749.0	49.7	9.8		WSW	19	8.5			8					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.50	747.7	50.0	10.0		WSW			4		10				Rain	The Liverpool Observatory.
Birr Castle			29.60	751.8	50.6	10.3		WSW			2		10					J. Dreyer.
Bradford			29.43	747.5	51.9	11.1		W			1		10				Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.63	752.6	53.8	12.1		SW			3		10					H. Todd.
Cape Town, Cape Colony			29.81	757.2	85.4	29.7		NW			1		5					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.84	757.9			89.0	31.7	37	E	7	3.1			6					The Royal Observatory.
Cardington			29.63	752.6	50.0	10.0		SW			5		10					John McLaren.
Carlisle			29.39	746.5	50.9	10.5		W			6		10		0.17	4.2	Rain	T. Bell.
Chatham			29.72	754.9	52.2	11.2		SW			4		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.92	759.9	77.5	25.3		NE			2		6				Rain & Fog	Sgt. W. F. Hopkins
Dartmoor			29.81	757.2	47	8.3		W			9		10					R. E. Power.
Donaghadee			29.42	747.2	49	9.4		W			4		7					J. Mac Gowan, Jr.
Dover			29.78	756.4	50	10.0							10					J. Costello.
Dublin																		
Durham Observatory			29.33	745.0	51.9	11.1		SW			5		8					G. Goldney.
Eccles, (near Manchester)			29.51	749.5	51.6	10.9		SW	5.8	2.6			10				Rain	Thomas Mackereth.
Falmouth Observatory			29.79	756.6	51.9	11.1		WSW	36	16.1			10				Rain & Fog.	The Falmouth Observatory.
Fort Napier, (Natal)			29.88	758.9	67.5	19.7		E			3		10					Pvt. G. Salmon.
Galway			29.52	749.8	54	12.2		SW			3		2					Queen's College.
Gibraltar, (Mediterranean Sea)			30.43	772.9	62.3	16.8		WSW			5		0					Sgt. J. Brewster.
Glasgow Observatory			29.34	745.2	49.8	9.9		WSW			3		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.68	753.9	57	13.9		SW			4		10				Rainy	F. Toller.
Great Yarmouth			29.62	752.3	51	10.6		WSW			3		10					G. T. Watson.
Greenwich Royal Observatory			29.72	754.9	52.6	11.4		WSW			5		10				Rain	The Royal Observatory.
Guernsey			29.92	759.9	51.5	10.8		SW			6		10				Rainy	Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng.			29.43	747.5	51.1	10.6		WSW			5		10				Mist	Moorside Observatory.
Halifax, Nova Scotia			30.00	762.0	60	—14.4		NW			2		7				Rain	Corp'l J. Y. Thompson.
Helston			29.82	757.4	54	12.2		SW			6		10					W. B. Moyle.
Holyhead			29.56	750.8	50	10.0		WSW			4		7					John Tilston.
Hull Park																		
Kew Observatory			29.72	754.9	52.7	11.5		SW	22	9.8			10					The Meteorological Office.
Kingston			29.55	750.6	52	11.1		W			4		9					George Mitchell.
Lampeter																		
Leicester			29.64	752.8	52.0	11.1		SW			5		10				Rain	William J. Harrison
Llandudno			29.55	750.6	49.1	9.5		W			2		10				Rain	Dr. James Nicol.
Malta, (Mediterranean Sea)			30.04	763.0	59.0	15.0		NW			1		3					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.17	740.9	49	9.4		W			1		8					William D. Penny.
Nassau, (Bahamas)			30.15	765.8	70.0	21.1		NE			3		4					Surgeon I. Jameson.
North Shields			29.35	745.5	52	11.1		WSW			4		6					John Wm. Irvine.
Nottingham			29.54	750.3	54.0	12.2		SW			4		10					E. J. Lowe.
Osborne, New Barn Cottage			29.78	756.4	50.1	10.1		SW			4		10		0.03	0.8	Rain	J. R. Mann.
Oscott, (near Birmingham)			29.58	751.3	51.6	10.9		SSW			4		10				Rainy	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.64	752.8	55	12.8		SW			5		10					Radcliffe Observatory.
Plymouth			29.77	756.1	52	11.1		SW			6		10				Rain	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.69	754.1	50	10.0		W			5		7				Rain	W. Kennedy.
Saint Ann's Head			29.64	752.8	50	10.0		W			6		10				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.10	739.1	46	7.8		SSW	16	7.1			10				Rain	Rev. Dr. Clouston.
Scarboro'			29.43	747.5	50.7	10.4		WSW			3		10					F. Heard.
Scutari, Turkey			29.84	757.9	52.6	11.4		SSW			2		8				Showery	W. H. Lyne.
Sheffield			29.48	748.8	54.1	12.3		W			2		10				Rainy	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.39	746.5	47.7	8.7		SW			5		10		0.285	7.24	Rain	Francis Redford.
Somerleyton, (Lowestoft)			29.67	753.6	52.3	11.3		SW			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.43	747.5	50.0	10.0		SW			5		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.18	771.2	46	7.8		WSW			4		10					John Smith.
Strathfield Turgiss			29.66	753.3	52.3	11.3		W			1-2		10				Rain	Charles H. Griffith.
Streatley Vicarage			29.72	754.9	54.8	12.7		NW			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.10	739.1	44	6.7		SSE			3		10				Rain	William Lawrence.
Taunton College																		
Thurso			29.11	739.4	47	8.3		SW			2		9				Rain	John Trotter.
Truro, Royal Institution			29.88	758.9	53	11.7		W			7		10				Rain	Royal Institution.
Valencia			29.70	751.4	51.8	11.0		WSW	30	13.4			7					Meteorological Observatory
Wick																		
Wisbech			29.58	751.3	52.4	11.3		S			5		10					S. H. Miller.
Worthing			29.79	756.6	48.0	8.9		SW			3		10				Rain	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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor.

DANISH SERIES.

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

Copenhagen			29.32	744.7	37.6	3.1	98	Calm			0		10				Fog	
Faröe			29.61	752.0	36.1	2.3	100	SW			4		10				Fog	
Thorshavn, (Faröe)			29.12	739.7	36.7	2.6	93	ENE			7		10				Rain	
Vestervig			29.51	750.3	38.3	3.5	100	SSE			4		10				Fog	
Stykkisholm, (Iceland)			29.23	742.4	34.2	1.2	89	E			9		2					
Godthaab, (Greenland)			29.33	744.9	15.4	-- 9.2		Calm			0		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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.06	763.5	51.8	11.0	83	SW			1		10		0.024	0.6		Normal School.
Amiens			29.96	761.02	51.4	10.8	90	WSW			3		10		0.165	4.2		Normal School.
Baumette, (near Angiers)			30.13	765.2	52.3	11.3	85	WSW	26.6	11.9			10		0.059	1.5		Baumette Observatory.
Beauvais			29.98	761.4	54.5	12.5	76	WSW			3		10		0.402	10.20		Normal School.
Besançon			30.14	765.6	49.8	9.9	95	S			2		10		0.925	23.5		Normal School.
Bourges			30.21	767.4	52.2	11.2	94	W			2		10		0.472	12.0		Normal School.
Brest			29.93	760.2	51.6	10.9	93	SW			4		10		0.110	2.8	Rain & Fog.	Naval Observatory.
Caen			29.98	761.4	55.4	13.0	75	WSW			6		10		0.339	8.6		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.06	763.6	50.2	10.1		SW			3		10		0.917	23.3	Rain	Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.10	764.6	52.3	11.3	86	W			6		8		0.331	8.4		Normal School.
Mirecourt			30.00	761.9	48.7	9.3		SW			6		10		0.748	19.0		M. Falguère.
Mont-Louis	25.06	636.4			48.4	9.1	32	SW	2.9	1.28			2		0	0		Normal School.
Mont-Souris, (near Paris)			30.01	762.2	53.4	11.9	87	WSW	6.0	2.7			10		0.563	14.3		Marié Davy.
Orleans			30.11	764.9	51.8	11.0	93	SW			2		10		0.339	8.6		Normal School.
Paris			30.01	762.3	53.6	12.0	86	SW			3		10		0.707	15.41		National Observatory.
Parthenay			30.20	767.0	56.3	13.5	86	W			4		5		0.236	6.0		Normal School.
Perpignan	30.07	763.7			59.9	15.5	81	WNW	16.8	7.50			3		0	0		Dr. Fines.
Roche sur Yon			30.26	768.5	51.4	10.8	97	SW			2		5		0.205	5.2		Normal School.
Rouen			29.95	760.8	53.6	12.0	86	WSW			1		10		0.923	23.4		Normal School.
Saint Lo			30.05	763.3	54.0	12.2	81	W			2		10		0.433	11.0		Normal School.
Saint Maur, (near Paris)			30.02	762.4	53.4	11.9	88	SW			3		10		0.591	15.0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.14	765.6	53.2	11.8	83	SW			2		10		0.457	11.6		
Tunis, (Africa)			30.10	764.5	59.4	15.2	66	NW			6		10		0	0	Threatening	M. Jacques.
Versailles, (near Paris)			30.01	762.3	53.2	11.8	93	W			1		10		0.766	19.47		Normal School.
Villefranche			30.15	765.7	53.8	12.1	84	W			1		10		0.591	15.0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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.	From—	Inches.	Millimeters.	Weather.	Observer.
Damberg			29.98	761.4	41.2	5.1	85	W			2		10		0	0		Prof. Hoh.
Berlin			29.85	758.3	45.3	7.4	66	SW			2		8		0.268	6.8		Prof. Arndt.
Breslau			29.91	759.6	39.6	4.2	94	WNW			5		10		0	0		Dr. P. Neugebauer.
Carlsruhe			29.99	761.8	47.5	8.6	98	SW			5		10		0.232	5.9	Rain	A. Lenz.
Cassel			29.79	756.7	43.7	6.5	84	S			5		10		0.224	5.7		Dr. H. Mohl.
Cologne			29.89	759.1	39.0	3.9	93	W			6		10		0.224	5.7	Rain	Dr. Gaithe.
Emden			29.75	755.6	43.5	6.4	97	SW			2		10		0.008	0.2		Prof. Prestel.
Frankfort on the Main			29.99	761.8	43.2	6.2	100	WSW			1		10		0.008	0.2	Fog and rain	Physical Society.
Friedrichshafen			30.11	764.9	41.0	5.0	92	SW					10		0.362	9.2	Rain	M. Wilhelm.
Hamburg			29.77	756.2	41.5	5.3	92	SW			4		10		0.035	0.9	Rain	W. Reinart.
Kiel			29.70	754.3	41.9	5.5	89	SW			4		10		0	0		Prof. G. Karsten.
Königsberg			29.78	756.4	28.2	— 2.1	77	NE			2		10		0.059	1.5		Prof. E. Luther.
Köslin			29.99	761.8	34.7	1.5		W			4				0.303	7.7		Dr. Tägert.
Leipsic			29.99	759.3	43.2	6.2	74	SSW			3		7		0.016	0.4		Prof. Bruhns.
Münster			29.78	756.3	47.3	8.5	90	SW			3		10		0.236	6.0	Fog & Rain	Prof. E. Heis.
Posen			29.85	758.1	43.2	6.2	89	W			5		10		0	0		Dr. Magener.
Strassburg, (in Alsace)			30.03	762.8	46.9	8.3	94	S					8		0.173	4.4		Hartwig and Falk.
Stuttgart			30.00	762.1	46.4	8.0	90	W					10		0.209	5.3	Rain	Mr. Wurth.
Thorn			29.72	754.9	37.6	3.1	90	W			3		0		0.067	1.7		Dr. Hasenbalg.
Treves, (Trier)			29.91	759.8	48.4	9.1	92	W			3		10		0.150	3.8		Prof. Flosch.
Wustrow			29.77	756.2	37.2	2.9	100	WNW			1		10		0	0	Fog	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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.	From—	Inches.	Millimeters.	Weather.	Observer.
Moncalieri			30.00	761.9	46.8	8.2	77	ESE	1.9	0.8			3	N				
Mondovi			30.00	762.1	45.0	7.7	64	NW			2		1	NNW				
Genoa			29.97	761.3	56.3	13.5	64	SW	1.9	0.8			0					
Pavia			30.00	761.9	37.4	3.0	91	SW			1						Fog	
Verona																	Fog	
Padua			30.02	762.4	39.9	4.4	90	N	2.5	1.1							Fog	
Parma			30.02	762.5	36.7	2.6		NNE			2							
Bologna			30.04	763.0	37.9	3.3	59	NW			4		10					
Urbino			30.04	763.0	42.3	5.7	100	NNE										
Ancona			30.04	763.1	43.9	6.6	82						0					
Florence			30.01	762.3	54.5	12.5	65	SW			2		0					
Siena																		
Livorno			29.94	760.4	57.7	14.3	79	WSW			2		4					
Rome			29.97	761.2	59.2	15.1	58	N			4		0					
Naples, O.U.			29.96	761.0	60.6	15.9	55	N			2		6					
Naples, S. R.	29.43	747.5			56.8	13.8	67	NW			4		10	WSW	0.161	4.1		Prof. F. Brioschi.
Lecce																		
Cosenza			29.94	760.6	52.7	11.5	69	SSE			1		10		0.236	6.0	Rain	
Catania, (Sicily)			29.89	759.2	59.0	15.0	55	W			4		0	W				
Hiposto																		
Palermo			29.92	759.9	60.1	15.6	62	W			4		8	W				

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.80	756.8	48.2	9.0		W			4							
Flushing			29.61	752.2	42.8	6.0		SW			4							
Helder			29.63	752.6	44.4	6.9		SW			4							
Utrecht			29.70	754.4	47.5	8.6		SSW			4		10					

Note.—The originals give the force 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																		
Christiania					11.8	—11.2		Calm			0		10				Snow	
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.20	767.0			43.9	6.6	97	N	7.6	3.4			10				Fog	

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.78	756.5	34.9	1.6	93	W	4.5	2			10					
Wilna			29.70	754.4	18.9	— 7.3	90	NW	13.4	6			10					
Dorpat			29.66	753.3	0.3	—17.6	85	NW	8.9	4			0					
St. Petersburg			29.48	748.9	— 3.8	—19.9	84	NW	6.7	3			0					
Kieff			29.66	753.4	34.9	1.6	93	WSW	11.2	5			10					
Nikolaiev			29.76	755.9	37.9	3.3	90	Calm	0	0			10					
Kertch			29.83	757.7	48.4	9.1	84	S	6.7	3			10					
Moscow			29.36	745.7	23.4	— 4.8	90	S	7.8	3.5			10				Snow	
Lugan			29.59	751.5	37.9	3.3	90	SW	13.4	6			10				Rain	
Archangel			30.00	762.0	— 9.0	—22.8	83	E	7.8	3.5			6					
Tiflis			30.19	766.9	43.9	6.6	41	NE	4.5	2			1					
Astrakhan			30.10	764.6	38.8	3.8	87	SW	2.2	1			10					
Kasan			29.93	760.3	3.6	—15.8	100	S	4.5	2			10					
Orenburg			30.22	767.6	2.1	—16.6	100	SE	4.5	2			9					
Ekaterinburg			30.25	768.4	—16.0	—27.0	77	Calm	0	0			0					
Kasaly			30.11	764.8	38.1	3.4	75	SSW	7.8	3.5			10				Fog	
Tashkend																		
Barnaul			30.15	765.7	8.8	—12.9	76	SW	7.8	3.5			4					
Yeniseisk			30.22	767.5	—20.4	—29.1	90	E	10.1	4.5			0					
Irkutsk			30.50	774.7	—16.1	—26.7	81	Calm	0	0			0					
Oorga			30.66	778.7	—13.5	—25.3	100	Calm	0	0			0					
Peking, (China)			30.53	775.5	19.2	— 7.1	32	NNW	10.1	4.5			0					
Nertchinsk			30.69	779.4	—21.8	—29.9	91	Calm	0	0			0					
Vladivostock																		
Nikolaievsk					— 7.4	—21.9		W	10.1	4.5			5					

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.

Madrid			30.62	777.8	36.9	+ 2.7	98	E	2.9	1.3			10		0.008	0.2		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.80	756.8	— 4.4	—20.2	61	NNW			2		8					
Hernosand			29.85	758.2	2.1	—16.6	100	N			2		10					
Upsala			29.80	756.8	6.1	—14.4	94	NW			1		10					Dr. H. H. Hildebrandsson.
Stockholm			29.74	755.4	7.5	—13.6	96	N			2		9		0.075	1.9		
Wisby			29.80	756.8	20.5	— 6.4	95	E			2		10		0.264	6.7		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.74	730.0			47.3	8.5	94	N			2		10		0.846	21.5	Rain	The Observatory.
Zurich	28.43	722.0			47.5	8.6	89	SW			2		10		0.602	15.3	Rain	B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.19	766.9	57.7	14.3	59	N			1		5					
Constantinople			29.84	758.0	51.6	10.9	71	SSW	3.4	1.5			10				Rainy	
Fao, (Persian Gulf)			30.33	770.5	48.2	9.0		NW			3		0					
Salonica			29.77	756.2	54.1	12.3		N			1		10					
Valona			29.84	757.9	56.5	13.6		W			2		10					
Varna			29.92	760.0	46.4	8.0		N			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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.13	765.2	50.4	10.2	44	SW			2		3		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.06	763.4	48.2	9.0	67	SW			2		1		0.045	1.15		
Cracow			29.85	758.1	43.7	6.5	72	W			4		10		0.118	3.0		I. R. Observatory.
Eperies			29.95	760.8	34.2	1.2	94	Calm			0		10		0	0		Julius Mikolik.
Gratz			30.15	765.9	39.4	4.1	58	S			2–5		2.5		0	0		Andreas Rospini.
Hermannstadt			30.09	764.2	35.8	2.1	92	SW			1		10		0.008	0.2		Prof. C. L. Reissenberger.
Kremsmünster			30.16	766.0	50.0	10.0	61	W			8		5		0	0		Prof. C. Wagner.
Lemberg			29.77	756.1	39.0	3.9	83	W			5		10		0.079	2.0		Dr. T. Stanecki.
Nyiregyhaza			30.03	762.8	35.2	1.8	93	SW			3		10		0.107	2.71		Habzsuda Daniel.
Pola			30.22	767.6	49.3	9.6	83	NW			1		8		0	0		I. R. Hydrographic Office.
Szegedin			30.10	764.5	38.1	3.4	83	SW			4		6		0.008	0.20		Karl Stancel.
Trieste			30.24	768.0	46.2	7.9	92	SW			0		10		0	0		Prof. V. Farolfi.
Vienna			29.99	761.8	52.0	11.1	53	W			7		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.81	757.1			49.3	9.6	72	WSW			2		10		0.354	9.00		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.05	737.9	51.6	10.9		SW	34	15.2			6		0.060	1.52		William Boswell.
Annanhill																		W. H. Dunlop.
Ardrossan			29.26	743.2	53	11.7		WSW			6		6				Rainy	William McNeil.
Armagh Observatory			29.42	747.2	52.7	11.5		SW	31	13.9			10				Threatening	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.53	750.0	53.2	11.8		SW			7		8					The Liverpool Observatory.
Birr Castle			29.56	750.8	54.0	12.2		WSW			4		10					J. Dreyer.
Bradford			29.54	750.3	51.1	10.6		W			6		10				Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.79	756.6	52.0	11.1		SW			5		10					H. Todd.
Cape Town, Cape Colony			29.85	758.2	80	26.7		SE			8		4					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.93	760.2			78.0	25.6	54	SSW	34	15.2			4					The Royal Observatory.
Cardington			29.81	757.2	52.0	10.6		W			6		9					John McLaren.
Carlisle			29.40	746.7	51.3	10.7		SW			7		10		0.32	8 1	Snow	T. Bell.
Chatham			29.79	756.6	51.0	10.6		W			5		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.95	760.7	78.2	25.7		NE			1		3					Sgt. W. F. Hopkins
Dartmoor			30.01	762.2	44.5	6.9		SW			8		10				Rain & Fog.	R. E. Power.
Donaghadee			29.34	745.2	54	12.2		WSW			7		5					J. Mac Gowan, Jr.
Dover			29.95	760.7	48	8.9							7				Rain & Fog.	J. Costello.
Dublin																		
Durham Observatory			29.36	745.7	50.2	10.1		WSW			6		10					G. Goldney.
Eccles, (near Manchester)			29.62	752.3	52.8	11.6		SW	8.4	3.8			10				Squally	Thomas Mackereth.
Falmouth Observatory			29.96	761.0	52.5	11.4		SW	41	18.3			10				Squally	The Falmouth Observatory.
Fort Napier, (Natal)			29.78	756 4	73.0	22.8		E			2		10					Pvt. G. Salmon.
Galway			29.53	750.0	52	11.1		W			8		10				Rain	Queen's College.
Gibraltar, (Mediterranean Sea)			30.40	772.1	62.4	16.9		NNW			1		0					Sgt. J. Brewster.
Glasgow Observatory			29.23	742.4	49.9	9.9		SW			6		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.88	758.9	49.9	9.9		SW			6		10				Rainy	E. Toller.
Great Yarmouth			29.75	755.6	51	10.6		WSW			6		8					G. T. Watson.
Greenwich Royal Observatory			29.90	759.4	51.4	10.8		WSW			6		10					The Royal Observatory.
Guernsey			30.11	764.8	51.5	10.8		SW			6		8					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			29.56	750.8	50.0	18.0		WSW			5		10					Moorside Observatory.
Halifax, Nova Scotia			29.99	761.7	1.7	—16.8		NW			2		1					Corp'l J. Y. Thompson.
Helston			30.02	762.5	54	12.1		SW			6		10				Mist	W. B. Moyle.
Holyhead			29.61	752.1	50	10.0		SW			6		10				Mist	John Tilston.
Hull Park																		
Kew Observatory			29.90	759.4	51.3	10.7		SW	26	20.6			10					The Meteorological Office.
Kingston			29.51	749.5	56	13.3		W			6		5					George Mitchell.
Lampeter																		
Leicester			29.71	754.6	52.8	11.6		W			8		8					William J. Harrison
Llandudno			29.59	751.6	49.8	9.9		SW			6		10				Rain	Dr. James Nicol.
Malta, (Mediterranean Sea)			30.27	768.8	61.0	16.1		NW			1		0					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			28.96	735.6	46	7.8		WSW			3		8					William D. Penny.
Nassau, (Bahamas)			30.15	765.8	69.3	20.7		Calm			0		0					Surgeon I. Jameson.
North Shields			29.36	745.7	52.6	11.4		SW			9		7					John Wm. Irvine.
Nottingham			29.66	753.3	55.0	12.8		SW			6		10				Threatening	E. J. Lowe.
Osborne, New Barn Cottage			29.98	761 5	50.1	10.1		SW			5		10		0.13	3.3	Squally	J. R. Mann.
Oscott, (near Birmingham)			29.75	755.6	50.9	10.5		SW			7		10					St. Mary's College.
Oxford, the Radcliffe Obser'y			29.83	757.7	52	11.1		WSW			5		10					Radcliffe Observatory.
Plymouth			29.99	761.7	51.5	10.8		SW			6		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.68	753.9	51	10.6		WSW			7		10				Misty	W. Kennedy.
Saint Ann's Head			29.80	756.9	50	10.0		SW			6		10				Misty	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			28.82	732.0	46.5	8.1		SSW	29	13.0			10				Rain	Rev. Dr. Clouston.
Scarboro'			29.49	749.0	51.8	11.0		WSW			6		9					F. Heard.
Scutari, Turkey			30.08	764.0	45.4	7.4		N			2		10				Rain	W. H. Lyne.
Sheffield			29.55	750.6	53.2	11.8		WSW			9		5				Rain	W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.40	746.7	48.2	9.0		SW			8		10		0.880	22.35	Rain	Francis Redford.
Somerleyton, (Lowestoft)			29.76	755.9	52.0	11.1		SW			3		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.54	750.3	50.7	10.4		SW			5		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			28.80	731.5	44	6.7		SW			5		10				Rain	John Smith.
Strathfield Turgiss			29.91	759.7	51.8	11.0		SW			2		10					Charles H. Griffith.
Streatley Vicarage			29.92	759.9	52.3	11.3		W			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			28.84	732.5	43	6.1		S			3		10				Rain	William Lawrence.
Taunton College																		
Thurso			28.87	733.3	46	7.8		SW			5		9				Rain	John Trotter.
Truro, Royal Institution			29.91	759.7	54	12.2		SW			7		10				Rain	Royal Institution.
Valencia			29.61	752.1	50.2	10.1		SW	29	13.0			10					Meteorological Observatory
Wick																		
Wisbech			29.76	755.9	51.2	10.7		SW			4		10					S. H. Miller.
Worthing			29.99	761.7	48.2	9.0		SW			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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor.

DANISH SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.38	746.3	36.5	2.5	98	Calm			0		10					
Fanöe			29.43	747.5	41.0	5.0	95	WSW			6		10					
Thorshavn, (Faröe)			29.97	735.9	34.2	1.2	82	ENE			6		10				Snow	
Vestervig			29.30	744.2	38.8	3.8	97	SW			4		10				Fog	
Stykkisholm, (Iceland)			29.41	746.9	34.0	1.1	96	E			6		0					
Godthaab, (Greenland)			29.53	750.1	14.9	— 9.5		Calm			0		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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.26	768.6	51.8	11.0	74	SW			2		8		0.079	2.0		Normal School.
Amiens			30.16	766.1	52.9	11.6	90	SW			3		10		0	0		Normal School.
Baumette, (near Angiers)			30.32	770.1	52.9	11.6	71	SW	17.7	7.9			10		0	0		Baumette Observatory.
Beauvais			30.17	766.3	50.5	10.3	72	WSW			3		8		0.010	0.25		Normal School.
Besançon			30.39	772.0	48.0	8.9	74	S			2		3		0.591	15.0		Normal School.
Bourges			30.42	772.6	51.1	10.6	78	SW			2		3		0.039	1.0		Normal School.
Brest			30.12	765.1	51.6	10.9	90	SW			4				0.020	0.5	Fog	Naval Observatory.
Caen			30.17	766.2	53.8	12.1	72	S			6		2		0.020	0.5		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.34	770.6	47.5	8.6		SW			6		0		0.433	11.0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.31	769.8	51.4	10.8	73	SW			8		5		0.213	5.4		Normal School.
Mirecourt			30.27	768.9	48.4	9.1		SSW			6		3		0.276	7.0		M. Falguère.
Mont-Louis	25.19	639.8			46.6	8.1	35	NNE	2.5	1.11			0		0	0		Normal School.
Montsouris (near Paris)			30.01	762.3	53.6	12.0	85	SW	9.8	4.4			8		0.004	0.1		Marié Davy.
Orleans			30.33	770.5	51.1	10.6	77	WSW			6		2		0	0		Normal School.
Paris			30.22	767.7	51.1	10.6	74	SW			4		8		0.019	0.49		National Observatory.
Parthenay			30.39	771.8	57.2	14.0	86	SW			6		5		0.087	2.2		Normal School.
Perpignan	30.25	768.3			60.4	15.8	46	WNW	11.2	5.00			1		0	0		Dr. Fines.
Roche sur Yon			30.36	771.2	53.1	11.7	78	SW			2		5		0.087	2.2		Normal School.
Rouen			30.15	765.8	53.1	11.7	73	SSW			1		0		0.079	2.0		Normal School.
Saint Lo			30.23	767.9	53.2	11.8	83	W			6		0		0.079	2.0		Normal School.
Saint Maur, (near Paris)			30.22	767.6	50.5	10.3	72	SW			4		7		0.031	0.8		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.34	770.7	53.6	12.0	69	SW			3		8		0.079	2.0		
Tunis, (Africa)			30.27	768.8	62.1	16.7	66	NW			6		6		0	0		M. Jacques.
Versailles, (near Paris)			30.22	767.6	51.4	10.8	81	SW			3		10		0.002	0.06		Normal School.
Villefranche			30.26	768.7	54.3	12.4	96	ESE			1		5		0.024	0.6		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.02	762.4	47.7	8.7	72	W			8		8		0.126	3.2		Prof. Hoh.
Berlin			29.72	755.0	47.8	8.8	90	SW			6		10		0.535	13.6	Rain	Prof. Arndt.
Breslau			29.80	756.8	48.4	9.1	61	W			7		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.10	766.7	52.2	11.2	58	SW			10		3		0.189	4.8		A. Lenz.
Cassel			29.85	758.3	51.8	10.0	64	SW			5		6		0	0		Dr. H. Mohl.
Cologne			30.02	762.4	43.5	6.4	75	W			4		10		0.315	8.0	Rain	Dr. Gaithe.
Emden			29.79	756.7	47.1	8.4	88	W			6		10		0.524	13.3		Prof. Prestel.
Frankfort on the Main			30.20	767.2	49.5	9.7	69	SW			5		5		0.252	6.4		Physical Society.
Friedrichshafen			30.32	770.2	48.2	9.0	67	W					3		0.067	1.7	Rain	M. Wilhelm.
Hamburg			29.63	753.7	46.4	8.0	90	W			8		10		0.594	15.1		W. Reinart.
Kiel			29.54	750.4	46.2	7.9	86	W			7		10		0.461	11.7		Prof. G. Karsten.
Königsberg			30.49	774.4	37.4	3.0	73	W			8		7		0.276	7.0		Prof. E. Luther.
Köslin			29.70	754.5	41.4	5.2		W			7				0.520	13.2		Dr. Tägert.
Leipsic			29.87	758.6	48.7	9.3	69	SW			6		9		0.252	6.4	Stormy	Prof. Bruhns.
Münster			29.88	758.9	48.6	9.2	85	SW			6		10		0.083	2.1	Rainy	Prof. E. Heis.
Posen			29.63	752.6	45.5	7.5	91	WSW			9		10		0.295	7.5		Dr. Magener.
Strassburg, (in Alsace)			30.27	768.8	51.1	10.6	60	SW					2		0	0		Hartwig and Fulk.
Stuttgart			30.27	768.8	50.0	10.0	98	SW					2		0	0	Rain	Mr. Wurth.
Thorn			29.51	749.5	43.7	6.5	94	W			6		10		0.252	6.4		Dr. Hasenbalg.
Treves, (Trier)			30.13	765.4	48.4	9.1	74	W			8		8		0	0	Stormy	Prof. Flesch.
Wustrow			29.54	750.2	39.6	4.2	100	SW			4		10		0.059	1.5	Rain	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.28	769.2	37.0	3.3	99	ESE	1.2	0.5					0	0	Fog	
Mondovi			30.24	768.0	55.4	13.0	37	SSE			2		2	NNW	0	0		
Genoa			30.23	767.8	57.2	14.0	71	S	7.5	3.3			10		0	0		
Pavia			30.27	768.9	37.4	3.0	93	NW			1				0	0	Fog	
Verona																		
Padua			30.25	768.4	38.3	3.5	90	NW	1.9	0.8					0	0	Fog	
Parma			30.28	769.1	36.9	2.7		W			2				0	0	Fog	
Bologna			30.28	769.0	37.6	3.1	59	NW			2		10		0	0		
Urbino			30.28	769.1	41.2	5.1	95	NE			4				0	0	Fog	
Ancona			30.28	769.2	43.2	6.2	94						0		0	0		
Florence			30.25	768.3	56.7	13.7	64	NE			2		10		0	0		
Siena																		
Livorno			30.22	767.5	57.2	14.0	76	WSW			2		10		0	0		
Rome			30.24	768.2	58.1	14.5	72	SE			2		9	NNW	0	0		
Naples, O.U			30.24	768.2	59.4	15.2	51	WSW			2		2		0	0		
Naples, S. R	29.70	754.5			55.4	13.0	85	N			4		0		0	0		Prof. F. Brioschi.
Lecce															0	0		
Cosenza			30.24	768.2	52.5	11.4	45	NW			1		0		0	0		
Catania, (Sicily)			30.25	768.3	55.4	13.0	61	SE			1		0		0	0		
Liposto																		
Palermo			30.17	766.4	58.3	14.6	72	Calm			2		0		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.00	762.0	48.7	9.3		W			6							
Flushing			29.68	753.8	46.9	8.3		WSW			7							
Helder			29.74	755.5	46.2	7.9		SW			5							
Utrecht			29.83	757.8	49.1	9.5		SW			6		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen															0.295	7.5		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.18	766.5			41.7	5.4	98	N	7.6	3.4			10				Fog	

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.56	750.7	42.4	5.8	98	SW	20.1	9			10				Rain	
Wilna			29.13	739.9	37.4	3.0	90	S	16.8	7.5			10					
Dorpat			29.38	746.3	— 0.2	—17.9	89	E	11.2	5			10					
St. Petersburg			29.50	749.3	— 7.8	—22.1	92	SSE	4.5	2			9					
Kieff			29.76	755.9	34.5	1.4	95	SW	17.9	8			10				Rain	
Nikolaiev			30.06	763.4	39.6	4.2	80	S	4.5	2			3					
Kertch			30.04	763.1	46.8	8.2	71	NNW	2.2	1			1					
Moscow			29.80	757.1	— 2.4	—19.1	91	SW	7.8	3.5			8					
Lugan			29.82	757.4	35.2	1.8	95	WNW	13.4	6			10				Fog	
Archangel			29.69	754.2	— 7.2	—21.8	80	E	13.4	6			10					
Tiflis			30.07	763.7	43.9	6.6	32	N	10.1	4.5			6					
Astrakhan			30.04	763.1	39.6	4.2	87	SW	4.5	2			10					
Kasan			29.57	751.0	7.2	—13.8	87	S	10.1	4.5			10				Snow	
Orenburg			29.76	755.8	31.3	— 0.4	100	SE	4.5	2			10					
Ekaterinburg			30.14	765.6	— 8.7	—22.6	76	W	4.5	2			0					
Kasaly			29.98	761.4	30.0	— 1.1	92	Calm	0	0			3					
Tashkend																		
Barnaul			30.20	767.1	— 4.2	—20.1	78	SW	4.6	2			2					
Yeniseisk			29.89	759.1	— 7.6	—22.0	91	SE	13.4	6			8				Snow	
Irkutsk			30.37	771.5	— 7.4	—21.9	81	Calm	0	0			0					
Oorga			30.71	780.1	—17.0	—27.2	100	NW	7.8	3.5			0					
Peking, (China)			30.58	776.7	19.2	— 7.1	67	Calm	0	0			3					
Nertchinsk			30.78	781.9	—26.0	—32.2	90	Calm	0	0			0					
Vladivostock																		
Nikolaievsk					—12.5	—24.7		SW	7.8	3.5			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.56	776.3	47.5	8.6	82	SE	2.9	1.3		0	0		0.008	0.2		Royal 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. Metres per second.	Winds. Force. 0—12.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.61	752.1	−15.2	−26.2	59	Calm			0		0					Dr. H. H. Hildebrandsson.
Hernosand			29.56	753.7	−6.2	−21.2	100	NNE			4		10					
Upsala			29.46	748.4	5.2	−14.9	75	NE			6		10				Snow	
Stockholm			29.37	746.1	0.3	−12.6	96	NE			6		10		0.150	3.8	Snow	
Wisby			29.34	745.2	24.1	−4.4	91	NE			4		5		0.240	6.1		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.98	736.0			55.8	13.2	49	SSW			2		1		0.090	2.3		The Observatory.
Zurich	28.67	728.3			50.0	10.0	62	SW			4		2		0.413	10.5		B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.01	762.3	59.0	15.0	50	N			1		5					
Constantinople			30.07	763.8	43.9	6.6	87	N	11.2	5			10					
Fao, (Persian Gulf)			30.33	770.3	46.2	7.9		NW			3		0					
Salonica			30.09	764.3	55.9	13.3		N			2		0					
Valona			30.09	764.3	53.2	11.8		NE			2		0					
Varna			30.12	765.0	45.5	7.5		NW			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.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Galle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			30.04	763.0	52.5	11.4	45	NE			1		2		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.02	762.6	53.0	12.0	38	W			3		2		0	0		
Cracow			29.83	757.7	48.7	9.3	92	W			5		5		3	3		I. R. Observatory.
Eperies			29.93	760.2	33.8	1.0	100	Calm			0		8		0	0		Julius Mikolik.
Gratz			29.96	763.5	42.1	5.6	70	SW			2-5		5		0	0		Andreas Roeyini.
Hermannstadt			30.06	763.6	39.6	4.2	56	W			0		5		0	0		Prof. C. L. Reissenberger.
Kronsmünster			30.09	764.2	51.4	10.8	40	SW			6		3		0	0		Prof. C. Wagner.
Lemberg			29.76	755.9	42.1	5.6	79	SW			5		6		0.007	1.7		Dr. T. Stanecki.
Nyiregyhaza			30.00	761.9	39.2	4.0	80	SW			3		9		0	0		Habesuda Daniel.
Pola			30.27	768.8	45.7	7.6	83	SE			1		10		0	0		I. R. Hydrographic Office.
Szegedin			30.06	763.4	45.0	7.2	77	SW			2		2		0	0		Karl Stancel.
Trieste			30.27	768.8	45.7	7.6	91	E			0		10		3	3	Fog & Rain.	Prof. V. Faroth.
Vienna			29.99	761.7	52.2	11.2	33	W			4		10		0.138	3.5		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.

BELGIAN SERIES.

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

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.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.82	752.3			51.6	10.9	90	WSW			3		10		0.016	0.40		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.22	742.2	36.1	2.3		ENE	12	5.4	1		10		0.060	1.52	Rain	William Boswell.
Annanhill																		
Ardrossan			29.24	742.7	46	7.8		SW			3		8					W. H. Dunlop.
Armagh Observatory			29.27	743.4	42.9	6.1		SSW	26	11.6			10				Rain	William McNeil.
Banbridge																		Stillman Call.
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.43	747.5	49.0	9.4		SW			6		10					The Liverpool Observatory.
Birr Castle			29.39	746.5	46.8	8.2		SW			4		2					J. Dreyer.
Bradford			29.41	747.0	46.2	7.9		SW			6		10				Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.64	752.8	49.3	9.6		SW			4		10				Threatening	H. Todd.
Cape Town, Cape Colony			29.85	758.2	84	28.9		NW			1		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.92	759.9			78.1	25.6	57	SW	30	13.4			0.5					The Royal Observatory.
Cardington			29.57	751.0	48.0	8.9		W			5		6					John McLaren.
Carlisle			29.35	745.5	46.7	8.2		SW			7		10		0.80	20.3	Snow	T. Bell.
Chatham			29.71	754.6	51.0	10.6		W			3		10				Threatening	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.92	759.9	74.0	23.3		SE			1		5					Sgt. W. F. Hopkins
Dartmoor			29.76	755.9	44	6.7		SW			6		10					R. E. Power.
Donaghadee			29.27	743.4	46	7.8		W			6		4					J. Mac Gowan, Jr.
Dover			29.74	755.4	48	8.9							6					J. Costello.
Dublin																		
Durham Observatory			29.30	744.2	46.0	7.8		SW			6		8				Rain	G. Goldney.
Eccles, (near Manchester)			29.48	748.8	49.2	9.6		SW	21.6	9.7			10				Squally	Thomas Mackereth.
Falmouth Observatory			29.73	755.1	50.5	10.3		SW	33	14.7			10					The Falmouth Observatory.
Fort Napier, (Natal)			29.90	759.4	71.8	22.1		E			4		10					Pvt. G. Salmon.
Galway			29.30	744.2	48	8.9		SW			8		7					Queen's College.
Gibraltar, (Mediterranean Sea)			30.38	771.6	57.8	14.3		E			1		0					Sgt. J. Brewster.
Glasgow Observatory			29.23	742.4	44.4	6.9		SW			3		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.78	756.4	50.5	10.3		W			3		10					F. Toller.
Great Yarmouth			29.62	752.5	49	9.4		WSW			5		8					G. T. Watson.
Greenwich Royal Observatory			29.69	754.1	49.7	9.8		WSW			4		10					The Royal Observatory.
Guernsey			29.81	757.2	50.5	10.3		SW			5		10					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			29.43	747.5	45.6	7.6		S			5		10				Rain	Moorside Observatory.
Halifax, Nova Scotia			30.25	768.3	— 0.7	—18.2		NW			1		9					Corp't J. Y. Thompson.
Helston			29.75	755.6	53	11.7		SW			6		10				Hail	W. B. Moyle.
Holyhead			29.43	747.5	48	8.9		SW			5		5					John Tilston.
Hull Park																		
Kew Observatory			29.70	754.4	49.8	9.9		SW	19	8.5			10					The Meteorological Office.
Kingston			29.39	746.5	48	8.9		WSW			6		6					George Mitchell.
Lampeter																		
Leicester			29.58	751.3	48.8	9.3		SW			3		10					William J. Harrison
Llandudno			29.44	747.8	44.3	6.8		WSW			2–4		10				Showery	Dr. James Nicol.
Malta, (Mediterranean Sea)			30.43	772.9	61.0	16.1		NW			1		1					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.17	740.9	34	1.1		ENE			2		10				Rain	William D. Penny.
Nassau, (Bahamas)			30.17	766.3	65.4	18.6		Calm			0		3					Surgeon I. Jameson.
North Shields			29.32	744.7	47	8.3		WSW			6		3					John Wm. Irvine.
Nottingham			29.54	750.3	50.4	10.2		SW			4		10				Threatening	E. J. Lowe.
Osborne, New Barn Cottage			29.73	755.1	48.6	9.2		SW			2		10		0.16	4.1		J. R. Mann.
Oscott, (near Birmingham)			29.57	751.1	47.9	8.8		SW			4–6		10				Mist	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.63	752.6	50	10.0		SW			3		10					Radcliffe Observatory.
Plymouth			29.73	755.1	51	10.6		SW			5		10				Mist	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.50	749.3	47	8.3		WSW			7		9				Squally	W. Kennedy.
Saint Ann's Head			29.57	751.1	50	10.0		SW			6		8				Squally	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.29	743.9	33.2	0.7		SE	8	3.6			10				Snow	Rev. Dr. Clouston.
Scarboro'			29.40	746.7	47.3	8.5		WSW			5		8					F. Heard.
Scutari, Turkey			30.20	767.1	49.0	9.4		SW			2		2					W. H. Lyne.
Sheffield			29.49	749.0	49.9	9.9		WSW			6		8					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.32	744.7	46.2	7.9		WSW			6		10		0.155	3.94	Hail	Francis Redford.
Somerleyton, (Lowestoft)			29.62	752.3	49.6	9.8		SW			2		10					Rev. C. J. Steward.
Stonyhurst Observatory			29.40	746.7	47.9	8.8		SW			4		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.17	740.9	36	2.2		ENE			4		10				Snow	John Smith.
Strathfield Turgiss			29.76	755.9	48.1	8.9		SW			1		10				Rain	Charles H. Griffith.
Streatley Vicarage			29.68	753.9	58.8	14.9		WSW			1		5					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.16	740.6	32	0.0		NNE			3		7				Rain	William Lawrence.
Taunton College																		
Thurso			29.23	742.4	32	0.0		E			3		10				Snow	John Trotter.
Truro, Royal Institution			29.66	753.3	52	11.1		W			6		6					Royal Institution.
Valencia			29.47	748.5	47.8	8.8		WSW	32	14.3			5					Meteorological Observatory
Wick																		
Wisbech			29.59	751.6	49.3	9.6		SW			3		10					S. H. Miller.
Worthing			29.74	755.4	47.8	8.8		WSW			4		10					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. Occasionally the barometer is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor.

DANISH SERIES.

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

Copenhagen			29.09	738.8	43.9	6.6	83	W			9		10					
Fanöe			29.28	743.7	41.9	5.5	88	W			4		6					
Thorshavn, (Faröe)			29.35	745.4	29.3	— 1.5	86	N			4		3				Snow	
Vestervig			29.14	740.2	38.5	3.6	83	WNW			7		4					
Stykkisholm, (Iceland)			29.77	756.2	25.2	— 3.8	93	E			4		10					
Godthaab, (Greenland)			29.81	757.1	21.2	— 6.0		Calm			0		0				Snow	

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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.93	760.3	50.7	10.4	95	SW			8		10		0.709	18.0		Normal School.
Amiens			29.85	758.3	51.8	11.0	90	W			4		10		0.079	2.0		Normal School.
Baumette, (near Angiers)			29.96	761.1	52.9	11.6	86	SW	35.6	15.9			10		0.142	3.6		Baumette Observatory.
Beauvais			29.92	760.0	52.9	11.6	84	SSW			3		10		0.074	1.85		Normal School.
Besançon			30.18	766.6	52.9	11.6	47	S			3		0		0	0		Normal School.
Bourges			30.11	764.7	52.9	11.6	79	SW			8		3		0	0		Normal School.
Brest			29.81	757.1	49.8	9.9	89	SW			4				0.197	5.0	Fog	Naval Observatory.
Caen			29.99	761.7	53.1	11.7	86	SSW			4		10		0.087	2.2		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.08	764.0	50.2	10.1		SW			6		10		0	0	Rain	Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.00	761.9	50.4	10.2	97	S			6		8		0.072	1.8		Normal School.
Mirecourt			30.02	762.5	47.8	8.8		SSW			6		3		0	0		M. Falguère.
Mont-Louis	25.04	636.1			45.7	7.6	41	WSW	12.4	5.55			0		0	0		Normal School.
Montsouris (near Paris)			29.94	760.6	49.1	9.5	94	SW	10.3	4.6			10		0.004	0.1		Marié Davy.
Orleans			30.03	762.8	48.9	9.4	89	SW			3		10		0	0		Normal School.
Paris			29.99	761.8	49.8	9.9	86	SSW			6		10		0	0	Rain	National Observatory.
Parthenay			30.09	764.2	56.3	13.5	86	SSW			6		5		0	0		Normal School.
Perpignan	30.11	764.7			55.0	12.8	71	ENE	3.4	1.67			1		0	0		Dr. Fines.
Roche sur Yon			30.09	764.2	53.2	11.1	95	SW			2		5		0.008	0.2		Normal School.
Rouen			29.87	758.7	53.1	11.7	86	S			1		10		0.055	1.4		Normal School.
Saint Lo			29.89	759.1	50.0	10.0	71	W			6		5		0.197	5.0		Normal School.
Saint Maur, (near Paris)			29.96	761.1	49.6	9.8	89	SW			3		10		0	0		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.04	762.9	52.0	11.1	83	SW			3		8		0	0		
Tunis, (Africa)			30.33	770.3	62.1	16.7	59	SW			3		0		0	0		
Versailles, (near Paris)			29.95	760.7	50.4	10.2	93	SW			3		10		0.021	0.53	Rainy	M. Jacques.
Villefranche			30.21	767.4	49.8	9.9	89	SE			4		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.97	761.3	48.7	9.3	73	W			7		10		0	0		Prof. Hoh.
Berlin			29.65	753.0	54.3	12.4	54	SW			3		4		0.153	3.9		Prof. Arndt.
Breslau			29.76	756.0	48.4	9.1	71	SW			6		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.00	762.1	52.9	11.6	58	SW			10		7		0	0		A. Lenz.
Cassel			29.75	755.6	50.9	10.5	85	SSW			8		8		0.232	5.9		Dr. H. Mohl.
Cologne			29.86	758.4	54.0	12.2	82	SW			7		8		0.150	3.8		Dr. Gaithe.
Emden			29.65	753.1	46.8	8.2	80	WSW			3		1		0	0		Prof. Prestel.
Frankfort on the Main			30.06	763.4	48.9	9.4	88	SW			4		10		0	0	Rain	Physical Society.
Friedrichshafen			30.18	766.6	43.7	6.5	78	SW					2		0	0	Stormy	M. Wilhelm.
Hamburg			29.57	751.2	48.7	9.3	64	W			9		10		0.181	4.6		W. Reinart.
Kiel			29.43	747.5	45.9	7.7	80	W			9		10		0.315	8.0		Prof. G. Karsten.
Königsberg			29.24	742.8	45.3	7.4	84	W			8		9		0.701	17.7		Prof. E. Luther.
Köslin			29.53	750.1	45.9	7.7		SW			9				0.630	16.0		Dr. Tägert.
Leipsic			29.78	756.3	52.2	11.2	68	SW			6		9		0	0	Rainy	Prof. Bruhns.
Münster			29.76	755.8	51.8	11.0	77	SW			4		10		0.531	13.5	Rain	Prof. E. Heis.
Posen			29.57	751.1	52.2	11.2	71	WNW			8		10		0.028	0.7		Dr. Magener.
Strassburg, (in Alsace)			30.06	763.5	52.2	11.2	66	SW					6		0.008	0.2		Hartwig and Fulk.
Stuttgart			30.07	763.9	52.7	11.5	58	SW					4		0.142	3.6	Rain	Mr. Wurth.
Thorn			29.44	747.8	51.3	10.7	79	WSW			6		9		0.228	5.8		Dr. Hasenbalg.
Treves, (Trier)			30.44	773.2	48.0	8.9	89	W			10		10		0.480	12.2	Storm	Prof. Flesch.
Wustrow			29.41	746.9	43.2	6.2	100	WSW			8		10		0.098	2.5	Rainy	E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.26	768.6	37.9	3.3	99	NNW	1.2	0.5					0	0	Fog	
Mondovi			30.22	767.5	49.6	9.8	45	ESE			2		2	NNW	0	0		
Genoa			30.30	769.7	53.8	12.1	77	SE	7.5	3.4			10		0	0		
Pavia			30.27	768.8	37.8	3.2	91	E			1				0	0	Fog	
Verona																		
Padua			30.25	768.3	38.5	3.6	95	NNW	1.9	0.8					0	0	Fog	
Parma			30.28	769.2	36.0	2.2		N			2				0	0	Fog	
Bologna			30.33	770.4	34.5	1.4	62	W			2		10		0	0		
Urbino			30.29	769.3	50.4	10.2	76	SW			4				0	0	Fog	
Ancona			30.29	769.3	39.4	4.1	82						0		0	0		
Florence			30.35	770.8	52.0	11.1	85	NE			2		10	SW	0	0		
Siena																		
Livorno			30.32	770.2	54.0	12.2	83	S			2		10		0	0		
Rome			30.36	771.1	56.5	13.6	83	SE			2		9	WSW	0	0		
Naples, O.U.			30.37	771.4	59.9	15.5	68	SW			2		2	SW	0	0		
Naples, S. R.	29.81	757.2			56.1	13.4	76	SW			4		5	S	0	0		Prof. F. Brioschi.
Lecce															0	0		
Cosenza			30.34	770.6	58.3	14.6	67	SSE			1		0		0	0		
Catania, (Sicily)			30.37	771.4	57.2	14.0	45	SW			1		0		0	0		
Riposto																		
Palermo			30.30	769.5	57.7	14.3	69	NE			2		0		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.81	757.1	49.1	9.5		W			5							
Flushing			29.56	750.7	47.1	8.4		WSW			7							
Helder			29.63	752.2	46.2	7.9		SW			10							
Utrecht			29.69	754.0	50.4	10.2		SW			5		8					

NOTE.—The originals give the force 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																		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.11	764.8			46.2	7.8	97	NE	3.6	1.6			7					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.54	750.4	46.6	8.1	79	SW	24.6	11			10					
Wilna			29.24	742.8	39.2	4.0	100	SW	10.1	4.5			10				Rain	
Dorpat			29.19	741.5	0.3	—17.6	88	SE	13.4	6			10				Fog & Frost.	
St. Petersburg			29.38	746.3	—12.8	—24.9	91	ENE	4.5	2			8					
Kieff			29.65	753.1	38.7	3.7	95	W	20.1	9			10					
Nikolaiev			29.92	759.9	44.8	7.1	78	S	4.5	2			8					
Kertch			29.92	759.9	47.3	8.5	77	W	11.2	5			9					
Moscow			29.41	746.9	3.6	—15.8	85	WNW	10.1	4.5			0					
Lugan			29.54	750.4	38.7	3.7	80	WSW	20.1	9			10					
Archangel			29.61	752.1	—10.5	—23.6	78	NE	7.8	3.5			9					
Tiflis			29.98	761.5	48.0	8.9	68	N	16.8	7.5			6					
Astrakhan			29.99	761.7	33.1	0.6	94	WSW	7.8	3.5			10				Fog.	
Kasan			29.39	746.5	10.8	—11.8	93	SSE	13.4	6			10				Snow	
Orenburg			29.80	756.8	16.9	— 8.4	94						10					
Ekaterinburg			29.95	760.7	—10.5	—23.6	79	Calm	0	0			10					
Kasaly			29.91	759.8	20.3	— 6.5	76	Calm	0	0			10					
Tashkend																		
Barnaul			30.04	763.1	12.0	—11.1	86	S	7.8	3.5			6				Snow	
Yeniseisk			30.07	763.8	— 6.2	—21.2	89	SE	4.5	2			0					
Irkutsk			30.41	772.4	— 6.7	—21.5	77	Calm	0	0			3				Halo	
Oorga			30.26	768.7	3.2	—16.0	100	Calm	0	0			0					
Peking, (China)			30.48	774.1	18.9	— 7.3	45	Calm	0	0			0					
Nertchinsk			30.80	782.3	—25.4	—31.9	89	Calm	0	0			1					
Vladivostock																		
Nikolaievsk					— 2.6	—19.2		W	4.5	2			6				Fog & Halo	

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.

Madrid			30.42	772.6	15.8	— 9.0	76	SE	2.2	1.0		1	0	NW	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.41	747.0	− 4.7	−20.4	74	ENE			2		10				Snow	Dr. H. H. Hildebrandsson.
Hernosand			29.20	741.8	0.5	−17.5	95	ENE			7		10		0.177	4.5	Snow	
Upsala			28.80	731.4	22.6	− 5.2	96	NNE			4		10				Snow	
Stockholm			28.73	729.7	31.1	− 0.5	98	Calm			0		10		0.169	4.3	Snow	
Visby			28.83	732.3	40.3	4.6	90	SW			4		10		0.079	2.0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.76	730.4			59.5	15.3	83	WSW			2		2		0	0		The Observatory.
Zurich	28.40	723.6			45.9	7.7	57	W			1		1		0	0		B. Billwiller.

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.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.09	764.4	57.7	14.3	61	NW			2		5					
Constantinople			30.17	766.4	48.0	8.9	76	SSW	7.8	3.5			2					
Bao, (Persian Gulf)			30.24	768.0	51.8	11.0		SE			3		10					
Salonica			30.17	766.4	55.8	13.2		NW			1		0					
Valona			30.23	767.8	57.0	13.9		W			1		0					
Varna			30.08	764.0	51.8	11.0		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.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory, Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.04	763.0	− 9	−22.8	59	N	4	1.8		2	0	N	0	0		
Chatham, N. B.			30.19	766.8	−19	−28.3	100	Calm	0	0		0	0		0	0		
Charlottetown, P. E. Island			30.17	766.3	− 7	−21.7	76	W	6	2.7		0	0		0	0		
Father Point, Quebec			30.26	768.6	− 6	−21.1	52	NW	7	3.1		0	0		0	0		
Port Garry, Manitoba			29.99	761.7	− 4	−20.0	95	SW	15	6.7			10		0	0		
Halifax, N. S.			30.07	763.8	− 7	−21.7	65	W	6	2.7		0	2		0	0		
Kingston, Ontario			30.49	774.4	− 2	−18.9	84	Calm	0	0		0	0		0	0		
Montreal, Quebec			30.40	772.2	− 2	−18.9	83	W	11	4.9			2		0.01	0.2		
Ottawa, Ontario			30.39	771.9	−13	−25.0	72	Calm	0	0			0		0	0	Fog	
Parry Sound, Ontario			30.45	773.4	−23	−30.6	57	NE	3	1.3		2	2	NE	0	0		
Port Dover, Ontario			30.45	773.4	6	−14.4	76	W	4	1.8		2	0	W	0	0		
Port Stanley, Ontario			30.49	774.4	− 8	−22.2	100	NW				2	0	W	0	0		
Quebec, Quebec			30.38	771.6	−16	−26.7	42	NW				0	0		0	0		
Saugeen, Ontario			30.40	772.2	5	−15.0	75	E	1	0.4			10		0.05	1.3		
Sydney, C. B.			30.12	765.0	− 4	−20.0	80	W	5	2.2			5		0.01	0.2		
Toronto, Ontario			30.46	773.7	7	−13.9	90	Calm	0	0			10		0	0		

NOTE.—The cloudiness is estimated by fourths by the Army Signal Office.

UNITED STATES SERIES.

Furnished by the co-operation 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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.41	772.4	−2	−18.9	100	Calm	0	0		10	Fog	W	0	0		
Alpena, Mich.			30.47	773.9	−18	−27.8		W	4	1.8		0	2		0	0		
Atlantic City, N. J.			30.46	773.7	9	−12.8	78	NW	10	4.5		0	0		0	0		
Augusta, Ga.			30.36	771.1	37	2.8	90	NE	6	2.7			10		0	0		
Baltimore, Md.			30.49	774.4	−16	−8.9	51	N	3	1.3		0	Sm'y		0	0		
Barnegat, N. J.			30.36	771.1	0	−17.8	92	W	1	0.4		0	0		0	0		
Benton, Montana			29.47	748.3	−2	−18.9	100	Calm	0	0		2	0		0.03	0.8		
Bismarck, Dakota			29.48	748.5	9	−12.8	78	S	4	1.8			10		0.02	0.5		
Boston, Mass.			30.38	771.6	6	−14.4	76	NW	6	2.7		0	Haze		0	0		
Breckenridge, Minn.			29.90	759.4	10	−12.2	100	SW	28	12.5			10		0	0		
Buffalo, N. Y.			30.45	773.4	10	−12.2	69	W	8	3.6			10		0	0		
Burlington, Vt.			30.41	772.4	6	−12.4	76	W	5	2.2			10		0	0		
Cairo, Ill.			30.31	769.9	21	−6.1	72	NE	4	1.8		5	0		0	0		
Cape Hatteras, N. C.			30.37	771.4	34	1.1	69	NE	20	8.9		0	0		0	0		
Cape Henry, Va.			30.46	773.7	25	−3.8	68	N	20	8.9		2	0	N	0	0		
Cape May, N. J.			30.48	774.2	11	−11.7	79	N	10	4.5		0	0		0	0		
Charleston, S. C.			30.35	770.9	36	2.2	90	N	10	4.5			10		0	0		
Cheyenne, W. T.			29.52	749.8	44	6.7	42	SW	28	12.5		0	2		0	0		
Chicago, Ill.			30.36	771.1	14	−10.0	63	SE	3	1.3			10		0	0		
Cincinnati, Ohio			30.43	772.9	19	−7.2	69	E	8	3.6			10		0	0		
Cleveland, Ohio			30.45	773.4	12	−11.1	90	W	4	1.8			10		0.01	0.2		
Colorado Springs, Col.			29.59	751.6	42	5.6	58	S	11	4.9		5	0	W	0	0		
Corsicana, Texas			30.17	766.3	28	−2.2	88	S	3	1.3			Fog		0	0	Fog.	
Davenport, Iowa			30.33	770.4	9	−8.8	100	E	8	3.6		5	2	W	0.01	0.2		
Denver, Col.			29.61	752.1	52	−11.1	23	W	6	2.7		2	0		0	0		
Detroit, Mich.			30.46	773.7	11	−11.7	79	W	2	0.9		2	5	W	0	0		
Dodge City, Kansas			29.53	750.0	23	−5.0		S	4	1.8		0	0		0	0		
Dubuque, Iowa			30.35	770.9	2	−16.7	72	S	8	3.6			10		0	0		
Duluth, Minn.			30.22	767.6	3	−16.1	86	Calm	0	0			10		0	0		
Eastport, Me.			30.29	769.4	−2	−18.9	67	NW	7	3.1		2	0	NW	0	0		
Erie, Penn.			30.46	773.7	10	−12.2	79	S	6	2.7		Haze	5		0.04	1.0		
Escanaba, Mich.			30.43	772.9	−19	−28.3	65	N	2	0.9			10		0	0		
Fort Gibson, I. T.			30.08	764.0	23	−5.0	72	E	11	4.9		2	0	SW	0	0		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			29.60	751.8	13	−10.6	62	SE	12	5.4		5	5	W	0.01	0.2		
Galveston, Texas			30.20	767.1	44	6.7	92	NE	6	2.7			Fog		0.03	0.8	Fog.	
Grand Haven, Mich.			30.38	771.6	13	−10.6	81	SE	4	1.8			10		0	0		
Indianapolis, Ind.			30.37	771.4	15	−9.4	65	E	4	1.8			10		0	0		
Indianola, Texas			30.20	767.1	42	5.6	100	N	8	3.6			10		0.04	1.0	Light rain.	
Jacksonville, Fla.			30.27	769.8	49	9.4	77	N	8	3.6			10		0	0		
Keokuk, Iowa			30.23	767.8	14	−10.1	82	SE	12	5.4		0	2		0	0		
Key West, Fla.			30.17	766.3	69	20.6	75	NE	6	2.7		2	2	W	0	0		
Kittyhawk, N. C.			30.64	778.2	30	−1.1	71	N	8	3.6		5	0	N	0	0		
Knoxville, Tenn.			30.33	770.4	27	−2.8	88	NE	3	1.3		5	0		0	0		
La Crosse, Wis.			30.29	769.4	5	−15.0	87	S	4	1.8			10		0.06	1.5	Light snow.	
Leavenworth, Kan.			30.04	763.0	20	−6.7	85	SE	8	3.6			5		0	0		
Lexington, Ky.			30.38	771.6	20	−6.7	85	E	6	2.7		0	10		0	0		
Long Branch, N. J.			30.39	771.9	4	−15.6	74	SW	4	1.8		0	0		0	0		
Louisville, Ky.			30.33	770.4	21	−6.1	71	NE	2	0.9		10	0	SW	0	0		
Lynchburg, Va.			30.51	774.9	20	−6.7	69	NE	2	0.9		10	0	W	0	0		
Malone, N. Y.																		
Marquette, Mich.			30.37	771.4	−2	−18.9	67	W	4	1.8		5	0	W	0	0		
Memphis, Tenn.			30.26	768.6	26	−3.3	79	Calm	0	0		0	0		0	0		
Milwaukee, Wisconsin			30.41	772.4	5	−15.0	75	NW	2	0.9			Fog		0	0	Fog.	
Mobile, Ala.			30.24	768.1	39	3.9	91	NE	6	2.7			10		0	0		
Montgomery, Ala.			30.25	768.3	44	6.7	88	E	6	2.7			10		0	0		
Morgantown, West Virginia			30.53	775.4	5	−15.0	85	Calm	0	0		5	Haze	NW	0	0		
Mt. Washington, N. H.			29.68	753.9	−19	−28.3	100	N					Fog		0	0		
Nashville, Tenn.			30.29	769.4	26	−3.3	76	E	3	1.3		5	Sm'y		0	0		
New Haven, Conn.			30.45	773.4	9	−12.8	57	N	5	2.2		0	0		0	0		
New London, Conn.			30.43	772.9	9	−12.8	78	N	4	1.8		2	Fog	NW	0	0		
New Orleans, La.			29.21	766.3	46	7.8	84	E	4	1.8		Fog	Fog		0.05	1.3	Fog.	
Newport, R. I.																		
New York, N. Y.			30.46	773.7	16	−8.9	67	W	4	1.8		Haze	Sm'y		0	0		
Norfolk, Va.			30.45	773.4	25	−3.9	74	NE	8	3.6			10		0	0		
North Platte, Neb.			29.47	748.5	8	−13.3	78	SE	2	0.9			10		0	0		
Omaha, Neb.			29.98	761.5	18	−7.8	84	SE	10	4.5			10		0	0		
Oswego, N. Y.			30.43	772.9	17	−8.3	75	SE	2	0.9			10		0.92	23.3		
Peck's Beach			30.50	774.7	6	−14.4	76	NW	4	1.8		Haze	Haze		0	0		
Pembina, D. T.			29.95	760.7	−15	−26.1	71	SE	4	1.8		0	5		0	0		
Philadelphia, Penn.			30.50	774.7	10	−12.2	79	NW	7	3.1		0	0		0	0		
Pike's Peak, C. T.			29.66	753.4	14	−10.0	100	W	40	17.9		0	2		0	0		
Pittsburgh, Penn.			30.50	774.7	9	−12.8	78	Calm	0	0		Fog	Fog		0	0	Fog.	
Port Huron, Mich.			30.50	774.7	0	−17.8	100	SW	4	1.8			10		0	0		
Portland, Maine			30.36	771.1	4	−15.6	74	NW	1	0.4		0	Haze		0	0		
Portland, Or.			29.92	760.0	36	2.2	80	S	6	2.7			10		0.81	20.6		
Punta Rassa, Fla.			30.19	766.8	65	18.3	88	NE	5	2.2		10	0		0	0		
Rochester, N. Y.			30.42	772.6	13	−10.6	81	W	12	5.4			10		0.02	0.5	Light snow.	
Salt Lake City, Utah			29.70	754.4	35	1.7	85	SE	4	1.8			10		0.53	13.4	Light rain.	
Sandy Hook, N. J.			30.44	773.2	11	−11.7	79	W	6	2.7		1	Haze		0	0	Frost.	
San Diego, Cal.			30.10	764.5	55	12.8	79	N	4	1.8			10		0.33	8.3		
San Francisco, Cal.			30.12	765.0	47	8.3	85	W	4	1.8		0	2		0			
Santa Fe, N. M.			29.65	753.1	33	0.6	65	N	4	1.8		5	2	SW	0			
Savannah, Georgia			30.32	770.1	41	5.0	63	NE	8	3.6			10		0.05	1.3		
Shreveport, La.			30.20	767.1	21	−6.1	100	Calm	0	0		0	0		0			
Springfield, Mass.			30.32	770.1	−1	−18.3	68	Calm	0	0		0	Sm'y		0			
St. Louis, Mo.			30.38	771.6	20	−6.7	73	SE	4	1.8		0	2		0			
St. Marks, Fla.			30.22	767.6	53	11.7	100	E	6	2.7			10		0.23	5.8	Threatening	
St. Paul, Minn.			30.08	764.0	5	−15.0	87	SE				0	10		0.01	0.2	Light snow.	
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.36	771.1	1	−17.2		NW	2	0.9		0	Haze		0	0		
Toledo, Ohio			30.48	774.2	5	−15.0	62	Calm	0	0		10	0	W	0			
Tybee Island, Ga.			30.38	771.6	41	5.0	63	NE	14	6.3			10		0	0		
Vicksburg, Miss.			30.30	769.6	30	−1.1	79	Calm	0	0			Fog		0		Fog.	
Virginia City, Mon.			29.22	742.2	29	−1.7	67	SW	12	5.4			10		0	0		
Washington, D. C.			30.52	775.2	13	−10.6	79	Calm	0	0		0	Sm'y		0			
Wilmington, N. C.			30.38	771.6	26	−3.3	76	N	6	2.7		2	Haze	SE	0			
Wood's Hole, Mass.			30.42	772.1	9	−12.8	57	NW	3	1.3		0	0		0	0		
Wytheville, Va.			30.24	758.1	18	−7.8	68	Calm	0	0		0	0		0	0	Frost.	
Yankton, D. T.			29.88	758.9	11	−11.7	80	SE	16	7.1			2		0.01	0.2		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.09	764.3	.....	.....	73	22.8	.....	NE	5	2.2	.....	2	2	E	0	0	.....	
Point-a-pitre, Guadaloupe, W.I.	30.01	762.2	.....	.....	71	21.7	.....	NE	.....	.....	.....	2	0	.....	0	0	.....	
Havana, Cuba, W. I.	.....	.....	30.00	762.0	69	20.6	79	S	4	1.8	.....	8	0	NE	0	0	.....	
Honolulu, Oahu, Sandwich Is.	.....	.....	29.94	760.5	63	17.2	94	Calm	0	0	.....	0	0	.....	0	0	.....	
Kingston, Jamaica, W. I.	.....	.....	30.25	768.3	73	22.8	.....	Calm	0	0	.....	0	0	.....	0.01	0.2	.....	
Makawao, Maui, Sandwich Is.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Thomas, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Santiago de Cuba, Cuba, W. I.	.....	.....	29.91	759.7	70	21.1	84	NW	2	0.9	.....	0	0	.....	Blank	Blank	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			29.86	758.5	50.4	10.2	64	SW			3		3		0.090	2.3		Prof. Ivan Stozir.
Buda-Pesth			29.81	757.2	42.1	5.6	82	S			1		3		0	0		
Cracow			29.63	752.7	51.4	10.8	47	W			3		10		0	0		I. R. Observatory.
Eperies			29.77	756.2	36.0	2.2	89	S			1		10		0	0		Julius Mikolik.
Gratz			29.83	757.8	40.6	4.8	74	NW			2–5		5		0	0		Andreas Rospini.
Hermannstadt			29.92	759.9	40.6	4.8	65	SE			1		3		0	0		Prof. C. L. Reissenberger.
Kremsmünster			29.82	757.5	46.4	8.0	60	W			3		8		0.079	2.0		Prof. C. Wagner.
Lemberg			29.61	752.3	45.3	7.4	69	SW			5		5					Dr. T. Stanecki.
Nyiregyhaza			29.83	757.7	41.7	5.4	94	SW			3		9		0	0		Habzsuda Daniel.
Pola			29.98	761.4	51.8	11.0	87	S			2		10		0	0		I. R. Hydrographic Office.
Szegedin			29.84	758.0	48.2	9.0	68	W			4		3		0	0		Karl Stancel.
Trieste			29.98	761.4	44.1	6.7	94	W			0		10		0	0		Prof. V. Farolfi.
Vienna			29.71	754.6	52.7	11.5	30	W			6		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.29	743.9			44.2	6.8	77	W			2		10		0.650	16.50		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.34	745.2	32.4	0.2		W	16	7.1			1		0.220	5.59		William Boswell.
Annanhill																		
Ardrossan			29.41	747.0	37	3.0		NNW			2		0					W. H Dunlop.
Armagh Observatory			29.43	747.5	37.6	3.1		NNE	9	4.0			3					William McNeil.
Banbridge																		Stillman Call.
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.32	744.7	41.2	5.1		WNW			2		9					The Liverpool Observatory.
Birr Castle			29.38	746.2	38.5	3.6		ENE			1		10					J. Dreyer.
Bradford			29.20	744.2	37.3	2.9		N			3		10				Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.40	746.7	44.0	6.7		SW			2		9					H. Todd.
Cape Town, Cape Colony			29.82	757.4	91	32.8		SE			5		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.90	59.4			77.8	25.4	57	S	32	14.3			1					The Royal Observatory.
Cardington			29.37	746.0	43.0	6.1		W			4		10					John McLaren.
Carlisle			29.39	746.5	33.2	0.7		NE			4		9		0.26	6.6		T. Bell.
Chatham			29.45	748.0	45.2	7.3		W			2		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.91	759.7	78.2	25.7		SE			2		4					Sgt. W. F. Hopkins
Dartmoor			29.44	747.8	37.5	3.1		S			4		10				Fog & Rain	R. E. Power.
Donaghadee			29.37	746.0	41	5.0		NE			5		3					J. Mac Gowan, Jr.
Dover			29.48	748.8	49	9.4							6					J. Costello.
Dublin																		
Durham Observatory			29.37	746.0	32.8	0.4		N			4		10				Snowy	G. Goldney.
Eccles, (near Manchester)			29.49	749.0	41.0	5.0		W	1.6	0.7			10				Mist	Thomas Mackereth.
Falmouth Observatory			29.31	744.5	48.4	9.1		W	30	13.4			10				Rain	The Falmouth Observatory.
Fort Napier, (Natal)			29.83	757.7	80.6	27.0		E			2		3					Pvt. G. Salmon.
Galway			29.36	745.7	38	3.3		NE			4		10					Queen's College.
Gibraltar, (Mediterranean Sea)			30.40	772.1	60.8	16.0		WSW			7		0					Sgt. J. Brewster.
Glasgow Observatory			29.41	747.0	33.0	0.6		NW			1		4					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.45	748.0	44.4	6.9		W			1		10					F. Toller.
Great Yarmouth			29.36	745.7	43	6.1		W			3		6					G. T. Watson.
Greenwich Royal Observatory			29.45	748.0	44.3	6.8		WSW			4		10					The Royal Observatory.
Guernsey			29.51	749.5	46.5	8.1		SSW			6		10				Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			29.34	745.2	36.4	2.4		NE			4		10					Moorside Observatory.
Halifax, Nova Scotia			30.30	769.6	— 0.6	—18.1		NW			3		1					Corp'l J. Y. Thompson.
Helston			29.38	746.2	49	9.4		S			6		10				Rain	W. B. Moyle.
Holyhead			29.35	745.5	42	5.6		N			3		6					John Tilston.
Hull Park																		
Kew Observatory			29.44	747.8	44.4	6.9		SW	16	7.1			10					The Meteorological Office.
Kingston			29.40	746.7	40	4.4		NW			2		9					George Mitchell.
Lampeter																		
Leicester			29.36	745.7	43.0	6.1		SW			2		10					William J. Harrison
Llandudno			29.36	745.7	42.6	5.9		WNW			3		6					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.29	769.3	62.0	16.7		SW			1		3					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.36	771.1	32	0.0		Calm			0		1					William D. Penny.
Nassau, (Bahamas)			30.20	767.1	65.5	18.6		NE			1		4					Surgeon I. Jameson.
North Shields			29.38	746.2	37	2.8		N			3		5					John Wm. Irvine.
Nottingham			29.35	745.5	44.6	7.0		WNW			2		9.8				Threatening	E. J. Lowe.
Osborne, New Barn Cottage			29.34	745.2	45.7	7.6		SW			1		10		0.30	7.6	Showery	J. R. Mann.
Oscott, (near Birmingham)			29.37	746.0	42.9	6.1		SW			3		10				Mist	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.38	746.2	45	7.2		SSW			1		10					Radcliffe Observatory.
Plymouth			29.37	746.0	49	9.4		SE			2		10				Rain	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.31	744.5	37	2.8		NNE			5		10				Rain	W. Kennedy.
Saint Ann's Head			29.34	745.2	42	5.6		Calm			0		10				Rain	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.30	744.2	32.3	0.2		NNW	21	9.4			5				Snowy	Rev. Dr. Clouston.
Scarboro'			29.34	745.2	37.1	2.8		N			3		10					F. Heard.
Scutari, Turkey			30.12	765.0	53.2	11.8		SSW			2		0					W. H. Lyne.
Sheffield			29.34	745.2	43.1	6.2		NNE			3		9					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.38	746.2	36.6	2.6		NE			3		10		0.000	0	Snow	Francis Redford.
Somercleyton, (Lowestoft)			29.35	745.5	45.0	7.2		NW			1		3					Rev. C. J. Steward.
Stonyhurst Observatory			29.29	743.9	40.5	4.7		NW			1		6					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.40	746.7	33	0.6		NW			1		7				Snowy	John Smith.
Strathfield Turgiss			29.56	750.8	42.5	5.8		SW			1		10					Charles H. Griffith.
Streatley Vicarage			29.46	748.3	45.5	7.5		WNW			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.10	739.1	31	— 0.6		NNW			5		8				Snow	William Lawrence.
Taunton College																		
Thurso			29.29	743.9	34	1.1		WNW			4		6					John Trotter.
Truro, Royal Institution			29.24	742.7	50	10.0		W			10		8					Royal Institution.
Valencia			29.34	745.2	40.7	4.8		NE	6.5	3.9			10				Rain	Meteorological Observatory.
Wick																		
Wisbech			29.35	745.5	43.9	6.6		WSW			4		8				Rain	S. H. Miller.
Worthing			29.45	748.0	45.6	7.6		WSW			4		10					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 is reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor.*

DANISH SERIES.

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

Copenhagen			29.08	738.6	42.1	5.6	82	WSW			6		8					
Faröe			29.15	740.3	32.0	0.0	92	N			6		9					
Thorshavn, (Faröe)			29.32	744.8	31.6	— 0.2	63	N			5		7				Snow	
Vestervig			29.19	741.3	27.7	— 2.4	89	NNE			6		10					
Stykkisholm, (Iceland)			29.87	758.8	24.8	— 4.0	98	NE			6		5					
Godthaab, (Greenland)			29.91	759.8	18.9	— 7.3		NNE			4		10				Mist	

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 MM. Marié Davy, E. Renou, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.74	755.5	48.0	8.9	81	SW			2		10		0.394	10.0		Normal School.
Amiens			29.577	751.07	47.8	8.8	89	WSW			8		8		0.465	11.8		Normal School.
Baumette, (near Angiers)			29.65	753.2	51.1	10.6	100	SW	41.6	18.6			10		0.382	9.7	Rain	Baumette Observatory.
Beauvais			29.67	753.6	49.3	9.6	66	WSW			6		5		0.404	10.25		Normal School.
Besançon			29.93	760.1	46.6	8.1	72	S			3		8		0	0		Normal School.
Bourges			29.88	758.9	49.3	9.6	85	W			2		10		0	0		Normal School.
Brest			29.51	749.6	50.5	10.3	92	W			6				0.217	5.5	Fog and rain	Naval Observatory.
Caen			29.66	753.4	48.7	9.3	86	SSW			2		10		0.429	10.9		Normal School.
Carcassonne																		
Chartres																		
Chaumont			29.78	756.5	44.8	7.1		S			8		10		0.110	2.8	Rain	Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			29.77	756.2	49.1	9.5	84	SW			6		8		0.563	14.3		Normal School.
Mirecourt			29.68	753.9	45.5	7.5		SSW			6		5		0.118	3.0		M. Falguère.
Mont-Louis	25.11	637.8			39.2	4.0	71	SW	12.4	5.55			0		0	0		Normal School.
Montsouris (near Paris)			29.69	754.0	49.1	9.5	72	WSW	11.4	5.1			9		0.130	3.2		Marié Davy.
Orleans			29.79	756.7	49.6	9.8	89	WSW			8		5		0.102	2.60		Normal School.
Paris			29.68	753.9	49.6	9.8	71	SW			2		10		0.143	3.63		National Observatory.
Parthenay			29.88	758.9	54.0	12.2	86	SW			6		10		0.268	6.8		Normal School.
Perpignan	30.04	763.0			60.1	15.6	43	SW	7.4	3.33			2		0	0		Dr. Fines.
Roche sur Yon			29.89	759.1	49.3	9.6	98	SW			4		5		0.236	6.0		Normal School.
Rouen			29.63	752.6	50.2	10.1	70	SW			6		10		0.413	10.5		Normal School.
Saint Lo			29.68	753.8	47.1	8.4	93	SSW			2		10		0.236	6.0		Normal School.
Saint Maur, (near Paris)			29.71	754.6	49.3	9.6	73	NW			2		10		0.047	1.2		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			29.83	757.6	50.0	10.0	80	WSW			4		10		0.311	7.9		
Tunis, (Africa)			30.21	767.4	61.7	16.5	39	WNW			3		0		0	0		M. Jacques.
Versailles, (near Paris)			29.69	754.2	49.6	9.8	76	W			4		10		0.157	3.99		Dr. A. Bérigny.
Villefranche			30.03	762.7	52.0	11.1	96	SSE			2		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.70	754.4	45.5	7.5	78	SW			7		9		0.142	3.6		Prof. Hoh.
Berlin			29.42	747.2	48.4	9.1	64	SW			3		8		0.295	7.5	Rain	Prof. Arndt.
Breslau			29.59	751.7	48.2	9.0	69	SSW			2		10		0.254	9.0		Dr. P. Neugebauer.
Carlsruhe			29.65	753.2	45.5	7.5	77	SW			10		10		0.433	11.0		A. Leuz.
Cassel			29.33	745.0	43.9	6.6	83	S			8		10		0.157	4.0		Dr. H. Mohl.
Cologne			29.48	748.7	46.2	7.9	78	SW			5		7		0	0		Dr. Gaithe.
Emden			29.28	743.6	39.0	3.9	100	NW			2		10		0.374	9.5		Prof. Prestel.
Frankfort on the Main			29.61	752.1	43.7	6.5	78	SW			6		9		0.287	7.3	Rain	Physical Society.
Friedrichshafen			29.85	758.3	47.3	8.5	93	W					8		0.181	4.7	Stormy	M. Wilhelm.
Hamburg			29.23	742.4	43.7	6.5	89	SW			8		10		0.020	0.5	Rainy	W. Reinart.
Kiel			29.21	741.9	42.8	6.0	83	SW			4		10		0.189	4.8		Prof. G. Karsten.
Königsberg			29.34	745.2	39.6	4.2	92	W			2		4		0.098	2.5		Prof. E. Luther.
Köslin			29.55	750.5	43.5	6.4		SW			7				0.106	2.7		Dr. Tägert.
Leipsic			29.49	749.1	48.9	9.4	60	SW			5		8		0.008	0.2		Prof. Bruhns.
Münster			29.26	743.3	45.3	7.4	84	SW			2		10		0.090	2.3	Snow	Prof. F. Heis.
Posen			29.47	748.6	47.6	8.7	77	SW			6–7		9		0.075	1.9		Dr. Magerer.
Strassburg, (in Alsace)			29.75	755.6	46.0	7.8	75	SW					8		0.713	18.1		Hartwig and Fulk.
Stuttgart			29.67	753.7	46.4	8.0	68	W					10		0.909	24.1	Snow & Rain	Mr. Wurth.
Thorn			29.44	747.8	45.5	7.5	83	W			5		9		0.130	3.3		Dr. Hasenbalg.
Treves, (Trier)			29.55	750.5	46.6	8.1	73	W			10		8		0.543	13.8	Storm	Prof. Flesch.
Wustrow			29.23	742.4	42.8	6.0	100	SW			6		10		0.031	0.8	Rainy	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.04	763.1	40.3	4.6	87	ESE	0.6	0.3			10		0	0		
Mondovi			30.02	762.6	41.2	5.1	69	NNW			2		1	SW	0	0		
Genoa			30.01	762.3	56.3	13.5	57	S	1.2	0.5			2		0	0		
Pavia			30.06	763.5	36.9	2.7	91	S			1		10		0	0		
Verona																		
Padua			30.19	766.8	39.2	4.4	93	NW	3.1	1.4			10		0	0		
Parma			30.02	762.4	38.1	3.4		W			2				0	0	Fog	
Bologna			30.10	764.6	34.5	1.4	64	W			4		10		0	0		
Urbino			30.04	763.0	51.1	10.6	75	SW			6		6		0	0		
Ancona			30.01	762.2	53.6	12.0	76	SSE			2		6		0	0		
Florence			30.02	762.6	51.4	10.8	75	SW	5.6	2.5			8	SW	0	0		
Siena																		
Livorno			30.05	763.2	55.0	12.8	68	WSW			6		10		0	0		
Rome			30.14	765.5	56.1	13.4	77	SW			4		9	W	0	0		
Naples, O.U.			30.17	766.4	60.8	16.0	66	SW			2		7	SW	0	0		
Naples, S. R.	29.63	752.5			55.8	13.2	77	SW			4		8	SW	0.248	6.3		Prof. F. Brioschi.
Lecce			30.23	767.9	54.7	12.6	80	SSE	11.2	5.0			4		0	0		
Cosenza			30.20	767.1	56.5	13.6	58	SE			2		4		0	0		
Catania, (Sicily)			30.26	768.5	58.5	14.7	60	W			4		2	W	0	0		
Hiposto																		
Palermo			30.14	765.5	56.8	13.8	79	ENE			2		10		0.012	0.3		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.49	749.1	43.9	6.6		WNW			5							
Flushing								WNW			3							
Helder			29.30	744.3	42.3	5.7		WSW			4							
Utrecht			29.31	744.5	42.8	6.0		W			4		10					

NOTE.—The originals give the force 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																		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.15	765.7			55.0	12.8	68	NW	8.7	3.9			5					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.49	749.1	43.9	6.6	83	W	15.7	7			10					
Wilna			29.33	745.1	37.4	3.0	98	S	4.5	2			10				Rain	
Dorpat			29.45	748.0	— 2.6	—19.2	84	E	6.7	3			10					
St. Petersburg			29.48	748.8	—14.3	—25.7	91	N	2.2	1			2					
Kieff			29.64	752.8	43.0	6.1	78	SW	13.4	5			5					
Nikolaiev			29.94	760.5	49.8	9.9	65	S	4.5	2			4					
Kertch			29.96	760.9	54.7	12.6	66	W	6.7	3			2					
Moscow			29.47	748.6	0.9	—17.3	84	WNW	10.1	4.5			7					
Lugan			29.60	751.8	43.0	6.1	71	WSW	13.4	6			10					
Archangel			29.34	745.2	—15.2	—26.2	79	NNE	13.4	6			10					
Tiflis			30.07	763.9	47.1	8.4	53	N	24.6	11			6					
Astrakhan			29.74	755.4	40.1	4.5	92	SW	10.1	4.5			10					
Kasan			28.98	736.2	20.3	6.5	97	S	4.5	2			10				Snow	
Orenburg			29.32	744.7	31.5	— 0.3	100	SE	10.1	4.5			10					
Ekaterinburg			29.54	750.2	— 0.4	—18.0	79	E	7.8	3.5			10				Snow	
Kasaly			29.72	754.9	34.7	— 1.5	94	WSW	7.8	3.5			10					
Tashkend													0					
Barnaul			30.03	762.8	16.3	— 8.7	85	SW	4.5	2			3					
Yeniseisk			29.87	758.8	— 7.2	—21.8	92	E	4.5	2			6				Snow	
Irkutsk			30.33	770.4	— 8.5	—22.5	78	NNE	0	0			0					
Oorga			30.49	774.4	— 7.1	—21.7	100	Calm	0	0			0					
Peking, (China)			30.40	772.2	20.8	— 6.2	59	Calm	0	0			0					
Nertchinsk			30.61	777.6	—25.8	—32.9	90	Calm	0	0			0					
Vladivostock																		
Nikolaievsk					12.2	—11.0		N	7.8	3.5			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.

Madrid			30.41	772.3	46.8	— 8.2	83	SW	7.4	3.3		1	1	NW	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.59	751.7	— 9.4	—23.0	84	NNE			2		10		0.039	1.0		Dr. H. H. Hildebrandsson.
Hernosand			29.51	749.6	— 6.9	—21.6	100	NE			4		7					
Upsala			29.35	745.4	1.0	—17.2	97	NE			6		10					
Stockholm			29.24	742.8	4.6	—15.2	100	NE			4		10		0.004	0.1	Snow	
Wisby			29.18	741.1	28.0	— 2.2	92	ESE			4		10		0.335	8.5		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor E. Plantamour, Director of the Observatory, Geneva, and Prof. B. Billwiller, of Zurich.

Geneva	28.59	726.3			50.0	10.0	45	SSW			6		8		0.008	0.2		The Observatory.
Zurich	28.20	716.4			48.7	9.3		SW			4		8		0	0	Threatening	B. Billwiller.

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 altitudes of Geneva is 408m or 1,339 feet, and that of Zurich is 470m or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.22	767.6	62.8	17.1	70	SW			2		10					
Constantinople			30.13	765.2	52.3	11.3	65	SW	7.8	3.5			0					
Fao, (Persian Gulf)			30.22	767.5	51.8	11.0		NW			3		0					
Salonica			30.05	763.3	56.3	13.5		N			1		0					
Valona			30.09	764.4	56.8	13.8		W			1		0					
Varna			29.98	761.6	58.1	14.5		SW			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.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory, Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.00	762.0	— 4	—20.0	79	N	8	3.6		5	5	N	0	0		
Chatham, N. B.			30.22	767.6	—16	—26.7	100	SW	4	1.8		0	0		0	0		
Charlottetown, P. E. Island			30.21	767.3	— 9	—22.8	83	W	13	5.8		0	0		0	0		
Father Point, Quebec			30.28	769.1	— 5	—20.6	50	W	7	3.1		0	0		0	0		
Port Garry, Manitoba			29.78	756.4	0	—17.8	100	W	12	5.4		5	5	W	0.30	7.6	Light snow	
Halifax, N. S.			30.13	765.3	— 3	—19.4	59	W	12	5.4		0	0		0	0		
Kingston, Ontario			30.30	769.6	7	—13.9	81	NE	1	0.4			10		0.04	1.0	Light snow	
Montreal, Quebec			30.47	773.9	— 9	—22.8	100	Calm	0	0					0	0	Fog	
Ottawa, Ontario			30.40	772.2	— 4	—20.0	82	NE	7	3.1					0.05	1.3	Fog & Lt. snow	
Parry Sound, Ontario			30.07	763.8	10	—12.2	80	E	21	9.4			10		0.05	1.3	Light snow	
Port Dover, Ontario			30.03	762.8	18	— 7.8	84	E	6	2.7			10		0.15	3.8	Light snow	
Port Stanley, Ontario			30.11	764.8	20	— 6.7	87	E					10		0	0		
Quebec, Quebec			30.52	775.2	—12	—24.4	50	NW				0	0		0	0		
Saugeen, Ontario			29.97	761.2	16	— 8.9	100	SE	12	5.7			10		0.10	1.5	Sleet	
Sydney, C. B.			30.12	765.0	— 7	—21.7	88	W	7	3.1		0	2		0	0		
Toronto, Ontario			30.08	764.0	21	— 6.1	84	E	11	4.9			10		0.10	1.5		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the co-operation 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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.44	773.2	3.	—16.9	100	Calm	0	0			10		0	0	Light snow.	
Alpena, Mich.			29.93	760.2	16.	— 8.9	83	S	6	2.7			10		0.13	2.2	Light snow.	
Atlantic City, N. J.			30.42	772.6	20	— 6.7	85	N	2	0.9			10		0	0		
Augusta, Ga.			30.33	770.4	40	4.4	64	E	2	0.9		2	2	SW	0	0		
Baltimore, Md.			30.40	772.2	23	— 5.0	73	SE	5	2.2		5	Sm'y	W	0	0		
Barnegat, N. J.			30.34	770.6	16	— 8.9	67	W	1	0.4		8	0		0	0		
Benton, Montana			29.98	761.5	—16	—2.67	100	Calm	0	0		0	0		0	0		
Bismarck, Dakota			30.07	763.8	— 7	—21.7	19	NW	2	0.9		0	0		0	0		
Boston, Mass.			30.50	774.7	7	—13.9	77	NW	7	3.1			Sm'y		0.04	1.0		
Breckenridge, Minn.			30.05	763.3	3.	—16.1	87	NW	12	5.4		0	0		0	0		
Buffalo, N. Y.			30.05	763.3	21	— 6.1	57	S	4	1.8			Hazy		0.06	1.5		
Burlington, Vt.			30.45	773.4	1	—17.2	71	S	2	0.9			10		0	0		
Cairo, Ill.			29.94	760.5	44	6.7	72	Calm	0	0			10		0	0	Light rain.	
Cape Hatteras, N. C.			30.30	769.6	43	6.1	100	NE	7	3.1			10		0	0	Threatening	
Cape Henry, Va.			30.40	772.2	31	— 0.6	84	NE	9	4.0			10		0	0		
Cape May, N. J.			30.42	772.6	18	— 7.8	68	N	4	1.8			10		0	0		
Charleston, S. C.			30.32	770.1	41	5.0	63	N	10	4.5			10		0	0		
Cheyenne, W. T.			29.92	760.0	16	— 8.9	67	N	8	3.6		10	0	W	0	0		
Chicago, Ill.			29.78	756.4	36	2.2	69	SW	7	3.1			10		0	0		
Cincinnati, Ohio			29.97	761.2	34	1.1	79	SE	4	1.8			10		0	0		
Cleveland, Ohio			29.92	760.0	22	— 5.6	72	S	24	10.7			10		0	0		
Colorado Springs, Col.			29.90	759.4	24	— 4.4	86	Calm	0	0			10		0.06	1.5	Light snow	
Corsicana, Texas			29.96	761.0	53	11.7	96	S	11	4.0			10		0.02	0.5	Threatening	
Davenport, Iowa			29.84	757.9	22	— 5.6	91	Calm	0	0		0	2		0	0		
Denver, Col.			30.02	762.5	27	— 2.8	76	E	8	3.6			10		0	0		
Detroit, Mich.			29.89	759.2	23	— 5.0	73	SE	6	2.7			10		0	0		
Dodge City, Kansas			29.74	755.4	25	— 3.9	75	N	11	4.9		5	0		0	0		
Dubuque, Iowa			29.92	760.0	15	— 9.4	73	SE	2	0.9		2	5	S	0	0		
Duluth, Minn.			29.79	756.6	18	— 7.8	84	Calm	0	0			10		0.26	6.6		
Eastport, Me.			30.46	773.7	— 7	—21.7	59	NW	18	8.0		2	0	NW	0	0		
Erie, Penn.			29.94	760.5	25	— 3.9	81	SE	32	14.3			10		0	0	Threatening	
Escanaba, Mich.			29.86	756.9	22	— 5.6	86	S	4	1.8			10		0.13	2.2		
Fort Gibson, I. T.			29.77	756.1	50	10.0	93	SW	14	6.3		5	0	SW	0	0		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.11	764.8	18	— 7.8	58	NW	7	3.1		0	0		0	0		
Galveston, Texas			30.06	763.5	60	—15.6	100	SW	2	0.9					0	0	Fog.	
Grand Haven, Mich.			29.86	758.4	24	— 4.4	74	E	5	2.2			10					
Indianapolis, Ind.			29.86	758.4	35	1.7	80	S	8	3.6					0	0	Fog.	
Indianola, Texas			30.06	763.5	52	11.1	100	S	4	1.8					0	0	Fog.	
Jacksonville, Fla.			30.30	769.6	46	7.8	92	N	7	3.1			10		0	0		
Keokuk, Iowa			29.75	755.6	30	— 1.1	79	SW	6	2.7		0	0		0	0		
Key West, Fla.			30.22	767.6	68	20.0	84	NE	16	7.1		Haze	2		0	0		
Kittyhawk, N. C.			30.60	777.2	40	4.4	70	NE	8	3.6			10		Blank		Light rain.	
Knoxville, Tenn.			30.19	766.8	34	1.1	90	Calm	0	0			10		0	0		
La Crosse, Wis.			29.82	757.4	25	— 3.9	75	S	3	1.3		5	5	S	0.09	2.3		
Leavenworth, Kan.			29.86	758.4	25	— 3.9	86	NW	6	2.7		0	0		0	0		
Lexington, Ky.			30.00	762.0	40	4.4	64	S	24	10.7			10		0	0	Threatening	
Long Branch, N. J.			30.38	771.6	22	— 5.6	72	NW	10	4.5			10		0	0		
Louisville, Ky.			29.91	759.7	43	6.1	92	SE	6	2.7					0	0	Fog.	
Lynchburg, Va.			30.41	772.4	20	— 6.7	84	Calm	0	0			10		0	0		
Malone, N. Y.																		
Marquette, Mich.			29.82	757.4	22	— 5.6	72	Calm	0	0			10		0.05	1.3		
Memphis, Tenn.			30.00	762.0	47	8.3	92	SE	8	3.6			10		0	0	Threatening	
Milwaukee, Wisconsin			29.83	757.7	27	— 2.8	88	W	4	1.8			10		0.01	0.2	Threatening	
Mobile, Ala.			30.18	766.6	56	13.3	93	SE	2	0.9			10		0	0		
Montgomery, Ala.			30.26	768.6	48	8.9	80	E	6	2.7			10		0	0		
Morgantown, West Virginia			30.13	765.3	23	5.0	80	Calm	0	0			10		0	0		
Mt. Washington, N. H.			29.94	760.5	— 6	—21.1	100	NW				10	0		0	0		
Nashville, Tenn.			30.04	763.0	45	7.2	84	S	12	5.4			10		0	0	Threatening	
New Haven, Conn.			30.48	774.2	15	— 9.4	65	N	3	1.3			10		Blank		Light snow.	
New London, Conn.			30.51	774.9	16	— 8.9	66	NE	4	1.8			10		0	0		
New Orleans, La.			30.15	765.8	53	11.7	86	SE	1	0.4					0.02	0.5	Fog.	
Newport, R. I.																		
New York, N. Y.			30.46	773.7	20	— 6.7	85	E	8	3.6			10		0	0		
Norfolk, Va.			30.39	771.9	30	— 1.1	84	NE	5	2.2			10		0	0		
North Platte, Neb.			29.74	755.4	29	— 1.7	77	NW	18	8.0			10		0	0		
Omaha, Neb.			29.94	760.5	20	— 6.7	85	N	23	10.3		2	0	SW	0	0		
Oswego, N. Y.			30.23	767.8	13	—10.6	100	SE	14	6.3			10		0.02	0.5	Light snow.	
Peck's Beach			30.43	772.9	17	— 8.3	67	NE	3	1.3			10		0	0		
Pembina, D. T.			29.81	757.2	5.	—15.0	75	NW	20	8.9			10		0.12	3.0		
Philadelphia, Penn.			30.46	773.7	17	— 8.3	67	E	1	0.4			10		0	0		
Pike's Peak, C. T.			29.62	752.3	0	—17.8	100	SW	15	6.7			10		0	0	Light snow.	
Pittsburgh, Penn.			30.08	764.0	28	— 2.2	88	E	4	1.8					0	0	Fog.	
Port Huron, Mich.			29.95	760.7	19	— 7.2	84	SE	12	5.4			10		0.04	1.0		
Portland, Maine			30.48	774.2	4	—15.6	74	Calm	0	0			10		0	0		
Portland, Or.			29.90	759.4	44	6.7	67	S	12	5.4			10		0	0		
Punta Rassa, Fla.			30.26	768.6	56	13.3	87	NE	12	5.4		0	Haz		0	0		
Rochester, N. Y.			30.12	765.0	15	— 9.4	82	E	8	3.6			10		0.02	0.5		
Salt Lake City, Utah			30.20	767.1	27	— 2.8	54	Calm	0	0			10		0.08	2.0		
Sandy Hook, N. J.			30.42	772.6	22	— 5.6	85	NE	8	3.6		8	2	W	0	0		
San Diego, Cal.			30.21	767.3	44	6.7	92	Calm	0	0		0	0		0	0		
San Francisco, Cal.			30.28	769.1	46	7.8	84	Calm	0	0			8		0	0		
Santa Fe, N. M.			29.64	752.8	31	— 0.6	69	W	8	3.6		0	5		0	0		
Savannah, Georgia			30.30	769.6	44	6.7	67	NE	4	1.8			10		0	0		
Shreveport, La.			30.01	762.2	55	12.8	100	S	12	5.4			10		0	0	Threatening	
Springfield, Mass.			30.49	774.4	10	—12.2	68	Calm	0	0			10		0	0		
St. Louis, Mo.			29.84	757.9	44	6.7	68	S	8	3.6			10		0	0		
St. Marks, Fla.			30.28	769.1	48	8.9	85	NE	5	2.2		5	0		0	0		
St. Paul, Minn.			29.82	757.4	21	— 6.1	81	W	4	1.8			10		0.02	0.5		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.41	772.4	16	— 8.9	83	NW	1	0.4			10		0	0		
Toledo, Ohio			29.89	759.2	26	— 3.3	76	S	3	1.3			10		0		Threatening	
Tybee Island, Ga.			30.33	770.4	44	6.7	79	NE	12	5.4		2	5	NE	0	0		
Vicksburg, Miss.			30.16	766.0	44	6.7	89	Calm	0	0			10		0			
Virginia City, Mon.			29.75	755.6	— 1	18.3	72	Calm	0	0		2	2		0	0		
Washington, D. C.			30.41	772.4	25.	— 3.9	77	SE	4	1.8		2	5	W	0	0		
Wilmington, N. C.			29.34	770.6	31.	— 0.6	89	N	8	3.6			10		0.02	0.5	Light rain.	
Wood's Hole, Mass.			30.43	772.9	9	—12.8	57	NW	3	1.3			10		0	0		
Wytheville, Va.			30.10	764.5	23	— 5.0	86	Calm	0	0		1	0	W	0	0		
Yankton, D. T.			30.15	765.8	15	— 9.4	65	W	1	0.4		5	5	SW	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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.07	763.8	.....	.....	75	23.9	93	NE	9	4.0	.....	5	5	NE	0.35	8.9	.....	
Point-a-pitre, Guadaloupe, W.I.	29.97	761.2	.....	.....	73	22.8	.....	SE	Blank	Blank	.....	2	0	.....	0	0	.....	
Havana, Cuba, W. I.	.....	.....	30.02	762.5	66	18.9	84	SE	2	0.9	.....	2	0	NE	0	0	.....	
Honolulu, Oahu, Sandwich Is.	.....	.....	30.08	764.0	63	17.2	76	NE	2	0.9	.....	7	7	NE	0	0	.....	
Kingston, Jamaica, W. I.	.....	.....	30.25	768.3	71	21.7	.....	Calm	0	0	.....	2	0	E	0	0	.....	
Makawao, Maui, Sandwich Is.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Thomas, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Santiago de Cuba, Cuba, W. I.	.....	.....	29.96	761.0	69	20.6	79	E	1	0.4	.....	0	2	.....	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Agram			29.40	746.7	44.4	6.9	84	SW			3		10		0.067	1.7		Prof. Ivan Stozir.
Buda-Pesth			29.34	745.2	41.4	5.2	87	NE			2		8		0.092	2.35		I. R. Cen. Met. Ins., Hungary
Cracow			29.19	741.4	44.6	7.0	62	W			3		9		0.024	0.6		I. R. Observatory.
Eperies			29.25	743.0	35.2	1.8	95	SE			1		10		0	0		Julius Mikolik.
Gratz			29.33	745.1	41.0	5.0	64	NW			2.5		5		0	0		Andreas Rospini.
Hermannstadt			29.46	748.2	43.2	6.2	68	SE			3		7		0	0		Prof. C. L. Reissenberger.
Kremsmünster			29.31	744.5	37.8	3.2	87	NW			6		10		0.098	2.5		Prof. C. Wagner.
Lemberg			29.20	741.8	42.6	5.9	78	W			4		10					Dr. T. Stanecki.
Nytregyhaza			29.38	746.3	39.6	4.2	93	SW			3		10		0.240	6.09		Habasuda Daniel.
Pola			29.44	747.7	49.3	9.6	84	WSW			2		8		0.031	0.79		I. R. Hydrographic Office.
Szegedin			29.39	746.5	43.5	6.4	88	SW			2		10		0.244	6.20		Karl Stancel.
Trieste			29.46	648.2	46.0	7.8	92	W			0		10		0.201	5.1		Prof. V. Farolfi.
Vienna			29.25	743.0	47.5	8.6	57	W			5		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather	Observer.
Brussels	29.63	752.7			39.7	4.3	63	NW			2		5		0.807	20.50		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.71	754.6	34.0	1.1		WNW	28	12.5			3		0.360	9.14	Snow	William Boswell.
Annanhill											3							
Ardrossan					39	3.9		NW	8	3.6			4					W. H. Dunlop.
Armagh Observatory			29.98	761.5	38.0	3.3		SW					4					William McNeil.
Banbridge																		Stillman Call.
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.92	759.9	40.0	4.4		WNW			3		3					
Birr Castle			30.03	762.7	37.8	3.2		SSW			1		4					The Liverpool Observatory.
Bradford			29.82	757.4	38.3	3.5		W			2		2					J. Dreyer.
Bridgetown, (Barbadoes)																		J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			29.90	759.4	39.8	4.3		WNW			2		1					H. Todd.
Cape Town, Cape Colony			29.79	754.6	84.6	29.2		N			3		7					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.83	757.7			93.6	34.2	35	S	5	2.2			5					The Royal Observatory.
Cardington			29.94	760.5	37.0	2.8		NW			4		3					John McLaren.
Carlisle			29.83	757.7	38.3	3.5		W			5		1		0	0		T. Bell.
Chatham			29.81	759.7	39.7	4.3		NW			3		0				Frost	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.92	759.9	74.0	23.3		SE			1		7					Sgt. W. F. Hopkins
Dartmoor			30.10	764.5	35	1.7		NW			1		5					R. E. Power.
Donaghadee			29.91	759.7	38	3.3		WSW			4		0					J. Mac Gowan, Jr.
Dover			29.91	759.7	39	3.9							0					J. Costello.
Dublin																		
Durham Observatory			29.79	756.6	35.8	2.1		WNW			5		0					G. Goldney.
Eccles, (near Manchester)			29.91	759.7	40.2	4.6		NW	6.0	2.7			5					Thomas Mackereth.
Falmouth Observatory			29.12	765.0	43.7	6.5		WNW	9	4.0			5					The Falmouth Observatory.
Fort Napier, (Natal)			29.88	758.9	79.0	26.1		NE			3		8					Pvt. G. Salmon.
Galway			29.43	747.5	37	2.8		N			3		4					Queen's College.
Gibraltar, (Mediterranean Sea)			29.38	771.6	59.8	15.4		NNW			6		6					Sgt. J. Brewster.
Glasgow Observatory			29.82	757.4	37.0	2.8		W			1		3					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.05	763.3	43.5	6.4		NW			4		2					F. Toller.
Great Yarmouth			29.80	756.9	38	3.3		WNW			4		4					G. T. Watson.
Greenwich Royal Observatory			29.94	760.5	39.9	4.4		NW			4		4				Mist	The Royal Observatory.
Guernsey			30.09	764.3	43.5	6.4		WNW			2		3					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng.			29.85	758.2	37.4	3.0		WNW			4		6					Moorside Observatory.
Halifax, Nova Scotia			30.14	765.5	12.0	—11.1		Calm			0		9					Corp'l J. Y. Thompson.
Helston			30.11	764.8	46	7.8		W			4		4				Mist	W. B. Moyle.
Holyhead			29.99	761.7	42	5.6		W			4		5				Rain	John Tilston.
Hull Park																		
Kew Observatory			29.96	761.0	40.9	4.9		WNW	18	8.0			1					The Meteorological Office.
Kingstown			29.99	761.7	39	3.9		W			2		3					George Mitchell.
Lampeter																		
Leicester			29.92	759.9	38.6	3.7		W			3		0					William J. Harrison
Llandudno			29.95	760.7	41.6	5.3		NW			3		2.5				Showery	Dr. James Nicol.
Malta, (Mediterranean Sea)			30.07	763.8	61.8	16.6		SW			1		1					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.56	755.9	35	1.7		W			1		1					William D. Penny.
Nassau, (Bahamas)			30.20	767.1	70.2	21.2		Calm			0		5					Surgeon I. Jameson.
North Shields			29.78	756.4	36	2.2		WNW			5		0					John Wm. Irvine.
Nottingham			29.90	759.4	41.6	5.3		WNW			4		3				Mist	E. J. Lowe.
Osborne, New Barn Cottage																		J. R. Mann.
Oscott, (near Birmingham)			29.96	761.0	40.1	4.5		WNW			4-5		3				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.93	760.2	40	4.4		W			2		1					Radcliffe Observatory.
Plymouth			30.08	764.0	42	5.6		NW			3		4					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			30.03	762.7	36	2.2		W			2		4				Rain	W. Kennedy.
Saint Ann's Head			30.05	763.3	42	5.6		NW			2		4					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.70	754.4	32.7	0.4		NNW	27	12.1			4				Snowy	Rev. Dr. Clouston.
Scarboro'			29.78	756.4	37.0	2.8		WNW			3		0					F. Heard.
Scutari, Turkey			29.81	757.2	33.0	11.7		SW			3		8				Threatening	W. H. Lyne.
Sheffield			29.87	758.7	39.2	4.0		NW			5		2					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.87	758.7	40.2	4.6		W			4		0		0.035	0.89		Francis Redford.
Somerleyton, (Lowestoft)			29.84	757.9	40.0	4.4		NW			2		0					Rev. C. J. Steward.
Stonyhurst Observatory					38.7	3.7		W			3		5					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.76	755.9	35	1.7		NW			3		6					John Smith.
Strathfield Turgiss			29.34	745.2	36.1	2.3		NW			1		0					Charles H. Griffith.
Streatley Vicarage			29.99	761.7	43.8	6.6		NW			5		0					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.55	750.6	32	0.0		N			3		3					William Lawrence.
Taunton College																		
Thurso			29.67	753.6	38	3.3		NNW			5		7				Rainy	John Trotter.
Truro, Royal Institution			30.03	762.7	47	8.3		W			4		4					Royal Institution.
Valencia			30.02	762.5	41.0	5.0		SE	22	9.8			10					Meteorological Observatory
Wick																		
Wisbech			29.84	757.9	39.0	3.9		W			3		0					S. H. Miller.
Worthing			29.98	761.5	41.0	5.0		NNW			2		0					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.

DANISH SERIES.

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

Copenhagen			29.31	744.4	20.8	— 6.2	93	SE			2		7				Snow	
Fanöe			29.33	744.9	27.7	— 2.4	85	WNW			4		9					
Thorshavn, (Faröe)			29.70	754.4	25.2	— 3.7	67	N			2		2					
Vestervig			29.39	746.6	17.2	— 8.2	76	NE			6		3					
Stykkisholm, (Iceland)			29.89	759.2	23.0	— 5.0	98	NE			4		2					
Godthaab, (Greenland)			29.74	755.4	16.0	— 8.9		NE			4		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 MM. Marié Davy, E. Renou, C. Marquet, M. Jacques, M. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.10	764.6	42.8	6.0	54	NW			1		3		0.079	2.0		Normal School.
Amiens			29.952	760.77	41.0	5.0	86	W			8		8		0.575	1.46		Normal School.
Baumette, (near Angers)			30.17	766.3	43.7	6.5	44	N	6.3	2.8			0		0	0		Baumette Observatory.
Beauvais			30.02	762.4	40.1	4.5	56	NW			3		5		0	0		Normal School.
Besançon			29.99	761.7	40.3	5.6	59	N			3		8		0.025	2.5		Normal School.
Bourges			30.17	766.3	40.3	4.6	84	NW			2		10		0.287	7.3		Normal School.
Brest			30.09	764.2	47.3	8.5	70	N			0		0		0.228	5.8		Naval Observatory.
Caen			30.08	764.0	43.3	6.3	67	WNW			4		5		0.224	5.7		Normal School.
Carcassonne																		
Chartres																		
Chaumont			29.99	761.7	36.9	2.7		NW			6		5		1.094	27.8		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.13	765.2	41.0	5.0	51	NW			3		0		0.579	14.7		Normal School.
Mirecourt			29.88	759.0	41.9	5.5		NW			4		3		1.661	42.2		Normal School.
Mont-Louis	24.77	629.1			32.4	0.2	88	SW	7.6	2.38			10		0.528	13.4		M. Falguère.
Montsouris (near Paris)			30.02	762.4	41.5	5.3	55	WNW	5.1	2.3			1		0.496	12.6		Marié Davy.
Orleans			30.09	764.3	40.6	4.8	74	NNW			3		2		0.370	9.4		Normal School.
Paris			30.02	762.4	41.0	5.0	52	WNW			4		0		0.380	9.66		National Observatory.
Parthenay			30.11	764.8	51.8	11.0	75	N			2		5		0.669	17.0		Normal School.
Perpignan	29.89	759.2			52.9	11.6	56	WNW	18.6	8.33			6		0.374	9.5		Dr. Fines.
Roche sur Yon			30.16	766.1	44.8	7.1	85	NW			2		5		0.276	7.0		Normal School.
Rouen			30.07	763.9	42.6	5.9	51	NW			6		3		0.106	2.7		Normal School.
Saint Lo			30.08	764.0	43.2	6.2	89	NW			2		5		0.295	7.5		Normal School.
Saint Maur, (near Paris)			30.02	762.6	41.4	5.2	49	NW			3		0		0.264	6.7		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.13	765.4	42.4	5.8	56	N			2		0		0.476	12.1		C. Marquet.
Tunis, (Africa)			30.06	760.0	62.4	16.9	41	WNW			4		7		0.043	1.1	Thre tening	M. Jacques.
Versailles, (near Paris)			30.03	762.7	42.1	5.6	85	WNW			3		3		0.392	9.97		Dr. A. Bérigny.
Villefranche			30.08	764.0	43.3	6.3	88	N			6		5		0.165	4.2		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.67	753.7	34.3	1.3	67	NW			8		7		0.568	14.4		Prof. Hoh.
Berlin			29.40	749.1	32.2	0.1	78	SW			3		7		0.433	11.0		Prof. Arndt.
Breslau			29.21	742.0	31.6	− 0.2	100	N			10		10		0.256	6.5	Snow	Dr. P. Neugebauer.
Carlsruhe			29.84	757.9	38.1	3.4	66	NW			2.5		9		0.953	24.2	Snow & Rain.	A. Lenz.
Cassel			29.54	750.4	37.6	3.1	67	WNW			6		10		0.268	6.8		Dr. H. Mohl.
Cologne			29.76	755.8	37.4	3.0	81	SSW			4		5		0	0		Dr. Gaithe.
Emden			29.61	752.2	34.5	1.4	98	NW			3		5		0.047	1.3		Prof. Prestel.
Frankfort on the Main			29.84	758.0	39.6	4.2	69	WNW			4		5		0.386	9.8		Physical Society.
Friedrichshafen			29.86	758.4	35.6	2.0	73	N					9		0.043	1.1	Rain	M. Wilhelm.
Hamburg			29.44	747.8	38.3	3.5	67	NW			5		6		0.197	5.0	Snow	W. Reimart.
Kiel			29.37	745.9	35.4	1.9	78	W			3		5		0.075	1.9		Prof. G. Karsten.
Königsberg			29.19	741.5	28.4	− 2.0	68	NW			4		9		0.020	0.5		Prof. E. Luther.
Köslin			29.56	750.9	26.5	− 3.2		N			2				0.150	3.8		Dr. Tägert.
Leipsic			29.55	750.5	31.3	− 0.4	83	WNW			2		8		0.457	11.6		Prof. Bruhns.
Münster			29.66	753.3	36.3	2.4	80	E			3		8		0.016	0.4	Snow	Prof. E. Heis.
Posen			29.30	744.2	30.2	− 1.0	100	SW			5		10		0.173	4.4		Dr. Magener.
Strassburg, (in Alsace)			29.89	759.2	38.1	3.4	80	W					7		0.012	0.3		Hartwig and Fulk.
Stuttgart			29.83	757.7	36.5	2.5	65	NW					2		0.142	3.6	Rain	Mr. Wurth.
Thorn			29.20	741.6	36.3	2.4	95	N			5		9		0.095	2.4	Snow	Dr. Ha enbalg.
Treves, (Trier)			29.82	757.5	38.1	3.4	53	W			9		8		0	0		Prof. Flesch.
Wustrow			29.36	745.8	30.7	− 0.7	90	W			4		10		0	0	Stormy	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.59	751.7	45.1	7.3	69	E	2.5	1.1			1		0	0		
Mondovi			29.60	751.9	40.5	4.7	57	NW			6		0		0	0		
Genoa			29.53	750.0	52.5	11.4	48	N	10.7	4.5			0		0	0		
Pavia			29.56	750.9	41.5	5.3	83	W			4		0	W	0.090	2.3		
Verona																		
Padua			29.44	747.8	39.6	4.2	90	WSW	13.1	5.8			9	W	0.012	0.3		
Parma			29.56	750.7	42.1	5.6		NW			4		10		0	0		
Bologna			29.56	750.8	35.6	2.0	65	W			2		9		0	0		
Urbino			29.53	750.0	47.7	8.7	77	SW			4		8		0	0		
Ancona			29.50	749.3	49.3	9.6	76	W			2		10		0	0		
Florence			29.52	749.9	48.9	9.4	84	WSW	8.7	3.9			8	W	0.020	0.5		
Siena																		
Livorno			29.51	749.5	54.9	12.7	67	WSW			8		9		0	0		
Rome			29.59	751.6	55.0	12.8	73	W			6		10	W	0.028	0.7	Rain	
Naples, O.H.			29.74	755.5	56.8	13.8	64	SW			8		10	SW	0.012	0.3		
Naples, S. R.	29.59	751.5			51.8	11.0	77	SSW			8		10	W	0.378	9.6		Prof. F. Brioschi.
Lecce			29.88	758.9	52.7	11.5	72	SSE	16.8	7.5			10		0	0		
Cosenza			29.79	756.6	52.9	11.6	85	WSW			4		10		0.630	16.0		
Catania, (Sicily)			29.92	760.0	56.1	13.4	57	WSW			4		2	W	0	0		
Trapesto																		
Palermo			29.82	757.4	59.4	15.2	55	SW			8		10		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.85	758.3	39.6	4.2		NW			5							
Flushing			29.52	749.8	36.1	2.3		NW			6							
Helder			29.65	753.1	37.4	3.0		WNW			5							
Utrecht			29.69	754.0	34.7	1.5		W			5		10					

NOTE.—The originals give the force 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																		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.13	765.3			57.0	13.9	87	NNW	17.4	7.8			9					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.08	738.7	33.4	0.8	100	Calm	0	0			10					
Wilna			29.33	745.1	37.0	2.8	96	NW	4.5	2			10					
Dorpat			28.98	736 2	9.9	—12.3	78	SE	11.2	5			10					
St. Petersburg			29.22	742.3	— 5.3	—20.7	93	ENE	11.2	5			10				Snow	
Kieff			29.40	746.8	40.5	4.7	79	S	8.9	4			3					
Nikolaiev			29.57	751.0	44.8	7.1	73	S	4.5	2			0					
Kertch			29.70	754.3	52.0	11.1	75	SW	11.2	5			9					
Moscow			29.43	747.4	6.6	—14.1	83	SE	7.8	3.5			10					
Lugan			29.46	748.4	43.9	6.6	78	SW	20.1	9			9					
Archangel			29.63	752.7	—14.4	—25.8	80	NNW	4.5	2			0					
Tiflis			30.04	763.1	52.9	11.6	63	S	4.5	2			0					
Astrakhan			29.91	759.8	43.7	6.5	81	SSW	7.8	3.5			3					
Kasan			29.60	751.8	— 5.4	—20.8	100	WSW	4.5	2			10					
Orenburg			29.80	757.0	6.8	—14.0	83	SW	4.5	2			9					
Ekaterinburg			29.87	758.6	9.7	—12.4	88	NW	10.1	4.5			3					
Kasaly			30.11	764.9	36.3	2.4	93	SE	7.8	3.5			5					
Tashkend																		
Barnaul			30.06	763.4	10.2	—12.1	89	Calm	0	0			0					
Yeniseisk			30.00	761.9	7.0	—13.9	93	E	13.4	6			5				Snow	
Irkutsk			30.24	768.1	0.1	—17.7	76	NE					10					
Oorga			30.56	776.1	—11.0	—23.9	100	Calm	0	0			0					
Peking, (China)			30.22	767.5	25.9	— 3.4	43	Calm	0	0			0					
Nertchinsk			30.44	773.1	—27.8	—33.2	89	Calm	0	0			0					
Vladivostock																		
Nikolaievsk					17.4	— 8.1		NE	4.5	2			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.

Madrid			30.24	768.0	56.1	13.4	50	W	23.3	10.4		0	2		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.03	752.6	— 9.8	—23.2	67	NE			2		8					Dr. H. H. Hildebrandsson.
Hernosand			29.56	750.9	— 9.0	—22.8	100	N			2		2					
Upsala			29.35	745.5	3.2	—16.0	90	NNW			6		9					
Stockholm			29.29	744.4	1.4	—17.0	100	NNE			6		9					
Wisby			29.30	744.2	14.0	—10.0	94	N			6		10		0.047	1.2		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory, Geneva.

Geneva	28.51	724.1			39.9	4.4	48	NNW			2		8		0.386	9.8		The Observatory.
Zurich	28.19	716.1			36.5	2.5	55	W			4		3		0	0	Rainy	Prof. B. Billwiller.

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)			30.19	766.7	60.8	16.0	73	SE			1		10				Rain	
Constantinople			29.82	757.5	56.1	13.4	66	SSW	19.0	8.5			5					
Fao, (Persian Gulf)			30.28	769.0	51.8	11.0		NW			3		0					
Salonica			29.72	754.0	60.4	15.8		NW			1		0					
Valona			29.74	755.5	56.5	13.6		SW			3		10					
Varna			29.72	755.0	57.2	14.0		SW			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.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory, Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.15	765.8	— 5	—20.6	96	NW	5	2.2		2	2	NW	0	0		
Chatham, N. B.			30.16	766.0	—17	—27.2	100	Calm	0	0		Haze	Haze		0	0		
Charlottetown, P. E. Island			30.19	766.8	— 3	—19.4	87	Calm	0	0			10		0	0		
Father Point, Quebec			30.14	765.5	— 7	—21.7	65	SE	4	1.8		2	Haze	E	0	0		
Fort Garry, Manitoba			30.13	765.3	—22	—30.0	92	NW	1	0.4		0	0		0	0		
Halifax, N. S.			29.98	761.5	10	—12.2	72	Calm	0	0			10		0	0		
Kingston, Ontario			29.81	757.2	8	—13.3	91	N	2	0.9			10		0	0		
Montreal, Quebec			29.80	756.9	6	—14.4	88	NE	20	8.9			10		0.30	7.6	Light snow..	
Ottawa, Ontario			29.78	755.4	7	—13.9	65	E	4	1.8			Fog		0.60	15.2	Light snow..	
Parry Sound, Ontario			29.74	755.4	14	—10.0	91	SE	6	2.7			10		0.12	3.0	Light snow..	
Port Dover, Ontario			29.80	756.9	28	— 2.2	88	SW	16	7.1		10	0	SW	0.07	1.8	Light snow..	
Port Stanley, Ontario			29.87	758.7	29	— 1.7	83	W	21	9.4		10	0	SW	0.05	1.3		
Quebec, Quebec			30.03	762.8	5	—15.0	100	E					10		0.05	1.3	Light snow..	
Saugeen, Ontario			29.74	755.4	25	— 3.9	81	W	7	3.1			10		0.03	0.8		
Sydney, C. B.			30.18	766.6	— 5	—20.6	100	W	4	1.8			5		0	0		
Toronto, Ontario			29.78	756.4	22	— 5.6	95	W	5	2.2			10		0.22	5.6		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.81	757.2	23	— 5.0	100	SE	2	0.9			10		0.21	5.3	Threatening	
Alpena, Mich.			29.74	755.4	22	— 5.6	86	W	16	7.1			10		0.03	0.8	Light snow.	
Atlantic City, N. J.			29.87	758.7	34	1.1	90	SW	4	1.8		10	0	W	0	0		
Augusta, Ga.			30.00	764.3	51	—10.6	100	SE	3	1.3			Fog		0	0	Threatening	
Baltimore, Md.			29.85	758.2	35	1.7	90	Calm	0	0			10		0	0	Fog.	
Barnegat, N. J.			29.84	757.9	31	— 0.6	70	Calm	0	0							Fog.	
Benton, Montana			29.65	753.1	30	— 1.1	89	SW	36	16.1			10		0	0		
Bismarck, Dakota			29.98	761.5	—13	—25.0	47	E	2	0.9		8	0	E	0	0		
Boston, Mass.			29.91	759.7	18	— 7.8	100	NW	6	2.7			10		0.52	13.2		
Breckenridge, Minn.			30.23	767.8	—18	—27.8	85	Calm	0	0		0	0		0	0		
Buffalo, N. Y.			29.78	756.4	29	— 1.7	100	W	12	5.4			10		0.16	4.1	Light snow.	
Burlington, Vt.			29.76	755.9	21	— 6.1	71	S	6	2.7			10		0.11	2.8		
Cairo, Ill.			30.29	769.4	31	— 0.6	68	NE	4	1.8		0	2		0.01	0.2		
Cape Hatteras, N. C.			30.05	763.3	47	8.3	85	SW	6	2.7		5	0		0.58	22.3		
Cape Henry, Va.			29.94	760.5	44	6.7	92	SW	20	8.9			10		0.12	3.0		
Cape May, N. J.			29.87	758.7	35	1.7	90	S	12	5.4			10		0.01	0.2		
Charleston, S. C.			30.14	765.5	52	11.1	86	SW	6	2.7			10		0	0		
Cheyenne, W. T.			29.83	757.7	23	— 5.0	48	W	20	8.9		5	0	W	0	0	Fog.	
Chicago, Ill.			30.13	765.3	14	—10.0	81	W	11	4.9		0	0		0	0		
Cincinnati, Ohio			30.18	766.6	34	1.1	69	NW	4	1.8		0	2		0.12	3.0		
Cleveland, Ohio			29.89	759.2	32	0.0	84	W	14	6.3		2	2	W	0	0		
Colorado Springs, Col.			29.87	758.7	7	—13.9	77	Calm	0	0		1	0	W	0	0		
Corsicana, Texas			30.39	771.9	34	1.1	61	N	8	3.6		0	5		0	0		
Davenport, Iowa			30.25	768.3	7	—13.9	100	W	4	1.8		0	0		0	0		
Denver, Col.			29.94	760.5	22	— 5.6	72	S	6	2.7		10	0		0	0		
Detroit, Mich.			29.88	758.9	24	— 4.4	74	W	16	7.1		Haze	Haze		0.01	0.2		
Dodge City, Kansas			30.09	764.3	10	—12.2	79	S	8	3.6		0	0		0.01	0.2		
Dubuque, Iowa			30.26	768.6	2	—16.7	72	W	10	4.5		0	0		0	0		
Duluth, Minn.			30.09	764.3	— 1	—18.3	68	S	4	1.8		0	2		0	0		
Eastport, Me.			30.07	763.8	14	—10.0	82	NE	18	8.0			10		0.02	0.5	Light snow.	
Erie, Penn.			29.84	757.9	32	— 0.0	89	SW	22	9.8			10		0.05	1.3		
Escanaba, Mich.			29.92	760.0	8	—13.3	78	W	12	5.4			10		0	0		
Fort Gibson, I. T.			30.36	771.1	21	— 6.1	71	NW	2	0.9		2	0		0	0		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.12	765.0	— 8	—22.2	58	Calm	0	0		0	0		0	0		
Galveston, Texas			30.13	765.3	51	10.6	86	N	26	11.6			10		1.75	44.4		
Grand Haven, Mich.			30.01	762.2	18	— 7.8	93	NW	30	13.4		0	2					
Indianapolis, Ind.			30.18	766.6	25	— 3.9	63	NW	12	5.4		0	0		0.04	1.0		
Indianola, Texas			30.18	766.6	47	8.3	69	N	30	13.4			10		0	0		
Jacksonville, Fla.			30.20	767.1	53	11.7	93	SE	4	1.8			Fog		0	0	Fog.	
Keokuk, Iowa			30.18	766.6	29	— 1.7	78	NW	6	2.7		0	0		0	0		
Key West, Fla.			30.19	766.8	71	21.7	81	NE	7	3.1		Haze	2		0	0		
Kittyhawk, N. C.			30.24	768.1	40	4.4	82	SW	8	5.6					0.05	1.3	Fog.	
Knoxville, Tenn.			30.04	763.0	47	8.3	92	NW	10	4.5			10		0.47	11.9	Light rain.	
La Crosse, Wis.			30.16	766.0	4	—15.6	74	NW	8	3.6		0	0		0	0		
Leavenworth, Kan.			30.27	768.9	17	— 8.3	19	Calm	0	0		0	0		0	0		
Lexington, Ky.			30.21	767.3	36	2.2	80	NW	8	3.6		Haze	10		0.04	1.0		
Long Branch, N. J.			29.83	757.5	35	1.7	90	Calm	0	0			10		0	0		
Louisville, Ky.			30.18	766.6	33	0.6	80	NW	4	1.8		0	Sm'y		0.64	16.2	Smoky.	
Lynchburg, Va.			29.92	760.0	38	3.3	72	SW	1	0.4			10		0	0		
Malone, N. Y.																		
Marquette, Mich.			29.90	759.4	10	—12.8	79	W	16	7.1			10		0.02	0.5		
Memphis, Tenn.			30.37	768.8	37	2.8	71	N	4	1.8		5	0		0.01	0.2		
Milwaukee, Wisconsin			30.13	765.3	5	—15.0	62	NW	15	6.7		Haze	0		0	0		
Mobile, Ala.			30.12	765.0	56	13.3	100	S	3	1.3			Fog		0	0	Fog.	
Montgomery, Ala.			30.11	764.8	62	16.7	97	SW					10		0.38	9.7	Heavy rain	
Morgantown, West Virginia			29.96	761.0	42	5.6	83	SW	23	10.3			10		0.08	2.0	Clearing.	
Mt. Washington, N. H.			29.74	755.4	10	—12.2	100	SW					10		0.44	11.2	Light snow.	
Nashville, Tenn.			30.24	768.1	78	3.3	71	N	6	2.7			10		0.13	2.3		
New Haven, Conn.			29.92	759.9	21	— 6.1	71	NE	12	5.4			10		0.01	0.2	Snow & Mist	
New London, Conn.			29.93	760.2	24	— 4.4	93	N	8	3.6		2	10		0.37	9.4	Threatening	
New Orleans, La.			30.09	764.3	65	18.7	86	SW	4	1.8		2	Fog		0	0	Fog.	
Newport, R. I.																		
New York, N. Y.			29.92	760.0	36	4.2	90	E	2	0.9		Fog	Fog		0.05	1.3	Fog.	
Norfolk, Va.			29.94	760.5	42	5.6	91	SW	13	5.8			10		0	0		
North Platte, Neb.			29.83	757.7	11	—11.7	80	SW	2	0.9		0	0		0	0		
Omaha, Neb.			30.15	765.8	14	—10.0	91	S	2	0.9		0	0		0	0		
Oswego, N. Y.			29.77	756.1	30	— 1.1	83	S	6	2.7			10		0.06	1.5	Light snow.	
Peck's Beach			29.88	758.9	32	0.0	100	W	1	0.4			10		0	0		
Pembina, D. T.			30.22	767.6	—20	—28.9	64	NW	4	1.8		2	2		0	0		
Philadelphia, Penn.			29.89	759.2	28	— 2.2	82	E	6	2.7			10		0	0		
Pike's Peak, C. T.			29.70	754.4	— 1	—18.3	84	W	32	14.3		0	5		0	0		
Pittsburgh, Penn.			29.92	760.0	39	3.9	81	NW	9	4.0			10		0.14	3.5		
Port Huron, Mich.			29.84	757.9	24	— 4.4	87	SW	12	5.4		Haze	2		0.21	5.1		
Portland, Maine			29.99	761.7	12	—11.1	80	N	12	5.4			10		0.24	6.1	Light snow.	
Portland, Or.			30.08	764.0	36	2.2	80	S	8	3.6			10		1.33	32.8		
Punta Rassa, Fla.			30.23	767.8	85	14.4	93	NE	3	1.3		0	Fog		0	0	Fog.	
Rochester, N. Y.			29.75	755.6	31	— 0.6	89	W	12	5.4			10		0.06	1.5		
Salt Lake City, Utah			29.96	761.0	31	— 0.6	49	Calm	0	0			10		0	0		
Sandy Hook, N. J.			29.88	758.9	32	0.0	89	Calm	0	0					0	0	Fog.	
San Diego, Cal.			30.12	765.0	47	8.3	71	NE	4	1.8			10		0	0		
San Francisco, Cal.			30.15	765.8	50	10.0	86	SE	8	3.6			10		0.05	1.3	Light rain.	
Santa Fe, N. M.			29.74	755.4	16	— 8.9	66	NE	3	1.3		0	0		0	0		
Savannah, Georgia			30.14	765.5	54	12.2	91	SW	8	3.6			10		0	0		
Shreveport, La.			30.26	768.6	43	11.1	100	N	4	1.8		5	0	W	0	0		
Springfield, Mass.			29.93	760.2	19	— 7.2	85	N	4	1.8			10		0.37	9.4	Sleet.	
St. Louis, Mo.			30.33	770.4	25	— 3.9	75	NW	8	3.6		0	0		0	0		
St. Marks, Fla.			30.16	766.0	62	16.7	94	SE	8	3.6			Fog		0	0	Fog.	
St. Paul, Minn.			30.16	766.0	—10	23.3	77	NW	2	0.9		0	0		0	0		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			29.88	758.9	32	0.0	90	Calm	0	0			10		0.05	1.3		
Toledo, Ohio			29.96	761.0	27	— 2.8	66	SW	16	7.1		0	0		0.03	0.8		
Tybee Island, Ga.			30.18	766.6	48	8.9	96	SW	4	1.8		5	2	W	0	0		
Vicksburg, Miss.			30.24	768.1	51	10.6	79	NW	3	1.3		10	0		0.23	5.8		
Virginia City, Mon.			29.45	748.0	14	—10.0	83	E	8	3.6			10		0	0		
Washington, D. C.			30.85	758.2	35	1.7	80	Calm	0	0			5		0	0		
Wilmington, N. C.			30.09	764.3	51	10.6	93	SW	10	4.5		2	5	SW	0.08	2.0		
Wood's Hole, Mass.			29.93	760.2	36	2.2	90	Calm	0	0					0.11	2.8	Fog.	
Wytheville, Va.			29.80	756.9	43	6.1	91	W	4	1.8			10		0.16	4.0	Light rain.	
Yankton, D. T.			30.16	766.0	3	—16.1	73	NE	3	1.3		0	0		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. Metres per second.	Wind. Force. 0–15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.05	763.3			76	24.4		E	5	2.2		5	5	E	0	0		
Point-a-pitre, Guadaloupe, W.I.	29.97	761.2			71	21.7		E	Blank	Blank		5	2		0.04	1.0		
Havana, Cuba, W. I.			29.99	761.7	67	19.4	84	Calm	0	0		0	0		0	0		
Honolulu, Oahu, Sandwich Is.			30.20	767.1	69	20.6	80	NE	2	0.9		7	5	NE	0	0		
Kingston, Jamaica, W. I.			30.10	766.8	75	23.9		E	7	3.1		2	0	SE	0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.92	759.9	70	21.1	75	NE	11	4.9		0	2		0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30. 7	763.7	41.4	5.2	34	NE			2		3		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.00	762.1	33.6	0.9	85	W			6		7		0.066	0.15		I. R. Cen. Met. Ins., Hungary
Cracow			29.94	760.6	27.5	— 2.5	72	W			3		7		0	0		I. R. Observatory.
Eperies			29.86	758.4	31.3	— 0.4	81	NW			2		3		0	0		Julius Mikolik.
Gratz			30.04	763.1	38.5	3.6	46	WSW			5		25		0	0		Andreas Rospini.
Hermannstadt			29.91	759.8	32.4	0.2	73	N			3		10		0.075	1.90		Prof. C. Reissenberger.
Kremsmünster			30.09	764.2	35.1	1.7	77	W			5		6		0	0		Prof. C. Wagner.
Lemberg			29.76	755.8	35.4	1.9	87	W			5		8		0.072	1.8		Dr. T. Stanecki.
Nytrekyhaza			29.91	759.7	35.6	2.0	90	W			1		0		0	0		Habzsuda Daniel.
Pola			30.11	764.9	44.6	7.0	41	Calm			0		1		0	0		I. R. Hydrographic Office.
Szegedin			29.96	761.1	38.1	3.4	60	W			3		0		0	0		Karl Stancel.
Trieste			30. 1	762.3	43.3	6.3	44	NNW					0		0	0		Prof. V. Farolfi.
Vienna			30.01	762.2	36.1	2.3	63	W			4		9		0.130	3.3		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.58	751.3			34.5	1.4	95	SSW			2		10		0.043	1.10		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.38	746.2	36.4	2.4		S	10	4.5			10		0.035	0.89		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			29.38	746.2	43	6.1		SW			3		8				Rainy	William McNeil.
Armagh Observatory			29.47	748.5	43.9	6.6		SW	11	4.9			7					Stillman Call
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.50	749.3	48.0	8.9		WSW			2		10					The Liverpool Observatory.
Birr Castle			29.52	748.8	46.8	8.2		WSW			1		10					J. Dreyer.
Bradford			29.44	747.8	44.4	6.9		W			1		10				Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.58	751.3	45.0	7.2		SW			2		10				Rain	H. Todd.
Cape Town, Cape Colony			29.78	756.4	76.8	24.9		NW			4		4					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.82	757.4			83.6	28.7	51	SE	15	6.7			3					Th Royal Observatory.
Cardington			29.60	751 8	49.0	9.4		S			4		10					John McLaren.
Carlisle			29.42	747.2	43.9	6.6		SW			4		10		0	0		T Bell.
Chatham			29.60	751.8	49.0	9.4		NW			2		8				Threatening	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.93	760.2	72.5	22.5		SE			1		9					Sgt. W. F. Hopkins
Dartmoor			29.74	755.4	46.8	8.2		SW			4		10				Rain & Fog	R. E. Power.
Donaghadee			29.43	747.5	43	6.1		S			3		10				Rain	J. Mac Gowan, Jr.
Dover			29.65	753 3	47	8.3							10				Rain	J. Costello.
Dublin																		
Durham Observatory			29.43	747.8	34.8	1.6		S			4		7					G. Goldney.
Eccles, (near Manchester)			29.51	749.5	44.9	7.2		SW	3.0	1.3			10				Mist	Thomas Mackereth.
Falmouth Observatory			29.72	754.9	52.0	11.1		SW	24	10.7			10				Rain & Fog	The Falmouth Observatory.
Fort Napier, (Natal)			29.73	755.1	84.8	29.3		NW			3		4					Pvt. G. Salmon.
Galway			29.37	746.0	48	8.9		W			1		10					Queen's College.
Gibraltar, (Mediterranean Sea)			30.30	769.6	62.0	16.7		ENE			2		0					Sgt. J. Brewster.
Glasgow Observatory			29.38	746.2	34.0	1.1		NE			1		10				Rain	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.64	752.8	52	11.1		W			3		6					F. Toller.
Great Yarmouth			29.56	750.8	40	4.4		SW			4		10				Rain	G. T. Watson.
Greenwich Royal Observatory			29.62	752.3	51.8	11.0		W			4		10					The Royal Observatory.
Guernsey			29.79	756.6	52	11.1		SW			6		10				Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			29.47	748.5	40.0	4.4		SW			4		10					Moorside Observatory.
Halifax, Nova Scotia			29.75	755.6	16.3	8.7		NW			4		10				Mist	Corp'l J. Y. Thompson.
Helston			29.74	755.4	53	—11.7		SW			4		10				Hail	W. B. Moyle.
Holyhead			29.52	749.8	48	8.9		SW			3		7				Rain	John Tilston.
Hull Park																		
Kew Observatory			29.64	752.8	52.0	11.1		WSW	18	8.0			10					The Meteorological Office.
Kingstown			29.51	749.5	48	8.9		W			1		10				Mist	George Mitchell.
Lampeter																		
Leicester			29.55	750.6	47.1	8.4		SW			1		9					William J. Harrison
Llandudno																		Dr. James Nicol.
Malta, (Mediterranean Sea)			30.03	762.7	57.0	13.9		NW			1		2					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.29	743.9	38	3.3		Calm			0		4					William D. Penny.
Nassau, (Bahamas)			30.21	767.3	70.5	21.4		NE			1		4					Surgeon I. Jameson.
North Shields			29.45	748.0	37	2.8		SW			3		8				Fog	John Wm. Irvine.
Nottingham			29.57	751.1	40.0	4.4		NW			1		10				Fog	E. J. Lowe.
Osborne, New Barn Cottage			29.67	753 6	52.3	11.3		SW			3		7		0.27	6.7	Rain	J. R. Mann.
Oscott, (near Birmingham)			29.56	750.8	46.7	8.2		SW			4		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.57	751.1	51	10.6		WSW			4		10				Mist	Radcliffe Observatory.
Plymouth			29.71	754.6	51	10.6		SW			2		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.54	750.3	47	8.3		W			3		7				Rain	W. Kennedy.
Saint Ann's Head			29.60	751.8	49	9.4		WSW			2		10				Misty	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.32	744.7	34.2	1.2		SE	35	15.6			10					Rev. Dr. Clouston.
Scarboro'			29.46	748.3	36.0	2.2		WSW			2		9					F. Heard.
Scutari, Turkey			29.76	755.9	53.2	11.8		SW			2		9				Threatening	W. H. Lyne.
Sheffield			29.51	749.5	44.0	6.7		S			1		10					W. F Cooper.
Sidmouth																		
Silloth Rectory			29.43	747.5	45.8	7.7		WSW			2		8		0.180	4.57		Francis Redford.
Somerleyton, (Lowestoft)			29.57	751.1	40.6	4.8		SW			1		10					Rev. C. J. Steward.
Stonyhurst Observatory					46.0	7.8		W			3		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.16	740.6	38	3.3		SW			3		10				Rain	John Smith.
Strathfield Turgiss			29.95	760.7	51.8	11.0		W			1		9					Charles H. Griffith.
Streatley Vicarage			29.44	748.0	53.0	11.7		S			6		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.40	746.7	36	2.2		SE			6		10					William Lawrence.
Taunton College																		
Thurso			29.29	743.9	35	1.7		SSE			5		9					John Trotter.
Truro, Royal Institution			29.65	753.1	54	12.2		SW			7		10				Rain	Royal Institution.
Valencia			29.53	750.0	48.8	9.3		WSW	6.5	3.9			10					Meteorological Observatory
Wick																		
Wisbech			29.54	750.3	45.0	7.2		SW			2		10				Rainy	S. H. Miller.
Worthing			29.67	753.6	47.7	8.7		W			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.

DANISH SERIES.

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

Copenhagen			29.79	756.6	20.8	— 6.2	90	Calm			0		10				Snow	
Fanöe			29.67	753.5	31.5	— 0.3	100	S			4		10					
Thorshavn, (Faröe)			29.33	745.1	36.9	2.7	70	ESE			6		10				Hail	
Vestervig			29.69	754.0	20.5	— 6.4	95	SE			6		10					
Stykkisholm, (Iceland)			29.45	748 0	25.2	— 3.3	100	NE			6		0					
Godthaab, (Greenland)			29.82	757.5	8.6	—12.0		N			2		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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.69	754.2	51.8	11.0	95	SW			1		10		0.079	2.0		Normal School.
Amiens			29.82	757.5	39.9	4.4	80	WSW			6		8		0.004	0.1		Normal School.
Baumette, (near Angers)			29.96	761.1	52.3	11.3	90	SW	23.3	10.4			10		0.039	1.0	Rain	Baumette Observatory.
Beauvais			29.91	759.6	40.3	4.6	90	SW			2		10		0.069	1.75		Normal School.
Besançon			30.14	765.6	39.0	4.2	36	SSE			2		10		0	0		Normal School.
Bourges			30.07	763.8	48.2	9.0	93	SW			2		10		0	0		Normal School.
Brest			29.83	757.6	52.3	11.3	90	WSW			3				0.110	2.8	Fog and rain	Naval Observatory.
Caen			29.86	758.5	50.7	10.4	95	WSW			4		10		0.039	1.0		Normal School
Carcassonne																		
Chartres																		
Chaumont			30.05	763.3	35.4	1.9		SSW			8		10		0	0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			29.96	761.0	49.5	9.7	97	WSW			3		8		0.059	1.5		Normal School.
Mirecourt			30.01	762.3	36.9	2.7		SSW			4		10		0	0		Normal School.
Mont-Louis	24.97	634.2			42.3	5.7	75	W	18.6	8.33			10		0.461	11.7		—. Falguère.
Montsouris (near Paris)			29.90	759.4	37.6	3.1	95	S	11.2	5.0			10		0.067	1.7		Marié Davy.
Orleans			29.99	761.7	43.2	6.2	94	SW			3		10		0	0		Normal School.
Paris			29.89	759.3	39.9	4.4	91	SSW			3		10		0.008	0.22		National Observatory.
Parthenay					56.12	13.42	86	SW			2		10		0.024	0.6		Normal School.
Perpignan	30.10	764.5			59.0	15.0	60	W	11.2	5.00			6		0	0		Dr. Fines.
Roche sur Yon			30.09	764.4	45.0	7.2	94	SW			2		5		0.110	2.8		Normal School.
Rouen			29.83	757.6	44.4	6.9	97	SSE			3		10		0.142	3.6		Normal School.
Saint Lo			29.85	758.2	51.4	10.8	54	NW			2		10		0.079	2.0		Normal School.
Saint Maur, (near Paris)			29.91	759.6	39.0	3.9	98	SSW			1		10		0	0	Rainy.	E. Renou.
Saint Pierre, (Martinique)																		
Tours			29.99	761.7	51.3	10.7	90	SW			2		10		0.055	1.4		C. Marquet.
Tunis, (Africa)			30.16	766.2	56.1	13.4	41	NW			8		2		0.016	0.4	Threatening	—. Jacques.
Versailles, (near Paris)			29.89	759.1	42.4	5.8	97	SW			3		10		0.082	2.09	Rainy	Dr. A. Bérigny.
Villefranche			30.20	767.2	36.3	2.4	94	S			3		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.03	762.8	36.5	2.5	67	W			7		6		0.008	2.5		Prof. Hoh.
Berlin			29.95	760.7	32.4	0.2	88	S			2		10		0.035	0.9		Prof. Arndt.
Breslau			29.95	760.7	27.3	— 2.6	74	WNW			5		5		0	0		Dr. P. Neugebauer.
Carlsruhe			30.06	763.5	39.6	4.2	52	SW			5		10		0	0		A. Lenz.
Cassel			29.87	758.6	37.6	3.1	73	SW			5		10		0	0		Dr. H. Mohl.
Cologne			30.02	762.6	39.6	4.2	90	WNW			2		10		0.024	0.6	Rain	Dr. Gaithe.
Emden			29.86	758.5	35.8	2.1	96	SSW			2		10		0.055	1.4		Prof. Prestel.
Frankfort on the Main			30.12	765.0	37.6	3.2	80	SW			3		10		0.004	0.1		Physical Society.
Friedrichshafen			30.15	765.9	37.4	3.0	50	W					10		0.008	0.2	Rain and hail	M. Wilhelm.
Hamburg			29.84	757.9	34.5	1.4	84	SW			3		10		0.008	0.2		W. Reinart.
Kiel			29.79	756.6	35.6	2.0	70	SW			4		10		0.020	0.5		Prof. G. Karsten.
Königsberg			29.75	755.6	25.3	— 3.7	62	NW			2		8		0.004	0.1	Snow	Prof. E. Luther.
Köslin			30.08	764.1	24.4	— 4.2		NW			4				0.090	2.3		Dr. Tägert.
Leipsic			29.97	761.3	35.8	2.1	77	SW			4		10		0	0	Snow	Prof. Bruhns.
Münster			29.88	759.0	38.6	3.4	83	SW			3		10		0.252	6.4	Snow & Rain	Prof. F. Reis.
Posen			29.90	759.5	25.7	— 3.5	100	NW			6–7		10		0.012	0.3		Dr. Magener.
Strassburg, (in Alsace)			30.08	764.1	38.5	3.6	64	S					8		0.016	0.4		Hartwig and Fulk.
Stuttgart			30.11	764.9	37.2	2.9	59	SW					10		0	0		Mr. Wurth.
Thorn			29.84	757.9	24.4	— 4.2	66	WNW			5		6		0.072	1.8		Dr. Hankenbalg.
Treves, (Trier)			30.00	762.0	35.6	2.0	78	SW			8		10		0.287	7.3	Stormy	Prof. Flesch.
Wustrow			29.82	757.5	29.3	— 1.5	86	SW			4		7		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.15	765.8	42.4	5.8	44	SE	0.6	0.3			2		0	0		
Mondovi			30.15	765.9	39.4	4.1	36	NW			2		0		0	0		
Genoa			30.14	765.2	52.7	11.5	28	E	5.6	2.5			0		0	0		
Savin			30.13	765.3	43.7	6.5	29	W			4		0		0	0		
Verona																		
Padua			30.08	764.0	46.2	7.9	22	SSW	6.2	2.8			0		0	0		
Parma			30.11	764.8	45.3	7.4		W			4		0		0	0		
Bologna			30.12	765.0	42.3	5.7	41	NW			2		2		0	0		
Urbino			30.12	765.0	42.6	5.9	59	N			2		0		0	0		
Ancona			30.17	766.4	45.5	7.5	64	NW			4		0		0	0		
Florence																		
Siena			30.13	765.4	43.0	6.1	25	NNW	0	0			0		0	0		
Livorno			30.13	765.2	48.9	9.4	17	E			2		0		0	0		
Rome			30.07	763.7	50.2	10.1	39	N			6		0		0	0		
Naples, O.U.			30.07	763.7	52.0	11.1	34	NE			6		2	NE	0	0		
Naples, S. R.	29.50	749.3			48.0	8.9	49	E			0		8	NE	0.035	0.9		Prof. F. Brioschi.
Lecce			29.96	761.1	48.6	9.2	54	NNW	17.4	7.8			4		0	0		
Cosenza			30.00	762.1	48.2	9.0	71	NNW			2		5		0	0		
Catania, (Sicily)			29.95	760.8	57.4	14.1	33	NNW			6		0	W	0	0		
Riposto																		
Palermo			30.00	762.1	53.4	11.9	82	NW			8		5	NW	0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.74	755.5	36.0	2.2		SSW			6							
Flushing			29.73	755.2	35.8	2.1		SSW			3							
Helder			29.70	754.4	36.1	2.3		S			4							
Utrecht			29.74	755.4	34.3	1.3		S			4		10					

Note.—The originals give the force 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																		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.06	763.6			55.0	12.8	87	NNW	2.5	1.1			10					

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.79	756.6	26.1	— 3.3	91	W	6.7	3			10				Snow	Astronomical Observatory.
Wilna			29.67	753.7	21.0	— 6.1	71	NW	10.1	4.5			10					Astronomical Observatory.
Dorpat			29.51	749.5	— 6.5	—21.4	82	NW	11.2	5			2					Physical Cabinet.
St. Petersburg			29.26	743.1	1.2	—17.1	88	W	8.0	4			10					Central Physical Observatory.
Kieff			29.68	753.9	26.8	— 2.9	66	NW	15.7	7			5					Physical Cabinet.
Nikolaiev			29.67	753.7	34.2	1.2	85	N	13.4	6			10				Snow	
Kertch			29.70	754.4	50.0	10.0	87	SSW	6.7	3			10				Rain	Lagorio.
Moscow			29.36	745.8	18.1	— 7.7	81	NW	10.1	4.5			10				Snow	Meteorological Observatory.
Lugan			29.52	749.7	46.0	7.8	88	SW	13.4	6			10					Meteorological Observatory.
Archangel			29.73	755.2	—19.8	—28.8	81	Calm	0	0			10					Ogorodnikof.
Tiflis			30.07	763.9	53.6	12.0	34	N	13.4	6			0					Physical Observatory.
Astrakhan			30.05	763.3	50.2	10.1	66	Calm	0	0			2					Sebastianof.
Kasan			29.70	754.4	12.6	—10.8	93	S	13.4	6			10					Physical Cabinet.
Orenburg			30.02	762.4	10.9	—11.7	93	NE	4.5	2			0					
Ekaterinburg			30.17	766.4	— 2.9	—19.4	68	SE	4.5	2			0					Meteorological Observatory.
Kasaly			30.16	766.1	36.5	2.5	93	SSE	7.8	3.5			10					Babrof.
Tashkend																		Michelson.
Barnaul			30.13	765.3	24.6	— 4.1	89	WSW	20.1	9			6				Snow	Meteorological Observatory.
Yeniseisk			29.94	760.6	12.7	—10.7	92	E	16.8	7.5			10				Snow	Varks.
Irkutsk			30.22	767.7	2.3	—16.5	82	NE					10				Snow	Usolzef.
Oorga			30.53	775.5	— 3.5	—19.7	100	Calm	0	0			0					Mossin.
Peking, (China)			30.22	767.7	23.4	— 4.8	55	SSE	10.1	4.5			2					Physical Observatory.
Nertchinsk			30.47	774.0	—26.1	—32.3	89	Calm	0	0			3					Meteorological Observatory.
Vladivostock																		
Nikolaievsk								E	16.8	7.5			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.

Madrid			30.40	772.2	54.1	12.3	75	SE	2.9	1.3		1	0	NW	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.75	756.6	−18.4	−28.0	53	N			2		0					Dr. H. H. Hildebrandsson.
Hernosand			29.76	755.9	−13.0	−25.0	100	NE			2		0					
Upsala			29.78	756.3	− 9.0	−22.8	100	NNW			1		0					
Stockholm			29.70	754.4	− 7.0	−22.0	85	NW			2		0					
Wisby			29.78	756.3	12.0	−10.8	86	N			4		7					

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.74	730.0			33.8	1.0	78	W			2		10		0	0		The Observatory.
Zurich	28.44	722.3			34.7	1.5	53	SW			1		10		0.405	10.3		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.15	765.9	64.4	18.0	61	SW			2		5				Rain	
Constantinople			29.78	756.3	56.1	13.4	64	SW	17.9	8.			10					
Fao, (Persian Gulf)			30.39	772.0	54.1	12.3		NW			3		0					
Salonica			29.74	755.5	45.1	7.3		N			6		5					
Valona			29.83	757.8	45.5	7.5		NW			3		10					
Varna			29.80	757.0	39.2	4.0		NW			4		10				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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.86	758.4	12	−11.1	100	E	10	4.5			10		0.70	17.8	Heavy snow	
Chatham, N. B.			29.85	758.2	8	−13.3	88	NW	6	2.7			10		0.42	10.7		
Charlottetown, P. E. Island			29.73	755.1	12	−11.1	98	NW	10	4.5			10		0.28	7.1	Light snow	
Father Point, Quebec			30.07	763.8	− 4	−20.0	74	W	8	3.6		Haze	Haze	W	0.03	0.8		
Fort Garry, Manitoba			29.93	760.2	3	−16.1	95	SW	13	5.8		10	10	SW	0	0		
Halifax, N. S.			29.61	752.1	15	− 9.4	85	NW	13	5.8			10		0.37	9.4		
Kingston, Ontario			30.46	773.7	6	−14.4	80	Calm	0	0		0	0		0.02	0.5		
Montreal, Quebec			30.31	769.9	5	−15.0	73	W	25	11.2		0	2		0.12	3.0		
Ottawa, Ontario			30.35	770.9	3	−16.1	59	W	8	3.6		5	0	W	0.10	2.5		
Parry Sound, Ontario			30.51	774.9	−13	−25.0	47	NW	2	0.9		0	0		0	0		
Port Dover, Ontario			30.43	772.9	7	−13.9	100	NW	9	4.0		0	0		0	0		
Port Stanley, Ontario			30.46	773.7	− 4	−20.0	90	W	6	2.7		0	0		0	0		
Quebec, Quebec			30.20	767.1	9	−12.8	89	NW					10		0.50	12.7		
Saugeen, Ontario			30.41	772.4	13	−10.6	91	NE	5	2.2			10		0.22	5.6	Light snow	
Sydney, C. B.			29.54	750.3	27	− 2.8	90	NE	7	3.1			10		0.44	11.2	Sleet	
Toronto, Ontario			30.42	772.6	15	− 9.4	87	N	8	3.6		2	2	NW	0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.30	769.6	22	— 5.6	100	W	10	4.5		Haze	5		0.04	1.0	Light snow	
Alpena, Mich.			30.43	772.9	— 2	—18.9	67	Calm	0	0		0	5		0.01	0.2		
Atlantic City, N. J.			30.40	772.1	25	— 3.9	77	NW	7	3.1		0	0		0	0		
Augusta, Ga.			30.33	770.4	47	8.3	55	NE	6	2.7			10		0.67	16.0		
Baltimore, Md.			30.41	772.4	29	— 1.7	60	NE	4	1.8		0	0		0.63	0.8		
Barnegat, N. J.			30.29	769.3	23	— 5.0	60	Calm	0	0		Haze	0		0	0		
Benton, Montana			30.11	764.8	15	— 9.4	100	W	4	1.8			10		0	0		
Bismarck, Dakota			30.04	763.0	1	—17.2	70	N	2	0.9			10		0	0		
Boston, Mass.			30.17	766.3	22	— 5.6	72	NW	8	3.6		0	Haze		0.20	5.1		
Breckenridge, Minn.			30.09	764.3	— 6	—21.1	85	W	4	1.8		0	0		0	0		
Buffalo, N. Y.			30.47	773.4	11	—11.7	79	SW	4	1.8		0	0		0.01	0.2		
Burlington, Vt.			30.33	770.4	11	—11.7	60	N	7	3.1		2	8	W	0.04	1.0		
Cairo, Ill.			30.27	768.8	27	— 2.8	88	Calm	0	0		5	0		0	0		
Cape Hatteras, N. C.			30.33	770.4	43	6.1	91	NE	11	4.9		5	0	W	0.05	1.3		
Cape Henry, Va.			30.39	771.9	36	2.2	70	N	12	5.4		0	0		0.14	3.5		
Cape May, N. J.			30.42	772.6	26	— 3.3	75	N	10	4.5		0	0		0.05	1.3		
Charleston, S. C.			30.29	769.4	50	10.0	93	SE	8	3.6			10		0.81	20.6	Light rain	
Cheyenne, W. T.			29.87	758.7	14	—10.0	61	NW	20	8.9		0	0		0	0		
Chicago, Ill.			30.26	768.6	27	— 2.8	64	S	8	3.6		2	0		0	0		
Cincinnati, Ohio			30.39	751.8	27	— 2.8	77	S	4	1.8			10		0	0		
Cleveland, Ohio			30.44	773.2	9	—12.8	57	NW	5	2.2		0	2		0	0		
Colorado Springs, Col.			29.81	757.2	20	— 6.8	71	N	11	4.9		2	2	NW	0	0		
Corsicana, Texas			30.05	763.3	43	6.1	66	NE	5	2.2			10		0	0		
Davenport, Iowa			30.19	766.8	20	— 6.7	84	SE	4	1.8		10	0	W	0	0		
Denver, Col.			29.94	760.5	21	— 6.1	57	SW	4	1.8		5	0	SW	0	0		
Detroit, Mich.			30.41	772.4	10	—12.2	90	W	1	0.4			Fog		0.01	0.2	Fog	
Dodge City, Kansas			29.60	751.8	30	— 1.1	79	W	6	2.7		2	0		0	0		
Dubuque, Iowa			30.19	766.8	12	—11.1	70	SE	4	1.8			10		0	0		
Duluth, Minn.			29.99	761.7	16	— 8.9	93	NE	12	5.4			10		0	0	Light snow.	
Eastport, Me.			29.97	761.2	9	—12.8	78	N	10	4.5		5	0	NW	0.07	1.8		
Erie, Penn.			30.44	773.2	11	—11.7	79	S	4	1.8		0	Haze		0	0		
Escanaba, Mich.			30.26	768.6	6	—14.4	76	N	4	1.8			10		0	0		
Fort Gibson, I. T.			30.06	763.5	37	2.8	54	SE	8	3.6			10		0	0	Threatening	
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.09	764.3	15	— 9.4	63	W	8	3.6		5	0	W	0	0		
Galveston, Texas			30.02	762.5	53	11.7	100	E	7	3.1			Fog		0.07	1.8	Threatening	
Grand Haven, Mich.			30.34	770.6	10	—12.2	58	Calm	0	0		5	0	W				
Indianapolis, Ind.			30.34	770.6	23	— 5.0	73	S	6	2.7			Fog		0	0	Fog	
Indianola, Texas			30.04	763.0	49	9.4	100	NW	14	6.3			10		0.01	0.2	Light rain	
Jacksonville, Fla.			30.21	767.3	61	16.1	94	W	4	1.8			Fog		0	0	Fog	
Keokuk, Iowa			30.13	765.3	26	— 3.3	77	S	12	5.4		2	0		0	0		
Key West, Fla.			30.16	766.0	71	21.7	85	NE	12	5.4			10		0	0		
Kittyhawk, N. C.			30.60	777.2	41	5.0	65	NE	8	2.6		0	0		0	0		
Knoxville, Tenn.			30.35	770.9	30	— 1.1	78	NE	6	2.7		5	0	W	0.01	0.2		
La Crosse, Wis.			30.06	763.5	20	— 6.7	56	S	12	5.4		0	0		0	0		
Leavenworth, Kan.			30.04	763.0	29	— 1.7	67	S	6	2.7		0	2		0	0		
Lexington, Ky.			30.36	771.1	31	—10.6	68	NW	4	1.8		2	0		0	0		
Long Branch, N. J.			30.33	770.4	24	— 4.4	86	NW	5	2.2		0	0		0	0		
Louisville, Ky.			30.31	769.9	24	— 4.4	74	Calm	0	0		0	0		0	0		
Lynchburg, Va.			30.41	772.4	27	— 2.8	82	S	1	0.4		0	0		0	0		
Malone, N. Y.																		
Marquette, Mich.			30.23	767.8	14	—10.0	63	E	12	5.4			10		0	0		
Memphis, Tenn.			30.24	768.1	31	— 0.6	69	Calm	0	0		2	0		0	0		
Milwaukee, Wisconsin			30.28	769.1	18	— 7.8	68	S	4	1.8		2	Fog		0	0	Fog.	
Mobile, Ala.			30.16	766.0	53	—11.7	100	N	4	1.8			Fog		0	0	Fog	
Montgomery, Ala.			30.22	767.6	52	—11.1	79	NE	4	1.8			10		0.19	4.8		
Morgantown, West Virginia			30.44	773.2	21	— 6.1	64	Calm	0	0		0	0		0	0		
Mt. Washington, N. H.			29.55	750.6	—11	—23.9	100	NW	74	33.1			Fog		0.12	3.0	Fog	
Nashville, Tenn.			30.27	768.8	30	— 1.1	68	N	1	0.4		0	2		0	0		
New Haven, Conn.			30.30	769.6	23	— 5.0	73	W	7	3.1		0	2		0	0		
New London, Conn.			30.29	769.4	21	— 6.1	78	W	9	4.0		0	0		0.30	7.6		
New Orleans, La.			30.11	764.8	54	12.2	84	E	14	6.3			Fog		0.56	14.2	Fog	
Newport, R. I.																		
New York, N. Y.			30.38	771.6	21	— 6.1	72	W	8	3.6		Haze	Sm'e		0.20	5.1		
Norfolk, Va.			30.38	771.6	35	— 1.7	74	NE	6	2.7		0	Sm'e		0.10	2.5		
North Platte, Neb.			29.73	755.1	22	— 5.6	86	W	4	1.8		0	5		0	0		
Omaha, Neb.			29.96	761.0	27	— 2.8	76	S	6	2.7		5	0		0	0		
Oswego, N. Y.			30.39	771.9	20	— 6.7	85	NW	20	8.9		Haze	2		0.08	2.0	Clearing	
Peck's Beach			30.44	773.2	23	— 5.0	86	NW	5	2.2		Haze	Haze		0	0		
Pembina, D. T.			29.94	760.5	7	—13.9	87	SE	4	1.8		2	0		0	0		
Philadelphia, Penn.			30.43	772.9	24	— 4.4	60	NW	12	5.4		0	0		0.12	3.0		
Pike's Peak, C. T.			29.54	750.3	— 8	—22.2	78	W	32	14.3		0	2		0.10	2.5		
Pittsburgh, Penn.			30.46	773.7	19	— 7.2	69	Calm	0	0			Fog		0	0	Fog	
Port Huron, Mich.			30.46	773.7	1	—17.2	85	SW	6	2.7		5	Haze		0	0		
Portland, Maine			30.11	764.8	20	— 6.7	85	NW	9	4.0		2	Haze	NW	0.20	5.1		
Portland, Or.			30.12	765.0	28	— 2.2	88	NW	4	1.8		Haze	Haze		0	0		
Punta Rassa, Fla.			30.21	767.3	65	18.3	83	E	4	1.8		2			0	0	Fog	
Rochester, N. Y.			30.41	772.4	18	— 7.8	84	W	10	4.5			10		0	0		
Salt Lake City, Utah			30.11	764.8	17	— 8.3	67	E	1	0.4		5	0		0.17	4.3		
Sandy Hook, N. J.			30.36	771.1	23	— 5.0	73	NW	18	8.0		0	Haze		0	0		
San Diego, Cal.			30.09	764.3	45	— 7.2	67	NE	8	3.6		0	8		0	0		
San Francisco, Cal.			29.97	761.2	53	11.7	93	SE	8	3.6			10		1.05	26.7	Light rain	
Santa Fe, N. M.			29.62	752.3	17	— 8.3	60	NE	3	1.3		5	0	W	0	0		
Savannah, Georgia			30.27	768.8	54	12.2	86	NE	8	3.6			10		0.43	10.9		
Shreveport, La.			30.07	763.8	43	6.1	66	N	4	1.8			10		0	0		
Springfield, Mass.			30.26	768.6	24	— 4.4	69	NW	12	5.4		5	0	NW	0.19	4.8		
St. Louis, Mo.			30.25	768.3	28	— 2.2	77	S	8	3.6		0	2		0	0		
St. Marks, Fla.			30.19	766.8	65	18.3	94	S	3	1.3			Fog		0.18	4.6	Fog	
St. Paul, Minn.			29.85	758.2	22	— 5.6	72	SE	4	1.8			10		0	0		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.38	771.6	18	— 7.8	67	NW	4	1.8		0	Haze					
Toledo, Ohio			30.44	773.2	10	—12.2	69	SE	3	1.3		2	Sm'e					
Tybee Island, Ga.			30.31	768.9	49	9.4	85	NE	22	9.8			10		0	0		
Vicksburg, Miss.			30.16	766.0	46	7.8	67	Calm	0	0			10		0	0		
Virginia City, Mon.			29.72	754.9	— 2	—18.9	69	SE	2	0.9		0	0		0	0		
Washington, D. C.			30.44	773.2	28	— 2.2	67	N	8	3.6		0	Sm'e		0	0		
Wilmington, N. C.			30.32	770.1	42	5.6	58	NE	8	3.6		2	2	W	0.36	9.1		
Wood's Hole, Mass.			30.26	768.6	23	— 5.0	60	NW	16	7.1		0	0		0	0		
Wytheville, Va.			30.26	768.6	21	— 6.1	85	W	3	1.3		0	0		0	0	Frost	
Yankton, D. T.			30.09	764.3	7	—13.9	76	Calm	0	0			10		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.05	763.3			73	22.8		NE	4	1.8		5	5	E	0	0		
Point-a-pitre, Guadaloupe, W.I.	29.97	761.2			73	22.8		E	Blank	Blank			10		0.20	5.1	Clearing	
Havana, Cuba, W. I.			29.97	761.5	71	21.7	85	SE	1	0.4		0	Haze		0	0		
Honolulu, Oahu, Sandwich Is.			30.21	767.3	69	20.6	76	NE	2	0.9		0	2		0	0		
Kingston, Jamaica, W. I.			30.18	766.6	79	26.1	85	SE	17	7.6		9	8	SE	0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.93	760.2	69	20.6	79	N	7	3.1		2	0	NE	0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.04	763.0	44.6	7.0	42	SW			5		6		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.00	762.0	37.0	2.8	66	S			3		7		0	0		I. R. Cen. Met. Ins., Hungary
Cracow			29.82	757.4	36.1	2.3	91	W			2		10		0.055	1.4		I. R. Observatory.
Eperies			29.94	760.4	31.5	— 0.3	83	SE			4		10		0	0		Julius Mikolik.
Gratz			29.96	761.1	36.5	2.5	58	SW			2–5		2.5		0	0		Andreas Rospini.
Hermannstadt			30.15	765.7	36.0	2.2	56	SW			1		3		0	0		Prof. C. L. Reissenberger.
Kremsmünster			29.92	759.9	46.4	8.0	67	W			3		2		0.421	10.7		Prof. C. Wagner.
Lemberg			29.89	759.1	33.4	0.8	79	SW			4		10					Dr. T. Stanecki.
Nytregyhaza			30.06	763.5	34.5	1.4	89	SW			4		10		0	0		Habzsuda Daniel.
Pola			30.19	766.9	46.6	8.1	58	WSW			1		8		0	0		I. R. Hydrographic Office.
Szegedin			30.06	763.5	38.8	3.8	60	SW			3		3		0	0		Karl Stancel.
Trieste			30.17	766.4	45.3	7.4	74	WSW			0		10		0.283	7.2		Prof. V. Farolfi.
Vienna			29.84	758.0	52.5	11.4	48	W			2		10		0.153	3.9		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.21	742.0			44.2	6.8	89	WSW			2		10		0.157	4.00	Rainy	Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.02	752.3	41.0	5.0		SW	23	10.3					0.360	9.14		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			28.73	729.7				SW			3		5					William McNeil.
Armagh Observatory			28.71	729.2	41.8	5.4		S	14	6.3								Stillman Cull
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			28.87	733.3	44.0	6.7		SSW			4		5				Showery	The Liverpool Observatory
Birr Castle			28.76	730.7	39.3	4.1		WSW			2		10				Rain	J. Dreyer.
Bradford																		J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.13	739.9	47.3	8.5		SW			5		7				Rainy	H. Todd.
Cape Town, Cape Colony			29.94	760.5	76	24.4		SE			3		5					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.99	761.7			78.4	25.8	47	S	15	6.7			0					The Royal Observatory.
Cardington			29.12	739.6	47.0	8.3		WSW			6		2					John McLaren.
Carlisle			28.73	729.5	43.0	6.1		S			4		8		0.25	6.3	Snowy	T. Bell.
Chatham			29.51	749.5	40.8	4.9		W			5		8				Rain	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.93	760.2	74.0	23.3		NE			3		10					Sgt. W. F. Hopkins
Dartmoor			29.29	743.9	42.2	5.7		SW			9		10					R. E. Power.
Donaghadee			29.70	754.4	43	6.1		S			3		10					J. Mac Gowan, Jr.
Dover			29.28	743.7	47	8.3							4					J. Costello.
Dublin																		
Durham Observatory			28.84	732.5	43.3	6.3		SSW			5		0					G. Goldney.
Eccles, (near Manchester)			28.94	735.1	45.1	7.3		S	6.4	2.9			10				Mist	Thomas Mackereth.
Falmouth Observatory			29.10	739.1	49.1	95.		SW	50	22.3			9				Squally	The Fa mouth Observatory.
Fort Napier, (Natal)			29.68	753.9	88.5	31.4		NW			4		4					Pvt. G. Salmon.
Galway			28.66	727.9	40	4.4		N			2		10				Rain	Queen's College.
Gibraltar, (Mediterranean Sea)			30.31	769.9	61.0	16.1		WSW			4		10					Sgt. J. Brewster.
Glasgow Observatory			28.72	729.5	40.2	4.6		SW			4		3					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.09	738.9	48.5	9.2		W			4		3					E. Toller.
Great Yarmouth			29.14	740.1	47	8.3		WSW			5		7					G. T. Watson.
Greenwich Royal Observatory			29.21	741.9	48.4	9.1		WSW			5		9					The Royal Observatory.
Guernsey			29.35	745.5	41.5	5.3		SW			7		8				Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			28.87	733.3	43.6	6.4		SSW			3		9					Moorside Observatory.
Halifax, Nova Scotia			30.35	770.9	13.8	—10.1		NW			2		2					Corp'l J. Y. Thompson.
Helston			30.15	765.8	51	10.6		SW			7		5				Rain	W. B. Moyle.
Holyhead			28.76	730.5	45	7.2		SSW			6		6				Rain & Hail	John Tilston.
Hull Park																		
Kew Observatory			29.21	741.9	48.1	8.9		SSW	32	14.3			10				Rain	The Meteorological Office.
Kingstown			28.73	729.7	44	6.7		S			2		6					George Mitchell.
Lampeter																		
Leicester			29.05	737.9	47	8.3		SW			6		8					William J. Harrison
Llandudno			28.78	731.0	47.5	8.6		SW			5		4.5					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.47	773.9	55.4	13.0		N			1		0					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			28.59	726.2	4 .0	4.4		Calm			0		8					William D. Penny.
Nassau, (Bahamas)			30.21	767.3	69.3	20.7		NE			1		6					Surgeon I. Jameson.
North Shields											5							John Wm. Irvine.
Nottingham			28.98	736.1	49.7	9.8		SSW			4		6					E. J. Lowe.
Osborne, New Barn Cottage			29.23	742.4	46.8	8.2		SW			6-7		7					J. R. Mann.
Oscott, (near Birmingham)			29.01	736.8	47.2	8.4		S			6		7		0	0	Rain	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.10	739.1	49	9.4		SW			6		9				Fog	Radcliffe Observatory.
Plymouth			29.14	740.1	48	8.9		SW					6					John Merrifield.
Portishead																		
Prospect, Bermuda											8							
Roche's Point			28.74	730.0	41	5.0		W					10				Squally	W. Kennedy.
Saint Ann's Head																		John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			28.65	727.7	36.2	2.3		ESE	51	22.3			10				Rain	Rev. Dr. Clouston.
Scarboro'											2							F. Heard.
Scutari, Turkey			30.27	768.8	44.0	6.7		NE			6		9					W. H. Lyne.
Sheffield			28.95	735.1	46.1	7.8		WSW					5					W. F. Cooper.
Sidmouth											5						Rain	
Silloth Rectory			28.78	731.0	44.8	7.1		SW			3		10					Francis Redford.
Somerleyton, (Lowestoft)			29.14	740.1	48.2	9.0		W			4		1		0.300	7.62		Rev. C. J. Steward.
Stonyhurst Observatory			28.88	733.5	42.2	5.7		SW			2		10				Rainy	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			28.54	724.9	37	2.8		WSW			2-3		10					John Smith.
Strathfield Turgiss			29.12	739.6	47.1	8.4		SW					4					Charles H. Griffith.
Streatley Vicarage											7						Rain	Rev. John Slatter.
Sumburgh Head, Shetland Is.			20.87	733.3	37	2.8		SE					10					William Lawrence.
Taunton College											1						Rain	
Thurso			28.62	726.9	38	3.3		ESE			6		10					John Trotter.
Truro, Royal Institution			29.00	736.6	50	10.0		W			10		8					Royal Institution.
Valencia			29.90	759.4	45.3	7.4		SSW	33	14 7			10					Meteorological Observatory
Wick																		
Wisbech			29.07	738.4	46.7	8.2		SW			5		4					S. H. Miller.
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.

DANISH SERIES.

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

Copenhagen			29.39	746.5	31.6	— 0.2	96	SE			8		10				Snow	
Fanöe			29.13	739.8	33.8	1.0	100	SSE			4		10				Rain	
Thorshavn, (Faröe)			29.02	737.1	39.7	4.3	84	ENE			8		10				Rain	
Vestervig			29.11	739.4	29.8	— 1.2	96	ESE			9		10				Snow	
Stykkisholm, (Iceland)			29.36	745.8	23.4	— 4.8	86	E			2		5					
Godthaab, (Greenland)			29.89	759.3	11.3	—11.5		NE			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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.68	753.9	50.0	10.0	64	SW			3		10		0.197	5.0		Normal School.
Amiens			29.40	749.1	50.0	10.0	84	WSW			8		8		0.139	4.0		Normal School.
Baumette, (near Angers)			29.66	753.3	51.6	10.9	60	SW	54.1	2.42			5		0.118	3.0		Baumette Observatory.
Beauvais			29.56	750.7	49.3	9.6	62	W			6		5		0.030	0.75		Normal School.
Besançon			29.87	758.8	52.5	11.4	49	SSE			3		10		0.150	3.8		Normal School.
Bourges			29.86	758.4	47.5	8.6	86	SW			2		3		0.008	0.2		Normal School.
Brest			29.40	746.8	46.6	8.1	77	WSW			*				0.169	4.3	*Violent gusts.	Naval Observatory.
Caen			29.50	749.2	50.4	10.2	70	SSW			8		3		0.142	3.6		Normal School.
Carcassonne																		
Chartres																		
Chaumont			29.72	754.9	49.8	9.9		SW			8		10		0.197	5.0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			29.67	753.6	50.4	10.2	97	SW			8		3		0.047	1.2		Normal School.
Mirecourt			29.71	754.6	45.9	7.6		SSW			6		10		0	0		Normal School.
Mont-Louis	24.88	632.0			43.2	6.2	73	SW	18.6	8.33			5		0	0		—. Falguère.
Montsouris (near Paris)			29.59	751.6	50.4	10.2	73	WSW	18.8	8.4			9		0.004	0.1		Marié Davy.
Orleans			29.72	754.8	48.6	9.2	69	W			4		8		0.217	5.5		Normal School.
Paris			29.76	755.9	49.8	9.9	64	SW			6		5		0.042	1.06		National Observatory.
Parthenay			29.81	757.1	52.7	11.5	86	W			2		8		0.118	3.0		Normal School.
Perpignan	29.91	759.8			50.7	10.4	95	ENE	3.7	1.67			10		0	0		Dr. Fines.
Roche sur Yon			29.81	757.3	52.5	11.4	95	SW			6		5		0.072	1.8		Normal School.
Rouen			29.53	750.0	50.4	10.2	72	ESE			6		5		0.146	3.7		Normal School.
Saint Lo			29.52	749.9	49.5	9.7	95	W			2		10		0.295	7.5		Normal School.
Saint Maur, (near Paris)			29.62	752.4	50.7	10.4	64	WSW			5		3		0.102	2.6	Rainy	E. Renou.
Saint Pierre, (Martinique)																		
Tours			29.76	755.9	51.6	10.9	63	W			6		2		0.028	0.7		C. Marquet.
Tunis, (Africa)			30.33	770.3	58.5	14.7	72	NNE			3		8		0	0		—. Jacques.
Versailles, (near Paris)			29.59	751.7	50.0	10.0	66	W			6		3		0.606	0.15		Dr. A. Bérigny.
Villefranche			29.95	760.8	46.9	8.3	87	SSE			6		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.80	756.8	46.8	8.2	72	SW			6		6		0.189	4.8		Prof. Hoh.
Berlin			29.57	751.2	41.0	5.0	94	S			2		10		0.110	2.8	Rain	Prof. Arndt.
Breslau			29.71	754.6	39.4	4.1	82	S			3		10		0.035	0.9	Rain	Dr. P. Neugebauer.
Carlsruhe			29.68	753.8	52.9	11.6	53	SW			10		9		0	0		A. Lenz.
Cassel			29.46	748.4	48.0	8.9	94	SSE			9		8		0.295	7.5		Dr. H. Mohl.
Cologne			29.70	754.3	50.4	10.2	82	SW			2		8		0.295	7.5	Rain	Dr. Gaithe.
Emden			29.24	742.7	45.7	7.6	97	SSW			2		10		0.472	12.0		Prof. Prestel.
Frankfort on the Main			29.72	754.8	50.9	10.5	68	S-W			4		8		0.319	8.1		Physical Society.
Friedrichshafen			29.87	758.6	47.3	8.5	73	W					9		0.299	7.6	Rain	M. Wilhelm.
Hamburg			29.33	745.1	46.6	8.1	95	SW			5		10		0.496	12.6	Rain	W. Reinart.
Kiel			29.24	742.6	44.8	7.1	91	SSW			3		10		0.728	18.5		Prof. G. Karsten.
Königsberg			29.80	756.9	24.8	— 4.0	83	NE			2		9		0.008	0.2	Snow	Prof. E. Luther.
Köslin			29.81	757.1	31.8	— 0.1		SE			4				0.063	1.6		Dr. Tägert.
Leipsic			29.63	752.7	47.5	8.6	74	SW			6		9		0.213	5.4	Stormy	Prof. Bruhns.
Münster			29.35	745.6	47.3	8.5	97	SW			7		10		0.421	10.7	Rain	Prof. E. Heis.
Posen			29.65	753.0	35.1	1.7	98	SSE			5		10		0.043	1.1		Dr. Magener.
Strassburg, (in Alsace)			29.74	755.4	52.2	11.2	63	S					3		0.016	0.4		Hartwig and Fulk.
Stuttgart			29.72	755.0	51.6	10.9	53	SW					7		0.016	0.4	Rainy	Mr. Wurth.
Thorn			29.67	753.7	33.3	0.7	86	SE			3		10		0	0		Dr. Hagenbalg.
Treves, (Trier)			29.55	750.6	50.0	10.0	63	SW			10		10		0	0	Stormy	Prof. Flesch.
Wustrow			29.40	746.8	33.3	0.7	100	ESE			4		10		0.114	2.9	Snow & Rain	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.19	766.9	36.7	2.6	66	ENE	1.9	0.8			8		0	0		
Mondovi			30.17	766.2	38.7	3.7	41	NNW			2		7		0	0		
Genoa			30.17	766.3	50.4	10.2	74	E	7.2	3.2			10		0	0		
Pavia			30.19	766.7	38.5	3.6	70	SW			1		10		0	0		
Verona																		
Padua			30.17	756.3	38.8	3.8	39	NW	0.6	0.3			10	WSW	0	0		
Parma			30.16	766.1	37.4	3.0		SW			2		10		0	0		
Bologna			30.20	767.0	40.8	4.9	41	W			2		7		0	0		
Urbino			30.23	767.9	45.7	7.6	51	WSW			6		10		0	0		
Ancona			30.20	767.2	46.8	8.2	60	E			2		10		0	0		
Florence			30.24	768.1	41.4	5.2	62	E	0	0			10		0	0		
Siena																		
Livorno			30.22	767.5	42.6	5.9	66	ENE			4		10	W	0	0		
Rome			30.31	769.8	52.7	11.5	55	NNE			4		10		0	0		
Naples, O.U.			30.34	770.6	53.1	11.7	55	S			2		0	SW	0	0		
Naples, S. R.	29.78	756.5			49.6	9.8	64	SW			6		4		0	0		Prof. F. Brioschi.
Lecce			30.30	769.6	48.0	8.9	49	NW	9.3	4.1			0		0	0		
Cosenza			30.33	770.3	49.3	9.6	52	NNW			1		0		0	0		
Catania, (Sicily)			30.35	770.8	52.2	11.2	58	ESE			2		0		0	0		
Riposto																		
Palermo			30.27	768.8	55.0	12.8	49	NE			4		0		0	0		

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 140.0 meters, or 488.8 feet.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.36	745.7	45.7	7.6		W			5							
Flushing			29.15	740.4	47.5	8.6		S			7							
Helder			29.13	740.0	45.3	7.4		SW			6							
Utrecht			29.24	742.7	46.6	8.1		SSW			6		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.98	761.4			55.4	13.0	84	SW	15.0	6.7			10					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.80	756.9	32.9	0.5	94	SE	4.5	2			10					Astronomical Observatory.
Wilna			29.93	760.2	14.9	— 9.5	81	ENE	4.5	2			2					Astronomical Observatory.
Dorpat			29.95	760.7	— 0.4	—18.0	88	WNW	6.7	3			10					Physical Cabinet.
St. Petersburg			29.75	755.7	—11.6	—24.2	85	WNW	13.4	6			0					Central Physical Observatory.
Kieff			30.09	764.2	26.8	— 2.9	61	W	8.9	4			7					Physical Cabinet.
Nikolaiev			30.28	769.0	32.7	0.4	66	SW	4.5	2			0					
Kertch			30.23	767.9	34.0	4.1	63	WNW	8.9	4			2					Lagorio.
Moscow			29.79	756.7	0.3	—17.6	73	W	10.1	4.5			6					Meteorological Observatory.
Lugan			30.01	762.2	28.8	— 1.8	68	WSW	13.4	6			8					Meteorological Observatory.
Archangel			29.42	747.3	— 8.3	—22.4	81	NNW	10.1	4.5			10					Ogorodnikof.
Tiflis			30.03	762.8	60.4	15.8	46	NNW	16.8	7.5			2					Physical Observatory.
Astrakhan			30.06	763.4	47.3	8.5	74	SSW	4.5	2			7					Sebastianof.
Kasan			29.65	753.0	8.1	—13.3	92	NW	10.1	4.5			10					Physical Cabinet.
Orenburg			29.98	761.4	33.4	0.8	78	SE	10.1	4.5			10					Tschernischef.
Ekaterinburg			29.94	760.6	19.8	— 6.8	84	SE	7.8	3.5			10					Meteorological Observatory.
Kasaly			30.22	767.7	34.0	1.1	90	Calm	0	0			3					Babrof.
Tashkend																		Michelson.
Barnaul			30.65	778.6	— 2.0	—18.9	70	SW	4.5	2			0					Meteorological Observatory.
Yeniseisk			30.11	764.8	12.2	—11.0	95	E	10.1	4.5			10				Snow	Marks.
Irkutsk			30.39	771.8	— 0.2	—17.9	81	NE					0					Usolzef.
Oorga			30.75	781.0	— 3.6	—19.8	100	Calm	0	0			0					Mossin.
Peking, (China)			30.33	770.4	23.9	— 4.5	37	N	7.8	3.5			0					Physical Observatory.
Nertchinsk			30.56	776.1	—23.8	—31.0	89	Calm	0	0			3					Meteorological Observatory.
Vladivostock																		
Nikolaievsk								E	13.4	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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.27	768.9	46.0	7.8	93	SW	13.6	6.1			10		.004	0.1		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.62	752.4	−14.4	−25.8	80	Calm			0		2					Dr. H. H. Hildebrandsson.
Hernosand			29.64	752.8	−20.2	−29.0	100	NE			2		2					
Upsala			29.81	757.2	−14.8	−26.0	100	SSE			2		0					
Stockholm			29.76	755.8	−10.8	−23.8	66	NW			1		1		0.039	1.0		
Wisby			29.83	757.7	12.9	−10.6	100	SE			1		0		0.072	1.8		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.56	725.3			46.8	8.2	56	SW			2		10		0	0		The Observatory.
Zurich	28.29	716.4			47.3	8.5	62	W			4		7		0.118	3.0		Prof. B. Billwiller.

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			30.25	768.4	43.2	6.2	63	NE	12.3	5.5			10					
Fao, (Persian Gulf)			30.32	770.0	57.2	14.0		NW			3		0					
Salonica			30.27	768.8	49.6	9.8		NW			1		0					
Valona			30.15	765.9	48.2	9.0		NW			3		0					
Varna			30.16	766.0	41.0	5.0		SW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.32	770.1	13	−10.6	90	NW	8	3.6		0	2		0	0		
Chatham, N. B.			30.38	771.6	−8	−22.2	100	SW	1	0.4		0	0		0	0		
Charlottetown, P. E. Island			30.34	770.6	9	−12.8	98	NW	5	2.2		0	0		0	0		
Father Point, Quebec			30.44	773.2	−7	−21.7	77	W	7	3.1		2	0	W	0	0		
Fort Garry, Manitoba			30.21	767.3	−16	−26.7	94	NW	5	2.2		5	5	NW				
Halifax, N. S.			30.20	767.1	11	−11.7	61	NW	6	2.7		0	0		0	0		
Kingston, Ontario			30.17	766.3	7	−13.9	86	E	5	2.2			10		0	0		
Montreal, Quebec			30.38	771.6	−4	−20.0	82	E	15	6.7			10		0	0		
Ottawa, Ontario			30.27	768.8	2	−16.7	72	NE	5	2.2			10		0	0		
Parry Sound, Ontario			30.02	762.5	12	−11.1	81	SE	15	6.7			10		0	0		
Port Dover, Ontario			29.99	761.7	20	−6.7	85	NE	6	2.7		10	0		0	0		
Port Stanley, Ontario			29.98	761.5	24	−4.4	98	E	9	4.0			10		0.05	1.3	Heavy snow	
Quebec, Quebec			30.52	775.2	−5	−20.6	63	Calm	0	0			10		0	0		
Saugeen, Ontario			29.94	760.5	22	−5.6	93	SE	4	1.8			10		0	0		
Sydney, C. B.			30.15	765.8	22	−5.6	80	N	11	4.9		0	2		0.02	0.5		
Toronto, Ontario			30.01	762.2	26	−3.3	93	E	9	4.0			10		0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From —	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.38	771.6	0	—17.8	72	Calm	0	0			Fog		0	0	Fog.	
Alpena, Mich.			29.86	758.4	21	— 6.1	85	S	4	1.8			10		0	0		
Atlantic City, N. J.			30.32	770.1	33	0.6	89	E	10	4.5			10		0	0		
Augusta, Ga.			30.12	765.0	51	10.6	93	Calm	0	0			10		0.05	1.3	Light rain.	
Baltimore, Md.			30.30	769.6	29	— 1.7	89	NE	7	3.1			10		0	0	Slee	
Barnegat, N. J.			30.27	768.8	34	1.1	79	E	2	0.9			10		0	0		
Benton, Montana.			29.99	761.7	—14	—25.6	100	Calm	0	0		0	0		0	0		
Bismarck, Dakota.			30.28	769.1	—17	—27.2	37	N	1	0.4		0	Haze		0	0		
Boston, Mass.			30.46	773.7	10	—12.2	79	NW	6	2.7			Haze		0	0		
Breckenridge, Minn.			30.21	767.3	—10	—23.3	85	NW	4	1.8		0	0		0.02	0.5		
Buffalo, N. Y.			29.98	761.5	28	— 2.2	88	SW	4	1.8		Haze	Haze		0	0		
Burlington, Vt.			30.37	771.4	4	—15.6	74	S	1	0.4			10		0	0		
Cairo, Ill.			30.09	764.3	37	2.8	80	W	8	3.6		0	5		0.06	1.5		
Cape Hatteras, N. C.			30.16	766.0	56	13.3	87	SE	20	8.9			10				Light rain.	
Cape Henry, Va.			30.17	766.3	43	6.1	92	SE	20	8.9			10		0.09	2.3	Light rain.	
Cape May, N. J.			30.29	769.4	32	0.0	90	SW	6	2.7			10		0	0		
Charleston, S. C.			30.16	776.0	49	9.4	90	N	4	1.8			Fog		0.01	0.2	Fog.	
Cheyenne, W. T.			29.93	760.2	16	— 8.9	52	W	8	3.6		0	0		0	0		
Chicago, Ill.			29.88	758.9	31	— 0.6	89	W	8	3.6			10		0.02	0.5		
Cincinnati, Ohio.			29.89	759.2	37	2.8	80	NW	4	1.8			10		0.34	8.6	Light rain.	
Cleveland, Ohio.			29.84	757.9	34	1.1	89	SE	12	5.4			10		0.01	0.2	Light rain.	
Colorado Springs, Col.			29.96	761.0	4	—15.6	74	NW	6	2.7		5	Haze	W	0	0		
Corsicana, Texas.			30.28	769.1	34	1.1	90	N	9	4.0		5	0		0.12	3.0		
Davenport, Iowa.			30.16	766.0	5	—15.0	88	W	8	3.6		0	0		0.01	0.2		
Denver, Col.			30.02	762.5	7	—13.0	54	S	2	0.9		5	0		0	0		
Detroit, Mich.			29.98	758.7	25	— 3.9	88	SE	1	0.4			10		0.10	2.5	Light snow	
Dodge City, Kansas.			30.15	765.8	14	—10.0	63	N	8	3.6		0	0		0	0		
Dubuque, Iowa.			30.11	764.8	7	—13.9	77	W	6	2.7		0	0					
Duluth, Minn.			30.08	764.0	0	—17.8	69	S	4	1.8		0	5		0.02	0.5		
Eastport, Me.			30.43	772.9	2	—16.7	72	N	15	6.7		5	0	NW	0	0		
Erie, Penn.			29.89	759.2	32	0.0	89	SE	28	12.5			10				Light rain.	
Escanaba, Mich.			29.82	757.4	21	— 6.1	85	N	8	3.6			10		0.02	0.5	Light snow	
Fort Gibson, I. T.			30.28	769.1	26	— 3.3	88	Calm	0	0		0	0		0	0		
Fort St. Michael, Alaska.																		
Fort Sully, D. T.			30.37	771.4	— 5	—20.6	63	N	2	0.9		2	0	NW				
Galveston, Texas.			30.15	765.8	50	10.0	93	NE	28	12.5			10		1.14	28.9		
Grand Haven, Mich.			29.80	756.9	36	2.2	70	W	5	2.2			10		0	0		
Indianapolis, Ind.			29.89	759.2	35	1.7	90	SW	3	1.3			10		0.10	2.5	Sleet.	
Indianola, Texas.			30.17	766.3	51	10.6	93	N	16	7.1			10		0.12	3.0		
Jacksonville, Fla.			30.15	765.8	56	13.3	93	SE	3	1.3			Fog		0	0	Fog.	
Keokuk, Iowa.			30.15	765.8	12	—11.1	61	NW	11	4.9		0	0		0.03	0.8		
Key West, Fla.			30.16	766.0	73	22.8	72	SE	10	4.5		Haze	2		0	0		
Kittyhawk, N. C.			30.43	772.9	45	7.2	100	E	5	2.2			10		0	0		
Knoxville, Tenn.			29.95	760.7	41	5.0	91	N	4	1.8			10		0.60	15.2		
La Crosse, Wis.			30.10	764.5	4	—15.6	48	W	6	2.7		0	0		0	0		
Leavenworth, Kan.			30.28	769.1	19	— 7.2	85	NW	8	3.6			10		0	0		
Lexington, Ky.			29.93	760.2	40	4.4	91	W	10	4.5			10		0	0		
Long Branch, N. J.			30.29	769.3	32	0.0	100	SE	16	7.1			10		0	0		
Louisville, Ky.			29.92	760.0	38	3.3	90	SW	4	1.8			10		0.20	5.1	Heavy rain	
Lynchburg, Va.			30.24	768.1	32	0.0	89	N	2	0.9			10		0.45	11.4	Light rain.	
Malone, N. Y.																		
Marquette, Mich.			29.87	758.7	19	— 7.2	84	W	12	5.4			10		0.03	0.8		
Memphis, Tenn.			30.14	765.5	37	2.8	90	Calm	0	0		0	2		0.26	6.6		
Milwaukee, Wisconsin.			29.88	758.9	27	— 2.8	88	NW	8	3.6			10		0.01	0.2		
Mobile, Ala.			30.03	762.8	58	14.4	93	S	4	1.8			10		0.78	19.8		
Montgomery, Ala.			30.05	763.3	59	15.0	97	S	3	1.3			10		1.91	48.5	Light rain.	
Morgantown, West Virginia.			29.89	759.2	44	6.7	96	S	4	1.8			10		0	0	Light rain.	
Mt. Washington, N. H.			30.17	766.3	17	— 8.3	83	NW	14	3.6		0	0		0	0		
Nashville, Tenn.			30.01	762.2	45	7.2	85	W	7	3.1			10		0.78	19.8	Light rain.	
New Haven, Conn.			30.43	772.9	12	—11.1	61	NE	13	5.8			10		0	0		
New London, Conn.			30.48	774.2	13	—10.6	81	N	6	2.7			10		0	0		
New Orleans, La.			30.04	763.0	64	17.8	89	SW	7	3.1		2	8	SW	0.97	24.6		
Newport, R. I.																		
New York, N. Y.			30.37	771.4	22	— 5.6	72	NE	16	7.1			10		0	0		
Norfolk, Va.			30.16	766.0	45	7.2	92	SE	9	4.0			10		0.08	2.0	Light rain.	
North Platte, Neb.			30.02	762.5	9	—12.8	78	SW	6	2.7		0	0		0	0		
Omaha, Neb.			30.39	771.9	11	—11.7	100	NW	6	2.7		0	10		0	0		
Oswego, N. Y.			30.33	765.3	24	— 4.4	86	SE	12	5.4			10		0	0		
Peck's Beach.			30.33	770.4	23	— 5.0	88	NE	4	1.8			10		0	0		
Pembina, D. T.			30.22	767.6	—15	—26.1	72	NW	4	1.8		0	5		0	0		
Philadelphia, Penn.			30.37	771.4	23	— 5.0	90	NE	7	3.1			10		0	0		
Pike's Peak, C. T.			29.70	754.4	— 1	—18.3	67	NW	20	8.9		0	2		0	0		
Pittsburgh, Penn.			29.95	760.7	34	1.1	90	NE	4	1.8			10		0.09	2.3	Light rain.	
Port Huron, Mich.			29.91	759.7	22	— 5.6	100	SE	5	2.2			10		0.04	1.0	Light snow.	
Portland, Maine.			30.50	774.7	8	—13.3	78	Calm	0	0		Haze	Haze		0	0		
Portland, Or.			30.02	762.5	34	1.1	79	SE	4	1.8			10		0	0		
Punta Rassa, Fla.			30.18	766.6	67	19.4	90	SE	3	1.3		5	Haze	SW	0	0		
Rochester, N. Y.			30.01	762.2	26	—13.3	76	SE	10	4.5		Haze	Haze		0	0		
Salt Lake City, Utah.			30.05	763.3	18	— 7.8	52	SE	2	0.9		5	0		0	0		
Sandy Hook, N. J.			30.34	770.6	27	— 2.8	28	E	12	5.4			10		0	0		
San Diego, Cal.			30.04	763.0	52	11.1	86	NE	4	1.8			10		0	0		
San Francisco, Cal.			29.97	761.2	50	10.0	96	NW	2	0.9			Fog		1.25	31.7	Fog.	
Santa Fe, N. M.			29.75	755.6	16	— 8.9	58	SE	4	1.8		2	0	SW	0	0		
Savannah, Georgia.			30.15	765.8	52	11.1	100	E	4	1.8			Fog		0.04	1.0	Fog.	
Shreveport, La.			30.20	767.1	44	6.7	100	N	4	1.8			10		0.54	13.7		
Springfield, Mass.			30.46	773.7	7	—13.9	66	N	2	0.9			10		0	0	Threatening	
St. Louis, Mo.			30.11	764.8	32	0.0	79	NW	20	8.9			10		0.10	2.5	Clearing.	
St. Marks, Fla.			30.09	764.0	64	17.8	94	SE	16	7.1		Haze	8		0.02	0.5		
St. Paul, Minn.			30.10	764.5	— 5	—20.6	82	W	4	1.8		0	5		0	0		
St. Paul's Island, Alaska.																		
Squan Beach, N. J.			30.32	770.1	35	1.7	80	SE	6	2.7			10		0	0		
Toledo, Ohio.			29.85	758.2	28	— 2.2	88	Calm	0	0			10		0.03	0.8	Light snow.	
Tybee Island, Ga.			30.17	766.3	51	10.6	100	NE	1	0.4					0	0	Fog.	
Vicksburg, Miss.			30.19	766.8	45	7.2	87	Calm	0	0			10		3.76	95.5		
Virginia City, Mon.			29.70	754.4	— 1	—18.3	72	Calm	0	0			10		0	0		
Washington, D. C.			30.28	769.1	28	— 2.2	94	NE	8	3.6			10		0.04	1.0	Light rain.	
Wilmington, N. C.			30.12	765.0	46	7.8	100	Calm	0	0			10		0.16	4.1		
Wood's Hole, Mass.			30.40	774.4	11	—11.7	60	E	6	2.7			10		0	0		
Wytheville, Va.			29.91	759.7	35	1.7	80	Calm	0	0			10		0	0	Light rain.	
Yankton, D. T.			30.38	771.6	2	—16.7	72	W	3	1.3			10		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.					80	26.7		E	3	1.3		5	5	E	0	0		
Point-a-pitre, Guadaloupe, W.I.					72	22.2		E	Blank	Blank		5	0		0	0		
Havana, Cuba, W. I.			29.97	761.5	70	21.1	85	SE	1	0.4		0	0		0	0		
Honolulu, Oahu, Sandwich Is.			30.05	762.5	69	20.6	75	NE	2	0.9		0	0		0	0		
Kingston, Jamaica, W. I.			30.26	768.6	76	24.4		Calm	0	0		0	0		0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.93	760.2	72	22.2	75	NE	7	3.1		0	0		Blank	Blank		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerlville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tobessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.76	755.8	33.4	0.8	83	NE			2		4		0.031	0.8		Prof. Ivan Stozir.
Buda-Pesth			29.72	755.0	36.0	2.3	94	S			3		8		0.161	4.1		I. R. Cen. Met. Ins., Hungary
Cracow			29.58	751.3	38.8	3.8	83	W			3		10		0.059	1.5		I. R. Observatory.
Eperies			29.70	754.3	31.8	— 0.1	98	SE			1		10		0.065	1.65		Julius Mikolik.
Gratz			29.71	754.6	44.8	7.1	70	W			2–5		2.5		0.020	0.5		Andreas Rospini.
Hermanostadt			29.82	757.6	35.8	2.1	66	ESE			1		5		0	0		Prof. C. L. Reissenberger.
Kremsmünster			29.71	754.7	45.0	7.2	56	W			2		2		0	0		Prof. C. Wagner.
Lemberg			29.57	751.1	40.8	4.9	98	SW			3		4		0.008	0.2		Dr. T. Stanecki.
Nyiregyhaza			29.76	755.8	33.8	1.0	92	SW			2		10		0	0		Habzsuda Daniel.
Pola			29.83	757.6	46.8	8.2	88	NNW			2		9		0.044	1.13		I. R. Hydrographic Office.
Szegedin			29.79	756.6	35.6	2.0	85	S			3		10		0.303	7.70		Karl Stancel.
Trieste			29.83	757.6	43.2	6.2	96	W			0		6		0.110	2.8		Prof. V. Farolfi.
Vienna			29.65	753.0	46.8	8.2	50	W			3		8		0.075	1.9		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.12	739.6			41.2	5.1	91	WSW			3		10		0.236	6.00	Rainy	Royal Observatory.

NOTE.—The originals give the wind force 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 coöperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.36	745.7	37.0	2.8		N	17	7.6			9		0.080	2.03		William Boswell.
Annanhill																		W. H. Dunlop.
Ardrossan			29.34	745.2	42	5.6		SSE			1		5				Mist	William McNeil.
Armagh Observatory			29.43	747.5	42.9	6.1		SW	7	3.1			3					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			29.37	746.0	45.0	7.2		W			4		3					The Liverpool Observatory
Birr Castle			29.48	748.8	46.9	8.3		W			3		9					J. Dreyer.
Bradford			30.29	769.3	42.9	6.1		W			4		2					J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			29.23	742.4	44.1	6.7		W			3		4					H. Todd.
Cape Town, Cape Colony			29.97	761.2	74	23.3		NW			2		1					Sgt. D. E. Hunt
Cape Good Hope Observatory	30.02	762.5			75.6	24.2	49	SW	28	12.5			0					The Royal Observatory.
Cardington			29.37	746.0	45.4	7.4		WSW			5		4					John McLaren.
Carlisle			29.38	746.2	42.5	5.8		NW			4		0		0.24	6.1		T. Bell.
Chatham			29.34	745.2	41.2	5.1		W			3		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.97	761.2	73.8	23.2		NE			2		9					Sgt. W. F. Hopkins
Dartmoor			29.68	753.9	43	6.1		NW			7		10				Rainy	R. E. Power.
Donaghadee			29.39	746.5	43	6.1		W			4		1					J. Mac Gowan, Jr.
Dover			29.34	745.2	45	7.2							6				Rainy	J. Costello.
Dublin																		
Durham Observatory			29.27	743.4	41.8	5.4		NW			5		0					G. Goldney.
Eccles, (near Manchester)			29.38	746.2	44.2	6.8		WNW	8.0	3.6			9				Squally	Thomas Mackereth.
Falmouth Observatory			29.66	753.3	49.9	9.9		W	42	18.8			4				Squally	The Falmouth Observatory.
Fort Napier, (Natal)			29.94	760.5	70.6	21.4		S			2		10					Pvt. G. Salmon.
Galway			29.54	750.3	51	10.6		W			3		4					Queen's College.
Gibraltar, (Mediterranean Sea)			30.33	770.4	61.5	16.4		WSW			4		0					Sgt. J. Brewster.
Glasgow Observatory			29.36	745.7	41.7	5.4		SW			1		3					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			29.49	749.0	46	7.8		NW			3		1					F. Toller.
Great Yarmouth			29.23	742.4	53	6.1		WNW			5		7					G. T. Watson.
Greenwich Royal Observatory			29.38	746.2	42.4	5.8		WNW			3		8					The Royal Observatory.
Guernsey			29.64	752.8	50	10.0		WNW			5		5					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			29.29	743.9	42.8	6.0		WNW			3		3					Moorside Observatory
Halifax, Nova Scotia			29.61	752.1	34.1	1.2		SE			3		10				Fog	Corp'l J. Y. Thompson.
Helston			29.71	754.6	52	11.1		W			6		6					W. B. Moyle.
Holyhead			29.47	748.5	45	7.2		WNW			4		1					John Tilston.
Hull Park																		
Kew Observatory			29.34	745.2	43.8	7.7		N	21	9.4			2					The Meteorological Office.
Kingstown			29.41	747.0	45	7.2		W			4		5					George Mitchell.
Lampeter																		
Leicester			29.37	746.0	42.6	5.9		W			2		5					William J. Harrison
Llandudno																		Dr. James Nicol.
Malta, (Mediterranean Sea)			30.30	769.6	61.0	16.1		NW			1		1					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.42	747.2	38	3.3		ESE			3		8					William D. Penny.
Nassau, (Bahamas)			30.20	767.0	70.5	21.4		NE			1		3					Surgeon I. Jameson.
North Shields			29.30	744.2	40	4.4		N			4		7					John Wm. Irvine.
Nottingham			29.37	746.0	48.0	8.9		NW			4		7					E. J. Lowe.
Osborne, New Barn Cottage			29.46	748.3	44.4	6.9		W			5		6				Rainy	J. R. Mann.
Oscott, (near Birmingham)			29.40	746.7	43.8	6.6		NW			6		6				Mist	St. Mary's College.
Oxford, the Radcliffe Obser'y			29.38	746.2	43	6.1		W			3		3					Radcliffe Observatory.
Plymouth			29.59	751.6	50	10.0		WNW			4		10				Rain	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.53	750.0	49	9.4		WNW			5		6					W. Kennedy.
Saint Ann's Head			29.49	749.0	48	8.9		WNW			6		7				Squally	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.52	749.8	33.8	1.0		NE	28	12.5			0					Rev. Dr. Clouston.
Scarboro'			29.22	742.2	40.8	4.9		NNW			5		10					F. Heard.
Scutari, Turkey			30.10	764.5	47.2	8.4		SW			3		5					W. H. Lyne.
Sheffield			29.31	744.5	44.3	6.8		WNW			4		3					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.36	745.7	46.8	8.2		NW			3		0		0	0		Francis Redford.
Somerleyton, (Lowestoft)			29.21	741.9	44.8	7.1		SW			2		9					Rev. C. J. Steward.
Stonyhurst Observatory			29.34	745.2	42.5	5.8		NW			4		8					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.45	748.0	38	3.3		NE			6		7					John Smith.
Strathfield Turgiss			29.52	750.0	46.7	8.2		NW			1-2		0					Charles H. Griffith.
Streatley Vicarage			29.42	747.2	45.0	7.2		NNW			3		0					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.37	746.0	34	1.1		N			6		5				Rainy	William Lawrence.
Taunton College																		
Thurso			29.44	747.8	37	2.8		NNE			6		4					John Trotter.
Truro, Royal Institution			29.67	753.6	52	11.1		W			8		6					Royal Institution.
Valencia			29.67	753.6	49.3	9.6		WSW	25	11.2			10					Meteorological Observatory
Wick																		
Wisbech			29.28	743.7	45.1	7.3		W			4		1					S. H. Miller
Worthing			29.40	746.7	45.0	7.2		W			6		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.

DANISH SERIES.

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

Copenhagen			29.03	737.4	36.7	2.6	92	S			4		10				Rain & Fog.	
Faröe			28.99	736.4	37.8	3.2	93	W			4		9					
Thorshavn, (Faröe)			29.69	754.1	34.2	1.2	55	NE			6		3					
Vestervig			29.03	737.4	27.0	− 2.8	96	NNE			6		10					
Stykkisholm, (Iceland)			29.43	747.6	26.4	− 3.1	100	Calm			0		10				Snow	
Godthaab, (Greenland)			29.96	761.0	9.3	−12.6		N			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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			29.74	755.3	50.	10.0	56	SW			4		8		0	0		Normal School.
Amiens			29.50	749.4	49.3	9.6	84	W			8		8		0.142	3.6		Normal School.
Baumette, (near Angers)			29.78	756.3	51.0	10.9	62	W	11.2	5.0			10		0.024	0.6		Baumette Observatory.
Beauvais			29.55	750.6	50.2	10.1	62	W			6		8		0.148	3.75		Normal School.
Besançon			29.83	757.7	42.1	5.6	76	S			4		8		0.138	3.5		Normal School.
Bourges			29.88	759.0	47.8	8.8	81	W			2		10		0.236	6.0		Normal School.
Brest			29.76	756.0	52.0	11.1	84	W			4				0.051	1.3	Fog	Naval Observatory.
Caen			29.63	752.7	48.4	9.1	76	W			8		5		0.476	12.1		Normal School.
Carcassonne																		
Chartres																		
Chaumont			29.70	754.5	45.7	7.6		SSW			8		10		0.157	4.0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			29.76	755.8	49.1	9.5	95	W			6		3		0.157	4.0		Normal School.
Mirecourt			29.61	752.1	43.7	6.5		SSW			8		5		0.315	8.0		Normal School.
Mont-Louis	24.89	632.3			37.2	2.9	86	W	10.9	4.76			10		0.011	0.3		—. Falguère.
Montsouris (near Paris)			29.61	752.0	47.5	8.6	77	WSW	10.5	4.7			10		0.047	1.2	Rain	Marié Davy.
Orleans			29.73	755.2	47.5	8.6	81	SW			4		10		0	0		Normal School.
Paris			29.61	752.1	48.6	9.2	69	WSW			6		8		0.098	2.47	Rainy.	National Observatory.
Parthenay			29.88	758.9	53.6	12.0	89	SW			2		10		0.394	10.0		Normal School.
Perpignan	29.93	760.3			56.3	13.5	61	SE	5.6	2.50			8					Dr. Fines.
Roche sur Yon			29.91	759.6	52.5	11.4	95	SW			2		10		0.472	12.0		Normal School.
Rouen			29.57	751.0	48.7	9.3	80	ESE			8		5		0.374	9.5		Normal School.
Saint Lo			29.73	755.2	50.6	10.6	74	SE			6		10		0.531	13.5		Normal School.
Saint Maur, (near Paris)			29.61	752.2	48.2	9.	72	WSW			2		10		0.031	0.8	Rainy	E. Renou.
Saint Pierre, (Martinique)																		
Tours			29.80	756.9	51.4	10.8	65	W			4		10		0.126	4.2		C. Marquet.
Tunis, (Africa)			30.22	767.6	64.6	18.1	52	NW			4		0		0	0		—. Jacques.
Versailles, (near Paris)			29.61	752.2	48.2	9.0	100	W			4		8		0.385	9.78	Threatening	Dr. A. Bérigny.
Villefranche			29.91	759.7	44.8	7.1	94	SE			2		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.56	750.8	45.5	7.5	65	SW			9		9		0.004	0.1		Prof. Höh.
Berlin			29.59	751.5	45.3	7.4	70	S			4		7		0.130	3.3	Rain	Prof. Arndt.
Breslau			29.47	748.5	44.8	7.1	65	SW			7		10		0	0		Dr. P. Neugebauer.
Carlsruhe			29.58	751.4	43.3	6.3	81	SW			10		9		0.079	2.0	Rain and hail	A. Lenz.
Cassel			29.24	742.8	46.2	7.9	64	SSW			8		6		0.260	6.6		Dr. H. Mohl.
Cologne			29.39	746.4	48.6	9.2	77	SSW			4		9		0.079	2.0		Dr. Gaithe.
Emden			29.11	739.5	42.6	5.9	96	NW			3		10		0.114	2.9		Prof. Prestel.
Frankfort on the Main			29.54	750.4	46.2	7.9	77	SW			5		9		0.067	1.7		Physical Society.
Friedrichshafen			29.76	755.8	42.6	6.0	93	W					7		0.209	5.3	Rain	M. Wilhelm.
Hamburg			29.11	739.4	41.0	5.0	92	SW			7		10		0.201	5.1	Rainy	W. Reinart.
Kiel			29.09	739.0	43.5	6.4	83	SW			3		10		0.130	3.3		Prof. G. Karsten.
Königsberg			29.30	744.1	38.1	3.4	86	SW			2		5		0.220	5.6		Prof. E. Luther.
Köslin			29.48	748.7	38.3	3.5		SW			4				0.461	11.7		Dr. Tägert.
Leipsic			29.39	746.6	46.0	7.8	61	SW			6		9		0	0	Storm	Prof. Bruhns.
Münster			29.18	741.1	41.0	5.0	84	SW			7		10		0.134	3.4	Rain	Prof. F. Heis.
Posen			29.37	746.0	42.8	6.0	82	SW			6-7		10		0.055	1.4		Dr. Magever.
Strassburg, (in Alsace)			29.64	752.8	46.8	8.2	70	SW					10		0.090	2.3		Hartwig and Fulk.
Stuttgart			29.67	753.6	45.0	7.2	63	SW					7		0.059	1.5	Snow	Mr. Wurth.
Thorn			29.34	745.3	43.2	6.2	80	SW			3		5		0.252	6.4		Dr. Hagenbalg.
Treves, (Trier)			29.46	748.4	45.5	7.5	77	W			10		10		0.248	6.3	Stormy	Prof. Flesch.
Wustrow			29.15	740.4	40.1	4.5	100	SSW			4		10		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.87	758.7	37.6	3.1	76	SE	5.0	2.2			9		0	0		
Mondovi			29.85	758.3	38.3	3.5	57	NW			2		4	NW	0	0		
Genoa			29.83	757.6	54.3	12.4	67	S	8.1	3.6			10		0	0		
Pavia			29.85	758.1	38.3	3.5	83	W			1		9		0	0		
Verona																		
Padua																		
Parma			29.81	756.3	43.9	6.6	78	W	12.4	5.5			6	NW	0	0		
Bologna			29.85	758.3	41.5	5.3		NW			2		7		0	0		
Urbino			29.88	759.0	39.7	4.3	54	SW			4		3		0	0		
Ancona			29.86	758.4	52.7	11.5	53	SW			6		2		0	0		
Florence			29.85	758.2	49.6	9.8	74	NW			2		0		0	0		
Siena																		
Livorno			29.95	760.7	52.2	11.2	47	WSW	10.6	4.7			9	W	0	0		
Rome			29.97	761.3	59.0	15.0	45	WSW			6		9		0	0		
Naples, O.U.			30.02	762.5	55.9	13.3	85	S			4		10	SSW	0	0		
Naples, S. R.			30.09	764.2	57.2	14.0	72	SW			6		10	S	0.012	0.3		
Lecce	29.54	750.3			52.7	11.5	94	SW			8		10	W	0	0	Rainy	Prof. F. Brioschi.
Cosenza			30.21	767.3	50.5	10.3	75	SSE	13.1	5.8			10		0	0		
Catania, (Sicily)			30.18	766.6	58.6	14.8	39	SSE			2		5		0	0		
Riposto			30.17	766.3	57.2	14.0	56	WSW			4		0		0	0		
Palermo			30.11	764.8	63.9	17.7	51	SW			4		2		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			29.29	744.0	43.2	6.2		NW			5							
Flushing			29.04	737.6	41.0	5.0		W			5							
Helder			29.12	739.6	42.4	5.8		WSW			5							
Utrecht			29.11	739.5	44.2	6.8		WSW			5		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen																		
Christiania																		
Tromsö																		

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.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.11	764.9			53.2	11.8	80	W	1.1	0.5			9					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.44	747.9	36.9	2.7	91	SSW	8.9	4			10				Rain	Astronomical Observatory.
Wilna			29.37	746.1	37.9	3.3	93	S	10.1	4.5			8					Astronomical Observatory.
Dorpat			29.34	745.2	8.1	—13.3	88	ESE	11.2	5			10				Snow	Physical Cabinet.
St. Petersburg			29.59	751.7	— 2.7	—19.3	94	E	8.9	4			10				Snow	Central Physical Observatory.
Kieff			29.80	756.8	32.7	0.4	85	S	6.7	3			10					Physical Cabinet.
Nikolaiev			30.02	762.5	38.1	3.4	83	S	16.8	7.5			9					
Kertch			30.20	767.1	45.1	7.3	64	SW	8.9	4			2					Lagorio.
Moscow			30.01	762.3	— 2.7	—19.3	75	SE	10.1	4.5			10				Snow	Meteorological Observatory.
Lugan			30.15	765.9	31.6	— 0.2	65	SSW	15.8	7.5			10					Meteorological Observatory.
Archangel			29.65	753.2	—13.0	—25.0	80	SW	6.8	3.5			10					Ogorodnikof.
Tiflis			30.26	768.6	53.6	12.0	47	NE	4.5	2			2					Physical Observatory.
Astrakhan			30.55	776.0	32.4	0.2	57	WNW	2.2	1			1					Sebastianof.
Kasan			30.27	768.8	— 6.9	—21.6	100	WSW	4.5	2			1					Physical Cabinet.
Orenburg			30.45	773.4	4.6	—15.2	91	NW	4.5	2			4					Tschernischef.
Ekaterinburg			30.20	767.1	8.8	—12.9	73	SW	13.4	6			7					Meteorological Observatory.
Kasaly			30.33	770.3	23.2	— 4.9	84	N	20.1	9			10					Bobrof.
Tashkend																		Michelson.
Barnaul			30.65	778.5	7.0	—13.9	91	Calm	0	0			0					Meteorological Observatory.
Yeniseisk			30.22	767.6	10.0	—12.2	88	SW	16.8	7.5			10					arks.
Irkutsk			30.45	773.5	— 2.4	—19.1	78	NE					0					Usolzef.
Oorga			30.34	770.7	3.6	—15.8	100	Calm	0	0			5					Messin.
Peking, (China)			30.4	772.1	25.0	— 3.9	42	NNW	20.1	9			3					Physical Observatory.
Nertchinsk			30.47	773.9	—24.9	—31.6	90	Calm	0	0			0					Meteorological Observatory.
Vladivostock																		
Nikolaievsk, (on the Amoor)					4.8	—15.1		E	7.8	3.5			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.37	771.5	53.4	11.9	67	W	7.6	3.4		1	0	SE	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.61	752.2	—14.4	—25.8	60	N			2		0		0	0		Dr. H. H. Hildebrandsson.
Hernosand			29.55	750.6	—15.9	—26.6	100	NE			4		10		0	0		
Upsala			29.31	744.6	14.0	—10.0	92	SW			4		10				Snow	
Stockholm			29.23	742.5	20.1	— 6.6	95	ENE			4		10		0.142	3.6		
Wisby			29.39	746.5	27.3	— 2.6	100	SW			4		7		0.256	6.5		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.45	722.6			37.8	3.2	89	W			4		10		0.209	5.3	Rain	The Observatory.
Zurich	28.09	713.6			42.4	5.8	85	SW			2		10		0.059	1.5	Rain	Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.91	759.7	60.3	15.7	71	SE			4		10					
Constantinople			30.13	765.3	45.3	7.4	79	SW	7.8	3.5			2					
Fao, (Persian Gulf)			30.28	769.2	55.8	13.2		SE			3		0					
Salonica			30.05	763.2	52.0	11.1		N			1		0					
Valona			30.07	763.8	54.0	12.2		W			2		2					
Varna			29.92	760.0	53.6	12.0		NW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.66	753.4	18	— 7.8	100	SE	22	9.8			10		0.50	12.7	Heavy snow	
Chatham, N. B.			29.58	751.3	20	— 6.7	92	N	5	2.2			10		0	0	Light snow	
Charlottetown, P. E. Island			29.61	752.1	28	— 2.3	99	SE	20	8.9			10		0	0		
Father Point, Quebec			29.48	748.8	— 4	—20.0	75	SW	2	0.9			Haze		0	0		
Fort Garry, Manitoba			30.41	772.4	—28	—33.3	100	Calm	0	0		0	0		0	0		
Halifax, N. S.			29.45	748.0	33	0.6		SE	12	5.4			10		0.17	4.3	Heavy rain	
Kingston, Ontario			29.90	759.4	11	—11.7	82	W	15	6.7		10	0	SW	0.42	10.7		
Montreal, Quebec			29.70	754.4	20	— 6.7	82	W	32	14.3		2	2	W	0.90	22.8		
Ottawa, Ontario			29.80	756.9	14	—10.0	62	W	4	1.8		10	0	W	0.65	16.5		
Parry Sound, Ontario			29.92	760.0	15	— 9.4	91	W	19	8.5			10		0.55	14.0	Light snow	
Port Dover, Ontario			30.17	765.3	13	—10.6	81	W	15	6.7		10	0	W	0.20	5.1		
Port Stanley, Ontario			30.15	765.8	11	—11.7	84	W					10		0.15	3.8		
Quebec, Quebec			29.62	752.3	20	— 6.7	86	SW					10		0.70	17.8	Clearing	
Saugeen, Ontario			30.00	762.0	18	— 7.8	84	W	22	9.8			10		0.23	5.8		
Sydney, C. B.			29.94	760.5	25	— 3.9	99	SE	12	5.4			10		0.03	0.8	Heavy snow	
Toronto, Ontario			30.00	762.0	19	— 7.2	92	W	17	7.6			10		0.35	8.9		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.90	759.5	29	— 1.7	89	W	5	2.2		10		W	0.40	10.1		
Alpena, Mich.			30.08	764.0	11	—11.7	79	W	12	5.4			10		0.02	0.5		
Atlantic City, N. J.			30.07	763.7	31	— 0.6	79	W	6	2.7		0	0		0	0		
Augusta, Ga.			30.30	769.6	43	6.1	92	NW	3	1.3			10		0.57	13.5		
Baltimore, Md.			30.16	766.0	33	0.6	77	W	3	1.3		0	0		0.65	16.5		
Barnegat, N. J.			30.00	762.0	30	— 1.1	89	W	3	1.3		0	Haze		0	0		
Benton, Montana			29.73	755.1	2	—16.7	100	NE	4	1.8		2			0	0		
Bismarck, Dakota			30.20	767.1	—19	—28.3	37	E	2	0.9		0	5		0	0		
Boston, Mass.			29.83	757.7	29	— 1.7	77	NW	6	2.7		0	Fog		0.44	11.2	Fog.	
Breckenridge, Minn.			30.47	773.9	—24	—31.1	89	SE	2	0.9		0	0		0	0		
Buffalo, N. Y.			30.08	764.0	13	—10.6	81	SW	28	12.5			10		0.20	5.1		
Burlington, Vt.			29.74	755.4	29	— 1.7	77	W	9	4.0		5	5	W	0.29	7.4		
Cairo, Ill.			30.23	772.9	25	— 3.9	75	Calm	0	0		Haze	Haze		0	0		
Cape Hatteras, N. C.			30.17	766.3	42	— 5.6	67	NW	12	5.4		5	2	W	0	0		
Cape Henry, Va.			30.19	766.8	34	1.1	95	Calm	0	0			Fog		0.28	7.1	Fog.	
Cape May, N. J.			30.09	746.3	36	2.2	62	NW	32	14.3		0	0		0.57	14.5		
Charleston, S. C.			30.26	768.6	50	10.0	86	N	8	3.6			10		0.01	0.5		
Cheyenne, W. T.			29.79	756.6	10	— 7.2	52	Calm	0	0		5	Haze		0	0		
Chicago, Ill.			30.43	772.9	3	—16.1	100	NW	8	3.6		0	0		0	0		
Cincinnati, Ohio			30.41	772.4	26	— 3.3	64	W	8	3.6		0	0		0.06	1.5		
Cleveland, Ohio			30.22	767.8	11	—11.7	78	W	20	8.9		2	5	NW	0.20	5.1		
Colorado Springs, Col.			29.79	756.6	18	— 7.8	68	NW	1	0.4			8		0	0		
Corsicana, Texas			30.29	769.4	42	5.6	65	N	3	1.3		10	0	SW	0.10	2.5		
Davenport, Iowa			30.49	774.4	— 4	—20.0	82	Calm	0	0		0	0		0	0		
Denver, Col.			29.87	758.7	14	—10.0	63	W	3	1.3			10		0	0		
Detroit, Mich.			30.22	767.6	10	—12.2	79	W	10	4.5			10		0.10	2.5		
Dodge City, Kansas			29.75	755.6	30	— 1.1	78	S	9	4.0		0	0		0	0		
Dubuque, Iowa			30.48	774.2	4	—15.6	74	NW	2	0.9		0	0		0	0		
Duluth, Minn.			30.42	772.6	—11	—23.9	75	Calm	0	0		0	0		0	0		
Eastport, Me.			29.50	749.3	32	0.0	89	N	16	7.1			10		0.21	5.3		
Erie, Penn.			30.15	765.3	15	— 9.4	82	SW	24	10.7			5		0.35	8.9		
Escanaba, Mich.			30.26	768.6	— 1	—18.3	68	NW	8	3.6		0	2		0.10	2.5		
Fort Gibson, I. T.			30.29	769.4	29	— 1.7	78	Calm	0	0		5	5	W	0	0		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.20	767.1	— 6	—21.1	61	SE	18	8.0		2	5	W	0	0		
Galveston, Texas			30.25	768.3	50	10.0	86	NE	7	3.1			10		0	0		
Grand Haven, Mich.			30.27	768.8	15	— 9.4	65	NW	18	8.0			10		0	0		
Indianapolis, Ind.			30.38	771.6	18	— 7.8	68	W	4	1.8		0	Sm'e		0.03	0.8		
Indianola, Texas			30.20	767.1	50	10.0	86	NE	22	9.8			10		0	0		
Jacksonville, Fla.			30.23	767.8	66	18.9	90	N	6	2.7			10		0.17	4.3		
Keokuk, Iowa			30.40	772.2	10	—12.2	79	NE	9	4.0		0	0		0	0		
Key West, Fla.			30.17	766.3	72	22.2	85	E	5	2.2		Haze	8		0	0		
Kittyhawk, N. C.			30.43	747.5	35	1.7	46	W	4	3.8			0		0	0		
Knoxville, Tenn.			30.20	772.2	28	— 2.2	77	Calm	0	0		2	0		0.16	4.1		
La Crosse, Wis.			30.45	773.4	— 7	—21.7	50	W	6	2.7		0	0		0	0		
Leavenworth, Kan.			30.31	769.9	18	— 7.8	83	Calm	0	0		0	0		0	0		
Lexington, Ky.			30.42	747.2	29	— 1.7	72	W	4	1.8		0	0		0	0		
Long Branch, N. J.			29.97	761.2	33	0.6	69	W	16	7.1		0	0		0	0		
Louisville, Ky.			30.42	772.6	27	— 2.8	76	Calm	0	0		0	0		0.31	7.9		
Lynchburg, Va.			30.21	767.3	34	1.1	52	W	4	1.8		0	0		0.16	4.1		
Malone, N. Y.																		
Marquette, Mich.			30.24	768.1	3	—16.1	73	W	12	5.4		5	2	W	0	0		
Memphis, Tenn.			30.42	772.6	29	— 1.7	78	Calm	0	0		5	0		0	0		
Milwaukee, Wisconsin			30.44	773.2	— 6	—21.1	61	NW	12	5.4		0	0		0	0		
Mobile, Ala.			30.30	769.6	47	8.3	77	N	12	5.4			10		0	0		
Montgomery, Ala.			30.37	771.4	39	3.9	82	N	2	0.9		5	Sm'e		0.10	2.5		
Morgantown, West Virginia			30.26	768.6	27	— 2.8	66	NW	15	6.7		0	0		0	0		
Mt. Washington, N. H.			29.41	747.0	6	—14.4	100	NW	84	37.5			Fog		0.26	6.6	Fog.	
Nashville, Tenn.			30.43	772.9	30	— 1.1	68	Calm	0	0		2	Sm'e		0.01	0.2		
New Haven, Conn.			29.95	760.7	32	0.0	79	W	11	4.9		0	2		0	0		
New London, Conn.			29.99	761.7	31	— 0.6	84	W	9	4.0		5	0	W	0.77	19.5		
New Orleans, La.			30.27	768.8	49	9.4	68	NE	9	4.0		5	Sm'e	NE	0	0		
Newport, R. I.																		
New York, N. Y.			30.03	762.8	26	— 1.7	89	W	16	7.1		Haze	Sm'e		0.41	10.5		
Norfolk, Va.			30.19	768.8	36	2.2	90	NW	5	2.2		0			0.31	7.9	Fog.	
North Platte, Neb.			29.82	757.4	10	—12.2	79	Calm	0	0		5	2		0	0		
Omaha, Neb.			30.31	769.9	9	—12.8	100	E	8	3.6		0	5		0	0		
Oswego, N. Y.			29.96	761.0	24	— 4.4	87	W	28	12.5			10		0.15	3.8	Threatening	
Peck's Beach			30.10	764.5	32	0.0	79	W	8	3.6		0	Haze		0	0		
Pembina, D. T.			30.43	772.9	—29	—33.9		Calm	0	0		0	0		0	0		
Philadelphia, Penn.			30.10	761.5	22	0.0	60	W	11	4.9		0	0		0.61	15.5		
Pike's Peak, C. T.			29.62	752.3	2	—18.9	84	SW	22	9.8			10		0	0		
Pittsburgh, Penn.			30.25	768.3	22	5.6	50	W	12	5.4		0	0		0.30	7.6		
Port Huron, Mich.			30.16	766.0	11	11.7	79	SW	15	6.7			10		0.13	3.3		
Portland, Maine																		
Portland, Or.			30.09	764.3	34	1.1	90	Calm	0	0		10	0		0.17	4.3		
Punta Rassa, Fla.			30.20	767.1	66	18.9	94	NE	4	1.8		5	Fog	S	0	0	Fog.	
Rochester, N. Y.			30.00	762.0	16	— 8.9	82	W	32	14.3			10		0.08	2.0	Light snow.	
Salt Lake City, Utah			29.86	758.4	26	— 3.3	64	Calm	0	0			10		0	0		
Sandy Hook, N. J.			30.02	762.5	32	0.0	69	W	20	8.9		0	Haze		0	0		
San Diego, Cal.			29.79	765.6	55	12.8	87	NE	8	3.6			10		0.20	5.1	Heavy rain	
San Francisco, Cal.			29.78	756.1	51	10.6	86	N	10	4.5			10		0.03	0.8		
Santa Fe, N. M.			29.63	752.6	26	— 3.3	63	E	1	0.4			10		0	0		
Savannah, Georgia			30.25	768.3	51	10.6	86	NW	10	4.5			10		0.11	2.8		
Shreveport, La.			30.35	770.9	36	2.2	80	NE	2	0.9		0	2		0	0		
Springfield, Mass.			29.90	759.4	22	— 5.6	72	Calm	0	0		0	Sm'e		0.44	11.2		
St. Louis, Mo.			30.39	771.9	26	— 3.3	87	S	1	0.4		0	0		0	0		
St. Marks, Fla.			30.23	767.8	56	13.3	87	N	10	4.5		2	5	SW	1.24	31.5		
St. Paul, Minn.			30.44	773.2	— 4	20.0	67	SW	4	1.8		0	0		0	0		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.05	763.3	30	— 1.1	68	NW	8	3.6		0	Haze		0	0		
Toledo, Ohio			30.29	769.4	10	—12.2	79	SW	18	8.0		0	0		0.20	5.1		
Tybee Island, Ga.			30.27	768.8	51	10.6	93	NW	6	2.7			10		0	0		
Vicksburg, Miss.			30.43	772.6	30	3.9	56	Calm	0	0		0	2		0	0		
Virginia City, Mon.			29.52	749.8	14	—10.0	61	Calm	0	0		2	5		0	0		
Washington, D. C.			30.19	766.8	31	— 0.6	69	NW	8	3.6		0	0		0.34	8.6		
Wilmington, N. C.			30.25	768.3	42	5.6	82	N	6	2.7		2	0	W	0.01	0.2		
Wood's Hole, Mass.			29.89	759.2	32	0.0	79	NW	9	4.0		0	0		0	0		
Wytheville, Va.			30.13	765.3	27	— 2.8	66	SW	6	2.7		0	0		0	0		
Yankton, D. T.			30.39	761.9	— 9	—22.8	77	NE	6	2.7			10		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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.08	764.0			79	26.1		NE	3	1.3					0	0	Rainy	
Point-a-pitre, Guadaloupe, W.I.	29.91	759.7			73	22.8		E					2	E	0	0		
Havana, Cuba, W. I.			29.98	761.5	71	21.7	85	SE	2	0.9		0	0		0	0		
Honolulu, Oahu, Sandwich Is.			30.09	764.3	61	16.1	94	Calm	0	0		0	0		0	0		
Kingston, Jamaica, W. I.			30.25	768.3	75	23.9		Calm	0	0		0	0		0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.93	760.2	71	21.7	84	NW	2	0.9		0	0		0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerfville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.93	757.8	46.8	8.2	65	SW			4		3		0	0		Prof. Ivan Stozir.
Buda-Pesth			29.77	756.2	41.4	5.2	71	W			5		2		0	0		I. R. Cen. Met. Ins., Hungary
Cracow			29.73	755.1	33.8	1.0	75	W			3		8		0.095	2.4		I. R. Observatory.
Eperies			29.67	753.5	34.7	1.5	93	Calm			0		10		0.443	1.1		Julius Mikolik.
Gratz			29.84	758.0	40.6	4.8	69	SW			2–5		10		0.051	0.3		Andreas Rospini.
Hermannstadt			29.70	754.3	38.1	2.4	89	ENE			1		10		0.061	1.15		Prof. C. L. Reissenberger.
Kremsmünster			29.86	758.5	39.2	4.0	77	W			5		10		0.075	1.9		Prof. C. Wagner.
Lemberg			29.60	751.9	37.2	2.9	100	W			3		10		0.047	1.2		Dr. T. Stanecki.
Nyiregyhaza			29.74	754.7	38.1	3.4	93	W			1		8		0	0		Habesuda Daniel.
Pola			29.79	758.6	46.6	8.1	74	NW			2		5		0	0		I. R. Hydrographic Office.
Szegedin			29.74	755.5	44.6	7.0	69	NW			3		6		0.012	0.30		Karl Stancel.
Trieste			29.85	758.2	43.5	6.4	88	SW			0		5		0	0		Prof. V. Farolfi.
Vienna			28.82	757.4	39.9	4.4	72	NW			1		6		0.016	0.4		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.96	761.1			41.9	5.5	65	NNW			3		10		0.295	7.50		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.08	764.0	37.0	2.8		SSE	20	8.9			9		0.010	0.25		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			30.03	772.7	38	3.3		SE			4		8				Snowy	William McNeil.
Armagh Observatory			29.90	759.4	41.0	5.0		SSE	27	12.1			10				Rainy	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.13	765.3	39.0	3.9		ESE			3		10				Mist	The Liverpool Observatory
Birr Castle			29.95	760.7	47.8	8.8		S			1		10				Rain	J. Dreyer.
Bradford			30.14	765.5	38.6	3.7		SE			2		10					J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			30.23	767.8	41.0	5.0		N			1		9					H. Todd.
Cape Town, Cape Colony			29.88	758.9	77.4	25.2		NW			1		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.93	760.2			79.7	26.5	48	SSW	21	9.4			0					The Royal Observatory.
Cardington			30.24	768.1	42.0	5.6		NE			3		8					John McLaren.
Carlisle			30.12	765.0	37.9	3.3		S			4		10		0	0		T. Bell.
Chatham			30.21	767.3	44.5	5.3		NW			1		9					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.97	761.2	77.5	25.3		SW			2		7					Sgt. W. F. Hopkins
Dartmoor			30.21	767.3	42.2	5.7		SW			2		10					R. E. Power.
Donaghadee			29.98	761.5	40	4.4		SE			6		10				Rain	J. Mac Gowan, Jr.
Dover			30.21	767.3	42	5.6							4					J. Costello.
Dublin																		
Durham Observatory			30.16	766.0	35.7	2.1		SSE			4		8					G. Goldney.
Eccles, (near Manchester)			30.17	766.3	40.2	4.6		SE	1.8	0.8			10				Mist	Thomas Mackereth.
Falmouth Observatory			30.18	766.6	49.7	9.8		SSW	16	7.1			9					The Falmouth Observatory.
Fort Napier, (Natal)			29.92	759.9	80.5	26.9		E			2		7					Pvt. G. Salmon.
Galway			29.84	757.9	52	11.1		W			2		10				Rain	Queen's College.
Gibraltar, (Mediterranean Sea)			30.20	767.1	61.0	16.1		ENE			3		0					Sgt. J. Brewster.
Glasgow Observatory			30.04	763.0	37.0	2.8		SE			2		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.12	765.0	42.4	5.8		SE			3		10					F. Toller.
Great Yarmouth			30.18	766.6	40	4.4		N			3		3					G. T. Watson.
Greenwich Royal Observatory			30.23	767.8	41.4	5.2		ENE			1		10					The Royal Observatory.
Guernsey			30.23	767.8	50	10.0		WSW			1		5					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			30.15	765.8	37.4	3.0		E			3		10					Moorside Observatory.
Halifax, Nova Scotia			29.71	754.6	8.1	—13.3		NW			7		1				Mist	Corp'l J. Y. Thompson.
Helston			30.12	765.0	51	10.6		S			6		10				Fog	W. B. Moyle.
Holyhead			30.08	764.0	44	6.7		S			4		10				Rain	John Tilston.
Hull Park																		
Kew Observatory			30.23	767.8	40.8	4.9		W	1	0.4							Fog	The Meteorological Office.
Kingstown			30.00	762.0	44	6.7		S			3		10				Rainy	George Mitchell.
Lampeter																		
Leicester			30.21	767.3	40.8	4.9		E			1		10					William J. Harrison
Llandudno			30.01	762.2	43.2	6.2		S			4		10					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.16	766.0	62.0	16.7		NW			1		3					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			30.00	762.0	36	2.2		Calm			0		8					William D. Penny.
Nassau, (Bahamas)			30.13	765.3	71.4	21.9		Calm			0		5					Surgeon I. Jameson.
North Shields			30.15	765.8	38	3.3		SW			1		7				Fog	John Wm. Irvine.
Nottingham			30.23	767.8	40.8	4.9		ESE			2		10					E. J. Lowe.
Osborne, New Barn Cottage			30.21	767.3	47.2	8.4		N			1		9					J. R. Mann.
Oscott, (near Birmingham)			30.20	767.1	38.4	3.6		E			1		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.16	766.0	41	5.0		Calm			0		10					Radcliffe Observatory.
Plymouth			30.18	766.6	48	8.9		Calm			0		10				Mist	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.99	761.7	51	10.6		WSW			5		9				Mist	W. Kennedy.
Saint Ann's Head			30.11	764.8	47	8.3		S			3		10				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.94	760.5	35.1	1.7		S	34	15.2			10				Mist	Rev. Dr. Clouston.
Scarboro'			30.18	766.6	40.2	4.6		ESE			1		10					F. Heard.
Scutari, Turkey			29.73	755.1	50.6	10.3		SSW			2		10				Rain	W. H. Lyne.
Sheffield			30.19	766.8	39.5	4.2		SSE			1		9					W. F. Cooper.
Sidmouth																		
Silloth Rectory			30.08	764.0	38.8	3.8		ESE			4		10		0.200	5.08		Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	41.6	5.3		NW			1		3					Rev. C. J. Steward.
Stonyhurst Observatory			30.13	765.3	38.6	3.7		SE			1		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.78	756.4	38	3.3		SSE			6		10					John Smith.
Strathfield Turgiss			30.24	768.1	41.6	5.3		SE			1		10					Charles H. Griffith.
Streatley Vicarage																		Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.92	759.9	38	3.3		S			6		10					William Lawrence.
Taunton College																		
Thurso			29.94	760.5	36	2.2		S			4		10					John Trotter.
Truro, Royal Institution			30.11	764.8	53	11.7		SW			6		10					Royal Institution.
Valencia			29.96	761.0	51.9	11.1		S	14	6.3			10				Mist	Meteorological Observatory
Wick																		
Wisbech			30.20	767.1	40.5	4.7		NNW			2		10					S. H. Miller.
Worthing			30.23	767.8	42.2	5.7		SSE			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.

DANISH SERIES.

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

Copenhagen			29.69	754.2	20.5	— 6.4	95	NNE			9		10				Snow	
Fanöe			29.98	761.5	26.1	— 3.3	76	N			7		1					
Thorshavn, (Faröe)			29.56	750.8	39.9	4.5	82	SSW			6		10				Rain	
Vestervig			30.09	764.3	20.8	— 6.2	95	NNE			4		0					
Stykkisholm, (Iceland)			29.72	754.9	15.4	— 9.2	97	N			6		8					
Godthaab, (Greenland)			29.94	760.6	10.6	—11.9		NNE			4		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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.26	768.6	51.8	11.0	60	N			1		5		0	0		Normal School.
Amiens			30.25	768.4	45.0	7.2	80	WNW			3		5		0.181	4.6		Normal School.
Beaumette, (near Angers)			30.27	768.8	48.7	9.3	84	W					5		0	0		Baumette Observatory.
Beauvais			30.27	768.8	46.2	7.9	68	NW			2		8		0.366	9.30		Normal School.
Besançon			30.25	768.4	46.0	7.6	74	S			3		5		0.126	3.2		Normal School.
Bourges			30.29	769.3	48.2	9.0	78	SW			2		3		0	0		Normal School.
Brest			30.17	766.3	50.5	10.3	92	SSW			0				0	0	Fog & Rain.	Naval Observatory.
Caen			30.27	768.9	50.5	10.3	74	W			2		0		0.008	0.2		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.21	767.3	40.8	4.9		WNW			3		10		0.511	13.0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.28	769.2	47.5	8.6	92	W			2		3		0.020	0.5		Normal School.
Mirecourt			30.13	765.2	44.1	6.7		ESE			2		3		0.354	9.0		Normal School.
Mont-Louis	25.03	635.8			44.8	7.1	72	WNW	15.7	7.00			5		0.028	0.7		—. Falguère.
Montsouris (near Paris)			30.22	767.6	46.0	7.8	75	NW	4.9	2.2			8		0.086	2.2		Marié Davy.
Orleans			30.09	764.3	47.8	8.8	84	W			2		5		0	0		Normal School.
Paris			30.22	767.7	46.6	8.1	70	NW			2		8		0.057	1.45		National Observatory.
Parthenay					57.2	14.0	76	W	18.6	8.33	2		5		0.072	1.8		Normal School.
Perpignan	30.13	765.4			62.2	16.8	64	WNW					2		0	0		Dr. Fines.
Roche sur Yon			30.28	769.2	52.5	11.4	93	W			2		8		0.354	9.0		Normal School.
Rouen			30.15	765.8	48.9	9.4	63	WNW			0		5		0.610	15.5		Normal School.
Saint Lo			30.32	770.0	50.9	10.5	66	NW			1		5		0.008	0.2		Normal School.
Saint Maur, (near Paris)			30.23	767.8	46.6	8.1	71	NW			1		6		0.150	3.8		E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.28	769.0	47.8	8.8	81	WNW			1		5		0	0		C. Marquet.
Tunis, (Africa)			30.17	766.3	63.0	17.2	54	NW			4		0		0	0		—. Jacques.
Versailles, (near Paris)			30.23	767.9	48.6	9.2	66	NW			2		7		0.114	2.90		Dr. A. Bérigny.
Villefranche			30.13	765.3	45.3	7.4	95	SW			1		5		0.2 2	5.8		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.94	760.6	38.5	3.6	83	W			8		10		0.390	9.9	Hail	Prof. Hoh.
Berlin			29.75	755.7	31.3	— 0.4	75	NW			5		8		0.075	1.4	Snow	Prof. Arndt.
Breslau			29.69	754.1	35.2	1.8	75	W			5		10		0	0		Dr. P. Neugebauer.
Carlsruhe			30.07	763.9	41.4	5.2	74	SW			2		10		0.197	5.0		A. Leuz.
Cassel			29.84	758.0	37.6	3.1	65	NW			8		10		0.055	1.4	Snow	Dr. H. Mohl.
Cologne			30.04	763.0	41.4	5.2	73	WSW			3		6		0.150	3.8		Dr. Gaithe.
Emden			30.15	765.8	32.7	0.4	66	N by W			4		1		0.090	2.3		Prof. Prestel.
Frankfort on the Main			30.14	765.5	40.5	4.7	70	WNW			2		8		0.193	4.9		Physical Society.
Friedrichshafen			30.07	763.7	41.9	5.5	93	NW					9		0.177	4.5	Snow & hail.	M. Wilhelm.
Hamburg			29.90	759.5	28.8	— 1.8	62	NW			6		7		0.108	2.7		W. Reinart.
Kiel			29.85	758.2	27.9	— 2.3	63	NW			6		10		0.106	2.7		Prof. G. Karsten.
Königsberg			29.36	745.8	32.0	0.0	93	W			4		9		0.067	1.7		Prof. E. Luther.
Köslin			29.67	753.6	26.4	— 3.1		W			6				0.118	3.0		Dr. Tägert.
Leipsic			29.83	757.7	32.9	0.5	76	NW			4		9		0.217	5.5	Snow	Prof. Bruhns.
Münster			30.03	762.7	32.9	0.5	98	N			5		7		0.004	0.1	Rain & snow	Prof. E. Heis.
Posen			29.59	751.7	31.6	— 0.2	58	W			8		10		0	0		Dr. Magener.
Strassburg, (in Alsace)			30.13	765.2	42.1	5.6	80	NE					9		0	0.4		Hartwig and Fulk.
Stuttgart			30.03	762.8	41.7	5.4	68	W					6		0.016	5.1		Mr. Wurth.
Thorn			29.50	749.4	30.4	— 0.9	72	W			6		10		0.201	0		Dr. Hagenbalg.
Treves, (Trier)			30.07	763.8	39.6	4.2	68	NW			6		10		0	0		Prof. Flosch.
Wustrow			29.68	753.8	22.1	— 5.5	100	NW			6		10		0	0	Snow	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.90	759.4	55.6	13.1	31	NE	5.0	2.5			2		0	0		
Mondovi			29.96	760.9	52.7	11.5	18	ENE			2		3	NW	0	0		
Genoa			29.93	760.3	59.2	15.1	25	NE	3.1	1.4			2		0	0		
Pavia			29.95	760.8	48.2	9.0	61	SW			2		0		0	0		
Verona																		
Padua			29.87	758.8	35.8	2.1	96	NNW	2.5	1.1					0	0	Fog	
Parma			29.86	758.4	54.5	12.5		SW			8		1		0	0		
Bologna			29.94	760.6	54.3	12.4	43	W			8		2		0	0		
Urbino			29.88	759.0	52.0	11.1	53	SW			4		0		0	0		
Ancona			29.98	761.5	45.7	7.6	54	N			4		2		0	0		
Florence																		
Siena			29.93	760.1	54.3	12.4	56	NW	8.1	3.6			5	W	0	0		
Livorno			29.93	760.2	56.8	13.8	60	W			4		3		0	0		
Rome			29.94	760.5	59.4	15.2	57	NE			2		2		0	0		
Naples, O.U.			29.91	759.8	60.8	16.0	56	N			2		2	NW	0	0		
Naples, S. R.	29.37	745.9			58.8	14.9	74	NW			4		3	N	0	0		Prof. F. Brioschi.
Lecce			29.94	760.5	50.9	10.5	67	W			2		10		0	0		
Cosenza			29.96	761.1	53.8	12.1	84	WNW			1		10		0.197	5.0	Rain	
Catania, (Sicily)			29.98	761.5	65.7	18.7	31	W			4		0	W	0	0		
Liposto																		
Palermo			30.01	762.2	62.1	16.7	56	W			8		1	W	0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.20	767.0	41.4	5.2		NNE			4							
Flushing			30.03	762.7	33.6	0.9		N										
Helder			30.11	764.8	38.3	3.5		NNW			4							
Utrecht			30.07	763.8	41.2	5.1		NW			4		8					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.08	764.1	23.0	— 5.0	76	S	2.5	1.1		0			0	0		
Christiania			30.04	763.0	13.3	—10.4	74	NE	1.1	0.5		0			0	0		
Tromsö			29.65	753.2	18.7	— 7.4	89	NE			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.92	759.9			51.1	10.6	80	NE	15.0	6.7			0					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.54	750.3	31.8	— 0.1	83	W	16	7			10					Astronomical Observatory.
Wilna			29.39	746.6	36.0	2.2	91	S	7.8	3.5			10					Astronomical Observatory.
Dorpat			29.69	752.1	0.3	—17.6	84	NE	13	6			10				Snow	Physical Cabinet.
St. Petersburg			29.75	755.6	— 4.9	—20.5	84	NE	9	4			4					Central Physical Observat'y
Kieff			29.69	754.1	36.9	2.7	79	SSW	7	3			4					Physical Cabinet.
Nikolaiev			29.72	754.9	39.2	4.1	77	S	4	2			10					
Kertch			29.82	757.5	47.3	8.5	84	S	11	5			9					Lagorio.
Moscow			29.61	752.2	33.3	0.7	87	SSW	7.8	3.5			10				Snow	Meteorological Observatory
Lugan			29.85	758.2	37.2	2.9	71	SE	4	2			10					Meteorological Observatory
Archangel			29.93	760.2	— 2.4	—19.1	91	WSW	4	2			10					Ogorodnikof.
Tiflis			29.96	760.9	40.1	4.5	76	SE	10.1	4.5			10					Physical Observatory.
Astrakhan			30.37	771.5	30.0	— 1.3	67	ESE	13	6			1					Sebastianof.
Kasan			30.14	765.5	21.6	— 5.8	100	S	4	2			10				Snow	Physical Cabinet.
Orenburg			30.78	781.8	— 1.8	—18.8	76	NE	4	2			0					Tschernischef.
Ekaterinburg			30.76	781.2	4.6	—15.2	77	S	4	2			9					Meteorological Observatory
Kasaly			30.32	770.1	18.1	— 7.7	75	ENE	13	6			5					Bobrof.
Tashkend																		Michelson.
Barnaul			30.64	778.2	8.1	—13.3	92	SW	4	2			2					Meteorological Observatory
Yeniseisk			30.26	768.7	23.5	— 4.7	98	NW	13	6			10				Snow	Marks.
Irkutsk			30.38	771.6	3.2	—16.0	78	Calm		0			0					Usolzef.
Oorga			30.92	785.3	—11.0	—23.9	97	Calm		0			1					Mossin.
Peking, (China)			30.29	769.4	25.0	— 3.9	69	Calm		0			0					Physical Observatory.
Nertchinsk			30.33	770.3	—29.6	—34.2	89	Calm		0			0					Meteorological Observatory
Vladivostock																		
Nikolaievsk, (on the Amoor)					— 1.1	—18.4		NW	13	6			10					Kurdskof.

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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.31	769.9	55.6	13.1	60	N	12.7	5.7			0		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.95	760.7	-20.2	—29.0	74	Calm			0		0					
Hernosand			29.77	756.2	—13.0	—25.0	100	N			2		2					
Upsala			29.90	759.4	3.0	—15.6	84	S			4		4	NNE				Dr. H. H. Hildebrandsson.
Stockholm			29.81	757.2	12.2	—11.0	97	NNE			6		5		0.004	0.1		
Wisby			29.61	752.0	23.4	— 4.8	100	E			6		10		0.095	2.4		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.81	731.8			46.4	8.0	62	SSW			4		6		0.244	6.2		The Observatory.
Zurich	28.43	722.0			42.4	5.8	73	W			4		8		0.827	21.0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.08	764.0	58.3	14.6	64	SW			3		10				Rain	
Constantinople			29.74	755.5	50.0	10.0	69	SW	7	3			10					
Fao, (Persian Gulf)			30.21	767.4	55.4	13.0		SE			4		10				Rainy	
Salonica			29.68	753.9	55.0	12.8		NW			2		0					
Vsiona			29.81	757.3	57.2	14.[illegible]		SW			2		10				Rain & hail	
Varna			29.88	759.0	48.2	9.0		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.42	747.2	— 1	—18.3	81	NW	17	7.6		2	2	NW	0	0		
Chatham, N. B.			29.68	753.9	— 4	—20.0	100	W	18	8.0		0	0		0.04	1.0		
Charlottetown, P. E. Island			29.62	752.3	2	—16.7	97	W	26	11.6		5	0		0.01	0.2		
Father Point, Quebec																		
Fort Garry, Manitoba			30.16	766.0	3	—16.1	95	SE	6	2.7			10		0	0		
Halifax, N. S.			29.57	761.1	8	—13.3	73	NW	28	12.5		0	2		0.12	3.0		
Kingston, Ontario			30.43	772.5	— 4	—20.0	93	Calm	0	0		0	0		0	0		
Montreal, Quebec			30.27	768.8	— 5	—23.3	86	W	23	10.3		0	2		0	0		
Ottawa, Ontario			30.30	769.6	—10	—30.0	77	SW	2	0.9		0	0		0	0		
Parry Sound, Ontario			30.48	774.2	—22	—20.0	59	NE	3	1.3		0	0		0	0		
Port Dover, Ontario			30.48	774.2	—12	—11.1	80	W	6	2.7		10	0	W	0	0		
Port Stanley, Ontario			30.49	774.4	—11	—11.7	84	W					10		0	0		
Quebec, Quebec			30.17	766.3	—10	—23.3	100	NW				0	0		0	0	Light snow	
Saugeen, Ontario			30.40	772.2	—10	—12.2	72	NE	1	0.4			10		0.25	6.3		
Sydney, C. B.			29.49	749.0	—12	—11.1	80	W	16	7.1		5	5	W	0.15	3.8	Light snow	
Toronto, Ontario			30.14	774.2	16	— 8.9	83	W	5	2.2			10		0	0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.34	770.6	11	—11.7	79	Calm	0	0		0	0		0	0		
Alpena, Mich.			30.49	774.4	7	—13.9	77	W	4	1.8			10		0	0		
Atlantic City, N. J.			30.41	772.4	18	— 7.8	67	W	10	4.5		8	0	W	0	0		
Augusta, Ga.			30.44	773.2	35	1.7	90	NW	2	0.9		5	5	W	0	0		
Baltimore, Md.			30.46	773.7	23	— 5.0	60	N	6	2.7		0	5		0			
Barnegat, N. J.			30.29	769.3	11	—11.7	44	W	3	1.3		0	0		0	0		
Benton, Montana			30.17	766.3	15	— 9.4	100	SW	4	1.8			10		0	0	Light snow.	
Bismarck, Dakota			30.16	766.0	— 9	—22.8	56	NE	7	3.1			10		0	0		
Boston, Mass.			30.20	767.1	15	— 9.4	82	NW	7	3.1		0	Sm'e		0	0		
Breckenridge, Minn.			30.14	765.5	9	—12.8	89	SE	25	11.2			10		0	0		
Buffalo, N. Y.			30.47	773.9	12	—11.1	80	W	8	3.6			10		0.01	0.2		
Burlington, Vt.			30.32	770.1	2	—16.7	72	NE	3	1.3		0	2		0	0		
Cairo, Ill.			30.38	771.6	36	2.2	80	Calm	0	0		5	Haze		0.02	0.5		
Cape Hatteras, N. C.			30.37	771.4	39	3.9	81	NE	4	1.8		2	0		0	0		
Cape Henry, Va.			30.44	773.2	32	0.0	59	NE	15	6.7		2	5	NW	0	0		
Cape May, N. J.			30.44	773.2	21	— 6.1	71	NE	16	7.1		5	0	W	0	0		
Charleston, S. C.			30.41	772.4	40	4.4	83	N	8	3.6		2	2		0	0		
Cheyenne, W. T.			29.72	754.9	20	— 6.7	85	W	4	1.8		8	0		0	0		
Chicago, Ill.			30.43	772.6	20	— 6.7	70	SE	12	5.8		0	8		0	0		
Cincinnati, Ohio			30.49	774.4	28	— 2.2	67	NE	4	1.8		0	2		0	0		
Cleveland, Ohio			30.49	774.4	12	—11.1	70	W	2	0.9			10		0	0	Light snow	
Colorado Springs, Col.			29.67	753.6	21	— 6.1	57	NW	7	3.1		2	0	W	0	0		
Corsicana, Texas			30.15	765.8	46	7.8	95	E	6	2.7			10		0.05	1.3	Light rain.	
Davenport, Iowa			30.37	771.4	13	—10.6	100	E	8	3.6			10		0.01	0.2		
Denver, Col.			29.78	756.4	18	— 7.8	52	S	6	2.7		2	2	SW	0	0		
Detroit, Mich.			30.53	775.4	7	—13.9	77	NW	3	1.3		10	Sm'e		0	0		
Dodge City, Kansas			29.60	751.8	38	3.3	90	S	11	4.9			Fog		0	0	Fog.	
Dubuque, Iowa			30.31	769.9	11	—11.7	90	Calm	0	0			10		0	0	Light snow.	
Duluth, Minn.			30.31	769.9	10	—12.2	79	NE	24	10.7			10		0	0		
Eastport, Me.			29.97	761.2	1	—17.2	72	N	22	9.8		0	0		0	0		
Erie, Penn.			30.49	774.4	15	— 9.4	91	SW	4	1.8			10		0	0		
Escanaba, Mich.			30.53	775.5	15	—26.1	72	N	8	3.6			10		0	0		
Fort Gibson, I. T.			30.14	765.5	44	6.7	26	SE	8	3.6			10		0.01	0.2		
Fort St. Michael, Alaska													Fog					
Fort Sully, D. T.			30.10	764.5	— 1	—18.3	68	NW	6	2.7		2	2	N	0	0		
Galveston, Texas			30.11	764.8	57	13.9	100	E	10	4.5			10		0.08	2.0	Fog.	
Grand Haven, Mich.			30.50	774.7	10	—12.2	79	SE	7	3.1					Blank	Blank	Fog.	
Indianapolis, Ind.			30.43	772.9	20	— 6.7	70	NE	3	1.3		5	2		0	0		
Indianola, Texas			30.08	764.0	57	13.9	100	SE	4	1.8			10		0.04	5.3	Light rain.	
Jacksonville, Fla.			30.31	769.9	54	12.2	77	N	8	3.6		10	0	N	0	0		
Keokuk, Iowa			30.25	768.3	30	— 1.1	78	SE	6	2.7		2	5	NW	0	0		
Key West, Fla.			30.16	766.0	71	21.7	73	E	12	5.4		Haze	2		0	0		
Kittyhawk, N. C.			30.63	778.0	33	0.6	61	N	15	6.7		5	0	W	0	0	Fog.	
Knoxville, Tenn.			30.45	773.9	33	0.6	69	NE	4	1.8			10		0	0		
La Crosse, Wis.			30.34	770.6	14	—10.0	63	SE	5	2.2			10		0	0		
Leavenworth, Kan.			30.13	765.3	35	1.7	60	S	8	3.6		0	2		0	0		
Lexington, Ky.			30.43	772.9	33	0.6	70	SE	7	3.1		5	5					
Long Branch, N. J.			30.32	770.1	19	— 7.2	85	SW	4	1.8		0	0		0	0		
Louisville, Ky.			30.40	772.2	31	— 0.6	79	Calm	0	0			10		0	0		
Lynchburg, Va.			30.46	773.6	31	— 0.6	57	W	4	1.8			10		0	0		
Malone, N. Y.																		
Marquette, Mich.			30.48	774.2	2	—16.7	72	Calm	0	0		5	0	W	0	0		
Memphis, Tenn.			30.35	770.9	39	3.9	56	E	4	1.8		10	0	W	0	0		
Milwaukee, Wisconsin			30.48	774.2	6	—14.4	76	NW	2	0.9			Fog		0	0	Fog.	
Mobile, Ala.			30.30	769.6	46	7.8	69	NE	4	1.8		5	Fog	SW	0	0	Fog.	
Montgomery, Ala.			30.37	771.4	43	6.1	71	NE	3	1.3		10	Sm'e	W	0	0		
Morgantown, West Virginia			30.52	775.4	14	—10.0	65	N	2	0.9		0	0		0	0		
Mt. Washington, N. H.			29.48	748.8	—20	—28.9	100	NW	80	35.8		0	2		0	0		
Nashville, Tenn.			30.38	771.6	38	3.3	71	E	1	0.4		0	10		0	0		
New Haven, Conn.			30.32	770.1	20	— 6.7	70	W	6	2.7		0	2		0	0		
New London, Conn.			30.28	769.1	20	— 6.7	68	NW	8	3.6		0	0		0	0		
New Orleans, La.			30.24	768.1	53	11.7	67	NE	12	5.4		2	0	NW	0	0		
Newport, R. I.																		
New York, N. Y.			30.37	771.4	21	— 6.1	76	NW	8	3.6		Haze	Sm'e		0	0		
Norfolk, Va.			30.15	773.4	32	0.0	69	NE	4	1.8		0	5		0	0		
North Platte, Neb.			29.69	754.1	15	— 9.4	65	Calm	0	0		2	2	W	0	0		
Omaha, Neb.			30.45	773.4	31	— 0.6	80	S	16	7.1			10		0	0		
Oswego, N. Y.			30.40	772.2	17	— 8.3	92	NW	22	9.8			10		Blank	Blank		
Peck's Beach			30.43	772.9	18	— 7.8	84	NW	10	4.5		2	2	W	0	0		
Pembina, D. T.			30.17	766.3	— 5	—15.0	87	SE	8	3.6			10		0	0		
Philadelphia, Penn.			30.43	772.9	19	— 8.3	67	NW	20	8.9		2	2	NW	0	0		
Pike's Peak, C. T.			29.60	751.8	2	—16.7	100	SW	12	5.4		0	5		0	0		
Pittsburgh, Penn.			30.54	775.7	13	—10.6	81	Calm	0	0		Haze	5		0	0		
Port Huron, Mich.			30.56	776.2	5	—15.0	87	W	4	1.8			10		0	0		
Portland, Maine			30.13	765.3	13	—10.6	62	Calm	0	0		Haze	Haze		0	0		
Portland, Or.			30.31	769.9	27	— 2.8	77	Calm	0	0		0	0		0.07	1.8		
Punta Rassa, Fla.			30.24	768.1	66	17.2	98	E	13	5.8			Fog		0	0	Fog.	
Rochester, N. Y.			30.41	772.4	19	— 7.2	84	W	8	3.6			10		0.01	0.2	Light snow.	
Salt Lake City, Utah			29.59	751.6	34	1.1	79	N	4	1.8			10		0.07	1.8		
Sandy Hook, N. J.			30.35	770.9	19	— 7.2	69	W	12	5.4		5	Haze	W	0	0		
San Diego, Cal.			29.73	755.1	54	12.2	79	W	8	3.6			10		0	0		
San Francisco, Cal.			29.73	755.1	46	7.8	33	N	28	12.5		0	0		0	0		
Santa Fe, N. M.			29.51	749.5	32	0.0	79	SE	8	3.6			10		0.17	4.3		
Savannah, Georgia			30.37	771.4	40	4.4	83	N	6	2.7		5	0		0	0		
Shreveport, La.			30.21	764.8	49	9.4	50	E	2	0.9			10		0	0		
Springfield, Mass.			30.30	769.6	19	— 7.4	60	NE	8	3.6		0	0		0	0		
St. Louis, Mo.			30.31	769.9	39	3.9	63	Calm	0	0			10		0	0		
St. Marks, Fla.			30.29	769.4	53	11.7	73	NE	10	4.5			10		0	0		
St. Paul, Minn.			30.17	766.3	11	—11.7	79	SE	14	6.3			10		0	0		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.41	772.4	15	— 9.4	65	W	6	2.7		2	Haze	W	0	0		
Toledo, Ohio			30.54	775.7	9	—12.8	67	Calm	0	0		5	5	W	0	0		
Tybee Island, Ga.			30.38	771.6	46	7.8	67	NE	16	7.1		5	2	SE	0	0		
Vicksburg, Miss.			30.33	770.4	47	8.3	48	E	7	3.1		5	0	SW	0	0		
Virginia City, Mon.			29.57	751.1	73	10.6	79	Calm	0	0		0	5		0	0		
Washington, D. C.			30.47	773.9	21	— 6.1	72	N	8	3.6		2	5	W	0	0		
Wilmington, N. C.			30.43	772.9	33	0.6	61	N	6	2.7		0	0		0	0		
Wood's Hole, Mass.			30.25	768.3	21	— 6.1	57	NW	12	5.4		0	0		0	0		
Wytheville, Va.			30.26	768.6	28	— 2.2	67	W	5	3.2			10		0	0		
Yankton, D. T.			30.00	772.0	27	— 2.8	82	S	7	3.1			10		0.02	0.5		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.08	764.0	.....	.....	82	27.8	.....	NE	8	3.6	.....	5	5	E	0	0	.....	
Point-a-pitre, Guadaloupe, W.I.	30.01	762.2	.....	.....	72	22.2	.....	E	.....	.....	.....	.....	.....	E	0	0	.....	
Havana, Cuba, W. I.	.....	.....	29.96	761.0	71	21.7	90	E	2	0.9	.....	2	0	E	0	0	.....	
Honolulu, Oahu, Sandwich Is.	.....	.....	30.10	764.5	66	18.9	80	NE	2	0.9	.....	2	2	NE	0	0	.....	
Kingston, Jamaica, W. I.	.....	.....	30.25	768.3	75	23.9	.....	E	1	0.4	.....	2	0	SE	0	0	.....	
Makawao, Maui, Sandwich Is.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Thomas, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Santiago de Cuba, Cuba, W. I.	.....	.....	29.92	759.9	71	21.7	75	N	2	0.9	.....	2	0	N	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 27, 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.25	768.3	38.1	3.4	63	NE			1		2		0	0		Prof. Ivan Stozir.
Budn-Pesth			30.19	766.9	27.0	— 2.8	83	W			7		3		0.020	0.50		I. R. Cen. Met. Ins., Hungary
Cracow			30.27	768.8	35.2	1.8	75	NE			3		10		0	0		I. R. Observatory.
Eperies			30.15	765.8	30.4	— 0.9	76	Calm			0		1		0.185	4.69		Julius Mikolik.
Gratz			30.28	769.0	35.8	2.1	54	NW			5		0		0	0		Andreas Rospini.
Hermannstadt			30.03	762.8	35.2	1.8	72	NW			5		8		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.46	773.8	34.2	1.2	69	W			3		1		0	0		Prof. C. Wagner.
Lemberg			30.13	765.3	29.5	— 1.4	95	NW			3		3					Dr. T. Stanecki.
Nyiregyhaza			30.12	765.0	30.6	— 0.8	92	N			4		10		0.178	4.51		Habasuda Daniel.
Pola			30.23	767.9	45.9	7.7	48	ESE			1		1		0	0		I. R. Hydrographic Office.
Szegedin			30.31	769.8	30.6	— 0.8	96	N			3		10		0.020	0.50		Karl Stancel.
Trieste			30.22	767.7	48.7	9.3	25	E			0		0		0	0		Prof. V. Farolfi.
Vienna			30.44	773.3	36.7	2.6	76	WNW			6		10		0.209	5.3		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.20	767.0			39.6	4.2	71	S			0		0		0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeee			29.83	757.7	47.0	8.3		SSW.	21	9.4			7		0.120	3.05		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			29.85	758.2	48	8.9		SSW			4		8					William McNeil.
Armagh Observatory			29.78	756.4	50.3	10.2		S	29	13.0			10				Threatening	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.01	762.2	50.9	10.5		SE			4		9					The Liverpool Observatory.
Birr Castle			29.79	756.6	52.9	11.6		S			3		10					J. Dreyer.
Bradford			30.04	763.0	49.9	9.9		W			2		3					J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			30.21	767.3	49.0	9.4		S			2		10					H. Todd.
Cape Town, Cape Colony			29.82	757.4	80	26.7		NW			1		0					Sgt. D. E, Hunt
Cape Good Hope Observatory	29.85	758.2			83.5	28.6	47	SE	20	8.9			0.5					The Royal Observatory.
Cardington			30.25	768 3	53.0	10.0		S			4		7					John McLaren.
Carlisle			29.94	760.5	52.3	11.3		S			5		6		0.12	3.0		T. Bell.
Chatham			30.25	768.3	50.2	10.1		W			2		4					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.95	760.7	77.3	25.2		NE			1		5					Sgt. W. F. Hopkins
Dartmoor			30.16	766.0	44	6.7		SE			4		10				Fog	R. E. Power.
Donaghadee			29.83	757.7	48	8.9		S			6		10					J. Mac Gowan, Jr.
Dover.			30.34	770 6	45	7.2							4					J. Costello.
Dublin																		
Durham Observatory			29.98	761.5	47.8	8.8		S			6		10					G. Goldney.
Eccles, (near Manchester)			30.08	764.0	51.1	10.6		SW	3.4	1.5			10					Thomas Mackereth.
Falmouth Observatory			30.11	764.8	49.1	9.5		W	30	13.4			10				Rain & Fog.	The Fa mouth Observatory.
Fort Napier, (Natal)			29.81	757.2	84.8	29.3		NE			3		2					Pvt. G. Salmon.
Galway			29.66	753.3	49	9.4		SW			1		7					Queen's College.
Gibraltar, (Mediterranean Sea)			30.26	768.6	60.5	15.8		ENE			3		10					Sgt. J. Brewster.
Glasgow Observatory			29.84	757.9	49.7	9.8		SW			4		8					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.10	764.5	50.7	10.4		SW			3		8					E. Toller.
Great Yarmouth			30.25	768.3	44	6.7		S			3		4				Mist	G. T. Watson.
Greenwich Royal Observatory.			30.26	768.6	49.8	9.9		S			4		10					The Royal Observatory.
Guernsey			30.20	767.1	47	8.3		SSE			4		3					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			30.04	763.0	52.4	11.3		WSW			4		9					Moorside Observatory.
Halifax, Nova Scotia			29.60	751.8	1.2	—17.1		NW			3		10					Corp'l J. Y. Thompson.
Helston			30.11	764.8	52	11.1		S			6		10				Mist & Fog.	W. B. Moyle.
Holyhead			29.97	761.2	49	9.4		SSW			6		10				Mist	John Tilston.
Hull Park																		
Kew Observatory			30.26	768.6	49.3	9.6		S	18	8.0			9					The Meteorological Office.
Kingstown			29.90	759.4	52	11.1		S			2		9					George Mitchell.
Lampeter																		
Leicester			30.18	766.6	49.0	9.4		S			4		10					William J. Harrison
Llandudno			29.97	761.2	55.1	12.8		S			5		8.5					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.16	766.0	61.0	16.1		NW			1		2					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.70	754.4	49.0	9.4		SW			3		8					William D. Penny.
Nassau, (Bahamas)			30.20	767.1	70.6	21.4		N			6		7					Surgeon I. Jameson.
North Shields			29.99	761.7	48	8.9		SW			4		7					John Wm. Irvine.
Nottingham			30.16	766.0	50.5	10.3		S			3		8				Threatening	E. J. Lowe.
Osborne, New Barn Cottage			30.21	767 3	51.6	10.9		SSW			1		7					J. R. Mann.
Oscott, (near Birmingham)			30.14	765.5	48.4	9.1		S			6		9				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.18	766.6	50	10.0		SSW			1		10					Radcliffe Observatory.
Plymouth			30.14	765.5	48	8.9		S			3		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.86	758.4	50.0	10.0		SW			6		9				Mist	W. Kennedy.
Saint Ann's Head			30.02	762.5	48	8.9		S			5		10				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.66	753.3	45.0	7.2		S	25	11.2			10					Rev. Dr. Clouston.
Scarboro'			30.08	764.0	48.6	9.2		SW			4		9					F. Heard.
Scutari, Turkey			29.90	759.4	43.2	6.2		S			1		9				Misty	W. H. Lyne.
Sheffield			30.11	764.8	50.9	10.5		SW			3		9					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.93	760.2	52.0	11.1		SW			6		8		0.090	2.29		Francis Redford.
Somerleyton, (Lowestoft)			30.25	768.3	48.0	8.9		S			1		3					Rev. C. J. Steward.
Stonyhurst Observatory			30.02	762.5	50	10.0		S			5		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.54	750.3	49	9.4		S W			7		10					John Smith.
Strathfield Turgiss			30.21	767.3	48.9	9.4		SE			1		7					Charles H. Griffith.
Streatley Vicarage			30.25	768.3	50.6	10.3		SSE			6		5					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.64	752.8	46	7.8		SSW			6		10					William Lawrence.
Taunton College																		
Thurso			29.68	753.9	45	7.2		SW			4		7					John Trotter.
Truro Royal Institution			30.05	763.3	50	10.0		S			6		10				Rain	Royal Institution.
Valencia			29.75	755.6	47.8	8.8		WNW	38	17.0			10				Rain	Meteorological Observatory.
Wick																		
Wisbech			30.20	767.1	48.1	8.9		SSW			3		10				Mist	S. H. Miller.
Worthing			30.26	768.6	46.2	7.9		SW			4		7				Rain	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.

DANISH SERIES.

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

Copenhagen			30.48	774.2	22.8	— 5.1	61	S			1		2					
Fanöe			30.42	772.6	30.6	— 0.8	70	SSW			6		10					
Thorshavn, (Faröe)			29.49	749.1	32.9	0.5	90	E			4		10				Snow	
Vestervig			30.30	769.6	26.2	— 3.2	96	S			6		10					
Stykkisholm, (Iceland)			29.57	751.1	8.6	—13.0	100	E			7		5					
Godthaab, (Greenland)			29.88	759.0	0.7	—17.4		NE			2		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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.28	769.0	48.9	9.4	72	SW			2		3		0	0		Normal School.
Amiens			30.39	771.8	46.4	8.0	94	E			3		0		0	0		Normal School.
Beaumette, (near Angers)			30.24	768.1	50.5	10.3	62	E	5.4	2.4			3		0	0		Baumette Observatory.
Beauvais			30.41	772.5	43.7	6.5	77	SSE			0		0		0	0		Normal School.
Besançon			30.42	772.6	41.2	5.1	70	NE			2		0		0.075	1.9		Normal School.
Bourges			30.20	767.1	45.3	7.4	66	E			2		0		0	0		Normal School.
Brest			30.09	764.2	48.7	9.3	89	SSE			3		10		0	0	Rain	Naval Observatory.
Caen			30.26	768.7	46.8	8.2	86	SSE			4		5		0	0		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.42	772.7	37.6	3.1		ESE			4		0		0	0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.32	770.2	46.2	7.9	70	SE			2		3		0.004	0.1		Normal School.
Mirecourt			29.96?	761.0?	42.8	6.		NNW			1		0		0	0		Normal School.
Mont-Louis	25.02	635.6			47.3	8.5	35	SW	6.9	3.12			0		0	0		—. Falguère.
Montsouris (near Paris)			30.35	770.8	45.5	7.5	76	ESE	1.8	0.8			3		0	0	Haze	Marié Davy.
Orleans			30.32	770.2	44.2	6.8	85	E			2		0		0	0		Normal School.
Paris			30.35	770.9	44.2	6.8	73	SE			2		3		0	0	Fog	National Observatory.
Parthenay			30.24	768.1	53.6	12.0	75	E			0		0		0	0		Normal School.
Perpignan	30.06	763.5			66.2	19.0	35	SW	3.7	1.67			0		0	0		Dr. Fines.
Roche sur Yon			30.22	767.7	51.4	10.8	61	E			2		0		0	0		Normal School.
Rouen			30.40	772.1	45.0	7.2	74	SE			0		10		0	0		Normal School.
Saint Lo			30.39	772.0	45.9	7.7	68	SW			2		3		0	0		Normal School.
Saint Maur, (near Paris)			30.36	771.1	46.6	8.1	67	ESE			1		0		0	0		E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.30	769.5	47.7	8.7	73	E			1		0		0	0		C. Marquet.
Tunis, (Africa)			30.15	765.7	63.7	17.6	56	NW			5		5		0	0		—. Jacques.
Versailles, (near Paris)			30.35	770.9	46.0	7.8	70	SSE			1		3		0.003	0.09		Dr. A. Bérigny.
Villefranche			30.05?	763.2?	44.1	6.7	94	S			2		0		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.48	774.3	27.1	— 2.7	63	NW			2		3		0.016	0.4		Prof. Hoh.
Berlin			30.58	776.7	27.7	— 2.4	87	N			2		0		0.008	0.2		Prof. Arndt.
Breslau			30.40	772.1	25.0	— 3.9	89	NW			7		10		0.134	3.4	Snowy	Dr. P. Neugebauer.
Carlsruhe			30.53	775.4	36.0	2.2	57	NE			2-5		1		0	0		A. Lenz.
Cassel			30.48	774.1	31.8	— 0.1	77	SE			2		0		0	0		Dr. H. Mohl.
Cologne			30.46	773.6	31.1	— 0.5	97	NW			4		4		0	0		Dr. Gaithe.
Emden			30.53	775.5	32.0	0.0	68	S			2		3		0	0		Prof. Prestel.
Frankfort on the Main			30.65	778.5	32.9	0.5	80	E			2		1		0	0		Physical Society.
Friedrichshafen			30.51	774.9	36.5	2.5	56	E					0		0	0		M. Wilhelm.
Hamburg			30.49	774.4	31.1	— 0.5	53	S			2		3		0	0		W. Reinart.
Kiel			30.44	773.2	31.8	— 0.1	62	SW			3		8		0	0		Prof. G. Karsten.
Königsberg			30.33	770.3	17.6	— 8.0	78	N			2		7		0.012	0.3	Snow	Prof. E. Luther.
Köslin			29.67	779.1	30.0	— 1.1		N			3				0.067	1.7		Dr. Tägert.
Leipsic			30.58	776.8	24.4	— 4.2	91	NW			2		1		0	0		Prof. Bruhns.
Münster			30.52	775.2	34.5	1.4	79	E			2		0		0	0		Prof. E. Heis.
Posen			30.39	772.0	29.8	— 1.2	68	NW			8		10		0.039	1.0		Dr. Magener.
Strassburg, (in Alsace)			30.51	774.9	35.6	2.0	67	NE					0		0	0		Hartwig and Fulk.
Stuttgart			30.55	775.9	33.3	0.7	66	E					8		0.043	1.1		Mr. Wurth.
Thorn			30.33	770.3	28.0	— 2.2	79	N			5		10		0.075	1.9		Dr. Hagenbalg.
Treves, (Trier)			30.45	773.5	34.5	2.4	61	E			2		1		0	0		Prof. Flesch.
Wustrow			30.56	776.3	26.6	— 3.0	54	SE			2		0		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.25	768.3	46.8	8.2	54	WSW	0.6	0.3			1		0	0		
Mondovi			30.24	768.2	47.8	3.6	39	W			2		1	NNW	0	0		
Genoa			30.19	766.7	58.5	14.7	23	N	1.2	0.5			0		0	0		
Pavia			30.25	768.3	44.2	6.8	54	NE			2		1		0	0		
Verona																		
Padua			30.24	768.1	46.0	8.1	50	SSW	8.1	3.6			9		0	0		
Parma			30.26	768.5	48.2	9.0		W			2		1		0	0		
Bologna			30.26	768.6	48.2	9.0	30	SW			6		2		0	0		
Urbino			30.22	767.5	44.2	6.8	57	ENE			4		1		0	0		
Ancona			30.26	768.7	45.1	7.3	66	NW			2		0		0	0		
Florence																		
Siena			30.21	767.3	50.0	10.0	35	E	3.7	1.6			1		0	0		
Livorno			30.20	767.1	55.0	12.8	37	W			2		2		0	0		
Rome			30.15	765.8	56.6	13.7	28	NW			2		0		0	0		
Naples, O.U.			30.16	766.0	55.4	13.0	43	E			6		1		0	0		
Naples, S. R.	29.61	752.2			53.4	11.9	65	E			1		0		0	0		Prof. F. Brioschi.
Lecce			30.09	764.4	48.2	9.0	70	WNW	23.0	10.3			10		0	0		
Cosenza			30.09	764.4	54.1	12.3	39	WNW			1		0		0	0		
Catania, (Sicily)			30.08	764.1	56.7	13.7	71	SW			2		0		0	0		
Trapani																		
Palermo			30.04	762.9	61.5	16.4	47	NE			4		0		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.41	772.5	40.8	4.9		S			4							
Flushing			30.38	771.6				S			2							
Helder			30.37	771.4	34.5	1.4		SSE			4							
Utrecht			30.38	771.6	36.7	2.6		SSE			3		5					

Note.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.97	761.2	34.2	1.2	92	S	38.5	17.2			10		0.677	17.2	Snow	
Christiania			30.23	767.9	18.0	— 7.8	97	SW	1.8	0.8			10		0	0		
Tromsö			29.16	740.6	30.2	— 1.0	90	SSE			8		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.94	760.4			51.4	10.8	91	E	1.1	0.5			10					

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.25	768.3	29.8	— 1.2	94	NNW	4	2			10				Snow	Astronomical Observatory.
Wilna			30.24	768.2	18.5	— 7.5	88	N	4	2			10					Astronomical Observatory.
Dorpat			30.39	772.	9.5	—17.5	78	ENE	7	3			0					Physical Cabinet.
St. Petersburg			30.39	771.9	1.2	—17.1	82	ENE	4	2			0					Central Physical Observat'y
Kieff			30.01	762.2	30.0	— 1.1	100	N	11	5			10				Snow	Physical Cabinet.
Nikolaiev			29.70	754.3	38.8	3.8	93	ENE	10.1	4.5			10					
Kertch			29.70	754.5	46.6	8.1	88	S	9	4			10					Lagorio.
Moscow			30.17	766.2	34.3	1.3	83	SSW	4	2			10					Meteorological Observatory
Lugan			29.89	759.2	35.4	1.9	84	ESE	13	6			10					Meteorological Observatory
Archangel			30.40	772.1	— 8.3	—22.4	86	SSW	4	2			0					Ogorodnikof.
Tiflis			29.98	761.6	48.0	8.9	53	NW	2	1			2					Physical Observatory.
Astrakhan			30.24	768.2	32.0	0.0	92	E	10.1	4.5			10					Sebastianof.
Kasan			30.41	772.4	7.7	—13.5	92	S	10.1	4.5			7					Physical Cabinet.
Orenburg			30.64	778.3	3.2	—16.0	90	NE	4	2			0					Tschernischef.
Ekaterinburg			30.69	779.5	17.6	— 8.0	53	S	4	2			2					Meteorological Observatory
Kasaly			30.25	768.3	18.1	— 7.7	78	NNE	20	9			5					Bobrof.
Tashkend																		Michelson.
Barnaul			30.89	784.7	8.3	—22.4	81	Calm	0	0			0					Meteorological Observatory
Yeniseisk			30.35	771.0	14.5	— 9.7	90	W	13	6			0				Snow	Marks.
Irkutsk			30.56	776.3	— 6.0	—21.1	78	Calm	0	0			0					Usolzef.
Oorga			30.72	780.2	— 8.7	—22.6	100	Calm	0	0			0					Mossin.
Peking, (China)			30.13	765.2	31.1	— 0.5	45	Calm	0	0			2					Physical Observatory.
Nertchinsk			30.33	770.5	—17.9	—27.7	80	NW	4	2			0					Meteorological Observatory
Vladivostock																		
Nikolaievsk, (on the Amoor)					— 2.9	—19.4		W	10.1	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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.25	768.3	57.9	14.4	56	NE	4	1.6		1	0	SW	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.10	764.5	11.8	—11.2	100	SW			7		10					
Hernosand			30.11	764.8	12.2	—11.0	93	S			2		10					
Upsala			30.42	772.7	—10.8	—23.8	100	Calm			0		10					Dr. H. H. Hildebrandsson.
Stockholm			30.37	771.5	1.0	—17.2	100	NW			1		10				Fog	
Wisby			30.45	773.5	23.7	— 4.6	100	E			2		5					

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.92	734.6			41.4	5.2	68	NNE			2		0		0	0		The Observatory.
Zurich	28.74	730.0			39.0	3.9	70	E			1		1		0	0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.04	763.0	66.9	19.4	63	SW			3		10					
Constantinople			29.89	759.3	45.0	7.2	84	NNW	0	0			10					
Fao, (Persian Gulf)			30.34	770.6	58.8	14.9		NW			3		0					
Salonica			29.86	758.4	47.7	8.7		N			6		5					
Valona			29.95	760.8	41.5	5.3		NW			3		10					
Varna			29.92	760.0	41.0	5.0		W			6		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.34	770.6	3	—16.1	86	SW	5	2.2			10					
Chatham, N. B.			29.54	750.3	— 7	—21.7	80	W	3	1.3		5	2	SW	0	0		
Charlottetown, P. E. Island			29.55	750.6	— 8	—22.2	65	NW	5	2.2		2	0	0	0	0		
Father Point, Quebec			29.74	755.4	—14	—25.6	64	W	11	4.9		0	Haze		0	0		
Fort Garry, Manitoba			30.13	765.3	— 7	—21.7	96	W	4	1.8		5	5	NW	0.02	0.5		
Halifax, N. S.			29.43	747.5	— 1	—18.3	82	W	11	4.9		8	2		0.03	0.8		
Kingston, Ontario			30.35	770.9	— 1	—18.3	84	Calm	0	0		8	0	W	0	0		
Montreal, Quebec			30.21	767.3			68	SW	20	8.9		0	2		0	0		
Ottawa, Ontario			30.23	768.1	— 8	—22.2	58	Calm	0	0		2	0	NW	0	0		
Parry Sound, Ontario			30.21	767.3	8	—13.3	89	E	12	5.4			10		0	0	Light snow.	
Port Dover, Ontario			30.25	768.3	10	—12.2	100	E	4	1.8			10		0.05	1.3	Light snow.	
Port Stanley, Ontario			30.22	767.6	16	— 8.9	96	SE					10		0	0		
Quebec, Quebec			30.06	763.5	—11	—23.9	76	W				0	0		0	0		
Saugeen, Ontario			30.15	765.8	12	—11.1	90	SE	13	5.8			10		0.06	1.5		
Sydney, C. B.			29.49	749.0	— 7	—21.7	92	W	11	4.9		5	2	NW	0	0		
Toronto, Ontario			29.26	708.6	13	—10.6	91	W	3	1.3			10		0.01	0.2	Light snow.	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.25	768.3	5	—15.0	75	NW	8	3.6		0	2		0	0		
Alpena, Mich.			30.06	763.5	16	— 8.9	83	S	6	2.7			10		0	0	Light snow.	
Atlantic City, N. J.			30.30	769.6	18	— 7.8	75	W	7	3.1		10	0	W	0	0		
Augusta, Ga.			30.35	770.9	37	2.8	90	Calm	0	0		5	5	NW	0	0		
Baltimore, Md.			30.35	770.9	23	— 5.0	86	W	1	0.4		5	Fog	W	0	0	Fog.	
Barnegat, N. J.			30.18	766.6	13	—10.6	61	W	6	2.7		8	0		0	0		
Benton, Montana			30.11	764.8	—13	—25.0	100	Calm	0	0			10		0.15	3.8		
Bismarck, Dakota			30.21	767.3	—10	—23.3	54	NE	6	2.7		2	0		0	0		
Boston, Mass.			30.10	764.5	10	—12.2	79	NW	8	3.6		0	Sm'e		0	0		
Breckenridge, Minn.			30.33	770.4	—12	—24.4	85	NW	8	3.6		0	0		0	0		
Buffalo, N. Y.			30.27	768.8	12	—11.1	81	SE	4	1.8			10		0	0	Light snow	
Burlington, Vt.			30.22	767.6	5	—15.0	75	NW	4	1.8		0	5		0	0		
Cairo, Ill.			30.06	763.5	45	7.2	84	S	4	1.8			10		0.18	4.6	Light rain.	
Cape Hatteras, N. C.			30.35	770.9	36	2.2	70	NE	3	1.3		0	0		0	0		
Cape Henry, Va.			30.34	770.6	33	0.6	80	N	5	2.2		5	0	NW	0	0		
Cape May, N. J.			30.33	770.4	22	— 5.6	58	NW	8	3.6		8	0	NW	0	0		
Charleston, S. C.			30.36	771.1	41	5.0	75	N	4	1.8		2	2	N	0	0		
Cheyenne, W. T.			29.80	756.9	18	— 7.8	83	Calm	0	0			10		0	0	Light rain.	
Chicago, Ill.			29.98	761.5	38	3.3	71	SW	6	2.7			10		0	0	Threatening	
Cincinnati, Ohio			30.07	763.8	38	3.3	71	SE	8	3.6			10		0	0		
Cleveland, Ohio			30.12	765.0	23	— 2.2	88	SW	10	4.5			10		0	0		
Colorado Springs, Col.			29.78	756.4	24	— 4.4	48	N	1	0.4			10		0	0	Light snow	
Corsicana, Texas			29.96	761.0	62	16.7	98	SE	5	2.2			10		0.17	4.3	Light rain.	
Davenport, Iowa			29.98	761.5	36	2.2	100	Calm	0	0			Fog		0.12	3.0	Fog.	
Denver, Col.			29.89	759.2	21	— 6.1	71	NE	6	2.7			10		0	0		
Detroit, Mich.			30.11	764.8	22	— 5.6	86	E	2	0.9			10		0	0		
Dodge City, Kansas			29.70	754.4	31	— 0.6	70	W	9	4.0			10		0	0	Light rain.	
Dubuque, Iowa			30.04	763.0	33	0.6	94	Calm	0	0			10		0	0		
Duluth, Minn.			30.07	763.8	12	—11.1	79	NW	4	1.8		0	0		0.06	1.5		
Eastport, Me.			29.74	755.4	— 2	18.9	67	NW	10	4.5		2	0		0	0		
Erie, Penn.			30.20	767.1	23	— 5.0	79	SE	10	4.5			10		0	0		
Escanaba, Mich.			29.97	761.2	23	— 5.0	79	SW	1	0.4			10		0.05	1.3		
Fort Gibson, I. T.			29.94	760.5	50	10.0	93	E	5	2.2			10		0.02	0.5		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.34	770.6	2	—16.7	58	NW	8	3.6		8	0	NW	0	0		
Galveston, Texas			30.06	763.5	62	16.7	100	SE	8	3.6			Fog		0.02	0.5	Fog.	
Grand Haven, Mich.			30.00	762.0	28	— 2.2	88	S	4	1.8			10		0	0	Light snow.	
Indianapolis, Ind.			30.04	763.0	40	4.4	64	S	6	2.7			10		0	0		
Indianola, Texas			30.03	762.8	66	18.9	100	SE	10	4.5		0	Fog		0.03	0.8	Fog.	
Jacksonville, Fla.			30.30	769.6	55	12.8	79	NE	4	1.8		5	0	SW	0	0		
Keokuk, Iowa			30.94	760.5	41	5.0	83	SW	7	3.1			10		0.45	11.4	Threatening	
Key West, Fla.			30.19	766.8	73	22.8	85	NE	14	6.3		5	5	NE	0	0		
Kittyhawk, N. C.			30.58	776.7	30	— 1.1	71	N	3	1.3		0	2		0	0	Frost.	
Knoxville, Tenn.			30.29	769.4	34	1.1	79	Calm	0	0			10		0	0		
La Crosse, Wis.			30.02	762.5	26	— 3.3	88	N	6	2.7			10		0.03	0.8		
Leavenworth, Kan.			29.92	760.0	40	4.4	91	Calm	0	0			10		0.00	2.0	Light rain.	
Lexington, Ky.			30.16	766.1	39	3.9	64	S	14	6.3		8	2	SW	0	0		
Long Branch, N. J.			30.22	767.6	17	— 8.3	100	S	8	3.6		0	2		0	0		
Louisville, Ky.			30.10	764.5	37	2.8	81	Calm	0	0		2	Fog		0	0	Fog.	
Lynchburg, Va.			30.33	770.4	27	— 2.8	82	W	2	0.9		10	0	W	0	0		
Malone, N. Y.																		
Marquette, Mich.			29.95	760.7	25	— 3.9	75	Calm	0	0			10		0.01	0.2		
Memphis, Tenn.			30.11	764.8	52	11.1	73	S	4	1.8		2	8		0	0		
Milwaukee, Wisconsin			29.99	761.7	34	1.1	100	S	4	1.8			10		0.04	1.0	Light snow.	
Mobile, Ala.			30.22	767.6	55	12.8	93	S	4	1.8		2	2		0	0		
Montgomery, Ala.			30.29	769.4	48	8.9	73	E	4	1.8		8	Sm'e		0	0		
Morgantown, West Virginia			30.24	768.1	28	—10.2	72	Calm	0	0		10	Haze		0	0		
Mt. Washington, N. H.			29.37	746.0	—21	—29.4	100	NW	8	3.6			Fog		0	0		
Nashville, Tenn.			30.14	765.5	45	7.2	76	E	4	1.8			10		0	0		
New Haven, Conn.			30.23	767.8	17	— 8.3	83	W	6	2.7		0	0		0	0		
New London, Conn.			30.20	767.1	15	— 9.4	73	W	6	2.7		2	0	NW	0	0		
New Orleans, La.			30.16	766.0	60	15.6	88	SE	6	2.7		2	Fog	SE	0	0	Fog.	
Newport, R. I.																		
New York, N. Y.			30.27	768.8	15	— 9.4	83	W	12	5.4		5	Sm'e	W	0	0		
Norfolk, Va.			30.35	770.9	29	— 1.7	77	Calm	0	0		0	2		0	0		
North Platte, Neb.			29.89	759.2	12	—11.1	80	NE	12	5.4		0	5		0	0		
Omaha, Neb.			30.13	770.4	17	— 8.3	92	NW	14	6.3			10		0.03	0.8		
Oswego, N. Y.			30.31	769.9	12	—11.1	90	SE	6	2.7			10		Blank	Blank		
Peck's Beach			30.33	770.4	19	— 7.2	84	NW	4	1.8		5	2	W	0	0		
Pembina, D. T.			30.20	767.1	— 6	—21.1	81	NW	8	3.6		0	0		0	0		
Philadelphia, Penn.			30.34	770.6	19	— 7.2	69	NW	12	5.4		2	2	NW	0	0		
Pike's Peak, C. T.			29.59	751.6	8	—13.3	100	S	4	1.8			10		0.11	2.8	Light snow.	
Pittsburgh, Penn.			30.26	768.6	23	— 5.0	86	Calm	0	0			Fog		0	0	Fog.	
Port Huron, Mich.			30.16	766.0	19	— 7.2	84	S	10	4.5			10		0.02	0.5		
Portland, Maine			29.97	761.2	9	—12.8	78	W	7	3.1		0	Haze		0	0		
Portland, Or.			30.31	769.9	25	— 3.9	74	N	4	1.8		2	0		0	0		
Punta Rassa, Fla.			30.24	767.8	64	17.8	89	NE	9	4.0		2	Fog		0	0	Fog.	
Rochester, N. Y.			30.28	769.1	15	— 9.4	83	SW	8	3.6			10		0.01	0.2		
Salt Lake City, Utah			29.86	758.4	27	— 2.8	86	NE	4	1.8		5	0		0	0		
Sandy Hook, N. J.			30.25	768.3	18	— 7.8	68	W	20	8.9		8	0	W	0	0		
San Diego, Cal.			29.78	756.4	44	6.7	83	W	8	3.6			10		0.55	14.0		
San Francisco, Cal.			29.86	758.4	44	6.7	60	S	4	1.8		2	0		0	0		
Santa Fe, N. M.			29.56	750.8	26	— 3.3	69	SE	3	1.3			10		0.09	2.3	Clearing	
Savannah, Georgia			30.32	770.1	45	7.2	67	NE	2	0.9		5	Sm'e	NW	0	0		
Shreveport, La.			30.07	763.8	55	—12.8	100	SE	4	1.8			10		0.57	14.5	Threatening	
Springfield, Mass.			30.16	766.0	13	—10.6	61	Calm	0	0		0	Sm'e		0	0		
St. Louis, Mo.			30.04	763.0	45	7.2	84	SW	4	1.8			10		0.13	3.3		
St. Marks, Fla.			30.27	768.8	52	11.1	70	NE	3	1.3		0	10		0	0		
St. Paul, Minn.			30.04	763.0	16	— 8.9	83	NW	8	3.6			10		0.10	2.5		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.29	769.3	16	— 8.9	65	NW	6	2.7		5	0	NW	0	0		
Toledo, Ohio			30.13	765.3	25	— 3.9	75	Calm	0	0			10		0	0		
Tybee Island, Ga.			30.34	770.6	48	8.9	80	NE	10	4.5		5	2	NW	0	0		
Vicksburg, Miss.			30.20	767.1	53	11.7	51	S	2	0.9			Fog		0.12	3.0	Fog.	
Virginia City, Mon.			29.64	752.8	2	—18.9	69	E	2	0.9		Haze	5		0	0		
Washington, D. C.			30.35	770.9	21	— 6.1	85	Calm	0	0		2	5	NW	0	0		
Wilmington, N. C.			30.37	771.4	33	0.6	79	NE	3	1.3		2	Haze	NW	0	0		
Wood's Hole, Mass.			30.14	765.5	18	— 7.8	68	NW	16	7.1		0	2		0	0		
Wytheville, Va.			30.15	765.8	26	— 3.3	76	Calm	0	0		8	0	W	0	0		
Yankton, D. T.			30.33	770.4	0	—17.8	69	NW	9	4.0		5	2	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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.10	764.5	.....	.....	77	25.0	.....	NE	3	1.3	.....	.....	.....	.....	0	0	Rainy	
Point-a-pitre, Guadaloupe, W.I.	29.99	761.5	.....	.....	72	22.2	.....	NE	.....	.....	.....	10	0	.....	0	0	.....	
Havana, Cuba, W. I.	.....	.....	30.00	762.0	73	22.8	81	SE	2	0.9	.....	2	0	NE	0	0	.....	
Honolulu, Oahu, Sandwich Is.	.....	.....	30.08	764.0	66	18.9	90	NE	3	1.3	.....	0	2	.....	0	0	.....	
Kingston, Jamaica, W. I.	.....	.....	30.24	768.1	74	23.3	.....	E	1	0.4	.....	2	2	SE	0	0	.....	
Makawao, Maui, Sandwich Is.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Thomas, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Santiago de Cuba, Cuba, W. I.	.....	.....	29.92	759.9	70	21.1	79	NE	8	3.6	.....	5	5	NE	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.56	776.3	34.5	1.4	53	Calm			0		0		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.50	774.8	31.4	— 0.3	7[illegible]	NE			2		0		0	0		I. R. Cen. Met. Ins., Hungary
Cracow			30.61	777.5	27.5	— 2.5	79	NE			2		10		0	0		I. R. Observatory.
Eperies			30.52	751.1	27.7	— 2.4	75	N			3		10		0	0		Julius Mikolik.
Gratz			30.58	776.8	28.2	— 2.1	70	NW			2–5		0		0	0		Andreas Rospini.
Hermannstadt			30.37	771.3	28.4	— 2.0	86	NW			1		10		0.085	2.15	Snow	Prof. C. L. Reissenberger.
Kremsmünster			30.64	778.3	24.1	— 4.4	77	E			2		3		0	0		Prof. C. Wagner.
Lemberg			30.50	774.6	24.8	— 4.0	87	N			4		9					Dr. T. Stanecki.
Nyiregyhaza			30.48	774.2	30.6	— 0.8	88	N			3		0		0	0		Habzsuda Daniel.
Pola			30.50	774.7	41.7	5.4	69	WNW			1		2		0	0		I. R. Hydrographic Office.
Szegedin			30.46	773.8	32.0	0.0	100	NW			3		5		0	0		Karl Stancel.
Trieste			30.51	774.9	42.6	5.9	35	S			1		0		0	0		Prof. V. Farolfi.
Vienna			30.59	777.0	29.8	— 1.2	69	NW			1		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.14	765.5			41.2	5.1	70	SW			0		10		0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.70	754.4	49.0	9.4		S	28	12.5			5		0	0		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			29.89	759 2	48	8.9		SW			4		6					William McNeil.
Armagh Observatory			29.97	761.2	29.4	9.7		SSW	23	10.3			5					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.08	764.0	51.3	10.7		SW			4		10					The Liverpool Observatory
Birr Castle			30.03	762.7	51.3	10.7		SSW			1		2					J. Dreyer.
Bradford			30.03	762.7	49.1	9.5		W			1		2					J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			30.21	767.3	50.1	10.1		SW			2		10					H. Todd.
Cape Town, Cape Colony			29.81	757 2	79.4	26.3		NW			2		1					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.85	758.2			90.0	32.2	38	SE	20	8.9			2					The Royal Observatory.
Cardington			30.23	767.8	50.0	10.0		SW			4		8					John McLaren.
Carlisle			29.98	761.5	49.3	9.6		SW			6		9		0.03	0.8		T. Bell.
Chatham			30.22	767.6	51.2	10.7		WSW			2		7					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.93	760 2	74.8	23.8		NE			1		4					Sgt. W. F. Hopkins
Dartmoor			30.31	769.9	45	7.2		W			2		10					R. E. Power.
Donaghadee			29.94	760.5	49	9.4		SW			5		3					J. Mac Gowan, Jr.
Dover			30.27	768.8	47	8.3							5					J. Costello.
Dublin																		
Durham Observatory			29.66	753.3	49.2	9.6		SW			6		10					G. Goldney.
Eccles, (near Manchester)			30.10	764.5	50.5	10.3		SW	4.6	2.0			10				Mist	Thomas Mackereth.
Falmouth Observatory			30.30	769.6	52.0	11.1		SW	26	11.6			10					The Fa mouth Observatory.
Fort Napier, (Natal)			29.82	757.4	84.0	28.9		SE			2		4					Pvt. G. Salmon.
Galway			29.93	760.2	52	11.1		SW			4		7					Queen's College.
Gibraltar, (Mediterranean Sea)			30.35	770.9	61.0	16.1		E			4		8					Sgt. J. Brewster.
Glasgow Observatory			29.86	758.4	47.9	8.8		SW			5		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.22	767.6	50.3	10.2		SW			1		8					F. Toller.
Great Yarmouth			30.19	766.8	47	8.3		SSW			2		8				Mist	G. T. Watson.
Greenwich Royal Observatory			30.25	768.3	50.8	10.4		WSW			4		8					The Royal Observatory.
Guernsey			30.35	770.9	51	10.6		SW			2		4					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			30.01	762.2	49.3	9.6		WSW			2		9					Moorside Observatory
Halifax, Nova Scotia			30.01	762.2	25.2	— 3.8		N			4		9					Corp'l J. Y. Thompson.
Helston			30.25	769.1	54	12.2		SW			4		10					W. B. Moyle.
Holyhead			30.09	764.3	49	9.4		SW			4		7				Mist	John Tilston.
Hull Park																		
Kew Observatory			30.26	768.6	50.8	10.4		WSW	13	5.8			9					The Meteorological Office.
Kingstown			30.07	763.8	51	10.6		SW			1		6					George Mitchell.
Lampeter																		
Leicester			30.17	766.3	50.3	10.2		SW			2		5					William J. Harrison
Llandudno			30.06	763.5	50.7	10.4		WSW			3		9.8					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.39	771.9	55.0	12.8		NE			1		1					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			29.61	752.1	49	9.4		SW			4		1					William D. Penny.
Nassau, (Bahamas)			30.16	766.0	70.8	21.6		NE			4		6					Surgeon I. Jameson.
North Shields			29.97	761.2	49	9.4		SW			6		5					John Wm. Irvine.
Nottingham			30.16	766.0	52.7	11.5		SW			4		5				Mist	E. J. Lowe.
Osborne, New Barn Cottage			30.27	768.8	50.6	10.3		SW			1		9					J. R. Mann.
Oscott, (near Birmingham)			30.16	766.0	50.9	10.5		SSW			4		10				Mist	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.20	767.1	52	11.1		WSW			1		9					Radcliffe Observatory.
Plymouth			30.28	769.1	51.5	10.8		SW			3		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			30.08	764.0	51	10.6		SW			4		9					W. Kennedy.
Saint Ann's Head			30.17	766.3	50	10.0		SW			4		10				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			29.59	751.6	45.5	7.5		WSW	19	8.5			4					Rev. Dr. Clouston.
Scarboro'			30.04	763 0	49.0	9.4		SW			3		10					F. Heard.
Scutari, Turkey			30.10	764.5	39.0	3.9		NNE			3		9				Rain	W. H. Lyne.
Sheffield			30.10	764.5	49.2	9.6		WSW			4		8					W. F. Cooper.
Sidmouth																		
Silloth Rectory			29.96	761.0	48.0	8.9		WSW			6		8		0.045	1.14		Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	51.4	10.8		SW			1		3					Rev. C. J. Steward.
Stonyhurst Observatory			30.04	763.0	49.1	9.5		SW			4		10				Haze	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			29.60	751.8	46	7.8		W			5		4					John Smith.
Strathfield Turgiss			30.27	768.8	50.5	10.3		W			1		8					Charles H. Griffith.
Streatley Vicarage			30.26	768.6	51.8	11.0		WSW			1		8					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.49	749.0	45	7.2		WSW			6		10					William Lawrence.
Taunton College																		
Thurso			29.60	751.8	47	8.3		SW			2		7					John Trotter.
Truro, Royal Institution			30.21	767.3	53	11.7		W			6		8					Royal Institution.
Valencia			30.05	763.3	51.4	10.8		WNW	25	11.2			8					Meteorological Observatory
Wick																		
Wisbech			30.19	766.8	52.3	11.3		SW			3		4					S. H. Miller.
Worthing			30.29	769.3	47.0	8.3		WSW			4		8					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.

DANISH SERIES.

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

Copenhagen			30.32	770.1	32.0	0.0	60	S			3		3					
Faröe			30.24	768.1	31.5	— 0.3	85	SSW			4		9					
Thorshavn, (Faröe)			29.21	741.9	41.[illegible]	5.3	82	N			6		7					
Vestervig			30.09	764.3	31.8	— 0.1	94	S			6		8					
Stykkisholm, (Iceland)			29.94	760.4	10.4	—12.0	96	NE			6		5					
Godthaab, (Greenland)			29.88	759.0	0.7	—17.4		NE			2		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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.42	772.2	45.3	7.4	94	SW			1		10		0	0		Normal School.
Amiens			30.37	771.4	43.5	6.4	94	S			2		5		0	0		Normal School.
Beaumette, (near Angers)			30.42	772.7	52.3	11.3	77	W	6.7	3.0			10		0	0		Baumette Observatory.
Beauvais			30.42	772.6	44.8	7.1	80	ESE			0		10		0	0		Normal School.
Besançon			30.52	775.1	39.6	4.2	85	S			2		0		0	0		Normal School.
Bourges			30.38	771.7	45.7	7.6	74	E			2		0		0	0		Normal School.
Brest			30.33	770.4	52.3	11.3	90	SW			2		10		0.098	2.5	Fog	Naval Observatory.
Caen			30.39	771.8	50.9	10.5	86	SSW			2		5		0	0		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.45	773.4	40.3	4.6		SW			2		0		0	0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.44	773.3	47.5	8.6	92	SW			2		5		0	0		Normal School.
Mirecourt			30.37	771.4	41.4	5.2		SSW			1		3		0	0		Normal School.
Mont-Louis	25.16	639.0			43.2	6.2	40	ESE	7.0	3.12			1		0	0		—. Falguère.
Montsouris (near Paris)			30.41	772.4	39.9	4.4	80	SE	13	6.0			10		0	0		Marié Davy.
Orleans			30.46	773.6	40.6	4.8	81	E			2		10		0	0		Normal School.
Paris			29.82	757.4	39.7	4.3	81	SSE			1		10		0	0	Fog	National Observatory.
Parthenay			30.48	774.3	52.3	11.3	93	SW			2		10		0	0		Normal School.
Perpignan	30.33	770.4			56.1	13.4	53	E-E	3.6	1.67			1		0	0	Hazy	Dr. Fines.
Roche sur Yon			30.43	773.0	53.6	12.0	97	E			2		8		0.039	1.0		Normal School.
Rouen			30.40	772.1	43.7	6.5	85	SE			0		10		0	0		Normal School.
Saint Lo			30.46	773.6	51.4	10.8	71	W			2		3		0	0		Normal School.
Saint Maur, (near Paris)			30.41	772.6	41.0	5.0	81	SE			1		10		0	0		E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.44	773.1	46.2	7.9	89	SW			1		10		0	0		C. Marquet.
Tunis, (Africa)			30.39	772.0	58.8	14.9	53	ENE			3		6		0	0		—. Jacques.
Versailles, (near Paris)			30.40	772.2	47.1	8.4	86	SW			1		10		0	0		Dr. A. Bérigny.
Villefranche			30.20?	767.0?	47.7	8.7	92	SE			2		0		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.47	774.0	29.8	— 1.2	65	NW			1		8		0	0		Prof. Hoh.
Berlin			30.54	775.6	32.4	0.2	59	S			1		2		0	0		Prof. Arndt.
Breslau			30.61	777.6	28.8	— 1.8	80	S			2		4		0	0		Dr. P. Neugebauer.
Carlsruhe			30.49	774.4	33.8	1.0	69	SW			2–5		9		0	0		A. Leuz.
Cassel			30.41	772.3	35.8	2.1	79	S			5		6		0	0		Dr. H. Mohl.
Cologne			30.35	771.0	38.3	3.5	85	SE			2		3		0.059	1.5		Dr. Gaithe.
Emden			30.41	772.4	34.7	1.5	92	S			1		8		0	0		Prof. Prestel.
Frankfort on the Main			30.59	777.1	36.0	2.2	71	ENE			1		4		0	0		Physical Society.
Friedrichshafen			30.56	776.1	33.8	1.0	81	W					3		0	0		M. Wilhelm.
Hamburg			30.39	771.8	37.4	3.0	47	SE			3		8		0	0		W. Reinart.
Kiel			30.27	768.8	37.0	2.8	53	S			3		8		0	0		Prof. G. Karsten.
Königsberg			30.59	776.9	26.4	— 3.1	76	W			2		2		0	0		Prof. E. Luther.
Köslin			30.75	781.1	26.4	— 3.1		S			3				0.031	0.8		Dr. Tägert.
Leipsic			30.52	775.1	34.0	1.1	68	S			2		9		0	0		Prof. Bruhns.
Münster			30.62	770.7	40.8	4.9	65	SW			2		5		0.016	0.4	Rain	Prof. E. Heis.
Posen			30.61	777.6	30.7	— 0.7	85	SW			6–7		3		0.008	0.2		Dr. Magener.
Strassburg, (in Alsace)			30.49	774.4	32.9	0.5	84	S					7		0	0		Hartwig and Fulk.
Stuttgart			30.54	775.7	36.1	2.3	60	E					5		0	0		Mr. Wurth.
Thorn			30.58	776.7	29.3	— 1.5	67	WNW			2		3		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.39	772.0	35.6	2.0	62	NE			1		0		0	0	Foggy	Prof. Flesch.
Wustrow			30.44	773.1	30.2	— 1.0	64	S			4		4		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.51	775.0	43.0	6.1	50	ENE	0	0			1		0	0		
Mondovi			30.53	775.4	39.7	4.3	62	NNW			2		1	NW	0	0		
Genoa			30.46	773.8	53.1	11.7	50	Calm	0	0			2		0	0		
Pavia			30.52	775.3	39.2	4.0	69	SE			1		0		0	0		
Verona																		
Padua			30.52	775.1	37.2	2.9	80	NNE	4.4	2.0			4	WSW	0	0		
Parma			30.40	774.5	42.6	5.9		WSW			2		0		0	0		
Bologna			30.56	776.1	45.1	7.3	42	WSW			4		2		0	0		
Urbino			30.55	775.9	38.7	3.7	64	ENE			2		2		0	0		
Ancona			30.43	772.8	47.3	8.5	73	SSE			2		4		0	0		
Florence																		
Siena			30.48	774.1	44.8	7.1	42	SE	0	0			0	E	0	0		
Livorno			30.48	774.1	49.6	9.8	35	ENE			2		4		0	0		
Rome			30.45	773.4	50.5	10.3	34	NW			2		0		0	0		
Naples, O.U.			30.45	773.4	49.1	9.5	34	NE			4		1		0	0		
Naples, S. R.	29.86	758.5			46.9	8.3	47	NE			1		0		0	0		Prof. F. Brioschi.
Lecce			30.40	772.1	45.5	7.5	51	WSW	17.4	7.8			4		0	0		
Cosenza			30.38	771.7	43.3	6.3	56	N			1		2		0	0		
Catania, (Sicily)			30.34	770.6	53.8	12.1	35	ENE			4		0		0	0		
Riposto																		
Palermo			30.34	770.6	50.2	10.1	46	N			6		2	NNE	0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.33	770.5	38.8	3.8		SW			4							
Flushing			30.23	767.8	36.7	2.6		S			3							
Helder			30.23	767.8	38.7	3.7		S			4							
Utrecht			30.27	768.9	39.7	4.3		SSW			2		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.86	758.4	40.3	4.6	94	S	32.4	14.5			10		1.102	28.0	Fog.	
Christiania			30.00	762.0	35.6	2.0	93	SSW	13.4	6.0			10		0	0		
Tromsö			30.08	764.1	26.6	— 3.0	91	NE			6		10		0.283	7.2		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.06	763.5			52.9	11.6	79	NNE	4.9	2.2			2					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.59	776.9	17.1	— 5.2	100	Calm	0	0			10					Astronomical Observatory.
Wilna			30.56	776.3	22.6	— 8.3	93	NW	4	2			10					Astronomical Observatory.
Dorpat			30.47	774.0	16.2	— 8.8	76	SW	11	5			10					Physical Cabinet.
St. Petersburg			30.35	771.0	13.5	—10.3	76	S	9	4			10					Central Physical Observat'y
Kieff			30.39	771.8	30.0	— 1.1	88	NNE	9	4			10				Rain	Physical Cabinet.
Nikolaiev			30.23	767.9	33.8	1.0	96	N	4	2			10				Snow	
Kertch			30.10	764.5	48.7	9.3	66	SW	7	3			4					Lagorio.
Moscow			30.47	774.0	22.8	— 5.1	96	W	7.8	3.5			10					Meteorological Observatory
Lugan			30.10	764.5	29.8	— 1.2	88	ENE	16.8	7.5			10					Meteorological Observatory
Archangel			30.11	764.8	10.9	—11.7	85	SW	16.8	7.5			10					Ogorodnikof.
Tiflis			29.84	757.9	52.2	11.2	47	N	10.1	4.5			3					Physical Observatory.
Astrakhan			30.38	771.7	28.8	— 1.8	92	NE	7.8	3.5			10					Sebastianof.
Kasan			30.50	774.6	7.2	—13.8	83	SE	4	2			7					Physical Cabinet.
Orenburg			30.57	776.5	— 0.8	—18.2	89	NE	4	2			8					Tschernischef.
Ekaterinburg			30.69	779.4	14.4	— 9.8	67	Calm	0	0			9					Meteorological Observatory
Kasaly			30.25	768.3	16.3	— 8.7	54	Calm	0	0			5					Bobrof.
Tashkend																		Michelson.
Barnaul			30.58	776.7	—12.1	—24.5	82	W	4	2			0					Meteorological Observatory
Yeniseisk			30.17	766.4	6.4	—14.2	91	W	10.1	4.5			7				Snow	Marks.
Irkutsk			30.38	771.6	— 2.4	—19.1	76	Calm	0	0			0					Usolzef.
Oorga			30.28	769.1	— 8.0	—22.1	100	Calm	0	0			0					Mossin.
Peking, (China)			30.28	769.2	23.9	— 4.5	40	NW	10.1	4.5			0					Physical Observatory.
Nertchinsk			30.20	767.0	—20.0	—28.9	90	Calm	0	0			0					Meteorological Observatory
Vladivostock																		
Nikolaievsk, (on the Amoor)					— 4.9	—20.5		W	10.1	4.5			7					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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.40	772.2	55.9	13.3	57	NE	3.0	1.6		2	0	8	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.73	755.1	28.4	— 2.0	96	SW			2		7		0.327	8.3		Dr. H. H. Hildebrandsson.
Hernosand			29.76	755.8	34.5	1.4	85	SW			2		9					
Upsala			30.13	765.4	30.6	— 0.8	81	SSW			2		9	WSW				
Stockholm			30.16	766.0	30.6	— 0.8	85	SW			4		9					
Wisby			30.39	771.9	32.4	0.2	89	W			4		9					

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.04	737.5			38.8	3.8	71	NNE			2		2		0	0		The Observatory.
Zurich	28.78	731.1			30.0	—1.1	92	NW			1		6		0	0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.05	763.3	60.4	15.8	47	W			3		5					
Constantinople			30.11	764.7	38.7	3.6	66	N	18	8			10					
Fao, (Persian Gulf)			30.30	772.0	55.8	13.2		NW			3		0					
Salonica			30.18	766.5	43.0	6.1		N			6		0					
Valona			30.18	766.5	44.3	6.3		N			3		0					
Varna			30.08	764.0	30.2	— 1.0		NW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Rozlere, Quebec			30.07	763.8	20	— 6.7	85	NE	7	2.1		2	2	NW	0	0		
Chatham, N. B.			30.09	764.3	13	—1 .6	90	NW	3	1.3		0	0		0.20	5.1		
Charlottetown, P. E. Island			30.02	762.5	21	-- 6.1	94	NW	15	6.7			10		0	0		
Father Point, Quebec			29.88	758.0	— 4	—20.0	87	W	3	1.3		8	Haze	W	0.06	1.5		
Fort Garry, Manitoba			30.21	767.3	—27	—31.8	78	Calm	0	0		0	0		0.13	3.3		
Halifax, N. S.			29.85	758.2	23	— 5.0	76	N	9	4.0			10		0	0		
Kingston, Ontario			29.91	759.7	12	--11.1	72	NE	3	1.3			10		0.01	0.2		
Montreal, Quebec			30.09	764.3	— 4	—20.0	75	E	8	3.6		0	0		0	0		
Ottawa, Ontario			29.98	761.5	1	—17.2	63	NE	6	2.7			Fog		0	0	Light snow.	
Parry Sound, Ontario			29.78	756.4	19	0.6	95	SE	9	4.0			10		0.17	4.3	Light snow	
Port Dover, Ontario			29.77	756.1	33	0.0	100	S	3	1.3			10		0.14	3.5	Threatening	
Port Stanley, Ontario			29.81	757.1	32	—20.0	96	SW	3	1.3			Fog		0.25	6.3	Fog	
Quebec, Quebec			30.15	765.8	— 4	— 3.3	64	Calm	0	0		0	0		0	0		
Saugeen, Ontario			29.79	756.6	26	—12.2	94	NW	13	5.8			10		0. 4	1.0	Light snow.	
Sydney, C. B.			29.88	758.9	10	— 1.7	85	W	3	1.3		8	1	N	0.02	0.5		
Toronto, Ontario			29.77	756.1	29		89	NE	9	4.0			10		0.12	3.0	Light snow.	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Albany, N. Y.			30.12	765.0	— 2	—18.9	69	Calm	0	0			10		0	0		
Alpena, Mich.			29.86	758.4	15	— 9.4	83	NW	8	3.6			10		0.03	0.8		
Atlantic City, N. J.			30.07	763.8	34	1.1	100	E	10	4.5			10		0.01	0.2		
Augusta, Ga.			30.03	762.8	52	11.1	93	SE	2	0.9			10		0	0		
Baltimore, Md.			30.01	762.2	36	2.2	90	E	4	1.8			Fog		0.08	2.0	Fog	
Barnegat, N. J.			30.02	762.5	33	0.6	79	SE	8	3.6			10		0.01	0.2		
Benton, Montana			29.84	757.9	30	— 1.1	100	W	20	8.9			10		0	0		
Bismarck, Dakota			29.98	761.5	— 3	—19.4	83	S	1	0.4		0	Fog		0	0	Fog	
Boston, Mass.			30.16	766.0	12	—11.1	79	NW	7	3.1		0	Haze		0	0		
Breckenridge, Minn.			30.19	766.8	—10	—23.3	85	NW	2	0.9		0	0		0	0		
Buffalo, N. Y.			29.76	755.9	35	1.7	80	S	8	3.6			10		0.09	2.3	Light rain	
Burlington, Vt.			30.08	764.0	5	—15.0	75	SE	4	1.8		0	5		0	0		
Cairo, Ill.			29.77	756.1	52	11.1	100	Calm	0	0			10		1.82	46.2	Light rain	
Cape Hatteras, N. C.			30.05	763.3	53	11.7	79	W	4	1.8			10		0	0		
Cape Henry, Va.			30.04	763.0	43	6.1	92	S	8	3.6			10		0.07	1.8	Threatening	
Cape May, N. J.			30.05	763.3	37	2.8	90	SE	12	5.4			10		0.13	3.3	Threatening	
Charleston, S. C.			30.08	764.0	58	14.4	87	SW	12	5.4		5	5	SW	0	0		
Cheyenne, W. T.			29.73	755.1	— 1	—18.3		W	2	0.9		0	0		0.13	3.3		
Chicago, Ill.			29.87	758.7	28	— 2.2	88	N	18	8.0			10		0.10	2.5	Threatening	
Cincinnati, Ohio			29.71	754.6	45	7.2	84	S	1	0.4			Fog		0.18	4.6	Fog	
Cleveland, Ohio			29.73	755.1	36	2.2	100	SW	5	2.2			5		0.09	2.3	Light rain	
Colorado Springs, Col.			29.74	755.4	11	—11.7	80	N	2	0.9					0.03	0.8	Fog	
Corsicana, Texas			29.70	754.4	65	18.3	100	SE	3	1.3		10	Fog	S	0.68	17.3	Threatening	
Davenport, Iowa			29.99	761.7	23	— 5.0	85	N	8	5.6		2	8	W	0.01	0.2		
Denver, Col.			29.84	757.9	12	—11.0	61	SE	2	0.9		0	0		0	0		
Detroit, Mich.			29.73	755.1	33	0.6	95	W	3	1.3			Fog		0.15	3.8	Light rain	
Dodge City, Kansas			29.79	756.6	15	— 9.4	82	N	7	3.1			10		0.01	0.2		
Dubuque, Iowa			30.06	763.5	18	— 7.8	84	NW	18	8.0		2	5	NW	0	0		
Duluth, Minn.			30.10	764.5	— 4	—20.0	64	Calm	0	0		0	0		0	0		
Eastport, Me.			30.11	764.8	11	—11.7	79	N	3	1.3		2	0		0	0		
Erie, Penn.			29.75	755.6	39	3.9	91	SW	4	1.8			10		0.08	2.0		
Escanaba, Mich.			29.97	761.2	5	—15.0	75	W	4	1.8		0	5		0	0		
Fort Gibson, I. T.			29.90	759.4	32	0.0	100	N	12	5.4			10		0	0	Sleet	
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.11	764.8	2	—16.7	58	NW	4	1.8		0	0		0	0		
Galveston, Texas			29.83	757.7	65	18.7	94	S	10	4.5			10		0	0	Threatening	
Grand Haven, Mich.			29.90	759.4	23	— 5.0	73	N	13	5.8			10		0	0	Light snow.	
Indianapolis, Ind.			29.74	755.4	38	3.3	95	N	4	1.8			Fog		0.22	5.6	Threatening	
Indianola, Texas			29.80	756.9	68	20.0	94	S	12	5.4			10		0	0		
Jacksonville, Fla.			30.13	765.3	61	16.1	88	SE	8	3.6		0	0		0	0		
Keokuk, Iowa			29.90	759.4	26	— 3.3	88	N	12	5.4			10		0.09	2.3		
Key West, Fla.			30.13	765.3	72	22.2	76	E	9	4.0		Haze	2		0.07	1.8		
Kittyhawk, N. C.			30.28	769.1	42	5.6	86	S	4	1.8			10		0	0		
Knoxville, Tenn.			29.91	759.7	43	6.1	83	Calm	0	0			10		1.32	33.5	Heavy rain	
La Crosse, Wis.			30.05	763.3	16	— 8.9	66	N	1	0.4		0	0		0	0		
Leavenworth, Kan.			29.93	760.2	23	— 5.0	85	N	8	3.6			10		0.06	1.5		
Lexington, Ky.			29.94	760.5	50	10.0	86	S	16	7.1			10		0.37	9.4	Light rain	
Long Branch, N. J.			30.06	763.5	31	— 0.6	100	E	1	0.4			10		0	0		
Louisville, Ky.			29.68	753.9	48	8.9	100	SE	4	1.8			Fog		0.29	7.37	Light rain	
Lynchburg, Va.			30.00	762.0	40	4.4	77	E	1	0.4			10		0.03	0.8		
Malone, N. Y.																		
Marquette, Mich.			29.97	761.2	8	— 3.3	78	W	8	3.6		2	0	W	0	0		
Memphis, Tenn.			29.76	755.9	60	15.6	100	SW	1	0.4			10		2.71	68.8		
Milwaukee, Wisconsin			29.97	761.2	21	— 6.1	85	NW	12	5.4			10		0.43	10.9		
Mobile, Ala.			29.98	761.5	63	17.2	94	S	10	4.5			Fog		0	0	Fog	
Montgomery, Ala.			29.98	761.5	63	17.2	94	S	5	2.2			10		0	0	Threatening	
Morgantown, West Virginia			29.79	756.6	45	7.2	92	Calm	0	0			10		0.10	2.5	Threatening	
Mt. Washington, N. H.			29.93	760.2	11	—11.7	80	W	4	1.8		1	0		0	0		
Nashville, Tenn.			29.78	756.4	55	12.8	93	S	4	1.8			10		2.52	64.0	Light rain	
New Haven, Conn.			30.16	766.0	15	— 9.4	65	N	6	2.7		0	8		0	0		
New London, Conn.			30.18	766.6	13	—10.6	62	N	8	3.6		5	2	NW	0	0		
New Orleans, La.			29.94	760.5	67	19.4	95	SE	8	3.6			Fog		0	0	Fog	
Newport, R. I.																		
New York, N. Y.			30.12	765.0	26	— 3.3	88	NE	12	5.4			10		0	0		
Norfolk, Va.			30.03	762.8	44	6.7	84	SE	5	2.2			10		0.12	3.0	Light rain	
North Platte, Neb.			29.85	758.2	— 1	—18.3	68	Calm	0	0		0	0		0.03	0.8		
Omaha, Neb.			30.10	768.5	15	— 9.4	91	NW	7	3.1			10		0.02	0.5		
Oswego, N. Y.			29.86	758.4	26	— 3.3	77	SE	10	4.5			10		0	0	Threatening	
Peck's Beach			30.07	763.8	35	1.7	100	S	6	2.7			10		0.02	0.5		
Pembina, D. T.			30.21	767.3	—28	—33.3		NW	4	1.8		0	0		0	0		
Philadelphia, Penn.			30.07	763.8	30	— 1.1	89	E	8	3.6			10		0.05	1.3		
Pike's Peak, C. T.			29.55	750.6	— 4	—20.0	100	Calm	0	0		0	0		0.10	2.5		
Pittsburgh, Penn.			29.78	756.4	41	5.0	100	Calm	0	0			Fog		0.25	6.3	Fog	
Port Huron, Mich.			29.78	756.4	26	— 3.3	100	N	17	7.6			10		0.12	3.0	Sleet	
Portland, Maine			30.17	766.3	11	—11.7	75	NW	1	0.4		5	Haze		0	0		
Portland, Or.			30.23	767.8	31	— 0.6	89	N	2	0.9			10		0	0		
Punta Rassa, Fla.			30.16	766.0	62	16.7	88	E	6	2.7		5	Haze	NW	0	0		
Rochester, N. Y.			29.79	756.6	33	0.6	89	SE	8	3.6			10		0	0		
Salt Lake City, Utah			29.99	761.7	26	— 3.3	76	Calm	0	0			10		0.02	0.5		
Sandy Hook, N. J.			30.09	764.3	30	— 1.1	89	NE	6	2.7			10		0.01	0.2		
San Diego, Cal.			30.17	766.3	46	7.8	85	SE	4	1.8			10		0	0		
San Francisco, Cal.			30.11	764.8	43	6.1	83	NE	2	0.9		5	0	W	0	0		
Santa Fe, N. M.			29.41	747.0	25	— 3.9	69	NE	4	1.8			10		0.06	1.5	Light snow.	
Savannah, Georgia			30.07	763.8	57	13.9	93	SW	7	3.1		5	2	W	0	0		
Shreveport, La.			29.77	756.1	65	18.3	100	S	4	1.8			10		0.04	1.0	Threatening	
Springfield, Mass.			30.18	766.6	6	—14.4	76	Calm	0	0		2	2	NW	0	0		
St. Louis, Mo.			29.87	758.7	38	3.3	90	N	8	3.6			10		0.15	3.8		
St. Marks, Fla.			30.06	763.5	57	13.9	96	S	4	1.8			10		0	0		
St. Paul, Minn.			30.03	762.8	6	—14.4	76	W	1	0.4			10		0	0		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.09	764.3	32	0.0	79	SE	4	1.8			10		0	0		
Toledo, Ohio			29.76	755.9	37	2.8	90	Calm	0	0			Fog		0.18	4.6	Light rain	
Tybee Island, Ga.			30.08	764.0	54	12.5	100	S	6	2.7		2	2	SW	0	0	Fog	
Vicksburg, Miss.			29.89	759.2	67	19.4	90	SW	10	4.5			10		0.01	0.2	Threatening	
Virginia City, Mon.			29.53	750.0	7	—13.9	77	S	8	3.6		Haze	5		0	0		
Washington, D. C.			30.00	762.0	34	1.1	95	E	4	1.8			10		0.07	1.8		
Wilmington, N. C.			30.06	763.5	52	11.1	86	SW	4	1.8		5	2	W	0	0		
Wood's Hole, Mass.			30.15	765.8	15	— 9.4	65	NW	5	2.2		0	0		0	0		
Wytheville, Va.			29.68	753.9	46	7.8	92	NW	4	1.8			10		0.25	6.3		
Yankton, D. T.			30.21	767.3	—10	—23.5	76	Calm	0	0		0	0		0.06	1.5		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.					76	24.4		E	4	1.8		5	5	E	0.07	1.8		
Point-a-pitre, Guadaloupe, W.I.					75	23.9		NE				2	2	NE	0.10	2.5		
Havana, Cuba, W. I.			29.92	759.9	70	21.1	85	Calm	0	0		0	0		0	0		
Honolulu, Oahu, Sandwich Is.			30.10	764.5	66	18.9	85	NE	3	1.3		0	0		0	0		
Kingston, Jamaica, W. I.			30.21	767.3	73	22.8	90	Calm	0	0			10		0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.91	759.7	70	21.1	75	NW	1	0.4		0	2		0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Gerlville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nomours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.40	772.2	35.4	1.9	61	SW			2		3		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.37	771.4	29.5	— 1.4	74	W			2		1		0	0		I. R. Cen. Met. Ins., Hungary
Cracow			30.31	769.8	26.6	— 3.0	71	NE			2		3		0	0		I. R. Observatory.
Eperies			30.33	770.3	22.3	— 5.4	83	Calm			0		6		0	0		Julius Mikolik.
Gratz			30.41	772.3	29.1	— 1.6	83	SSW			2.5		7.5		0	0		Andreas Rospini.
Hermannstadt			30.33	770.3	28.4	— 2.0	90	NW			0		5		0.086	2.2		Prof. C. L. Reissenberger.
Kremsmünster			30.50	774.8	28.8	— 1.8	96	W					10		0	0		Prof. C. Wagner.
Lemberg			30.30	769.7	28.4	— 2.0	89	S			2		10					Dr. T. Stanecki.
Nyiregyhaza			30.35	771.0	27.7	— 2.4	87	SW			2		0		0	0		Habzsuda Daniel.
Pola			30.37	771.4	42.3	5.7	68	NW			3		8		0	0		I. R. Hydrographic Office.
Szegedin			30.35	770.9	30.9	— 0.6	88	W			2		5		0	0		Karl Stancel.
Trieste			30.38	771.6	40.8	4.9	73	N			0		10		0	0		Prof. V. Farolfi.
Vienna			30.33	770.4	38.3	3.5	68	W			4		10		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			30.14	765.6	44.6	7.0	99	WSW			0		10		0.012	0.30	Light rain	Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.31	769.9	37.5	3.1		N	10	4.5			5		0	0		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			30.24	768.1	40	4.4		NE			2		8				Fog	William McNeil.
Armagh Observatory			30.20	767.1	43.7	6.5		SE	6	2.7			10				Rainy	Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.21	767.1	46.1	7.8		ESE			2		10					The Liverpool Observatory
Birr Castle			30.13	765.3	49.5	9.7		SSW			1		10					J. Dreyer.
Bradford			30.22	767.6	45.3	7.4		E			1		8					J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			30.28	769.1	50.0	10.0		E			1		10				Threatening	H. Todd.
Cape Town, Cape Colony			29.89	759.2	76	24.4		NW			2		2					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.96	761.0			78.0	25.6	58	S	36	16.1			5.8					The Royal Observatory.
Cardington			30.28	769.1	49.0	9.4		SW			3		10					John McLaren.
Carlisle			30.26	768.6	42.5	5.8		E			4		10		0.06	1.5		T. Bell.
Chatham			30.26	768.6	50.2	10.1		SW			1		10				Rain	James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.97	761.2	73.2	22.9		NE			2		10					Sgt. W. F. Hopkins
Dartmoor			30.38	771.6	46.5	8.1		W			1		10				Rain & Fog	R. E. Power.
Donaghadee			30.20	767.1	43	6.1		SE			3		10					J. Mac Gowan, Jr.
Dover			30.31	769.9	48	8.9							10				Rain & Fog	J. Costello.
Dublin																		
Durham Observatory			30.25	768.3	40.1	4.5		NE			4		10					G. Goldney.
Eccles, (near Manchester)			30.25	768.3	46.9	8.3		S	0.4	0.2			10				Mist	Thomas Mackereth.
Falmouth Observatory			30.37	771.4	50.9	10.5		WSW	25	11.2			10				Rain & Fog.	The Falmouth Observatory.
Fort Napier, (Natal)			29.79	756.6	84.0	28.9		E			4		2					Pvt. G. Salmon.
Galway			30.05	763.3	51	10.6		SW			2		10				Mist	Queen's College.
Gibraltar, (Mediterranean Sea)			30.40	772.1	58.6	14.8		ENE			7		8				Threatening	Sgt. J. Brewster.
Glasgow Observatory			30.25	768.3	38.9	3.8		ESE			3		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.28	769.1	51	10.6		W			3							E. Toller.
Great Yarmouth			30.28	769.1	47	8.3		WNW			1		8				Fog	G. T. Watson.
Greenwich Royal Observatory			30.28	769.1	50.3	10.2		SW			1		10				Rain	The Royal Observatory.
Guernsey			30.40	772.1	50.5	10.3		SW			3		10				Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			30.23	767.8	45.0	7.2		WNW			3		10				Mist	Moorside Observatory.
Halifax, Nova Scotia			29.80	756.9	28.9	— 1.7		SE			2		10				Snow	Corp'l J. Y. Thompson.
Helston			30.34	770.6	53	11.7		SW			4		10				Rain	W. B. Moyle.
Holyhead			30.20	767.1	49	9.4		SSW			1		10				Rainy	John Tilston.
Hull Park																		
Kew Observatory			30.28	769.1	50.1	10.6		SW	9	4.0			10				Rainy	The Meteorological Office.
Kingstown			30.19	766.8	47	8.3		SSE			1		10				Mist	George Mitchell.
Lampeter																		
Leicester			30.23	767.8	47.0	8.3		E			2		10				Rain	William J. Harrison
Llandudno			30.20	767.1	47.5	8.6		NNW			2		10					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.43	772.9	55.0	12.8		NW			1		1					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			30.29	769.3	37	2.8		Calm			0		7					William D. Penny.
Nassau, (Bahamas)			30.11	764.8	71.5	21.9		E			1		4					Surgeon I. Jameson.
North Shields			30.26	768.6	42	5.6		NNE			1		7					John Wm. Irvine.
Nottingham			30.28	769.1	49.2	9.6		ESE			1		10				Misty	E. J. Lowe.
Osborne, New Barn Cottage			30.30	769.6	48.9	9.4		SW			1		10		0.50	12.7	Rain	J. R. Mann.
Oscott, (near Birmingham)			30.26	768.6	46.9	8.3		SSW			1		10				Rainy	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.22	767.6	51	10.6		SSW			1		10				Rain	Radcliffe Observatory.
Plymouth			30.35	770.9	51	10.6		SW			4		10				Rain	John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			30.18	766.6	51	10.6		SW			4		10				Mist	W. Kennedy.
Saint Ann's Head			30.25	768.3	49	9.		WNW			4		9				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			30.33	770.4	34.3	1.3		N			7		2					Rev. Dr. Clouston.
Scarboro'			30.77	768.8	43.0	6.1		N			1		10					F. Heard.
Scutari, Turkey			30.08	764.0	37.0	2.8		NW			4		10				Sleet	W. H. Lyne.
Sheffield			30.25	768.3	47.8	8.8		S			1		8					W. F. Cooper.
Sidmouth																		
Silloth Rectory			30.22	767.6	42.3	5.7		ENE			3		10		0.010	0.25		Francis Redford.
Somerleyton, (Lowestoft)			30.28	769.1	49.0	9.4		SW			1		10					Rev. C. J. Steward.
Stonyhurst Observatory			30.22	767.1	45.0	7.2		SW			1		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			30.28	769.1	36	2.2		E			2		10					John Smith.
Strathfield Turgiss			30.25	768.3	57.3	10.7		W			1		10					Charles H. Griffith.
Streatley Vicarage			30.28	769.1	52.8	11.6		WSW			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			30.15	765.8	34	1.1		N			6		6				Rainy	William Lawrence.
Taunton College																		
Thurso			30.28	769.1	37	2.8		NNE			3		8					John Trotter.
Truro, Royal Institution			30.28	769.1	52.7	11.1		SW			6		10				Rain	Royal Institution.
Valencia			30.18	766.6	52.3	11.3		SSW	31	13.9							Mist	Meteorological Observatory
Wick																		
Wisbech			30.16	766.0	49.4	9.7		SW			2		9					S. H. Miller.
Worthing			30.29	769.3	47.0	8.3		WSW			3		10				Rain	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.

DANISH SERIES.

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

Copenhagen			29.88	758.9	37.6	3.1	91	W			4		10					
Faröe			30.01	762.3	37.8	3.2	98	WNW			4		7					
Thorshavn, (Faröe)			30.27	768.8	29.3	— 1.5	68	Calm			0		8					
Vestervig			29.85	758.2	34.9	1.6	91	NW			7		3					
Stykkisholm, (Iceland)			29.86	758.5	21.6	— 5.8	98	SE			6		8					
Godthaab, (Greenland)			30.06	763.5	4.1	—15.5		NE			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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alengon			30.47	774.0	48.9	9.4	86	SW			1		10		0.197	5.0		Normal School.
Amiens			30.42	772.6	47.1	8.4	92	WSW			3		10		0	0		Normal School.
Beaumette, (near Angers)			30.02	775.1	50.2	10.1	81	SW	8.5	3.8			10		0	0		Baumette Observatory.
Beauvais			30.44	773.2	47.8	8.8	88	WSW			0		10		0	0		Normal School.
Besançon			30.61	777.3	46.8	8.2	70	SW			2		8		0.020	0.5		Normal School.
Bourges			30.50	774.6	48.0	9.2	88	W			2		5		0	0		Normal School.
Brest			30.42	772.6	50.9	10.5	89	W			3		10		0	0	Fog	Naval Observatory.
Caen			30.43	773.0	49.5	9.7	80	SW			2		10		0	0		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.51	774.9	46.2	7.9		WSW			1		10		0	0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.53	775.4	48.2	9.0	86	SW			4		8		0.047	1.2		Normal School.
Mirecourt			30.44	773.2	43.5	6.4		SW			2		10		0	0		Normal School.
Mont-Louis	25.19	639.8			43.2	6.2	46	N	7.4	3.33			0		0	0		—. Falguère.
Montsouris (near Paris)			30.46	773.7	46.9	8.3	87	SW	7.2	3.2			10		0	0		Marié Davy.
Orleans			30.52	775.2	45.7	7.6	91	W			2		10		0	0		Normal School.
Paris			29.87	758.6	47.7	8.7	82	SW			2		10		0	0		National Observatory.
Parthenay			30.53	775.5	56.3	13.5	84	SW			2		0		0.008	0.2		Normal School.
Perpignan	30.33	770.3			59.0	15.0	47	NW	7.4	3.33			0		0	0		Dr. Fines.
Roche sur Yon			30.54	775.8	48.9	9.4	97	E			2		10		0.039	1.0		Normal School.
Rouen			30.43	772.8	48.9	9.4	82	SSW			0		10		0	0		Normal School.
Saint Lo			30.52	775.3	49.5	9.7	77	W			2		10		0	0		Normal School.
Saint Maur, (near Paris)			30.46	773.8	47.1	8.4	88	SSW			1		10		0	0	Rainy	E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.51	774.0	50.7	10.4	76	SW			1		8		0	0		C. Marquet.
Tunis, (Africa)			30.43	772.9	56.5	13.6	46	WSW			3		0		0	0		—. Jacques.
Versailles, (near Paris)			30.45	773.5	47.1	8.4	86	SW			1		10		0	0		Dr. A. Bérigny.
Villefranche			30.54	775.8	50.2	10.1	95	ESE			2		5		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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 of upper. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Bamberg			30.39	772.0	36.5	2.5	84	NW			1		10		0.008	0.2		Prof. Hoh.
Berlin			30.17	766.4	38.6	3.7	89	SW			3		8		0.055	1.4	Snow	Prof. Arndt.
Breslau			30.27	768.9	31.3	— 0.4	83	SSE			2		9		0	0	Rain	Dr. P. Neugebauer.
Carlsruhe			30.46	773.6	44.4	6.9	76	SW			2–5		10		0.028	0.7		A. Leuz.
Cassel			30.28	769.2	37.4	3.0	80	S			5		10		0	0		Dr. H. Mohl.
Cologne			30.32	770.0	45.9	7.7	89	SE			2		10		0	0	Rain	Dr. Gaithe.
Emden			30.28	769.2	41.7	5.4	92	W			1		0		0.142	3.6		Prof. Prestel.
Frankfort on the Main			30.48	774.3	42.1	5.6	92	SSW			1		10		0	0		Physical Society.
Friedrichshafen			30.53	775.4	39.2	4.0	92	SE					9		0.012	0.3	Rain	M. Wilhelm.
Hamburg			30.18	766.6	42.4	5.8	85	SW			4		10		0.134	3.4		W. Reinart.
Kiel			30.04	763.1	42.3	5.7	82	WSW			4		10		0.095	2.4		Prof. G. Karsten.
Königsberg			30.20	767.2	28.2	— 2.1	77	SE			2		6		0	0		Prof. E. Luther.
Köslin			30.30	769.5	30.0	— 1.1		SW			2				0.228	5.8		Dr. Tägert.
Leipsic			30.28	769.0	37.9	3.3	88	SW			4		9		0.020	0.5	Rainy	Prof. Bruhns.
Münster			30.28	769.0	44.8	7.1	94	SW			2		5		0	0		Prof. E. Heis.
Posen			30.22	767.6	33.3	0.7	90	SW			5		10		0	0		Dr. Magener.
Strassburg, (in Alsace)			30.40	774.4	45.1	7.3	80	S					10		0.642	16.3		Hartwig and Fulk.
Stuttgart			30.50	774.6	42.3	5.7	74	W					8		0.488	12.4	Rain	Mr. Wurth.
Thorn			30.17	766.3	28.4	— 2.0	85	S			5		6		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.39	771.9	42.0	6.0	91	W			6		10		0.713	18.1	Foggy	Prof. Flesch.
Wustrow			30.07	763.8	36.0	2.2	93	SW			4		10		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Moncalieri			30.39	771.9	42.1	5.6	68	FSE	0	0			3		0	0		
Mondovi			30.40	772.1	41.5	5.3	56	SE			1		2		0	0		
Genoa			30.40	772.2	51.6	10.9	57	Calm	0	0			10		0	0		
Pavia			30.40	772.2	40.1	4.5	70	NW			1		1		0	0		
Verona																		
Padua			30.37	771.4	34.9	1.6	83	N	1.2	0.5			9	N	0	0		
Parma			30.37	771.5	43.2	6.2		WSW			2		2		0	0		
Bologna			30.43	772.9	41.4	5.2	42	W			4		2		0	0		
Urbino			30.43	773.0	40.5	4.7	66	NE			2		3		0	0		
Ancona			30.28	769.0	41.5	5.3	63	NNE			4		4		0	0		
Florence																		
Siena			30.38	771.7	47.8	8.8	60	W	0	0			3	NE	0	0		
Livorno			30.40	772.2	50.2	10.1	60	N			2		10		0	0		
Rome			30.40	772.1	50.4	10.2	43	NNE			2		3		0	0		
Naples, O.U.			30.41	772.3	50.5	10.3	28	N			2		1		0	0		
Naples, S. R.	29.88	758.9			45.3	7.4	46	N			1		0		0	0		Prof. F. Brioschi.
Lecce			30.37	771.4	49.1	9.5	59	N	12.4	5.5			0		0	0		
Cosenza			30.38	771.6	47.5	8.6	46	NW			2		3		0	0		
Catania, (Sicily)			30.40	772.2	50.9	10.5	40	SE			2		0		0	0		
Riposto																		
Palermo			30.35	771.0	54.0	12.2	41	NNE			4		0		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.35	770.9	45.0	7.2		W			3							
Flushing			30.17	766.3	43.9	6.6		WNW			4							
Helder			30.25	768.3	43.5	6.4		WSW			2							
Utrecht			30.25	768.4	48.7	9.3		W			2		8					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.99	761.8	30.2	— 1.0	81	WNW	28.0	12.5			10		0	0		
Christiania			29.71	754.6	36.3	2.4	96	SW	2.5	1.1			9		0	0	Haze	
Tromsö			29.33	745.1	25.9	— 3.4	89	NE			6		10		0	0	Snow	

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.12	765.1			54.0	12.2	77	NNE	7.4	3.3			0					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.26	768.6	26.4	— 3.1	100	SSE	7.4	3			10					Astronomical Observatory.
Wilna			30.31	769.6	25.2	— 3.8	95	S	7	2			10					Astronomical Observatory.
Dorpat			30.13	765.4	26.6	— 3.0	73	SSW	4	4			8					Physical Cabinet.
St. Petersburg			30.04	763.1	25.7	— 3.5	71	S	9	2			9					Central Physical Observatory
Kieff			30.34	770.6	29.5	— 1.4	90	NNW	4	2			10				Snow	Physical Cabinet.
Nikolaiev			30.23	767.9	32.0	0	92	NE	4	4.5			10					
Kertch			30.00	761.9	36.7	2.6	91	E	10.1	5			10					Lagorio.
Moscow			30.41	772.4	21.0	— 6.1	90	W	11	3.5			10					Meteorological Observatory
Lugan			30.18	766.5	33.5	0.3	92	SSE	7.8	6			10				Fog & Frost	Meteorological Observatory
Archangel			29.81	757.1	24.4	— 4.2	95	S	13	6			10					Ogorodnikof.
Tiflis			30.24	768.0	46.4	8.0	60	S	13	3.5			5					Physical Observatory.
Astrakhan			30.41	772.3	25.9	— 3.4	74	NE	7.8	2			2					Sebastianof.
Kasan			30.39	772.0	3.6	—15.8	85	SE	4	0			3					Physical Cabinet.
Orenburg			30.48	774.2	5.9	—14.5	69	NE	0	2			0					Tschernischef.
Ekaterinburg			30.44	773.3	16.3	— 8.7	48	S	4	2			0					Meteorological Observatory
Kasaly			30.19	766.7	25.3	— 3.7	73	Calm	0	0			1					Bobrof.
Tashkend																		Michelson.
Barnaul			30.67	778.9	—12.1	—24.5	80	Calm	0	0			0					Meteorological Observatory
Yeniseisk			30.27	768.9	— 6.5	—21.4	88	N	7.8	3.5			0					Marks.
Irkutsk			30.13	765.4	7.0	—13.9	89	Calm	0	0			10				Snow	Usolzef.
Oorga			30.74	780.8	—12.1	—24.5	100	Calm	0	0			0					Mossin.
Peking, (China)			30.21	767.3	25.3	— 3.7	73	Calm	0	0			0					Physical Observatory.
Nertchinsk			30.04	763.0	—18.8	—28.2	92	Calm	0	0			0					Meteorological Observatory
Vladivostock																		
Nikolaievsk, (on the Amoor)					81.9	27.7		NW	10.1	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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.50	774.6	54.3	12.4	67	E	2.9	1.3		0	0		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.55	750.5	32.0	— 0.0	100	SW			2		10					
Hernosand			29.57	751.0	35.6	2.0	82	SW			2		9					
Upsala			29.75	755.7	31.6	— 0.8	92	SSW			2		10					Dr. H. H. Hildebrandsson.
Stockholm			29.76	755.8	31.3	— 0.4	96	SSW			2		10		0.343	8.7	Rain & snow	
Wisby			29.91	759.6	33.8	1.0	89	S			2		10					

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	29.07	738.4			42.3	5.7	72	NE			2		7		0	0	Hazy	The Observatory.
Zurich	28.80	731.4			38.8	3.8	81	NE			1		8		0	0	Fog	Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.87	758.7	64.0	17.8	61	SW			3		5					
Constantinople			30.08	764.0	36.7	2.6	82	NW	18	8			10					
Fao, (Persian Gulf)			30.32	770.2	59.4	15.2		NW			3		0					
Salonica			30.19	766.9	41.4	5.2		NW			2		0					
Valona			30.17	766.2	46.6	8.1		NW			1		0					
Varna			30.08	764.0	33.8	1.0		NW			10		10				Snow	

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.83	757.7	19	—17.2	92	SE	10	4.5			10		0	0		
Chatham, N. B.			29.83	757.7	23	— 5.0	93	Calm	0	0			10		0.42	10.7	Light snow	
Charlottetown, P. E. Island			29.91	759.7	21	— 6.1	91	SE	12	5.4			10		0	0	Light snow	
Father Point, Quebec			29.77	756.1	— 7	—21.7	65	N	12	5.4		8	Haze	N	0	0		
Fort Garry, Manitoba			29.95	760.7	—11	—23.9	95	SE	3	1.3			10		0.07	1.8	Light snow	
Halifax, N. S.			29.69	754.1	27	— 2.8	96	SE	13	5.8			10		0.03	0.8	Heavy snow	
Kingston, Ontario			29.94	760.5	5	—15.0	80	Calm	0	0		2	0		0.17	4.3		
Montreal, Quebec			29.93	760.2	8	—13.3	78	NW	8	3.6		0	2		0.37	9.4		
Ottawa, Ontario			29.94	760.5	—11	—23.9	75	Calm	0	0			Fog		0.20	5.1	Fog	
Parry Sound, Ontario			29.99	761.7	—18	—27.8	81	N	2	0.9		0	0		0	0		
Port Dover, Ontario			29.90	759.2	8	—13.3	100	N	8	3.6		5	0	NW	0	0		
Port Stanley, Ontario			29.95	760.7	4	—15.6	100	NW	10	4.5		0	0		0.04	1.0		
Quebec, Quebec			29.85	758.2	10	—12.2	79	W				0	0		0.35	8.9		
Saugeen, Ontario			29.97	761.2	— 1	—18.3	100	Calm	0	0		0	2		0	0		
Sydney, C. B.			30.01	762.2	— 2	—18.9	97	Calm	0	0		5	2	NW	0	0		
Toronto, Ontario			29.94	760.5	8	—13.3	87	NW	7	3.1		0	2		0.05	1.3		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.79	755.6	24	— 4.4	87	N	8	3.6			10		0.76	19.3		
Alpena, Mich.			29.99	761.7	3	—16.1	73	NW	2	0.9			10		0	0		
Atlantic City, N. J.			29.80	756.9	31	— 0.6	100	NE	4	1.8			10		0.01	0.2	Threatening	
Augusta, Ga.			29.77	756.1	59	15.0	94	SW	5	2.2			10		0.65	16.5	Light rain	
Baltimore, Md.			29.68	753.9	40	4.4	82	NE	2	0.9			10		0.01	0.2	Light rain	
Barnegat, N. J.			29.63	752.6	34	1.1	100	SE	8	3.6			10		0	0		
Benton, Montana			30.08	764.0	16	— 8.9	100	SW	8	3.6		0	0		0	0		
Bismarck, Dakota			29.94	760.5	1	—17.2	72	W	14	2.3		10	0	W	0.27	6.8		
Boston, Mass.			29.68	753.0	33	0.6	100	N	7	3.1			Fog		0.36	9.1	Fog	
Breckenridge, Minn.			30.02	762.5	— 5	—20.6	91	NW	12	5.4			10		0	0		
Buffalo, N. Y.			29.87	758.7	17	— 8.3	67	NE	2	0.9		Haze	5		0.10	0		
Burlington, Vt.			29.92	760.0	12	—11.1	61	NE	6	2.7		2	5		0.09	2.5		
Cairo, Ill.			29.84	757.9	32	0.0	89	N	4	1.8			10		0.05	1.3	Sleet	
Cape Hatteras, N. C.			29.69	754.1	63	17.2	88	SW	30	13.4			10		0.26	6.6		
Cape Henry, Va.			29.66	753.4	44	6.7	96	E	12	5.4			10		1.40	35.6	Light rain	
Cape May, N. J.			29.68	753.9	36	2.2	100	N	8	3.6			10		0.12	3.0	Threatening	
Charleston, S. C.			29.82	757.4	60	15.6	88	SW	16	7.1		5	5	W	0	0		
Cheyenne, W. T.			29.89	759.2	5	—15.0	74	NW	4	1.8		0	0		0	0		
Chicago, Ill.			29.86	758.4	26	— 3.3	80	Calm	0	0			Fog		0	0	Fog	
Cincinnati, Ohio			29.73	755.1	33	0.6	79	N	4	1.8			10		0.05	1.3		
Cleveland, Ohio			29.81	757.2	20	— 6.7	85	NE	7	3.1			10		0.12	3.0		
Colorado Springs, Col.			29.87	758.7	19	— 7.2	84	Calm	0	0			10		0	0		
Corsicana, Texas			30.09	764.3	34	1.1	79	NW	8	3.6			10		0.17	4.3		
Davenport, Iowa			30.00	762.0	14	—10.0	81	N	1	0.4		2	0		0	0		
Denver, Col.			29.98	761.5	28	— 2.2	54	E	2	0.9			10		0	0		
Detroit, Mich.			29.98	761.5	12	—11.1	80	NE	9	4.0		0	10		0	0		
Dodge City, Kansas			29.78	756.4	22	— 5.6	74	N	6	2.7		5	0		0	0		
Dubuque, Iowa			30.00	762.0	11	—11.7	80	NW	2	0.9			10		0	0		
Duluth, Minn.			29.97	761.2	— 5	—20.6	81	Calm	0	0			10		0	0		
Eastport, Me.			29.76	755.9	33	0.6	100	Calm	0	0			10		0.09	2.3	Light snow.	
Erie, Penn.			29.83	757.7	20	— 6.7	85	N	16	7.1			10		0.13	3.3		
Escanaba, Mich.			30.05	763.3	—18	—27.8	67	N	4	1.8		0	0		0	0		
Fort Gibson, I. T.			29.97	761.2	30	— 9.1	78	NW	10	4.5			10		0.23	5.8		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.12	765.0	6	—14.4	63	NW	8	3.6			8		0	0		
Galveston, Texas			29.99	761.7	51	10.6	86	NW	28	12.5			10		0.02	0.5		
Grand Haven, Mich.			29.95	760.7	6	—14.4	76	E	7	3.1		0	0		0	0		
Indianapolis, Ind.			29.72	754.7	29	— 1.7	78	N	8	3.6			10		0	0		
Indianola, Texas			30.04	763.0	52	11.1	86	N	16	7.1		0	5		0	0		
Jacksonville, Fla.			29.91	759.7	65	18.3	90	SE	12	5.4		0	0		0	0		
Keokuk, Iowa			29.93	760.2	19	— 7.2	84	N	5	2.2		5	2	W	0	0		
Key West, Fla.			30.03	762.8	73	22.8	76	S	10	4.5		2	8	W	0	0		
Kittyhawk, N. C.			29.86	758.4	60	15.6	87	S	10	4.5		10	0	S	0.44	11.2		
Knoxville, Tenn.			29.59	751.6	53	11.7	93	SW	8	3.6			10		1.56	39.6		
La Crosse, Wis.			29.98	761.5	11	—11.7	80	N	2	0.9			10		0	0		
Leavenworth, Kan.			30.01	762.2	20	— 6.7	85	NW	6	2.7		0	2		0.02	0.5		
Lexington, Ky.			29.71	754.6	31	— 0.6	89	N	12	5.4			10		0.19	4.8	Sleet	
Long Branch, N. J.			29.66	753.3	41	5.0	83	NW	4	1.8			10		0.16	4.1		
Louisville, Ky.			29.68	753.9	34	1.1	87	N	8	3.6			10		0.09	2.3		
Lynchburg, Va.			29.62	752.3	43	6.1	92	N	4	1.8			10		0.41	10.4		
Malone, N. Y.																		
Marquette, Mich.			29.99	761.7	— 5	—20.6	63	W	8	3.6		0	0		0	0		
Memphis, Tenn.			29.85	758.2	39	3.9	91	NW	7	3.1			10		1.36	34.5		
Milwaukee, Wisconsin			29.93	760.2	13	—10.6	81	NW	6	2.7			10		0	0	Light snow.	
Mobile, Ala.			29.83	757.7	65	18.3	94	W	3	1.3			10		1.55	39.4		
Montgomery, Ala.			29.86	756.9	60	15.6	91	S	6	2.7			10		0.89	22.6		
Morgantown, West Virginia			29.69	754.1	32	0.0	95	N	5	2.2			10		0.35	8.9	Sleet	
Mt. Washington, N. H.			29.67	753.6	13	—10.6	81	NE	20	8.9		8	2		0.12	3.0		
Nashville, Tenn.			29.71	754.6	43	6.1	91	NW	6	2.7			10		0.62	15.7	Light rain	
New Haven, Conn.			29.73	755.1	32	0.0	89	N	4	1.8			8		0.27	6.8	Rain & Mist.	
New London, Conn.			29.70	754.4	35	1.7	84	N	8	3.6			10		0.28	7.1		
New Orleans, La.			29.86	758.4	64	17.8	78	NW	8	3.6		8	Sm'e	SW	0.06	1.5		
Newport, R. I.																		
New York, N. Y.			29.73	755.1	34	1.1	90	NE	16	7.1			Fog		0.36	9.1		
Norfolk, Va.			29.66	753.4	48	8.9	100	E	7	3.1			10		1.40	35.5	Light rain	
North Platte, Neb.			29.78	756.4	18	— 7.8	68	W	16	7.1		0	2			0		
Omaha, Neb.			29.95	760.7	19	— 7.2	84	SW	4	1.8			10		0	0		
Oswego, N. Y.			29.80	759.2	19	— 7.2	83	NE	10	4.5		10	0	W	0.16	4.1		
Peck's Beach			29.99	764.1	35	1.7	100	NE	4	1.8			10		0.05	1.3	Light rain	
Pembina, D. T.			29.93	760.2	— 6	—21.1	100	NW	4	1.8			10		0.01	0.2	Light snow	
Philadelphia, Penn.			29.73	755.1	36	— 2.2	80	NE	12	5.4			10		0.06	1.5	Light rain	
Pike's Peak, C. T.			29.57	751.1	— 8	—22.2	100	W	34	15.2			Fog		0	0	Fog	
Pittsburgh, Penn.			29.74	755.4	29	— 1.7	89	N	4	1.8			10		0.17	4.3	Light snow.	
Port Huron, Mich.			29.93	760.2	9	—12.8	89	N	10	4.5		0	2		0.02	0.5		
Portland, Maine			29.73	755.1	28	— 2.2	88	N	10	4.5			10		0.54	13.7		
Portland, Or.			30.40	772.2	29	— 1.7	78	N	6	2.7		Haze	0		0.44	11.2		
Punta Rassa, Fla.			30.03	762.8	72	22.2	90	S	11	4.9		2	Fog	S				
Rochester, N. Y.			29.85	758.2	21	— 6.1	85	N	6	2.7			10		0.06	1.5		
Salt Lake City, Utah			30.10	764.5	28	— 2.2	77	NW	2	0.9			10		0.02	0.5		
Sandy Hook, N. J.			29.70	754.4	34	1.1	90	N	2	0.9					0.18	4.6	Fog	
San Diego, Cal.			30.20	767.1	48	8.9	85	Calm	0	0			10		0	0		
San Francisco, Cal.			30.20	767.1	44	6.7	84	Calm	0	0		0	0		0	0		
Santa Fe, N. M.			29.90	759.8	18	— 7.8	60	Calm	0	0		0	0		0	0		
Savannah, Georgia			29.82	757.4	65	18.3	94	SW	12	5.4			10		0.02	0.5	Light rain	
Shreveport, La.			30.01	762.2	40	4.4	82	SW	12	5.4			10		0.55	14.0		
Springfield, Mass.			29.73	755.1	28	— 2.2	88	N	4	1.8			10		0.35	8.9	Threatening	
St. Louis, Mo.			29.92	760.0	27	— 2.8	77	N	12	5.4			10		0	0		
St. Marks, Fla.			29.86	758.4	66	18.9	94	SW	10	4.5			10		0	0		
St. Paul, Minn.			29.90	759.4	2	—16.7	72	Calm	0	0			10		0	0		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			29.69	754.1	34	1.1	90	NE	3	1.3			10		0.06	1.5		
Toledo, Ohio			29.89	759.2	16	— 8.9	75	NE	12	5.4			10		0.04	0.8		
Tybee Island, Ga.			29.87	758.7	56	13.3	87	SW	20	8.9			10		0	0	Threatening	
Vicksburg, Miss.			29.92	760.0	53	11.7	86	W	1	0.4			10		0.11	2.8		
Virginia City, Mon.			29.79	756.6	4	—16.6	74	SE	6	2.7		Haze	0		0.35	8.9		
Washington, D. C.			29.70	754.4	38	3.3	90	N	2	0.9			10		0.04	0.8	Threatening	
Wilmington, N. C.			29.74	755.4	64	17.8	83	SW	26	11.6			5		0.26	6.6		
Wood's Hole, Mass.			29.66	753.3	34	1.1	89	NW	13	5.8					0.38	9.6	Fog	
Wytheville, Va.			29.40	746.7	47	8.3	92	NW	2	0.9			10		0.62	15.7		
Yankton, D. T.			30.61	762.2	10	—12.2	79	NW	22	9.8		0	5		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From —	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.					81	27.2		E	3	1.3		5	5	NE	0.11	2.8		
Point-a-pitre, Guadaloupe, W.I.					70	21.1		E				0	0		0	0		
Havana, Cuba, W. I.			29.85	758.2	70	21.1	85	SE	4	1.8		0	0		0	0		
Honolulu, Oahu, Sandwich Is.			30.09	764.3	67	19.4	74	NE	2	0.9		0	5		0	0		
Kingston, Jamaica, W. I.			30.23	767.8	71	21.7	90	Calm	0	0		0	0		0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.88	758.9	68	20.0	79	Calm	0	0		0	0		0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saida																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.07	763.9	32.4	0.2	89	NE			1		10		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.06	763.5	32.9	0.5	90	Calm			0		10		0.051	1.30		I. R. Cen. Met. Ins., Hungary
Cracow			29.98	761.4	34.2	1.2	77	W			3		10		0.020	0.5		I. R. Observatory.
Eperies			30.04	762.9	27.9	— 2.3	89	S			1		10		0	0		Julius Mikolik.
Gratz			30.04	763.0	37.6	3.1	77	W			2.5		7.5		0	0		Andreas Rospini.
Hermannstadt			30.11	764.8	28.0	— 2.2	87	NW			1		10		0	0		Prof. C. L. Reissenberger.
Kremsmünster			30.13	765.4	33.4	0.8	96	W			3		10		0.579	14.7		Prof. C. Wagner.
Lemberg			29.91	759.7	31.1	— 0.5	95	SW			3		10		0.055	1.4		Dr. T. Stanecki.
Nyiregyhaza			29.10	764.5	30.6	— 0.8	96	SW			1		10		0.088	2.26		Habszuda Daniel.
Pola			30.06	763.5	46.2	7.9	79	ESE			2		10		0	0		I. R. Hydrographic Office.
Szegedin			30.05	763.2	32.7	0.4	96	S			2		10		0.086	2.20		Karl Stancel.
Trieste			30.09	764.2	43.3	6.3	72	S			0		10		0	0		Prof. V. Farolfi.
Vienna			30.06	763.5	39.6	4.2	86	NW			1		10		0.208	6.8		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.29	769.4			39.9	4.4	65	NE			1		1		0.748	19.00		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.50	774.7	36.9	2.7		S	19	8.5			9		0	0		William Boswell.
Annanhill																		
Ardrossan			30.51	774.9	39	3.9		SSW			4		6					W. H Dunlop.
Armagh Observatory			30.51	774.9	45.0	7.2		SSE	17	7.6			8					William McNeil.
Banbridge																		Stillman Call.
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.60	777.2	40.7	4.8		SSE			3		3					The Liverpool Observatory
Birr Castle			30.49	774.4	46.0	7.8		SSE			1		10				Mist	J. Dreyer.
Bradford			30.56	776.2	40.1	4.5		E			1		2					J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			30.62	777.7	42.0	5.6		NE			1		3					H. Todd.
Cape Town, Cape Colony			29.81	757.2	86	30.0		SE			6		0					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.88	758.9			83.2	28.4	42	S	29	13.0			0					The Royal Observatory.
Cardington			30.65	778.5	41.4	5.2		E			3		1					John McLaren.
Carlisle			30.58	776.7	42.1	5.6		S			4		8		0	0		T. Bell.
Chatham			30.56	776.2	41.7	5.4		ENE			1		5					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.95	760.7	74.5	23.5		NE			1		8					Sgt. W. F. Hopkins
Dartmoor			30.59	779.0	38.5	3.6		E			2		10					R. E. Power.
Donaghadee			30.50	774.7	43	6.1		SE			4		7					J. Mac Gowan, Jr.
Dover			30.54	775.7	43	6.1							5					J. Costello.
Dublin																		
Durham Observatory			30.59	777.0	38.3	3.5		S			5		9					G. Goldney.
Eccles, (near Manchester)			30.51	774.9	42.8	6.0		SE	5.4	2.4			2				Mist	Thomas Mackereth.
Falmouth Observatory			30.58	776.7	47.9	8.8		ESE	24	10.7			10					The Fa mouth Observatory.
Fort Napier, (Natal)			29.92	759.9	66.8	19.3		E			3		10				Rain	Pvt. G. Salmon.
Galway			30.38	771.6	52	11.1		SSW			1		10				Mist	Queen's College.
Gibraltar, (Mediterranean Sea)			30.31	769.9	59.8	15.4		E			5		1					Sgt. J. Brewster.
Glasgow Observatory			30.32	775.2	39.2	4.0		SE			2		10				Mist	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.64	778.2	43	6.1		SE			3		5					E. Toller.
Great Yarmouth			30.59	777.0	41	5.0		NNE			3		2					G. T. Watson.
Greenwich Royal Observatory			30.61	777.5	41.8	5.4		ENE			1		1					The Royal Observatory.
Guernsey			30.56	776.2	45	7.2		NE			2		8					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			30.58	776.7	39.5	4.2		SSE			4		2					Moorside Observatory.
Halifax, Nova Scotia			29.56	750.8	29.0	— 1.7		N			4		9					Corp'l J. Y. Thompson.
Helston			30.52	775.2	55	12.8		E			4		5					W. B. Moyle.
Holyhead			30.60	777.2	44	6.7		SSW			3		6				Mist	John Tilston.
Hull Park																		
Kew Observatory			30.62	777.7	41.0	5.0		ENE	7	3.1							Fog	The Meteorological Office.
Kingstown			30.52	775.2	47	8.3		SE			1		8				Mist	George Mitchell.
Lampeter																		
Leicester			30.63	778.0	43	6.1		SE			1		1					William J. Harrison
Llandudno			30.56	776.2	46.2	7.9		S			3		2					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.29	769.3	58.0	14.4		NW			1		7					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			30.36	771.1	38.0	3.3		SW			2		6					William D. Penny.
Nassau, (Bahamas)			30.08	764.0	71.0	21.7		SE			1		0					Surgeon I. Jameson.
North Shields			30.59	777.0	40	4.4		SW			2		4					John Wm. Irvine.
Nottingham			30.64	778.2	45.0	7.2		SSE			1		2					E. J. Lowe.
Osborne, New Barn Cottage			30.60	777.2	40.4	4.7		ESE			1		8					J. R. Mann.
Oscott, (near Birmingham)			30.63	778.0	41.4	5.2		E			2		3					St. Mary's College.
Oxford, the Radcliffe Obser'y			30.59	777.0	41	5.0		E			2		9					Radcliffe Observatory.
Plymouth			30.58	776.2	46	7.8		E			2		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			30.46	773.7	40	9.4		E			2		9					W. Kennedy.
Saint Ann's Head			30.54	775.7	45	7.2		SE			4		9				Mist	John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			30.32	770.1	37.0	2.8		S	24	10.7			10					Rev. Dr. Clouston.
Scarboro'			30.60	777.2	41.0	5.0		SE			2		10					F. Heard.
Scutari, Turkey			30.10	764.5	39.8	4.3		NW			1		9				Mist	W. H. Lyne.
Sheffield			30.64	778.2	41.3	5.2		S			1		2					W. F. Cooper.
Sidmouth																		
Silloth Rectory			30.57	776.5	42.7	5.9		NW			1		8		0.015	0.38		Francis Redford.
Somerleyton, (Lowestoft)			30.60	777.2	42.4	5.8		NE			1		0					Rev. C. J. Steward.
Stonyhurst Observatory			30.58	776.7	39.7	4.3		SE			1							Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			30.19	766.8	41	5.0		SSW			6		10					John Smith.
Strathfield Turgiss			30.83	783.1	40.9	4.9		E			0–1		0					Charles H. Griffith.
Streatley Vicarage			30.67	779.0	51.8	11.0		NE			2		0					Rev. John Slatter.
Sumburgh Head, Shetland Is.			30.24	768.1	38	3.3		S			4		9					William Lawrence.
Taunton College																		
Thurso			30.32	770.1	36	2.2		SSE			3		8					John Trotter.
Truro, Royal Institution			30.48	774.2	48	8.9		E			6		10					Royal Institution.
Valencia			30.46	773.7	50.8	10.4		S	27	12.1							Mist	Meteorological Observatory
Wick																		
Wisbech			30.60	777.2	43.5	6.4		E			2		1					S. H. Miller.
Worthing			30.59	777.0	42.0	5.6		ENE			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.

DANISH SERIES.

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

Copenhagen			30.40	772.2	32.4	0.2	71	N			2		0					
Faröe			30.56	776.1	36.1	2.3	59	N			2		0					
Thorshavn, (Faröe)			30.22	767.7	41.	5.3	87	S			6		10				Rain	
Vestervig			30.53	775.4	33.1	0.6	89	Calm			0		0					
Stykkisholm, (Iceland)			29.35	745.6	34.3	1.3	94	SE			4		8					
Godthaab, (Greenland)			29.71	754.6	10.8	—11.8		E			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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.53	775.5	47.1	8.4	76	NE			1		8		0	0		Normal School.
Amiens			30.54	775.8	42.1	5.6	94	NNE			3		5		0.535	13.6		Normal School.
Beaumette, (near Angers)			30.48	774.2	49.1	9.5	76	W	5.4	2.4			10		0.118	3.0		Baumette Observatory.
Beauvais			30.56	776.3	40.5	4.7	62	NE			8		8		0.122	3.10		Normal School.
Besançon			30.33	770.4	42.1	5.6	78	NE			2		8		0.551	14.0		Normal School.
Bourges			30.232	767.82	45.7	7.6	78	N			2		5		0.244	6.2		Normal School.
Brest			30.47	775.0	52.3	11.3	82	NE			2		5		0.118	3.0		Naval Observatory.
Caen			30.56	776.3	44.8	7.1	74	NE			6		10		0.394	10.0		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.40	772.1	38.7	3.7		WNW			6		10		0.492	12.5		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.53	775.4	47.5	8.6	70	NE			3		5		0.185	4.7		Normal School.
Mirecourt			30.26	768.7	41.2	5.1		S			8		10		0.331	8.4		Normal School.
Mont-Louis	25.04	636.1			36.0	2.2	80	NW	28.0	12.50			5		0	0		—. Falguère.
Montsouris (near Paris)			30.50	774.7	39.9	4.4	71	NNE	13	6.0			10		0.157	4.0	Fog	Marié Davy.
Orleans			30.48	774.2	43.5	6.4	79	NW			2		10		0.252	6.4		Normal School.
Paris			29.91	759.8	40.3	4.6	63	NNE			2		10		0.171	4.34		National Observatory.
Parthenay			30.45	773.5	55.4	13.0	86	N			4		8		0.086	2.2		Normal School.
Perpignan	30.17	766.3			56.8	13.8	49	WNW	16.8	7.50			5		0	0		Dr. Fines.
Roche sur Yon			30.48	774.1	54.9	12.7	79	SW			2		5		0	0		Normal School.
Rouen			30.56	776.1	44.8	7.1	69	NE			3		5		0.551	14.0		Normal School.
Saint Lo			30.63	777.9	45.1	7.3	92	E			2		10		0.465	11.8		Normal School.
Saint Maur, (near Paris)			30.48	774.3	40.6	4.8	67	N			2		10		0.224	5.7		E. Renou.
Saint Pierre, (Martinique)																		
Tours			30.46	773.6	48.2	9.0	78	E			1		5		0.201	5.1		C. Marquet.
Tunis, (Africa)			30.26	768.5	57.9	14.4	57	NW			3		5		0	0		—. Jacques.
Versailles, (near Paris)			30.50	774.8	40.3	4.6	71	NE			3		9		0.272	6.09		Dr. A. Bérigny.
Villefranche			30.30	769.5	43.7	6.5	94	SE			6		5		0.095	2.4		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.32	770.1	35.2	1.8	75	NW			7		9		0.177	4.5		Prof. Hoh.
Berlin			30.31	769.9	36.9	2.7	61	NW			4		6		0.008	0.2		Prof. Arndt.
Breslau			30.06	763.6	32.0	0.0	90	WNW			4		10		0	0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.36	771.1	36.3	2.4	71	NE			2–5		10		0.181	30.2	Rain	A. Lenz.
Cassel			30.35	770.9	36.5	2.5	73	N			3		8		0	0	Snow	Dr. H. Mohl.
Cologne			30.44	773.2	39.0	3.9	86	W			2		8		0.047	1.2		Dr. Gaithe.
Emden			30.64	778.3	35.4	1.9	68	NNE			2		0		0	0		Prof. Prestel.
Frankfort on the Main			30.[illegible]8	774.1	37.8	3.2	71	NNE			2		4		0.453	11.5		Physical Society.
Friedrichshafen			30.24	768.0	35.6	2.0	91	W					10		0.555	14.1	Rain	M. Wilhelm.
Hamburg			30.48	774.2	40.6	4.8	53	N			3		2		0.008	0.2		W. Reinart.
Kiel			30.46	773.6	36.1	2.3	71	NE			5		0		0	0		Prof. G. Karsten.
Königsberg			29.94	760.5	30.2	— 1.0	91	N			4		10		0	0	Snow	Prof. E. Luther.
Köslin			30.40	772.1	30.9	— 0.6		N			7				0	0		Dr. Tägert.
Leipsic			30.31	769.9	34.0	1.0	81	NNW			2		10		0	0		Prof. Bruhns.
Münster			30.44	773.2	36.9	2.7	78	N			2		0		0	0		Prof. E. Heis.
Posen			30.03	762.8	34.2	1.2	90	NW			6–7		10		0	0		Dr. Magener.
Strassburg, (in Alsace)			30.36	771.2	33.3	0.7	100	NE					10		0.283	7.2		Hartwig and Fulk.
Stuttgart			30.33	770.4	34.7	1.5	82	NW					10		0.421	10.7	Rain & snow	Mr. Wurth.
Thorn			30.00	759.5	34.5	1.4	92	NNW			6		10		0	0		Dr. Hagenbalg.
Treves, (Trier)			30.38	771.7	38.3	3.5	61	E			3		10		0.004	0.1		Prof. Flesch.
Wustrow			30.41	772.3	38.1	0.6	65	NNW			5		0		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.06	763.4	38.8	3.8	98	SE	3.1	1.4			6		0	0		
Mondovi			30.08	764.0	36.3	2.4	84	N			2		2		0	0		
Genoa			30.05	763.2	52.7	11.5	67	Calm	0	0			10		0	0		
Pavia			30.05	763.2	34.3	1.3	87	S			1				0	0	Fog	
Verona																		
Padua			30.05	763.6	33.6	0.9	80	NE	1.9	0.8					0	0	Fog	
Parma			30.04	763.1	37.9	3.3		NE			4		10		0	0		
Bologna			30.15	765.8	41.4	5.2	39	W			4		7		0	0		
Urbino			30.12	765.0	45.3	7.4	69	SW			6		10		0	0		
Ancona			30.02	762.6	48.2	9.0	79	SE			2		9		0	0		
Florence																		
Siena			30.07	763.9	43.7	6.5	83	W	0.6	0.3			10	W	0	0		
Livorno			30.17	764.8	47.5	8.6	83	NE			2		10		0	0		
Rome			30.13	765.4	46.4	8.0	80	NE			4		10	SW	0.043	1.1		
Naples, O.U.			30.20	767.0	50.9	10.5	81	S			2		10	SW	0.110	2.8	Rain	
Naples, S. R.	29.64	752.9			45.7	7.6	93	S			1		10	NW	0.370	9.4		Prof. F. Brioschi.
Lecce			30.26	768.6	49.8	9.9	54	NW	3.7	1.6			1		0	0		
Cosenza			30.24	768.0	49.3	9.8	58	SE			4		3		0	0		
Catania, (Sicily)			30.26	768.5	51.8	11.0	46	SW			2		0	SW	0	0		
Riposto																		
Palermo			30.20	767.2	58.8	14.9	44	W			2		7		0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.58	776.7	42.1	5.6		NE			4							
Flushing			30.48	774.3	36.9	2.7		NE			4							
Helder			30.55	775.9	39.7	4.3		NNE			4							
Utrecht			30.48	774.1	37.6	3.1		NNE			4		10					

NOTE.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.52	775.1	32.4	0.2	74	SSE	5.4	2.4			10		0.669	17.0		
Christiania			30.42	772.7	26.8	— 2.9	68	NE	0.9	0.4			0		0	0		
Tromsö			29.92	759.9	19.0	— 7.2	93	SE			2		5		0.228	5.8		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.08	764.0			55.8	13.2	61	N	11.4	5.1			1					

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.80	757.0	31.5	— 0.3	98	WSW	4	2			10				Snow	Astronomical Observatory.
Wilna			29.85	758.1	32.0	0.0	90	S	7.8	3.5			10					Astronomical Observatory.
Dorpat			29.97	761.2	22.3	— 5.4	93	W	2	1			10					Physical Cabinet.
St. Petersburg			29.89	759.2	23.9	— 4.5	95	SSW	7	3			10				Snow	Central Physical Observatory
Kieff			30.02	762.4	24.8	— 4.0	87	SSE	2	1			6					Physical Cabinet.
Nikolaiev			30.00	762.1	28.4	— 2.0	86	N	13	6			9					
Kertch			29.76	756.0	36.0	2.3	89	N	7	3			10					Lagorio.
Moscow			30.16	766.0	20.3	— 6.5	90	SW	7.8	3.5			10				Snow	Meteorological Observatory
Lugan			29.84	757.9	28.0	— 2.2	85	ESE	20	9			9				Snow	Meteorological Observatory
Archangel			29.76	755.9	23.4	— 4.8	96	SSW	16.8	7.5			8				Haze	Ogorodnikof.
Tiflis			29.93	760.1	43.2	6.2	68	SE	4	2			9					Physical Observatory.
Astrakhan			30.08	764.0	29.7	— 1.3	76	ENE	10.1	4.5			4					Sebastianof.
Kasan			30.26	768.6	— 1.5	—18.6	94	SE	4	2			6					Physical Cabinet.
Orenburg			30.42	772.6	1.4	—17.0	90	NE	4	2			0					Tschernischef.
Ekaterinburg			30.37	771.5	18.3	— 7.6	33	W	4	2			0					Meteorological Observatory
Kasaly			30.07	763.9	17.4	— 8.1	91	NNE	13	6			0					Bobrof.
Tashkend																		Michelson.
Barnaul			30.47	773.9	— 9.6	—23.1	84	Calm	0	0			0					Meteorological Observatory
Yeniseisk			29.85	758.2	5.7	—14.6	91	S	10.1	4.5			10				Snow	Marks.
Irkutsk			30.23	767.9	— 5.5	—20.7	78	Calm	0	0			0					Usolzef.
Oorga			30.52	775.2	—11.0	—23.9	100	Calm	0	0			0					Mossin.
Peking, (China)			29.98	761.4	29.1	— 1.6	39	Calm	0	0			3					Physical Observatory.
Nertchinsk			30.18	766.5	—19.5	—28.6	91	Calm	0	0			0					Meteorological Observatory
Vladivostock																		
Nikolaievsk, (on the Amoor)					—23.8	—31.0		W	4	2			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.40	772.1	55.8	13.2	56	N	1.3	0.6		2	0	NW	0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.96	761.1	24.4	— 4.2	77	NW			2		6		0	0		Dr. H. H. Hildebrandsson.
Hernosand			30.11	764.7	26.6	— 3.0	100	W			7		8		0	0	Snow	
Upsala			30.20	767.1	23.9	— 1.5	71	NNW			2		0					
Stockholm			30.18	766.5	26.8	— 2.9	96	NW			2		0		0	0		
Wisby			30.2	767.1	30.9	— 0.6	88	N			5		0		0.205	5.2		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.70	731.2			38.5	3.6	93	N			2		9		0	0	Rain	The Observatory.
Zurich	28.77	730.7			34.3	1.3	96	N			1		10		0	0	Rain	Prof. B. Billwiller.

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)			29.73	755.2	52.5	11.4	68	SW			8		10				Rainy	
Constantinople			30.09	764.2	39.6	4.2	75	NW	4	2			10					
Fao, (Persian Gulf)			30.17	766.3	59.9	15.5		SE			3		10					
Salonica			30.05	763.2	49.6	9.8		N			3		0					
Valona			30.04	763.0	49.5	9.7		N			3		0					
Varna			30.04	763.0	30.2	— 1.0		NW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.84	757.9	12	—11.1	80	N	15	6.7		8	0	N	0	0		
Chatham, N. B.			29.78	756.4	16	— 8.9	100	N	6	2.7			10		0.06	1.5		
Charlottetown, P. E. Island			29.67	753.6	25	— 3.9	99	N	14	6.3			10		0.63	16.0		
Father Point, Quebec			30.01	762.2	— 8	—13.3	66	S	6	2.7		Haze	0	S	0	0		
Fort Garry, Manitoba			30.05	763.3	—18	—27.8	93	NW	10	4.5		0	0		0.5	1.3		
Halifax, N. S.			29.41	747.0	26	— 3.3	79	N	7	3.1			10		1.03	26.2	Clearing	
Kingston, Ontario			29.85	758.2	5	—15.	88	Calm	0	0		8	0	SW	0	0		
Montreal, Quebec			29.81	757.2	— 2	—18.9	87	E	5	2.2			5		0	0		
Ottawa, Ontario			29.80	756.9	— 3	—19.4	96	Calm	0	0		10	0	W	0	0		
Parry Sound, Ontario			29.71	754.6	— 9	—12.8	89	SE	5	2.2			10		0.05	1.3		
Port Dover, Ontario			29.80	756.9	—19	— 7.2	82	~	15	6.7			10		0	0	Threatening	
Port Stanley, Ontario			29.80	756.9	22	— 5.6	96	SW	15	6.7			10		0.03	0.8		
Quebec, Quebec			29.86	758.4	7	—13.9	63	NE					10		0	0		
Saugeen, Ontario			29.71	754.6	—12	—11.1	80	S	4	1.8			10		0	0		
Sydney, C. B.			29.61	752.1	28	— 2.2	98	E	7	3.1			10		0.48	12.2	Light snow.	
Toronto, Ontario			29.78	756.4	16	— 8.9	90	W	5	2.2			10		0	0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.82	757.2	13	—10.6	65	Calm	0	0			10		0.06	1.5		
Alpena, Mich.			29.63	752.6	12	—11.1	80	SW	4	1.8			10		0.06	1.5	Light snow.	
Atlantic City, N. J.			29.86	758.4	27	— 2.8	100	W	4	1.8		0	0		0.15	3.8		
Augusta, Ga.			29.97	761.2	44	6.7	84	NW	3	1.3		0	0		0.04	1.0		
Baltimore, Md.			29.87	758.7	33	0.6	79	NW	2	0.9		0	Sm'e		0.32	8.1		
Barnegat, N. J.			29.75	755.6	26	— 3.3	88	SW	5	2.2		2	0		0	0		
Benton, Montana			30.11	764.8	15	— 9.4	86	SW	2	0.9		0	0		0	0		
Bismarck, Dakota			30.08	764.0	—4	—20.0	65	N	12	5.4		Haze	Haze		0.12	3.0		
Boston, Mass.			29.77	756.1	25	— 3.9	100	N	6	2.7			10		0.21	5.3	Light snow.	
Breckenridge, Minn.			30.03	762.8	—10	—23.3	85	NW	12	5.4		0	0		0.01	0.2		
Buffalo, N. Y.			29.78	756.4	18	— 7.8	84	SW	4	1.8		Haze	5	SW	0.01	0.2		
Burlington, Vt.			29.81	757.2	6	—14.4	76	Calm	0	0		5	5		0	0		
Cairo, Ill.			30.10	764.5	29	— 1.7	78	W	4	1.8		0	2		0.01	0.2		
Cape Hatteras, N. C.			29.88	758.9	43	6.1	83	NE	19	8.5			10		0.02	0.5		
Cape Henry, Va.			29.89	759.2	39	3.9	82	NW	6	2.7			10		0.12	3.0		
Cape May, N. J.			29.87	758.7	30	— 1.1	78	NW	10	4.5		0	0		0.13	3.3		
Charleston, S. C.			29.95	760.7	51	10.6	79	W	4	1.8		8	2	NW	0.22	5.6		
Cheyenne, W. T.			29.88	758.9	15	— 9.4	75	NW	24	10.7		2	0		0	0		
Chicago, Ill.			29.91	759.7	15	— 9.4	81	W	12	5.4		0	Sm'e		0	0		
Cincinnati, Ohio			29.96	761.0	32	0.0	69	W	4	1.8			10		0.10	2.5		
Cleveland, Ohio			29.79	756.6	24	— 4.4	87	NE	10	4.5			10		0	0		
Colorado Springs, Col.			29.77	756.1	10	—12.2	79	N	4	1.8		0	0		0	0		
Corsicana, Texas			30.14	765.5	30	— 1.1	86	N	2	0.9		5	0		0	0		
Davenport, Iowa			29.94	760.5	10	—12.2	89	SW	4	1.8		5	0	W	0	0		
Denver, Col.			29.89	759.2	17	— 8.3	67	S	7	3.1		0	2		0	0		
Detroit, Mich.			29.75	755.6	20	— 6.7	75	W	13	5.8		0	5		0	0		
Dodge City, Kansas			29.72	754.9	26	— 3.3	63	NW	3	1.3		5	0		0	0		
Dubuque, Iowa			29.89	759.2	— 7	—13.9	77	W	4	1.8			10		0	0		
Duluth, Minn.			29.80	756.9	— 4	—20.0	64	NW	12	5.4		Haze	5	NW	0.05	1.3		
Eastport, Me.			29.70	754.4	24	— 4.4	87	NE	11	4.9			10		0.06	1.5		
Erie, Penn.			29.79	756.6	22	— 5.6	89	S	16	7.1			10		0	0		
Escanaba, Mich.			29.70	754.4	2	—16.7	72	W	8	3.6		0	0		0.16	4.1		
Fort Gibson, I. T.			30.07	763.8	21	— 6.1	85	N	3	1.3		0	2		0	0		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.11	764.8	4	—15.6	61	N	28	12.5		5	2	NW	0	0		
Galveston, Texas			30.09	764.3	41	5.0	83	NE	16	7.1		0	2		0	0		
Grand Haven, Mich.			29.77	756.1	21	— 6.1	85	W	22	9.8			10		Blank	Blank	Light snow.	
Indianapolis, Ind.			29.96	761.0	24	— 4.4	78	W	8	3.6			10		0	0		
Indianola, Texas			30.08	764.0	42	5.6	83	NE	20	8.9		0	5		0	0		
Jacksonville, Fla.			29.98	761.5	60	15.6	88	NW	3	1.3		10	0	SW	0.53	13.5		
Keokuk, Iowa			29.91	759.7	17	— 8.3	67	S	5	2.2		0	0		0	0		
Key West, Fla.			30.01	762.2	75	23.9	81	SW	12	5.4		5	5	SW	0	0		
Kittyhawk, N. C.			30.12	765.0	37	2.8	82	N	8	3.6			10		0.07	1.8		
Knoxville, Tenn.			30.01	762.2	34	1.1	90	W	10	4.5			10		0.02	0.5		
La Crosse, Wis.			29.84	757.9	5	—15.0	75	SW	6	2.7		Haze	Haze		0.15	3.8		
Leavenworth, Kan.			29.87	758.7	22	— 5.6	72	SW	2	0.9		0	0		0	0		
Lexington, Ky.			30.03	762.7	30	— 1.1	72	W	16	7.2			10		Blank	Blank		
Long Branch, N. J.			29.76	755.9	30	— 1.1	89	NW	2	0.9		0	2		0.13	3.3		
Louisville, Ky.			29.97	761.2	31	— 0.6	79	SW	8	3.6		0	5		0.02	0.5		
Lynchburg, Va.			29.91	759.7	34	1.1	79	Calm	0	0			Fog		0.08	2.0	Fog	
Malone, N. Y.																		
Marquette, Mich.			29.68	753.9	4	—15.6	74	W	8	3.6		0	0		0.30	7.6		
Memphis, Tenn.			30.13	765.3	31	— 0.6	69	NW	6	2.7			10		0	0		
Milwaukee, Wisconsin			29.87	758.7	6	—14.4	76	W	12	5.4			10		0.11	2.8		
Mobile, Ala.			30.07	763.8	43	6.1	83	NW	6	2.7		0	0		0.02	0.5		
Montgomery, Ala.			30.08	764.0	43	6.1	71	N	10	4.5			10		0	0		
Morgantown, West Virginia			29.89	759.2	32	0.0	84	S	6	2.7			10		0.44	11.2	Light snow.	
Mt. Washington, N. H.			29.61	752.1	13	—10.6	81	NW	26	11.6		2	2	SW	0	0		
Nashville, Tenn.			30.07	763.8	36	2.2	62	W	4	1.8			10		1.02	0.5		
New Haven, Conn.			29.80	756.9	27	— 2.8	77	NE	7	3.1			10		0.13	3.3		
New London, Conn.			29.78	756.4	30	— 1.1	89	N	4	1.8			10		0.26	6.6		
New Orleans, La.			30.07	763.8	47	8.3	62	NW	8	3.6		8	0	NE	0.01	0.2		
Newport, R. I.																		
New York, N. Y.			29.82	757.4	29	— 1.7	68	NW	3	1.3		8	0	SW	0.15	3.8		
Norfolk, Va.			29.89	759.2	37	2.8	90	N	5	2.2		0	5		0.05	1.3		
North Platte, Neb.			29.73	755.1	21	— 6.1	71	NW	6	2.7		0	0		0	0		
Omaha, Neb.			29.77	756.1	20	— 6.7	77	W	12	5.4			10		0	0		
Oswego, N. Y.			29.78	756.4	24	— 4.4	78	SW	2	0.9			10		0	0	Light snow.	
Peck's Beach			29.87	758.7	27	— 2.8	88	NW	16	7.2		0	0		0.24	6.1		
Pembina, D. T.			30.05	763.3	—16	—26.7	70	NW	20	8.9		0	0		0	0		
Philadelphia, Penn.			29.87	758.7	29	— 1.7	78	W	6	2.7		0	0		0.14	3.5		
Pike's Peak, C. T.			29.56	750.8	—10	—23.3	81	N	20	8.9			5		0	0		
Pittsburgh, Penn.			29.89	759.2	24	— 4.4	87	W	10	4.5			10		0.25	6.3	Light snow.	
Port Huron, Mich.			29.73	755.1	18	— 7.8	100	SW	12	5.4			10		0.02	0.5	Light snow	
Portland, Maine			29.77	756.1	52	— 5.6	85	NE	6	2.7			10		0	0		
Portland, Or.			30.36	771.1	27	— 2.8	77	Calm	0	0		5	0		0	0		
Punta Rassa, Fla.			30.02	762.5	69	20.6	90	S	9	4.0			10		0.69	17.5	Threatening	
Rochester, N. Y.			29.78	756.4	20	— 6.7	85	W	10	4.5		0	5		0	0		
Salt Lake City, Utah			30.13	765.3	27	— 2.8	67	NE	6	2.7			10		0.02	0.5		
Sandy Hook, N. J.			29.79	756.6	26	— 3.3	88	NW	6	2.7		0	8		0.21	5.3		
San Diego, Cal.			30.15	765.8	44	6.7	91	NE	4	1.8		0	0		0	0		
San Francisco, Cal.			30.20	767.1	44	6.7	92	N	4	1.8		0	0		0	0		
Santa Fe, N. M.			29.51	749.5	22	— 5.6	65	NW	12	5.4			10		0.17	4.3		
Savannah, Georgia			30.00	762.0	50	10.0	64	W	8	3.6		0	2		0.37	9.4		
Shreveport, La.			30.12	765.0	31	— 0.6	89	N	2	0.9		0	0		0	0		
Springfield, Mass.			29.89	759.2	25	— 3.9	72	Calm	0	0			10		0.12	3.0		
St. Louis, Mo.			30.07	763.8	25	— 3.9	87	W	4	1.8		0	5		0	0		
St. Marks, Fla.			30.03	762.8	48	8.9	77	N	4	1.8		5	0		0.12	3.0		
St. Paul, Minn.			30.78	756.4	0	—17.8	69	W	4	1.8			10		0.09	2.3	Light snow	
St. Paul's Island, Alaska																		
Squan Beach, N. J.			29.81	757.2	24	— 4.4	72	NW	1	0.4		0	2		0.25	6.3		
Toledo, Ohio			29.83	757.7	24	— 4.4	61	SW	24	10.7		0	2		0.01	0.2		
Tybee Island, Ga.			29.95	760.7	47	8.3	100	NW	6	2.7		2	2	NW	0.21	5.3		
Vicksburg, Miss.			30.18	766.6	39	— 3.9	80	NW	5	2.2			10		0	0		
Virginia City, Mon.			29.76	755.9	3	—16.1	73	Calm	0	0		0	0		0	0		
Washington, D. C.			29.90	760.0	33	0.6	84	Calm	0	0		0	8		0.09	2.3		
Wilmington, N. C.			29.88	758.9	52	11.1	66	NW	6	2.7		2	2	SW	0	0		
Wood's Hole, Mass.			29.76	755.9	29	— 1.7	78	NW	7	3.1			10		0.16	4.1		
Wytheville, Va.			29.68	753.9	54	1.1	79	W	6	2.7		8	0	W	0.03	0.8		
Yankton, D. T.			29.82	757.4	16	— 8.9	75	NW	33	14.8		0	5		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.	30.09	764.3	.....	.....	79	26.1	.....	NE	10	4.5	.....	.....	.....	.....	0	0	Rain	
Point-a-pitre, Guadaloupe, W.I.	30.03	762.7	.....	.....	72	22.2	.....	NE	.....	.....	.....	0	0	.....	0	0	.....	
Havana, Cuba, W. I.	.....	.....	29.86	758.4	72	22.2	85	SE	4	1.8	.....	10	0	S	0	0	.....	
Honolulu, Oahu, Sandwich Is.	.....	.....	30.11	764.8	71	21.7	94	S	3	0.9	.....	0	2	.....	0	0	.....	
Kingston, Jamaica, W. I.	.....	.....	30.23	767.8	72	22.2	90	SE	1	0.4	.....	8	0	E	0	0	.....	
Makawao, Maui, Sandwich Is.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Thomas, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Santiago de Cuba, Cuba, W. I.	.....	.....	29.91	759.7	66	18.9	73	Calm	0	0	.....	0	2	.....	0	0	Smoke	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., JANUARY 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.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Algiers																		
Aumale																		
Batna																		
Biskra																		
Constantine																		
Djelfa																		
Geriville																		
La Calle																		
Laghouat																		
Larache (or El Arish)																		
Medeah																		
Nemours																		
Oran																		
Saïda																		
Tebessa																		
Teniet el had																		

Reports for this date not received.

AUSTRIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.53	775.5	35.8	2.1	50	NE			5		0		0	0		Prof. Ivan Stozir.
Buda-Pesth			30.46	773.6	31.6	— 0.2	87	W			5		1		0	0		I. R. Cen. Met. Ins., Hungary
Cracow			30.47	773.9	27.5	— 2.5	84	W			3		10		0.051	1.3		I. R. Observatory.
Eperies			30.34	770.7	28.8	— 1.8	82	NW			4		10		0.079	2.00		Julius Mikolik.
Gratz			30.57	776.5	35.6	2.0	45	NW			5		0		0	0		Andreas Rospini.
Hermannstadt			30.22	767.5	26.8	— 1.2	92	NW			1		10		0.193	4.90	Snow	Prof. C. L. Reissenberger.
Kremsmünster			30.72	780.3	27.5	— 2.5	72	W			1		1		0	0		Prof. C. Wagner.
Lemberg			30.23	767.9	25.0	— 3.9	91	N			4		8		0.075	1.9		Dr. T. Stanecki.
Nyiregyhaza			30.35	771.0	32.7	0.4	92	N			3		5		0	0		Habzsuda Daniel.
Pola			30.59	777.1	41.0	5.0	25	ENE			5		1		0.173	4.40		I. R. Hydrographic Office.
Szegedin			30.38	771.7	33.1	0.6	85	E			3		4		0	0		Karl Stancel.
Trieste			30.42	772.7	42.3	5.7	22	SE			2		0		0	0		Prof. V. Farolfi.
Vienna			30.58	776.7	34.0	1.1	78	NW			3		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.

BELGIAN SERIES.

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

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 of Upper. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.41	772.4			36.9	2.7	65	SSW			1		10		0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.06	763.5	51.7	10.9		SW	11	4.9			4		0.280	7.11		William Boswell.
Annanhill																		W. H Dunlop.
Ardrossan			30.29	769.3														William McNeil.
Armagh Observatory			30.31	769.9	50.2	10.1		S	18	8.0								Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.43	772.9	45.2	7.3		SE			2		10					The Liverpool Observatory
Birr Castle			30.30	769.6	52.2	11.2		SSE			1		10				Rain	J. Dreyer.
Bradford																		J. Mc. Landsborough.
Bridgetown, (Barbadoes)																		
Bywell																		
Cambridge Observatory			30.54	775.7	42.0	5.6		SW			2		4					H. Todd.
Cape Town, Cape Colony			29.80	756.9	80.6	27.0		W			3		2					Sgt. D. E. Hunt
Cape Good Hope Observatory	29.82	757.4			83.5	28.6	42	NW	17	7.6			0.5					The Royal Observatory.
Cardington			30.53	775.4	41.0	5.0		SW			4		2					John McLaren.
Carlisle			30.35	770.9	45.8	7.7		S			4		10		0.07	1.8	Threatening	T. Bell.
Chatham			30.56	776.2	42.4	5.8		SW			1		3					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.94	760.5	77.8	25.4		NE			1		5					Sgt. W. F. Hopkins
Dartmoor			30.54	775.7	38	3.3		SE			2		6					R. E. Power.
Donaghadee			30.18	766.6	47	8.3		S			6		8					J. Mac Gowan, Jr.
Dover			30.58	776.7	52	5.6							4					J. Costello.
Dublin																		
Durham Observatory			30.34	770.6	46.4	8.0		SW			4		6					G. Goldney.
Eccles, (near Manchester)			30.45	773.4	43.9	6.1		SSW	1.8	0.8			10				Mist	Thomas Mackereth.
Falmouth Observatory			30.51	774.9	45.4	7.4		SSE	13	5.8			10					The Falmouth Observatory.
Fort Napier, (Natal)			29.90	759.4	70.5	21.4		E			4		10					Pvt. G. Salmon.
Galway			30.70	764.5	49	9.4		W			2		10					Queen's College.
Gibraltar, (Mediterranean Sea)			30.08	764.0	61.2	16.2		WSW			7		3					Sgt. J. Brewster.
Glasgow Observatory			30.27	768.8	47.7	8.7		SW			2		10				Rainy	The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.58	776.7	45	7.2		SW			3		2					E. Toller.
Great Yarmouth			30.53	775.4	41	5.0		SW			3		7				Mist	G. T. Watson.
Greenwich Royal Observatory			30.57	776.5	41.3	5.2		SSW			1		2					The Royal Observatory.
Guernsey			30.56	776.2	42	5.6		SE			2		0					Dr. S. E. Hoskins.
Halifax, Moorside Obs., Eng			30.41	772.4	41.5	5.3		W			4		10				Mist	Moorside Observatory.
Halifax, Nova Scotia			30.02	762.5	28.9	— 1.7		NW			1		8					Corp'l J. Y. Thompson.
Helston			30.50	774.7	50	10.0		S			2		10				Mist	W. B. Moyle.
Holyhead			30.42	772.6	45	7.2		SSW			4		10					John Tilston.
Hull Park																		
Kew Observatory			30.57	776.5	42.0	5.6		SW	13	5.8			1					The Meteorological Office.
Kingstown			30.38	771.6	49	9.4		S			3		6					George Mitchell.
Lampeter																		
Leicester			30.49	774.4	42.9	6.1		SW			2		4					William J. Harrison
Llandudno			30.42	772.6	46.3	9.4		S			2		9.5					Dr. James Nicol.
Malta, (Mediterranean Sea)			30.09	764.3	57.0	13.9		NW			1		3					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			30.11	764.8	52	11.1		SSW			2		1					William D. Penny.
Nassau, (Bahamas)			30.06	763.5	70.5	21.4		SE			5		6					Surgeon I. Jameson.
North Shields																		John Wm. Irvine.
Nottingham			30.48	774.2	45.1	7.3		SSW			4		9				Mist	E. J. Lowe.
Osborne, New Barn Cottage			30.55	776.0	43.4	6.3		SW			1		0					J. R. Mann.
Oscott, (near Birmingham)			30.48	774.2	42.8	6.0		SSW			3		10				Mist	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.50	774.7	41	5.0		SW			2		6					Radcliffe Observatory.
Plymouth			30.52	775.2	45	7.2		SE			2		4					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			30.36	771.1	50	10.0		S⅜W			4		10				Fog	W. Kennedy.
Saint Ann's Head																		John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			30.08	764.0	47.1	8.4		W	27	12.1			3					Rev. Dr. Clouston.
Scarboro'																		F. Heard.
Scutari, Turkey			30.17	766.3	48.0	8.9		SW			2		8					W. H. Lyne.
Sheffield			30.42	772.6	46.8	8.2		WSW			1		8					W. F. Cooper.
Sidmouth																		
Silloth Rectory			30.33	770.4	44.0	6.7		SW			6		10		0.000	0		Francis Redford.
Somerleyton, (Lowestoft)			30.51	774.9	42.5	5.8		SW			1		9					Rev. C. J. Steward.
Stonyhurst Observatory			30.42	772.6	40.0	4.4		SW			1		10				Rain	Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			30.03	762.7	49.0	9.4		SW			4		7				Rain	John Smith.
Strathfield Turgiss			30.53	775.4	43.0	6.1		SE			1		0					Charles H. Griffith.
Streatley Vicarage			30.56	776.2	43.0	6.1		SSW			3		5					Rev. John Slatter.
Sumburgh Head, Shetland Is.			29.99	761.7	45	7.2		NW			6		10					William Lawrence.
Taunton College																		
Thurso			30.07	763.8	50	10.0		WSW			2		5					John Trotter.
Truro, Royal Institution			30.46	773.7	47	8.3		SE			4		10					Royal Institution.
Valencia			30.29	769.3	50.9	10.5		SSW	31	13.9							Rain	Meteorological Observatory
Wick																		
Wisbech			30.49	774.4	43.9	6.6		SW			4		2					S. H. Miller.
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.

DANISH SERIES.

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

Copenhagen			30.45	773.5	34.9	1.6	84	W			1		8				Fog	
Fanöe			30.39	772.0	35.8	2.1	98	SW			6		10					
Thorshavn, (Faröe)			29.69	754.0	47.8	8.8	91	SW			6		10				Rain	
Vestervig			30.17	766.4	34.9	1.6	100	SW			6		10				Rain	
Stykkisholm, (Iceland)			29.24	742.7	20.8	— 6.2	84	NE			9		10				Snow	
Godthaab, (Greenland)			29.82	757.4	19.9	— 6.7		SSE			2		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 MM. Marié Davy, E. Renou, C. Marquet, —. Jacques, —. Falguère, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alençon			30.36	777.1	39.2	4.0	66	NE			1		0		0	0		Normal School.
Amiens			30.64	778.2	38.5	3.6	97	E			3		0		0	0		Normal School.
Beaumette, (near Angers)			30.53	775.4	41.9	5.5	51	E	7.6	3.4			0		0	0		Baumette Observatory.
Beauvais			30.61	777.6	36.5	2.5	57	ENE			0		0		0	0		Normal School.
Besançon			30.48	774.3	34.9	1.6		NE			4		0		0	0		Normal School.
Bourges			30.55	776.0	37.0	2.8	64	E			2		5		0	0		Normal School.
Brest			30.46	777.0	43.7	6.5	82	SSW			2		0		0	0		Naval Observatory.
Caen																		Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.59	777.1	34.9	1.6		E			2		0		0	0		Normal School.
Gorée, (Senegambia)																		Père Pascall
Le Mans			30.60	777.3	37.0	2.8	80	E			2		0		0.063	1.6		Normal School.
Mirecourt			30.55	775.9	39.[illegible]	4.1		N			2		10		0	0		Normal School.
Mont-Louis	24.92	633.0			34.0	1.1	33	N	24.8	11.11			2		0.008	0.2		—. Falguère.
Montsouris (near Paris)			30.58	776.8	39.0	4.2	54	Calm	1.1	0.5			0		0	0		Marié Davy.
Orleans			30.61	777.6	36.3	2.4	69	NE			3		0		0	0		Normal School.
Paris			30.59	777.0	38.3	3.5	71	ESE			2		1		0	0		National Observatory.
Parthenay			30.50	774.6	48.2	9.0	79	NE			4		0		0.004	0.1		Normal School.
Perpignan	30.13	765.3			50.0	10.0	57	NW	14.9	6.66			0		0	0		Dr. Fines.
Roche sur Yon			30.51	775.0	42.8	6.0	58	NE			2		0		0	0		Normal School.
Rouen			30.61	777.4	40.8	4.9	44	SSE			4		0		0	0		Normal School.
Saint Lo			30.63	777.9	41.9	5.5	74	E			1		0		0.031	0.8		Normal School.
Saint Maur, (near Paris)			30.59	776.9	40.8	4.9	51	ENE			1		0		0	0		E. Renou.
Saint Pierre, (Martinique)																		
Tours																		C. Marquet.
Tunis, (Africa)			29.90	759.4	59.0	15.0	49	W			3		6		0	0		—. Jacques.
Versailles, (near Paris)			30.56	776.2	39.2	4.0	65	SE			3		0		0	0		Dr. A. Bérigny.
Villefranche			30.27	768.8	37.0	2.8	87	NW			0		0		0.079	2.0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.62	777.8	28.9	— 1.7	65	N			1		2		0	0		Prof. Hoh.
Berlin			30.67	779.0	34.0	1.1	87	SW			4		8		0	0		Prof. Arndt.
Breslau			30.58	776.8	27.7	— 2.4	80	W			6		3		0.024	0.6		Dr. P. Neugebauer.
Carlsruhe			30.69	779.4	33.8	1.0	53	E			1–5		1		0	0		A. Lenz.
Cassel			30.64	778.2	33.6	0.9	67	SSE			2		4		0	0		Dr. H. Mohl.
Cologne			30.61	777.5	35.6	2.0	89	W			3		6		0	0		Dr. Gaithe.
Emden			30.65	778.5	34.0	1.1	75	SW			1		10		0	0		Prof. Prestel.
Frankfort on the Main			30.42	772.6	34.9	1.6	80	E			1		4		0	0		Physical Society.
Friedrichshafen			30.65	778.5	27.5	— 2.5	89	E					0		0.047	1.2		M. Wilhelm.
Hamburg			30.62	777.7	33.8	1.0	65	W			3		10		0	0		W. Reinart.
Kiel			30.46	773.6	35.6	2.0	73	SW			4		10		0	0		Prof. G. Karsten.
Königsberg			30.45	773.5	26.2	— 3.2	78	NE			2		2		0.067	1.7	Snow	Prof. E. Luther.
Köslin			30.74	780.8	34.2	1.2		NW			4				0	0		Dr. Tägert.
Leipsic			30.70	779.8	31.3	— 0.4	70	SW			3		9		0	0		Prof. Bruhns.
Münster			30.61	777.6	34.5	1.4	76	SW			2		10		0	0		Prof. E. Heis.
Posen			30.59	776.9	34.9	1.6	70	NNW			6–7		9		0	0		Dr. Magener.
Strassburg, (in Alsace)			30.65	778.5	32.9	0.5	50	NE					1		0	0		Hartwig and Fulk.
Stuttgart			30.70	779.8	32.5	0.3	54	SE					5		0	0		Mr. Wurth.
Thorn			30.48	774.2	33.3	0.7	74	NW			3		7		0.067	1.7		Dr. Hasenbalg.
Treves, (Trier)			30.63	778.1	33.1	0.6	90	NE			2		4		0	0		Prof. Flesch.
Wustrow			30.59	777.0	33.5	0.7	71	WSW			4		7		0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Mongalieri			30.50	774.8	40.1	4.5	81	SSW	1.2	0.5			0		0	0		
Mondovi			30.44	773.3	38.7	3.7	52	NW			4		0	N	0	0		
Genoa			30.32	770.0	50.7	10.4	17	N	6.2	2.8			0		0	0		
Pavia			30.42	772.7	42.6	5.9	38	E			8		0		0	0		
Verona																		
Padua			30.41	772.5	42.8	6.0	27	NE	16.2	7.2			0		0	0		
Parma			30.41	772.3	40.1	4.5		NE			8		0		0	0		
Bologna			30.41	772.4	42.8	6.0	41	SW			8		2		0	0	Rain	
Urbino			30.32	770.2	36.1	2.3	83	NE			6		10		0	0		
Ancona			30.31	769.9	44.8	7.1	55	ESE			2		10		0	0		
Florence																		
Siena			30.22	767.6	37.8	3.2	57	ENE	(46.12)	(20.62)			7	E	0	0		
Livorno			30.22	767.7	43.7	6.5	28	ENE			8		1		0	0		
Rome			30.27	768.8	47.1	8.4	50	NE			6		10		0	0		
Naples, O.U			30.04	762.9	47.1	8.4	56	NE			8		10	NE	0	0		
Naples, S. R	29.48	748.9			43.3	6.3	76	E			8		10	NNE	0.610	15.5		Prof. F. Brioschi.
Lecce																		
Cosenza			30.10	764.6	47.3	8.5	86	ENE	10.6	4.7			10		0	0		
Catania, (Sicily)			29.98	761.6	53.2	11.8	78	SSE			1		10		0.090	2.4		
Riposto			30.03	762.8	55.0	12.9	53	SW			4		2	SW	0	0		
Palermo			29.87	758.8	57.4	14.1	50	SW			4		9	SW	0	0		

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.

NETHERLAND SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Groningen			30.65	778.5	37.2	2.9		SSW			3							
Flushing			30.51	775.0	33.4	0.8		SSW			3							
Helder			30.53	775.4	38.1	3.4		SSW			4							
Utrecht			30.58	776.8	36.5	2.5		SSW			2		8					

Note.—The originals give the force 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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.08	764.1	37.6	3.1	98	SE	11.9	5.3			10		0.291	7.4	Fog & rain	
Christiania			30.15	765.8	30.2	— 1.0	96	NW	2.7	1.2			10		0	0	Snow	
Tromsö			29.96	760.9	18.0	— 7.8	97	SE			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.93	760.2			55.2	12.9	55	NNE	1.1	0.5			1					

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.42	772.7	27.5	— 2.5	98	NW	9	4			1					Astronomical Observatory.
Wilna			30.33	770.4	19.2	— 7.1	84	N	10.1	4.5			1					Astronomical Observatory.
Dorpat			30.38	771.6	13.5	—10.3	77	NW	7	3			0					Physical Cabinet.
St. Petersburg			30.24	768.0	6.6	—14.1	82	WNW	7	3			0				Snow	Central Physical Observatory.
Kieff			30.03	762.7	23.9	— 4.5	90	NNE	7	3			10					Physical Cabinet.
Nikolaiev			30.10	764.5	31.8	— 0.1	83	WSW	7.8	3.5			8					
Kertch			30.10	764.6	33.2	0.7	82	NW	9	4			9					Lagorio.
Moscow			30.11	764.9	18.1	— 7.7	89	SW	10.1	4.5			10				Snow	Meteorological Observatory.
Lugan			29.81	757.3	32.2	0.1	81	SW	10.1	4.5			10					Meteorological Observatory.
Archangel			30.00	762.0	16.9	— 8.4	94	W	4	2			10				Snow	Ogorodnikof.
Tiflis			29.96	761.0	46.8	8.2	45	N	25	11			5					Physical Observatory.
Astrakhan			30.07	763.8	33.4	0.8	77	E	4	2			10					Sebastianof.
Kasan			30.19	766.8	11.1	—11.6	82	SE	4	2			10					Physical Cabinet.
Orenburg			30.40	772.1	2.8	—16.2	81	NE	4	2			0					Tschernischef.
Ekaterinburg			30.41	772.4	21.6	— 5.8	50	W	4	2			0					Meteorological Observatory.
Kasaly			30.07	763.8	12.0	—11.1	86	Calm	0	0			0					Bobrof.
Tashkend																		Michelson.
Barnaul			30.40	772.2	1.8	—18.8	76	Calm	0	0			0					Meteorological Observatory.
Yeniseisk			29.90	759.5	11.5	—11.4	91	SW	22	10			10					Marks.
Irkutsk			30.06	763.4	10.5	—12.2	88	Calm	0	0			10				Snow	Usolzef.
Oorga			30.76	781.4	—16.2	—26.8	100	Calm	0	0			0					Mossin.
Peking, (China)			30.29	769.4	25.3	— 3.7	36	Calm		0			0					Physical Observatory.
Nertchinsk			29.98	761.5	—21.8	—29.9	90	Calm	0	0			0					Meteorological Observatory.
Vladivostock																		
Nikolaievsk, (on the Amoor)					—10.3	—23.5		E	7.8	3.5			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.

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.20	767.2	54.9	12.7	56	E	2.9	1.3		0	4		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'or 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.22	767.5	5.0	—15.0	91	Calm			0		10					Dr. H. H. Hildebrandsson.
Hernosand			30.20	767.2	9.0	—12.8	100	Calm			0		10		0.067	1.7		
Upsala			30.29	769.3	19.9	— 6.7	77	S			2		1					
Stockholm			30.31	769.8	25.2	— 3.8	95	SSW			2		5		0.024	0.6		
Wisby			30.44	773.1	29.5	— 1.4	100	S			2		0		0.067	1.7		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.94	735.2			32.9	0.5	68	N			6		5		0.067	1.7		The Observatory.
Zurich	28.81	731.8			28.2	— 2.1	71	NE			2		3		1.063	27.0		Prof. B. Billwiller.

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			30.16	766.1	45.5	7.5	67	SW	7	3			8					
Fao, (Persian Gulf)			30.20	767.0	58.6	14.8		NW			3		0					
Salonica			30.00	764.4	52.0	11.1		SW			1		2					
Valona			29.98	761.5	48.2	9.0		E			1		10				Rainy	
Varna			30.12	765.0	41.0	5.0		NW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.94	760.5	14	—10.0	91	N	3	1.3		2	2	N	0	0		
Chatham, N. B.			30.04	763.0	8	—13.3	100	Calm	0	0		0	0		0.01	0.2		
Charlottetown, P. E. Island			30.01	762.2	21	— 6.1	97	SW	3	1.3		0	2		0	0		
Father Point, Quebec			29.95	760.7	— 8	—22.2	66	SW	7	3.1		5	0	SW	0	0		
Fort Garry, Manitoba			29.85	758.2	—13	—25.0	95	SE	10	4.5		0	Haze		0	0		
Halifax, N. S.			29.86	758.4	26	— 3.3	83	W	5	2.2			10		0	0		
Kingston, Ontario			29.99	761.7	17	— 8.3	92	NE	1	0.4			10		0.02	0.5		
Montreal, Quebec			29.92	762.5	4	—10.0	82	SW	7	3.1		Haze	10		0.02	0.5		
Ottawa, Ontario			30.01	762.2	0	—17.8	79	N	4	1.9		Haze	Fog		0	0	Light snow.	
Parry Sound, Ontario			29.89	759.2	6	—14.4	84	NE	10	4.5			10		0	0		
Port Dover, Ontario			29.82	757.4	23	— 5.0	83	S	5	2.2			10		0.30	7.6	Light snow.	
Port Stanley, Ontario			29.83	757.7	27	— 2.8	93	SW	15	6.7			10		0.10	2.5	Light snow.	
Quebec, Quebec			30.03	762.8	8	—13.3	89	W					10		0.05	1.3	Light snow.	
Saugeen, Ontario			29.84	757.9	11	—11.7	90	Calm	0	0			10		0.14	3.5	Light snow	
Sydney, C. B.			29.98	761.5	26	— 3.3	93	W	7	3.1		Haze	2		0.10	2.5		
Toronto, Ontario			29.85	758.2	22	— 5.6	86	SW	5	2.2			10		0.10	2.5	Light snow.	

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.02	762.5	9	—12.8	79	Calm	0	0		2	Fog	W	0	0	Fog	
Alpena, Mich.			29.93	760.2	4	—15.6	74	NW	8	3.6			10		0.03	0.8		
Atlantic City, N. J.			29.92	759.9	36	2.2	80	E	8	3.6			10		0	0		
Augusta, Ga.			29.95	760.7	45	7.2	84	NW	5	2.2			10		0	0		
Baltimore, Md.			29.94	760.5	36	2.2	80	NE	3	1.3			10		0	0	Light snow.	
Barnegat, N. J.			29.94	760.5	36	2.2	90	E	8	3.6			10		0	0		
Benton, Montana			29.66	753.4	35	1.7	80	SW	36	16.1		5	0	SW	0	0		
Bismarck, Dakota			29.66	753.4	7	—13.9	77	S	2	0.9			10		0	0		
Boston, Mass.			30.07	763.8	52	— 3.3	88	SW	4	1.8		5	5	SW	0.05	1.3		
Breckenridge, Minn.			30.14	765.5	19	28.3	85	SE	4	1.8		0	0		0	0		
Buffalo, N. Y.			29.83	757.7	24	— 4.4	81	S	8	3.6			10		0.05	1.3	Light snow.	
Burlington, Vt.			30.03	762.8	17	— 8.3	67	S	2	0.9			10		0	0		
Cairo, Ill.			30.22	766.6	14	—10.0	81	NW	20	8.9		0	Haze		0	0		
Cape Hatteras, N. C.			29.87	758.7	48	8.9	92	NE	4	1.8		10	0	SW	0	0		
Cape Henry, Va.			29.92	760.0	64	17.8	84	S	10	4.5			10		0	0		
Cape May, N. J.			29.94	760.5	38	3.3	80	SE	10	4.5			10		0	0		
Charleston, S. C.			29.96	761.0	50	10.0	93	NW	4	1.8			10		0.05	1.3	Light rain.	
Cheyenne, W. T.			29.75	755.6	27	— 2.8	67	W	32	14.3		0	0		0	0		
Chicago, Ill.			30.13	765.3	— 1	—18.3	68	NW	8	3.6		0	0		0.03	0.8		
Cincinnati, Ohio			30.00	762.0	22	— 5.6	72	NW	8	3.6			10		0.02	0.5		
Cleveland, Ohio			29.80	756.9	27	— 2.8	88	W	12	5.4			10		0.01	0.2	Light snow.	
Colorado Springs, Col.			29.90	759.4	10	—12.2	79	N	4	1.8		0	0		0	0		
Corsicana, Texas			30.32	770.1	29	— 1.7	88	NW	4	1.8		0	0		0	0		
Davenport, Iowa			30.26	768.6	— 8	—22.2	78	W	4	1.8		0	0		0.03	0.8		
Denver, Col.			29.89	759.2	28	— 2.2	32	S	10	4.5		0	0		0	0		
Detroit, Mich.			29.82	757.4	16	— 8.9	83	SW	16	7.2			10		0.01	0.2	Light snow	
Dodge City, Kansas			29.79	756.6	17	— 8.3	83	S	1	0.4		0	0		0	0		
Dubuque, Iowa			30.16	766.1	—13	—25.0	47	Calm	0	0		0	0		0	0		
Duluth, Minn.			30.12	765.0	—10	—23.3	54	SW	4	1.8		0	0		0	0		
Eastport, Me.			30.09	764.3	21	— 6.1	85	N	5	2.2		10	0	NW	0	0		
Erie, Penn.			29.86	756.9	28	— 2.2	88	SE	14	6.3			10		0	0	Light snow	
Escanaba, Mich.			30.06	763.5	— 7	—21.7	59	NW	8	3.6		0	5		0	0		
Fort Gibson, I. T.			30.35	770.9	11	—11.7	60	NW	2	0.9		0	0		0	0		
Fort St. Michael, Alaska																		
Fort Sully, D. T.			30.03	762.7	— 4	—20.0	66	SE	10	4.5		0	5		0	0		
Galveston, Texas			30.24	768.1	44	6.7	75	N	40	17.9		0	0		0	0		
Grand Haven, Mich.			29.96	761.0	8	—13.3	78	N	8	3.6		0	0		0	0		
Indianapolis, Ind.			30.10	764.5	6	—14.4	76	W	10	4.5		0	0		0.02	0.5		
Indianola, Texas			30.30	769.6	45	7.2	60	N	24	10.7		0	0		0	0		
Jacksonville, Fla.			29.91	759.7	51	10.6	93	NW	8	3.7			10		0.76	19.3	Light rain.	
Keokuk, Iowa			30.23	767.8	— 1	—18.3	68	NW	11	4.9		0	0		0	0		
Key West, Fla.			29.95	760.7	75	23.9	86	S	23	10.3		0	5		0	0		
Kittyhawk, N. C.			29.87	758.7	43	6.1	76	SE	10	4.5			10		0	0		
Knoxville, Tenn.			29.94	760.5	31	— 0.6	89	Calm	0	0			10		0	0		
La Crosse, Wis.			30.20	767.1	— 6	—21.1	61	W	4	1.8		0	0		0.03	0.8		
Leavenworth, Kan.			30.33	770.0	1	—17.2	85	NW	4	1.8		0	0		0	0		
Lexington, Ky.			30.00	762.0	27	— 2.8	76	NW	16	7.2			10		0	0		
Long Branch, N. J.			29.93	760.2	35	1.7	79	E	12	5.4			10		0	0		
Louisville, Ky.			30.06	763.5	12	—11.1	80	W	16	7.2			10		0	0		
Lynchburg, Va.			29.93	760.2	37	2.8	80	N	4	1.8			10		0	0		
Malone, N. Y.																		
Marquette, Mich.			30.01	762.2	2	—16.7	72	W	8	3.6		2	2	W	0	0		
Memphis, Tenn.			30.14	765.5	28	— 2.2	67	NW	12	5.4		2	2		0	0		
Milwaukee, Wisconsin			30.11	764.8	— 2	—18.9	67	NW	14	6.3			10		0.21	5.3		
Mobile, Ala.			30.06	763.5	44	6.7	84	N	8	3.6		0	2		0	0		
Montgomery, Ala.			30.02	762.5	43	6.1	79	NW	6	2.7		10	0	W	0	0		
Morgantown, West Virginia			29.90	759.4	34	1.1	79	S	6	2.7			10		0	0		
Mt. Washington, N. H.			29.79	756.7	2	—16.7	100	NW	18	8.0		8	0		0	0		
Nashville, Tenn.			30.04	763.0	29	— 1.7	88	N	12	5.4			10		0.02	0.5	Light snow.	
New Haven, Conn.			30.07	763.8	25	— 3.6	75	W	3	1.3			10		0	0		
New London, Conn.			30.09	764.3	18	— 7.8	84	N	6	2.7			10		0	0		
New Orleans, La.			30.07	763.8	48	8.9	66	N	12	5.4		2	0		0	0		
Newport, R. I.																		
New York, N. Y.			30.04	763.0	32	0.0	79	NE	8	3.6			Fog		0	0	Fog	
Norfolk, Va.			29.92	760.0	44	6.7	88	SE	5	2.2			10		0	0		
North Platte, Neb.			29.86	758.4	1	—17.2	71	Calm	0	0		0	0		0	0	Frost	
Omaha, Neb.			30.32	770.1	— 4	—20.0	100	Calm	0	0		0	0		0	0		
Oswego, N. Y.			29.94	760.5	19	— 7.2	100	SE	8	3.6			10		0.02	0.5	Light snow.	
Peck's Beach			29.96	761.0	36	2.2	90	E	12	5.4			10		0	0		
Pembina, D. T.			30.28	769.7	—23	—30.6		SE	20	8.9		0	5		0	0		
Philadelphia, Penn.			29.98	761.5	31	0.6	89	E	5	2.2			10		0	0		
Pike's Peak, C. T.			29.69	754.1	7	—13.9	54	NW	30	13.4		0	0		0	0		
Pittsburgh, Penn.			29.88	758.9	28	— 2.2	77	S	8	3.6			10		0.02	0.5		
Port Huron, Mich.			29.79	756.6	17	— 8.3	83	SW	12	5.4			10		0.02	0.5		
Portland, Maine			30.07	763.8	19	— 7.2	84	Calm	0	0			Fog		0	0	Fog	
Portland, Or.			30.27	768.8	24	— 4.4	74	N	8	3.6		5	2		0	0		
Punta Rassa, Fla.			29.90	759.4	74	23.3	85	S	27	12.1			10		0	0		
Rochester, N. Y.			29.88	758.9	18	— 7.8	100	SE	8	3.6			10		0.02	0.5		
Salt Lake City, Utah			30.18	766.6	20	— 6.7	55	Calm	0	0		0	0		0	0		
Sandy Hook, N. J.			30.00	762.0	34	1.1	90	E	6	2.7			10		0	0		
San Diego, Cal.			30.18	766.6	46	7.8	77	NE	4	1.8		0	2		0	0		
San Francisco, Cal.			30.21	767.3	44	6.7	92	Calm	0	0		0	0		0	0		
Santa Fe, N. M.			29.73	755.1	17	— 8.3	83	N	10	4.5		0	0		0	0		
Savannah, Georgia			29.94	760.5	48	— 8.9	85	NW	4	1.8			10		0.05	1.3	Light rain.	
Shreveport, La.			30.25	768.3	34	1.1	69	NW	12	5.4		0	0		0	0		
Springfield, Mass.			30.07	763.8	16	— 8.9	83	W	4	1.8			10		0	0		
St. Louis, Mo.			30.27	768.8	4	—15.6	75	NW	16	7.2		0	5		0	0		
St. Marks, Fla.			29.98	761.5	48	8.9	92	N	6	2.7			10		0.50	12.7	Heavy rain	
St. Paul, Minn.			30.17	766.3	—20	—28.9	64	SW	6	2.7		0	0		0.01	0.2		
St. Paul's Island, Alaska																		
Squan Beach, N. J.			30.01	762.2	35	1.7	80	SE	8	3.6			10		0	0		
Toledo, Ohio			29.91	759.7	17	— 8.3	67	SW	16	7.2		5	0	W	0.01	0.2		
Tybee Island, Ga.			29.95	760.7	48	8.9	92	NW	8	3.6			10		0.05	1.3	Light rain.	
Vicksburg, Miss.			30.18	766.6	40	4.4	71	NW	12	5.4			10		0	0		
Virginia City, Mon.			29.64	752.8	8	—13.3	78	SE	4	1.8		Haze	0		0	0		
Washington, D. C.			29.96	761.0	37	2.8	90	N	4	1.8			10		0	0	Light rain.	
Wilmington, N. C.			29.92	760.0	44	6.7	92	Calm	0	0			Fog		0.01	0.2	Fog	
Wood's Hole, Mass.			30.10	764.5	26	— 3.3	76	E	6	2.7		2	5	SW	0	0		
Wytheville, Va.			29.72	754.9	30	— 1.1	68	W	8	3.6		8	0	W	0	0		
Yankton, D. T.			30.31	770.6	—20	—28.9	64	SW	1	0.4		0	0		0.02	0.5		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of Upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.			30.15	765.8	80	26.7		NE	4	1.8		5	5	E	0	0		
Point-a-pitre, Guadaloupe, W.I.			30.06	763.5	74	23.3		NE				10	0		0	0		
Havana, Cuba, W. I.			29.80	756.9	78	25.6	86	S	10	4.5		2	0	S	0	0		
Honolulu, Oahu, Sandwich Is.			30.06	763.5	63	17.2	94	Calm	0	0		0	0		0	0		
Kingston, Jamaica, W. I.			30.20	767.1	76	24.4	94	SE	4	1.8		0	8		0	0		
Makawao, Maui, Sandwich Is.																		
St. Georges, Bermudas																		
St. Thomas, W. I.																		
Santiago de Cuba, Cuba, W. I.			29.91	759.7	65	18.3	73	Calm	0	0		0	0		0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in a few cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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.
Algiers																			
Aumale																			
Batna																			
Biskra																			
Constantine																			
Djelfa																			
Geriville																			
La Calle																			
Laghouat																			
Laraiche (or El Arish)																			
Medeah																			
Nemours																			
Oran																			
Saida																			
Tebessa																			
Teniet el had																			

Reports for this date not received.

AUSTRIAN SERIES.

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

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.
Agram			30.48	774.1	34.5	1.4	68	NE			1		6			0	0		Prof. Ivan Stozir.
Buda-Pesth			30.44	773.3	30.2	— 1.0	74				3		1			0	0		I. R. Cen. M. I., Hungary
Cracow			30.45	773.5	29.8	— 1.1	76	ENE			2		9			0	0		I. R. Observatory.
Eperies			30.45	773.5	22.1	— 5.5	63	Calm			0		0			0	0		Julius Mikolik.
Gratz			30.46	773.8	30.9	— 0.6	73	SSE			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.37	771.5	19.4	— 7.0	86	NW			1		3			0	0		Prof. Reissenberger.
Kremsmünster			30.50	774.7	27.0	— 2.8	83	W			1		10			0	0		Prof. C. Wagner.
Lemberg			30.42	772.6	16.7	— 8.5	89	NW			4		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.43	773.0	24.8	— 4.0	87	N			3		0			0	0		Habzsuda Daniel.
Pola			30.40	772.1	41.9	5.5	23	ENE			4		1			0	0		I. R. Hydrographic Office
Szegedin			30.43	772.8	27.3	— 2.6	66	N			3		0			0	0		Karl Stancel.
Trieste			30.42	772.7	41.9	5.5	43	NE			1		0			0	0		Prof. V. Farolfi.
Vienna			30.43	772.8	36.7	2.6	59	NW			1		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.

BELGIAN SERIES.

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

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.
Brussels	30.20	767.1			39.9	4.4	56	SW			1		3		SW	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.93	760.2	49.5	9.7		WSW	29	13.0			2			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.09	764.3	47	8.3		WSW			3		7						William McNeil.
Armagh Observatory			30.20	767.1	49	9.4		SW	11	4.9			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.24	768.1	49.6	9.8		SW			3		10						The Liverpool Obs.
Birr Castle			30.23	767.8	49	9.4		SW			1		7						J. Dreyer.
Bradford			30.18	766.6	37.3	2.9		SE			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.33	770.4	45.0	7.2		SSE			1		10						H. Todd.
Cape Town, Cape Colony			29.88	758.9	81	27.2		NW			1		2						Sgt. D. E. Hunt
Cape Good Hope Obs.			29.92	760.0	83.2	28.4	46	SSE	14	6.3			0.1						The Royal Observatory.
Cardington			30.34	770.6	41.4	6.9		W					8						John McLaren.
Carlisle			30.19	766.8	50.0	10.0		W					7			0.03	0.8		T. Bell.
Chatham			30.35	770.9	45.4	7.4		SW			2		2						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.97	761.2	77.8	25.4		SE			1		2						Sgt. W. F. Hopkins
Dartmoor			30.40	772.1	41.5	5.3		SW			1		10						R. E. Power.
Donaghadee			30.16	766.1	48	8.9		SW			3		10						J. Mac Gowan, Jr.
Dover			30.38	771.6	45	7.2		SW			3		2						J. Costello.
Dublin																			
Durham Observatory			30.13	765.3	50.9	10.5		SW					2						G. Goldney.
Eccles, (near Manchester)			30.24	768.1	48.7	9.3		SW	1.8	0.8			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.37	771.4	48.1	8.9		SSW	11	4.9			4						The Fa mouth Obs.
Fort Napier, (Natal)			29.73	755.1	83.0	28.3		E			2		1						Pvt. G. Salmon.
Galway			30.14	765.5	52	11.1		W			1		5						Queen's College.
Gibraltar, (Mediterranean)			30.24	768.1	57.6	14.2		SSW			2		6						Sgt. J. Brewster.
Glasgow Observatory			30.07	763.8	46.3	7.9		SW			4		8						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.30	769.6	44	6.7		WSW			2		6					Mist	G. T. Watson.
Greenwich Royal Obs			30.36	771.1	46.8	8.2		SW			0		2						The Royal Observatory.
Guernsey			30.39	771.9	46.0	7.8		SSE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.19	766.8	46.8	8.2		SW					10						Moorside Observatory.
Halifax, (Nova Scotia)			29.54	750.3	27.1	— 2.7		NE			2		10					Snow	Corp'l J. Y. Thompson.
Helston			30.36	771.1	51	10.6		S			4		6						W. B. Moyle.
Holyhead			30.02	762.5	49	9.4		SW			4		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.37	771.4	43.6	6.4		SW	12	5.4			1						The Met. Office.
Kingstown			30.24	768.1	51	10.6		W			1		9						George Mitchell.
Lampeter																			
Leicester			30.30	769.6	45.1	7.3		SW			1		10						William J. Harrison
Llandudno			30.24	768.1	47.4	8.6		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	56.0	13.3		NE			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.87	758.7	49	9.4		SSW			3		1						William D. Penny.
Nassau, (Bahamas)			30.18	766.6	69.3	20.7		NW			6		8						Surgeon I. Jameson.
North Shields			30.17	766.3	48	8.9		SW			3		5						John Wm. Irvine.
Nottingham			30.30	769.6	48.2	9.0		SSW			3		8						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.30	769.6	45.4	7.4		SSW			2		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs			30.31	769.9	46	7.8		SW			2		3						Radcliffe Observatory.
Plymouth			30.36	771.1	47	8.3		S			2		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.23	767.8	50	10.0		SW			4		10					Mist	W. Kennedy.
Saint Ann's Head			30.29	769.4	47	8.3		SW			3		7					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.78	756.4	45.0	7.2		W	29	13.0			7					Sleet & snow	Rev. Dr. Clouston.
Scarboro'			30.18	766.6	48.4	9.1		WSW			3								F. Heard.
Scutari, (Turkey)			30.20	767.1	34.0	1.1		N			3		10						W. H. Lyne.
Sheffield			30.24	768.1	50.0	10.0		WSW			3		5						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.14	765.5	48.8	9.3		SW			5		5			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.30	769.6	46.7	8.2		SW			1		6						Rev. C. J. Steward.
Stonyhurst Observatory			30.21	767.3	45.0	7.7		SW			2		10					Threatening	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			29.85	758.2	45	7.2		WSW			6		3					Rainy	John Smith.
Strathfield Turgiss			30.34	770.6	47.5	8.6		SW			1		0						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			29.65	753.1	45	7.2		W			7								William Lawrence.
Taunton College																			
Thurso			29.80	756.9	47	8.3		W			6		7						John Trotter.
Truro, Royal Institution			30.29	769.1	53	11.7		S			4		4						Royal Institution.
Valencia			30.22	767.6	51.7	10.9		S	19	8.5			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.38	771.6	45.3	7.4		SW			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 pressures reduced to the scale of force, 0–10, by the editor.

DANISH SERIES.

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

Copenhagen			30.12	765.1	37.0	2.8	98	Calm			0		10					Rain & fog	
Fanöe			30.16	766.1	37.9	3.3	98	WSW			4		10					Fog	
Godthaab, (Greenland)			29.75	755.6	19.6	— 6.9		Calm			0		10						
Stykkisholm, (Iceland)			30.02	762.5	38.5	3.6	97	WSW			6		10					Snow	
Thorshavn, (Faröe)			29.65	753.0	29.3	— 6.5	76	E			4		10					Rain & hail	
Vestervig			29.43	747.4	38.1	3.4	100	NW			5		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.20	767.1	55.0	12.8	38												Normal School.
Alençon			30.23?	767.9?	41.7	5.4	81	NE			2		2		NNE	0	0		Normal School.
Amiens			30.06?	763.6?	41.7	5.4	94	WSW			3		2		WSW	0	0		Normal School.
Beaumette, (near Angers)			30.40	772.2	42.3	5.7	51	E	3.1	1.4			0	N		0	0		Beaumette Observatory.
Beauvais			30.47	774.0	35.6	2.0	64	E			1		2			0	0		Normal School.
Besançon			30.47	773.9	39.4	4.1	29	NE			2		0			0	0		Normal School.
Bourges			30.42	772.6	39.6	4.2	62	NE			2		2		NE	0	0		Normal School.
Brest			30.30	769.7	51.3	10.7	64	SE			1		0			0	0		Naval Observatory.
Caen			30.40	772.2	44.1	6.7	71	SE			1	0	0			0	0		Normal School.
Carcassonne																			
Chartres			30.47	773.9	26.8	— 2.9		NE			1		2		NE	0	0		Normal School.
Chaumont			30.46	773.7	39.0	3.9		N			1		0			0	0		Normal School.
Le Mans			30.54	775.6	37.9	3.3	63	E			1		2		NE	0	0		Normal School.
Mirecourt			30.40	772.2	40.3	4.6		N			2		10			0	0		Normal School.
Orleans			30.46	773.7	39.2	4.0	54	NE			2		0			0	0		Normal School.
Paris			30.45	773.4	38.1	3.4	62	SSE			1					0	0	Mist	National Observatory.
Parthenay																			
La Roche sur Yon			30.38	771.7	47.5	8.6	40	NE			2	0	0			0	0		Normal School.
Rouen			30.42	772.7	40.1	4.5	51	SSE			2		0			0	0		Normal School.
Saint Lo			30.42	772.7	47.5	8.6	42	E			1		2		E	0	0		Normal School.
Villefranche			30.48	774.2	39.7	4.3	97	ESE			1		0			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall
Mont-Louis	24.99	634.7			34.7	1.5	44	NE	3.4	1.51			1			0	0		—. Faiguère.
Montsouris (near Paris)			30.44	773.2	40.5	4.7	55	Calm	0.1	0.06			4			0	0		Marié Davy.
Perpignan	30.20	767.0			49.1	9.5	49	NE	1.9	0.83			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.45	773.4	39.9	4.4	59	ENE			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.44	773.1	37.8	3.2	56	E			1		0			0	0		C. Marquet.
Tunis, (Africa)			30.02	762.4	54.9	12.7	74	NE			3		7			0.035	0.9		—. Jacques.
Versailles, (near Paris)			30.43	773.0	43.5	6.4	46	SE			1		3						Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.46	773.8	33.1	0.6	84	E			1		10			0	0		Prof. Hoh.
Berlin			30.35	771.0	34.7	1.5	77	SW			4		7			0.024	0.6		Prof. Arndt.
Breslau			30.42	772.6	33.4	0.8	76	SSE			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.49	774.5	34.5	1.4	64	S			2		8			0	0		A. Lenz.
Cassel			30.35	771.0	38.1	3.4	71	S			4		10			0	0		Dr. H. Mohl.
Cologne			30.42	772.7	40.5	4.7	88	S			3		10			0.012	3.0		Dr. Gaithe.
Emden			30.37	771.4	39.4	4.1	89	W			1		10			0.043	1.1		Prof. Prestel.
Frankfort on the Main			30.58	776.7	37.8	3.2	60	W			1		5			0	0		Physical Society.
Friedrichshafen			30.54	775.8	28.2	— 2.1	89	E					4			0	0		M. Wilhelm.
Hamburg			30.33	770.4	37.4	3.0	87	WSW			4		9			0.020	0.5		W. Reimart.
Kiel			30.21	767.3	39.2	4.0	85	SW			3		10			0	0		Prof. G. Karsten.
Königsberg			30.33	770.4	29.3	— 1.5	78	SE			2		7			0	0		Prof. E. Luther.
Köslin			30.49	774.5	30.2	— 1.0		SE			1		10			0.016	0.4		Dr. Tägert.
Leipsic			30.40	772.2	36.7	2.6	51	SW			2		10			0	0		Prof. Bruhns.
Münster			30.37	771.5	41.7	5.4	85	SE			1		5			0	0		Prof. F. Heis.
Posen			30.39	771.8	34.0	1.1	63	S			5		9			0.004	0.1		Dr. Magerer.
Strassburg, (in Alsace)			30.50	774.6	32.7	0.4	84	N					4			0	0		Hartwig and Fulk.
Stuttgart			30.53	77 .4	34.3	1.3	52	SE					3			0	0		Mr. Wurth.
Thorn			30.35	770.9	32.7	0.4	74	SW			4		8			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.44	773.1	39.4	4.1	44	SE			4		8			0	0		Prof. Flesch.
Wustrow			30.27	768.8	34.5	1.4	100	SW			4		10					Fog	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.47	774.0	38.7	3.7	68	SSW	0.7	0.3			2			0	0		
Mondovi			30.50	774.6	35.4	1.6	46	NNW			2		1	E		0	0		
Genoa			30.40	772.1	44.6	7.0	49	NW	7.4	3.3			0			0	0		
Pavia			30.48	774.2	39.7	4.3	40	NE			4		0			0	0		
Verona																			
Padua			30.43	772.8	39.4	4.1	33	SW	1.8	0.8	2		1			0	0		
Parma																0	0		
Bologna			30.47	773.9	39.4	4.1	42	W					2	W		0	0		
Urbino																0	0		
Ancona																0	0		
Florence																			
Siena			30.33	770.3	39.9	4.4	35	ENE	9.8	4.4			0			0	0		
Livorno																0	0		
Rome			30.24	768.0	49.3	9.6	29	NE			2		0			0	0		
Naples, O.U.			30.25	768.3	48.0	8.9	38	NE			6		1			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			30.23	767.8	44.2	6.8	44	NE	20.6	9.2			4			0	0		
Cosenza			30.25	768.3	45.0	7.2	70	NNW			8		9			0	0		
Catania, (Sicily)			30.15	765.9	53.2	11.8	67	ENE			4		10	SE		0	0		
Lipposto																			
Palermo			30.01	762.3	56.1	13.4	62	WNW			4		6			0	0		

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.

NETHERLAND SERIES.

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

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.
Groningen			30.41	772.5	41.7	5.4		WSW			3								
Flushing			30.26	768.5	38.3	3.5		SW			2								
Helder			30.30	769.6	43.2	6.2		SSW			3								
Utrecht			30.33	770.2	44.1	6.7		SW			3		5						

Note.—The originals give the force 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.

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.
Bergen			30.54	775.8	41.0	5.0	97	S	14.1	6.3			10			0	0		
Christiania			29.80	756.9	30.9	− 0.6	98	NW	2.9	1.3			10			0.165	4.2	Fog.	
Tromsö			29.17	740.9	27.9	− 2.3	89	NE			2		10			0	0	Snow	

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.87	758.7			50.9	10.5	57	NE	6.3	2.8			0						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.43	772.8	22.8	− 5.1	83	ESE	7	3			10						Astronomical Obs.
Wilna			30.45	773.5	15.6	− 9.1	87	N	4	2			10						Astronomical Obs.
Dorpat			30.31	769.9	18.9	− 7.3	68	S	9	4			10						Physical Cabinet.
St. Petersburg			30.28	769.2	12.7	−10.7	73	SE	7	3			10						Central Physical Obs.
Kieff			30.31	769.8	19.0	− 7.2	87	N	9	4			10					Snow	Physical Cabinet.
Nikolaiev			30.25	768.3	24.1	− 4.4	84	N	10.1	4.5			9						
Kertch			30.13	765.3	41.0	5.0	84	N	7	3			10					Rain	Lagorio.
Moscow			30.37	771.4	13.3	−10.4	83	NNW	7.8	3.5			7						Meteorological Obs.
Lugan			30.12	765.0	35.2	1.8	69	SW	10.1	4.5			2						Meteorological Obs.
Archangel			29.29	769.4	4.5	−15.3	90	SSW	4	2			7						Ogorodnikof.
Tiflis			30.22	767.7	47.8	8.8	39	N E	10.1	4.5			2						Physical Observatory.
Astrakhan			30.40	772.1	31.5	− 0.3	76	WNW	4	2			10						Sebastianof.
Kasan			30.08	764.1	16.5	− 8.6	97	S					10					Snow	Physical Cabinet.
Orenburg			29.44	773.2	4.3	−15.4	81	NE	4	2			5						Tschernischef.
Ekaterinburg			30.29	769.3	21.0	− 6.1	56	Calm	0	0			1						Meteorological Obs.
Kasaly			30.16	766.1	12.9	−10.6	30	NW	13	6			0						Bobrof.
Tashkend			30.02	762.5	39.7	4.3	57	N	7.8	3.5			10						Michelson.
Barnaul			30.28	769.1	3.4	−15.9	85	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.96	761.0	11.7	−11.3	90	W	7.8	3.5			3						Marks.
Irkutsk			29.69	754.1	8.4	−13.1	86	Calm	0	0			10						Usolzef.
Oorga			29.95	761.5	7.2	−13.8	85	NW	4	2			0						Messin.
Peking, (China)			30.03	762.8	28.6	− 1.9	40	Calm	0	0			0						Physical Observatory.
Nertchinsk			29.76	756.0	−17.9	−27.7	91	Calm	0	0			4						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					−24.2	−31.2		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.

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.
Madrid			30.47	770.9	47.5	8.6	53	NE	4.4	2.00		1	0	NW		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.61	752.1	33.3	0.7	87	Calm			0		10			0	0		Dr. Hildebrandsson.
Hernosand			29.61	752.1	30.7	— 0.7	94	Calm			0		10			0	0		
Upsala			29.78	756.4	34.0	1.1	94	SW			4		10					Fog	
Stockholm			29.80	756.8	33.4	0.8	96	S			4		10			0	0	Fog	
Wisby			30.02	762.5	34.2	1.2	92	SW			4		10			0.616	0.4		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	29.68	753.9			30.0	1.1	75	NNW			4		1			0	0		The Observatory.
Zurich	28.75	730.3			28.4	2.0	94	E			1		2			0	0		Prof. B. Billwiller.

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)	29.81	757.1			64.2	16.2	55	W			1		5						
Constantinople	30.19	766.9			34.6	1.1	91	NNW	16.8	7.5			10		S	0.331	8.4	Snow	
Fao, (Persian Gulf)	30.33	770.5			57.2	14.0		NW			3		0						
Salonica	30.20	767.1			36.3	2.4		NW			2		5						
Valona	30.03	762.8			44.4	6.9		NE			3		10						
Varna	30.24	768.0			26.6	— 3.0		NW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Rozière, Quebec			29.96	761.0	17	— 8.3	92	E	2	0.9		8	8	E	E	0	0	Threatening	
Chatham, N. B.			29.88	758.9	18	— 7.8	92	NE	6	2.7			10		NE	0.07	1.8	Light snow	
Charlottetown, P. E. Island			29.73	755.1	20	— 6.7	94	N	11	4.9			10	Calm	Calm	0.30	7.6		
Father Point, Quebec			29.93	760.2	2	—16.7	87	NE	10	4.5		2	Haze	NW		0	0		
Fort Garry, Manitoba			29.87	758.7	10	—23.3	95	NW	17	7.6		0	0			0	0		
Halifax, N. S.			29.39	746.5	—27	— 2.8	95	NE	10	4.5			10			0.24	6.1	Light snow	
Kingston, Ontario			30.14	765.5	1	—17.2	86	W	1	0.4		5	0	SW	W	0	0		
Montreal, Quebec			29.92	760.0	15	—10.4	91	SW	17	7.6			10			0.5	1.3	Light snow	
Ottawa, Ontario			29.88	758.9	8	—13.3	66	W	7	3.1		2	0	W		0.15	3.8		
Parry Sound, Ontario			29.96	761.0	8	—13.3	78	SW	15	6.7			10			0.07	1.8		
Port Dover, Ontario			30.14	765.5	8	—13.3	78	SW	10	4.5		5	0			0	0		
Port Stanley, Ontario			30.14	765.5	— 5	—15.	85	W	23	10.3		10	0			0.02	0.5		
Quebec, Quebec			29.86	758.4	21	— 6.1	83	E					10		E	0.02	0.5		
Saugeen, Ontario			29.99	761.7	9	—12.8	89	SW	23	10.3			10		S	0.07	1.8		
Sydney, C. B.			29.73	755.1	25	— 3.9	99	E	9	4.0			10			0.30	7.6	Heavy snow	
Toronto, Ontario			30.10	764.5	11	—11.7	84	SW	9	4.0			10		W	0.05	1.3		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	20	— 6.7	85	NW	17	7.6		2	2	W	W	0.26	6.6	Clearing	
Alpena, Mich.			29.83	757.7	7	—13.9	77	SW	16	7.2			10		SW	0	0		
Atlantic City, N. J.			30.16	766.1	22	— 5.6	72	NW	12	5.4		0	2		E	0.011	2.8		
Augusta, Ga.			30.32	770.1	30	— 1.1	67	NW	5	2.2		0	0			0	0		
Baltimore, Md.			30.16	766.1	21	— 6.1	71	NW	8	3.6		0	0			0	0		
Barnegat, N. J.			29.97	761.2	22	— 5.6	85	NW	18	8.0		5	0	W		0	0		
Benton, Montana			30.07	763.8	— 2	—18.9	100	NE	4	1.8		5	0			0	0		
Bismarck, Dakota			30.06	763.5	— 7	—21.7	59	N	24	10.7			10		N	0	0		
Boston, Mass.			29.82	757.4	26	— 3.3	100	NW	10	4.5			10			0.23	5.8	Light snow.	
Breckenridge, Minn.			29.91	759.7	— 2	—18.9	84	NW	28	12.6		0	0			0	0		
Buffalo, N. Y.			30.13	765.3	11	—11.7	60	SW	12	5.4		0	8		SW	0.02	0.5		
Burlington, Vt.			29.95	762.7	18	— 7.8	68	NW	10	4.5		2	5	W		0.08	2.0		
Cairo, Ill.			30.28	769.1	20	— 6.7	54	SE	8	3.6		0	0			0	0		
Cape Hatteras, N. C.			30.14	765.5	38	3.3	71	N	13	5.8			10		NW	0.19	4.8		
Cape Henry, Va.			30.18	766.6	30	— 1.1	78	NW	29	13.0		0	0			0	0		
Cape May, N. J.			30.09	764.3	23	— 5.0	73	NW	28	12.5		5	0	NW		0.08	2.0		
Charleston, S. C.			30.29	769.4	34	1.1	61	W	12	5.4		0	0			0.15	3.8		
Cheyenne, W. T.			29.68	753.9	26	— 3.3	67	NW	12	5.4		0	5			0	0		
Chicago, Ill.			29.98	761.5	19	— 7.2	39	SW	12	5.4		0	0			0	0		
Cincinnati, Ohio			30.33	770.4	13	—10.6	62	SW	4	1.8		0	2			0	0		
Cleveland, Ohio			30.17	766.3	8	—13.3	77	W	12	5.4			10			0.03	0.8		
Colorado Springs, Col.			29.65	753.1	31	— 0.6	89	N	4	1.8			Haze			0	0		
Corsicana, Texas			30.20	767.1	33	0.6	79	W	6	2.7		5	0			0	0		
Davenport, Iowa			30.02	762.5	15	— 9.4	83	SW	8	3.6		0	0			0	0		
Denver, Col.			29.72	754.9	23	— 5.0	60	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.11	764.8	4	—15.6	74	SW	10	4.5		5	5	SW	SW	0	0		
Dodge City, Kansas			29.51	749.5	21	— 6.1	71	SE	4	1.8		5	0			0	0		
Dubuque, Iowa			30.01	762.2	11	—11.7	80	S	4	1.8			10		S	0	0		
Duluth, Minn.			29.67	753.6	13	—10.6	62	SW	8	3.6		0	0			0	0		
Eastport, Me.			29.69	754.1	23	— 5.0	100	NE	18	8.0			10		NE	0.01	0.2	Light snow.	
Erie, Penn.			30.15	765.8	13	—10.6	81	SW	12	5.4			10			0.05	1.3	Light snow.	
Escanaba, Mich.			29.79	756.6	6	—14.4	76	SW	6	2.7			10			0	0		
Fort Gibson, I. T.			30.04	763.0	31	— 0.6	79	SE	12	5.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.10	764.5	7	—13.9	66	NW	12	5.4		5	5	W	NW	0	0		
Galveston, Texas			30.25	768.3	51	10.6	71	SE	8	3.6		10	0	W		0	0		
Grand Haven, Mich.			29.94	760.5	20	— 6.7	70	S	16	7.2			10		SW	0	0		
Indianapolis, Ind.			30.24	768.1	10	—12.2	58	S	8	3.6		0	Sm'e			0	0		
Indianola, Texas			30.21	767.3	52	11.1	86	SE	10	4.5		5	0			0.22	5.6		
Jacksonville, Fla.			30.30	769.6	37	2.8	63	NW	8	3.6		0	0			0	0		
Keokuk, Iowa			29.95	760.7	21	— 6.1	71	SW	8	3.6		0	0			0	0		
Key West, Fla.			30.20	767.1	67	19.4	68	N	20	8.9		Haze	2		N	0.12	3.0		
Kittyhawk, N. C.			30.44	773.2	32	0.0	67	N	26	11.6		8	0	N		0	0		
Knoxville, Tenn.			30.40	772.2	16	— 8.9	66	N	4	1.8		0	0			0	0		
La Crosse, Wis.			29.84	757.9	17	— 8.3	67	S	6	2.7		Haze				0	0		
Leavenworth, Kan.			29.93	760.2	23	— 5.0	72	S	4	1.8		0	0			0	0		
Lexington, Ky.			30.40	772.1	16	— 8.9	12	SW	10	4.5		0	0			0	0		
Long Branch, N. J.			29.95	760.7	25	— 3.9	88	NW	12	5.4		0	0			0	0		
Louisville, Ky.			30.31	769.9	13	—10.6	62	SE	4	1.8		0	Fog			0	0		
Lynchburg, Va.			30.27	768.8	23	— 5.0	45	NW	4	1.8		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.59	751.6	13	—10.6	81	SW	4	1.8			10		SW	0	0		
Memphis, Tenn.			30.33	770.4	24	— 4.4	75	Calm	0	0		0	0			0	0		
Milwaukee, Wisconsin			29.95	760.7	10	—12.2	68	SW	16	7.2		Haze	0			0	0		
Mobile, Ala.			30.38	771.6	32	0.0	79	N	6	2.7		0	0			0	0		
Montgomery, Ala.			30.42	772.7	29	— 1.7	78	N	6	2.7		0	0			0	0		
Morgantown, W. Virginia			30.28	769.1	24	— 4.4	74	SW	1	0.4		10	Haze	SW		0	0		
Mt. Washington, N. H.			29.66	753.4	2	—16.7	100	NW	15	6.7			10		NW	0.04	1.0	Light snow.	
Nashville, Tenn.			30.37	771.4	21	— 6.1	60	SE	5	2.2		0	Haze			0	0		
New Haven, Conn.			29.93	760.2	24	— 4.4	74	NW	15	6.7		2	5	NW	NW	0.03	0.8		
New London, Conn.			29.88	758.9	26	— 3.3	81	NW	12	5.4			10		NW	0.29	7.4	Clearing	
New Orleans, La.			30.34	770.6	39	3.9	38	E	6	2.7		2	Sm'e			0	0		
Newport, R. I.																			
New York, N. Y.			30.02	762.5	24	— 4.4	74	NW	12	5.4		0	0			0	0		
Norfolk, Va.			30.20	767.1	29	—1 .7	61	N	12	5.4		0	0			0	0		
North Platte, Neb.			29.50	749.3	24	— 4.4	74	NE	5	2.2		0	2		N	0	0		
Omaha, Neb.			29.88	758.9	19	— 7.2	84	Calm	0	0		0	Haze			0	0		
Oswego, N. Y.			30.07	763.8	20	— 6.7	85	W	16	7.2			10			0.02	.5	Heavy snow	
Peck's Beach			30.08	764.0	22	— 5.6	72	NW	24	10.7		0	2			0	0		
Pembina, D. T.			30.12	765.0	—12	—24.4	78	NW	12	5.4		5	0				0		
Philadelphia, Penn.			30.10	764.5	20	— 6.7	70	N	20	8.9		0	2		N	0.11	2.8		
Pike's Peak, C. T.			29.63	752.6	6	—14.4	76	W	34	15.2		0	0			0	0		
Pittsburgh, Penn.			30.27	768.8	13	—10.6	81	NW	4	1.8			10			0	0		
Port Huron, Mich.			30.12	765.0	2	—16.7	86	S	15	6.7			10			0	0		
Portland, Maine			29.80	756.9	25	— 3.9	87	N	10	4.5			10		N	0.04	1.0	Light snow	
Portland, Or.			29.96	761.0	37	2.8	90	Calm	0	0			10			0.11	2.8		
Punta Rassa, Fla.			30.29	769.4	51	10.6	64	N	16	7.2		Haze	Sm'e			0.15	3.8		
Rochester, N. Y.			30.11	764.8	14	—10.0	81	W	10	4.5			10			0	0		
Salt Lake City, Utah			29.87	758.7	25	— 3.9	63	NW	3	1.3		5	0	W		0	0		
Sandy Hook, N. J.			29.99	761.7	23	— 5.0	86	NW	12	5.4		2	5	W	W	0.03	0.8		
San Diego, Cal.			30.17	766.3	48	8.9	85	NE	4	1.8			10			0	0		
San Francisco, Cal.			29.99	761.7	48	8.9	85	Calm	0	0		0	0			0.27	6.8		
Santa Fe, N. M.			29.56	750.8	20	— 6.7	56	NE	4	1.8		2	0	SW		0	0		
Savannah, Georgia			30.32	770.1	33	0.6	69	NW	8	3.6		0	0			0.20	5.1		
Shreveport, La.			30.27	768.8	31	— 0.6	79	SE	4	1.8		0	0			0	0		
Springfield, Mass.			29.92	760.0	24	— 4.4	93	NW	8	3.6		2	2	W	NW	0.38	9.6		
St. Louis, Mo.			30.17	766.3	20	— 6.7	69	S	12	5.4		0	0			0	0		
St. Marks, Fla.			30.34	770.6	32	0.0	79	N	6	2.7		0	0			0.20	5.1		
St. Paul, Minn.			29.80	756.9	10	—12.2	79	SW	8	3.6		0	0			0	0		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.02	762.5	21	— 6.1	70	NW	8	3.6		0	Haze			0.25	6.3		
Toledo, Ohio			30.15	765.8	9	—12.8	68	S	12	5.4		5	0	W		0	0		
Tybee Island, Ga.			30.33	770.4	33	0.6	69	NE	6	2.7		2	0	NW		0	0		
Vicksburg, Miss.			30.40	772.2	29	— 1.7	77	E	11	4.9		2	2		E	0	0		
Virginia City, Mon.			29.36	745.7	8	—13.3	78	SE	2	0.9			10			0	0		
Washington, D. C.			30.20	767.1	20	— 6.7	63	NW	12	5.4		Haze	0			0.03	0.8		
Wilmington, N. C.			30.21	767.3	36	2.2	62	N	6	2.7		0	0			0	0		
Wood's Hole, Mass.			29.78	756.4	27	— 2.8	88	NW	17	7.6			10			0	0		
Wytheville, Va.			30.12	765.0	12	—11.1	80	W	4	1.8		0	0			0	0		
Yankton, D. T.			30.01	762.2	10	—12.2	69	N	4	1.8		5	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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.16	766.1	78	25.6		NE	4	0.4		5	5	NE				Rain	
Point-a-pitre, G'd'loupe, "			30.03	762.7	73	22.8		E				0	0			0.03	0.8		
Havana, Cuba, W. I.			29.99	761.7	71	21.7	71	NE	7	3.1		5	0	NE		1.30	33.0		
Kingston, Jamaica, W. I.			30.30	769.6	75	23.9	87	E	2	0.9		8	0	E		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	68	20.0	75	W	2	0.9		0	0			0	0		
St. Georges, Bermudas																			
Honolulu, Sandwich Is.			30.08	764.0	63	17.2	84	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.83	706.9			60	15.6	82	SE	2	0.9		0	4			0	0		
Cumberland, B. A.																			
Ft. Chippowyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.48	748.8	—13	—25.0	100	NW	20	8.9			10			0.35	8.9		
St. Johns, Newfoundland			30.14	765.5	27	— 2.8	100	E					10			0	0		John Delaney.
Illyria, Ohio	29.32	774.7			18	—13.3		S	12	5.4		0	6			0	0		H. M. Redington.
Indianola, Iowa	29.13	739.9			13	—10.6		S				0	2			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Illyria and Indianola are unknown. The temperatures at York Factory, when below —40, are as given by a spirit thermometer.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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.
Algiers																			
Aumale																			
Batna																			
Biskra																			
Constantine																			
Djelfa																			
Geriville																			
La Calle																			
Laghouat																			
Larache (or El Arish)																			
Medeah																			
Nemours																			
Oran																			
Saïda																			
Tebessa																			
Teniet el had																			

Reports for this date not received.

AUSTRIAN SERIES.

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

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.
Agram			30.28	769.0	29.8	— 1.2	49	SW			2		4			0	0		Prof. Ivan Stozir.
Buda-Pesth			30.23	767.8	29.1	— 1.6	90	SW			2		9			0.043	1.1		I. R. Cen. M. I., Hungary
Cracow			30.20	767.1	32.0	0.0	90	W			3		10			0.024	0.6		I. R. Observatory.
Eperies			30.24	768.1	16.2	— 8.8	69	S			1		10			0	0		Julius Mikolik.
Gratz			30.24	768.2	34.9	1.6	75	SSE			2.5		8			0	0		Andreas Rospini.
Hermannstadt			30.35	770.8	5.2	—14.9	91	NW			1		0			0	0		Prof. Reissenberger.
Kremsmünster			30.28	769.1	34.2	1.2	92	W			2		10			0	0		Prof. C. Wagner.
Lemberg			30.07	763.9	21.6	— 5.8	91	SW			3		1			0.067	1.7		Dr. T. Stanecki.
Nyiregyhaza			30.28	769.2	24.4	— 4.2	82	S			1		5			0.409	10.38		Habzsuda Daniel.
Pola			30.24	768.2	43.9	6.6	45	WNW			2		9			0	0		I. R. Hydrographic Office
Szegedin			30.27	768.7	24.8	— 4.0	73	W			2		10			0.072	1.80		Karl Stancel.
Trieste			30.25	768.3	43.2	6.2	59	NNW			1		7			0	0		Prof. V. Farolfi.
Vienna			30.15	765.8	39.2	4.0	54	W			4		10			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.

BELGIAN SERIES.

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

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.
Brussels	30.05	763.2			42.3	5.7	56	W			1		9		WNW	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.07	763.8	39.9	4.4		W	15	6.7			4			0.030	7.62		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.13	765.3	42	5.6		WNW			2		6						William McNeil.
Armagh Observatory			30.20	767.1	44.0	6.7		SSW	0.5	0.2			10						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.17	766.3	47.6	8.7		W			2		10						The Liverpool Obs.
Birr Castle			30.17	766.3	46.2	7.9		Calm			0		10						J. Drever.
Bradford			30.13	965.3	46.7	8.2		SE			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.31	769.9	45.0	7.2		SW			1		10						H. Todd.
Cape Town, Cape Colony			29.97	761.2	74.8	23.8		SE			5		5						Sgt. D. E. Hunt
Cape Good Hope Obs			30.03	762.7	76.9	24.9	43	S	28	12.5			6						The Royal Observatory
Cardington			30.21	767.3	44.4	6.9		W					9						John McLaren.
Carlisle			30.15	765.8	44.9	7.2		W					10			0	0		T. Bell.
Chatham			30.22	767.6	44.2	6.8		W			1		10					Fog	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.93	760.2	78.5	25.8		NE			2		9						Sgt. W. F. Hopkins.
Dartmoor			30.24	768.1	43.8	6.6		S			1		10						R. E. Power.
Donaghadee			30.18	766.6	44	6.7		WSW			3		7						J. Mac Gowan, Jr.
Dover			30.23	767 8	46	7.8		WSW			3		4						J. Costello.
Dublin																			
Durham Observatory			30.12	765.0	43.4	6.3		W					4						G. Goldney.
Eccles, (near Manchester)			30.16	766.1	46.0	7.8		SW	3.4	1.5			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.23	767.8	49.0	9.4		S	7.	3.1			7						The Falmouth Obs.
Fort Napier, (Natal)			29.72	754.9	83.3	28.8		NE			3		1						Pvt. G. Salmon.
Galway			30.07	763.8	49	9.4		SE			1		10						Queen's College.
Gibraltar, (Mediterranean)			30.27	768.8	57.8	14.3		ESE			5		4						Sgt. J. Brewster.
Glasgow Observatory			30.13	765.3	41.0	5.0		NW			3		10						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.19	766.8	42	5.6		W			2		10					Rain & Fog	G. T. Watson.
Greenwich Royal Obs			30.23	767.8	43.8	6.6		W			1		10						The Royal Observatory
Guernsey			30.25	768.3	45.5	7.5		SSW			1		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.12	765.0	46.2	7.9		W					10						Moorside Observatory
Halifax, (Nova Scotia)			30.18	766.6	31.4	— 0.3		NW			2		2					Threatening	Corp'l J. Y. Thompson
Helston			30.18	766.6	52	11.1		S			4		4						W. B. Moyle.
Holyhead			30.12	765.0	47	8.3		Calm			0		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.24	768.1	41.3	5.2		SW	3	4.3			10					Mist	The Met. Office.
Kingstown			30.20	767.1	47	8.3		SE			1		10						George Mitchell.
Lampeter																			
Leicester			30.19	766.8	43.1	6.2		SW			1		10					Mist	William J. Harrison.
Llandudno			30.18	766.6	47.6	8.7		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.11	764.8	50.0	10.0		NE			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.07	763.8	39	3.9		SSW			1		1						William D. Penny.
Nassau, (Bahamas)			30.25	768.3	69.0	20.6		NE			3		7						Surgeon I. Jameson.
North Shields			30.15	765.8	43	6.1		W			2		2						John Wm. Irvine.
Nottingham			30.19	766.8	46.9	8.3		SW			3		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.19	766.8	45.2	7.3		SW			1		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs			30.20	767.1	42	5.6		WSW			1		10						Radcliffe Observatory
Plymouth			30.22	767.6	47	8.3		SE			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.15	765.8	46	7.8		S			2		10						W. Kennedy.
Saint Ann's Head			29.20	767.1	47	8.3		SSE			1		5						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.92	760.0	41.0	5.0		W	40	17.9			8						Rev. Dr. Clouston.
Scarboro'			30.13	765.3	45.3	7.4		NW			1		8						F. Heard.
Scutari, (Turkey)			30.10	764.5	32.2	0.1		NNE			3		10					Snow	W. H. Lyne.
Sheffield			30.15	765.8	49.0	9.4		WSW			2		9					Rainy	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.15	765.8	47.0	8.3		W			2		4			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.18	766.6	43.7	6.5		SW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.14	765.5	46.7	8.2		W			1		10					Threatening	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.04	763.0	40	4.4		W			3		6						John Smith.
Strathfield Turgiss			30.21	767.3	44.1	6.7		SW			1		3						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			29.76	755.9	40	4.4		NW			8		0					Rain	William Lawrence.
Taunton College																			
Thurso			30.00	762.0	40	4.4		WNW			5		10						John Trotter.
Truro, Royal Institution			30.15	765.8	51	10.6		SW			6		8						Royal Institution.
Valencia			30.14	765.5	49.4	9.7		SSE	11	4.9			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.33	770.4	44.8	7.1		SW			2		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.

DANISH SERIES.

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

Copenhagen			29.81	757.2	39.0	3.9	92	W			5		6						
Fanöe			29.93	760.1	39.6	4.2	92	W			4		8						
Godthaab, (Greenland)			29.71	754.7	18.5	— 7.5		S			2		10						
Stykkisholm, (Iceland)			30.13	765.2	22.6	— 5.2	83	E			2		8						
Thorshavn, (Faröe)			29.77	756.2	32.9	0.5	62	N			6		7						
Vestervig			29.81	757.3	39.0	3.9	98	W			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.20	767.1	52.2	11.2	63						10						Normal School.
Alençon			30.28	769.1	44.6	7.0	56	SW			2		0	ESE		0	0		Normal School.
Amiens			30.31	769.8	43.5	6.4	94	S			2		0			0	0		Normal School.
Beaumette, (near Angers)			30.28	769.2	43.7	6.5	73	SE	0.0	0.0			0	W		0	0		Beaumette Observatory.
Beauvais			30.31	769.8	40.3	4.6	62	NNW			1		0			0	0		Normal School.
Besançon			30.40	772.2	37.2	2.9	46	S			2		0			0	0		Normal School.
Bourges			30.32	770.1	42.1	5.6	74	NNE			2		0			0	0		Normal School.
Brest			30.18	766.5	46.2	7.9	80	SSE			1		10		S	0	0		Naval Observatory.
Caen			30.40	772.2	43.0	6.1	70	ESE			1		0			0	0	Mist	Normal School.
Carcassonne																			
Chartres			30.50	774.8	40.8	4.9		E			1		0			0	0		Normal School.
Chaumont			30.32	770.2	42.1	5.6		SSE			3		0			0	0		Normal School.
Le Mans			30.34	770.7	37.0	2.8	83	E			1		0			0	0		Normal School.
Mirecourt			30.30	769.6	41.0	5.0		N			2		0			0	0		Normal School.
Orleans			30.34	770.6	41.4	5.2	71	E			2		0			0	0		Normal School.
Paris			30.02	762.0	40.1	4.4	75	SSE			1		8			0	0		National Observatory.
Parthenay																			
La Roche sur Yon			30.27	768.9	47.5	8.6	81	NE			2		0			0	0		Normal School.
Rouen			30.28	769.0	40.8	4.9	64	SSE			2		0			0	0		Normal School.
Saint Lo			30.28	769.0	47.5	8.6	40	SE			1		5		SE	0	0		Normal School.
Villefranche			30.48	774.3	41.5	5.7	87	SE			1		0			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall
Mont-Louis	25.01	635.2			39.0	3.9	46	SW	12.4	5.55			0			0	0	Solar halo	—. Falguère.
Montsouris (near Paris)			30.30	769.6	41.2	5.1	64	SSE	0.8	0.36			1			0	0		Marié Davy.
Perpignan	30.20	767.0			48.6	9.2	68	N	3.7	1.67			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.31	769.8	42.8	6.0	56	S			1		1			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.29	769.4	42.6	5.8	65	SSW			1		0			0	0		C. Marquet.
Tunis, (Africa)			30.16	766.0	53.1	11.7	49	NE			4		6			0.024	0.6		—. Jacques.
Versailles, (near Paris)			30.28	769.2	45.7	7.6	51	SE			1		5			0	0		Dr. A. Bérigny.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.27	768.8	38.7	3.7	68	E			1		7			0	0		Prof. Hoh.
Berlin			30.07	763.8	38.7	3.7	85	S			2		10			0.059	1.5		Prof. Arndt.
Breslau			30.09	764.2	34.0	1.1	95	W			2		10			0.059	1.5	Rain & hail	Dr. P. Neugebauer.
Carlsruhe			30.32	770.0	37.8	3.2	59	SW			2–7		9			0	0		A. Leuz.
Cassel			30.12	76 .0	39.9	4.4	64	S			4		8			0	0		Dr. H. Mohl.
Cologne			30.20	769.4	43.2	6.2	64	SSE			4		5			0	0		Dr. Gaithe.
Emden			30.20	767.0	44.1	6.7	92	W			1		10			0.031	0.8		Prof. Prestel.
Frankfort on the Main			30.38	771.6	39.6	4.2	68	SW			1		8			0	0		Physical Society.
Friedrichshafen			30.39	771.8	33.8	1.0	90	SW					7			0	0		M. Wilhelm.
Hamburg			30.07	763.8	39.2	4.0	100	W			4		10			0.098	2.5	Fog	W. Reinart.
Kiel			29.96	761.0	41.9	5.5	88	W			4		10			0	0		Prof. G. Karsten.
Königsberg			29.83	757.8	33.6	0.9	98	SW			4		10			0.035	1.9		Prof. E. Luther.
Köslin			30.13	765.4	34.5	1.4		W			4		10			0.094	2.4		Dr. Tägert.
Leipsic			30.14	765.5	41.2	5.1	69	SW			2		9			0.004	0.1		Prof. Bruhns.
Münster			30.17	766.4	38.3	3.5	61	S			1		10			0.311	7.9	Rain	Prof. F. Heis.
Posen			30.03	762.8	36.7	2.6	98	W			3–4		6			0.008	0.2		Dr. Mager.
Strassburg, (in Alsace)			30.33	770.5	38.5	3.6	67	S					7			0	0		Hartwig and Fulk.
Stuttgart			30.32	770.1	39.2	4.0	71	W					9			0	0		Mr. Wurth.
Thorn			29.92	760.0	34.7	1.5	96	WSW			4		10			0.177	4.5		Dr. Hasenbalg.
Treves, (Trier)			30.25	768.4	42.8	6.0	45	SW			4		5			0	0		Prof. Flesch.
Wustrow			30.08	761.5	36.0	2.2	100	WSW			4		10					Fog	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.26	768.7	39.9	4.4	53	ESE	0.7	0.3			1			0	0		
Mondovi			30.26	768.6	38.3	3.5	4	NNW			2		1	NNW		0	0		
Genoa			30.28	769.0	49.6	9.8	37	Calm					0			0	0		
Pavia			30.27	768.8	40.1	4.5	50	SW			1		0			0	0		
Verona																			
Padua			30.23	767.8	38.7	3.7	72	NW	4.3	1.9			3			0	0		
Parma																0	0		
Bologna			30.31	769.8	40.1	4.5	39	W			2		2			0	0		
Urbino																0	0		
Ancona																0	0		
Florence								ENE											
Siena			30.25	768.4	44.8	7.1	39		0.2	0.1			1			0	0		
Livorno																0	0		
Rome			30.22	767.5	49.1	9.5	30	N			4		0			0	0		
Naples, O.U.			30.22	767.7	48.7	9.3	37	E			6		1			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			30.22	767.6	39.9	4.4	42	ENE	22.4	10.0			0			0	0		
Cosenza			30.21	767.3	41.0	5.0	58	NNE			8		1			0	0		
Catania, (Sicily)			30.12	765.1	50.9	10.5	50	ENE			4		0			0	0		
Siposto																			
Palermo			30.12	765.1	48.6	9.2	44	NE			4		8			0	0		

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.

NETHERLAND SERIES.

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

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.
Groningen			30.25	768.4	41.7	5.4		W			2								
Flushing			30.05	763.3	43.0	6.1		W			4								
Helder			30.14	765.5	43.2	6.2		SSW			3								
Utrecht			30.15	765.7	39.7	4.3		WSW			2		10						

NOTE.—The originals give the force 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.

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.
Bergen			29.67	753.6	37.4	3.0	59	SW	8.1	3.6			10			0.728	18.5	Snow	
Christiania			29.57	751.1	28.2	— 2.1	67		2.0	0.9			0			0	0	Haze	
Tromsö			29.10	739.1	33.4	0.8	89				0		10			0	0	Rain & snow	

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.97	761.3			50.7	10.4	85	ENE	7.4	3.3			1						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.93	760.1	32.4	0.2	96	SW	9	4			10						Astronomical Obs.
Wilna			29.84	758.0	24.1	— 4.4	93	S	13	6			10					Snow	Astronomical Obs.
Dorpat			29.57	751.1	29.8	— 1.2	98	S	9	4			10					Snow	Physical Cabinet.
St. Petersburg			29.54	750.4	20.7	— 6.3	93	S	11	5			10						Central Physical Obs.
Kieff			30.13	765.3	11.5	—11.4	93	NNW	9	4			2						Physical Cabinet.
Nikolaiev			30.07	763.9	19.0	— 7.2	81	W	10.1	4.5			0						
Kertch			30.05	763.2	30.4	— 0.9	86	NNW	4	2			10					Snow	Lagorio.
Moscow			30.26	768.7	9.7	—12.4	81	SW	7.8	3.5			10						Meteorological Obs.
Lugan			29.97	761.3	33.6	0.9	85	SE	7.8	3.5			10					Snow	Meteorological Obs.
Archangel			29.54	750.2	21.0	—11.1	97	SSW	20	9			10						Ogorodnikof.
Tiflis			30.20	767.1	43.5	6.4	60	SE	10.1	4.5			3						Physical Observatory.
Astrakhan			30.37	771.5	30.2	— 1.0	76	E	2	1			10						Sebastianof.
Kasan			30.06	763.5	19.0	— 7.2	98	W					10					Snow	Physical Cabinet.
Orenburg			30.41	772.3	10.2	—12.1	93						10						Tschernischof.
Ekaterinburg			30.28	769.2	17.6	— 8.0	91	Calm	0	0			10						Meteorological Obs.
Kasaly			30.22	767.5	11.8	—11.2	65	NNE	7.8	3.5			0						Bobrof.
Tashkend			30.61	777.4	31.3	— 0.4	90	S	7.8	3.5			10						Michelson.
Barnaul			30.36	771.1	— 3.1	—19.5	80	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.95	760.7	12.7	—10.7	93	SE	7.8	3.5			10						Yarks.
Irkutsk			30.24	768.0	— 3.5	—19.7	82	Calm	0	0			10						Usolzef.
Oorga			30.46	773.7	—11.6	—24.2	100	Calm	0	0			0						Mossin.
Peking, (China)			29.98	761.6	33.6	0.9	58	W	4	2			0						Physical Observatory.
Nertchinsk			30.13	765.4	—18.8	—28.2	86	W	4	2			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					—18.8	—28.2		W	10.1	4.5			0						Kurdekof.

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.

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.
Madrid			30.42	772.7	44.2	6.8	62	SE	3.0	1.33		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.32	744.8	23.7	— 4.6	100	Calm			0		7			0.161	4.1		Dr. Hildebrandsson.
Hernosand			29.16	745.7	32.7	0.4	75	WNW			2		9			0	0		
Upsala			29.42	747.3	36.9	2.7	80	WSW			4		2						
Stockholm			29.42	747.2	37.4	3.0	96	W			2		3			0.024	4.6		
Wisby			29.63	752.6	37.4	3.0	93	SW			4		7			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.89	733.7			36.0	2.2	63	NNE			2		2			0	0		The Observatory.
Zurich	28.63	727.2			33.8	1.0	69	NW			1		8			0	0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	64.0	17.8	51	NE			2		5						
Constantinople			30.09	764.2	30.9	— 0.6	91	NNE	13	6			10		N	0	0		
Fao, (Persian Gulf)			30.32	770.0	57.2	14.0		NW			3		0						
Salonica			30.14	765.5	43.5	6.4		N			3		0						
Valona			29.98	761.5	39.6	4.2		N			3		0						
Varna			30.16	766.0	26.6	3.0		N			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.02	762.5	13	—10.6	81	W	1	0.4		2	2	W		0	0		
Chatham, N. B.			30.11	764.8	4	—15.6	100	SW	1	0.4		0	0			0.08	2.0		
Charlottetown, P. E. Island			30.13	765.3	14	—10.0	87	W	3	1.3		2	0	Calm	Calm	0.50	12.7		
Father Point, Quebec			30.07	763.8	5	—15.0	76	S	7	3.1		2	0	S		0	0		
Fort Garry, Manitoba			30.39	771.9	—18	—27.8	93	N	2	0.9			10			0	0		
Halifax, N. S.			29.97	761.2	20	— 6.7	76	W	10	4.5			10		W	0.08	2.0		
Kingston, Ontario			30.31	769.9	23	— 5.0	89	Calm	0	0			10			0.03	0.8		
Montreal, Quebec			30.28	769.1	18	— 7.8	76	W	19	8.5		0	2			0.01	0.2		
Ottawa, Ontario			30.27	768.8	13	—10.6	62	E	8	3.6		2	0			0	0		
Parry Sound, Ontario			30.19	766.8	19	— 7.2	84	NE	1	0.4		5	5	NE	NE	0.05	1.3		
Port Dover, Ontario			30.22	767.6	19	— 7.2	84	Calm	0	0		8	0	SW		0	0		
Port Stanley, Ontario			30.22	767.6	17	— 8.3	86	E				0	0			0	0		
Quebec, Quebec			30.22	767.6	15	— 9.4	82	W				8	0	W		0	0		
Saugeen, Ontario			30.16	766.1	19	— 7.2	92	S	6	2.7			10			0	0		
Sydney, C. B.			30.09	764.3	16	— 8.9	84	W	9	4.0		0	0			0.58	14.7		
Toronto, Ontario			30.25	768.3	21	— 6.1	82	W	2	0.9		5	5	W		0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.40	772.1	10	—12.2	68	S	5	2.2		5	Fog			0	0		
Alpena, Mich.			30.18	766.6	12	—11.1	80	Calm	0	0			10			0.01	0.2		
Atlantic City, N. J.			30.43	772.9	33	0.6	89	SW	6	2.7		5	0	SW		0	0		
Augusta, Ga.			30.40	772.1	35	1.7	80	Calm	0	0		10	0	W		0	0		
Baltimore, Md.			30.37	771.4	29	— 1.7	78	NW	3	1.3		2	Fog			0	0		
Barnegat, N. J.			30.38	771.6	26	— 3.3	77	SW	1	0.4		2	0			0	0		
Benton, Montana			30.27	768.8	—17	— 8.3	100	W	12	5.4		0	0			0	0		
Bismarck, Dakota			30.35	770.9	—12	—24.4	75	N	8	3.6			10		N	0.04	1.0	Light snow	
Boston, Mass.			30.39	771.9	19	— 7.2	69	W	10	4.5		0	5			0	0		
Breckenridge, Minn.			30.21	767.3	— 6	—21.1	90	NW	10	4.5			10			0	0		
Buffalo, N. Y.			30.24	768.1	22	— 5.6	51	S	4	1.8		2	Haze	NW		0	0		
Burlington, Vt.			30.34	770.6	22	— 5.6	72	S	3	1.3			10			0	0		
Cairo, Ill.			30.04	763.0	40	4.4	63	SE	8	3.6			10		S	0	0	Sleet	
Cape Hatteras, N. C.			30.[illegible]5	773.4	40	4.4	82	NE	4	1.8		0	0			0	0		
Cape Henry, Va.			30.44	773.2	39	3.9	73	S	10	4.5		5	0	W		0	0		
Cape May, N. J.			30.42	772.7	34	1.1	80	S	10	4.5		0	0			0	0		
Charleston, S. C.			30.41	772.4	42	5.6	67	NE	8	3.6		0	2			0	0		
Cheyenne, W. T.			29.53	750.0	0	—17.8	100		24	10.7			10					Heavy snow	
Chicago, Ill.			29.90	759.4	36	2.2	70	SE	6	2.7			10			0	0		
Cincinnati, Ohio			30.16	766.1	34	1.1	69	SE	4	1.8		2	8	S		0	0		
Cleveland, Ohio			30.14	765.5	24	— 4.4	87	S	8	3.6		5	5			0	0		
Colorado Springs, Col.			30.46	748.3	22	— 5.6	72	NE	5	2.2		0	Haze			0	0		
Corsicana, Texas			29.85	758.2	54	12.2	95	S	6	2.7			10		S	0.04	1.0	Light rain	
Davenport, Iowa			29.81	757.2	33	0.6	79	E	4	1.8			10			0.01	0.2		
Denver, Col.			29.51	749.5	23	— 5.0	60	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.10	764.5	22	— 5.6	72	S	4	1.8		2	2			0	0		
Dodge City, Kansas			29.43	747.5	17	— 8.3	83	NW	1	0.4			10			0	0		
Dubuque, Iowa			29.85	758.2	23	— 5.0	93	NE	4	1.8			10					Heavy snow.	
Duluth, Minn.			30.22	767.6	— 1	—18.3	68	N	12	5.4			10			0	0		
Eastport, Me.			30.26	768.6	18	— 7.8	84	W	6	2.7		5	0	NW		0	0		
Erie, Penn.			30.19	766.8	22	— 5.6	75	SW	20	8.9		Haze	5			0	0		
Escanaba, Mich.			30.18	766.6	5	—15.0	75	N	17	7.6		0	5			0	0		
Fort Gibson, I. T.			29.66	753.4	52	—11.1	66	S	21	9.4			10		S	0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.23	767.8	— 6	—21.1	61	N	12	5.4			10			0	0	Light snow.	
Galveston, Texas			29.92	760.0	60	15.6	94	S	10	4.5		0	2		S	0	0		
Grand Haven, Mich.			29.98	761.5	25	— 3.9	75	SE	4	1.8			10		SW	0	0		
Indianapolis, Ind.			30.07	763.8	33	0.6	69	S	11	4.9			10		SW	0	0		
Indianola, Texas			29.90	759.5	65	18.3	89	S	14	6.3			10			0	0		
Jacksonville, Fla.			30.33	770.4	40	5.6	83	NW	7	3.1		2	0	NW		0	0		
Keokuk, Iowa			29.69	754.1	40	4.4	64	S	7	3.1			10			0	0		
Key West, Fla.			30.21	767.3	68	20.0	79	NE	11	4.9		0	10		NE	0	0		
Kittyhawk, N. C.			30.70	779.8	35	1.7	66	Calm	0	0		0	0			0	0		
Knoxville, Tenn.			30.31	769.9	28	— 2.2	78	E	3	1.3			10			0	0		
La Crosse, Wis.			29.92	760.0	18	— 7.8	100	NE	11	4.9			10		NE	0.01	0.2	Light snow.	
Leavenworth, Kan.			29.62	752.3	33	0.6	89	NW	4	1.8			10		NW	0.16	4.1	Light rain.	
Lexington, Ky.			30.20	767.1	33	0.6	70	S	12	5.4			10			0	0		
Long Branch, N. J.			30.37	771.4	23	— 5.0	72	SW	2	0.9		0	0			0	0		
Louisville, Ky.			30.12	765.0	37	2.8	54	SE	4	1.8			10			0	0		
Lynchburg, Va.			30.40	772.2	29	— 1.7	66	Calm	0	0		5	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.21	767.3	9	—12.8	78	N	4	1.8			10		N	0	0		
Memphis, Tenn.			30.05	763.3	42	5.6	67	SE	8	3.6			10		S	0.03	0.8		
Milwaukee, Wisconsin			29.93	760.2	31	— 0.6	89	SE	9	4.0			10		SW	0	0		
Mobile, Ala.			30.20	767.1	48	8.9	70	SE	6	2.7		5	0			0	0		
Montgomery, Ala.			30.29	769.4	41	5.0	57	SE	8	3.6		10	0	S		0	0		
Morgantown, W. Virginia			30.28	769.1	18	— 7.8	84	SW	10	4.5			10			0.04	1.0		
Mt. Washington, N. H.			29.88	758.9	— 4	—20.0	100	NW	74	33.1		5	5	W	NW				
Nashville, Tenn.			30.15	765.8	39	3.9	65	SE	4	1.8			10		W	0	0		
New Haven, Conn.			30.45	773.4	18	— 7.8	68	NW	5	2.2		2	2	NW	W	0	0		
New London, Conn.			30.45	773.4	22	— 5.6	72	W	2	0.9		2	0	W		0	0		
New Orleans, La.			30.09	764.3	56	13.3	81	SE	8	3.6			10		SW	0	0	Threatening	
Newport, R. I.																			
New York, N. Y.			30.43	772.9	21	— 5.0	85	W	4	1.8		2	Fog		W	0	0		
Norfolk, Va.			30.43	772.9	34	1.1	84	S	4	1.8		5	2			0	0		
North Platte, Neb.			29.57	751.1	1	—17.2	71	NE	12	5.4			10			0	0		
Omaha, Neb.			29.79	756.6	10	—12.2	100	N	18	8.0			10			0.01	0.2		
Oswego, N. Y.			30.31	770.0	24	— 4.4	72	S	7	3.1			10			0.05	1.3		
Peck's Beach			30.44	773.2	26	— 3.3	76	SW	4	1.8		2	0	W		0	0		
Pembina, D. T.			30.43	772.9	—17	—27.2	100	NW	8	3.6			10		NW			Light snow.	
Philadelphia, Penn.			30.45	773.4	22	— 5.6	72	N	4	1.8		0	2		N	0	0		
Pike's Peak, C. T.			29.82	757.4	— 5	—20.6	100	SW	16	7.2			Fog			0	0	Fog	
Pittsburgh, Penn.			30.28	769.1	17	— 8.3	83	Calm	0	0			Fog			0	0	Fog	
Port Huron, Mich.			30.16	766.1	20	— 6.7	85	SE	7	3.1			10		SW	0	0		
Portland, Maine			30.34	770.6	18	— 7.8	68	W	6	2.7		5	Haze			0	0		
Portland, Or.			30.34	770.6	33	0.6	90	S	2	0.9			10			0	0		
Punta Rassa, Fla.			30.29	769.4	52	11.1	93	NE	12	5.4		Haze	0			0	0		
Rochester, N. Y.			30.26	768.6	23	— 5.0	86	S	6	2.7			10			0	0		
Salt Lake City, Utah			29.92	760.0	23	— 5.0	47	W	9	4.0			10			0.02	0.5		
Sandy Hook, N. J.			30.42	772.7	24	— 4.4	74	SW	4	1.8		10	Haze	W		0	0		
San Diego, Cal.			30.15	765.8	51	10.6	86	E	4	1.8		0	2		S	0.02	0.5		
San Francisco, Cal.			30.18	766.6	47	8.3	85	SW	2	0.9			10			0.04	1.0		
Santa Fe, N. M.			29.46	748.3	25	— 3.9	100	SW	12	5.4			10		SW	0	0		
Savannah, Georgia			30.39	771.9	40	4.4	71	N	6	2.7		0	8			0	0		
Shreveport, La.			29.97	761.2	49	9.4	71	SE	8	3.6			10		SW	0	0		
Springfield, Mass.			30.43	772.9	8	—13.3	80	Calm	0	0		2	Fog			0	0		
St. Louis, Mo.			29.91	759.7	41	5.0	61	S	12	5.4		0	10		S	0	0		
St. Marks, Fla.			30.30	769.6	43	6.1	67	E	8	3.6			10		S	0	0		
St. Paul, Minn.			29.99	761.7	5	—15.0	68	N	9	4.0			10		N	0.05	1.3		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.43	772.9	20	— 6.7	70	SW	1	0.4		5	0	S		0	0		
Toledo, Ohio			30.12	765.0	25	— 3.9	63	SE	11	4.9		10	0	W		0	0		
Tybee Island, Ga.			30.38	771.6	41	5.0	83	NE	12	5.4		1	5	W	S	0	0		
Vicksburg, Miss.			30.10	764.5	48	8.9	62	SE	7	3.1		10	0	SW		0	0		
Virginia City, Mon.			29.57	751.1	—14	—25.6	72	Calm	0	0		Haze	0			0.15	3.8		
Washington, D. C.			30.37	771.4	26	— 3.3	77	Calm	0	0			10			0	0		
Wilmington, N. C.			30.43	772.9	36	2.2	70	NE	2	0.9		0	Haze			0	0		
Wood's Hole, Mass.			30.43	772.9	27	— 2.8	60	NW	4	1.8		0	0			0	0		
Wytheville, Va.			30.18	766.6	25	— 3.9	87	Calm	0	0		Haze	0			0	0		
Yankton, D. T.			30.05	763.3	— 1	—18.3	88	N	9	4.0			10			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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	78	25.6		NE	7	3.1		0	8			0	0		
Point-a-pitre, G'd'loupe, "			30.04	763.0	72	22.2		E				0	0			0	0		
Havana, Cuba, W. I.			30.01	762.2	73	22.8	76	SE	7	3.1		8	0	SE		0	0		
Kingston, Jamaica, W. I.			30.28	769.1	73	22.8	73	Calm	0	0		1	0	SE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	69	20.6	71	N	1	0.4		0	0			0	0		
St. Georges, Bermudas																			
Honolulu, Sandwich Is.			30.08	764.0	60	15.6		Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.84	707.1			59	15.0	82	N	1	0.4		0	1			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.	29.98	761.5			—24	—31.1	100	W	10	4.5		6	0	N		0	0		
St. Johns, Newfoundland			29.50	749.3	22	— 5.6	100	W				10	10			0.62	15.7		John Delaney.
St. Johns, Porto Rico W. I.			30.18	766.6	74.8	23.8	79	SE			1	1	0			0.010	0.25		Leon M. Acuna.
Ellyria, Ohio	29.33	745.0			22	— 5.6		S	8	3.5		4	0			0	0		H. M. Redington.
Indianola, Iowa	28.90	734.1			21	— 6.1		NW					10			0	0	Light snow.	G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40, are as given by a spirit thermometer.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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.
Nemours																			Charnot.
Algiers																			Peter.
La Calle																			Kuntz.
Tunis																			Jacques.
Sfax																			Chauvey.
Saida																			Grosjean.
Tebessa																			Colin.
Geriville																			Bernadach.
Laghouat																			Poinsignon.
Biskra																			Couton.

Reports for this date not received.

AUSTRIAN SERIES.

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

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.
Agram			29.83	758.8	41.6	— 5.0	55	NW			2		4			0	0		Prof. Ivan Stozir.
Buda-Pesth			29.88	759.0	32.2	0.1	83	S			3		9			0.043	1.1		I. R. Cen. M. I., Hungary
Cracow			29.75	755.7	34.5	1.5	87	W			3		10			0.031	0.8		I. R. Observatory.
Eperies			29.90	759.4	23.0	— 5.0	90	Calm			0		10			0.076	1.92		Julius Mikolik.
Gratz			29.87	758.6	37.4	3.0	67	NNW			2.5		10			0	0		Andreas Rospini.
Hermannstadt			29.96	760.9	20.1	— 3.3	91	NW			1		10			0.006	0.15		Prof. Reissenberger.
Kremsmünster			29.87	758.6	34.7	1.5	94	W			3		10			0.417	10.6		Prof. C. Wagner.
Lemberg			29.74	755.4	30.0	— 1.1	92	W			4		10			0.220	5.6		Dr. T. Stanecki.
Nyiregyhaza			29.93	760.3	28.0	— 2.2	96	SW			1		10						Habsuda Daniel.
Pola			29.93	760.3	45.9	7.7	65	SSW			1		8			0	0		I. R. Hydrographic Of'ce
Szegedin			29.88	758.9	36.7	2.6	72	SW			2		6			0	0		Karl Stancel.
Trieste			29.92	760.0	43.9	6.6	70	E			1		6			0	0		Prof. V. Farolfi.
Vienna			29.81	757.2	40.3	4.6	72	W			2		10			0	0	Rain	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.

BELGIAN SERIES.

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

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.
Brussels	29.64	752.8			38.8	3.8	95	W			1		10			0	0	Fog	Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.84	757.9	36.0	2.2		WNW	18	8.0			5			0.015	0.38	Snow	William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			29.96	761.0	45	7.2		NW			3		6						William McNeil.
Armagh Observatory			30.03	762.7	42.2	5.7		NW	6	2.7			5						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.95	760.7	43.0	6.1		WNW			3		3						The Liverpool Obs.
Birr Castle			30.03	762.7	44.3	6.8		N			0.5		10						J. Dreyer.
Bradford			29.81	757.2	40.7	4.8		W			4		4						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.91	759.7	42.0	5.6		NW			0.5		10					Rain	H. Todd.
Cape Town, Cape Colony			29.88	758.9	85	29.4		SE			2		7						Sgt. D. E. Hunt
Cape Good Hope Obs			29.93	760.2	76.2	24.6	47	S	25	11.2			5						The Royal Observatory.
Cardington			29.93	760.2	42.0	5.6		N					9						John McLaren.
Carlisle			29.91	759.7	40.4	4.7		N					2			0	0		T. Bell.
Chatham			29.91	759.7	41.2	5.1		W			1		10					Fog	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.95	760.7	77.3	25.2		NE			3		0						Sgt. W. F. Hopkins
Dartmoor			30.05	763.3	43.2	6.2		NW			2		6						R. E. Power.
Donaghadee			29.98	761.5	41	5.0		NW			3		9						J. Mac Gowan, Jr.
Dover			29.89	759.2	41	5.0		NW			3		10						J. Costello.
Dublin																			
Durham Observatory			29.87	758.7	47.8	8.8		NNW					10					Hail	G. Goldney.
Eccles, (near Manchester)			29.94	760.5	42.7	5.9		SW	5.4	2.4			6					Mist	Thomas Mackereth.
Falmouth Observatory			30.03	762.7	50.1	10.1		WNW	7	3.1			10					Rain	The Fa mouth Obs.
Fort Napier, (Natal)			29.91	759.7	74.5	23.6		SE			3		10						Pvt. G. Salmon.
Galway			29.96	761.0	47	8.3		E			1		10						Queen's College.
Gibraltar, (Mediterranean)			30.22	767.6	58.5	14.7		ENE			5		3						Sgt. J. Brewster.
Glasgow Observatory			29.92	760.0	40.6	4.8		W			1		3						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.86	758.4	40	4.4		NW			2		5					Mist	G. T. Watson.
Greenwich Royal Obs			29.93	760.2	40.8	4.9		WNW			1		10					Fog	The Royal Observatory.
Guernsey			30.01	762.2	49.5	9.7		WSW			1		10					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.93	760.2	41.3	5.2		NW					7						Moorside Observatory.
Halifax, (Nova Scotia)			30.33	770.4	21.4	— 5.9		Calm			0		10					Mist	Corp'l J. Y. Thompson.
Helston			30.05	763.3	52	11.1		SW			5		10					Mist & Rain	W. B. Moyle.
Holyhead			29.98	761.5	44	6.7		NNW			3		2						John Tilston.
Hull Park																			
Kew Observatory			29.94	760.5	41.5	5.3		WSW	7	3.1			10					Mist	The Met. Office.
Kingstown			30.04	763.0	43	6.1		NNW			2		4						George Mitchell.
Lampeter																			
Leicester			29.92	76[illegible].0	42.1	5.6		N			3		6						William J. Harrison
Llandudno					46.3	7.9		NW					1.5						Dr. James Nicol.
Malta, (Mediterranean)			30.13	765.3	55.0	12.8		NW			1		4						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.91	759.7	39	3.9		NW			2		8						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	71.6	22.0		SE			1		6						Surgeon I. Jameson.
North Shields			29.89	759.2	40	4.4		N			3		3						John Wm. Irvine.
Nottingham			29.91	759.7	44.0	6.7		NW			1		4					Solar halo	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.95	760.7	41.4	5.2		NW			1-2		10					Mist	St. Mary's College.
Oxford, Radcliffe Obs			29.94	760.5	44	6.7		NW			1		10						Radcliffe Observatory.
Plymouth			30.00	762.0	48	8.9		Calm			0		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.89	759.2	45	7.2		E			2		10					Mist	W. Kennedy.
Saint Ann's Head			30.00	762.0	46	7.8		NW			1		7						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.86	758.4	36.2	2.3		NNW	35	15.6			5						Rev. Dr. Clouston.
Scarboro'			29.88	758.9	40.9	4.9		NNW			4		8						F. Heard.
Scutari, (Turkey)			29.84	757.9	36.0	2.2		NNE			3		9						W. H. Lyne.
Sheffield			29.91	759.7	43.5	6.4		WNW			2		2						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.92	760.0	46.7	8.2		W			2		3			0	0		Francis Rodford.
Somerleyton, (Lowestoft)			29.85	758.2	41.8	5.4		E			1		7						Rev. C. J. Steward.
Stonyhurst Observatory			29.91	759.7	40.8	4.9		NW			2		7					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.98	761.5	35	1.7		NNW			3		7						John Smith.
Strathfield Turgiss			29.95	760.7	44.6	7.0		NW			0-1		9						Charles H. Griffith.
Streatley Vicarage			29.96	761.[illegible]	45.1	7.3		NW			5		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.70	754.4	39	3.9		NNW			6								William Lawrence.
Taunton College																			
Thurso			29.86	758.4	37	2.8		NNW			6		4						John Trotter.
Truro, Royal Institution			29.95	760.7	50	10.0		NW			2		10					Rain	Royal Institution.
Valencia			29.97	761.2	49.4	9.7		SSE	7	3.1			10					Rain	Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.95	760.7	42.5	5.8		NW			1		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.

DANISH SERIES.

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

Copenhagen			29.40	746.8	34.5	1.4	93	W			4		7						
Faröe			29.50	749.2	37.6	3.1	91	W			4		5						
Godthaab, (Greenland)			29.00	736.6	20.7	— 6.3		ENE			4		10						
Stykkisholm, (Iceland)			30.13	765.3	28.8	— 1.8	97	E			6		5						
Thorshavn, (Faröe)			29.98	761.5	29.7	— 1.3	74	N			4		5						
Vestervig			29.33	745.1	38.1	3.4	90	W			6		9						

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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.97	761.3	54.0	12.2	65						10						
Alençon			30.02	762.5	45.0	7.2	94	SW			2		10			0	0		Normal School.
Amiens			29.92	760.0	45.7	7.6	89	WNW			4		5		WNW	0	0		Normal School.
Beaumette, (near Angers)			30.03	762.8	49.5	9.7	81	WSW	20.1	9.0			10		W	0	0		Normal School.
Beauvais			29.94	760.5	45.0	7.2	85	W			2		10		WNW	0	0		Beaumette Observatory.
Besançon			30.10	764.5	39.4	4.1	68	SW			4		8		WSW	0	0		Normal School.
Bourges			30.13	765.2	43.3	6.3	91	WSW			2		10		WSW	0	0		Normal School.
Brest			30.04	763.0	50.9	10.5	86	WSW			2		10		W	0	0		Normal School.
Caen			30.00	761.9	46.4	8.0	91	W			1		10			0.031	0.8		Naval Observatory.
Carcassonne																			Normal School.
Chartres			29.98	761.6	40.3	4.6		WNW			2		10			0	0		
Chaumont			29.97	761.3	36.1	2.3		SW			3		10			0	0		Normal School.
Le Mans			30.06	763.5	44.1	6.7	94	WSW			3		8		W	0	0		Normal School.
Mirecourt			29.93	760.2	39.6	4.2		SSW			6		10		ENE	0	0		Normal School.
Orleans			29.93	762.8	40.6	4.8	97	SW			2		10		W	0	0		Normal School.
Paris			29.95	760.8	40.5	4.7	89	WSW			1		10		WNW	0	0	Mist	Normal School.
Parthenay																			National Observatory.
La Roche sur Yon			30.14	765.5	51.8	11.0	83	W			4		8		E	0.039	1.0		
Rouen			29.95	760.8	45.7	7.6	86	SW			2		10			0	0		Normal School.
Saint Lo			30.23	767.8	48.2	9.0	89	NW			2		10		NW	0	0		Normal School.
Villefranche			30.13	765.5	45.1	7.3	96	S			1		5		N	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall
Mont-Louis	24.89	632.2			43.3	6.3	45	NNW	6.2	2.77			1		NW	0	0		—. Falguère.
Montsouris (near Paris)			29.96	760.9	40.5	4.7	93	W	3.4	1.05			10			0.008	0.1	Rain	Marié Davy.
Perpignan	29.98	761.4			57.2	14.0	45	WNW	16.8	7.50			3			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.96	761.0	37.8	3.2	98	S			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.46	773.7	46.8	8.2	78	SW			1		10		W	0	0		C. Marquet.
Tunis, (Africa)			30.13	765.2	55.4	13.0	58	NW			5		8			0	0		—. Jacques.
Versailles, (near Paris)			29.96	761.0	41.4	5.2	94	NW			1		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	759.8	34.7	1.5	82	SW			3		10			0.039	1.0	Snow	Prof. Hoh.
Berlin			29.65	753.1	38.5	3.6	87	S			1		8			0.028	0.7		Prof. Arndt.
Breslau			29.71	754.6	36.3	2.4	87	SW			2		10			0.024	0.6	Rain & snow	Dr. P. Neugebauer.
Carlsruhe			29.90	759.4	41.0	5.0	63	SW			5		10			0	0		A. Leuz.
Cassel			29.70	754.3	34.7	1.5	89	S			2		10			0.217	5.5	Snow	Dr. H. Mohl.
Cologne			29.85	758.1	41.0	5.0	88	W			3		8			0	0		Dr. Gaithe.
Emden			29.74	755.4	39.9	4.	84	WNW			3		2			0.047	1.2	Snow	Prof. Prestel.
Frankfort on the Main			29.53	760.1	35.4	1.9	93	SW			1		10			0.031	0.8		Physical Society.
Friedrichshafen			29.98	761.6	39.2	4.0	67	SW					10			0.157	4.0	Rain	M. Wilhelm.
Hamburg			29.65	753.2	35.6	2.0	91	W			3		8			0.090	2.3		W. Reinart.
Kiel			29.54	750.3	39.4	4.1	77	W			4		7			0	0		Prof. G. Karsten.
Königsberg			29.51	740.5	34.0	1.1	81	W			4		8			0.008	0.2		Prof. E. Luther.
Köslin			29.78	756.3	34.2	1.2		SW			4		10			0.024	0.6		Dr. Tägert.
Leipsic			29.73	755.1	33.4	0.8	96	WSW			3		10			0.185	4.7	Snow	Prof. Bruhns.
Münster			29.76	755.8	35.8	2.1	69	SW			1		10			0.028	0.7	Snow	Prof. E. Reis.
Posen			29.65	753.1	36.9	2.7	87	W			5		6			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.95	760.8	42.1	5.6	61	SW					8			0.039	1.0		Hartwig and Fulk.
Stuttgart			29.88	759.0	40.6	4.8	68	N					10			0.008	0.2	Rain	Mr. Wurth.
Thorn			29.61	752.0	34.2	1.2	77	W			5		9			0	0		Dr. Hagenbalg.
Treves, (Trier)			29.84	757.9	37.6	3.1	77	SW			6		10			0.008	0.2		Prof. Flesch.
Wustrow			29.55	750.6	34.9	1.6	88	SW			4		8						E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	41.9	5.5	52	NW	0.7	0.3			0			0	0		
Mondovi			29.93	760.3	37.2	2.9	69	SSW			2		8	NW		0	0		
Genoa			29.95	760.8	51.3	10.7	63	SE	6.9	3.1			10			0	0		
Pavia			29.93	760.1	42.3	5.7	51	NE			1		1			0	0		
Verona																			
Padua			29.92	760.0	39.0	3.9	42	E	1.8	0.8			9			0	0		
Parma																0	0		
Bologna			30.01	762.2	41.7	5.4	44	SW			2		4			0	0		
Urbino																0	0		
Ancona																0	0		
Florence																0	0		
Siena			30.01	762.3	40.5	4.7	91	NNW	0.2	0.1			10	NW		0	0		
Livorno																0	0		
Rome			30.04	762.9	50.4	10.2	58	E			21		9	SW		0	0		
Naples, O.U.			30.06	763.5	54.1	12.3	34	SE			2		3			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			30.10	764.5	45.5	7.5	62	NNE	11	5.0			5			0	0		
Cosenza			30.06	763.5	50.0	10.0	60	SSE			1		5			0	0		
Catania, (Sicily)			30.09	764.2	49.1	9.5	51	SE			2		0			0	0		
Riposto																			
Palermo			30.04	763.1	53.4	11.9	52	WNW			4		7	WNW		0	0		

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.

NETHERLAND SERIES.

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

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.
Groningen			29.87	758.7	40.6	4.8		NW			2								
Flushing			29.65	753.1	39.6	4.2		NW			4								
Helder			29.76	755.8	40.6	4.8		WSW			4								
Utrecht			29.75	755.7	39.2	4.0		W			3		8						

NOTE.—The originals give the force 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.

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.
Bergen			29.38	746.2	35.6	2.8	64	N	24.8	11.1			0			0	0		
Christiania			29.24	742.6	28.8	— 1.8	83	NE	0.8	6.8			10			0	0		
Tromsö			29.62	752.3	22.6	— 5.2	93	SE			2		5			0.925	23.5		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.92	760.0			50.5	10.3	70	ENE	3.8	1.7			0						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.64	752.9	33.6	0.9	87	WSW	7	3			10						Astronomical Obs.
Wilna			29.50	749.3	32.7	0.4	85	W	7.8	3.5			10						Astronomical Obs.
Dorpat			29.31	744.6	29.8	— 1.2	93	W	9	4			10					Snow	Physical Cabinet.
St. Petersburg			29.30	744.1	21.0	— 6.1	93	SE	7	3			10					Snow	Central Physical Obs.
Kieff			29.68	753.8	28.6	— 1.9	86	WNW	7	3			10						Physical Cabinet.
Nikolaiev			29.91	759.6	28.8	— 1.8	64	SW	7.8	3.5			6						
Kertch			29.91	759.8	30.2	— 1.0	84	N	2	1			10						Lagorio.
Moscow			29.66	753.4	22.8	— 9.1	90	SE	10.1	4.5			10					Snow	Meteorological Obs.
Lugan			29.79	756.7	23.5	— 4.7	74	SW	10.1	4.5			3						Meteorological Obs.
Archangel			29.62	752.4	15.1	— 9.4	94	S	7.8	3.5			10					Snow	Ogorodnikof.
Tiflis			29.89	759.3	45.0	7.2	56	SE	7.8	3.5			10						Physical Observatory.
Astrakhan			30.09	764.3	34.0	1.1	68	E	7.8	3.5			2						Sebastianof.
Kasan			30.05	763.3	17.2	— 8.2	91	SSE					10						Physical Cabinet.
Orenburg			30.45	773.5	18.3	— 7.6	39	NE	4	2			10						Tschernischef.
Ekaterinburg			30.28	769.2	16.5	— 8.6	76	SW	13	6			10						Meteorological Obs.
Kasaly			30.22	767.5	12.3	—10.4	69	ENE	13	6			0						Bobrof.
Tashkend			30.44	773.2	31.8	— 0.1	87	Calm	0	0			10					Fog.	Michelson.
Barnaul			30.25	768.3	8.1	—13.3	76	N	4	2			4						Meteorological Obs.
Yeniseisk			30.11	764.9	7.5	—13.6	85	NW	4	2			0						Marks.
Irkutsk			30.24	768.0	9.1	—12.7	71	Calm	0	0			10						Usolzef.
Oorga			30.53	775.4	— 6.9	—21.6	100	Calm	0	0			0						Mossin.
Peking, (China)			30.14	765.6	30.2	— 1.0	54	SW	4	2			0						Physical Observatory.
Nertchinsk			30.02	762.6	—16.4	—26.9	63	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					—20.9	—29.4		E	4	2			0						Kurdokof.

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.

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.
Madrid			30.31	769.9	46.8	8.2	61	S	4.5	2.00		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.36	745.8	15.8	— 9.0	94	NE			2		7			0	0		Dr. Hildebrandsson.
Hernosand			29.27	743.4	17.6	— 8.0	97	NE			4		10			0.122	3.1	Snow	
Upsala			29.25	742.9	20.8	— 6.2	94	Calm			0		9						
Stockholm			29.20	741.8	28.4	— 2.0	92	NW			2		7			0	0		
Wisby			29.33	744.9	33.4	0.8	89	SW			4		5			0	0		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	726.5			46.4	8.0	34	S			4		8			0	0		The Observatory.
Zurich	28.28	718.4			39.2	4.0	57	W			1		10			0.276	7.0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			29.59	751.6	63.7	17.6	55	S			3		10						
Constantinople			29.84	758.0	35.1	1.7	98	N	16	7			10		N	0	0		
Fao, (Persian Gulf)			30.25	768.3	56.3	13.5		SE			3		10					Rain	
Salonica			29.88	758.9	41.4	5.2		N			3		2						
Valona			29.90	759.5	44.0	6.8		NW			1		0						
Varna			29.92	760.0	32.0	0.0		NW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.09	764.3	12	—11.1	80	NW	4	1.8		2	2	NW	NW	0	0		
Chatham, N. B.			30.33	770.4	13	—1 .6	81	Calm	0	0		Haze	10			0	0		
Charlottetown, P. E. Island			30.34	770.6	16	— 8.9	100	Calm	0	0			8			0	0		
Father Point, Quebec			30.33	770.4	8	—13.3	65	SW	2	0.9		Haze	5	S		0	0		
Fort Garry, Manitoba			30.38	771.6	—30	—34.4	100	NW	5	2.2		0	2			0	0		
Halifax, N. S.			30.26	768.6	20	— 6.7	85	NE	1	0.4			5			0	0		
Kingston, Ontario			29.80	756.9	27	— 2.8	94	Calm	0	0			5			0	0		
Montreal, Quebec			29.94	760.5	21	— 6.1	89	E	11	4.9		5	Haze	W		0	0		
Ottawa, Ontario			29.85	758.2	24	— 4.4	74	NE	12	5.4		5	0	W					
Parry Sound, Ontario			29.51	749.5	29	— 1.7	78	SE	27	12.1		5	5	SE	S	0.07	1.8	Threatening	
Port Dover, Ontario			29.59	751.6	34	1.1	89	SE	4	1.8			5						
Port Stanley, Ontario			29.50	749.3	35	1.7	89	E					8		W	0.16	4.1	Light rain	
Quebec, Quebec			30.12	765.0	16	— 8.9	100	E					10		E	0.31	7.9	Light rain	
Saugeen, Ontario			29.40	746.7	34	1.1	89	SE	6	2.7			10		W	0	0		
Sydney, C. B.			30.30	769.6	17	— 8.3	85	W	1	0.4		8	0	NW		0	0	Light rain	
Toronto, Ontario			29.61	752.1	34	1.1	91	E	10	4.5			10			0.02	0.5	Light rain	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres 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.			29.98	761.5	18	− 7.8	84	Calm	0	0			10		S	0	0		
Alpena, Mich.			29.22	742.2	33	0.6	90	SE	20	8.9			10		SE	0.22	5.6	Sleet	
Atlantic City, N. J.			30.02	762.5	41	5.9	100	S	6	2.7			10		E	0	0	Threatening	
Augusta, Ga.			29.91	759.7	57	13.9	100	S	8	3.6			10		S	1.28	32.5	Light rain	
Baltimore, Md.			29.92	760.0	43	6.1	91	Calm	0	0			10			0.23	5.8	Light rain	
Barnegat, N. J.			29.95	760.7	42	5.6	100	SW	6	2.7			10		SW	0	0	Heavy rain	
Benton, Montana			30.38	771.6	−30	−34.4	100	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.53	775.4	−28	−33.3	45	N	2	0.9		0	0			0.02	0.5		
Boston, Mass.			30.12	765.0	33	0.6	90	E	3	1.3			Fog			0	0	Fog	
Breckenridge, Minn.			30.29	769.4	−19	−28.3	90	N	24	10.7			10			0.08	2.0		
Buffalo, N. Y.			29.56	750.8	37	− 2.8	71	E	1	0.4			10			0.19	4.8	Light rain	
Burlington, Vt.			29.94	760.4	30	− 1.1	78	S	4	1.8			10			0	0		
Cairo, Ill.			30.13	765.3	21	− 6.1	72	N	16	7.2		2	0	N		0.071	18.0		
Cape Hatteras, N. C.			30.07	763.8	60	15.6	82	SE	25	11.2			10		SW	0.32	8.1		
Cape Henry, Va.			30.0[illegible]	762.5	57	13.9	81	S	16	7.2			10		S	0	0	Light rain	
Cape May, N. J.			29.99	761.7	42	5.5	83	S	20	8.9			10		S	0	0	Threatening	
Charleston, S. C.			30.04	763.0	59	15.0	94	SW	12	5.4			10		SW	0.29	7.4	Heavy rain	
Cheyenne, W. T.			29.90	759.4	− 4	−20.0	82	Calm	0	0		Haze	0			0.01	0.2		
Chicago, Ill.			29.50	749.3	15	− 9.4	82	W	27	12.1			10		W	0.06	1.5		
Cincinnati, Ohio			29.61	752.1	44	6.7	84	SW	12	5.4			10		SW	0.25	6.3		
Cleveland, Ohio			29.41	747.0	43	6.1	91	S	13	5.8		10	0	SW		0.15	3.8		
Colorado Springs, Col.			29.93	760.2	− 5	−20.6	100	Calm	0	0		0	0			0	0		
Corsicana, Texas			30.45	773.4	21	− 6.1	70	N	12	5.4		5	2	W		0.01	0.02		
Davenport, Iowa			29.83	757.7	− 1	−18.3	84	W					10			0.73	18.5		
Denver, Col.			30.01	762.2	3	−16.1	73	Calm	0	0			10			0	0		
Detroit, Mich.			29.31	741.5	39	3.9	91	S	17	7.6			10		S	0.14	3.5		
Dodge City, Kansas			30.35	770.9	1	−17.2	71	N	8	3.6		2	0			0	0		
Dubuque, Iowa			29.73	755.1	2	−11.7	72	W	12	5.4			10		W	0	0		
Duluth, Minn.			29.81	757.2	− 8	−22.2	79	NW	28	12.5			10			0.08	2.0		
Eastport, Me.			30.23	767.8	31	− 0.6	89	E	3	1.3		10	0	W		0	0		
Erie, Penn.			29.48	748.8	40	4.4	91	S	32	14.3			10			0.09	2.3	Light rain	
Escanaba, Mich.			29.12	739.6	14	−10.0	28	N	28	12.5			10			0.11	2.8	Light snow.	
Fort Gibson, I. T.			30.47	773.9	8	−13.3	78	N	24	10.7		8	0	N		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.62	777.7	−17	−27.2	35	NW	13	5.8		0	0			0	0		
Galveston, Texas			30.16	766.0	49	4.9	59	N	52	23.2			10		N	0.05	1.3		
Grand Haven, Mich.			30.34	770.6	23	− 5.0	86	W	33	14.8			10			0.05	1.3	Light snow	
Indianapolis, Ind.			29.72	754.9	25	− 3.9	63	W	20	8.9			10		W	0.38	9.6		
Indianola, Texas			30.18	766.6	44	6.7	59	N	48	21.5		10	0	NW		0	0		
Jacksonville, Fla.			30.00	762.0	64	17.8	78	SE	20	8.9		8	0	SW		0	0		
Keokuk, Iowa			29.96	761.0	1	−17.2	73	W	32	14.3			10		W	0.53	13.5		
Key West, Fla.			30.18	765.3	73	22.8	81	SE	10	4.5		0	5		S	0	0		
Kittyhawk, N. C.			30.27	768.8	57	13.9	67	S	18	8.0			10		S	0	0		
Knoxville, Tenn.			29.74	755.4	49	9.4	93	SW	8	3.6			10		W	0.56	14.2		
La Crosse, Wis.			29.59	751.6	2	−16.7	72	NW	16	7.2			10		NW	0.92	23.4		
Leavenworth, Kan.			30.41	772.4	− 3	−19.4	83	NW	16	7.2			10		NW	0.10	2.5		
Lexington, Ky.			29.90	759.4	44	6.7	68	W	32	14.3			8		W	0.55	14.0	Clearing	
Long Branch, N. J.			29.94	760.5	42	5.6	91	SW	10	4.5			10		SW	0	0	Threatening	
Louisville, Ky.			29.79	756.6	34	1.1	71	W	20	8.9		1	10		NW	0.30	7.6		
Lynchburg, Va.			29.93	760.2	40	4.4	95	S	4	1.8			Fog			0.50	12.7		
Malone, N. Y.																			
Marquette, Mich.			29.35	745.5	10	−12.2	79	NW	20	8.9			10			0.15	3.8	Light snow.	
Memphis, Tenn.			30.20	767.1	26	− 3.3	67	NW	17	7.6		2	0			0.04	26.4		
Milwaukee, Wisconsin			29.38	746.2	14	−10.0	82	W	36	16.1		5	0	SW		0.54	13.7		
Mobile, Ala.			30.03	762.8	59	15.0	87	NW	6	2.7		5	Fog	W		0.02	25.9		
Montgomery, Ala.			29.99	716.7	58	14.4	88	W	7	3.1		10	Haze	W		0.44	36.6		
Morgantown, W. Virginia			29.61	752.1	51	10.6	93	S	18	8.0			10			0.32	8.1	Light rain	
Mt. Washington, N. H.			29.96	761.0	20	− 6.7	100	W	50	22.4			Fog						
Nashville, Tenn.			29.94	760.5	41	5.0	65	W	12	5.4		0	10		W	0.77	19.6		
New Haven, Conn.			30.06	763.5	30	− 1.1	89	N	5	2.2			10		NE	0.01	0.2	Mist	
New London, Conn.			30.10	764.5	31	− 0.6	95	N	6	2.7			Fog			0	0	Fog	
New Orleans, La.			30.03	762.8	62	16.7	88	W	3	1.3		2	8	W	SW	2.03	51.6		
Newport, R. I.																			
New York, N. Y.			30.03	762.8	36	2.2	90	E	6	2.7			Fog			0	0	Fog	
Norfolk, Va.			30.00	762.0	56	13.3	84	S	12	5.4			10			0.01	0.02	Light rain	
North Platte, Neb.			30.30	769.6	−12	−24.4	75	W	2	0.9		0	0			0	0		
Omaha, Neb.			30.34	770.6	− 9	−22.8	100	NW	28	12.5			10		N	0.03	0.8		
Oswego, N. Y.			29.75	755.6	37	2.8	58	SE	12	5.4			10			0	0	Light rain	
Peck's Beach			29.99	761.7	41	5.0	83	S	20	8.9			10		SW	0	0	Threatening	
Pembina, D. T.																			
Philadelphia, Penn.			29.97	761.2	42	5.6	91	S	5	2.2			10		S	0.05	1.3	Light rain	
Pike's Peak, C. T.			29.38	746.2	−25	−31.7	100	NW					Fog			0	0	Fog	
Pittsburgh, Penn.			29.56	750.8	46	7.8	85	S	18	8.0			10			0.07	4.5	Light rain	
Port Huron, Mich.			29.34	745.2	38	3.3	90	S	17	7.6			10		S	0.10	2.5	Threatening	
Portland, Maine			30.16	766.1	30	− 1.1	78	Calm	0	0			10			0	0		
Portland, Or.			30.40	772.1	29	− 1.7	77	E	4	1.8			10			0	0		
Punta Rassa, Fla.			30.15	765.8	68	20.0	90	SE	8	3.6		Haze	0			0	0		
Rochester, N. Y.			29.66	753.4	39	3.9	63	SE	12	5.4		0	10			0.01	0.2	Light rain	
Salt Lake City, Utah			30.18	766.6	22	− 5.6	72	NE	2	0.9		0	0			0	0		
Sandy Hook, N. J.			29.90	759.4	41	5.0	100	S	12	5.4			10		S	0	0	Light rain	
San Diego, Cal.			30.20	767.1	47	8.3	83	Calm	0	0		0	2			0	0		
San Francisco, Cal.			30.24	768.1	45	7.2	84	NW	8	3.6		0	0			0	0		
Santa Fe, N. M.			29.69	754.1	18	− 7.7	53	NE	4	1.8		0	0			0	0		
Savannah, Georgia			29.98	761.5	59	15.0	100	SE	12	5.4			10		S	0.90	22.9	Heavy rain	
Shreveport, La.			30.34	770.6	31	− 0.6	60	NW	12	5.4		5	0	NW		0.59	15.0		
Springfield, Mass.			30.09	764.3	23	− 5.0	85	Calm	0	0			Fog			0	0	Sleet	
St. Louis, Mo.			30.11	764.8	9	−12.8	79	W	28	12.5			10		W	0.05	1.3		
St. Marks, Fla.			29.96	761.0	68	20.0	94	SW	20	8.9			10		SW	0.76	19.3	Light rain	
St. Paul, Minn.			29.77	756.1	−10	−23.3	100	NW	28	12.5			8[illegible]			1.35	8.9	Light snow	
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.00	762.0	40	4.4	90	SW	5	2.2			10		SW	1.05	26.7		
Toledo, Ohio			30.35	770.9	41	5.0	91	S	16	7.2			10		S	0.15	3.8	Light rain	
Tybee Island, Ga.			29.98	761.5	57	13.9	10	S	16	7.2			20		SW	0.83	21.1	Threatening	
Vicksburg, Miss.			30.27	768.8	40	4.4	56	N	17	7.6			10		N	0.08	2.0		
Virginia City, Mon.			29.77	756.1	− 6	−21.1	82	Calm	0	0			10			0	0		
Washington, D. C.			29.89	759.2	44	6.7	96	S	3	1.3			10			0.18	4.6	Light rain	
Wilmington, N. C.			30.05	763.3	62	16.7	88	S	18	8.0			10			0.05	1.3	Light rain	
Wood's Hole, Mass.			30.13	765.3	41	5.0	91	S	24	10.7			10		S	0	0		
Wytheville, Va.			29.52	749.8	50	10.0	78	S	12	5.4		10	0	S		0.11	2.8		
Yankton, D. T.			30.49	774.5	−16	−26.7	69	NW	25	11.2			10		NW	0.50	12.7		

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 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	83	28.3		N	5	2.2		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.00	762.0	73	22.8		E				2	0			0.10	2.5		
Havana, Cuba, W. I.			29.95	760.7	71	21.7	85	SE	4	1.8		0	0			0	0		
Kingston, Jamaica, W. I.			30.25	768.3	73	22.8	90	NE	2	0.9		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.94	760.5	69	20.6	79	Calm	0	0		0	0			0	0		
St. Georges, Bermudas			30.36	771.1	62	16.7		E	15	6.7		8	2	W		0	0		
Honolulu, Sandwich Is.			30.08	764.0	60	15.6		Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.78	705.6			55	12.8	62	SE	2	0.9		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.36	771.1	—33	—36.1		W	5	2.2		8	0	S		0	0		
St. Johns, Newfoundland			30.01	764.5	18	— 7.8	84	W				2	5			0	0		John Delaney.
St. Johns, Porto Rico, W. I.			30.16	766.0	74.5	23.6	80	E			3	1	0			0.236	6.00		Leon M. Acuna.
Ellyria, Ohio	2862	726.9			42	5.6		S	14	6.3			10			0	0		H. M. Redington.
Indianola, Iowa	29.25	742.9			— 8	—22.5		NW					10			0.15	3.8		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40, are as given by a spirit thermometer.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:40 P. M. VIENNA 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 Farré, Commandant Supérieur du Génie en Algérie.

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.
Nemours																			Charnot.
Algiers																			Peter.
La Calle																			Kuntz.
Tunis																			Jacques.
Sfax																			Chauvey.
Saida																			Grosjean.
Tebessa																			Colin.
Geriville																			Bernadach.
Laghouat																			Poinsignon.
Biskra																			Coulon.

Reports for this date not received.

AUSTRIAN SERIES.

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

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.
Agram			29.78	756.3	37.0	2.8	84	NW			1		10			0.465	11.8		Prof. Ivan Stozir.
Buda-Pesth			29.70	754.4	38.1	3.4	60	W			5		1			0.012	0.3		I. R. Cen. M. I., Hungary
Cracow			29.61	752.1	34.2	1.2	79	W			3		9			0.110	2.8		I. R. Observatory.
Eperies			29.65	753.2	28.4	− 2.0	92	Calm			0		10			0.110	2.79		Julius Mikolik.
Gratz			29.71	754.6	38.1	3.4	68	SSW			2.5		5			0	0		Andreas Rospini.
Hermannstadt			29.71	754.6	29.5	− 1.4	86	SSE			1		7			0.006	0.15		Prof. Reissenberger.
Kremsmünster			29.78	756.4	34.5	1.4	82	W			5		5			0.098	2.5		Prof. C. Wagner.
Lemberg			29.56	750.8	32.4	0.2	93	W			4		9			0.028	0.7		Dr. T. Stanecki.
Nyiregyhaza			29.69	754.0	33.8	1.0	96	SW			2		10			0	0		Habzsuda Daniel.
Pola			29.69	754.2	46.0	7.7	69	WNW			1		8			0	0		I. R. Hydrographic Office
Szegedin			29.69	754.2	37.4	3.0	96	S			2		10			0.020	0.50		Karl Stancel.
Trieste			29.71	754.7	42.3	5.7	83	N			1		6						Prof. V. Farolfi.
Vienna			29.69	754.1	37.4	3.0	72	W			3		6			0.157	4.0		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.

BELGIAN SERIES.

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

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.
Brussels	29.75	755.6			40.5	4.7	81	WNW			1		6		NNW	0.35	0.90		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.11	764.8	35.0	1.7		WNW	21	9.4			3			0.210	5.33		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.14	765.5	39	3.9		NW			2		4						William McNeil.
Armagh Observatory			30.13	765.3	38.9	3.8		SSE	7	3.1			4						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.10	764.5	38.2	3.4		NNE			1		0						The Liverpool Obs.
Birr Castle			30.07	763.8	40.5	4.7		SE			1–2		10						J. Drever.
Bradford			30.05	763.3	39.2	4.0		NW			1		4						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.05	763.3	39.0	3.9		NNW			1		1						H. Todd.
Cape Town, Cape Colony			29.91	759.7	75	23.9		NW			3		3						Sgt. D. E. Hunt
Cape Good Hope Obs.			29.94	760.5	83.3	28.5	46	S	21	9.4			2						The Royal Observatory
Cardington			30.08	764.0	40.0	4.4		N					4						John McLaren.
Carlisle			30.13	765 3	37.0	2.8		NW					0						T. Bell.
Chatham			30.03	762.7	39.0	3.9		NNW			1		3					Mist	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			30.00	762.0	77.6	25.3		NE			3		1						Sgt. W. F. Hopkins
Dartmoor			30.08	764.0	36	2.2		E			1		10						R. E. Power.
Donaghadee			30.13	765.3	40	4.4		E			4		3						J. Mac Gowan, Jr.
Dover			30.01	762 2	79	3.9		NNW			4		5						J. Costello.
Dublin																			
Durham Observatory			30.08	764.0	37.3	2.9		N					10						G. Goldney.
Eccles, (near Manchester)			30.10	764.5	39.1	3.9		WNW	0	0			2					Mist	Thomas Mackereth.
Falmouth Observatory			30.05	763 3	42.7	5.9		ESE	17	7.6			10					Rain	The Falmouth Obs.
Fort Napier, (Natal)			29.85	758.2	83.4	28.6		NE			3		10					Fog	Pvt. G. Salmon.
Galway			29.98	761.5	40	4.4		E			1		10						Queen's College.
Gibraltar, (Mediterranean)			30.21	767.3	61.8	16.6		NNW			4		0					Hail	Sgt. J. Brewster.
Glasgow Observatory			30.11	764.8	36.2	2.3		W			1		3						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.00	762.0	40	4.4		NW			3		4						G. T. Watson.
Greenwich Royal Obs			30.06	763.5	39.5	4.2		N			1		3					Mist	The Royal Observatory
Guernsey			30.04	763.0	41.5	5.3		ENE			1		10						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.05	763.3	37.8	3.2		NNE					7					Rain & Mist.	Moorside Observatory
Halifax, (Nova Scotia)			29.33	745.0	42.4	5.8		SW			7		10						Corp'l J. Y. Thompson
Helston			30.03	762.7	48	8.9		E			5		10					Rain	W. B. Moyle.
Holyhead			30.11	764.8	40	4.4		ENE			2		0					Rain	John Tilston.
Hull Park																			
Kew Observatory			30.07	763.8	39.0	3.9		NNW	8	3.6			1						The Met. Office.
Kingstown			30.13	765.3	40	4.4		ESE			2		4					Mist	George Mitchell.
Lampeter																			
Leicester			30.07	763.8	39.2	4.0		N			2		3						William J. Harrison.
Llandudno			30.12	762.5	40.2	4.6		N					0						Dr. James Nicol.
Malta, (Mediterranean)			30.06	763.5	58.0	14.4		NW			2		3						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.15	765.8	37	2.8		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.15	765.8	68.3	20.2		Calm			0		4						Surgeon I. Jamieson.
North Shields			30.08	764.0	38	3.3		NNW			4		2						John Wm. Irvine.
Nottingham			30.07	763.8	41.7	5.4		NNW			2		1						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.08	764.0	39.2	4.0		NNE			2		0						St. Mary's College.
Oxford, Radcliffe Obs			30.06	763.5	38	3.3		N			1		0					Mist	Radcliffe Observatory
Plymouth			30.05	763.3	41	5.0		E			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.00	762.0	43	6.1		ESE			5		10						W. Kennedy.
Saint Ann's Head			30.06	763.5	41	5.0		ESE			1		3						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.13	765.3	37.1	2.8			10	4.5			0						Rev. Dr. Clouston.
Scarboro'			30.03	762.7	39.5	4.2		NNW			4		8						F. Heard.
Scutari, (Turkey)			29.86	758.4	41.0	5.0		WSW			2		4						W. H. Lyne.
Sheffield			30.07	763.8	40.1	4.5		NNE			2		3						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.12	765.0	39.0	3.9		N			1		0			0	0		Francis Redford.
Somerleyton, (Lowestoft)			29.98	761.5	42.8	6.0		NW			1		2						Rev. C. J. Steward.
Stonyhurst Observatory			30.08	764.0	38.8	3.8		E			1								Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.14	765.5	37	2.8		SSW			2		3						John Smith.
Strathfield Turgiss			30.08	764.0	37.8	3.2		N			1		0						Charles H. Griffith.
Streatley Vicarage			30.08	764.0	39.9	4.4		NNE			1		0						Rev. John Slatter.
Sumburgh Head, Shetland			30.03	762.7	39	3.9		N			2								William Lawrence.
Taunton College																			
Thurso			30.12	765.0	38	3.3		NNE			3		6						John Trotter.
Truro Royal Institution			29.97	761.2	44	6.7		E			4		10					Rain	Royal Institution.
Valencia			29.95	760.7	51.3	10.7		ESE	7	3.1			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.07	763.8	39.6	4.2		N			1		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 pressures reduced to the scale of force, 0–10, by the editor.

DANISH SERIES.

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

Copenhagen			29.50	749.3	29.8	— 1.2	88	N			7		10					Snow	
Fanöe			29.73	755.2	31.3	— 0.4	48	N			6		8						
Godthaab, (Greenland)			29.24	74 .8	21.6	— 5.8		N			2		10						
Stykkisholm, (Iceland)			29.96	760.9	30.6	— 0.8	98	SE			4		8						
Thorshavn, (Faröe)			30.17	766.4	32.0	0.0	76	W			2		8						
Vestervig			29.76	755.9	30.2	— 1.0	92	NE			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.81	757.3	54.5	12.5	72						5						Normal School.
Alençon			30.04	763.1	41.7	5.4	93	NE			1		10			0.118	3.0		Normal School.
Amiens			30.03	762.8	37.8	3.2	93	NW			3		5		WNW	0	0		Normal School.
Beaumette, (near Angers)			30.02	762.4	42.3	5.7	100	E	4.5	2.0			10		E	0.189	4.8		Beaumette Observatory.
Beauvais			30.04	763.0	39.4	4.1	54	NNE			2		2		N	0.012	0.3		Normal School.
Besançon			30.00	762.1	37.6	3.1	90	N			2		8		NE	0.661	16.8		Normal School.
Bourges			30.05	763.2	36.7	2.6	97	NE			2		10		NE	0.709	18.0		Normal School.
Brest			29.96	761.1	50.9	10.5	92	NW			1		10		NW	0.051	1.3	Light Rain.	Naval Observatory.
Caen			30.04	763.1	43.0	6.1	85	NNE			1		5		NW	0.339	8.6		Normal School.
Carcassonne																			
Chartres			30.01	762.2	41.2	5.1		N			1		8		NW	0.240	6.1		Normal School.
Chaumont			30.152	765.77	37.2	2.9		NW			3		5		NW	0.072	1.8		Normal School.
Le Mans			30.06	763.6	39.2	4.0	90	E			3		8		NE	0.354	9.0		Normal School.
Mirecourt			29.87	758.8	39.2	4.0		NW			2		10		SW	0	0		Normal School.
Orleans			30.02	762.6	39.9	4.4	97	NW			2		10		W	0.142	3.6		Normal School.
Paris			30.01	762.2	41.0	5.0	65	N			1		8		N	0	0	Mist.	National Observatory.
Parthenay																			
La Roche sur Yon			30.02	762.6	43.2	6.2	58	N			2		10			0	0		Normal School.
Rouen			30.03	762.8	43.0	6.1	56	N			2		2		N	0	0		Normal School.
Saint Lo			30.05	763.2	41.9	5.5	78	NE			2		10		NW	0.665	16.9		Normal School.
Villefranche			29.91	759.6	41.2	5.1	97	NNW			1		10		NW	0.134	3.4		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall
Mont-Louis	24.81	630.3			44.8	7.1	81	W	16.0	7.14			4		NW	0	0		—. Faiguère.
Montsouris (near Paris)			30.01	762.2	40.3	4.6	70	NE	2.2	0.97			8			0	0		Marié Davy.
Perpignan	29.90	759.5			58.3	14.6	42	WNW	22.4	10.00			3			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.01	762.2	40.8	4.9	77	NNE			1		8			0.028	0.7		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.02	762.6	39.7	4.3	87	ENE			2		10		E	0.240	6.1		C. Marquet.
Tunis, (Africa)			30.03	762.7	61.3	16.3	50	WNW			4		5			0	0		—. Jacques.
Versailles, (near Paris)			30.00	762.0	41.4	5.2	75	N			1		5			0.008	0.20		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Bamberg			29.84	757.9	32.9	0.5	93	NW			6		8			0.016	0.4	Snow	Prof. Hoh.
Berlin			29.59	751.5	34.2	1.2	70	W			5		10			0.063	1.6	Snow	Prof. Arndt.
Breslau			29.57	751.1	34.9	1.6	82	W			2		10			0.240	6.1		Dr. P. Neugebauer.
Carlsruhe			29.91	759.7	38.1	3.4	66	SW			2.5		10			0.142	3.7		A. Lenz.
Cassel			29.68	753.8	38.3	3.5	67	W			5		7			0.114	2.9	Snow	Dr. H. Mohl.
Cologne			29.88	758.9	37.6	3.1	81	NW			4		4			0	0		Dr. Gaithe.
Emden			29.85	758.2	37.6	3.1	88	N			1		8			0	0		Prof. Prestel.
Frankfort on the Main			29.97	761.2	38.3	3.5	73	W W			1		4			0.008	0.2		Physical Society.
Friedrichshafen			29.98	761.4	36.5	2.5	74	NW					8			0.008	0.2	Rain	M. Wilhelm.
Hamburg			29.70	754.4	33.1	0.6	69	NW			5		7			0.051	1.3	Snow	W. Reinart.
Kiel			29.62	752.3	32.2	0.1	66	NW			5		10			0	0		Prof. G. Karsten.
Königsberg			29.43	747.4	34.0	1.1	88	SW			2		10			0.035	0.9	Snow	Prof. E. Luther.
Köslin			29.59	751.7	34.0	1.6		SW			3		5			0.051	1.3		Dr. Tägert.
Leipsic			29.68	753.8	33.8	1.0	72	NW			5		4			0.213	5.4	Snow	Prof. Bruhns.
Münster			29.78	756.5	40.3	4.6	71	N			4		4			0	0	Snow	Prof. F. Heis.
Posen			29.46	748.4	37.2	2.9	77	W			2.7		9			0.031	0.8		Dr. Magerer.
Strasburg, (in Alsace)			29.95	760.7	38.1	3.4	66	W					6			0	0		Hartwig and Fulk.
Stuttgart			29.90	759.4	36.7	2.6	74	W					8			0.126	3.2	Snow	Mr. Würth.
Thorn			29.45	748.0	35.8	2.1	89	SW			3		9			0.012	0.3	Snow	Dr. Hagenbalg.
Treves, (Trier)			29.89	759.2	38.5	3.6	66	NW			7		4			0	0		Prof. Flesch.
Wustrow			29.57	749.8	29.5	— 1.4	100	NNW			5		10						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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Moncalieri			29.70	754.3	42.8	6.0	66	WNW	0.2	0.1			0			0	0		
Mondovi			29.68	753.8	45.7	7.6	68	NE			2		2	WNW		0	0		
Genoa			29.72	754.8	53.4	11.9	61	SW	3.8	1.7			4			0	0		
Savia			29.70	754.3	43.9	6.6	64	NE			1		1			0	0		
Verona																			
Padua			29.69	754.2	41.9	5.5	72	N	3.8	1.7			2			0	0		
Parma																0	0		
Bologna			29.75	755.6	42.3	5.7	42	W			2		4			0	0		
Urbino																0	0		
Ancona																0	0		
Florence																			
Siena			29.76	755.0	44.2	6.8	85	NNW	0.2	0.1			10	W		0	0		
Livorno																			
Rome			29.70	755.8	58.5	14.7	63	S			2		4	W		0	0		
Naples, O.U.			29.81	757.2	57.9	14.4	70	SW			2		10	SW		0.020	0.5		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.80	756.8	51.6	10.9	62	WSW	19.9	8.9			7			0	0		
Cosenza			29.89	759.2	51.8	11.0	74	WNW			1		10			0.173	4.4		
Catania, (Sicily)			29.88	759.1	57.2	14.0	47	W			4		0			0	0		
Riposto																			
Palermo			29.88	759.0	60.6	15.9	61	WSW			4		9			0	0		

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.

NETHERLANDS SERIES.

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

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.
Flushing			29.94	761.4	41.4	5.2		NNW			4								
Groningen			29.73	755.2	38.3	3.5		NNW											
Helder			29.85	758.3	41.0	5.0		NW			4								
Utrecht			29.85	758.1	38.5	3.6		NW			4		10						

NOTE.—The originals give the force 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			29.84	757.9	34.5	1.4	74	N	9.2	4.1			0			0	0		
Christiania			29.80	756.8	28.4	— 2.0	60	NNE	11.9	5.3			7			0	0		
Tromsö			29.81	757.2	17.1	— 8.3	85	E			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	29.92	759.9			51.4	10.8	80	N	3.6	1.6			1						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.51	749.5	33.8	1.0	89	SW	4	2			10					Snow	Astronomical Obs.
Wilna			29.50	749.2	32.0	0.0	100	S	7.8	3.5			10						Astronomical Obs.
Dorpat			29.50	749.3	29.1	— 1.6	93	Calm	0	0			10					Snow	Physical Cabinet.
St. Petersburg			29.54	750.2	24.3	— 4.3	86	SE	7	3			6						Central Physical Obs.
Kieff			29.72	755.0	32.0	0.0	97	SSE	13	6			10						Physical Cabinet.
Nikolaiev			29.87	758.6	30.9	— 0.6	73	SE	4	2			0						
Kertch			29.80	756.9	33.6	0.9	87	NNE	4	2			10						Lagorio.
Moscow			29.87	758.7	22.5	— 5.3	83	SW	4	2			7						Meteorological Obs.
Lugan			29.83	757.8	16.9	— 8.4	91	Calm	0	0			10						Meteorological Obs.
Archangel			29.76	755.9	13.3	—10.4	93	E	4	2			10					Snow	Ogorodnikof.
Tiflis			29.77	756.2	50.4	10.2	47	Calm	0	0			6						Physical Observatory.
Astrakhan			29.99	761.8	34.5	1.4	67	E	7.8	3.5			3						Sebastianof.
Kasan			30.08	764.1	19.0	— 7.2	93	S					10						Physical Cabinet.
Orenburg			30.41	772.4	57.2	—14.0	91	E	7.8	3.5			6						Tschernischef.
Ekaterinburg			30.46	773.6	44.6	— 7.0	83	SW	4	2			1						Meteorological Obs.
Kasaly			30.21	767.3	45.5	— 7.5	69	ENE	7.8	3.5			0						Bobrof.
Tashkend			30.36	771.2	34.5	1.4	74	Calm	0	0			2						Michelson.
Barnaul			30.44	773.3	— 1.8	—18.8	82	Calm	0	0			3						Meteorological Obs.
Yeniseisk			30.33	770.5	5.5	—14.7	87	E	7.8	3.5			0						Varks.
Irkutsk			30.33	770.5	—12.5	—24.7	84	Calm	0	0			0						Usolzef.
Oorga			30.39	771.8	2.5	—16.4	80	Calm	0	0			0						Mossin.
Peking, (China)			29.99	761.7	37.9	3.3	52	Calm	0	0			0						Physical Observatory.
Nertchinsk			30.19	766.7	—16.1	—26.7	72	NW	10.1	4.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 8.5	—22.5		NW	7.8	3.5			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.

Madrid			30.26	768.7	46.8	8.2	62	S	3.7	1.67		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.75	755.6	13.8	—10.1	90	N			2		1			0	0		Dr. Hildebrandsson.
Hernosand			29.74	755.3	20.1	— 6.6	84	NNW			2		10			0	0		
Upsala			29.67	753.5	21.4	— 5.9	87	NNW			6		10			Blank	Blank	Snow	
Stockholm			29.60	751.8	23.5	— 4.7	84	NNE			0		10			0	0		
Wisby			29.57	751.2	28.4	— 2.0	84	E			4		10			0.008	0.1		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.48	723.4			42.3	5.7	84	SSW			2		10			0.130	3.3	Rain	The Observatory.
Zurich	28.24	717.3			38.3	3.5	66	W			1		7			0.012	0.3	Rain	Prof. B. Billwiller.

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)			29.74	755.4	54.7	12.6	74	SW			10		10					Rain	
Constantinople			29.86	758.5	39.9	4.4	72	SSW	3.4	1.5			5		N	0	0		
Bao, (Persian Gulf)			30.03	762.7	62.6	17.0		SE			4		10						
Salonica			29.77	756.2	47.1	8.4		N	4	2			10						
Valona			29.71	754.7	52.7	11.6		SW	4	2			10						
Varna			29.80	757.0	42.8	6.0		N			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			28.79	731.3	22	— 5.6	100	W	2	0.9		8	Fog	W		0.30	7.6		
Chatham, N. B.			29.19	731.4	35	1.7	70	W	6	2.7			10		W	0.17	4.3	Light rain	
Charlottetown, P. E. Island			29.27	743.4	38	3.3	97	S	10	4.5			10			0.28	8.1		
Father Point, Quebec			30.16	766.1	5	—15.0	75	W	32	14.3		2	2	W	W	0	0		
Fort Garry, Manitoba			30.42	772.7	—34	—36.7	100	NW	1	0.5		0	0			0	0		
Halifax, N. S.			29.31	744.5	42	5.6	98	SW	24	10.7			10			0.75	19.0		
Kingston, Ontario			29.68	753.9	5	—15.0	92	S	20	8.9			10		W	0.42	10.7	Light snow	
Montreal, Quebec			29.56	750.8	7	—13.9	66	W	23	10.3		0	2			0.11	2.8		
Ottawa, Ontario			29.56	750.8	3	—16.1	59	NW	16	7.2		5	2	W	W	0	0		
Parry Sound, Ontario			29.55	750.6	— 1	—18.3	77	W	28	15.5			10			0.15	3.8	Light snow	
Port Dover, Ontario			29.92	760.0	— 1	—18.3	100	SW	25	11.2		5	0	SW		0.06	1.5		
Port Stanley, Ontario			29.95	760.7	— 2	—18.9	90	W	49	21.9			10		W	0.05	1.3		
Quebec, Quebec			29.42	747.3	7	—13.9	77	W				0	10			0	0		
Saugeen, Ontario			29.65	753.1	3	—16.1	100	W	32	14.3			10			0.29	7.4	Light snow	
Sydney, C. B.			29.49	749.0	40	4.4	99	S	21	9.4			10		S	0.29	7.8	Light rain	
Toronto, Ontario			29.79	756.7	2	—16.7	83	SW	24	10.7		8	1	W	SW	0.20	5.1		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	14	−10.0	7[illegible]	NW	5	2.2		2	0	W		0.09	2.3		
Alpena, Mich.			29.70	754.4	−4	−20.0	82	NW	24	10.7		5	0	NW		0.07	1.8		
Atlantic City, N. J.			29.91	759.7	27	−2.8	59	W	10	4.5		5	5	E	W	0.44	11.2		
Augusta, Ga.			30.34	770.6	35	1.7	54	NW	11	4.9			10		NW	0.02	0.5		
Baltimore, Md.			30.00	762.0	26	−3.3	49	W	24	10.7		5	5	W	W	0.32	8.2		
Barnegat, N. J.			29.85	758.2	26	−3.3	77	W	8	3.6		8	0			0.45	11.4	Cloudy	
Benton, Montana			30.09	764.3	−7	−21.7	100	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.53	775.4	−31	−35.0	33	S	3	1.3		0	0			0	0		
Boston, Mass.			29.55	750.6	27	−2.8	67	NW	15	6.7		5	5	NW	NW	0.60	15.2		
Breckenridge, Minn.			30.55	776.0	−30	−34.4	85	NW	12	5.4		0	0			0	0		
Buffalo, N. Y.			29.84	757.9	2	−16.7	72	W	36	16.1			10		W	0.24	6.1		
Burlington, Vt.			29.59	751.6	17	−18.3	67	W	16	7.2		5	5	W		0.14	3.6		
Cairo, Ill.			30.61	777.5	7	−13.9	78	W	12	5.4		0	2			0	0		
Cape Hatteras, N. C.			30.06	763.5	47	8.3	41	NW	18	8.0			10		NW	0.06	1.5		
Cape Henry, Va.			30.04	763.0	38	3.3	45	NW	27	12.1			10		SW	0.15	3.8		
Cape May, N. J.			29.98	761.5	28	−2.2	67	NW	28	22.5		8	0	SW		0	0		
Charleston, S. C.			30.26	768.6	43	6.1	92	NW	12	5.4			10		W	1.25	31.7		
Cheyenne, W. T.			29.94	760.5	16	−8.9	52	SW	8	3.6		0	0			0.02	.5		
Chicago, Ill.			30.25	768.3	−9	−22.8	100	SW	24	10.7		0	0			0	0		
Cincinnati, Ohio			30.35	770.9	8	−13.3	41	SW	12	5.4		0	2		SW	0	0		
Cleveland, Ohio			30.03	762.7	2	−16.7	93	SW	13	5.8		5	0	W		0	0		
Colorado Springs, Col.			29.96	761.0	11	−11.7	80	W	5	2.2		0	0			0	0		
Corsicana, Texas			30.67	779.0	20	−6.7	85	N	8	3.6		0	0			0	0		
Davenport, Iowa			30.51	774.9	−15	−26.1		W	24	10.7		0	5		W	0	0		
Denver, Col.			30.04	763.0	5	−15.0	75	W	5	2.2		0	0			0	0		
Detroit, Mich.			30.03	762.7	−6	−21.1	62	W	25	11.2		Haze	2			0	0		
Dodge City, Kansas			30.32	770.1	8	−13.3	78	SW	3	1.3		0	0			0	0		
Dubuque, Iowa			30.50	774.7	−12	−24.4	100	NW	14	6.3		0	0			0	0		
Duluth, Minn.			30.28	769.1	−19	−28.3		W	4	1.8		Haze	5	W		0	0		
Eastport, Me.			29.28	743.7	35	1.7	100	N	8	3.6			10			1.04	26.4	Light rain	
Erie, Penn.			29.96	761.0	2	−16.7	100	NW	45	20.1			10			Blank	Blank	Light snow	
Escanaba, Mich.			29.92	772.6	−8	−22.2	79	W	16	7.2			10			0.17	4.3		
Fort Gibson, I. T.			30.72	780.3	10	−12.2	79	N	2	0.9		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.67	779.0	−24	−31.1		Calm	0	0		0	0			0	0		
Galveston, Texas			30.48	774.2	37	2.8	52	NE	28	12.5			10		NE	0	0		
Grand Haven, Mich.			30.04	763.0	5	−15.0	88	NW	28	12.5			10			0	0	Light snow	
Indianapolis, Ind.			30.38	771.6	−1	−18.3	54	W	16	7.2		0	0			0.03	0.8		
Indianola, Texas			30.50	774.7	35	1.7	61	N	32	14.3			10		W	0	0		
Jacksonville, Fla.			30.33	770.4	48	8.9	19	NW	12	5.4			10			1.59	40.4		
Keokuk, Iowa			30.54	775.5	−8	−22.2	56	NW	14	6.3		0	0			0	0		
Key West, Fla.			30.14	765.5	73	22.8	85	SE	2	0.9		Haze	10			0	0		
Kittyhawk, N. C.			30.30	769.6	40	4.4	37	NW	26	11.6			10			0.09	2.3		
Knoxville, Tenn.			30.40	772.1	18	−7.8	52	W	12	5.4		10	0	W		0	0		
La Crosse, Wis.			30.38	771.6	−18	−27.8	67	NW	13	5.8		Haze	Haze			0.07	1.8		
Leavenworth, Kan.			30.74	780.8	−7	−21.7	79	NW	4	1.8		0	0			0	0		
Lexington, Ky.			30.43	772.9	14	−10.0	63	W	24	10.7		2	0	W		0	0		
Long Branch, N. J.			29.83	757.7	25	−3.9	60	NW	20	8.9		0	8		NW	0.06	26.9		
Louisville, Ky.			30.43	772.9	7	−13.9	77	W	16	7.2		2	0	W		0	0		
Lynchburg, Va.			30.12	765.0	26	−3.3	50	W	12	5.4		5	0			0.03	0.8		
Malone, N. Y.																			
Marquette, Mich.			29.88	758.9	−5	−20.6	82	SW	24	10.7			10		W	0.09	2.3	Light snow	
Memphis, Tenn.			30.66	778.7	14	−10.0	61	NW	12	5.4		2	0			0	0		
Milwaukee, Wisconsin			30.20	767.1	−16	−26.7		NW	25	11.2			10			0.06	1.5		
Mobile, Ala.			30.52	775.2	35	1.7	35	N	12	5.4			10		N	0	0		
Montgomery, Ala.			30.53	775.4	30	−1.1	36	NW	11	4.9		10	0	W		0	0		
Morgantown, W. Virginia			30.11	764.8	14	−10.0	54	SW	34	15.2		0	2			0	0		
Mt. Washington, N. H.			29.19	741.4	−2	−18.9	100	NW	84	37.6			Fog			0	0		
Nashville, Tenn.			30.53	775.4	15	−9.4	65	W	10	4.5		0	5			0	0		
New Haven, Conn.			29.79	756.7	28	−2.2	77	W	23	10.3		5	2	NW	W	1.12	28.4		
New London, Conn.			29.75	755.5	28	−2.2	70	W	16	7.2		2	5	W	W	0.81	20.6		
New Orleans, La.			30.49	774.4	41	5.0	25	NE	9	4.0		10	0	N		0	0		
Newport, R. I.																			
New York, N. Y.			29.86	758.4	24	−4.4	63	W	26	11.6		5	0	W		0.58	14.7		
Norfolk, Va.			30.05	763.3	39	3.9	34	W	12	5.4			10			0.12	3.0		
North Platte, Neb.			30.33	770.4	−11	−23.9	76	Calm	0	0		0	0			0	0		
Omaha, Neb.			30.72	780.3	−15	−26.1	100	W	8	3.6		0	0			0.25	6.3		
Oswego, N. Y.			29.78	756.4	11	−11.7	59	W	36	16.1			10		W	0	0		
Peck's Beach			29.96	761.0	27	−2.8	77	NW	27	12.1		5	2	W		0	0		
Pembina, D. T.			30.48	774.2	−34	−36.7		SW	8	3.6		5	0			0	0		
Philadelphia, Penn.			29.96	761.0	24	−4.4	60	NW	20	8.9		0	5		NW	0.58	14.7		
Pike's Peak, C. T.			29.81	757.2	0	−17.8	100	NW	30	13.4		0	5			0	0		
Pittsburgh, Penn.			30.08	764.0	10	−12.2	54	W	18	8.0		Haze	5		NW	0.01	0.2		
Port Huron, Mich.			29.94	760.5	−6	−21.1	81	SW	30	13.4		5	5			0.02	0.5		
Portland, Maine			29.36	745.7	27	−2.8	42	W	26	11.6		2	0	NW		0.46	11.7		
Portland, Or.			30.36	771.1	29	−1.7	66	NE	2	0.9		2				0	0		
Punta Rassa, Fla.			30.20	767.1	67	19.4	90	N	12	5.4			10		SW	0	0		
Rochester, N. Y.			29.77	756.1	6	−14.4	76	W	28	12.5		Haze	Haze			0.21	5.3		
Salt Lake City, Utah			30.18	766.6	24	−4.4	48	S	2	0.9		0	0			0	0		
Sandy Hook, N. J.			29.85	758.2	24	−4.4	74	W	30	13.4		8	Haze	SW		0.63	16.		
San Diego, Cal.			30.10	764.5	51	−10.6	93	NE	4	1.8			10			0	0		
San Francisco, Cal.			30.20	767.1	47	8.3	85	N	4	1.8		0	0			0	0		
Santa Fe, N. M.			29.74	755.4	16	−8.9	58	NW	12	5.4		0	0			0	0		
Savannah, Georgia			30.31	769.9	44	6.7	19	NW	16	7.2			10			0.90	22.8		
Shreveport, La.			30.66	778.7	23	−5.0	73	N	8	3.6		5	0			0	0		
Springfield, Mass.			29.74	755.4	22	−5.6	72	W	8	3.6			10			0.86	21.8		
St. Louis, Mo.			30.60	777.2	0	−17.8	71	W	20	8.9		0	0			0	0		
St. Marks, Fla.			30.37	771.4	39	3.9	47	N	12	5.4			10			0.54	13.7	Sleet	
St. Paul, Minn.			30.38	771.6	−25	−30.6	54	W	5	2.2		0	0			0.03	0.8		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			29.90	759.4	25	−3.9	62	W	20	8.9		5	2	W	W	1.30	33.0		
Toledo, Ohio			30.13	765.3	1	−17.2	72	SW	32	14.3			10		SW	0.07	1.8		
Tybee Island, Ga.			30.33	770.4	42	5.6	38	NW	22	9.8			10		NW	0	0		
Vicksburg, Miss.			30.69	779.5	27	−2.8	67	N	5	2.2			10		N	0	0		
Virginia City, Mon.			29.76	755.9	14	−10.0	83	Calm	0	0			10			0	0		
Washington, D. C.			30.03	762.7	25	−3.9	48	NW	12	5.4			10		SW	0.05	1.3		
Wilmington, N. C.			30.13	765.3	43	6.1	29	W	14	6.3			10		W	0.20	5.1		
Wood's Hole, Mass.			29.68	753.9	31	−0.6	78	NW	20	8.9		0	5		NW	0	0		
Wytheville, Va.			29.98	761.5	14	−10.0	63	NW	16	7.2		0	0			0	0		
Yankton, D. T.			30.76	781.3	−22	−30.0	60	W	10	4.5			0			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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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		NE	4	1.8		5	2	E		0	0		
Point-a-pitre, G'd'loupe, "			30.01	762.2	72	22.2		E					10			0.34	8.6		
Havana, Cuba, W. I.			29.95	760.7	71	21.7	90	Calm	0	0		5	0			0	0		
Kingston, Jamaica, W. I.			30.25	768.3	73	22.8	97	Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.91	759.7	70	21.1	84	NE	1	0.5		0	0			0	0		
St. Georges, Bermudas			30.16	766.1	68	20.0		SW	32	14.3		8	2	SW		0.005	0.13		
Honolulu, Sandwich Is.			30.10	764.8	64	7.8		S	1	0.5		0	0			0	0		
Makawao, Sandwich Is.	27.73	703.7			61	16.1	82	S	1	0.5		0	5			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.12	765.0	—41	—40.6		W	4	1.8		8	0	W		0	0		
St. Johns, Newfoundland			30.17	766.3	18	— 7.8	100	S					Haze			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.13	765.3	76.3	24.6	65	E			4	4	0			0.030	0.75		Leon M. Acuna.
Ellyria, Ohio	29.30	744.2			2	—16.7		SW	19				0			0	0		H. M. Redington.
Indianola, Iowa	29.60	754.1			—20	—28.9		NW					0			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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 Farré, Commandant Supérieur du Génie en Algérie.

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.
Nemours																			Charnot.
Algiers																			Peter.
La Calle																			Kuntz.
Tunis																			Jacques.
Sfax																			Chauvey.
Saïda																			Grosjean.
Tebessa																			Colin.
Geriville																			Bernadach.
Laghouat																			Poinsignon.
Biskra																			Coulon.

Reports for this date not received.

AUSTRIAN SERIES.

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

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.
Agram			29.84	758.0	39.2	4.0	53	NE			1		3			0	0		Prof. Ivan Stozir.
Budu-Pesth			29.83	757.6	31.6	— 0.2	87	W			5		6			0	0		I. R. Cen. M. I., Hungary
Cracow			29.79	756.6	28.8	— 1.8	79	W			2		10			0.126	3.2		I. R. Observatory.
Eperies			29.77	756.1	28.0	— 2.2	96	Calm			0		10			0.042	1.05		Julius Mikolik.
Gratz			29.87	758.8	35.2	1.8	44	NW			5		0			0	0		Andreas Rospini.
Hermannstadt			29.80	756.9	29.5	— 1.4	84	SSE			1		10			0.083	2.10		Prof. Reissenberger.
Kremsmünster			30.04	762.9	27.7	— 2.4	96	W			6		10			0.299	7.6		Prof. C. Wagner.
Lemberg			29.74	755.4	29.8	— 1.2	92	E			2		6			0.031	0.8		Dr. T. Stanecki.
Nyiregyhaza			29.80	756.9	25.9	— 3.4	95	W			1		0			0	0		Habzsuda Daniel.
Pola			29.75	755.6	46.8	8.2	20	NNE			4		2			0	0		I. R. Hydrographic Office
Szegedin			29.80	756.9	32.0	0.0	89	NW			2		10			0	0		Karl Stancel.
Trieste			29.89	759.3	45.1	7.3	16	E			2		3			0	0		Prof. V. Farolfi.
Vienna			29.89	759.3	30.2	— 1.0	91	W			4		10			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.

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.
Brussels	30.06	763.6			36.9	2.7	78	NNW			1		4		NNW	0.016	0.40		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.31	769.9	32.7	0.4		W	3	1.3			1			0	0		William Boswell.
Annanhill																			
Ardrossan			30.30	769 5	37	3.2		E			1		5						W. H Dunlop.
Armagh Observatory			30.29	769.6	39.7	4.3		SSE	10	5.4			10						William McNeil.
Banbridge																			Stillman Call.
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.33	770.4	38.6	3.7		SE			2		0						
Birr Castle			30.24	768.1	44.0	6.7		SE			1-3		10						The Liverpool Obs.
Bradford			30.29	769.4	38.0	3.3		N			1		0						J. Dreyer.
Bridgetown, (Barbadoes)																			J. Mc. Landsborough.
Bywell																			
Cambridge Observatory			30.36	771.1	38.8	3.8		NW			1		1						
Cape Town, Cape Colony			29.97	761.2	75.2	24.0		NW			4		1						H. Todd.
Cape Good Hope Obs.			30.02	762.5	78.5	25.8	57	S	32	14.3			2						Sgt. D. E. Hunt
Cardington			30.35	770.9	38.0	3.3		NW					4						Th Royal Observatory.
Carlisle			30.34	770.6	36.1	2.3		Calm					0			0	0		John McLaren.
Chatham			30.33	770.4	38.7	3.7		N W			1		9					Fog	T. Bell.
Cochyfoel Farm																			James Conroy.
Colombo, (Ceylon)			29.96	761 0	74.8	23.8		NE			2		4						
Dartmoor			30.35	770.9	39	3.9		E			2		4						Sgt. W. F. Hopkins
Donaghadee			30.29	769.4	42	5.6		S			2		2						R. E. Power.
Dover			30.33	770.4	40	4.4		N			3		7						J. Mac Gowan, Jr.
Dublin																			J. Costello.
Durham Observatory			30.32	770.1	35.5	1.9		N					0					Mist	
Eccles, (near Manchester)			30.35	770.9	36.8	2.7		WNW	0.8	0.4									G. Goldney.
Falmouth Observatory			30.32	770.1	44.8	7.1		SSE	25	11.2			10					Mist	Thomas Mackereth.
Fort Napier, (Natal)			29.84	757.9	85.	29.4		SE			4		4						The Fa mouth Obs.
Galway			30.06	763.5	44	6.7		E			1		10						Pvt. G. Salmon.
Gibraltar, (Mediterranean)			30.20	767.1	64.2	17.9		WSW			4		0					Hail	Queen's College.
Glasgow Observatory			30.30	769.6	29.8	— 1.2		NE			1		10						Sgt. J. Brewster.
Gloucester, the Asylum																			The Glasgow Obs.
Great Yarmouth			30.30	769.6	40	4.4		NW			1		5						F. Toller.
Greenwich Royal Obs			30.36	771.1	36.4	2.4		W			1		8					Fog	G. T. Watson.
Guernsey			30.34	770.6	44	6.7		ESE			1		0						The Royal Observatory.
Halifax, Moorside Obs			30.32	770.1	36.1	2.3		WNW					0						Dr. S. E. Hoskins.
Halifax, (Nova Scotia)			29.87	758.7	14.0	—10.0		NW			3		7					Snow	Moorside Observatory.
Helston			30.27	768.8	49	9.4		ESE			6		5						Corp'l J. Y. Thompson.
Holyhead			30.13	765.3	43	6.1		S W			3		0						W. B. Moyle.
Hull Park																			John Tilston.
Kew Observatory			30.38	771.6	35.8	2.1		WNW	7	3.1			10					Fog	
Kingstown			30.31	769.9	41	5.0		S			2		10					Mist	The Met. Office.
Lampeter																			George Mitchell.
Leicester			30.35	77 .9	40.0	4.4		NE			1		7					Mist	
Llandudno			30.31	769.9	48.0	8.9		W					0						William J. Harrison
Malta, (Mediterranean)			29.95	760.7	59.5	15.3		N W			3		3						Dr. James Nicol.
Markree																			Sergt. E. Dowling.
Marlborough College																			
Moville																			
Nairn			30.28	769.1	35	1.7		Calm			0		0						
Nassau, (Bahamas)			30.25	768.3	71.2	21.8		N			4		9						William D. Penny.
North Shields			30.34	770.6	37	2.8		W			1		0						Surgeon I. Jameson.
Nottingham			30.37	771.4	38	3.3		W			1		2					Fog	John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, (Birmingham)			30.36	771.1	35.8	2.1		N			1		10					Fog	J. R. Mann.
Oxford, Radcliffe Obs			30.35	770.9	35	1.7		Calm			0		10					Fog	St. Mary's College.
Plymouth			30.32	770.1	44	6.7		SE			3		4						Radcliffe Observatory.
Portishead																			John Merrifield.
Prospect, (Bermuda)																			
Roche's Point			30.17	766.3	48	8.9		SE			5		10					Rain	W. Kennedy.
Saint Ann's Head			30.31	769.9	42	5.6		SE			3		8					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.29	769.4	33.3	0.7		NE	1	0.4			0						Rev. Dr. Clouston.
Scarboro'			30.32	770.1	39.0	3.9		N			1		5						F. Heard.
Scutari, (Turkey)			29.77	756.1	50.4	10.2		SE			2		9						W. H. Lyne.
Sheffield			30.24	768.1	40.0	4.4		WSW			1		2						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.33	770.4	36.8	2.7		Calm			0		0			0	0	Mist	Francis Redford.
Somerleyton, (Lowestoft)			30.30	769.7	44.8	7.1		N			1		7						Rev. C. J. Steward.
Stonyhurst Observatory			30.34	770.6	35.2	1.8		NE			1							Haze	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.34	770.6	36	2.2		SW			1		10						John Smith.
Strathfield Turgiss			30.37	771.4	33.5	0.8		SE			1		10						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.22	767.6	35	1.7		N			2								William Lawrence.
Taunton College																			
Thurso			30.27	768.8	39	3.9		SSW			1		0						John Trotter.
Truro, Royal Institution			30.23	767.8	47	8.3		S E			6		7						Royal Institution.
Valencia			30.15	765.8	51.0	10.6		ESE	11	4.9								Mist & Rain	Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.38	771.6	37.0	2.8		N			1		3						S. H. Miller.
York																			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.

DANISH SERIES.

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

Copenhagen			30.02	762.5	24.1	— 4.4	75	NNW			2		2						
Fanöe			30.07	763.9	35.8	2.1	62	SW			4		6						
Godthaab, (Greenland)			29.07	738.3	26.1	— 3.3		E			4		5						
Stykkisholm, (Iceland)			29.69	754.1	37.6	3.1	95	S			4		8						
Thorshavn, (Faröe)			30.20	767.1	38.1	3.4	82	S			2		3						
Vestervig			29.99	761.8	33.8	1.0	81	NNW			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.77	756.1	54.7	12.6	18						2						Normal School.
Alençon			30.35	770.8	43.2	6.2	77	NE			2		5		NNE	0	0		Normal School.
Amiens			30.32	770.0	41.7	5.4	94	NW			4		2		NNW	0	0		Normal School.
Beaumette, (near Angers)			30.33	770.4	41.4	5.2	54	NE	5.8	2.6			5		ENE	0.008	0.2		Beaumette Observatory.
Beauvais			30.34	770.6	39.7	4.3	83	N			2		5		N	0	0		Normal School.
Besançon			30.28	769.0	34.9	1.6	71	N			2		5		NE	0	0		Normal School.
Bourges			30.34	770.7	38.1	3.4	73	NNE			2		8		NNE	0.228	5.8		Normal School.
Brest			30.28	769.2	42.3	5.7	71	SSE			2		10		S	0.386	9.8		Naval Observatory.
Caen			30.37	771.3	41.7	5.4	75	NW			1		8		NE	0	0		Normal School.
Carcassonne																			
Chartres			30.32	770.2	44.4	6.9		N			2		5		N	0	0		Normal School.
Chaumont			30.28	769.1	35.4	1.9		NW			2		7		NW	0	0		Normal School.
Le Mans			30.36	771.2	38.3	3.5	83	N			2		2		NNE	0.063	1.6		Normal School.
Mirecourt			30.15	765.9	37.6	3.1		N			2		10		S	0	0		Normal School.
Orleans			30.35	770.9	39.9	4.4	65	N			2		0			0	0		Normal School.
Paris			30.31	769.8	39.7	4.3	69	NW			2	0	0			0	0	Mist	National Observatory.
Parthenay																			
La Roche sur Yon			30.33	770.4	41.0	5.0	74	N			2		0			0.394	10.0		Normal School.
Rouen			30.34	770.7	42.8	6.0	48	NNE			3		5		N	0	0		Normal School.
Saint Lo			30.33	770.5	41.9	5.5	82	NE			2		5		NE	0.220	0.5		Normal School.
Villefranche			30.27	768.9	39.0	3.9	88	NNW			1		5		N	0.335	8.5		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall
Mont-Louis	24.83	630.6			37.6	3.1	75	NNW	16.0	7.14			5		WNW	0	0		—. Faignère.
Montsouris (near Paris)			30.31	769.9	39.6	4.2	66	N	7.2	3.23			8			0	0		Marié-Davy.
Perpignan	30.02	762.5			50.4	10.2	34	NW	13.1	5.83			5		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.32	770.0	37.6	2.8	73	N			1		7			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.34	770.6	40.6	4.8	76	ENE			1		5		ENE	0.217	5.5		C. Marquet.
Tunis, (Africa)			29.91	759.8	60.1	15.6	57	NW			5		8			0.028	0.7	Rain	—. Jacques.
Versailles, (near Paris)			30.32	770.1	39.6	4.2	67	NE			1		8			0	0		Dr. A. Bérigny.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.11	764.9	29.3	— 1.5	75	W			7		6			0.051	1.3	Snowing	Prof. Hoh.
Berlin			30.15	765.7	29.3	— 1.5	68	NW			2		10			0.043	1.1	Snowing	Prof. Arndt.
Breslau			29.86	758.5	28.2	— 2.1	98	NW			6		10			0.114	2.9	Snowing	Dr. P. Neugebauer.
Carlsruhe			30.21	767.4	32.4	0.2	77	N			1		10			0.031	0.8	Snowing	A. Leuz.
Cassel			30.09	764.3	33.7	0.4	85	NW			5		4			0	0		Dr. H. Mohl.
Cassel			30.22	767.5	33.8	1.0	77	NW			5		6			0.059	1.5		Dr. Gaithe.
Cologne			30.28	769.2	35.1	1.7	84	NW			1		1			0	0		Prof. Prestel.
Emden			30.31	769.8	34.2	1.2	77	N			2		5			0	0		Physical Society.
Frankfort on the Main			30.20	767.0	29.3	— 1.5	90	N					9			0.083	2.1	Snowing	M. Wilhelm.
Friedrichshafen			30.18	766.5	33.3	0.8	64	N			3		7			0	0		W. Reinart.
Hamburg			30.08	764.1	32.5	0.3	64	NNW			3		5			0	0		Prof. G. Karsten.
Kiel			29.85	758.3	26.6	— 3.0	84	NE			2		10			0.067	1.7	Snowing	Prof. E. Luther.
Königsberg			30.19	766.9	27.5	— 2.5		N			2		10			0.059	1.5		Dr. Tägert.
Köslin			30.12	765.0	26.6	— 3.0	85	N			4		9			0	0	Snowing	Prof. Bruhns.
Leipsic			30.19	766.8	38.3	3.5	71	N			1		4			0	0	Snowing	Prof. J. Heis.
Münster			29.83	757.6	30.7	— 0.7	86	N			6–7		10			0.072	1.8		Dr. Mage er.
Posen			30.22	767.5	34.2	1.2	81	NE					6			0.028	0.7		Hartwig and Fulk.
Strassburg, (in Alsace)			30.20	767.1	30.2	— 1.0	68	NE					5			0.024	0.6	Snowing	Mr. Wurth.
Stuttgart			29.81	757.3	30.9	— 0.6	74	N			5		10			0	0		Dr. Hasenbalg.
Thorn			30.19	766.8	35.1	1.7	55	NE			6		8			0	0		Prof. Flesch.
Treves, (Trier)			30.08	764.1	26.2	— 3.2	83	N			2		7						E. F. Schutz.
Wustrow																			

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.91	759.8	44.1	6.7	32	SE	0.7	0.3			1			0	0		
Mondovi			29.92	760.0	41.5	5.3	24	WSW			2		0			0	0		
Genoa			29.87	758.7	50.9	10.5	16	NW	1.8	0.8			0			0	0		
Pavia			29.87	758.8	47.7	8.7	12	NW			8		0			0	0		
Verona																			
Padua			29.81	757.2	44.1	6.7	34	SSE	4.3	1.9			9			0	0		
Parma																			
Bologna			29.87	758.7	43.2	6.2	36	W			4		2			0	0		
Urbino																			
Ancona																			
Florence																			
Siena			29.78	756.5	43.0	6.1	27	N	13.0	5.8			3	N		0	0		
Livorno																			
Rome			29.62	752.3	40.6	4.8	70	NNW			8		9	NE		0.106	2.7	Rain	
Naples, O.U			29.53	750.1	55.0	12.8	56	WNW			6		7	NW		0.323	8.2	Rain	
Naples, S. R																			Prof. F. Brioschi.
Lecce			29.62	752.3	54.6	12.4	73	WSW	26.2	11.7			9						
Cosenza			29.62	752.3	52.3	11.3	72	NW			8		10			0.472	12.0	Hail & rain	
Catania, (Sicily)			29.78	756.3	58.1	14.5	48	W			6		0	W					
Riposto																			
Palermo			29.73	755.2	59.4	15.2	40	WSW			8		9	WSW				Rainy	

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.

NETHERLANDS SERIES.

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

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.
Flushing			30.31	769.9	40.3	4.6		NNE			3								
Groningen			30.14	765.5	36.9	2.7		NW			2								
Helder			30.23	767.8	39.7	4.2		NNW			4								
Utrecht			30.19	766.9	40.3	4.6		WNW			3		5						

NOTE.—The originals give the force 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.

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.
Bergen			30.09	764.2	37.4	3.0	87	NNW	23.5	10.5			10			0	0		
Christiania			29.96	761.1	20.7	— 6.3	79	WSW	4.3	1.9			8			0	0	Fog	
Tromsö			30.05	763.2	16.2	— 8.8	82	SE			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.93	760.2			53.1	11.7	94	NE	1.3	0.6			10						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.76	755.8	30.0	— 1.1	86	SW	4	2			9						Astronomical Obs.
Wilna			29.74	755.5	32.0	0.0	96	S	4	2			10						Astronomical Obs.
Dorpat			29.78	756.4	27.5	— 2.5	90	N	2	1			10						Physical Cabinet.
St. Petersburg			29.79	756.7	26.8	— 2.9	94	ESE	7	3			10					Snow	Central Physical Obs.
Kieff			29.87	758.8	28.8	— 1.8	94	SE	4	2			10					Light snow	Physical Cabinet.
Nikolaiev			29.92	760.0	34.5	1.4	85	SE	10.1	4.5			7						
Kertch			29.88	759.0	38.8	3.8	82	S	2	1			9						Lagorio.
Moscow			30.09	764.2	16.0	— 8.9	81	SSE	7.8	3.5			0						Meteorological Obs.
Lugan			29.85	758.3	30.2	— 1.0	84	E	7.8	3.5			10						Meteorological Obs.
Archangel			30.17	766.3	17.2	— 8.2	94	ESE	4	2			10					Snow	Ogorodnikof.
Tiflis			29.87	758.7	51.8	11.0	46	SW	7.8	3.5			5						Physical Observatory.
Astrakhan			30.12	765.0	36.9	2.7	67	E	4	2			3						Sebastianof.
Kasan			30.32	770.1	10.0	—12.2	85	S					6						Physical Cabinet.
Orenburg			30.44	773.1	10.0	—12.2	93	NE	4	2			0						Tschernischef.
Ekaterinburg			30.61	777.4	21.2	— 6.0	69	Calm	0	0			1						Meteorological Obs.
Kasaly			30.19	766.8	17.8	— 7.9	80	ENE	7.8	3.5			0						Bobrof.
Tashkend			30.25	768.4	41.2	5.1	74	Calm	0	0			5						Michelson.
Barnaul			30.64	778.2	— 7.4	—21.9	81	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.50	774.7	0.1	—17.7	74	E	4	2			0						Varks.
Irkutsk			30.62	777.8	—19.7	—28.7	81	NW					0						Usolzef.
Oorga			30.89	784.5	—18.2	—27.9	88	Calm	0	0			0						Mossin.
Peking, (China)			30.43	772.8	19.6	— 6.9	25	NNE	13	6			0						Physical Observatory.
Nertchinsk			30.36	771.1	— 8.7	—22.6	80	NW	7.8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 2.6	—19.2		W	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.

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.
Madrid			30.25	768.3	51.8	11.0	59	S	2.2	1.00		2				0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	762.9	7.5	—13.6	83	N			2		1			0	0		Dr. Hildebrandsson.
Hernosand			30.02	762.4	0.7	—12.4	85	NE			2		8			0	0		
Upsala			29.94	760.6	14.7	— 9.6	78	Calm			0		5						
Stockholm			29.90	759.4	16.7	— 8.5	79	N			2		5			0.004	0.1		
Wisby			29.96	760.9	22.6	— 5.2	90	NE			4		10			0.012	0.3		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.72	729.6			35.6	2.0	65	NNE			2		4			0	0		The Observatory.
Zurich	28.40	723.0			29.8	—1.2	63	NW			1		6			0	0		Prof. B. Billwiller.

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)			29.97	761.3	62.3	11.3	80	W			2		10					Rain	
Constantinople			29.78	756.5	47.8	8.8	59	SSE	9	4			10		SW	0	0		
Fao, (Persian Gulf)			30.10	765.5	64.4	18.0		NW			3		0						
Salonica			29.74	755.4	47.8	8.8		S			1		10						
Valona			29.53	750.0	54.3	12.4		S			3		10						
Varna			29.80	757.0	39.2	4.0		N			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.51	749.5	2	—16.7	72	NW	15	6.7		0	0			0	0		
Chatham, N. B.			29.77	756.1	— 2	—18.9	83	W	16	7.2		0	0			0	0		
Charlottetown, P. E. Island			29.77	756.1	6	—14.4	88	SW	8	3.6		0	5		W	0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.42	772.7	—20	—28.9	95	NW	8	3.6		0	0			0	0		
Halifax, N. S.			29.79	756.7	13	—10.6	85	W	8	3.6			10		W	0.03	0.8		
Kingston, Ontario			30.35	770.9	5	—15.0	88	SW	3	1.3		8	2	W		0	0		
Montreal, Quebec			30.20	767.1	— 2	—18.9	68	W	26	11.6		0	2			0.01	0.2		
Ottawa, Ontario			30.26	768.6	—14	—25.6	73	W	4	1.8		0	0			0	0		
Parry Sound, Ontario			30.32	771.1	— 3	—19.4	76	NW	6	2.7		2	2	W	W	0.05	1.3		
Port Dover, Ontario			30.47	773.9	1	—17.2	94	W	12	5.4		5	0	W		0	0		
Port Stanley, Ontario			30.49	774.4	— 1	—18.3	100	W	12	5.4		2	0	W		0	0		
Quebec, Quebec			30.06	763.5	11	—23.9	52	W				0	0			0	0		
Saugeen, Ontario			30.37	771.4	8	—13.3	78	W	10	4.5			10			0.10	2.5	Light snow.	
Sydney, C. B.			29.76	755.9	11	—11.7	68	W	8	3.6			0			0.10	2.5		
Toronto, Ontario			30.43	772.9	0	—17.8	76	W	12	5.4		5	5	NW	NW	0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.33	770.4	11	—11.7	60	W	6	2.7		5	5	W	W	0	0		
Alpena, Mich.			30.39	771.9	—11	—23.9	76	Calm	0	0		2	0			0	0		
Atlantic City, N. J.			30.52	775.2	13	—10.6	61	W	14	6.3		2	0	W		0	0		
Augusta, Ga.			30.64	778.2	25	— 3.9	75	NW	6	2.7		5	0	NW		0	0		
Baltimore, Md.			30.55	776.0	17	— 8.3	51	NW	4	1.8		0	0			0	0		
Barnegat, N. J.			30.42	772.7	10	—12.2	44	W	16	7.2		0	0			0	0		
Benton, Montana			30.47	773.9	— 1	—18.3	100	NE	4	1.8			10			0	0		
Bismarck, Dakota			30.62	777.7	11	—11.7	52	N	3	1.3		2	0	NW		0	0		
Boston, Mass.			30.25	768.3	10	—12.2	69	W	15	6.7		0	0			0	0		
Breckenridge, Minn.			30.41	772.4	— 7	—21.7	100	NW	12	5.4		0	10			0.01	0.2	Sleet	
Buffalo, N. Y.			30.47	773.9	3	—16.1	100	W	20	8.9		0	5		W	0.02	0.5		
Burlington, Vt.			30.23	767.8	5	—15.0	75	Calm	0	0		0	2			0	0		
Cairo, Ill.			30.78	781.8	13	—10.6	80	Calm	0	0		0	Haze			0	0		
Cape Hatteras, N. C.			30.52	775.2	29	— 1.7	59	N	14	6.3		5	0			0	0		
Cape Henry, Va.			30.57	776.5	46	— 3.3	63	NW	18	8.0		0	0			0	0		
Cape May, N. J.			30.53	775.4	16	— 8.9	50	NW	16	7.2		0	0			0	0		
Charleston, S. C.			30.56	776.2	31	— 0.6	48	N	10	4.5		5	5	N		0	0		
Cheyenne, W. T.			30.02	762.5	26	— 3.3	67	W	8	3.6			10		W	0	0		
Chicago, Ill.			30.59	777.0	— 1	—18.3	68	SE	6	2.7		0	0			0	0		
Cincinnati, Ohio			30.76	781.3	9	—12.8	40	W	8	3.6			10			0	0		
Cleveland, Ohio			30.55	776.0	3	—16.1	86	SW	12	5.4		0	2			0	0		
Colorado Springs, Col.			30.09	764.3	12	—11.1	80	N	5	2.2		0	0			0	0		
Corsicana, Texas			30.68	779.3	31	— 0.6	80	E	4	1.8			10		E	0	0		
Davenport, Iowa			30.58	776.7	2	—16.7	86	S	4	1.8			10			0	0		
Denver, Col.			30.14	765.5	17	— 8.3	51		7	3.1		0	0			0	0		
Detroit, Mich.			30.54	775.7	— 2	—18.9	67	SW	11	4.9		2	Haze			0	0		
Dodge City, Kansas			30.19	766.8	19	— 7.2	69	SW	3	1.3		0	0			0	0		
Dubuque, Iowa			30.56	776.2	— 5	—20.6	63	NW	4	1.8			10			0	0		
Duluth, Minn.			30.35	770.9	— 6	—21.1	81	SW	4	1.8			10			0	0		
Eastport, Me.			30.02	762.5	0	—17.8	70	NW	16	7.2		0	0			0.01	0.2		
Erie, Penn.			30.51	774.9	4	—15.6	87	W	20	8.9		Haze	2			0	0		
Escanaba, Mich.			30.39	771.9	— 9	—22.8	78	S	6	2.7			10			0	0		
Fort Gibson, I. T.			30.66	778.7	20	— 6.7	60	E	10	4.5		0	2			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.50	774.7	— 7	—21.7	61	NW	4	1.8			10		NW	0	0		
Galveston, Texas			30.61	777.5	37	2.8	71	NE	16	7.2			10		NE	0.02	0.5	Threatening	
Grand Haven, Mich.			30.48	774.2	14	—10.0	81	W	18	8.0			10		NW	0	0		
Indianapolis, Ind.			30.71	780.0	8	—13.3	67	SW	6	2.7		0	Sm'e			0	0		
Indianola, Texas			30.55	776.0	40	4.4	73	NE	28	12.5			10		W	0.03	0.8		
Jacksonville, Fla.			30.56	776.2	36	2.2	45	NW	8	3.6			10			0	0		
Keokuk, Iowa			30.56	776.2	9	—12.8	57	S	5	2.2		5	2	NW		0	0		
Key West, Fla.			30.27	768.8	66	18.9	79	NE	20	8.9		Haze	10		NE	0	0		
Kittyhawk, N. C.			30.80	782.3	23	— 5.0	37	N	10	4.5		5	0	NW		0	0		
Knoxville, Tenn.			30.77	781.5	9	—12.8	78	Calm	0	0		2	0			0	0		
La Crosse, Wis.			30.46	773.7	— 6	—21.1	61	S	8	3.6			10			0	0		
Leavenworth, Kan.			30.51	774.9	15	— 9.4	83	S	6	6.7		0	0			0	0		
Lexington, Ky.			30.83	783.1	12	—11.1	61	W	5	2.2		0	0			0	0		
Long Branch, N. J.			30.42	772.7	12	—11.1	61	NW	8	3.6		0	0			0	0		
Louisville, Ky.			30.72	780.3	8	—13.3	78	SW	4	1.8		0	Fog			0	0		
Lynchburg, Va.			30.64	778.2	15	— 9.4	81	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.35	770.9	— 8	—22.2	79	Calm	0	0			10			0	0		
Memphis, Tenn.			30.76	781.3	17	— 8.3	52	Calm	0	0		2	0			0	0		
Milwaukee, Wisconsin			30.58	776.7	—12	—24.4	75	W	7	3.1		2	0	SW		0	0		
Mobile, Ala.			30.63	778.0	28	— 2.2	57	NE	14	6.3		10	0	NW		0	0		
Montgomery, Ala.			30.71	780.0	23	— 5.0	66	N	8	3.6		5	Sm'e			0	0		
Morgantown, W. Virginia			30.66	778.7	8	—22.2	78	SW	13	5.8		0	0			0	0		
Mt. Washington, N. H.			29.37	746.0	—19	—28.3	100	NW	24	10.7			Fog			0	0		
Nashville, Tenn.			30.78	781.8	13	—10.6	62	N	2	0.9		2	0			0	0		
New Haven, Conn.			30.40	772.1	15	— 9.4	64	W	10	4.5		0	2		W	0	0		
New London, Conn.			30.38	771.6	12	—11.1	53	W	11	4.9		0	0			0	0		
New Orleans, La.			30.62	777.7	34	1.1	43	NE	8	3.6		10	0	SW		0	0		
Newport, R. I.																			
New York, N. Y.			30.49	774.4	10	—12.2	58	W	16	7.2		0	0			0	0		
Norfolk, Va.			30.58	776.7	21	— 6.1	57	N	9	4.0		0	0			0	0		
North Platte, Neb.			30.11	764.8	7	—13.9	77	W	5	2.2		0	5		W	0	0		
Omaha, Neb.			30.38	771.6	9	—12.8	89	S	2	0.9		2	0			0	0		
Oswego, N. Y.			30.36	771.1	12	—11.1	80	SW	24	10.7			10			Blank	Blank	Light snow	
Peck's Beach			30.53	750.0	15	— 9.4	50	NW	20	8.9		0	0			0	0		
Pembina, D. T.			30.48	774.2	—13	—30.6		NW	8	3.6		5	0			0	0		
Philadelphia, Penn.			30.55	776.0	12	—11.1	61	NW	20	8.9		0	0			0	0		
Pike's Peak, C. T.												0	0			0	0		
Pittsburgh, Penn.			30.64	778.2	0	—17.8	69	W	7	3.1		0	Haze			0	0		
Port Huron, Mich.			30.52	775.2	— 1	—18.3	84	SW	12	5.4		5	5	SW		0	0		
Portland, Maine			30.13	765.3	9	—12.8	57	Calm	0	0		Haze	0			0	0		
Portland, Or.			30.28	769.1	30	— 1.1	78	N	1	0.5		2	2			0	0		
Punta Rassa, Fla.			30.39	771.9	49	9.4	64	N	18	8.0		2	8		NE	0	0		
Rochester, N. Y.			30.41	772.4	5	—15.0	75	W	20	8.9		0	8			0.10	0.2		
Salt Lake City, Utah			30.23	767.8	24	— 4.4	48	E	2	0.9		0	0						
Sandy Hook, N. J.			30.47	773.9	12	—11.1	61	W	25	11.2		2	Haze	NW		0	0		
San Diego, Cal.			30.09	764.3	51	10.6	48	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.19	766.8	49	9.4	82	N	6	2.7		0	0			0	0		
Santa Fe, N. M.			29.86	758.4	16	— 8.9	49	N	4	1.8		0	0			0	0		
Savannah, Georgia			30.58	776.7	32	0.6	41	NW	8	3.6			10			0	0		
Shreveport, La.			30.71	780.0	95	— 3.9	78	NE	4	1.8		0	0			0	0		
Springfield, Mass.			30.35	770.9	12	—11.1	61	SW	4	1.8		2	0	N		0.03	0.8		
St. Louis, Mo.			30.72	780.3	10	—12.2	79	S	8	3.6		0	0			0	0		
St. Marks, Fla.			30.56	776.2	30	— 1.1	79	N	12	5.4			10		W	0.05	1.3		
St. Paul, Minn.			30.29	769.4	—12	—24.4	75	E	4	1.8			10			0	0		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.50	774.7	12	—11.1	44	W	8	3.6		0	Haze			0	0		
Toledo, Ohio			30.61	775.5	3	—16.1	46	SW	12	5.4		5	0	W		0	0		
Tybee Island, Ga.			30.60	777.2	31	— 0.6	69	N	12	5.4		2	8	NW		0	0		
Vicksburg, Miss.			30.79	782.1	22	— 5.6	72	Calm	0	0		0	2			0	0		
Virginia City, Mon.			29.81	757.2	16	— 8.9	83	Calm	0	0		5				0	0		
Washington, D. C.			30.59	777.0	13	—10.6	61	NW	12	5.4		0	0			0	0		
Wilmington, N. C.			30.59	777.0	25	— 3.9	38	N	12	5.4		5	2	W	W	0	0		
Wood's Hole, Mass.			30.34	770.6	13	—10.6	62	NW	19	8.5		0	0			0	0		
Wytheville, Va.			30.51	774.9	5	—15.0	75	W	4	1.8		0	0			0	0		
Yankton, D. T.			30.39	771.9	1	—17.2	71	N	1	0.5		2	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. Metres 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	80	26.7		NE	9	4.0		0	5			0	0		
Point-a-pitre, G'd'loupe, "			30.08	764.0	72	22.2		NE				5	0			0.03	0.8		
Havana, Cuba, W. I.			30.04	763.0	73	22.8	90	N	4	1.8		5	5	E		0.74	18.8		
Kingston, Jamaica, W. I.			30.29	769.4	73	22.8	90	Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.98	761.7	71	21.7	81	NW	6	2.7		0	2		NW	0	0		
St. Georges, Bermudas			30.25	768.3	66	18.9	84	NW	22	9.8		0	10			0.004	0.1		
Honolulu, Sandwich Is.			29.94	760.5	69	20.6		S	2	0.9		5	5	S		0	0		
Makawao, Sandwich Is.	27.59	700.8			60	15.6	100	S	2	0.9			10			0.20	5.1		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.20	767.1	—34	—36.7		W	14	6.3		Haze	8			0	0		
St. Johns, Newfoundland			29.64	752.8	28	— 2.2	100	W				5	5			0.55	13.9		John Delaney.
St. Johns, Porto Rico, W. I.			30.19	766.9	73.6	23.1	82	E			3	2	0			0.118	3.00		Leon M. Acuna.
Ellyria, Ohio	29.67	753.6			2	—16.7		SW	12			0	0			0	0		H. M. Redington.
Indianola, Iowa	29.54	750.3			9	—12.8		SW				0	2			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.30	769.6															Charnot.
Algiers			30.17	766.2	57.2	14.0	67	W			1		2			0	0		Peter.
La Calle			30.10	764.5															Kuntz.
Tunis			30.03	762.7	53.6	12.0	49	NNW			6		8			0	0		Jacques.
Sfax																			Chauvey.
Saïda			30.26	768.7	57.2	14.0		NW			2		1			0	0		Grosjean.
Tebessa			30.10	764.6															Colin.
Geriville			30.24	768.1	48.6	9.2		SE			2		1			0	0		Bernadach.
Laghouat			30.17	766.4	56.3	13.5	25	NW			3		0			0	0		Poinsignon.
Biskra			30.12	765.0	56.3	13.5		NW			5		2			0	0		Coulon.

Reports for this date not received.

AUSTRIAN SERIES.

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

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.
Agram			29.93	760.2	32.9	0.5	58	SW			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth			29.80	756.9	28.2	— 2.1	71	NW			6		2			0	0		I. R. Cen. M. I., Hungary
Cracow			29.95	760.8	23.0	— 5.0	80	WNW			3		10			0	0		I. R. Observatory.
Eperies			29.80	756.8	27.0	— 2.8	71	N			2		10			0.054	1.36		Julius Mikolik.
Gratz			29.93	760.2	30.0	— 1.1	76	SSW			2.5		5			0	0		Andreas Rospini.
Hermannstadt			29.55	750.6	28.2	— 2.1	94	WNW			3		10			0.598	15.20	Snow	Prof. Reissenberger.
Kremsmünster			29.66	763.4	25.5	— 3.6	87	W			5		7			0.055	1.4		Prof. C. Wagner.
Lemberg			29.71	754.6	25.0	— 3.9	97	N			3		10			0.031	0.8		Dr. T. Stanecki.
Nyiregyhaza			29.69	754.2	28.0	— 2.2	92	N			6		10			0.072	1.80		Habzsuda Daniel.
Pola			29.92	760.0	40.3	4.6	32	W			1		9			0	0		I. R. Hydrographic Office
Szegedin			29.73	755.2	29.8	— 1.2	92	W			2		9			0	0		Karl Stancel.
Trieste			29.93	760.3	38.8	3.8	41	NE			1		10			0	0		Prof. V. Farolfi.
Vienna			29.99	761.8	26.1	— 3.3	93	N			2		9			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.

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.
Brussels	30.07	763.9			38.8	3.8	86	NW			1		8		NNW	0.96	2.45		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.17	766.3	35.0	1.7		S	8	3.6			9			0	0	Mist	William Boswell.
Annanhill																			
Ardrossan			30.15	765.8	38	3.3		ENE			2		8						W. H Dunlop.
Armagh Observatory			30.16	766.1	46.3	7.9		SSW	3	1.3			10					Fog	William McNeil.
Banbridge																		Rainy	Stillman Call.
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.22	767.6	38.0	3.3		SE			2		10					Mist	The Liverpool Obs.
Birr Castle			30.16	766.1	50.5	10.3		SW			1		10						J. Dreyer.
Bradford			30.20	767.1	37.5	3.1		N			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.30	769.6	36.0	2.2		SW			1		4						H. Todd.
Cape Town, Cape Colony			29.86	758.4	91.2	32.9		NW			2		0						Sgt. D. E. Hunt
Cape Good Hope Obs			29.80	756.9	95.3	35.2	30	SE	16	7.1			2						The Royal Observatory.
Cardington			30.31	769.6	37.4	3.0		W					8						John McLaren.
Carlisle			30.20	767.1	37.1	2.8		S					10			0	0	Rain	T. Bell.
Chatham			30.30	769.6	35.5	1.9		NE			1		10					Fog	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	73.5	23.1		NE			2		2						Sgt. W. F. Hopkins
Dartmoor			30.34	770.6	42	5.6		S			2		10					Fog & Rain.	R. E. Power.
Donaghadee			30.16	763.5	46	7.8		S			3		10					Rain	J. Mac Gowan, Jr.
Dover			30.32	770 1	40	4.4		WNW			1		3						J. Costello.
Dublin																			
Durham Observatory			30.23	767.8	34.2	1.2		SW					10					Light rain	G. Goldney.
Eccles, (near Manchester)			30.25	768.3	37.9	3.3		W	1.8	0.9			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.28	769.1	49.3	9.6		SSW	19	8.5			10					Fog	The Falmouth Obs.
Fort Napier, (Natal)			29.98	761.5	75.0	23.9		SE			4		10						Pvt. G. Salmon.
Galway			30.11	764.8	46	7.8		NW			1		2						Queen's College.
Gibraltar, (Mediterranean)			30.15	763.3	61.5	16.4		WSW			2		3						Sgt. J. Brewster.
Glasgow Observatory			30.15	763.3	36.2	2.3		NE			1		10					Fog.	The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.30	769.6	31	— 0.6		W			1		10						G. T. Watson.
Greenwich Royal Obs			30.31	769.9	39.6	4.2		W			1		10					Fog	The Royal Observatory.
Guernsey			30.32	770.1	47	8.3		SSW			1		7					Snow	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.23	767.8	35.4	1.9		Calm			0		10					Rain	Moorside Observatory.
Halifax, (Nova Scotia)			30.10	764.5	12.1	—11.0		Calm			0		10					Rain & Mist.	Corp'l J. Y. Thompson.
Helston			30.27	768.8	51	10.6		SSW			3		10						W. B. Moyle.
Holyhead			30.17	766.3	45	7.2		SSW			3		10						John Tilston.
Hull Park																			
Kew Observatory			30.33	770.4	35.7	2.1		W	2	0.9			9					Mist	The Met. Office.
Kingstown			30.18	766.6	48	8.9		S			1		9					Mist	George Mitchell.
Lampeter																			
Leicester			30.28	769.1	32.0	0.0		SW			1		10					Mist	William J. Harrison
Llandudno			30.19	766.8	46.1	7.8		SW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.94	760.5	54.0	12.2		NW			2		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.14	765.5	33	0.6		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.26	768.6	67.8	19.9		NE			5		9					Rain	Surgeon I. Jameson.
North Shields			30.25	768.3	37	2.8		SW			1		7					Fog	John Wm. Irvine.
Nottingham			30.30	769.6	35	1.7		SE			1		10					Fog	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.28	769.1	36.3	2.4		S			1		10					Rain & Fog	St. Mary's College.
Oxford, Radcliffe Obs			30.29	769.4	37	2.8		Calm			0		10					Mist	Radcliffe Observatory.
Plymouth			30.29	769.4	47.5	8.6		S			1		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.17	766.3	50	10.0		SW			4		10						W. Kennedy.
Saint Ann's Head			30.22	767.6	47	8.3		S			3		10					Fog	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.12	765.0	35.9	2.2		SSE	17	7.6			8						Rev. Dr. Clouston.
Scarboro'			30.26	768.6	36.6	2.6		SW			1		8						F. Heard.
Scutari, (Turkey)			29.51	749.5	49.6	9.8		S			2		10					Rain	W. H. Lyne.
Sheffield			30.29	769.4	39.2	4.0		Calm			0		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.22	767.6	35.8	2.1		N			1		10			0.195	4.95	Rain & Fog	Francis Redford.
Somerleyton, (Lowestoft)			30.28	769.1	31.0	— 0.6		N			1		0					Fog	Rev. C. J. Steward.
Stonyhurst Observatory			30.23	767.8	35.9	2.2		NE			1		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.06	763.5	41	5.0		SW			2		10					Rain	John Smith.
Strathfield Turgiss			30.30	769.6	38.3	3.5		S			1		10						Charles H. Griffith.
Streatley Vicarage			30.35	770.8	36.5	2.5		NNW			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.15	765.8	38	3.3		SSW			3								William Lawrence.
Taunton College																			
Thurso			30.12	765.0	36	2.2		SSE			2		8						John Trotter.
Truro, Royal Institution			30.18	766.6	51	11.1		SW			6		10					Rain	Royal Institution.
Valencia			30.19	766.8	49.0	9.4		N	11	4.9			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.33	770.4	41.8	5.4		S			1		10						S. H. Miller.
York																			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.

DANISH SERIES.

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

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.
Copenhagen			30.29	769.3	16.9	— 8.4	91	N			2		2						
Fanöe			30.33	770.5	26.2	— 3.2	67	E			2		1						
Godthaab, (Greenland)			28.76	730.6	26.1	— 3.3		S			4		10					Snow	
Stykkisholm, (Iceland)			29.28	743.6	37.8	3.2	93	SE			7		10					Rain	
Thorshavn, (Faröe)			30.00	762.0	42.8	6.0	91	Calm			0		7						
Vestervig			30.34	770.7	24.1	— 4.4	86	E			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.93	760.3	53.1	11.7	50						2						Normal School.
Alençon			30.38	771.6	43.5	6.4	54	W			2		2		SE	0.669	17.0		Normal School.
Amiens			30.37	771.3	43.5	6.4	91	NW			1		2			0	0		Normal School.
Beaumette, (near Angers)			30.39	771.8	43.2	6.2	51	W	2.7	1.2			0		N	0	0		Beaumette Observatory.
Beauvais			30.37	771.5	40.1	4.5	74	NW			1		5		NW	0	0		Normal School.
Besançon			30.36	771.2	32.0	0.0		S			2		8		SE	0	0		Normal School.
Bourges			30.40	772.2	39.7	4.3	65	NNW			2		2		NNW	0	0		Normal School.
Brest			30.27	768.8	48.0	8.9	83	SSW			2		10		SW	0	0		Naval Observatory.
Caen			30.29	771.8	40.8	4.9	77	SW			1		1			0	0		Normal School.
Carcassonne																			
Chartres			30.36	771.2	40.6	4.8		NW			1		0			0	0		Normal School.
Chaumont			30.34	770.7	34.9	1.6		NW			4		5		NW	0	0		Normal School.
Le Mans			30.44	773.2	37.0	2.8	79	SE			2		0			0	0		Normal School.
Mirecourt			30.21	767.3	36.7	2.6		WNW			2		10			0	0		Normal School.
Orleans			30.44	772.4	39.9	4.4	62	NE			2		2		N	0	0		Normal School.
Paris			30.35	771.0	40.3	4.6	69	NW			2		10		N	0	0		National Observatory.
Parthenay																			
La Roche sur Yon			30.33	772.8	42.8	6.0	56	N			2		0			0	0		Normal School.
Rouen			30.39	771.9	40.8	4.9	96	WSW			2		10			0	0		Normal School.
Saint Lo			30.39	771.8	43.2	6.2	81	W			2		5		W	0	0		Normal School.
Villefranche			30.37	771.4	38.7	3.7	90	NNW			6		5		N	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			
Mont-Louis	24.88	631.9			35.6	2.0	27	NE	4.6	2.08			2		WSW	0	0		Père Pascall
Montsouris (near Paris)			30.35	771.0	39.4	4.1	84	WNW	1.3	0.60			10		WNW	0	0		—. Falguère.
Perpignan	30.07	763.9			45.7	7.6	42	WNW	13.0	5.83			1			0	0		Marié Davy.
Saint Maur, (near Paris)			30.36	771.2	40.6	4.8	70	NNW			1		10			0	0		Dr. Fines.
Saint Pierre, (Martinique)																			E. Renou.
Tours			30.36	771.1	40.3	4.6	69	NNE			1		2		NNE	0	0		C. Marquet.
Versailles, (near Paris)			30.35	771.0	40.6	4.8	71	NW			1		7			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.21	767.3	30.9	— 0.6	75	W			1		0			0.043	1.1		Prof. Hoh.
Berlin			30.25	768.4	28.4	— 2.0	84	SW			1		2			0.055	1.4		Prof. Arndt.
Breslau			30.09	764.2	25.0	— 3.9	83	N			3		10			0	0	Snowing	Dr. P. Neugebauer.
Carlsruhe			30.23	767.8	37.4	3.0	53	N			1		7			0.031	0.8	Snowing	A. Leuz.
Cassel			30.16	766.1	32.0	0.0	83	NW			4		8			0	0		Dr. H. Mohl.
Cologne			30.24	768.1	37.4	3.0	83	NNW			3		9			0	0		Dr. Gaithe.
Emden			30.30	771.0	28.2	— 2.1	78	NE			2		6			0	0		Prof. Prestel.
Frankfort on the Main			30.31	769.9	37.4	3.0	62	NNE			2		4			0.004	0.1		Physical Society.
Friedrichshafen			30.17	766.3	28.4	— 2.0	100	W					10			0.035	0.9	Snowing	M. Wilhelm.
Hamburg			30.31	769.8	29.7	— 1.3	66	NE			3		8			0.016	0.4		W. Reinart.
Kiel			30.30	769.5	29.7	— 1.3	73	NE			5		10			0	0		Prof. G. Karsten.
Königsberg			30.18	766.6	18.1	— 7.7	86	NE			2		2			0	0		Prof. E. Luther.
Köslin			30.42	772.6	28.2	— 2.1		NE			2		10			0.075	1.9		Dr. Tägert.
Leipsic			30.20	767.1	27.0	— 2.8	83	NE			2		9			0	0	Snowing	Prof. Bruhns.
Münster			30.25	768.3	33.6	0.9	81	N			1		4			0	0		Prof. E. Heis.
Posen			30.10	764.6	27.3	— 2.6	72	N			5		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.23	767.9	37.0	2.8	74	N					5			0	0		Hartwig and Full
Stuttgart			30.22	767.6	34.3	1.3	65	NE					3			0.083	2.1	Snowing	Mr. Wurth.
Thorn			30.09	764.2	24.8	— 4.0	63	NNE			5		3			0	0		Dr. Havenbalg.
Treves, (Trier)			30.20	767.2	35.4	1.9	93	S			2		9			0.520	13.2		Prof. Flesch.
Wustrow			30.29	769.3	23.0	— 5.0	90	N			2		8						E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	761.0	41.0	5.0	32	SE	0.8	0.3			1			0	0		
Mondovi			29.98	761.5	37.9	3.3	47	NW			2		1	NNW		0	0		
Genoa			29.97	761.3	50.7	10.4	20	NW	0.8	0.3			2			0	0		
Pavia			29.97	761.3	42.3	5.7	31	W			8		0			0	0		
Verona																			
Padua			29.87	758.7	43.2	6.2	23	WSW	6.9	3.1			9			0	0		
Parma																			
Bologna			30.02	762.6	42.8	6.0	39	W			4		2	W		0	0		
Urbino																			
Ancona																			
Florence																			
Siena			29.96	761.0	41.2	5.1	33	W	0.8	0.3			0			0	0		
Livorno																			
Rome			29.98	761.6	42.3	5.7	27	N			4		0			0	0		
Naples, O.U.			29.94	760.5	43.5	6.4	43	NE			2		3	N		0	0		
Naples, S. R.																			
Lecce																			Prof. F. Brioschi.
Cosenza			29.82	757.1	42.1	5.6	47	NNE	21.1	9.44			6			0	0	Snow	
Catania, (Sicily)			29.87	758.7	42.6	5.9	74	NW			4		2			0	0		
Lipposto			29.92	759.9	48.2	9.0	48	NW			4		2	NW		0	0		
Palermo			29.89	759.3	48.7	9.3	48	N			8		9	N		0.012	0.3		

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.

NETHERLANDS SERIES.

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

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.
Flushing			30.32	770.1	41.4	5.2		NE			2								
Groningen			30.24	768.2	32.0	0.0		ENE			2								
Helder			30.27	768.9	38.1	3.4		ENE			2								
Utrecht			30.23	767.8	39.7	4.3		N			3		8						

NOTE.—The originals give the force 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.

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.
Bergen			30.31	769.8	32.0	0.0	81	S	15.4	6.9			10			0	0		
Christiania			30.42	772.7	12.4	—10.9	83		0.8	0.3			0			0	0	Haze	
Tromsö			30.07	763.7	31.3	— 0.4	98	SE			6		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.94	760.4			48.0	8.9	100	NE	8.7	3.9			10					Fog	

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.99	761.7	25.2	— 3.8	95	N	7	3			10						Astronomical Obs.
Wilna			30.06	763.6	28.6	— 1.9	90	Calm	0	0			10						Astronomical Obs.
Dorpat			30.20	767.0	24.1	— 4.4	96	NNW	4	2			10						Physical Cabinet.
St. Petersburg			30.19	766.9	24.8	— 4.0	98	E	2	1			10					Snow	Central Physical Obs.
Kieff			29.89	759.2	28.2	— 2.1	94	E	16	7			10					Snow	Physical Cabinet.
Nikolaiev			29.72	754.9	34.7	1.6	96	ESE	31	14			10						
Kertch			29.85	758.3	37.6	3.1	91	SE					9						Lagorio.
Moscow			30.22	767.6	17.8	— 7.9	80	SE	7.8	3.5			6					Snow	Meteorological Obs.
Lugan			29.99	761.7	32.4	0.2	89	ESE	20	9			10						Meteorological Obs.
Archangel			30.50	774.7	19.	— 7.	94	ESE	7.8	3.5			10					Snow	Ogorodnikof.
Tiflis			30.06	763.5	51.1	10.6	56	E	7.8	3.5			2						Physical Observatory.
Astrakhan			30.25	768.3	33.8	1.0	72	ENE	10.1	4.5			7						Sebastianof.
Kasan			30.46	773.7	14.2	— 9.9	84	SE					5						Physical Cabinet.
Orenburg			30.63	778.1	9.0	—12.8	84	E	4	2			0						Tschernischof.
Ekaterinburg			30.75	781.1	21.6	— 5.8	74	Calm	0	0			0						Meteorological Obs.
Kasaly			30.26	768.6	16.5	— 8.6	67	ENE	7.8	3.5			0						Bobrof.
Tashkend			30.24	768.1	41.2	5.1	74	Calm	0	0			6						Michelson.
Barnaul			30.65	778.6	— 4.0	—20.0	78	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.41	772.4	— 8.1	—22.3	87	Calm	0	0			0						Marks.
Irkutsk			30.62	777.7	—22.9	—30.5	81	Calm	0	0			0						Usolzef.
Oorga			30.69	779.4	—13.9	—25.5	100	Calm	0	0			0						Mossin.
Peking, (China)			30.44	773.2	21.7	— 5.7	59	SW	4	2			0						Physical Observatory.
Nertchinsk			30.28	769.2	3.6	—15.8	57	W	10.1	4.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 8.9	—22.7		W	13	6			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.

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.
Madrid			30.24	768.1	53.2	11.8	56	NE	5.2	2.33		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.43	772.9	3.2	—16.0	90	Calm			0		0			0	0		Dr. Hildebrandsson.
Hernosand			30.43	772.9	4.3	—15.4	95	NE			2		0			0	0		
Upsala			30.33	770.5	13.6	—10.2	93	N			4		10						
Stockholm			30.25	768.4	16.5	— 8.6	88	NNE			4		10			0.012	0.3		
Wisby			30.23	767.9	21.4	— 4.2	95	E			4		10			0.083	2.1		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	732.4			33.1	0.6	60	N			2		6			0	0		The Observatory.
Zurich	28.52	724.5			29.7	— 1.3	81	SW			1		10			0.020	0.5	Rain	Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			30.01	762.3	62.1	16.7	68	SW			2		10					Rain	
Constantinople			29.52	749.7	49.3	9.6	84	SE	5.6	2.5			10		SSE	0.551	14.0	Rain	
Fao, (Persian Gulf)			30.16	766.0	59.0	15.0		NW			3		0						
Salonica			29.54	750.4	48.9	9.4		N			8		0						
Valona			29.62	752.3	40.5	4.7		NW			3		5						
Varna			29.59	751.5	35.2	1.8		NW			6		10					Rain & snow	

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.85	758.2	— 2	—18.9	67	W	5	2.2		2	2	W	W	0	0		
Chatham, N. B.			30.03	762.7	2	—16.7	91	SW	5	2.2			Haze			0	0		
Charlottetown, P. E. Island			30.06	763.5	4	—15.6	82	W	6	2.7		0	2			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.85	783.6	—35	—37.2	100	Calm	0	0		0	0			0	0		
Halifax, N. S.			30.05	763.3	10	—12.2	83	Calm	0	0			10		W	0	0		
Kingston, Ontario			30.24	768.1	5	—15.0	92	W	18	8.0		0	0			0.43	10.9		
Montreal, Quebec			30.06	763.5	8	—13.3	89	SW	14	6.3			10		SW	0.10	2.5	Light snow	
Ottawa, Ontario			30.11	764.8	4	—15.6	60	W	9	4.0		2	0	W		0.02	0.5		
Parry Sound, Ontario			30.38	771.6	—10	—23.3	76	NW	17	7.6		0	0			0.17	4.3		
Port Dover, Ontario			30.44	773.2	1	—17.2	100	NW	11	4.9		0	0			0	0		
Port Stanley, Ontario			30.47	773.9	1	—17.2	94	W	15	6.7		0	0			0.10	2.5		
Quebec, Quebec			30.03	762.8	0	—17.8	100	W	14	6.3		0	0			0	0		
Saugeen, Ontario			30.41	772.4	— 2	—19.4	100	NW	23	10.3			10			0.10	2.5		
Sydney, C. B.			30.05	763.3	6	—14.4	78	W	14	6.3		8	2	W		0	0		
Toronto, Ontario			30.40	772.1	2	—16.7	92	W	9	4.0		0	5		NW	0.04	1.0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	17	— 8.3	71	S	10	4.5		Haze	10			0	0		
Alpena, Mich.			30.54	757.7	—11	—23.9	76	W	12	5.4		0	2			0.03	0.8		
Atlantic City, N. J.			30.35	770.9	25	— 3.9	88	W	8	3.6		2	8	W	E	0	0		
Augusta, Ga.			30.55	776.0	24	— 4.4	74	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.35	770.9	23	— 5.0	73	SW	8	3.6			10			0	0		
Barnegat, N. J.			30.26	768.6	21	— 6.1	85	S	4	1.8		10	0			0	0		
Benton, Montana			30.64	778.2	—13	—25.0	100	N	4	1.8		0	0			0	0		
Bismarck, Dakota			30.92	785.4	—14	—25.6	45	N	7	3.1			10			0	0		
Boston, Mass.			30.15	765.8	20	— 6.7	55	W	8	3.6		2	2	NW	NW	0	0		
Breckenridge, Minn.			30.96	786.4	—23	—30.6	85	NW	4	1.8		0	5			0.01	0.2		
Buffalo, N. Y.			30.41	772.4	3	—16.1	47	W	16	7.2		0	2			0.01	0.2		
Burlington, Vt.			30.06	763.5	12	—11.1	86	S	11	4.9		0	10			0	0		
Cairo, Ill.			30.55	776.0	24	—14.4	75	Calm	0	0		8	0			0	0		
Cape Hatteras, N. C.			30.47	773.9	27	— 2.8	88	Calm	0	0		0	0			0	0		
Cape Henry, Va.			30.45	773.4	31	— 0.6	48	SW	8	3.6		0	0			0	0		
Cape May, N. J.			30.38	771.6	28	— 2.2	57	W	16	7.2		8	0	SW		0	0		
Charleston, S. C.			30.54	775.7	31	— 0.6	67	N	4	1.8		0	Sm'e			0	0		
Cheyenne, W. T.			30.15	765.8	28	— 2.2	77	NW	16	7.2			10			0	0		
Chicago, Ill.			30.65	778.5	4	—15.6	74	NW	6	2.7		2	0			0	0		
Cincinnati, Ohio			30.52	775.2	26	— 3.3	76	W	8	3.6		0	10			0	0		
Cleveland, Ohio			30.50	774.7	8	—13.3	89	N	14	6.3		5	0	NW		0	0		
Colorado Springs, Col.			30.16	766.1	30	— 1.1	29	W	2	0.9			8			0	0		
Corsicana, Texas			30.52	775.2	42	5.6	65	S	3	3.1			10			0	0		
Davenport, Iowa			30.69	779.5	4	—15.6	86	NE	8	3.6		0	5			0	0		
Denver, Col.			30.17	766.3	41	5.0	25	NW	28	12.5			10			0	0		
Detroit, Mich.			30.56	776.2	4	—15.6	74	NW	4	1.8			10		NW	0	0		
Dodge City, Kansas			30.39	771.9	5	—15.0	75	N	13	5.8			10			0	0	Light snow.	
Dubuque, Iowa			30.66	778.7	— 1	—18.3	67	SE	6	2.7			10			0	0		
Duluth, Minn.			30.88	784.3	—18	—27.8		SW	6	2.7		0	0			0.07	1.8		
Eastport, Me.			30.09	764.3	12	—11.1	80	Calm	0	0			10			0.32	8.5	Light snow.	
Erie, Penn.			30.47	773.9	4	—15.6	74	NW	16	7.2		Haze	5			Blank	Blank		
Escanaba, Mich.			30.72	780.3	—16	—26.7	70	NW	16	7.2		0	0			0.02	0.5		
Fort Gibson, I. T.			30.42	772.7	32	0.0	50	E	7	3.1		8	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.95	786.1	— 4	—20.0	64	SE	10	4.5		2	2	NE	SE	0.14	3.6		
Galveston, Texas			30.51	774.9	43	6.1	75	NE	16	7.2			10		NE	0	0		
Grand Haven, Mich.			30.65	778.5	5	—15.0	62	NE	12	5.4			10			Blank	Blank		
Indianapolis, Ind.			30.56	776.2	16	— 8.9	66	N	12	5.4			10		N	0	0		
Indianola, Texas			30.51	774.9	49	4.4	83	NE	22	9.8			10		NE	0.34	1.6	Light rain.	
Jacksonville, Fla.			30.40	772.1	34	1.1	45	N	8	3.6		5	0	SW		0	0		
Keokuk, Iowa			30.65	778.5	8	—13.3	78	NE	11	4.9			10		NE	0	0		
Key West, Fla.			30.29	769.4	66	18.9	84	NE	19	8.5			10		NE	0	0		
Kittyhawk, N. C.			30.72	780.3	30	— 1.1	59	W	3	1.3		0	0			0	0		
Knoxville, Tenn.			30.60	777.2	15	— 9.4	82	Calm	0	0		2	0	NW		0	0		
La Crosse, Wis.			30.82	782.8	—12	—24.4	74	N	8	3.6		Haze	Haze			0.08	2.0		
Leavenworth, Kan.			30.59	777.0	14	—10.0	83	NE	14	6.3		0	5			0	0		
Lexington, Ky.			30.55	776.0	22	— 5.6	72	SW	12	5.4			10			0	0		
Long Branch, N. J.			30.25	768.3	23	— 5.0	86	SW	8	3.6		0	8			0	0		
Louisville, Ky.			30.40	775.4	25	— 3.9	75	Calm	0	0		5	Fog	W		0	0		
Lynchburg, Va.			30.45	773.4	24	— 4.4	73	S	4	1.8		2	0	NW		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.73	780.5	—17	—27.2	67	W	16	7.2		0	0			0.01	0.2		
Memphis, Tenn.			30.58	776.7	25	— 3.9	75	Calm	0	0		2	Haze			0	0		
Milwaukee, Wisconsin			30.73	780.5	— 5	—20.6	63	NW	12	5.4		5	0	NE		0.07	1.8		
Mobile, Ala.			30.56	776.2	32	0.0	60	N	4	1.8		5	Sm'e			0	0		
Montgomery, Ala.			30.60	777.2	27	— 2.8	78	N	1	0.4		0	Sm'e			0	0		
Morgantown, W. Virginia			30.45	773.4	23	— 5.0	80	SW	18	8.0			10			0	0	Light snow.	
Mt. Washington, N.			30.56	776.2	— 8	—22.2	100	NW	48	21.5			Fog			0	0		
Nashville, Tenn.			30.58	776.7	24	— 4.4	74	Calm	0	0		5	Sm'e			0	0		
New Haven, Conn.			30.26	768.6	24	— 4.4	74	SW	10	4.5		0	8		SW	0	0		
New London, Conn.			30.25	768.3	23	— 5.0	66	W	8	3.6			10		W	0	0		
New Orleans, La.			30.54	775.7	38	3.3	45	NE	7	3.1		10	0	N		0	0		
Newport, R. I.																			
New York, N. Y.			30.39	769.6	21	— 6.1	57	SW	18	8.0		8	0	SW		0	0		
Norfolk, Va.			30.45	773.4	27	— 2.8	71	SW	7	3.1		0	0			0	0		
North Platte, Neb.			30.46	773.7	0	—17.8	69	NE	3	1.3			10			0	0		
Omaha, Neb.			30.76	781.3	0	—17.8	100	N	12	5.4			10			0	0		
Oswego, N. Y.			30.28	767.1	14	—10.0	70	NW	24	10.7			10		NW	Blank	Blank		
Peck's Beach			30.32	770.1	25	— 3.9	75	W	10	4.5			10			0	0		
Pembina, D. T.			30.91	785.1	—35	—37.2		Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.36	771.1	20	— 6.7	57	SW	20	8.9		0	10		N	0	0		
Pike's Peak, C. T.			29.89	759.2	1	—18.3	72	N	54	24.1			10			0	0		
Pittsburgh, Penn.			30.41	772.4	22	— 5.6	72	SW	10	4.5			10			0	0		
Port Huron, Mich.			30.58	776.7	— 3	—19.4	83	NW	5	2.2		0	2			0.01	0.2		
Portland, Maine			30.11	764.8	13	10.6	62	W	5	2.2		Haze	Haze			0	0		
Portland, Or.			30.43	772.9	35	1.7	70	N	4	1.8		5	2			0	0		
Punta Rassa, Fla.			30.40	772.1	50	10.0	93	N	12	5.4			10		N	0	0		
Rochester, N. Y.			30.30	769.6	10	—12.2	69	W	18	8.0			10			0.02	0.5		
Salt Lake City, Utah			30.42	772.6	25	— 3.9	77	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.26	769.4	25	— 3.9	75	SW	12	5.4		2	5	W	SW	0	0	Frost.	
San Diego, Cal.			30.20	767.1	50	10.0	64	N	4	1.8		0	0			0	0		
San Francisco, Cal.			30.22	767.6	50	10.0	79	N	4	1.8		0	0			0	0		
Santa Fe, N. M.			29.88	758.9	25	— 3.9	50	N	20	8.9		2	0			0	0		
Savannah, Georgia			30.53	775.4	30	— 1.1	63	Calm	0	0		0	Sm'e			0	0		
Shreveport, La.			30.57	776.5	29	— 1.7	89	Calm	0	0		2	0			0	0		
Springfield, Mass.			30.18	766.6	22	— 5.6	72	SW	12	5.4		0	0			0	0		
St. Louis, Mo.			30.61	777.5	20	— 6.7	85	N	12	5.4		0	5		N	0	0		
St. Marks, Fla.			30.53	775.4	29	— 1.7	89	N	3	1.3		10	0	W		0	0		
St. Paul, Minn.			30.87	784.1	—24	—31.1	57	NW	5	2.2		0	0			0	0		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.34	770.6	20	— 6.7	60	W	9	4.0		2	8	W	W	0	0		
Toledo, Ohio			30.56	776.2	9	—12.8	57	NW	10	4.5		8	0	W		0.01	0.2		
Tybee Island, Ga.			30.54	775.7	36	2.2	49	NE	14	6.3		0	2		NW	0	0		
Vicksburg, Miss.			30.64	778.2	28	— 2.2	77	Calm	0	0			Fog			0	0		
Virginia City, Mon.			30.00	762.0	25	— 3.9	75	S	2	0.9		0	0			0	0		
Washington, D. C.			30.37	771.4	27	— 2.8	63	SW	3	1.3			10			0	0		
Wilmington, N. C.			30.51	774.9	24	— 4.4	62	Calm	0	0		0	Haze			0	0		
Wood's Hole, Mass.			30.23	767.8	25	— 3.9	63	W	16	7.2			10			0	0		
Wytheville, Va.			30.34	770.6	17	— 8.3	67	W	8	3.6		0	0			0	0		
Yankton, D. T.			30.96	786.4	— 6	—21.1	80	NE	11	4.9			10			0.05	1.3	Light snow.	

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 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.			30.12	765.0	80	26.7		NE	2	0.9		0	5			0	0		
Point-a-pitre, G'd'loupe, "			30.06	763.5	71	21.7		E				2	0			0.30	7.62		
Havana, Cuba, W. I.			30.05	763.3	69	20.6	85	NE	4	1.8			10			0.30	7.62	Heavy rain	
Kingston, Jamaica, W. I.			30.29	769.4	73	22.8	90	Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.98	761.7	72	22.2	81	NE	2	0.9		0	0			0	0		
St. Georges, Bermudas			30.31	769.6	63	17.2		NE	23	10.3			10			0.3	0.76		
Honolulu, Sandwich Is.			30.02	762.5	51	40.6	100	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.69	703.3			54	12.2	73	NE	2	0.9		0	0			0.67	17.02		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.29	769.3	—36	—37.8		SW	10	4.5		0	0			0	0		
St. Johns, Newfoundland			29.98	761.5	15	— 9.4	91	W				5	10			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.18	766.6	74.8	23.8	70	E			4	0	2			0.118	3.00		Leon M. Acuna.
Ellyria, Ohio	29.66	753.4			8	—13.3		W	14	6.3		0	8			0	0		H. M. Rodington.
Indianola, Iowa	29.81	757.2			— 4	—20.0	100	N				0	10			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.24	768.2															Charnot.
Algiers			30.05	763.8	56.8	13.8	60	W			1		0			0	0		Peter.
La Calle			30.02	762.5															Kuntz.
Tunis			30.04	760.4	56.5	13.6	60	NW			6		7			0.087	2.2	Rain	Jacques.
Sfax																			Chauvey.
Saida			30.23	767.9	59.2	15.1		SSE			2		2			0	0		Grosjean.
Tebessa			30.03	762.7															Colin.
Gerlville			30.19	766.7	51.8	11.0		NW			2		2			0	0		Bernadach.
Laghouat			30.08	764.1	55.4	13.0	50	SW			2		2			0	0		Poinsignon.
Biskra			30.04	763.1	63.5	17.5		NW			5		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			29.96	760.9	34.0	1.0	61	NE			1		8			0	0		Prof. Ivan Stozir.
Buda-Pesth			29.81	757.3	25.5	— 3.6	82	W			6		4			0.016	0.4		I. R. Cen. M. I., Hungary
Cracow			29.70	756.7	24.8	— 4.0	72	NE			3		10			0.094	2.4		I. R. Observatory.
Eperies			29.75	755.7	27.3	— 2.6	74	N			1		10			0.039	1.00		Julius Mikolik.
Gratz			29.98	761.4	27.0	— 2.8	50	NW			5		7.5			0	0		Andreas Rospini.
Hermannstadt			29.79	756.6	25.7	— 3.5	87	WNW			1		5			0	0		Prof. Reissenberger.
Kremsmünster			30.16	766.1	21.6	— 5.8	80	W			5		10			0.138	3.5		Prof. C. Wagner.
Lemberg			29.72	755.0	28.6	— 1.9	87	W			3		3			0.228	5.8		Dr. T. Stanecki.
Nyiregyhaza			29.80	757.0	29.1	— 1.6	96	SW			2		10			0.107	2.71		Habzsuda Daniel.
Pola			29.98	761.4	38.1	3.4	47	WSW			1		1			0	0		I. R. Hydrographic Office
Szegedin			29.77	756.1	27.7	— 2.4	100	NW			2		10			0.122	3.10		Karl Stancel.
Trieste			29.98	761.4	37.9	3.3	46	W			1		1			0	0		Prof. V. Farolfi.
Vienna			29.94	760.5	22.3	— 5.4	86	W			6		10			0.157	4.0	Snow	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.

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.
Brussels	29.96	761.0			30.6	— 0.8	91	SSE			1		2		E	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.11	764.8	38.0	3.3		SSE	30	13.4			10			0.050	1.27	Rain	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan																			William McNeil.
Armagh Observatory			30.04	763.0	43.0	6.1		SSW	7	3.1			3						Stillman Call.
Banbridge																			
Barnstaple																			
Batterses																			
Bidston, Liverpool Obs			30.09	764.3	37.0	2.8		ESE			5		10					Rain	The Liverpool Obs.
Birr Castle			30.03	762.7	43.5	6.4		SSE			0.5		10						J. Dreyer.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.18	766.6	35.0	1.8		E			2		4						H. Todd.
Cape Town, Cape Colony			29.86	758.4	83.2	28.4		SE			3		3						Sgt. D. E. Hunt
Cape Good Hope Obs			29.90	759.4	81.4	27.4	52	S	19	8.5			1						The Royal Observatory.
Cardington			30.18	766.6	37.4	3.0		SE					10						John McLaren.
Carlisle			30.12	762.5	37.0	2.8		S					10			0.26	6 60	Threatening	T. Bell.
Chatham			30.14	765.5	35.5	1.9		E			3		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.92	760 0	74.3	23.5		NE			2		9						Sgt. W. F. Hopkins
Dartmoor			30.14	765.5	4[illegible].5	4.7		E			1		10					Fog	R. E. Power.
Donaghadee			30.03	762.7	43	6.1		S			2		10					Rain	J. Mac Gowan, Jr.
Dover			30.15	765.8	36	2.2		SE			4		7						J. Costello.
Dublin																			
Durham Observatory			30.16	766.1	35.4	1.9		S					10					Snow	G. Goldney.
Eccles, (near Manchester)			30.13	765.3	37.0	2.8		SE	3.2	1.4			10					Mist & Rain	Thomas Mackereth.
Falmouth Observatory			30.08	764.0	49.0	9.4		WNW	4	1.8			10					Fog	The Falmouth Obs.
Fort Napier, (Natal)			29.83	757.7	82.5	28.1		NE	4	1.8			0						Pvt. G. Salmon.
Galway			30.15	765.8	47	8.3		SE			2		10					Rain	Queen's College.
Gibraltar, (Mediterranean)			29.95	760.7	62.2	16.8		WSW			1		4						Sgt. J. Brewster.
Glasgow Observatory			30.04	763.0	39.1	3.9		ESE			1		10						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.22	767.6	32	0.0		ESE			4		7						G. T. Watson.
Greenwich Royal Obs			30.14	765.5	36.0	2.2		E			4		10					Showery	The Royal Observatory.
Guernsey			30.05	763.3	47.5	8.6		WNW			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.14	765.5	33.1	0.6		SE					10					Snow	Moorside Observatory.
Halifax, (Nova Scotia)			30.29	769.4	2.7	—16.3		NW			2		2						Corp'l J. Y. Thompson.
Helston			30.08	764.0	54	12.2		E			3		10						W. B. Moyle.
Holyhead			30.03	762.7	47	8.3		S			2		6					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.15	765.8	37.0	2.8		E	23	10.3			10					Mist	The Met. Office.
Kingstown			30.08	764.0	45	7.2		ESE			1		10					Mist	George Mitchell.
Lampeter																			
Leicester			30.16	766.1	35.0	1.7		E			2		10						William J. Harrison
Llandudno			30.01	763.0	47.2	8.4		S					9.5						Dr. James Nicol.
Malta, (Mediterranean)			30.01	762.2	53.0	11.7		W			2		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.99	761.7	42	5.6		SE			1		4						William D. Penny.
Nassau, (Bahamas)			30.14	765.5	29.6	— 1.3		Calm			0		10						Surgeon I. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.20	767.1	34.8	1.6		ESE			3		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.14	765.5	34.9	1.6		ENE			2		10					Rain & fog	St. Mary's College.
Oxford, Radcliffe Obs			30.10	764.5	38	3.3		E			1		10					Mist	Radcliffe Observatory.
Plymouth			30.06	763.5	47	8.3		E			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.05	763.3	45	7.2		N			1		10						W. Kennedy.
Saint Ann's Head																			John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.97	761.2	39.5	4.2		S	45	20.1			10					Mist	Rev. Dr. Clouston.
Scarboro'																			F. Heard.
Scutari, (Turkey)			29.78	756.4	34.2	1.2		N			1		10					Sleet & snow	W. H. Lyne.
Sheffield			30.16	766.1	34.7	1.5		ESE			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.06	763.5	42.3	5.7		S			1		10			0 150	3.81		Francis Redford.
Somerleyton, (Lowestoft)			30.21	767.3	32.8	0.4		NE			1		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.12	765.0	35.7	2.1		E			1		10					Snow	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			29.87	758 7	44	6.7		SW			5		10						John Smith.
Strathfield Turgiss			30.11	764.8	38.7	3.7		E			1		10					Fog	Charles H. Griffith.
Strentley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.07	763.8	40	4.4		S			6							Haze	William Lawrence.
Taunton College																			
Thurso			29.98	761.5	39	3.9		SSE			5		7						John Trotter.
Truro Royal Institution			30.02	762.5	50	10.0		SE			4		10						Royal Institution.
Valencia			30.01	762.2	48.7	9.3		SSW	12	5.4			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
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.

DANISH SERIES.

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

Copenhagen			30.30	769.6	26.4	— 3.2	87	NE			6		10					
Faröe			30.37	771.5	25.0	— 3.9	77	NE			2		9					
Godthaab, (Greenland)			29.04	737.6	16.7	— 8.5		NE			2		8					
Stykkisholm, (Iceland)			29.11	739.4	32.2	0.1	98	Calm			0		10					Snow
Thorshavn, (Faröe)			29.69	754.2	43.5	6.4	93	S			7		10					Rain
Vestervig			30.38	771.7	24.3	— 4.3	84	ENE			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.90	759.5	49.5	9.7	49						10						Normal School.
Alençon			29.98	761.5	41.7	5.4	97	S			1		10			0.122	3.1		Normal School.
Amiens			30.17	766.4	37.6	3.1	73	NW			4		10			0	0		Normal School.
Beaumette, (near Angers)			30.03	762.7	47.3	8.5	95	W	8.1	3.6			10		W	0.020	0.5	Rain	Beaumette Observatory.
Beauvais			30.10	764.6	39.6	4.2	80	SE			1		10		SE	0.031	0.8		Normal School.
Besançon			30.17	766.4	35.8	2.1		SSE			1		10		SE	0.039	1.0		Normal School.
Bourges			30.12	765.1	36.7	2.6	93	SSW			2		10		SW	0	0		Normal School.
Brest			30.02	762.4	53.4	11.9	83	NW			2		8		NW	0.217	5.5		Naval Observatory.
Caen			30.02	762.4	43.5	6.4	94	NE			1		10			0.394	10.0		Normal School.
Carcassonne																			
Chartres			30.06	763.6	34.3	1.3		SE			2		10			0	0	Snow	Normal School.
Chaumont			30.54?	775.8?	34.2	1.2		NW			2		10			0	0		Normal School.
Le Mans			30.02	762.5	42.4	5.8	97	NW			2		10		NNE	0.433	11.0		Normal School.
Mirecourt			30.04	763.1	37.2	2.9		NNW			2		10		SSE	0	0		Normal School.
Orleans			30.08	764.0	35.2	1.8	93	NE			2		10		NE	0	0		Normal School.
Paris			30.08	764.0	39.0	3.9	81	SSE			3		10		SSE	0	0		National Observatory.
Parthenay																			
La Roche sur Yon			30.08	764.1	45.0	7.2	97	W			2		10			0	0		Normal School.
Rouen			30.09	763.7	40.3	4.6	73	SE			2		10			0.378	9.6		Normal School.
Saint Lo			30.42	772.7	46.4	8.0	82	NW			1		10		NW	0.835	21.1		Normal School.
Villefranche			30.52?	775.1?	40.8	4.9	74	ENE			1		5		N	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall
Mont-Louis	24.78	629.4			32.0	0.0	45	NE	1.7	0.75			8		NW	0	0		—. Falguère.
Montsouris (near Paris)			30.08	764.0	38.3	3.5	90	SE	2.2	0.97			10		SSE	0.008	0.2	Fog	Marié Davy.
Perpignan	29.93	760.3			48.6	9.2	26	NW	14.9	6.66			7			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.08	764.1	38.7	3.7	82	SE			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.04	763.0	38.1	3.4	94	SW			1		10			0.283	7.2	Light Rain	C. Marquet.
Versailles, (near Paris)			30.06	763.5	37.4	3.0	89	S			2		10			0.100	2.55	Fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.	Weather.	Observer.
Bamberg			30.22	767.6	23.0	— 5.0	81	W			2		5			0.004	0.1		Prof. Hoh.
Berlin			30.17	766.3	28.4	— 2.0	82	N			2		10			0.024	0.6	Snow	Prof. Arndt.
Breslau			29.90	759.5	25.9	— 3.4	95	NW			5		10			0	0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.10	766.8	27.7	— 2.4	76	NE			2.5		5			0	0		A. Leuz.
Cassel			30.22	767.7	30.0	— 1.1	90	N			0		2			0	0		Dr. H. Mohl.
Cologne			30.23	767.8	32.0	0.0	76	E			2		4			0	0		Dr. Gaithe.
Emden			30.43	772.8	27.7	— 2.4	70	ENE			2		5			0	0		Prof. Prestel.
Frankfort on the Main			30.34	770.6	28.4	— 2.0	51	ENE			1		5			0	0		Physical Society.
Friedrichshafen			30.20	767.0	26.6	— 3.0	78	NW					4			0	0		M. Wilhelm.
Hamburg			30.35	770.8	30.7	— 0.6	90	NE			3		7			0	0		W. Reinart.
Kiel			30.32	770.2	28.2	— 2.1	55	NE			3		2			0	0		Prof. G. Karsten.
Königsberg			29.93	760.2	28.4	— 2.0	85	NE			6		10			0.059	1.5	Snow	Prof. E. Luther.
Köslin			30.30	769.5	30.9	— 0.6		N			4		10			0	0		Dr. Tägert.
Leipsic			30.24	768.1	22.1	— 5.5	90	NW			4		10			0.142	3.6	Snow	Prof. Bruhns.
Münster			30.27	768.8	30.0	— 1.1	90	NW			4		10			0	0		Prof. E. Heis.
Posen			29.95	760.8	28.9	— 1.7	85	N			8		6			0.098	2.5		Dr. Magener.
Strassburg, (in Alsace)			30.18	766.5	28.6	— 1.9	92	NE					4			0	0		Hartwig and Fulk.
Stuttgart			30.10	766.8	27.1	— 2.7	77	E					0			0	0		Mr. Wurth.
Thorn			29.88	759.0	27.5	— 2.5	87	NE			6		10			0.118	3.0	Snow	Dr. Hagenbalg.
Treves, (Trier)			30.12	765.1	31.3	— 0.4	68	NE			6		10			0.020	0.5		Prof. Flesch.
Wustrow			30.20	769.4	26.6	— 3.0	80	N			4		10			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.97	761.3	40.5	4.7	35	E	0.7	0.3			6			0	0		
Mondovi			29.96	761.0	36.9	2.6	56	NW			2		0	NW		0	0		
Genoa			29.98	761.4	48.2	9.0	34	Calm	2.5	1.1			8			0	0		
Pavia			29.97	761.3	38.8	3.8	36	S			1		0			0	0		
Verona																			
Padua			29.95	760.8	38.5	3.6	10	NW					0			0	0		
Parma																			
Bologna			30.06	763.5	39.4	4.1	34	W			4		2			0	0		
Urbino																			
Ancona																			
Florence																			
Siena																			
Livorno			29.99	761.7	37.6	3.1	44	SSE	0.2	0.1			3	N		0	0		
Rome																			
Naples, O.U.			29.99	761.7	41.9	5.5	27	ENE			2		1	NW		0	0		
Naples, S. R.			30.00	762.0	41.7	5.4	27	NE			4		3			0	0		
Lecce																			Prof. F. Brioschi.
Cosenza			29.97	761.2	36.3	2.4	79	N	9.8	4.4			10			0	0	Snow	
Catania, (Sicily)			30.01	762.3	36.5	2.5	63	NNW			2		7			0	0		
Riposto			29.96	761.1	51.8	11.0	34	SW			2		0	W		0	0		
Palermo			29.97	761.3	46.0	8.3	89	NE			4		6			0	0		

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.

NETHERLANDS SERIES.

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

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.
Flushing			30.23	767.8	32.2	0.1		ESE			4								
Groningen			30.26	768.5	37.8	3.2		E			2								
Helder			30.26	768.6	28.6	— 1.9		NNE			4								
Utrecht			30.20	767.1	29.5	— 1.4		ENE			3		5						

NOTE.—The originals give the force 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.

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.
Bergen			30.41	772.3	28.4	— 2.0	80	S	9.8	4.4			0			0	0		
Christiania			30.52	775.2	8.2	—13.2	76	ENE	5.4	2.4			0			0	0		
Tromsö			29.17	766.3	34.2	1.2	62	S			6		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.80	756.8			55.0	12.8	78	N	9.8	4.4			7						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.76	755.9	29.3	— 1.5	100	NNE	4	2			10					Snow	Astronomical Obs.
Wilna			29.96	761.0	32.5	0.3	98	NE	4	2			10						Astronomical Obs.
Dorpat			30.44	773.2	21.0	— 6.1	89	ENE	13	6			9						Physical Cabinet.
St. Petersburg			30.53	775.4	19.2	— 7.1	100	NE	4	2			10					Fog	Central Physical Obs.
Kieff			29.68	753.9	29.3	— 1.5	90	ESE	20	9			10					Snow	Physical Cabinet.
Nikolaiev			29.79	756.6	35.2	1.8	96	SE	16.8	7.5			10					Rain	
Kertch			29.83	757.8	44.1	6.7	77	SE					5						Lagorio.
Moscow			30.50	774.6	26.1	— 3.3	82	SE	7.8	3.5			6						Meteorological Obs.
Lugan			30.08	764.0	29.3	— 1.5	70	NE	20	9			0						Meteorological Obs.
Archangel			30.69	779.4	16.2	— 8.8	88	Calm	0	0			10						Ogorodnikof.
Tiflis			30.12	765.0	50.2	10.1	50	SE	4	2			1						Physical Obs.
Astrakhan			30.37	771.5	27.0	— 2.8	74	ENE	4	2			5						Sebastianof.
Kasan			30.65	778.4	9.5	—12.5	85	S					3						Physical Cabinet.
Orenburg			30.72	780.4	14.0	—10.0	87	E	4	2			0						Tschernischef.
Ekaterinburg			30.82	782.8	25.2	— 3.8	95	Calm	0	0			1						Meteorological Obs.
Kasaly			30.41	772.4	18.1	— 7.7	75	NNE	13	6			0						Bobrof.
Tashkend			30.30	769.7	38.5	3.6	92	Calm	0	0			10					Rain	Michelson.
Barnaul			30.70	779.7	0.1	—17.7	78	W	4	2			4						Meteorological Obs.
Yeniseisk			30.30	769.6	— 1.7	—18.7	87	E	10.1	4.5			10						Marks.
Irkutsk			30.56	776.1	—19.6	—28.7	78	Calm	0	0			0						Usolzef.
Oorga			30.51	774.9	— 5.4	—20.8	82	NW	4	2			0						Mossin.
Peking, (China)			30.30	769.5	26.0	— 3.4	37	Calm	0	0			3						Physical Observatory.
Nertchinsk			30.32	770.1	— 4.4	—20.2	72	alm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					—13.4	—25.2		W	5.6	2.5			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.

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.
Madrid			30.11	764.8	51.8	11.0	60	N[illegible]	3.0	1.33		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.53	775.4	2.1	—16.6	100	Calm			0		10			0	0		Dr. Hildebrandsson.
Hernosand			30.56	776.1	1.0	—17.2	100	Calm			0		10			0	0		
Upsala			30.51	775.0	12.7	—10.7	100	NNW			4		10						
Stockholm			30.44	773.1	16.2	— 8.8	100	N			2		10			0.008	0.1		
Wisby			30.36	771.1	28.0	— 2.2	96	ENE			2		7			0.051	1.3		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.64	727.5			34.2	1.2	78	NNW			1		9			0	0		The Observatory.
Zurich	28.41	721.6			29.5	—1.4	84	NE			1		6			0	0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.76	755.9	34.2	1.2	96	N	2	1			10		WSW	0.28	7.0	Snow	
Fao, (Persian Gulf)			30.24	768.2	61.5	16.4		NW			3		0						
Salonica			29.81	757.2	44.6	7.0		N			6		5						
Valona			29.82	757.5	37.0	2.8		W			2		2						
Varna			29.69	754.0	32.0	0.		W			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.06	763.5	— 6	—21.1	96	NW	15	6.7		0	0			0	0		
Chatham, N. B.			30.27	768.8	—15	—26.1	89	W	2	0.9		0	0			0	0		
Charlottetown, P. E. Island			30.23	767.8	— 7	—21.7	92	NW	11	4.9		0	0			0	0		
Father Point, Quebec			30.46	773.7	— 7	—21.7	77	W	19	8.5		0	Haze			0	0		
Fort Garry, Manitoba			30.88	784.3	—24	—31.1	91	NW	6	2.7		0	0			0	0		
Halifax, N. S.			30.22	767.6	— 2	—18.9	74	NW	10	4.5		0	0			0.01	0.2		
Kingston, Ontario			30.55	776.0	—23	—30.6	82	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.61	777.5	—21	—29.4	100	W	1	0.4		0	Sm'o			0	0		
Ottawa, Ontario			30.59	777.0	—28	—33.3	46	Calm	0	0		0	0			0	0		
Parry Sound, Ontario			30.48	774.2	—28	—33.3	46	E	5	2.2		5	5	NE	NE	0	0		
Port Dover, Ontario			30.51	774.9	—15	—26.1	100	NW	5	2.2		2	0	NW		0	0		
Port Stanley, Ontario			30.51	774.9	—16	—26.7	89	NW	1	0.4		2	0	W		0	0		
Quebec, Quebec			30.54	775.7	—25	—31.7	100	W				0	0			0	0		
Saugeen, Ontario			30.47	773.9	— 9	—22.8	79	SE	4	1.8		2	5	NE	NE	0	0		
Sydney, C. B.			30.14	765.5	3	—16.1	73	W	11	4.9		0	0			0	0		
Toronto, Ontario			30.51	774.9	—14	—25.6	95	N	6	2.7		0	2			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.57	776.5	— 9	—22.8	80	NW	9	4.0		5	2	W		0	0		
Alpena, Mich.			30.47	773.9	—22	—30.0		Calm	0	0		5	0	W		0	0		
Atlantic City, N. J.			30.47	773.9	10	—12.2	61	W	5	2.2			10		E	0	0		
Augusta, Ga.			30.17	766.3	29	— 1.7	77	Calm	0	0		10	0	W		0	0		
Baltimore, Md.			30.48	774.2	13	—10.6	62	NE	6	2.7			10			0	0	Light snow.	
Barnegat, N. J.			30.41	772.4	9	—12.8	61	W	12	5.4			10		W	0	0	Threatening	
Benton, Montana			30.29	769.4	25	— 3.9	88	SW	2	0.9		0	0			0	0		
Bismarck, Dakota			30.37	771.4	— 6	—14.4	100	E	3	1.3			10			0.03	0.8		
Boston, Mass.			30.51	774.9	— 2	—18.9	69	NW	8	3.6			10			0	0		
Breckenridge, Minn.			30.51	774.9	—15	—26.7	85	NW	4	1.8			10			0	0		
Buffalo, N. Y.			30.54	775.7	— 4	—20.0	34	Calm	0	0		8	0	N		0	0		
Burlington, Vt.			30.63	778.0	—15	—26.1	42	NE	6	2.7		0	0			0	0		
Cairo, Ill.			30.49	774.4	10	—12.2	77	N	20	8.9			10			0.04	1.0		
Cape Hatteras, N. C.			30.16	766.1	46	7.8	76	NE	22	9.8			10		NE	0	0		
Cape Henry, Va.			30.32	770.1	32	0.0	79	NE	33	14.8			10		NE	0	0		
Cape May, N. J.			30.47	773.9	10	—12.2	79	N	12	5.4			10			0	0		
Charleston, S. C.			30.19	766.8	38	3.3	71	N	4	1.8		5	Sm'e			0	0		
Cheyenne, W. T.			30.13	765.3	32	0.0	69	NW	16	7.2		5	5			0	0		
Chicago, Ill.			30.52	775.2	— 7	—21.7	100	NW	5	2.2		5	0	W		0	0		
Cincinnati, Ohio			30.39	771.9	13	—10.6	64	NE	4	1.8			10			0.07	1.8	Light snow.	
Cleveland, Ohio			30.44	773.2	0	—17.8	100	E	6	2.7			10			0	0		
Colorado Springs, Col.			30.13	765.3	21	— 8.0	85	N	1	0.4		0	0			0	0		
Corsicana, Texas			30.65	778.5	20	— 6.7	70	N	14	6.3		0	0			0	0		
Davenport, Iowa			30.64	778.2	—10	—23.3		Calm	0	0		0	0			0	0		
Denver, Col.			30.20	767.1	23	— 5.0	60	Calm	0	0		0	0			0	0		
Detroit, Mich.			30.47	773.9	— 7	—21.7	61	NE	3	1.3		Haze	2			0	0		
Dodge City, Kansas			30.26	768.6	11	—17.8	60	W	12	5.4		0	0			0	0		
Dubuque, Iowa			30.64	778.2	—24	—31.1	56	Calm	0	0		0	0			0	0		
Duluth, Minn.			30.37	771.4	—15	—26.1		N	6	2.7		0	2			0	0		
Eastport, Me.			30.41	772.4	—10	—23.3	54	N	13	5.8		2	0	N		0.02	0.5		
Erie, Penn.			30.48	774.2	— 2	—18.9	67	SE	3	1.3		2	2			0	0		
Escanaba, Mich.			30.39	771.9	—25	—31.7	54	S	8	3.6		0	0			0	0		
Fort Gibson, I. T.			30.67	779.0	6	—14.4	76	N	12	5.4		2	0	N		0.02	0.5		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.42	772.7	— 2	—18.9	67	alm	0	0			10			0.03	0.8	Light snow	
Galveston, Texas			30.42	772.7	34	— 4.4	75	NW	16	7.2		0	0			0.07	1.8		
Grand Haven, Mich.			30.48	774.2	0	—17.8	69	SE	2	0.9		10	0	NW		0	0		
Indianapolis, Ind.			30.42	772.6	10	—12.2	79	N	8	3.6		8	0	N		0.05	1.3		
Indianola, Texas			30.47	773.9	43	6.1	83	N	32	14.3		0	10		N	0.28	7.1		
Jacksonville, Fla.			30.22	767.6	40	4.4	71	NE	7	3.1		0	0			0	0		
Keokuk, Iowa			30.57	776.5	1	—17.2	74	NW	3	1.3		0	0			0.11	2.8		
Key West, Fla.			30.17	766.3	68	20.0	90	N	16	7.2		Haze	5	E	N	0.04	1.0		
Kittyhawk, N. C.			30.45	773.4	38	3.3	66	N	40	17.9			10			0	0		
Knoxville, Tenn.			30.18	766.6	26	— 3.3	88	E	2	0.9			10			0.02	.5	Light snow	
La Crosse, Wis.			30.51	774.9	—25	—31.7	93	S	9	4.0		0	0			0	0		
Leavenworth, Kan.			30.67	779.0	— 4	—20.0	82	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.35	770.9	8	—13.3	78	NE	14	6.3			10			0	0		
Long Branch, N. J.			30.46	773.7	10	—12.2	79	N	4	1.8			10			0	0		
Louisville, Ky.			30.36	771.1	12	—11.1	80	NW	12	5.4			10			0.06	1.5	Light snow	
Lynchburg, Va.			30.40	772.1	18	— 7.8	75	NE	4	1.8			10			0.03	0.8		
Malone, N. Y.																			
Marquette, Mich.			30.30	769.6	—13	—25.0	74	Calm	0	0			10			0	0		
Memphis, Tenn.			30.44	773.2	19	— 7.2	85	NW	25	11.2			10			0.01	0.2	Light snow.	
Milwaukee, Wisconsin			30.57	776.5	—19	—27.3		W	8	3.6		2	0	SW		0	0		
Mobile, Ala.			30.29	769.4	41	5.0	65	NW	7	3.1		2	Sm'e			0	0		
Montgomery, Ala.			30.24	768.1	39	3.9	58	W	3	1.3		10	Sm'e	W		0	0		
Morgantown, W. Virginia			30.39	771.9	6	—14.4	88	N	6	2.7			10			0.04	1.0	Light snow.	
Mt. Washington, N. H.			30.76	755.9	—24	—31.1	100	NW	30	13.4		2	0			0	0		
Nashville, Tenn.			30.26	768.6	24	— 4.4	87	N	6	2.7			10		NW	0.18	4.6	Light snow.	
New Haven, Conn.			30.55	776.0	6	—14.4	64	N	9	4.0			10		N	0	0		
New London, Conn.			30.55	776.0	7	—13.9	54	NW	5	2.2			10			0	0		
New Orleans, La.			30.32	770.1	45	7.2	53	SW	6	2.7		0	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			30.55	776.0	9	—12.8	78	NE	8	3.6			10			0	0		
Norfolk, Va.			30.32	770.1	27	— 2.8	71	NE	16	7.2			10		NE	0	0		
North Platte, Neb.			30.03	762.7	16	— 8.9	83	SW	5	2.2			10			0	0		
Omaha, Neb.			30.61	777.5	— 5	—20.6	100	S	4	1.8			10			0	0		
Oswego, N. Y.			30.58	776.7	— 3	—19.4	86	SE	2	0.9		5	2			0	0		
Peck's Beach			30.50	774.7	9	—12.8	78	NE	8	3.6			10			Blank	Blank	Light snow.	
Pembina, D. T.			30.42	772.7	—20	—28.9		NW	12	5.4		5	2			0	0		
Philadelphia, Penn.			30.54	775.7	8	—13.3	55	NE	10	4.5			10		NE	0	0		
Pike's Peak, C. T.			29.99	761.7	14	—10.0	81	N	30	13.4		0	5			0	0		
Pittsburgh, Penn.			30.44	773.2	4	—15.6	74	NE	6	2.7			10			0	0		
Port Huron, Mich.			30.53	775.4	—11	—23.9	76	SW	4	1.8		0	2			0	0		
Portland, Maine			30.50	774.7	— 4	—20.0	64	NW	2	0.9		2	Haze			0	0		
Portland, Or.			30.39	771.9	35	1.7	70	SE	6	3.6		5	0			0	0		
Punta Rassa, Fla.			30.21	767.3	58	14.4	84	N	12	5.4			10			0	0		
Rochester, N. Y.			30.54	775.7	— 3	—19.4	100	S	4	1.8		0	5			0.05	1.3		
Salt Lake City, Utah			30.42	772.6	25	— 3.9	60	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.51	774.9	9	—12.8	57	NE	12	5.4			10		NE	0	0		
San Diego, Cal.			30.24	768.1	51	10.6	64	Calm	0	0		0	0			0	0		
San Francisco, Cal.			30.29	769.4	51	10.6	86	Calm	0	0		0	5			0	0		
Santa Fe, N. M.			29.96	761.0	22	— 5.6	58	N	8	3.6		0	0			0	0		
Savannah, Georgia			30.20	767.1	37	2.8	71	W	4	1.8		10	Sm'e	SW		0	0		
Shreveport, La.			30.51	774.9	27	— 2.8	77	NW	14	6.3			10		N	0.01	0.2		
Springfield, Mass.			30.54	775.1	4	—15.6	49	NE	4	1.8			10		E	0.01	0.2		
St. Louis, Mo.			30.61	777.5	0	—17.8	71	N	12	5.4		0	2		N	0	0		
St. Marks, Fla.			30.25	768.3	33	0.6	95	N	2	0.9		5	0	W		0	0		
St. Paul, Minn.			30.46	773.7	—29	—33.9	43	SW	4	1.8		0	0			0	0		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.52	775.4	10	—12.2	60	N	8	3.6			10			0	0		
Toledo, Ohio			30.48	774.2	— 1	—18.3	68	N	3	1.3		Haze	2			0	0		
Tybee Island, Ga.			30.20	767.1	38	3.3	75	NW	4	1.8		5	5	SW		0	0		
Vicksburg, Miss.			30.38	771.6	41	5.0	63	NW	11	4.9			10		NW	0	0		
Virginia City, Mon.			30.02	762.5	20	— 6.7	70	SE	2	0.9		0	0			0	0		
Washington, D. C.			30.49	774.4	10	—12.2	100	N	10	4.5			10			0.08	2.0	Light snow.	
Wilmington, N. C.			30.16	766.1	33	0.6	69	NE	6	2.7		5	2	SW		0	0		
Wood's Hole, Mass.			30.52	775.2	5	—15.0	50	N	8	3.6			10			0	0		
Wytheville, Va.			30.00	762.0	23	— 5.0	86	E	5	2.2			10			0	0	Light snow.	
Yankton, D. T.			30.55	776.0	—11	—23.9	75	NE	1	0.4			10		NE	0.01	0.2		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.01	762 2	74	23.3		E	2	0.9		Blank	Blank			0	0		
Point-a-pitre, G'd'loupe, "			30.03	762.7	73	22.7		E				0	0			0.10	0.25		
Havana, Cuba, W. I.			29.98	761.5	72	22.2	85	Calm	0	0		5		NW		0	0		
Kingston, Jamaica, W. I.			30.77	781.5	74	23.3	93	Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.94	760.5	70	21.1	75	NW	4	1.8		0	2		SW	0	0		
St. Georges, Bermudas			30.23	761.7	61	16.1		E	14	6.3			10			0	0		
Honolulu, Sandwich Is.			30.02	762.5	62	16 7	83	SW	2	0.9		0	0			0	0		
Makawao, Sandwich Is.	27.62	701.5			62	16.7	77	SW	4	1.8		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.30	769.6	—36	—37. 8	Blank	NW	10	4.5		0	0			0	0		
St. Johns, Newfoundland			30.02	762.5	16	— 8.9	82	W				0	5			0.62	15.7		John Delaney.
St. Johns Porto R co W. I.			30.13	765.2	76.6	24.8	79	SW			0	0	2			0.010	0.25		Leon M. Acuna.
Ellyria, Ohio																			H. M. Redington.
Indianola, Iowa	29.66	753 4			— 9	—22. 8		S				0	2			0.19	4.8		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —49° Fahrenheit, are as given by a spirit thermometer.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.19	766.7															Charnot.
Algiers			29.97	761.2	57.6	14.2	61	Calm			0		2			0	0		Peter.
La Calle			29.90	759.4															Kuntz.
Tunis			29.86	758.4	53.2	11.8	71	WNW			4		10			0.142	3.6		Jacques.
Sfax																			Chauvey.
Saïda			30.07	763.7	57.6	14.2		W			1		2			0	0		Grosjean.
Tebessa			29.88	759.0															Colin.
Geriville			30.02	762.5	48.4	9.1		NW			2		2			0	0		Bernadach.
Laghouat			29.95	760.7	58.1	14.5	34	SW			3		4			0	0		Poinsignon.
Biskra			29.90	759.4	61.0	16.1		NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			29.98	761.6	32.9	0.5	75	SW			1		3			0	0		Prof. Ivan Stozir.
Buda-Pesth			29.98	761.6	25.2	— 3.8	89	N			2		7			0.016	0.4		I. R. Cen. M. I., Hungary
Cracow			29.96	761.1	24.8	— 4.0	68	W			2		10			0.122	3.1		I. R. Observatory.
Eperies			29.93	760.3	26.6	— 3.0	83	Calm			0		10			0	0		Julius Mikolik.
Gratz			29.96	761.1	31.3	— 0.4	60	E			2.5		10			0	0		Andreas Rospini.
Hermannstadt			29.99	761.7	21.6	— 5.8	93	WNW			1		5			0	0		Prof. Reissenberger.
Kremsmünster			30.07	763.8	23.7	— 4.6	90	W			6		10			0.047	1.2		Prof. C. Wagner.
Lemberg			29.81	757.2	20.5	— 6.4	100	NW			5		10			0.122	3.1		Dr. T. Stanecki.
Nyiregyhaza			29.99	761.8	26.6	— 3.0	96	SW			1		10						Habsuda Daniel.
Pola			29.94	760.4	38.8	3.8	42	ESE			1		9			0	0		I. R. Hydrographic Office
Szegedin			29.95	760.8	37.8	3.2	96	W			1		10			0.083	2.10		Karl Stancel.
Trieste			29.96	761.0	39.0	3.9	38	NNE			1		2			0	0		Prof. V. Farolfi.
Vienna			29.98	761.6	23.7	— 4.6	90	W			4		10			0.331	8.4	Snow	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.

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.
Brussels	30.03	762.8			27.9	— 2.3	80	SSE			1		1		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.23	767.8	39.9	4.4		SSW	4	1.8			10			0.350	8.89	Mist	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.22	767.6	41	5.0		SW			1		5						William McNeil.
Armagh Observatory			30.24	768.1	41.4	5.2		SSW	2	0.9			4						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.23	767.8	33.2	0.8		ESE			2		10					Fog	The Liverpool Obs.
Birr Castle			30.24	768.1	44.9	7.2		Calm			0		1						J. Dreyer.
Bradford			30.15	765.8	32.2	0.1		Calm			0		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.29	768.6	33.0	0.6		E			1		2						H. Todd.
Cape Town, Cape Colony			29.97	761.2	73	22.8		SE			9		1						Sgt. D. E. Hunt
Cape Good Hope Obs			30.03	762.7	76.1	24.5	41	SE	33	14.7			0.5						The Royal Observatory.
Cardington			30.26	768.6	34.4	1.3		SE					8						John McLaren.
Carlisle			30.23	767.8	36.5	2.5		W					10			0.05	1.3	Threatening	T. Bell.
Chatham			30.22	767.6	34.0	1.1		ESE			2		9						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.97	761.2	71.9	22.2		NE			2		0						Sgt. W. F. Hopkins
Dartmoor			30.24	768.1	36.8	2.7		E			1		10					Fog & Rain.	R. E. Power.
Donaghadee			30.24	768.1	43	6.1		W			2		2						J. Mac Gowan, Jr.
Dover			30.25	768.3	32	0.0		E			3		5						J. Costello.
Dublin																			
Durham Observatory			30.24	768.1	29.7	— 1.3		S					10						G. Goldney.
Eccles, (near Manchester)			30.24	768.1	33.9	1.1		SE	0	0			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.21	767.3	45.9	7.7		ESE	10	4.5			9						The Fa mouth Obs.
Fort Napier, (Natal)			29.78	756.4	38.6	3.7		SE			4		10						Pvt. G. Salmon.
Galway			30.16	766.1	45	7.2		W			1		3						Queen's College.
Gibraltar, (Mediterranean)			29.98	761.5	62.8	17.1		SSW			3		0						Sgt. J. Brewster.
Glasgow Observatory			30.21	767.3	34.9	1.6		NE			1		10					Fog	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.27	768.8	31	— 0.6		E			1		6						G. T. Watson.
Greenwich Royal Obs			30.25	768.3	33.9	1.1		ESE			1		10						The Royal Observatory.
Guernsey			30.21	767.3	39.5	4.2		ENE			1		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.21	767.3	32.4	0.2		Calm			0		10						Moorside Observatory.
Halifax, (Nova Scotia)			29.87	758.7	3.0	—16.1		NE			6		10					Snow	Corp'l J. Y. Thompson.
Helston			30.16	766.1	52	11.1		E			4		6						W. B. Moyle.
Holyhead			30.21	767.3	43	6.1		NE			3		6						John Tilston.
Hull Park																			
Kew Observatory			30.26	768.6	39.9	1.1		E	9	4.0			10					Mist	The Met. Office.
Kingstown			30.25	768.3	42	5.6		WNW			1		6					Mist	George Mitchell.
Lampeter																			
Leicester			30.26	768.6	32.3	0.2		SE			1		10						William J. Harrison
Llandudno			30.22	767.6	38.8	3.8		NE					9.5						Dr. James Nicol.
Malta, (Mediterranean)			29.92	760.0	55.0	12.8		SW			2		8						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.18	766.6	44	6.7		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.12	762.5	69.5	20.8		NW			5		8						Surgeon I. Jameson.
North Shields			30.24	768.1	33	0.6		SW			1		8						John Wm. Irvine.
Nottingham			30.28	769.1	34.7	1.5		SSE			2		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.25	768.3	30.8	— 0.7		SSE			2		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs			30.23	767.8	33	0.6		Calm			0		10					Mist	Radcliffe Observatory.
Plymouth			30.20	767.1	44	6.7		E			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.21	767.3	44	6.7		ESE			3		2						W. Kennedy.
Saint Ann's Head			30.20	767.1	45	7.2		E			1		5						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.20	767.1	42.4	5.8		W	12	5.4			0						Rev. Dr. Clouston.
Scarboro'			30.26	768.6	33.0	0.6		SSW			2		10						F. Heard.
Scutari, (Turkey)			30.01	762.2	40.4	4.7		NE			2		9					Rainy	W. H. Lyne.
Sheffield			30.24	768.1	33.9	1.0		S			1		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.23	767.8	38.8	3.8		NNW			1		0			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.26	768.6	31.8	— 0.1		NE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.23	767.6	32.7	0.3		NE			1		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.15	763.3	38	3.3		SW			2		2						John Smith.
Strathfield Turgiss			30.26	768.6	33.7	0.9		NE			1		10						Charles H. Griffith.
Streatley Vicarage			30.25	768.3	34.8	1.6		E			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.11	764.8	44	6.7		WNW			3								William Lawrence.
Taunton College																			
Thurso			30.17	766.3	47	8.3		SSW			2		0						John Trotter.
Truro, Royal Institution			30.12	765.0	50	10.0		E			6		6						Royal Institution.
Valencia			30.21	767.3	47.6	8.7		SSE	13	5.8			3						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.25	768.3	34.0	1.1		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.

DANISH SERIES.

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

Copenhagen			30.18	766.5	30.9	— 0.6	86	NE			6		10						
Fanöe			30.23	767.9	28.0	— 2.2	83	NNE			4		10						
Godthaab, (Greenland)			29.41	747.1	5.9	—14.5		NNE			4		10						
Stykkisholm, (Iceland)			29.10	739.1	33.4	0.8	85	SE			6		8					Snow	
Thorshavn, (Faröe)			29.95	760.7	43.2	6.2	74	S			4		4					Rain	
Vestervig			30.25	768.3	23.9	— 4.5	90	NE			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. 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.
Ajaccio			29.77	756.1	49.8	9.9	64						2						Normal School.
Alençon			29.94?	760.5?	35.6	2.0	88	NE			2	2		NNE		0	0		Normal School.
Amiens			30.19	769.9	35.6	2.0	85	NE			4	0	0			0	0		Normal School.
Beaumette, (near Angers)			30.15	765.8	35.2	1.8	73	E	10.3	4.6			8		E	0	0		Beaumette Observatory.
Beauvais			30.23	767.8	28.7	— 1.8	73	NE			1		2			0	0		Normal School.
Besançon			30.13	765.4	29.5	— 1.4		NE			3		0			0.059	1.5		Normal School.
Bourges			30.18	766.5	29.8	— 1.2	73	NNE			2		2		NNE	0.354	9.0		Normal School.
Brest			30.13	765.2	47.7	8.7	70	E			1		5		SE	0.039	1.0		Naval Observatory.
Caen			30.21	767.3	37.0	2.8	75	S			2		2		E	0.012	0.3		Normal School.
Carcassonne			30.40	772.1	29.7	— 1.3		N			1		0			0.252	6.4		Normal School.
Chartres			30.15	765.9	26.4	— 3.1		NE			2		0			0	0		Normal School.
Chaumont			30.19	766.9	32.5	0.3	68	NE			2		2		E	0.039	1.0		Normal School.
Le Mans			30.06	763.6	31.3	— 0.4		NNE			2		0		SSW	0	0		Normal School.
Mirecourt			30.21	767.3	31.3	— 0.4	85	NE			2		0			0.047	1.2		Normal School.
Orleans			30.18	766.6	29.3	— 1.5	69	NE			2	5	0			0	0		National Observatory.
Paris																			
Parthenay			30.13	765.4	35.6	2.0	93	N			4		5		W	0.181	4.6		Normal School.
La Roche sur Yon			30.21	767.4	33.4	0.8	88	NNE			2	0	0			0	0		Normal School.
Rouen			30.17	766.3	43.7	6.5	79	NE			1	0	0		NE	0.181	4.6		Normal School.
Saint Lo			30.20	767.0	39.7	4.3	90	NW			3		2			0	0		Normal School.
Villefranche																			

FRENCH SUB-SERIES.

Station.	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	Lower.	Inches.	Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.65	626.2			35.1	1.7	84	N	1.9	0.83			10			0.181	4.6		—. Falguère.
Montsouris (near Paris)			30.17	766.4	29.7	— 1.3	66	NE	5.8	2.61			2			0	0		Marié Davy.
Perpignan	29.81	757.3			41.9	5.5	95	WNW	7.4	3.33			10			0.181	4.6	Rain	Dr. Fines.
Saint Maur, (near Paris)			30.19	766.7	30.6	— 0.8	71	NE			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.16	766.0	30.9	— 0.6	78	ENE			1		1		NNE	0.311	7.9		C. Marquet.
Versailles, (near Paris)			30.17	766.4	30.9	— 0.6		NE			2		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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	Lower.	Inches.	Millimeters.	Weather.	Observer.
Bamberg			30.11	764.7	25.3	— 3.7	96	W			3		10			0.114	2.9	Snow	Prof. Hoh.
Berlin			30.07	763.9	34.2	1.2	74	N			2		10			0.311	7.9	Snow	Prof. Arndt.
Breslau			29.97	761.2	29.3	— 1.5	85	W			2		9			0.311	7.9		Dr. P. Neugebauer.
Carlsruhe			30.13	765.4	27.7	— 2.4	63	NE			1		10			0	0		A. Leuz.
Cassel			30.03	762.7	26.4	— 3.1	78	NW			2		10			0	0		Dr. H. Mohl.
Cologne			30.19	766.9	27.1	2.7	94	NW			3		10			0.315	8.0	Snow	Dr. Gaithe.
Emden			30.30	769.7	30.0	— 1.1	89	NNE			2		10			0.150	3.8	Snow	Prof. Prestel.
Frankfort on the Main			30.25	768.3	27.5	— 2.5	81	NNW			1		10			0	0	Snow	Physical Society.
Friedrichshafen			30.15	765.7	21.2	— 6.0	87	E					5			0	0		M. Wilhelm.
Hamburg			30.12	765.1	29.3	— 1.5	91	N			4		10			0.008	0.2	Fog	W. Reinart.
Kiel			30.10	764.6	32.5	0.3	86	NE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.13	765.3	28.0	— 2.2	77	E			2		1			0	0		Prof. E. Luther.
Köslin			30.32	770.2	33.3	0.7		E			2		10			0.016	0.4		Dr. Tägert.
Leipsic			30.02	762.6	26.2	— 3.2	94	WNW			1		10			0	0	Snow	Prof. Bruhns.
Münster			30.13	765.3	28.0	— 2.2	90	NW			4		10			0.051	1.3	Snow	Prof. E. Heis.
Posen			30.01	762.3	32.2	0.1	93	NE			3–4		6			0.051	1.3		Dr. Magener.
Strassburg, (in Alsace)			30.15	765.8	28.6	— 1.9	71	N					8			0.079	2.0		Hartwig and Fulk.
Stuttgart			30.14	765.5	25.2	— 3.8	68	NE					10			0.059	1.5	Snow	Mr. Wurth.
Thorn			30.00	762.1	32.4	0.2	86	NE			2		9						Dr. Hasenbalg.
Treves, (Trier)			30.12	765.1	27.7	— 2.4	64	E			2		10			0.047	1.2		Prof. Flesch.
Wustrow			30.11	764.9	32.4	0.2	91	N			2		10			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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	Lower.	Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.94	760.6	39.6	3.9	33	SSE	0.2	0.1			1			0	0		
Mondovi			29.97	761.2	33.8	1.0	40	NNW			2		0	NNW		0	0		
Genoa			29.93	760.1	41.0	5.0	49	Calm			0		2			0	0		
Pavia			29.97	761.2	38.1	3.4	27	E			2		5	SE		0	0		
Verona																			
Padua			29.94	760.5	38.1	3.4	46	SE	3.8	1.7			0			0	0		
Parma																0	0		
Bologna			30.00	762.0	36.0	2.2	36	NW			4		2	NW		0	0		
Urbino																			
Ancona																			
Florence																			
Siena			29.97	761.2	36.1	2.3	28	ESE	0.2	0.1			1	NW		0	0		
Livorno																0	0		
Rome			29.88	759.0	38.5	3.6	43	ENE			2		7			0	0		
Naples, O.U.			29.88	758.9	40.5	4.7	45	N			4		10			0	0		
Naples, S. R.																			
Lecce			30.01	762.2	39.2	4.0	67	SSW	2.5	1.1			10			0	0		Prof. F. Brioschi.
Cosenza			29.94	760.5	35.6	2.0	75	NNE			2		10			0	0	Snow	
Catania, (Sicily)			29.88	758.9	49.3	9.6	64	ESE			2		8	W		0	0		
Riposto																			
Palermo			29.72	754.8	49.3	9.6	72	WSW			4		8	WSW		0.043	1.1		

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.

NETHERLANDS SERIES.

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

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.
Flushing			30.29	769.3	31.6	— 0.2		NE			2								
Groningen			30.15	765.9	32.5	0.3		N			4								
Helder			30.22	767.7	32.7	0.4		N			3								
Utrecht			30.19	766.9	30.6	— 0.8		NW			0		10						

NOTE.—The originals give the force 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.

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.
Bergen			30.38	771.6	26.6	— 3.0	61	SE	4.9	2.2			0			0	0		
Christiania			30.47	774.0	13.6	—10.2	90	ENE	2.9	1.3			10			0	0	Snow	
Tromsö			30.25	768.4	27.3	— 2.6	92	S			2		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.70	754.5			55.4	13.0	70	NNE	9.8	4.4			5						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.92	759.9	30.4	— 0.9	92	N	4	2			10					Snow	Astronomical Obs.
Wilna			30.13	765.4	25.0	— 3.9	66	E	4	2			0						Astronomical Obs.
Dorpat			30.50	774.7	21.4	— 5.9	90	ENE	7	3			2						Physical Cabinet.
St. Petersburg			30.59	777.1	16.0	— 8.9	100	E	4	2			10						Central Physical Obs.
Kieff			29.92	759.9	29.5	— 1.4	84	SE	27	12			10						Physical Cabinet.
Nikolaiev			30.17	766.2	32.4	0.2	81	S	4	2			7						
Kertch			30.20	767.0	19.1	9.5	62	SE					6						Lagorio.
Moscow			30.66	778.8	15.8	— 9.	78	SE	7.8	3.5			0						Meteorological Obs.
Lugan			30.20	767.0	28.4	— 2.0	84	ESE	13	6			10						Meteorological Obs.
Archangel			30.78	781.7	16.5	— 8.6	94	W	4	2			10					Snow	Ogorodnikof.
Tiflis			30.21	767.3	51.4	10.8	51	SW	4	2			0						Physical Obs.
Astrakhan			30.50	774.8	30.2	— 1.0	76	NE	4	2			4						Sebastianof.
Kasan			30.68	779.2	8.2	—13.2	88	S					1						Physical Cabinet.
Orenburg			30.79	782.0	9.7	—12.4	85	E	4	2			0						Tschernischef.
Ekaterinburg			30.73	780.6	20.8	— 6.2	69	SW	4	2			5						Meteorological Obs.
Kasaly			30.44	773.1	14.2	— 9.9	67	WNW	13	6			0						Bobrof.
Tashkend			30.44	773.1	40.3	4.6	94	Calm	0	0			10					Rain	Michelson.
Barnaul			30.73	780.5	— 5.3	—20.7	77	Calm	0	0			2						Meteorological Obs.
Yeniseisk			30.45	773.5	— 4.5	—20.3	85	NW	4	2			6						Marks.
Irkutsk			30.52	775.1	—16.1	—26.7	89	Calm	0	0			0						Usolzef.
Oorga			30.70	779.9	—16.6	—27.0	100	Calm	0	0			0						Mossin.
Peking, (China)			30.28	769.1	26.2	— 3.2	55	Calm	0	0			3						Physical Observatory
Nertchinsk			30.50	774.8	—16.4	—26.9	90	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 2.2	—19.0		W	13	6			7						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.

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.
Madrid			30.00	762.0	52.9	11.6	54	E	3.0	1.33		1	0	N		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.64	778.3	17.6	— 8.0	96	Calm			0		10			0	0		Dr. Hildebrandsson.
Hernosand			30.59	777.1	11.1	—11.6	100	Calm			0		10			0	0		
Upsala			30.44	773.3	22.3	— 5.4	97	NNE			4		10						
Stockholm			30.38	771.7	25.9	— 3.4	95	ENE			4		10			0	0		
Wisby			30.27	768.8	30.6	— 0.8	100	SE			4		10			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.58	726.0			28.0	— 2.2	71	NNE			4		4			0	0		The Observatory.
Zurich	28.35	720.1			23.0	— 5.0	78	NW			1		3			0	0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			30.04	763.0	63.0	17.2	63	NW			2		0						
Constantinople			30.01	762.2	43.3	6.3	85	NNE	9	4			10		SW	0.072	1.8		
Fao, (Persian Gulf)			30.24	768.0	59.0	15.0		NW			3		10						
Salonica			29.93	760.3	41.0	5.0		N			3		4						
Valona																			
Varna			30.06	763.4	24.8	— 4.0		SW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.23	767.8	3	—16.1	86	E	8	3.6		5	8	NE	NE	0	0		
Chatham, N. B.			30.13	765.3	— 2	—18.9	90	N	4	1.8			8		N	0	0		
Charlottetown, P. E. Island			30.08	764.0	0	—17.8	91	NE	16	7.2			10			0	0		
Father Point, Quebec			30.20	767.1	— 6	—21.1	76	NE	2	0.9		Haze	Haze	E		0	0		
Fort Garry, Manitoba			30.44	773.2	—35	—37.2	100	Calm	0	0		0	0			0	0		
Halifax, N. S.			29.84	757.9	2	—16.7	92	NE	13	5.8			10			0.01	0.2	Heavy snow.	
Kingston, Ontario			30.04	763.0	—23	—30.6	73	NE	6	2.7		10	0	W		0	0		
Montreal, Quebec			30.07	763.8	—23	—30.6	100	N	9	4.0		0	2			0	0		
Ottawa, Ontario			30.02	762.5	—29	— 8.9	43	Calm	0	0		5	Fog	N		0	0		
Parry Sound, Ontario			29.91	759.7	— 7	—21.7	59	NE	11	4.9		2	5	W	W	0	0		
Port Dover, Ontario			29.98	761.5	— 2	—18.9	84	W	10	4.5		8	0	SW		0	0		
Port Stanley, Ontario			30.04	763.0	— 3	—19.4	77	W	9	4.0		0	0			0	0		
Quebec, Quebec			30.11	764.8	— 7	—21.7	100	E				0	Haze			0	0	Light snow.	
Saugeen, Ontario			29.97	761.2	— 4	—20.0	82	N	6	2.7			10			0.10	2.5		
Sydney, C. B.			30.08	764.0	1	—17.2	100	E	9	4.0			10			0	0	Threatening	
Toronto, Ontario			29.95	760.7	0	—17.8	88	W	9	4.0			10		W	0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.03	762.7	— 7	—21.7	63	NW	5	2.2		2	8	W	W	0	0		
Alpena, Mich.			30.07	763.8	—16	—26.7		W	12	5.4		0	0			0	0		
Atlantic City, N. J.			30.09	764.3	7	—13.9	79	E	6	2.7			10			0	0		
Augusta, Ga.			30.18	766.6	27	— 2.8	76	NW	6	2.7		0	0			0	0		
Baltimore, Md.			30.06	763.5	13	—10.6	62	NW	3	1.3		2	5	W	SW	0.08	2.0	Clearing	
Barnegat, N. J.			29.93	760.2	5	—15.0	84	W	8	3.6			10		W	0.12	3.0		
Benton, Montana			30.10	764.8	15	— 9.4	91	E	2	0.9		0	0			0	0		
Bismarck, Dakota			30.35	770.9	—12	—24.4	50	Calm	0	0		0	5			0.08	2.0		
Boston, Mass.			29.93	760.2	3	—16.1	87	N	8	3.6		5	5			0.01	0.2		
Breckenridge, Minn.			30.49	774.4	—21	—29.4	85	NE	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.96	761.0	1	—17.2	71	SW	8	3.6			10			0	0	Light snow	
Burlington, Vt.			30.06	763.5	—14	—25.6	45	NE	1	0.4		0	2			0	0		
Cairo, Ill.			30.30	769.6	15	— 9.4	65	NW	4	1.8			10			0.01	0.2		
Cape Hatteras, N. C.			30.03	762.7	22	— 5.6	100	NW	14	6.3			10		NW	0.02	0.5		
Cape Henry, Va.			30.06	763.5	21	— 6.1	93	NW	28	12.5			10		NW	0.05	1.3		
Cape May, N. J.			30.00	762.0	10	—12.2	79	NW	12	5.4			10			0.70	17.8	Light snow	
Charleston, S. C.			30.13	765.3	33	0.6	69	N	8	3.6		0	Sm'e			0	0		
Cheyenne, W. T.			29.99	761.7	33	0.6	61	NW	20	8.9		0	0			0	0		
Chicago, Ill.			30.20	767.1	— 6	—21.1	61	W	6	2.7		0	0			0	0		
Cincinnati, Ohio			30.21	767.3	11	—11.7	60	NW	8	3.6		0	0			0.01	0.2		
Cleveland, Ohio			30.03	762.7	4	—20.8	100	W	16	7.2		2	2			0	0		
Colorado Springs, Col.			29.98	761.7	23	— 5.0	86	NW	6	2.7		0	0			0	0		
Corsicana, Texas			30.29	769.4	30	— 1.1	78	S	6	2.7		0	0			0	0		
Davenport, Iowa			30.29	769.4	— 4	—20.0	82	W	4	1.8		8	0			0	0		
Denver, Col.			30.02	762.5	31	— 0.6	58	S	10	4.5		0	0			0	0		
Detroit, Mich.			30.06	763.5	— 1	—18.3	84	W	8	3.6		5	5	W	W	0	0		
Dodge City, Kansas			29.83	757.7	27	— 2.8	76	W	2	0.9		0	0			0	0		
Dubuque, Iowa			30.38	771.6	—18	—27.8	33	E	2	0.9		0	Sm'e			0	0		
Duluth, Minn.			30.37	771.4	—19	—28.3		NW	4	1.8		0	5			0	0		
Eastport, Me.			29.98	761.5	2	—16.7	72	NE	26	11.6			10		NE	0	0		
Erie, Penn.			29.96	761.0	5	—15.0	87	SW	12	5.4		0	10			0	0		
Escanaba, Mich.			30.22	767.6	—15	—26.1	71	W	6	2.7			10			0	0		
Fort Gibson, I. T.			30.17	766.3	22	— 5.6	85	E	3	1.3		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.31	769.9	5	—15.0	63	E	10	4.5			10			0.08	2.0		
Galveston, Texas			30.33	770.4	42	5.6	67	NE	6	2.7		Haze	Haze			0	0		
Grand Haven, Mich.			30.12	765.0	2	—16.7	72	N	11	4.9		10	0	N		Blank	Blank		
Indianapolis, Ind.			30.20	767.1	4	—20.0	61	W	4	1.8		0	0			0	0		
Indianola, Texas			30.35	770.9	41	5.0	65	NE	10	4.5		2	0	W		0	0		
Jacksonville, Fla.			30.20	767.1	38	3.3	63	W	4	1.8		0	0			0	0		
Keokuk, Iowa			30.26	768.6	1	—17.2	72	NW	4	1.8		2	2	NW		0	0		
Key West, Fla.			30.16	766.0	66	18.9	69	N	12	5.4		2	0	N		0	0		
Kittyhawk, N. C.			30.06	763.5	18	— 7.8	70	NW	20	8.9		10		NW		0	0		
Knoxville, Tenn.			30.22	767.6	17	— 8.3	83	W	10	4.5			10		W	0.02	0.5		
La Crosse, Wis.			30.38	771.6	—17	—27.2	37	N	4	1.8		Haze	Haze			0	0		
Leavenworth, Kan.			30.28	769.1	12	—11.1	79	Calm	0	0			10			0.01	0.2		
Lexington, Ky.			30.22	767.6	12	—11.1	61	W	8	3.6		Haze	0			0	0		
Long Branch, N. J.			29.92	760.0	16	— 8.9	83	NW	5	2.2			10		NW	0	0		
Louisville, Ky.			30.22	767.6	9	—12.8	78	W	10	4.5		2	Haze			0.07	1.8		
Lynchburg, Va.			30.13	765.3	12	—11.1	59	NW	4	1.8		2	0	W		0.05	1.3		
Malone, N. Y.																			
Marquette, Mich.			30.22	767.6	—14	—25.6	73	NW	12	5.4			10		NW	0	0		
Memphis, Tenn.			30.29	769.4	24	— 4.4	75	NE	1	0.4		0	2			0	0		
Milwaukee, Wisconsin			30.28	769.1	—14	—25.6		NW	8	3.6		2	Haze			0	0		
Mobile, Ala.			30.34	770.6	28	— 2.2	67	N	4	1.8		0	Sm'e			0	0		
Montgomery, Ala.			30.33	770.4	26	— 3.3	75	W	6	2.7		0	0			0	0		
Morgantown, W. Virginia			30.06	763.5	13	—10.6	81	SW	11	4.9			10			0	0		
Mt. Washington, N. H.			29.57	751.1	— 5	—20.6	100	Calm	0	0		2	2	S	S	0	0		
Nashville, Tenn.			30.28	769.1	18	— 7.8	84	NW	1	0.4			10			0.01	0.2		
New Haven, Conn.			29.96	761.0	6	—14.4	64	N	15	6.7			10		N	0	0		
New London, Conn.			29.92	760.0	10	—12.2	68	N	13	5.8		2	2	SW	SW	0	0		
New Orleans, La.			30.32	770.1	42	5.6	52	NE	1	0.4		2	Fog	NE		0	0		
Newport, R. I.																			
New York, N. Y.			30.00	762.0	9	—12.8	78	NW	12	5.4		8	0	W		0	0		
Norfolk, Va.			30.08	764.0	15	— 9.4	82	N	13	5.8			10			0.04	1.0		
North Platte, Neb.			29.73	755.1	25	— 3.9	87	Calm	0	0		0	2		W	0	0		
Omaha, Neb.			30.33	770.4	4	—15.6	100	N	3	1.3			10			0.03	0.8		
Oswego, N. Y.			29.99	761.7	— 7	—21.7	100	SE	4	1.8		Haze	2			0	0		
Peck's Beach			30.00	762.0	8	—13.3	78	NW	16	7.2			10			0.02	0.5	Light snow	
Pembina, D. T.			30.46	773.7	—34	—36.7		Calm	0	0		0	2			0	0		
Philadelphia, Penn.			30.03	762.7	7	—21.7	77	N	12	5.4			10		N	0	0		
Pike's Peak, C. T.			29.92	760.0	16	— 8.9	66	N	28	12.5		0	0			0	0		
Pittsburgh, Penn.			30.06	763.5	8	—13.3	78	W	11	4.9			10			0.01	0.2		
Port Huron, Mich.			30.05	763.3	— 7	—21.7	80	W	10	5.4			10		W	0	0		
Portland, Maine			29.98	761.5	0	—17.8	69	NW	17	7.6			10		NW	0	0		
Portland, Or.			30.40	772.1	36	2.2	80	N	2	0.9			10			0	0	Threate..ing	
Punta Rassa, Fla.			30.19	766.8	56	13.3	73	N	8	3.6		Haze	2		SW	0	0		
Rochester, N. Y.			29.97	761.2	— 2	—18.9	100	SW	8	3.6		0	5			0	0		
Salt Lake City, Utah			30.15	765.8	23	— 5.0	60	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.97	761.2	10	—12.2	79	N	16	7.2			10		N	0.01	0.2	Light snow	
San Diego, Cal.			29.99	761.7	50	10.0	57	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.09	764.3	50	10.0	84	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.76	755.9	28	— 2.2	60	N	4	1.8		5	5	SW		0	0		
Savannah, Georgia			30.17	766.3	33	0.6	69	W	8	3.6		0	Sm'e			0	0		
Shreveport, La.			30.30	769.6	28	— 2.2	88	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.98	761.5	3	—16.1	59	N	8	3.6			10			0	0		
St. Louis, Mo.			30.29	769.4	9	—12.8	79	N	4	1.8			10		N	0.04	1.0		
St. Marks, Fla.			30.28	769.1	30	— 1.1	89	NW	8	3.6		0	0			0	0		
St. Paul, Minn.			30.35	770.9	—24	—31.1	57	NW	3	1.3		0	0			0	0		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			29.98	761.5	7	—13.9	77	NW	12	5.4		8	2	W		Blank	Blank		
Toledo, Ohio			30.10	764.5	3	—16.1	73	SW	12	5.4		5	5	W	SW	0	0		
Tybee Island, Ga.			30.18	766.6	33	0.6	79	NW	18	8.0		0	0			0	0		
Vicksburg, Miss.			30.38	771.6	30	— 1.1	79	SW	1	0.4		0	Haze			0	0		
Virginia City, Mon.			29.82	757.4	20	— 6.7	70	E	2	1.8		2	0			0	0		
Washington, D. C.			30.09	764.3	9	—12.8	89	NW	5	2.2		0	8		NW	0.16	4.1	Clearing	
Wilmington, N. C.			30.13	765.3	19	— 7.2	69	NW	9	4.0		2	2	W	W	0	0		
Wood's Hole, Mass.			29.83	757.7	8	—13.3	78	N	23	10.3			10			0.10	2.5		
Wytheville, Va.			29.95	760.7	8	—13.3	78	NW	3	1.3		5	0	W		0.17	4.3		
Yankton, D. T.			30.41	772.4	— 1	—18.3	71	Calm	0	0			10		NW	0.04	1.0		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	78	26.1		N	4	1.8		5	2	E		0	0		
Point-a-pitre, G'd'loupe, "			30.02	762.5	74	23.3		E				8	0			0	0		
Havana, Cuba, W. I.			29.98	761.5	73	22.8	71	NW	5	2.2		5	2	NW		0	0		
Kingston, Jamaica, W. I.			30.15	765.8	73	22.8	93	Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.92	760.0	70	21.1	79	NE	1	0.4		5	2	NW	SW	0	0		
St. Georges, Bermudas			29.86	758.4	64	17.8		W	27	12.1			10			0.22	5.6		
Honolulu, Sandwich Is.			30.09	764.3	53	11.7	80	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.																			
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.24	768.1	—37	—38.3		W	6	2.7		0	0			0	0		
St. Johns, Newfoundland			30.37	771.4	3	—16.1	72	E				Haze	Haze			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.13	765.2	72.9	22.8	81	Calm			0	0	0			0.024	0.60		Leon M. Acuna.
Ellyria, Ohio	29.19	741.4			2	—16.7		SW	12	5.4		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.45	748.0			—5	—20.6		NW				0	4			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			29.85	758.3															Charnot.
Algiers			29.76	756.0	61.2	16.2	40	W			2		3			0	0		Peter.
La Calle			29.76	755.9															Kunta.
Tunis			29.76	755.8	54.5	12.5	71	W			2		10			0.093	2.5	Fog	Jacques.
Sfax																			Chauvey.
Bajda			29.84	757.9	50.9	10.5		NW			5		4			0	0		Grosjean.
Tebessa			29.76	755.9															Colin.
Geriville			29.81	757.1	50.0	10.0		WSW			5		3			0	0		Bernadach.
Laghouat			29.75	755.7	57.2	14.0	28	W			5		4			0	0		Poinsignon.
Biskra			29.76	755.8	65.3	18.5		NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			29.91	759.8	30.4	— 0.9	68	Calm			0		7			0	0		Prof. Ivan Stozir.
Buda-Pesth			29.98	761.6	28.0	— 2.2	79	N			1		9			0.047	1.2		I. R. Con. M. I., Hungary
Cracow			29.97	761.2	24.6	— 4.1	75	NE			2		1			0.051	1.3		I. R. Observatory.
Eperies			30.02	762.4	23.2	— 4.9	84	Calm			0		5			0.118	3.00	Fog	Julius Mikolik.
Gratz			29.91	759.8	26.6	— 3.0	75	S			2.5		10			0	0		Andreas Rospini.
Hermannstadt			30.04	763.1	10.4	—12.0	90	SW			1		10			0.240	6.10	Snow	Prof. Reissenberger.
Kremsmünster			29.98	760.1	22.3	— 5.4	93	NW			6		10			0.095	7.5		Prof. C. Wagner.
Leoben			30.06	763.6	19.2	— 7.1	84	NE			2		2			0.362	9.2		Dr. T. Stanecki.
Nyiregyhaza			30.04	762.9	23.7	— 4.6	95	S			1		0			0	0		Habesuda Daniel.
Pola			29.84	757.9	38.5	3.6	41	WSW			2		3			0	0		I. R. Hydrographic Office
Szegedin			29.94	760.6	29.0	— 5.0	66	S			1		2			0	0		Karl Stancel.
Trieste			29.86	758.5	37.2	2.9	51	NE			1		10			0	0		Prof. V. Farolfi.
Vienna			29.89	759.2	24.4	— 4.2	73	SW			2		10			0.067	1.7		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.

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.
Brussels	29.90	759.4			31.6	0.2	91	N			1		10		ENE	0.002	0.05	Snowy	Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.13	765.3	35.5	1.9		SSE	17	7.6			9			0.010	0.25		William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			30.06	763.5	37	2.8		E			3		6						William McNeil.
Armagh Observatory			29.98	761.5	40.0	4.4		ESE	18	8.0			10						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.07	763.8	30.7	— 0.7		ESE			4		1					Mist	The Liverpool Obs.
Birr Castle			29.86	758.4	42.0	5.6		SE			3		10					Rainy	J. Dreyer.
Bradford			30.08	764.0	32.0	0.0		E			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.12	765.0	32.5	0.3		N			1		4						H. Todd.
Cape Town, Cape Colony			29.91	759.7	78	25.6		SE			8		0						Sgt. B. E. Hunt
Cape Good Hope Obs.			29.88	758.9	77.9	25.5	44	SW	37	17.5			1						The Royal Observatory.
Cardington																			John McLaren.
Carlisle			30.13	765.3	33.9	1.		SE					1			0	0		T. Bell.
Chatham			30.14	765.5	32.2	0.7		NE			1		10					Fog	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.91	759.0	76.0	24.4		NE			1		8						Sgt. W. F. Hopkins
Dartmoor			30.04	763.0	31.	— 0.6		E			5		10						R. E. Power.
Donaghadee			30.02	762.5	38	3.3		SE			6		10						J. Mac Gowan, Jr.
Dover			30.11	764.8	35	1.7		ENE			3		7						J. Costello.
Dublin																			
Durham Observatory			30.12	765.0	31.9	— 0.1		S					10						G. Goldney.
Eccles, (near Manchester)			30.11	764.8	36.1	2.3		SE	2.6	1.2			6					Mist	Thomas Mackereth.
Falmouth Observatory			29.97	761.2	39.1	3.9		SE	34	15.2			7						The Falmouth Obs.
Fort Napier, (Natal)			30.01	762.2	64.6	18.1		S			3		10						Pvt. G. Salmon.
Galway			30.07	763.8	40	4.4		SE			4		10						Queen's College.
Gibraltar, (Mediterranean)			29.86	758.4	59.6	15.3		WNW			4		7						Sgt. J. Brewster.
Glasgow Observatory			30.06	763.5	34.5	1.4		S			2		8						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.13	765.3	35	1.7		E			2		7						G. T. Watson.
Greenwich Royal Obs.			30.11	764.8	32.1	0.1		E			1		10					Snow	The Royal Observatory.
Guernsey			30.04	763.0	37	2.8		ESE			4		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.10	764.5	31.4	— 0.3		ESE					10						Moorside Observatory.
Halifax, (Nova Scotia)			29.77	756.1	9.1	—12.9		NW			1		10					Mist	Corp'l J. Y. Thompson.
Helston			29.87	758.7	42	5.6		ESE			6		10					Mist	W. B. Moyle.
Holyhead			30.01	762.2	38	3.3		SSW			3		6					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.12	765.0	32.9	0.5		NNE	4	1.8			10					Fog	The Met. Office.
Kingstown			30.01	762.2	41	5.0		SSE			3		10					Mist	George Mitchell.
Lampeter																			
Leicester			30.13	765.3	31.1	— 0.5		Calm			0		10						William J. Harrison
Llandudno			29.98	761.5	37.0	2.8		S					4.5						Dr. James Nicol.
Malta, (Mediterranean)			29.97	761.2	56.0	13.3		NW			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.05	763.3	37	2.8		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.22	767.6	64.5	18.1		NW			5		6						Surgeon I. Jameson.
North Shields			30.18	766.6	34.	1.1		WSW			1		9						John Wm. Irvine.
Nottingham			30.15	768.3	33.4	0.8		ENE			1		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.12	767.6	30.8	— 0.7		E			2		10						St. Mary's College.
Oxford, Radcliffe Obs.			30.09	764.3	33.5	0.6		E			1		10						Radcliffe Observatory.
Plymouth			30.01	762.2	38.5	3.6		SE			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.83	757.7	45	7.2		SSE			7		10						W. Kennedy.
Saint Ann's Head			29.98	762.5	38	3.3		ESE			1		10						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.10	764.5	35.0	1.7		SE	26	11.6			10					Mist	Rev. Dr. Clouston.
Scarboro'			30.14	765.5	36.0	2.2		SE			1		10						F. Heard.
Scutari, (Turkey)			29.80	756.9	52.2	11.2		SE			1		9						W. H. Lyne.
Sheffield			30.12	765.0	34.4	1.3		S			1		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.08	764.0	38.0	3.3		SSE			2		0			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.12	765.0	35.8	2.2		NE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.09	764.3	34.1	1.1		SE			1		9					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.95	760.7	41	5.0		SE			5		8						John Smith.
Strathfield Turgiss			30.09	764.3	33.3	0.7		E			1		10						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.15	765.8	37	2.8		SSE			5								William Lawrence.
Taunton College																			
Thurso			30.08	764.0	35	1.7		SSE			4		8						John Trotter.
Truro Royal Institution			29.91	759.7	42	5.6		E			6		5						Royal Institution.
Valencia			29.67	753.6	46.2	7.9		SE	46	20.6			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.10	764.5	34.7	1.5		NNE			2		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 Cape 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	767.3	29.3	— 1.5	80	NNE			2		9						
Fanöe			30.22	767.7	31.5	— 0.3	78	E			4		5						
Godthaab, (Greenland)			29.56	750.7	4.5	—15.3		NE			2		8						
Stykkisholm, (Iceland)			29.44	747.9	31.6	— 0.2	89	SE			9		8					Snow	
Thorshavn, (Faröe)			29.99	761.8	41.0	5.0	68	S			6		10						
Vestervig			30.24	768.0	27.0	— 2.8	92	E			4		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. 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.
Ajaccio			29.81	757.2	50.4	10.2	54						2						Normal School.
Alençon			30.00	761.9	32.0	0.0	65	NE			2		10			0	0		Normal School.
Amiens			30.10	764.5	32.7	0.4	96	NE			4		10			0	0		Normal School.
Beaumette, (near Angers)			30.01	762.3	30.2	— 1.0	72	E	13.2	5.9			10		E	0	0		Beaumette Observatory.
Beauvais			30.11	764.9	31.3	— 0.4	97	E			1		10		ESE	0	0		Normal School.
Besançon			30.08	764.1	26.1	— 3.3		NE			3		0			0	0		Normal School.
Bourges			30.07	763.7	28.0	— 2.2	75	NNE			2		2		NNE	0	0		Normal School.
Brest			29.89	759.2	39.7	4.3	65	SSE			2	0	0			0	0		Naval Observatory.
Caen			30.10	764.5	35.6	2.0	71	E			1		10			0	0		Normal School.
Carcassonne																			
Chartres			30.11	764.9	29.7	— 1.3		E			1		10			0	0		Normal School.
Chaumont			30.06	763.6	30.0	— 1.1		N			3		7		NE	0	0		Normal School.
Le Mans			30.14	765.5	29.7	— 1.3	72	SE			3		8		SE	0	0		Normal School.
Mirecourt			29.97	761.2	29.3	— 1.5		NNE			2		5		SW	0	0		Normal School.
Orleans			30.08	764.0	30.2	— 1.0	73	NE			2		10		NNE	0	0		Normal School.
Paris			30.07	763.8	30.4	— 0.9	67	E			2		10		E	0	0	Mist.	National Observatory.
Parthenay																			
La Roche sur Yon			30.02	762.5	30.6	— 0.8	88	NE			4		0			0	0		Normal School.
Rouen			30.09	764.3	32.5	0.3	84	SSE			3		10			0	0		Normal School.
Saint Lo			30.15	765.8	44.4	6.9	82	NE			1		10		NE	0	0		Normal School.
Villefranche			29.98	761.5	36.5	2.5	75	W			1		0			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. 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.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.48	621.7			22.6	— 5.2	66	NNW	7.4	3.33			6		W	0.090	2.3		— Falguère.
Montsouris (near Paris)			30.07	763.8	29.8	— 1.2	78	ENE	1.9	0.86			10		NE	0	0	Fog	Marié Davy.
Perpignan	29.72	755.0			44.2	6.8	42	WNW	11.2	5.00			5		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.07	763.9	30.6	— 0.8	83	E			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.04	763.1	30.7	0.7	96	ENE			2		10		E	0	0		C. Marquet.
Versailles, (near Paris)			30.07	763.7	29.8	1.2	72	E			2		10					Fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. 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.
Bamberg			30.04	762.9	28.4	— 2.0	80	W			3		10			0.031	0.8	Snow	Prof. Hoh.
Berlin			30.10	764.6	28.4	— 2.0	81	NW			1		10			0	0		Prof. Arndt.
Breslau			29.97	761.3	25.9	— 3.4	86	E			1		9			0.201	5.1		Dr. P. Neugebauer.
Carlsruhe			30.04	762.9	25.9	— 3.4	85	SW			2.5		10			0.094	2.4	Snow	A. Leus.
Cassel			29.87	758.8	32.0	0.0	85	N			2		10			0	0		Dr. H. Mohl.
Cologne			30.11	764.8	32.0	0.0	90	NW			4		10			0.236	6.0	Snow	Dr. Gaithe.
Emden			30.29	769.4	31.3	— 0.4	70	ENE			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.13	765.2	34.2	1.2	85	NE			1		10			0.114	2.9		Physical Society.
Friedrichshafen			30.08	764.0	26.3	— 0.5	87	W					9			0.063	1.6	Snow	M. Wilhelm.
Hamburg			30.16	766.1	33.1	0.6	80	NE			3		10			0.004	0.1		W. Reinart.
Kiel			30.10	766.0	32.9	0.5	77	NE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.18	766.6	27.5	— 2.5	78	E			4		6			0	0		Prof. E. Luther.
Köslin			30.35	770.9	29.8	— 1.2		NE			1		6			0	0		Dr. Tägert.
Leipsic			30.05	763.2	25.7	— 3.5	89	NE			2		10			0.236	6.0	Snow	Prof. Bruhns.
Münster			30.12	765.0	32.2	0.1	93	NE			1		10			0	0	Snow	Prof. E. Heis.
Posen			30.04	763.0	24.8	— 4.0	77	E			6-7		6			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.06	763.5	27.9	— 2.3	85	NE					10			0.020	0.5		Hartwig and Fulk.
Stuttgart			30.02	762.4	26.2	— 3.2	78	NE					10			0.028	0.7	Snow	Mr. Wurth.
Thorn			30.07	763.7	25.3	— 3.7	70	E			5		4			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.01	762.2	31.8	— 0.1	77	NW			1		10			0.004	0.1		Prof. Flesch.
Wustrow			30.16	766.0	32.0	0.0	72	NE			2		10			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. 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.
Moncalieri			29.84	758.0	37.8	3.2	46	SW	0.7	0.3			1			0	0		
Mondovi			29.88	758.9	32.9	0.5	36	NW			2		2	NNW		0	0		
Genoa			29.80	757.0	44.4	6.9	22	Calm					0			0	0		
Pavia			29.90	759.4	35.6	2.0	46	SW			2		0			0	0		
Verona																			
Padua			29.86	758.1	34.0	1.0	41	N	3.1	1.4			4	N		0	0		
Parma													2	N					
Bologna			29.91	759.6	37.9	3.3	28	W			4					0	0		
Urbino																			
Ancona																			
Florence																			
Siena			29.84	757.9	38.1	3.4	49	SE	0.2	0.1			4	NE		0	0		
Livorno																			
Rome			29.85	758.3	43.0	6.1	37	S			2		1			0	0		
Naples, O.U.			29.86	758.4	45.3	7.4	51	SW			2		2	SW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.89	759.3	42.6	5.9	55	ENE	5.0	2.5			7			0	0		
Cosenza			29.88	758.9	41.7	5.4	69	SSE			2		8			0	0		
Catania, (Sicily)			29.86	758.5	48.6	9.2	63	ESE			2		8	SW		0	0		
Riposto																			
Palermo			29.75	755.7	49.1	9.5	59	NE			4		9			0	0		

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.

NETHERLANDS SERIES.

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

	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.15	765.9	34.9	1.6		ENE			2								
Groningen			30.12	765.0	32.9	0.5		NE			2								
Helder			30.15	765.8	33.3	0.7		ENE			3								
Utrecht			30.09	764.4	32.2	0.1		NE			3		10						

Note.—The originals give the force 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			30.30	769.7	30.9	— 0.6	66	SSE	5.4	2.4			8			0	0		
Christiania			30.42	772.6	16.3	— 8.7	85	E	6.5	2.9			4			0.004	0.1		
Tromsö			30.37	771.3	29.1	— 1.6	92	S			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	29.59	751.7			55.8	13.2	66	NNW	16.1	7.2			9						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.07	763.7	26.1	— 3.3	91	E	7	3			0						Astronomical Obs.
Wilna			30.22	767.6	26.4	— 3.1	81	E	4	2			10						Astronomical Obs.
Dorpat			30.40	772.3	19.6	— 6.9	88	E	7	3			10					Snow	Physical Cabinet.
St. Petersburg			30.47	773.9	19.2	— 7.1	100	ESE	7	3			10						Central Physical Obs.
Kieff			30.26	768.7	26.6	— 3.0	91	ESE	18	8			10					Snow	Physical Cabinet.
Nikolaiev			30.11	764.9	33.1	0.6	92	NE	7	3			10						
Kertch			30.08	764.0	44.8	7.1	77	ENE					7						Lagorio.
Moscow			30.63	778.1	17.1	— 8.3	79	S	7	3			0						Meteorological Obs.
Lugan			30.29	769.3	34.5	1.4	78	E	20	9			10						Meteorological Obs.
Archangel			30.80	782.2	7.0	—13.9	91	SE	4	2			0						Ogorodnikof.
Tiflis			30.42	772.7	46.4	8.0	69	S	4	2			9						Physical Obs.
Astrakhan			30.61	777.5	34.5	1.4	53	ESE	7.8	3.5			7						Sebastianof.
Kasan			30.72	780.3	10.8	—11.8	78	S					9						Physical Cabinet.
Orenburg			30.89	784.6	6.8	—14.0	91	NE	4	2			0						Tschernischef.
Ekaterinburg			30.82	782.8	18.3	— 7.6	83	W	13	6			10						Meteorological Obs.
Kasaly			30.54	775.6	12.0	—11.1	21	N	7.8	3.5			0						Bobrof.
Tashkend			30.54	775.8	39.6	4.2	71	NW	7.8	3.5			2						Michelson.
Barnaul			30.76	781.4	—11.7	—24.3	81	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.54	775.7	— 5.8	—21.0	84	E	7.8	3.5			1						Marks.
Irkutsk			30.72	780.3	— 9.9	—23.3	82	Calm	0	0			0						Usolzef.
Oorga			30.76	781.3	—15.5	—26.4	100	Calm	0	0			0						Mossin.
Peking, (China)			30.37	771.5	25.0	— 3.9	95	Calm	0	0			2					Snow	Physical Observatory
Nertchinsk			30.52	775.2	—17.7	—27.6	91	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					1.2	—17.1		W	13	6			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.

Madrid			29.83	757.6	51.8	11.0	52	S	7.4	3.33		2	0	W		0	.0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.75	775.6	12.6	—10.8	100	NE			2		10			0	0		Dr. Hildebrandsson.
Hernosand			30.49	774.4	15.1	— 9.4	94	N			2		10			0	0		
Upsala			30.39	772.0	20.5	— 6.4	95	NE			4		10						
Stockholm			30.35	770.8	18.3	— 7.6	100	NE			2		10			0.031	0.8		
Wisby			30.28	769.1	27.0	— 2.8	100	E			4		7			0.020	0.5		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.51	724.2			25.9	—3.4	70	NE			2		10			0	0		The Observatory.
Zurich	28.30	718.7			18.9	—7.3	85	NW			1		10			0	0		Prof. B. Billwiller.

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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			30.02	762.5	63.3	17.4	67	NE			2		10						
Constantinople			29.81	757.1	59.9	10.5	64	E	7	3			10		SW	0.441	11.2		
Bas (Persian Gulf)			30.20	767.0	60.8	16.0		NW			3		5						
Salonica			29.74	755.5	46.9	8.3		N			1		0						
Valona			29.76	755.8	43.3	6.3		W			1		2						
Varna			29.92	760.0	42.8	6.0		E			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Rozlere, Quebec			29.66	753.4	7	—13.9	88	NE	8	3.6		8	8	NE	NE	0.25	6.4		
Chatham, N. B.			29.70	754.4	— 3	—19.4	100	SW	1	0.4		2	0	SW		0.21	5.3		
Charlottetown, P. E. Island			29.72	754.9	1	—17.2	88	W	6	2.7		0	0			0.60	15.2		
Father Point, Quebec			29.74	755.4	— 5	—20.0	89	NW	2	0.9		10	Haze			0.5	1.3	Light snow.	
Fort Garry, Manitoba			30.26	768.6	—21	—29.4	93	SE	7	3.1		0	Haze			0	0		
Halifax, N. S.			29.74	755.4	5	—15.0	95	SW	7	3.1			10			0	0		
Kingston, Ontario			30.17	766.3	—21	—29.4	77	W	6	2.7		0	0			0	0		
Montreal, Quebec			29.98	761.5	—14	—25.6	89	W	26	11.6		5	2	W		0	0		
Ottawa, Ontario			30.04	763.0	—21	—29.4	63	W	7	3.1		5	0	W		0	0		
Parry Sound, Ontario			30.20	767.1	—19	—28.3	30	NW	10	4.5		0	0			0	0		
Port Dover, Ontario			30.32	770.1	—16	—26.7	100	W	15	6.7		0	0			0	0		
Port Stanley, Ontario			30.37	771.4	—18	—27.8	75	W			4	0	0			0	0		
Quebec, Quebec			29.92	760.0	—14	—25.6	100	W				0	0			0.05	1.3		
Saugeen, Ontario			30.32	770.1	—19	—28.3	67	Calm	0	0		0	2			0	0		
Sydney, C. B.			29.66	753.4	6	—14.4	91	W	4	1.8		0	0			0	0		
Toronto, Ontario			30.25	769.3	—14	—25.6	100	W	10	4.5		0	0			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	— 4	—20.0	67	W	8	3.6		5	2			0	0		
Alpena, Mich.			30.44	773.2	—22	—30.0		NW	13	5.8		0	0			0	0		
Atlantic City, N. J.			30.15	765.8	4	—15.6	74	W	8	3.6		0	0			0	0		
Augusta, Ga.			30.30	769.6	29	— 1.7	77	NW	3	1.3		0	0			0	0		
Baltimore, Md.			30.21	767.3	8	—13.3	55	N	6	2.7		2	2	NW	NW	0	0		
Barnegat, N. J.			30.04	763.0	4	—15.6	74	W	8	3.6		0	0			0	0		
Benton, Montana			29.88	758.9	37	2.8	100	NW	8	3.6			10			0	0	Light snow.	
Bismarck, Dakota			30.00	762.0	— 2	—18.9	67	SE	8	3.6			10		SE	0	0		
Boston, Mass.			29.94	760.5	2	—16.7	72	NW	12	5.4		0	0			0	0		
Breckenridge, Minn.			30.43	772.9	—19	—28.3	89	SE	8	3.6		0	0			0	0		
Buffalo, N. Y.			30.28	769.1	—13	—25.0	73	W	16	7.2			10			0.01	0.2		
Burlington, Vt.			30.02	762.5	— 5	—20.6	63	N	4	1.8		5	5			0	0		
Cairo, Ill.			30.51	774.9	7	—13.9	75	Calm	0	0		0	Haze			0	0		
Cape Hatteras, N. C.			30.18	766.6	26	— 3.3	76	NW	16	7.2		0	Haze			0	0		
Cape Henry, Va.			30.19	766.8	21	— 6.1	63	SW	8	3.6		0	0			0	0		
Cape May, N. J.			30.17	766.3	8	—13.3	55	N	12	5.4		2	0	N		0.02	0.5		
Charleston, S. C.			30.28	769.1	31	— 0.6	61	NW	8	3.6		0	2			0	0		
Cheyenne, W. T.			29.66	753.4	28	— 2.2	77	Calm	0	0			10			0	0		
Chicago, Ill.			30.52	775.2	— 7	—21.7	59	W	5	2.2		0	0			0	0		
Cincinnati, Ohio			30.55	776.0	1	—17.2	72	N	8	3.6		0	Sm'e			0	0		
Cleveland, Ohio			30.42	772.6	—11	—23.9	50	W	18	8.0		2	0	W		0	0		
Colorado Springs, Col.			29.72	754.9	28	— 2.2	88	Calm	0	0			10			0	0		
Corsicana, Texas			30.13	765.3	48	8.9	69	SE	4	1.8			10			0	0		
Davenport, Iowa			30.59	777.0	— 8	—22.2	100	Calm	0	0		0	2			0	0		
Denver, Col.			29.74	755.4	31	— 0.6	58	Calm	0	0		0	10			0	0		
Detroit, Mich.			30.49	774.4	—16	— 8.9	70	W	12	5.4		Haze	Haze			0	0		
Dodge City, Kansas			29.84	757.9	18	— 7.8	84	SE	4	1.8		5	0	S		0	0		
Dubuque, Iowa			30.68	779.3	—20	—33.9	43	Calm	0	0		0	Sm'e			0	0		
Duluth, Minn.			30.53	775.4	—25	—31.7		Calm	0	0		0	2			0	0		
Eastport, Me.			29.80	756.9	— 2	—18.9	67	NW				0	0			0.01	0.2		
Erie, Penn.			30.35	770.9	—12	—24.4	50	W	18	8.0		2	0	W		Blank	Blank		
Escanaba, Mich.			30.59	777.0	—26	—32.2	52	W	2	0.9		0	0			0	0		
Fort Gibson, I. T.			30.19	766.8	26	— 3.3	85	NE	5	2.2		5	5	W	W	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.07	763.8	4	—15.6	74	SE	16	7.2			10		SE	0	0		
Galveston, Texas			30.16	766.1	58	14.4	81	SE	10	4.5			10		SE	0	0	Threatening	
Grand Haven, Mich.			30.58	776.7	—24	—31.1		Calm	0	0		0	0			0	0		
Indianapolis, Ind.			30.54	775.7	— 2	—18.9	67	NW	4	1.8		0	Sm'e			0	0		
Indianola, Texas			30.13	765.3	54	12.2	87	SE	10	4.5			10		S	0	0		
Jacksonville, Fla.			30.32	770.1	38	3.3	63	W	4	1.8		0	0			0	0		
Keokuk, Iowa			30.51	774.9	— 7	—21.7	59	N	2	0.9		0	2			0	0		
Key West, Fla.			30.25	768.3	59	15.0	70	NE	16	7.2		Haze	Haze			0	0		
Kittyhawk, N. C.			30.21	767.3	20	— 6.7	72	NW	4	1.8		0	0			0	0		
Knoxville, Tenn.			30.42	772.7	13	—10.6	73	NW	4	1.8		0	0			0	0		
La Crosse, Wis.			30.60	777.2	—24	—31.1		S	8	3.6		0	0			0	0		
Leavenworth, Kan.			30.46	773.7	0	—17.8	85	NE	2	0.9		0	0			0	0		
Lexington, Ky.			30.52	775.2	— 2	—18.9	34	NW	8	3.6		0	0			0	0		
Long Branch, N. J.			30.08	764.0	6	—14.4	76	NW	48	21.5		0	0			0	0		
Louisville, Ky.			30.51	774.9	1	—17.2	71	NW	8	3.6		0	0			0	0		
Lynchburg, Va.			30.26	768.6	14	—10.0	62	N	8	3.6		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.55	776.0	—20	—18.9	64	N	8	3.6		0	0			0	0		
Memphis, Tenn.			30.42	772.7	21	— 6.1	85	NE	9	4.0		5	0			0	0		
Milwaukee, Wisconsin			30.63	778.0	—19	—28.3		NW	6	2.7		2	Haze	W		0	0		
Mobile, Ala.			30.30	769.6	40	4.4	91	SW	4	1.8		5	Sm'e			0	0		
Montgomery, Ala.			30.36	771.1	30	— 1.1	73	NE	2	0.9		8	Sm'e			0	0		
Morgantown, W. Virginia			30.57	776.5	— 4	—20.0	64	NW	3	1.3		8	0	W		0	0		
Mt. Washington, N. H.			29.32	744.7	—26	—32.2	100	NW	26	11.6		5	8	NW	NW	0	0		
Nashville, Tenn.			30.47	773.9	12	—11.1	80	Calm	0	0		0	Haze			0	0		
New Haven, Conn.			30.08	764.0	4	—15.6	48	NW	12	5.4		0	0			0.03	0.8		
New London, Conn.			30.05	763.3	5	—15.0	50	NW	6	2.7		2	0	NW		0.02	0.5		
New Orleans, La.			30.26	768.6	46	7.8	69	Calm	0	0		8	Fog	SW		0	0		
Newport, R. I.																			
New York, N. Y.			30.16	766.1	3	—16.1	46	NW	8	3.6		0	0			0	0		
Norfolk, Va.			30.20	767.1	18	— 7.8	61	W	8	3.6		0	Sm'e			0	0		
North Platte, Neb.			29.80	756.9	15	— 9.4	82	SE	14	6.3			10			0	0		
Omaha, Neb.			30.44	773.2	— 3	—19.4	100	SE	4	1.8		5	0	W		0	0		
Oswego, N. Y.			30.12	765.0	— 7	—21.7	59	N	14	6.3			10		NW	0.23	5.8		
Peck's Beach			30.18	766.6	5	—15.0	75	NW	20	8.9		Haze	5			0	0		
Pembina, D. T.			30.31	769.9	—28	—33.3		SE	20	8.9		2	5	SE		0	0		
Philadelphia, Penn.			30.2[illegible]	767.1	4	—15.6	71	NW	19	8.5		0	5		NW	0	0		
Pike's Peak, C. T.			29.68	753.9	8	—13.3	78	SW	34	15.2		0	8			0	0		
Pittsburgh, Penn.			30.40	772.1	— 6	—21.1	61	NW	12	5.4		Haze	0			0	0		
Port Huron, Mich.			30.46	773.7	—20	—28.9	63	NW	10	4.5		0	0			0	0		
Portland, Maine			28.89	759.2	3	—16.1	73	NW	6	2.7			10			0	0		
Portland, Or.					35	1.7	100	Calm	0	0			Fog			0	0	Fog	
Punta Rassa, Fla.			30.30	769.6	46	7.8	76	N	8	3.6		0	Haze			0	0		
Rochester, N. Y.			30.15	765.8	— 8	—22.2	100	W	16	7.2			10			0.04	1.0	Light snow.	
Salt Lake City, Utah			29.93	760.2	27	— 2.8	65	NE	4	1.8		0	0			0	0		
Sandy Hook, N. J.			30.12	765.0	5	—15.0	50	NW	36	16.1		0	2		NW	0	0		
San Diego, Cal.			29.96	761.0	50	10.0	93	SE	4	1.8		0	0			0	0		
San Francisco, Cal.			29.92	760.0	50	10.0	82	W	2	0.9		0	0			0	0		
Santa Fe, N. M.			29.56	750.8	33	0.6	61	SE	4	1.8			10			0	0		
Savannah, Georgia			30.30	769.6	34	1.1	53	W	8	3.6		2	Sm'e			0	0		
Shreveport, La.			30.23	767.8	45	7.2	60	NE	1	0.4		0	10			0	0		
Springfield, Mass.			30.04	763.0	1	—17.2	42	W	8	3.6		0	0			0	0		
St. Louis, Mo.			30.55	776.0	0	—17.8	72	NE	8	13.6		0	0			0	0		
St. Marks, Fla.			30.29	769.4	32	0.0	95	Calm	0	0		10	Haze	W		0	0		
St. Paul, Minn.			30.52	775.2	—32	—35.6	33	Calm	0	0		0	0			0	0		
St. Paul's Island, Alaska																			
Squan Beach, N. J.			30.13	765.3	4	—15.6		W	6	2.7		0	Haze			0	0		
Toledo, Ohio			30.50	774.7	—11	—23.9	52	W	4	1.8		0	0			0	0		
Tybee Island, Ga.			30.29	769.4	34	1.1	61	NW	8	3.6		5	Haze	NW		0	0		
Vicksburg, Miss.			30.33	770.4	38	3.3	63	E	1	0.4			Sm'e			0	0		
Virginia City, Mon.			29.57	776.5	25	— 3.9	88	Calm	0	0			10			0.20	5.1		
Washington, D. C.			30.21	767.3	9	—12.8	89	NW	6	2.7		Haze	8			0	0		
Wilmington, N. C.			30.26	768.6	25	— 3.9	63	N	4	1.8		0	0			0	0		
Wood's Hole, Mass.			30.00	762.0	5	—15.0	75	NW	15	6.7		0	0			0	0		
Wytheville, Va.			30.11	764.8	6	—14.4	76	NW	10	4.5		0	0			0	0		
Yankton, D. T.			30.44	773.2	—10	—23.3	76	E	4	1.8			10		NW	0.01	0.2		

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 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	78	25.6		E	4	1.8		5	5	NE		0	0		
Point-a-pitre, G'd'loupe, "			30.01	762.2	73	22.8		E				2	0			0.13	3.3		
Havana, Cuba, W. I.			30.02	762.5	67	19.4	64	NE	7	3.1		8	0	NE		0	0		
Kingston, Jamaica, W. I.			30.25	768.3	77	25.0	90	Calm	0	0		0	0	NE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.94	760.5	69	20.6	84	N	5	2.2		0	0			0	0		
St. Georges, Bermudas			29.94	760.5	64	17.8		W				5	0	W		0.01	0.2		
Honolulu, Sandwich Is.			30.08	764.0	55	12.8	77	NE	1	0.4		0	0			0	0		
Makawao, Sandwich Is.																			
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.99	761.7	—22	—30.0		S	16	7.2			9			0	0		
St. Johns, Newfoundland			29.35	745.5	—18	— 7.8	84	W					10			0.30	7.6		John Delaney.
St. Johns, Porto Rico, W. I.			30.13	765.3	74.1	23.4	80	Calm			0	0	10			0	0		Leon M. Acuna.
Ellyria, Ohio	29.52	749.8			—13	—25.0		NW	13	5.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.59	751.6			—15	—26.1		E				1	0	W		0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			29.81	757.1															Charnot.
Algiers			29.63	752.6	50.0	10.0	97	Calm			0		10			0.779	19.8	Rain	Peter.
La Calle			29.63	752.5															Kuntz.
Tunis			29.62	752.4	57.9	14.4	53	W			3		5			0	0		Jacques.
Sfax																			Chauvey.
Saida			29.78	756.4	42.3	5.7		W			4		4			0.157	4.0	Rain	Grosjean.
Tebessa			29.61	752.1															Colin.
Geriville			29.74	755.3	50.0	10.0		NNW			3		3			0	0		Bernadach.
Laghouat			29.64	752.8	55.8	13.2	47	W			4		4			0.079	2.0		Poinsignon.
Biskra			29.61	752.1	64.4	18.0		NW			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.

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.
Agram			29.95	760.8	29.1	— 1.6	75	NW			2		4			0	0		Prof. Ivan Stozir.
Ruda-Pesth			29.97	761.2	22.1	— 5.6	82	SW			2		6			0	0		I. R. Cen. M. I., Hungary
Cracow			29.93	760.2	14.4	— 9.8	77	W			4		10			0.028	0.7		I. R. Observatory.
Eperies			29.91	759.8	23.4	— 4.8	89	SE			3		5			0.103	4.90	Fog	Julius Mikolik.
Gratz			29.97	761.2	25.7	— 3.6	86	SSW			2.5		2.5			0.087	2.2		Andreas Rospini.
Hermannstadt			30.02	762.6	20.1	— 6.6	92	SE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			30.03	762.7	19.4	— 7.0	83	W			1		3			0	0		Prof. C. Wagner.
Lemberg			29.90	759.4	19.2	— 7.1	87	S			3		1			0.268	6.8		Dr. T. Stanecki.
Nyiregyhaza			30.02	762.4	24.1	— 4.4	81	SW			1		10			0	0		Habsuda Daniel.
Pola			29.80	757.0	36.3	2.4	41	NNE			3		9			0	0		I. R. Hydrographic Office
Szegedin			29.09	761.7	15.4	— 9.2	94	S			1		5			0	0		Karl Stancel.
Trieste			29.85	758.2	31.1	— 0.5	59	ENE			3		6			0	0		Prof. V. Farolfi.
Vienna			29.98	761.6	22.8	— 5.1	82	NW			1		4			0.039	1.5		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.

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.
Brussels	29.96	761.0			29.1	— 1.6	56	SE			1		9		ENE	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.11	764.8	36.0	2.2		S	13	5.8			2			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.1[illegible]	765.3	39	3.9		SSE			4		6						William McNeil.
Armagh Observatory			30.14	765.5	41.9	5.5		S	13	5.8			7						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.18	766.6	34.0	1.1		SE			2		10						The Liverpool Obs.
Birr Castle			30.12	765.0	45.5	7.5		SSW			1-2		4						J. Drever.
Bradford			30.14	765.5	33.5	0.8		SE			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.22	776.6	32.5	0.3		Calm			0		4						H. Todd.
Cape Town, Cape Colony			29.84	757.9	89	31.7		SE			3		0						Sgt. D. E. Hunt
Cape Good Hope Obs			29.90	759.4	76.2	24.6	47	SSW	28	12.5			1						The Royal Observatory
Cardington			30.20	767.1	33.0	0.6		E					10						John McLaren.
Carlisle			30.13	766.6	33.1	0.6		SE					10			0	0		T Bell.
Chatham			30.17	766.3	33.4	0.8		NE			1		10					Fog	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.89	759.2	73.5	23.1		NE			1		9						Sgt. W. F. Hopkins
Dartmoor			30.21	767.3	31	— 0.6		E			1		10						R. E. Power.
Donaghadee			30.12	765.0	41	5.0		SSE			3		10						J. Mac Gowan, Jr.
Dover			30.15	765.8	35	1.7		NE			4		7						J. Costello.
Dublin																			
Durham Observatory			30.18	766.6	33.0	0.6		SSW					10						G. Goldney.
Eccles, (near Manchester)			30.20	767.1	34.5	1.4		SE	0	0			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.18	766.6	39.2	3.4		ENE	14	6.3			10						The Falmouth Obs.
Fort Napier, (Natal)			29.96	761.0	68.5	20.3		SE			1		10						Pvt. G. Salmon.
Galway			30.09	765.3	42	5.6		S			3		10						Queen's College.
Gibraltar, (Mediterranean)			29.72	754.9	54.8	12.7		W			8		10						Sgt. J. Brewster.
Glasgow Observatory			30.12	765.0	34.4	1.3		NE			1		10					Fog	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.21	767.3	34	1.1		ESE			1		7						G. T. Watson.
Greenwich Royal Obs			30.19	766.8	32.9	0.5		NNE			1		10						The Royal Observatory
Guernsey			30.15	765.8	37.5	3.1		ENE			1		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.18	766.6	32.3	0.2		S					10						Moorside Observatory.
Halifax, (Nova Scotia)			30.00	762.0	5.0	—15.0		N			2		1						Corp'l J. Y. Thompson.
Helston			30.06	763.5	44	6.7		ENE			4		10						W. B. Moyle.
Holyhead			30.16	766.1	37	2.[illegible]		SSW			2		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.20	767.1	33.2	0.7		NE	5	2.2			10					Fog	The Met. Office.
Kingstown			30.16	763.5	41	5.0		S			2		7						George Mitchell.
Lampeter																			
Leicester			30.20	767.1	33.3	0.7		S			1		10						William J. Harrison
Llandudno			30.1[illegible]	766.6	37.2	2.9		SSW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.70	754.4	62.0	16.7		SW			1		3						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.03	762.7	40	4.4		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.29	769.[illegible]	67.5	19.7		NE			6		6						Surgeon I. Jameson.
North Shields			30.21	767.3	35	1.7		SW			1		6						John Wm. Irvine.
Nottingham			30.22	767.6	35.1	1.7		WSW			1		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.21	767.3	31.1	— 0.5		Calm			0		10						St. Mary's College.
Oxford, Radcliffe Obs			30.18	766.6	35	1.7		E			1		10						Radcliffe Observatory.
Plymouth			30.18	766.6	38	3.3		NE			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.09	764.3	44	6.7		SSE			5		8						W. Kennedy.
Saint Ann's Head			30.1[illegible]	766.6	38	3.3		ESE			2		10						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.03	762.7	35.9	2.2		SSE	12	5.4			0						Rev. Dr. Clouston.
Scarboro'			30.17	766.3	36.8	2.7		S			1		10						F. Heard.
Scutari, (Turkey)			30.02	762.5	40.6	2.8		NE			2		9					Mist	W. H. Lyne.
Sheffield			30.20	767.1	35.6	2.0		S			1		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.15	766.1	35.1	1.7		ESE			2		10			0.010	0.25		Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	34.1	1.2		S			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.19	766.8	32.7	0.4		S			1		10						Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			29.92	760.0	40	4.4		SW			5		10						John Smith.
Strathfield Turgiss			30.20	767.1	33.5	0.8		NE			1		10						Charles H. Griffith.
Streatley Vicarage			30.21	767.3	35.2	1.8		E			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.03	762.7	39	3.9		S			5								William Lawrence.
Taunton College																			
Thurso			30.00	762.0	40	4.4		SSE			2		0					Mist	John Trotter.
Truro, Royal Institution			30.12	765.0	41	5.0		E			4		10						Royal Institution.
Valencia			30.06	763.5	46.0	7.8		SSE	23	10.3			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.18	766.6	33.8	1.0		NE			1		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 Cape 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			30.20	767.2	28.2	— 2.1	83	Calm			0		6						
Fanöe			30.24	768.1	28.9	— 1.7	80	NE			4		10						
Godthaab, (Greenland)			29.65	753.1	24.6	— 4.1		N			2		10						
Stykkisholm, (Iceland)			29.56	750.8	27.0	— 2.8	98	SE			6		5						
Thorshavn, (Faröe)			29.81	757.3	40.1	4.5	87	SW			4		6						
Vestervig			30.23	767.9	27.0	— 2.8	87	ENE			4		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.63	752.5	52.9	11.6	46						2						Normal School.
Alençon			30.12	765.1	32.0	0.0	72	NE			3		10			0	0		Normal School.
Amiens			30.15	765.8	32.4	0.2	92	NE			6		10		NE	0	0		Normal School.
Beaumette, (near Angers)			30.10	764.6	32.5	0.3	97	NE	8.5	3.8			10		E	0	0		Beaumette Observatory.
Beauvais			30.17	766.2	30.2	— 1.0	86	E			2		2		E	0	0		Normal School.
Besançon			30.06	763.4	27.1	— 2.7		E			3		0			0	0		Normal School.
Bourges			30.10	764.6	31.6	— 0.2	78	NE			2		5		NE	0	0		Normal School.
Brest			30.15	765.8	34.0	1.1	85	SE			1		10		S	0	0		Naval Observatory.
Caen			30.18	766.5	33.4	0.8	85	NNE			1		10			0	0		Normal School
Carcassonne																			
Chartres			30.12	765.0	30.4	— 0.9		NE			3		10			0	0		Normal School.
Chaumont			30.08	764.1	26.6	— 3.0		N			4		0		N	0	0		Normal School.
Le Mans			30.14	765.6	30.7	— 0.7	66	E			3		10			0	0		Normal School.
Mirecourt			29.99	761.7	29.5	— 1.4		NE			2		2		SW	0	0		Normal School.
Orleans			30.11	764.7	32.7	0.4	74	NE			3		8		N	0	0		Normal School.
Paris			30.11	764.8	30.6	— 0.8	63	ENE			3		10			0	0	Fog	National Observatory.
Parthenay																			
La Roche sur Yon			29.96	761.1	33.8	1.0	93				4		5		S				Normal School.
Rouen			30.16	766.0	32.7	0.4	87	SSE			3		10		N	0	0		Normal School.
Saint Lo			30.14	765.5	32.0	0.0	73	NE			2		10		NE	0	0		Normal School.
Villefranche			29.95	760.7	34.3	1.3	79	W			3		0			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.49	622.0			26.4	— 3.1	43	NNE	18.6	8.33			0			0	0		—, Falguère.
Montsouris (near Paris)			30.11	764.7	32.9	— 0.5	72	NNE	8.4	3.75			10		NNE	0	0		Marié Davy.
Perpignan	29.65	754.8			41.4	5.3	47	NNW	5.6	2.50			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.11	764.8	32.5	0.3	52	NE			2		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.09	764.2	31.9	— 0.1		NE			2		10		NE	0	0		C. Marquet.
Versailles, (near Paris)			30.10	764.6	30.2	— 1.0	73	NW			2		10			0	0	Fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.09	764.2	23.0	— 5.0	74	NW			2		7			0	0		Prof. Roh.
Berlin			30.15	765.9	25.3	— 3.7	67	NW			1		2			0	0		Prof. Arndt.
Breslau			30.00	761.9	14.2	— 9.9	96	NW			5		10			0	0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.11	764.7	26.1	— 3.3	66	NE			1.2		0			0.008	0.2	Snow	A. Leuz.
Cassel			30.08	764.0	27.1	— 2.7	87	N			2		10			0.094	2.4	Snow	Dr. H. Mohl.
Cologne			30.16	766.1	36.0	2.2	84	ENE			2		8			0	0		Dr. Gaithe.
Emden			30.31	769.8	31.3	— 0.4	85	NE			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.23	767.9	27.1	— 2.7	66	NE			1		4			0	0		Physical Society.
Friedrichshafen			30.06	763.4	21.2	— 6.0	87	E					7			0	0		M. Wilhelm.
Hamburg			30.21	767.4	32.5	0.3	61	NE			2		5			0	0		W. Reinart.
Kiel			30.17	766.4	32.2	0.1	77	NE			2		10			0	0		Prof. G. Karsten.
Königsberg			29.92	759.9	24.1	— 4.4	97	NE			4		10			0	0		Prof. E. Luther.
Köslin			30.31	769.9	27.5	— 2.5		NE			1		10			0.043	1.1		Dr. Tägert.
Leipsic			30.14	765.5	22.8	— 5.1	74	NNE			1		10			0	0	Snow	Prof. Bruhns.
Münster			30.19	766.8	30.2	— 1.0	96	NE			1		10			0.004	0.1		Prof. E. Heis.
Posen			30.00	761.9	22.8	— 5.1	88	NW			6–7		6			0	0		Dr. Magerer.
Strassburg, (in Alsace)			30.09	764.4	25.0	— 3.9	79	NNE					0			0	0		Hartwig and Fulk.
Stuttgart			30.10	764.6	23.5	— 4.7	65	E					6			0	0	Snow	Mr. Wurth.
Thorn			29.89	759.1	23.9	— 4.5	89	N			6		10			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.08	764.0	26.6	— 3.0	71	E			5		3			0	0		Prof. Flesch.
Wustrow			30.20	767.1	28.4	— 2.0	87	NE			3		7			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	31.3	— 0.4	70	NW	6.7	0.3			9	W		0	0		
Mondovi			29.87	758.7	27.5	— 2.5	63	NW			2		10	NW		0	0		
Genoa			29.79	756.7	36.9	2.7	51	N	5.6	2.5			10			0	0		
Pavia			29.87	758.8	32.9	0.5	73	E			4		6	E		0	0		
Verona																			
Padua			29.85	758.3	34.0	1.1	54	NNE	12.5	5.6			4	SW		0	0		
Parma																			
Bologna			29.87	758.8	34.5	1.4	29	W			4		8	W		0	0		
Urbino																			
Ancona																			
Florence																			
Siena			29.74	755.3	36.0	2.2	59	E	4.9	2.2			4	E		0	0		
Livorno																			
Rome			29.68	753.8	42.4	5.8	52	NNE			2		8			0	0		
Naples, O.U.			29.66	753.4	46.4	8.0	43	N			2		9			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.74	755.3	45.0	7.7	81	WSW	11.2	5.0			10			0	0		
Cosenza			29.77	756.2	37.9	3.8	80	WNW			2		10			0	0	Snow & rain.	
Catania, (Sicily)			29.66	753.4	51.8	11.0	77	SE			2		8	SE		0	0		
Ripposto																			
Palermo			29.56	750.9	56.1	13.4	71	Calm					7			0.315	8.0		

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.

NETHERLANDS SERIES.

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

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.
Flushing			30.22	767.5	32.4	0.2		E			3								
Groningen			30.14	765.5	32.7	0.4		ENE			2								
Helder			30.20	767.0	32.9	0.5		ENE			1								
Utrecht			30.15	765.8	31.6	— 0.2		NE			2		5						

Note.—The originals give the force 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.

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.
Bergen			30.29	769.3	30.6	— 0.8	73	S	8.3	3.7			7			0	0		
Christiania			30.41	772·4	19.0	— 7.2	84	ENE	3.1	1.4			1			0	0		
Tromsö			30.27	768.8	26.6	— 3.0	94	E			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.50	749.3			51.8	11.0	61	N	38.5	17.2			2						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			29.74	753.3	27.1	— 2.7	98	N	4	2			10					Snow	Astronomical Obs.
Wilna			29.96	760.9	32.7	0.4	98	E	4	2			10					Snow	Astronomical Obs.
Dorpat			30.52	775.1	24.6	— 4.1	92	E	7	3			10						Physical Cabinet.
St. Petersburg			30.46	773.6	22.6	— 5.2	88	ESE	13	6			10					Snow	Central Physical Obs.
Kieff			30.06	763.5	32.7	0.4	100	SE	11	5			10					Thick fog	Physical Cabinet.
Nikolaiev			30.17	766.3	33.4	0.8	89	SSW	2	1			8						
Kertch			30.09	764.4	54.0	12.2	71	SE					6						Lagorio.
Moscow			29.87	758.8	17.4	— 8.1	74	SE	10.1	4.5			8						Meteorological Obs.
Lugan			30.26	768.6	32.5	0.3	80	E	20	9			10						Meteorological Obs.
Archangel			30.89	784.6	19.0	— 7 2	95	SSW	4	2			10						Ogorodnikof.
Tiflis			30.35	770.8	46.4	8.0	69	S	4	2			9						Physical Obs.
Astrakhan			30.62	777.7	36.0	2.2	51	ENE	10.1	4.5			1						Sobastianof.
Kasan			30.86	783.8	7.7	—13.5	80	NE					0						Physical Cabinet.
Orenburg			30.79	782.1	4.6	—15.2	82	SW	4	2			0						Tschernischef.
Ekaterinburg			30.88	784.4	11.1	—11.6	71	W	4	2			0						Meteorological Obs.
Kasaly			30.58	776.7	11.3	—11.5	26	N	7.8	3.5			0						Bobrof.
Tashkend			30.57	776.5	38.8	3.8	73	W	7.8	3.5			10						Michelson.
Barnaul			30.76	781.2	—15.7	—26.5	77	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.24	768.2	6.4	—14.2	89	W	10.1	4.5			10						Varks.
Irkutsk			30.59	777.0	—19.3	—28.5	82	NE					0						Usolzef.
Oorga			30.67	779.0	— 7.4	—21.9	100	WNW	4	2			3						Mossin.
Peking, (China)			30.41	772.4	26.4	— 3.1	55	Calm	0	0			0						Physical Observatory
Nertchinsk			30.38	771.7	—18.4	—28.0	90	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 5.6	—20.9		W	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.

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.
Madrid			29.80	756.8	38.3	3.5	85	N	14.2	6.33		0	17			0.232	5.9		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.54	775.8	9.5	—12.5	100	NE			2		10			0	0	Light snow.	Dr. Hildebrandsson.
Hernosand			30.49	774.5	9.3	—12.6	100	NE			4		10			0	0	Snow	
Upsala			30.39	772.0	17.8	— 7.9	93	N			4		10						
Stockholm			30.32	770.0	19.0	— 7.2	98	NE			4		10			0.142	3.6	Snow	
Wisby			30.27	768.9	27.0	— 2.8	100	E			4		7			0.220	5.6		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.46	722.9			27.5	— 2.5	66	NE			4		8			0	0		The Observatory.
Zurich	28.28	718.4			21.2	— 6.0	75	NE			2		6			0	0		Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —3.6mm.; Thermometer, —5° 6c.; 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, 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)			30.04	762.8	64.0	17.8	70	N			2		5						
Constantinople			30.02	762.5	46.0	7.8	87	N	7	3			10		N	0	0		
Fao, (Persian Gulf)			30.16	766.0	63.3	17.4		NW			3		10						
Salonica			29.92	759.9	46.8	8.2		NW			1		10						
Valona			29.63	752.6	56.8	13.8		S			3		5						
Varna			30.04	763.0	39.2	4.0		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.09	764.3	8	—13.3	100	N	32	14.3			10			0.05	1.3	Light snow.	
Chatham, N. B.			30.08	765.0	4	—15.6	87	NW	11	4.9		8	2	W		0	0		
Charlottetown, P. E. Island			29.99	761.7	3	—16.1	90	NW	6	2.7			10			0	0		
Father Point, Quebec			29.77	756.1	— 9	—22.8	75	N	5	2.2		0	0			0.01	0.2		
Fort Garry, Manitoba			29.84	757.9	— 2	—18.9	97	NW	10	4.5		5	5	NW		0.20	5.1	Clearing	
Halifax, N. S.			29.93	760.2	1	—17.2	70	NW	9	4.0		0	0			0.05	1.3		
Kingston, Ontario			30.68	779.3	—13	—25.0	64	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.56	776.2	—11	—23.9	81	W	24	10.7		0	0			0	0		
Ottawa, Ontario			30.65	778.5	—17	—27.2	69	W	6	2.7		0	0			0	0		
Parry Sound, Ontario			30.53	775.5	—26	—32.2	49	E	8	3.6		0	0			0	0		
Port Dover, Ontario			30.59	777.0	—13	—25.0	100	NE	3	1.3		5	0	NE		0	0		
Port Stanley, Ontario			30.53	775.4	— 4	—20.0	100	E				0	0			0	0		
Quebec, Quebec			30.43	772.9	—10	—23.3	77	W				0	0			0	0		
Saugeen, Ontario			30.51	774.9	—13	—25.0	75	SE	3	1.3		0	2			0	0		
Sydney, C. B.			29.92	760.0	3	—16.1	100	NE	2	0.9			10			0	0		
Toronto, Ontario			30.60	777.2	— 9	—22.8	92	N	8	3.6		5	5	S		0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.63	778.0	— 4	—20.0	66	NW	6	2.7		0	0			0	0		
Alpena, Mich.			30.38	771.6	— 2	—18.9	67	S	14	6.3			10		S	0	0		
Atlantic City, N. J.			30.64	778.2	— 1	—18.3	73	W	6	2.7		0	0			0	0		
Augusta, Ga.			30.55	776.0	30	— 1.1	78	SE	8	3.6			10		SE	0	0		
Baltimore, Md.			30.67	779.0	5	—15.0	50	W	2	0.9		0	Sm'e			0	0		
Barnegat, N. J.			30.54	775.7	1	—17.2	71	W	2	0.9		0	0			0	0		
Benton, Montana			30.30	769.0	— 3	—19.4	100	Calm	0	0		2	0	N		0.07	1.8		
Bismarck, Dakota			30.09	764.3	— 4	—20.0	65	N	39	17.4			10		N	0.53	13.5		
Boston, Mass.			30.45	773.4	— 2	—18.9	68	NW	12	5.4		0	Haze			0	0		
Breckenridge, Minn.			29.88	758.9	7	—13.9	100	NW	36	16.1			10			0.20	5.1		
Buffalo, N. Y.			30.64	778.2	— 3	—19.4	66	SE	4	1.8		0	0			0	0		
Burlington, Vt.			30.62	777.7	— 7	—21.7	59	NE	2	0.9		0	0			0	0		
Cairo, Ill.			30.04	763.0	27	— 2.8	77	SE	8	3.6			10		S	0	0		
Cape Hatteras, N. C.			30.62	777.7	21	— 6.1	71	N	18	8.0		0	2		NE	0	0		
Cape Henry, Va.			30.69	779.5	20	— 6.7	70	N	12	5.4		2	0			0	0		
Cape May, N. J.			30.64	778.2	4	—15.6	74	N	12	5.4		0	0			0	0		
Charleston, S. C.			30.55	776.0	30	— 1.1	59	NE	16	7.2		2	5	N		0	0		
Cheyenne, W. T.			29.73	755.1	22	— 5.5	85	N	8	3.6			10			0	0	Light snow	
Chicago, Ill.			30.06	763.5	11	—11.7	80	SE	17	7.6			10			0.03	0.8	Heavy snow	
Cincinnati, Ohio			30.35	770.9	11	—11.7	79	E	8	3.6		0	5			0	0		
Cleveland, Ohio			30.48	774.2	— 2	—18.9	69	S	12	5.4		0	Sm'e			0	0		
Colorado Springs, Col.			29.72	754.9	22	— 5.6	100	N	4	1.8		0	5			0.17	4.3		
Corsicana, Texas			29.85	758.2	53	11.7	97	SW	9	4.0			10			0.07	1.8	Light rain	
Davenport, Iowa			29.96	761.0	11	—11.7	100	SE	12	5.4			10			0.10	2.5	Light snow.	
Denver, Col.			29.84	757.9	24	— 4.4	74	E	2	0.9		0	0			0	0		
Detroit, Mich.			30.44	773.2	1	—17.2	72	SE	8	3.6			10			0	0		
Dodge City, Kansas			29.58	776.7	28	— 2.2	77	N	4	1.8		10	0	S		0.01	0.2		
Dubuque, Iowa			29.97	761.2	11	—11.7	90	W	12	5.4			10			0.31	7.9	Heavy snow	
Duluth, Minn.			29.89	759.2	3	—16.1	86	NE	8	3.6			10			0.27	6.8	Light snow.	
Eastport, Me.			30.21	767.3	— 2	—18.9	67	N				2	0	N		0	0		
Erie, Penn.			30.55	776.0	— 3	—19.4	83	SE	4	1.8		2	Haze			0	0		
Escanaba, Mich.			30.11	764.8	6	—14.4	76	SE	4	1.8			10		SE	0	0		
Fort Gibson, I. T.			29.68	753.9	41	5.0	91	SE	19	8.5			10			0.15	3.8	Light rain	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.10	764.5	8	—13.3	67	NW	28	12.5			10		NW	0	0		
Galveston, Texas			29.88	758.9	61	16.1	100	S	8	3.6			Fog			0.81	20.6	Threatening	
Grand Haven, Mich.			30.21	767.3	6	—14.4	62	SE	6	2.7			10		S	0	0		
Indianapolis, Ind.			30.22	767.6	12	—11.1	61	SE	12	5.4			10			0	0		
Indianola, Texas			29.88	758.9	61	16.1	100	S	3	1.3			Fog			0.56	14.2	Fog	
Jacksonville, Fla.			30.40	772.1	52	11.1	59	NE	8	3.6			10			0	0		
Keokuk, Iowa			29.86	758.4	17	— 8.3	83	SE	15	6.7			10			0.08	2.0	Light snow.	
Key West, Fla.			30.25	768.3	65	18.3	78	NE	12	5.4		5	Haze	E		0	0		
Kittyhawk, N. C.			30.66	778.7	17	— 8.3	69	NE	20	8.9		5	0	NE		0	0		
Knoxville, Tenn.			30.37	771.4	17	— 8.3	83	NE	10	4.5		10	0	W		0	0		
La Crosse, Wis.			29.96	761.0	11	—11.7	100	S	12	5.4			10		S	0.29	7.4	Heavy snow.	
Leavenworth, Kan.			29.76	755.9	28	— 2.2	100	Calm	0	0			10			0.26	6.6	Light snow.	
Lexington, Ky.			30.32	770.1	9	—12.8	57	SE	4	1.8		8	2	SW		0	0		
Long Branch, N. J.			30.56	776.2	9	—12.8	54	NW	8	3.6		0	0			0	0		
Louisville, Ky.			30.23	767.8	13	—10.6	81	NE	4	1.8			10			0	0		
Lynchburg, Va.			30.74	780.8	8	—13.3	53	Calm	0	0		2	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	7	—13.9	78	SE	8	3.6			10		S	0	0		
Memphis, Tenn.			30.01	762.2	38	3.3	80	SE	8	3.6			10			0	0		
Milwaukee, Wisconsin			30.08	764.0	10	—12.2	100	SE	25	11.2			10			0	0	Light snow.	
Mobile, Ala.			30.18	766.6	53	11.7	86	SE	12	5.4			10		S	0.11	2.8		
Montgomery, Ala.			30.28	769.1	43	6.1	17	SE	12	5.4		10	0	S		0	0		
Morgantown, W. Virginia			30.57	776.5	— 4	—20.0	64	NW	3	1.3		8	0	W		0	0		
Mt. Washington, N.			29.77	756.1	— 11	—23.9	100	N	68	30.4		0	0			0	0		
Nashville, Tenn.			30.18	766.6	26	— 3.3	88	S	12	5.4			10			0	0		
New Haven, Conn.			30.57	776.5	5	—15.0	50	NW	8	3.6		0	0			0	0		
New London, Conn.			30.55	776.0	4	—15.6	48	NW	13	5.8		0	0			0	0		
New Orleans, La.			30.03	762.7	57	13.9	87	SE	20	8.9			10			0.98	24.9	Light rain	
Newport, R. I.																			
New York, N. Y.			30.63	778.0	7	—13.9	54	NW	12	5.4		0	0			0	0		
Norfolk, Va.			30.69	779.5	10	—12.2	49	N	8	3.6		2	2			0	0		
North Platte, Neb.			29.60	751.8	20	— 6.7	70	NW	24	10.7		0	10		W	0.04	1.0		
Omaha, Neb.			29.80	756.9	17	— 8.3	92	S	3	1.3			10		SW	0.06	1.5		
Oswego, N. Y.			30.66	778.7	2	—16.7	86	S				5	0	NW		0	0		
Peck's Beach			30.67	779.0	0	—17.8	70	NW	8	3.6		0	0			0	0		
Pembina, D. T.			29.86	758.4	0	—17.8	85	NW	20	8.9		2	5	W		0.02	0.5		
Philadelphia, Penn.			30.67	779.0	2	—16.7	59	NW	11	4.9		0	0			0	0		
Pike's Peak, C. T.			29.48	748.8	—11	—23.9	100	W	25	11.2			Fog			0.07	1.8	Fog	
Pittsburgh, Penn.			30.61	777.5	— 3	—19.4	66	E	6	2.7		Haze	Sm'e			0	0		
Port Huron, Mich.			30.52	775.2	— 4	—20.0	82	SE	8	3.6		Haze	5			0	0		
Portland, Maine			30.41	772.4	2	—16.7	72	NW	2	0.9		0	Haze			0	0		
Portland, Or.			30.17	766.3	33	0.6	90	Calm	0	0			10			0	0		
Punta Rassa, Fla.			30.33	770.4	54	12.2	69	NE	12	5.4		5	5	SW	NE	0	0		
Rochester, N. Y.			30.65	778.5	3	—16.1	100	SE	4	1.8			10			0.06	1.5		
Salt Lake City, Utah			30.00	762.0	30	— 1.1	59	Calm	0	0			10			0	0		
Sandy Hook, N. J.			30.61	777.5	6	—14.4	52	NW	16	7.2		0	Haze			0	0		
San Diego, Cal.			30.09	764.3	31	— 0.6	86	N	4	1.8		0	0			0	0		
San Francisco, Cal.			30.08	764.0	50	10.0	86	SW	8	3.6		0	2			0	0		
Santa Fe, N. M.			29.51	774.9	28	— 2.2	66	NW	4	1.8			10			0.01	0.2		
Savannah, Georgia			30.49	774.4	36	2.2	71	NE	8	3.6		5	Sm'e	W		0	0		
Shreveport, La.			29.90	759.4	51	10.6	100	S	1	0.6			10		S	0.13	3.3	Light rain	
Springfield, Mass.			30.55	776.0	3	—16.1	46	Calm	0	0		0	0			0	0		
St. Louis, Mo.			29.96	761.0	24	— 4.4	74	S	16	7.2			10		S	0.58	9.6	Sleet	
St. Marks, Fla.			30.32	770.1	50	10.0	59	E	14	6.3		10	0	SW		0	0		
St. Paul, Minn.			29.79	756.6	7	—13.9	100	SE	8	3.6			10			0.05	1.3	Light snow	
St. Paul's Island, Alaska			29.17	740.9	32	0.0	100	E	14	6.3			10			0.01	0.2		
Squan Beach, N. J.			30.62	777.3	1	—17.2		NW	4	1.8		0	0			0	0		
Toledo, Ohio			30.42	772.7	2	—16.7	58	E	10	4.5		10	0	W		0	0		
Tybee Island, Ga.			30.50	774.7	40	4.4	90	NE	22	9.8		2	2		SE	0	0		
Vicksburg, Miss.			30.02	762.5	51	10.6	86	SE	12	5.4			10		SE	0.77	19.6	Light rain	
Virginia City, Mon.			29.68	753.9	4	—15.6	74	SW	16	7.2			10			0	0		
Washington, D. C.			30.71	780.0	2	—16.7	72	N	2	0.9		Haze	2			0	0		
Wilmington, N. C.			30.65	778.5	18	— 7.8	37	NE	12	5.4		5	0	W		0	0		
Wood's Hole, Mass.			30.49	774.4	3	—16.1	46	NW	12	5.4		0	0			0	0		
Wytheville, Va.			30.45	773.4	5	—15.0	87	E	6	2.7		0	0			0	0		
Yankton, D. T.			29.91	759.7	14	—10.0	82	NW	32	14.3			10		NW	0.29	7.4	Light snow	

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.13	765.3	80	26.7		NE	3	1.3		5	2	E		0	0		
Point-a-pitre, G'd'loupe, "			30.03	762.7	73	22.8		E	Blank	Blank		5	0			0.10	2.5		
Havana, Cuba, W. I.			30.02	762.5	68	20.0	75	E	7	3.1		2	0	E		0	0		
Kingston, Jamaica, W. I.			30.76	768.6	75	23.9	67	E	2	0.9		1	0	SE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	72	22.2	71	NE	8	3.6		2	0	NE		0	0		
St. Georges, Bermudas			30.26	768.6	58	14.4		NW	68	30.4		8	5	W		0.07	1.8		
Honolulu, Sandwich Is.			30.10	764.5	56	13.3	94	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.81	706.4			53	11.7	73	SE	1	0.4		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.88	758.9	−28	−33.3	Blank	W	25	11.2			10			0	0		
St. Johns, Newfoundland			29.70	754.4			100	E				0	5			0.15	3.8		John Delaney.
St. Johns, Porto Rico W. I.			30.15	765.7	73.2	22.9	82	S			1	5	3			0.291	7.40		Leon M. Acuna.
Ellyria, Ohio	29.58	751.3			0	−17.8		SE	11	4.9			10			0	0		H. M. Redington.
Indianola, Iowa	29.02	737.1			10	−12.2		SE					10			0.65	16.5	Snow	G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.12	765.0															Charnot.
Algiers			30.05	763.3	51.3	10.7	58	NW			4		9			0.713	18.1	Rain	Peter.
La Calle			29.88	759.0															Kuntz.
Tunis			29.85	758.1	48.0	8.9	92	N			3		10			0.583	14.8	Rainy	Jacques.
Sfax																			Chauvey.
Sadda			30.08	764.1	42.6	5.9		NNW			5		6			0	0		Grosjean.
Tebessa			29.87	758.7															Colin.
Geriville			30.04	763.7	53.6	12.0		W			6		8			0	0	Snow	Bernadach.
Laghouat			29.95	760.8	48.2	9.0	52	N			3		8			0	0		Poinsignon.
Biskra			29.88	759.0	56.3	13.6		NW			6		7			0	0	Rainy	Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.15	765.8	25.5	— 3.6	70	NE			1		10			0.072	1.8		Prof. Ivan Stozir.
Buda-Pesth			30.07	763.7	20.7	— 6.3	76	W			4		8			0.024	0.6		I. R. Cen. M. I., Hungary
Cracow			30.15	765.7	16.7	— 8.5	71	W			1		8			0	0		I. R. Observatory.
Eperies			30.02	762.6	24.8	— 4.0	82	N			1		10			0	0		Julius Mikolik.
Gratz			30.08	764.1	25.0	— 3.9	76	S			2.5		5			0.072	1.8		Andreas Rospini.
Hermannstadt			29.90	759.4	37.4	3.0	70	S			3		5			0.028	0.70		Prof. Reissenberger.
Kremsmünster			30.24	768.0	19.0	— 7.2	84	NW			3		7			0.031	0.8		Prof. C. Wagner.
Lemberg			30.05	763.2	20.1	— 6.6	100	NE			3		10			0.177	4.5		Dr. T. Stanecki.
Nyiregyhaza			30.00	762.1	28.4	— 2.0	96	N			3		10			0.118	2.93		Habzsuda Daniel.
Pola			30.02	762.5	33.6	— 0.9	72	ENE			4		3			0	0		I. R. Hydrographic Office
Szegedin			30.02	762.5	23.0	— 5.0	90	W			3		10			0.197	5.00		Karl Stancel.
Trieste			30.08	764.1	31.5	— 0.3	54	ENE			3		10			0	0		Prof. V. Farolfi.
Vienna			30.14	765.6	22.5	— 5.3	82	WNW			2		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.

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.
Brussels	30.01	762.3			30.7	— 0.7	73	W			1		10		N	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.82	757.4	37.5	3.1		S	27	12.1			10			0	0	Rain	William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			29.76	755.9	43	6.1		SSW			5		8			Blank	Blank	Rain	William McNeil.
Armagh Observatory			29.77	756.1	42.3	5.7		S	27	12.1			10			Blank	Blank	Rain	Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			29.98	761.7	38.8	3.8		SE			2		9					Mist	The Liverpool Obs.
Birr Castle			29.80	756.9	45.9	7.7		SSW			1-3		10			Blank	Blank	Rain	J. Dreyer.
Bradford			29.95	760.7	38.8	3.8		S			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.16	766.1	35.1	1.7		SSW			1		4						H. Todd.
Cape Town, Cape Colony			29.75	755.6	90	32.2		SE			3		8						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.82	757.4			78.0	25.6	48	SSW	20	8.9			9						The Royal Observatory.
Cardington			30.10	764.5	36.0	2.2		SW					8						John McLaren.
Carlisle			29.90	759.4	39.1	3.9		SE					10			0	0		T. Bell.
Chatham			30.15	765.8	34.6	1.4		S			2		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.93	760.2	75.0	23.9		NE			2		0						Sgt. W. F. Hopkins
Dartmoor			30.15	765.8	36	2.2		SW			1		10			Blank	Blank	Rain & fog	R. E. Power.
Donaghadee			29.78	756.4	42	5.6		S			6		10			Blank	Blank	Rain	J. Mac Gowan, Jr.
Dover			30.18	766.6	35	1.7		SSW			3		7						J. Costello.
Dublin																			
Durham Observatory			29.94	760.5	33.0	0.6		S					9						G. Goldney.
Eccles, (near Manchester)			30.02	762.5	35.8	2.1		SE	0	0			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.11	764.8	43.5	6.4		SSW	21	9.4			10			Blank	Blank	Rain	The Falmouth Obs.
Fort Napier, (Natal)			29.86	758.4	78.5	25.8		E			3		0						Pvt. G. Salmon.
Galway			29.77	756.1	47	8.3		S			2		10					Mist	Queen's College.
Gibraltar, (Mediterranean)			30.17	766.3	58.2	14.6		SSW			1		0						Sgt. J. Brewster.
Glasgow Observatory			29.77	755.1	38.8	3.8		SSE			3		10			Blank	Blank	Rain	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.15	765.8	33	0.6		WSW			1		10					Mist	G. T. Watson.
Greenwich Royal Obs.			30.16	766.1	35.3	1.8		SSW			1		10						The Royal Observatory.
Guernsey			30.18	766.6	39	3.9		SW			2		10						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.99	761.7	37.6	3.1		SSW					9						Moorside Observatory.
Halifax, (Nova Scotia)			30.51	774.9	2.0	—16.7		Calm			0		6					Mist	Corp'l J. Y. Thompson.
Helston			29.98	761.5	46	7.8		SSE			6		10			Blank	Blank	Rain & Mist.	W. B. Moyle.
Holyhead			29.90	759.4	43	6.1		SSE			7		10			Blank	Blank	Rain	John Tilston.
Hull Park																			
Kew Observatory			30.17	766.3	37.2	2.9		S	12	5.4			10	S					The Met. Office.
Kingstown			29.91	759.7	44	6.7		S			2		10						George Mitchell.
Lampeter																			
Leicester			30.09	764.3	33.5	0.8		SW			2		10					Mist	William J. Harrison
Llandudno			29.92	760.0	42.3	5.7		SSW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.88	758.9	60.0	15.6		SE			1		7						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.65	753.1	41	5.0		SW			1		7						William D. Penny.
Nassau, (Bahamas)			30.18	766.6	71.6	22.0		NE			3		4						Surgeon I. Jameson.
North Shields			29.97	761.2	35	1.7		S			2		7					Mist	John Wm. Irvine.
Nottingham			30.09	764.3	35.5	1.9		SSW			2		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.09	764.3	34.0	1.1		S			2		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs.			30.11	764.8	36	2.2		S			1		10						Radcliffe Observatory.
Plymouth			30.11	764.8	42.5	5.8		SW			2		10			Blank	Blank	Fog & Rain.	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.91	759.7	47	8.3		SW			5		10			Blank	Blank	Rain	W. Kennedy.
Saint Ann's Head			29.98	761.5	46	7.8		SSW			4		10			Blank	Blank	Rain	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.61	752.1	38.0	3.3		S	40	17.9			10			Blank	Blank	Rain	Rev. Dr. Clouston.
Scarboro'			30.02	762.5	33.8	1.0		SSW			2		10					Fog	F. Heard.
Scutari, (Turkey)			29.99	761.7	59.6	15.3		Calm			0		3						W. H. Lyne.
Sheffield			30.04	763.0	36.6	2.6		SW			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.87	758.7	42.3	5.7		SW			5		10			0.110	2.79		Francis Redford.
Somerleyton, (Lowestoft)			30.14	765.5	33.5	0.8		SW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.98	761.5	35.4	1.9		SW			1		10					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.51	749.5	42	5.6		SSW			3		8			Blank	Blank	Rain	John Smith.
Strathfield Turgiss			30.14	765.5	59.7	15.4		SW			2		8						Charles H. Griffith.
Streatley Vicarage			30.17	766.3	37.2	2.9		NNE			2		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.73	755.1	40	4.4		S			5								William Lawrence.
Taunton College																			
Thurso			29.62	752.3	37	2.8		SSE			6		10			Blank	Blank	Rain	John Trotter.
Truro Royal Institution			30.03	762.7	46	7.8		SW			6		10						Royal Institution.
Valencia			29.80	756.9	49.3	9.6		SSW	37	16.5						Blank	Blank	Mist & Rain	Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.17	766.3	37.3	2.9		SSW			4		10						S. H. Miller.
York																			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 Cape 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	762.4	21.9	— 5.6	87	NNE			4		8						
Fanöe			30.15	765.7	23.7	— 4.6	74	N			2		9						
Godthaab, (Greenland)			29.88	758.9	4.8	—15.1		NE			4		0						
Stykkisholm, (Iceland)			29.22	742.3	34.2	1.2	92	NE			6		8						
Thorshavn, (Faröe)			29.47	748.5	42.4	5.8	81	SSE			6		10			Blank	Blank	Rain	
Vestervig			30.11	764.9	22.3	— 5.4	96	E			2		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.89	759.2	50.9	10.5	48						2						Normal School.
Alençon			30.24	768.2	33.8	1.0	74	SW			3		10			0	0		Normal School.
Amiens			30.23	767.9	30.6	— 0.8	84	WSW			6		10			0	0		Normal School.
Beaumette, (near Angers)			30.25	768.4	35.8	2.1	64	S	0.0	0.0			2		E	0	0		Beaumette Observatory.
Beauvais			30.26	768.5	31.5	— 0.3	97	S			1		0			0	0		Normal School.
Besançon			30.27	768.8	25.5	— 3.6		NE			3		0			0	0		Normal School.
Bourges			30.11	764.9	28.0	— 2.2	83	NNE			2		0			0	0		Normal School.
Brest			30.14	765.6	39.7	4.3	80	SW			3		10		SW	0	0		Naval Observatory.
Caen			30.24	768.1	34.3	1.3	78	S			2		10			0	0		Normal School.
Carcassonne																			
Chartres			30.25	768.4	31.5	— 0.3		WSW			1		0			0	0		Normal School.
Chaumont			30.28	769.1	24.8	— 4.0		N			2		3		N	0	0		Normal School.
Le Mans			30.29	769.3	32.0	0.0	63	SW			2		2		NE	0	0		Normal School.
Mirecourt			30.17	766.4	31.6	— 0.2		E			2		5		W	0	0		Normal School.
Orleans			30.28	769.0	30.2	— 1.0	73	NE			2		2		N	0	0		Normal School.
Paris			30.24	768.2	29.1	— 1.6	57	S			1		8		S	0	0	Mist...	National Observatory.
Parthenay																			
La Roche sur Yon			30.29	769.4	32.7	0.4	92	N			2		10		S	0	0		Normal School.
Rouen			30.22	767.7	33.6	0.9	85	SSE			2		0			0	0		Normal School.
Saint Lo			30.26	768.7	34.0	1.1	85	NW			1		10		NW	0	0		Normal School.
Villefranche			30.23	767.8	35.8	2.1	89	SE			1		10			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.78	629.2			28.0	— 2.2	38	NNW	10.2	4.54			0			0	0		—. Falguère.
Montsouris (near Paris)			30.24	768.1	29.5	— 1.4	74	Calm	0.6	0.25			8			0	0		Marié Davy.
Perpignan	30.00	761.9			43.0	6.1	42	WNW	18.6	8.33			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.25	768.3	29.8	— 1.2	57	WSW			1		5			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours																			C. Marquet.
Versailles, (near Paris)			30.23	767.9	30.9	— 0.6		W			2		7			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.15	765.9	22.8	— 5.1	81	NW			1		10			0	0		Prof. Hoh.
Berlin			30.15	765.9	29.8	— 1.2	76	W			1		7			0.134	3.4	Snow	Prof. Arndt.
Breslau			30.13	765.2	25.0	— 3.9	89	W			4		10			0.201	5.1	Snow	Dr. P. Neugebauer.
Carlsruhe			30.24	768.2	23.5	— 4.7	63	NW			1		9			0	0	Snow	A. Leuz.
Cassel			30.14	765.5	29.3	— 1.5	78	SE			2		0			0	0		Dr. H. Mohl.
Cologne			30.22	767.5	38.3	3.5	100	SSE			3		9			0	0		Dr. Gaithe.
Emden			30.28	769.2	32.7	0.4	90	Calm			0		5			0.146	3.7	Snow	Prof. Prestel.
Frankfort on the Main			30.34	770.7	25.3	— 3.7	65	SW			1		2			0	0		Physical Society.
Friedrichshafen			30.26	768.6	22.1	— 5.5	87	W					6			0	0		M. Wilhelm.
Hamburg			30.16	766.1	29.3	— 1.5	76	NNW			0		10			0.004	0.1	Fog	W. Reimart.
Kiel			30.11	764.7	28.0	— 2.2	71	NNW			3		10			0	0		Prof. G. Karsten.
Königsberg			30.09	764.4	23.9	— 4.5	71	SW			4		0			0.1 2	2.6	Snow	Prof. E. Luther.
Köslin			30.20	767.2	27.5	— 2.5		N			4		8			0.059	1.5		Dr. Tägert.
Leipsic			30.19	766.8	24.6	— 4.1	79	WSW			2		9			0.130	3.3		Prof. Bruhns.
Münster			30.23	767.9	27.5	— 2.5	95	SE			1		10			0	0	Snow	Prof. E. Heis.
Posen			30.09	764.4	28.6	— 1.9	88	W			5		6			0.327	8.3		Dr. Magener.
Strassburg, (in Alsace)			30.26	768.5	26.8	— 2.9	76	S					10			0.072	1.8		Hartwig and Fulk.
Stuttgart			30.24	768.0	22.5	— 5.3	65	NE					1[illegible]			0	0	Snow	Mr. Wurth.
Thorn			30.06	763.4	24.8	— 4.0	83	S			4		10			0.197	5.0	Snow	Dr. Hasenbalg.
Treves, (Trier)			30.10	766.7	24.6	— 4.1	67	W			4		2			0	0		Prof. Flesch.
Wustrow			30.07	763.9	29.1	— 1.6	86	N			6		10						E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	763.9	36.0	2.2	56	SE			2		1	S		0	0		
Mondovi			30.07	763.7	32.4	0.2	50	NW			2		0			0	0		
Genoa			30.07	763.7	41.4	5.2	25	NW	1.3	0.6			0			0	0		
Pavia			30.09	764.4	35.6	2.0	48	E			4		0			0	0		
Verona																			
Padua			30.08	764.1	32.2	0.1	91	NW	2.5	1.1			0			0	0		
Parma																			
Bologna			30.11	764.9	32.7	0.4	31	W			4		2			0	0		
Livorno			30.03	762.7	38.3	3.5	52	E	9.8	4.4			0			0	0		
Urbino			30.06	763.5	26.1	— 3.3		NE			2		10			0	0		
Ancona																			
Siena			30.04	762.9	34.0	1.1	45	NNE	0.2	0.1			1	NE		0	0		
Rome			29.98	761.4	41.7	5.4	42	NW			4		1			0	0		
Naples, O.U.			29.96	761.1	50.2	10.2	60	SE			2		9	SW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.96	761.0	45.3	7.4	80	NNE	4.9	2.2			9			0	0		
Cosenza			29.95	760.7	42.8	6.0	83	NE			2		10			0	0	Rain	
Catania, (Sicily)			29.91	759.8	52.7	11.5	56	ENE			2		2	W		0	0		
Biposto																			
Palermo			29.85	758.1	47.7	8.7	77	WSW			2		10			0.035	0.9	Rain	

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.

NETHERLANDS SERIES.

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

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.
Flushing			30.23	767.9	32.9	0.5		W			3								
Groningen			30.11	764.7	32.4	0.2		ENE			2								
Helder			30.13	765.3	34.6	1.4		S			2								
Utrecht			30.15	765.7	30.7	— 0.7		SSW			3		10						

NOTE.—The originals give the force 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.

Station.	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			30.13	765.3	29.7	— 1.3	59	S	9.2	4.1			0			0	0		
Christiania			30.26	768.6	15.3	— 0.3	81	ENE	10.7	4.8			8			0	0		
Tromsö			30.09	764.3	21.9	— 5.6	93	SE			6		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	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	29.89	759.1			46.8	8.2	54	ENE	6.3	2.8			2						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Station.	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			30.15	765.7	22.6	— 5.2	85	SE	4	2			10						Astronomical Obs.
Wilna			30.28	769.0	29.5	— 1.4	74	Calm	0	0			10						Astronomical Obs.
Dorpat			30.43	773.0	26.2	— 3.2	64	ESE	4	2			2						Physical Cabinet.
St. Petersburg			30.49	774.5	25.9	— 3.4	87	SSE	9	4			8						Central Physical Obs.
Kieff			30.33	770.3	30.7	— 0.7	94	ESE	16	7			10						Physical Cabinet.
Nikolaiev			30.24	768.2	33.4	0.8	92	NE	4	2			10						
Kertch			30.16	766.0	44.6	7.0	75	ENE					3						Lagorio.
Moscow			30.76	781.3	14.9	— 9.5	74	SSE	10.1	4.5			8						Meteorological Obs.
Lugan			30.37	771.5	31.3	— 0.4	63	ESE	20	9			5						Meteorological Obs.
Archangel			30.70	779.8	9.9	—12.3	85	SE	13	6			6						Ogorodnikof.
Tiflis			30.30	769.6	45.7	7.6	69	S	4	2			9						Physical Obs.
Astrakhan			30.64	778.3	34.9	1.6	48	ENE	10.1	4.5			0						Sebastianof.
Kasan			30.93	785.6	7.7	—13.5	100	NNE					0						Physical Cabinet.
Orenburg			30.76	781.4	0.3	—17.6	89	NE	7.8	3.5			6						Tschernischef.
Ekaterinburg			30.89	784.6	7.2	—13.8	83	W	7.8	3.5			1						Meteorological Obs.
Kasaly			30.53	775.4	16.5	— 8.6	67	N	7.8	3.5			0						Bobrof.
Tashkend			30.62	777.8	32.5	0.3	100	NE	7.8	3.5			10					Snow	Michelson.
Barnaul			30.66	778.8	—11.4	—24.1	78	W	4	2			1						Meteorological Obs.
Yeniseisk			29.93	760.3	8.1	—13.3	91	SW	16.8	7.5			10					Snow	Marks.
Irkutsk			30.40	772.2	— 3.8	—19.9	75	Calm	0	0			4						Usolzef.
Oorga			30.80	782.2	—16.2	—26.8	100	Calm	0	0			0						Mossin.
Peking, (China)			30.35	771.0	25.0	— 3.9	58	NW					3						Physical Observatory
Nertchinsk			30.31	769.9	—16.8	—27.1	92	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 4.4	—20.2		W	7.8	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.

Station.	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			30.22	767.5	41.5	5.3	63	NE	6.0	2.67		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.37	771.5	11.8	—11.2	93	N			2		10			0.043	1.1	Light snow	Dr. Hildebrandsson.
Hernosand			30.35	770.8	11.8	—11.2	93	N			2		10			0	0		
Upsala			30.16	766.1	21.4	— 5.9	95	NNE			6		10					Snow	
Stockholm			30.09	764.3	26.2	— 3.2	91	ENE			4		10			0.075	1.9		
Wisby			30.11	764.7	25.5	— 3.6	100	SE			4		7			0.039	1.0		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.73	729.7			25.2	—3.8	67	NW			2		1			0	0		The Observatory.
Zurich	28.47	723.1			21.0	—6.1	75	W			1		3			0	0		Prof. B. Billwiller.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —7.3mm.; Thermometer, —7.1° 6c.; Relative Humidity, 5 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)			29.99	761.8	63.5	17.5	64	NE			2		10						
Constantinople			30.00	762.1	54.7	12.6	55	S	0	0			8		SW	0	0		
Fao, (Persian Gulf)			30.16	766.0	64.4	18.0		NW			3		10						
Salonica			29.94	760.5	50.9	10.5		W			1		10						
Valona			29.87	758.8	49.5	9.7		N			2		10						
Varna			30.00	762.0	42.8	6.0		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.44	772.2	2	—16.7	72	W	3	1.3		0	2			0	0		
Chatham, N. B.			30.48	774.2	—17	—27.2	88	Calm	0	0		Haze	Haze			0	0		
Charlottetown, P. E. Island			30.51	774.9	— 7	—21.7	92	Calm	0	0		5	0			0.2	0.5		
Father Point, Quebec			30.22	767.6	4	—15.6	74	N	2	0.9		Haze	0	NE		0	0		
Fort Garry, Manitoba			30.11	764.8	—31	—35.0	100	NW	4	1.8		0	2		NW	0	0		
Halifax, N. S.			30.47	773.9	— 3	—19.4	76	W	1	0.4		0	0			0	0		
Kingston, Ontario			29.74	755.4	21	— 6.1	95	S	10	4.5			10			0.17	4.3	Heavy snow	
Montreal, Quebec			29.87	758.7	17	— 8.3	89	S	28	12.5			10			0.01	0.2		
Ottawa, Ontario			29.80	756.9	7	—13.9	41	NE	6	2.7			Fog			0.10	2.5	Light snow	
Parry Sound, Ontario			29.51	749.5	21	— 6.1	93	S	9	4.0			10		SE	0	0	Light snow	
Port Dover, Ontario			29.60	751.8	30	— 1.1	100	S	17	7.6			10			0.45	11.4	Light snow	
Port Stanley, Ontario			29.66	753.4	26	— 3.3	96	W	15	6.7			10			1.00	25.4	Light snow	
Quebec, Quebec			30.15	765.8	12	—11.1	82	E	5	2.2			10		E	0	0		
Saugeen, Ontario			29.58	751.3	17	— 8.3	91	W	20	8.9			10			0.15	3.8	Light snow	
Sydney, C. B.			30.46	773.7	— 5	—20.6	96	Calm	0	0		2	0			0	0		
Toronto, Ontario			29.58	751.3	29	— 1.7	97	SW	14	6.3			10		SW	0.50	12.7	Light snow	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	19	— 7.2	100	S	12	5.4			10			Blank	Blank	Light snow.	
Alpena, Mich.			29.56	750.8	10	—12.2	79	W	16	7.2		0	2		W	0.20	5.1		
Atlantic City, N. J.			30.05	763.3	36	2.2	100	SE	25	11.2			10			0.06	1.5	Light rain.	
Augusta, Ga.			29.96	761.0	38	3.3	100	W	8	3.6			10			1.35	35.0	Light rain.	
Baltimore, Md.			29.98	761.5	25	— 3.9	100	NE	2	0.9			10			Blank	Blank	Sleet	
Barnegat, N. J.			30.01	762.2	35	1.7	100	SE	20	8.9			10		SE	0.37	7.4	Light rain.	
Benton, Montana			30.02	762.5	—18	—27.8	100	Calm	0	0		2	0	N		0	0		
Bismarck, Dakota			30.25	768.3	—26	—32.2	50	N	6	2.7		0	2			0	0		
Boston, Mass.			30.27	768.9	23	— 5.0	100	E	6	2.7			10			0.01	0.2	Light snow.	
Breckenridge, Minn.			30.24	768.1	—25	—31.7	85	NW	8	3.6		0	0			0	0		
Buffalo, N. Y.			29.60	751.8	25	— 3.9	100	S	20	8.9			10			0.12	3.0	Heavy snow.	
Burlington, Vt.			29.99	761.7	20	— 6.7	85	S	16	7.2			10			0	0		
Cairo, Ill.			30.32	770.1	15	— 9.4	65	NW	16	7.2		0	0			0.58	14.7		
Cape Hatteras, N. C.			30.11	764.8	54	12.2	86	SE	32	14.3			10			0.68	17.3	Heavy rain	
Cape Henry, Va.			30.05	763.3	44	6.7	96	SE	27	12.1			10		SE	0.53	13.5	Light rain.	
Cape May, N. J.			30.04	763.0	37	2.8	100	S	20	8.9			10			0.28	7.1	Light rain.	
Charleston, S. C.			30.03	762.8	58	14.4	93	SW	12	5.4			10		SW	0.56	14.2	Heavy rain.	
Cheyenne, W. T.			29.81	767.2	22	— 5.6	60	W	20	8.9		0	2			0	0		
Chicago, Ill.			30.00	762.0	4	—15.6	74	SW	16	7.2		0	0			0	0		
Cincinnati, Ohio			30.01	762.2	25	— 3.9	75	NW	16	7.2		2	2			0.56	14.2		
Cleveland, Ohio			29.70	754.4	24	— 4.4	87	NW	20	8.9			10		NW	0.17	4.3	Light snow.	
Colorado Springs, Col.			29.84	757.9	29	— 1.7	100	NW	12	5.4		0	2		NW	0	0		
Corsicana, Texas			30.37	771.4	29	— 1.7	78	N	11	4.9		0	0			0.01	0.2		
Davenport, Iowa			30.22	767.6	— 7	—21.7	80	W	12	5.4		0	0			0.05	1.3		
Denver, Col.			29.91	759.7	30	— 1.1	67	SW	2	0.9		0	0			0	0		
Detroit, Mich.			29.71	754.6	18	— 7.8	84	SW	17	7.6			10		SW	0.60	15.2	Light snow	
Dodge City, Kansas			30.03	762.7	18	— 7.8	68	S	8	3.6		5	0	S		0	0		
Dubuque, Iowa			30.13	765.3	—12	—24.4	50	E	10	4.5		0	0			0	0		
Duluth, Minn.			29.92	760.0	—14	—25.6	Blank	W	4	1.8		0	2			0.10	2.5		
Eastport, Me.			30.35	770.9	20	— 6.7	85	S			1		10			0	0		
Erie, Penn.			29.59	751.6	33	0.6	100	S	16	7.2			10			0.22	5.6	Light snow	
Escanaba, Mich.			29.67	753.6		—17.8	69	W	10	4.5		0	2			0.47	11.9		
Fort Gibson, I. T.			30.38	771.6	14	—10.0	83	N	10	4.5		0	0			0.03	0.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.40	772.1	—17	—27.2	37	NW	16	7.2		0	0			0	0		
Galveston, Texas			30.23	767.8	47	8.3	77	N	28	12.5		0	0			0.10	2.5		
Grand Haven, Mich.			29.81	757.2	12	—11.1	80	NW	31	13.9			10			Blank	Blank	Light snow	
Indianapolis, Ind.			30.13	765.3	5	—15.0	62	W	12	5.4		0	0			0.92	23.4		
Indianola, Texas			30.26	768.6	45	7.2	76	N	28	12.5		2	0	W		0	0		
Jacksonville, Fla.			30.02	762.5	62	16.7	78	SE	19	8.5			10			0	0		
Keokuk, Iowa			30.23	767.8	1	—17.2	72	W	5	2.2		0	0			0.22	5.6		
Key West, Fla.			30.15	765.8	72	22.2	82	SE	10	4.5		0	2		S	0	0		
Kittyhawk, N. C.			30.10	764.5	43	6.1	100	E	16	7.2			10			0.45	11.4	Light rain.	
Knoxville, Tenn.			29.92	760.0	34	1.1	95	SW	8	3.6			10		W	0.65	16.5	Light rain.	
La Crosse, Wis.			30.03	762.7	— 7	—21.7	61	W	5	2.2		5	0	W		0.13	3.3		
Leavenworth, Kan.			30.32	770.1	7	—13.9	77	Calm	0	0		0	0			0.04	1.0		
Lexington, Ky.			30.07	763.8	26	— 3.3	75	NW	24	10.7		8	0	NW		0.44	11.2		
Long Branch, N. J.			30.03	762.7	36	2.2	100	SE	24	10.7			10			0.14	3.6	Light rain.	
Louisville, Ky.			30.10	764.5	20	— 6.7	70	W	15	6.7		0	5		NW	1.65	16.5		
Lynchburg, Va.			30.00	762.0	27	— 2.8	94	Calm	0	0			10			0.16	4.1	Sleet	
Malone, N. Y.																			
Marquette, Mich.			29.66	753.4	— 5	—20.6	81	W	12	5.4			10		W	0.02	0.5		
Memphis, Tenn.			30.25	768.3	27	— 2.8	77	NW	7	3.1		0	0			1.00	25.4		
Milwaukee, Wisconsin			29.94	760.5	— 5	—20.6	63	W	20	8.9		Haze	0			0.23	5.8		
Mobile, Ala.			30.07	763.8	57	13.9	93	NW	8	3.6		5	5	SW	N	1.54	39.1		
Montgomery, Ala.			30.01	762.2	54	12.2	90	NW	5	2.2		5	2	SW	SW	2.39	60.7		
Morgantown, W. Virginia			29.70	754.4	41	5.0	96	SW	2	0.9			10			0.61	15.5	Light rain.	
Mt. Washington, N. H.			29.83	757.7	3	—16.1	100	SW	72	32.2			Fog			0	0		
Nashville, Tenn.			30.15	765.8	30	— 1.1	68	NW	14	6.3		5	5	NW	NW	0.40	10.2		
New Haven, Conn.			30.18	766.6	31	— 0.6	79	SE	11	4.9			10		SE	0.23	5.8	Heavy snow.	
New London, Conn.			30.24	768.1	31	— 0.6	95	SE	19	8.5			10			0.01	0.2	Light snow.	
New Orleans, La.			30.11	764.8	57	13.9	78	NW	10	4.5		5	0	NW		1.93	55.9		
Newport, R. I.																			
New York, N. Y.			30.15	765.8	33	0.6	100	SE	8	3.6			10			0.08	2.0	Light snow	
Norfolk, Va.			30.01	762.2	45	7.2	96	S	18	8.0			10		SE	0.40	10.2	Light rain.	
North Platte, Neb.			29.93	760.2	7	—13.9	77	Calm	0	0		0	5			0	0		
Omaha, Neb.			30.28	769.1	4	—15.6	87	NW	17	7.6		2	8		W	0	0		
Oswego, N. Y.			29.77	756.1	26	— 3.3	75	SE	16	7.2			1		W	0	0	Threatening	
Peck's Beach			30.05	763.3	37	2.8	100	SE	28	12.5			10			0.06	1.5	Light rain.	
Pembina, D. T.																			
Philadelphia, Penn.			30.03	762.7	28	— 2.2	100	E	7	3.1			10		E	0.12	3.0	Light rain.	
Pike's Peak, C. T.			29.58	751.3	— 8	—22.2	56	NW	72	32.2		0	0			0	0		
Pittsburgh, Penn.			29.68	753.9	37	2.8	100	SW	4	1.8			10			0.37	9.4	Light rain.	
Port Huron, Mich.			29.65	753.1	20	— 6.7	85	W	20	8.9			10		SW	0.58	14.7	Threatening	
Portland, Maine			30.31	769.9	25	— 3.9	87	SW	10	4.5			10		SW	0.01	0.2	Light snow.	
Portland, Or.			30.31	769.9	30	— 1.1	78	SW	4	1.8		8	0			0	0		
Punta Rassa, Fla.			30.16	766.1	63	17.2	92	SE	8	3.6		0	2		S	0	0		
Rochester, N. Y.			29.66	753.4	25	— 3.9	87	S	12	5.4			10			0.09	2.3	Light snow.	
Salt Lake City, Utah			30.21	767.3	27	— 2.8	54	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.08	764.0	34	1.1	100	SE	20	8.9			10		SE	0.28	7.1	Light rain.	
San Diego, Cal.			30.20	767.1	50	10.0	100	NE	4	1.8			Fog			0	0	Fog	
San Francisco, Cal.			30.22	767.6	49	9.4	85	W	4	1.8			10			0	0		
Santa Fe, N. M.			29.80	756.9	19	— 7.2	54	N	8	3.6		0	0			0	0		
Savannah, Georgia			30.02	762.5	56	13.3	93	W	4	1.8			10			0.15	3.8	Light rain.	
Shreveport, La.			30.30	769.6	33	0.6	79	NW	8	3.6		2	0	N		0.36	9.1		
Springfield, Mass.			30.20	767.1	15	— 9.4	83	N	4	1.8			10			0.06	1.5	Light snow	
St. Louis, Mo.			30.30	769.6	7	—13.9	77	NW	12	5.4		0	0			1.08	45.7		
St. Marks, Fla.			30.02	762.5	60	15.6	100	SW	20	8.9			10		SW	0.72	18.3	Heavy rain	
St. Paul, Minn.			30.01	762.2	—27	—32.8	64	W	5	2.2		0	0			0.19	4.8		
St. Paul's Island, Alaska			29.16	740.7	37	2.8	90	E	9	4.0		0	10			0.17	4.3		
Squan Beach, N. J.			30.08	764.0	35	1.7	90	SE	28	12.5			10		SE	0.30	7.6	Light rain.	
Toledo, Ohio			29.77	756.1	24	— 4.4	74	SW	16	7.2			10		SW	Blank	Blank	Light snow.	
Tybee Island, Ga.			30.03	762.7	54	12.2	100	SE	8	3.6			10		SW	0.38	8.4	Light rain.	
Vicksburg, Miss.			30.29	769.4	40	4.4	63	N	13	5.8			5		N	0.77	19.5		
Virginia City, Mon.			29.73	755.1	11	—11.7	79	Calm	0	0		Haze	0			0	0		
Washington, D. C.			29.95	760.7	24	— 4.4	94	SE	3	1.3			10			0.63	16.0	Sleet	
Wilmington, N. C.			29.98	761.5	58	—14.4	93	S	20	8.9			10			0.16	4.1	Light rain.	
Wood's Hole, Mass.			30.29	769.4	29	— 1.7	78	S	19	8.5			10			0	0		
Wytheville, Va.			29.67	753.4	32	0.0	89	Calm	0	0			10			0.25	6.3		
Yankton, D. T.			30.41	772.4	—14	—25.6	72	NW	9	4.0		0	0			0.20	5.1		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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		NE	5	2.2		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.04	763.0	72	22.2		E				0	0			0.08	2.0		
Havana, Cuba, W. I.			29.96	761.0	70	21.1	79	SE	4	1.8		0	0			0	0		
Kingston, Jamaica, W. I.			30.24	768.1	73	22.8	92	Calm	0	0		1	0	SE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.92	760.0	73	22.8	76	Calm	0	0		0	2		SW	0	0		
St. Georges, Bermudas			30.45	773.4	55	12.8		SE					10			0	0		
Honolulu, Sandwich Is.			30.09	764.3	62	16.7	88	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.80	706.1			55	12.8	80	SE	2	0.9		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.78	756.4	—38	—38.9		NW	10	4.5		0	10			0	0		
St. Johns, Newfoundland			30.09	764.3	13.5	—10.3	91	NW				5	5			0.30	7.6		John Delaney.
St. Johns, Porto R co. W. I.			30.15	765.8	74.5	23.0	75	E			4	2	2			0.039	1.00		Leon M. Acuna.
Ellyria, Ohio	28.03	711.9			25	— 3.9		W	20	8.9		0	10			1.22	21.0		H. M. Redington.
Indianola, Iowa	29.30	745.7			—10	—23.3		SW				0	1			0	0	Halo	G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 12, 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.16	766.0															Charnot.
Algiers			30.20	767.9	50.0	10.0	70	Calm			0		9			0.118	3.0	Rain	Peter.
La Calle			29.99	761.8															Kuntz.
Tunis			29.98	761.5	48.2	9.0	63	NNE			4		10			0.118	3.0	Rainy	Jacques.
Sfax																			Chauvey.
Saida			30.18	766.5	42.8	6.0		NNW			4		8			0	0		Grosjean.
Tebessa			29.99	761.8															Colin.
Geriville			30.20	767.0				N			4								Bernadach.
Laghouat			30.06	764.4	42.8	6.0	42	NW			6		1			0	0		Poinsignon.
Biskra			30.00	761.9	57.4	14.1		NW			7		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.33	770.3	25.3	— 3.7	85	SW			1		1			0	0		Prof. Ivan Stozir.
Buda-Pesth			30.29	769.3	24.8	— 4.0	66	W			2		0			0	0		I. R. Cen. M. I., Hungary
Cracow			30.26	768.7	21.6	— 5.8	79	W			2		5			0.047	1.2		I. R. Observatory.
Eperies			30.24	768.0	24.1	— 4.4	86	Calm			0		9			0.140	3.50	Fog	Julius Mikolik.
Gratz			30.26	768.6	25.0	— 3.9	78	S			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.27	768.9	24.8	— 4.0	95	NW			3		10			0.092	2.35	Snow	Prof. Reissenberger.
Kremsmünster			30.28	769.2	19.4	— 7.0	89	NE			1		0			0	0		Prof. C. Wagner.
Lemberg			30.21	767.4	23.0	— 5.0	91	NE			3		10			0.492	12.5		Dr. T. Stanecki.
Nyiregyhaza			30.30	769.7	23.7	— 4.6	95	SW			1		10			0	0		Habasuda Daniel.
Pola			30.20	767.1	37.4	3.0	43	WSW			3		0			0	0		I. R. Hydrographic Office
Szegedin			30.30	769.7	25.0	— 3.9	75	W			1		3			0	0		Karl Stancel.
Trieste			30.22	767.6	38.5	3.6	43	N			1		0			0	0		Prof. V. Faroffi.
Vienna			30.27	768.9	24.1	— 4.4	87	SSE			1		0			0.016	0.4		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.

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.
Brussels	29.75	755.7			31.6	— 0.2	98	SW			3		10		SW	0.138	3.50	Rainy	Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.85	758.2	40.0	4.4		S	6	2.7			4			0.150	3.81	Mist	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.85	758.2	44.0	6.7		SE			2		8					Rain & Fog	William McNeil.
Armagh Observatory			29.83	757.7	43.8	6.6		SSE	9	4.0			10					Rain	Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.86	758.4	46.3	7.9		W			1		9						The Liverpool Obs.
Birr Castle			29.86	758.4	51.5	10.8		WSW			1-2		10						J. Drever.
Bradford			29.89	759.2	43.0	6.1		W			0		6						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.86	758.4	46.0	7.8		W			1		4						H. Todd.
Cape Town, Cape Colony			29.78	756.4	86	30.0		SE			4		5						Sgt. D. E. Hunt
Cape Good Hope Obs	29.83	757.7			86.9	30.5	36	S	15	6.7			2						The Royal Observatory.
Cardington			29.91	759.7	46.4	8.0		NW					10						John McLaren.
Carlisle			29.88	758 9	40.9	4.9		E					10			0.06	1.5		T. Bell.
Chatham			29.87	758.7	43.8	6.6		S			2		10					Mist	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.95	760.7	75.2	24.0		NE			2		0						Sgt. W. F. Hopkins
Dartmoor			29.97	761.2	47	8.3		NW			2		10					Fog & rain	R. E. Power.
Donaghadee			29.84	757.9	44	6.7		SSW			3		10						J. Mac Gowan, Jr.
Dover			29.89	759 2	42	5.6		WSW			5		10					Fog & Rain	J. Costello.
Dublin																			
Durham Observatory			29.87	758.7	40.8	4.9		NW					7						G. Goldney.
Eccles, (near Manchester)			29.87	758.7	42.6	5.9		SE	0.8	0.4			10					Fog	Thomas Mackereth.
Falmouth Observatory			29.93	760 2	53.6	12.0		WNW	23	10.3			9						The Falmouth Obs.
Fort Napier, (Natal)			29.78	756.4	72.0	22.2		SE			2		10						Pvt. G. Salmon.
Galway			29.76	755.9	50	10.0		S			1		10					Mist	Queen's College.
Gibraltar, (Mediterranean)			30.28	769.1	58.8	14.9		W			4		0						Sgt. J. Brewster.
Glasgow Observatory			29.84	757.9	39.0	3.9		NE			1		10					Fog	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.85	758.2	41	5.0		NW			1		10					Fog.	G. T. Watson.
Greenwich Royal Obs			29.89	759.2	43.4	6.3		WSW			1		10					Rain	The Royal Observatory.
Guernsey			29.92	760.0	50.5	10.3		SSW			5		10					Rain & Mist.	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.84	757.9	42.6	5.9		NW					10					Mist	Moorside Observatory.
Halifax, (Nova Scotia)			29.33	745.0	36.2	2.3		NW			8		6						Corp'l J. Y. Thompson.
Helston			29.82	757.4	54	12.2		NW			4		10					Mist	W. B. Moyle.
Holyhead			29.84	757.9	48	8.9		Calm			0		10					Fog	John Tilston.
Hull Park																			
Kew Observatory			29.89	759.2	44.2	6.8		SW	9	4.0			10					Threatening	The Met. Office.
Kingstown			29.85	758.2	48	8.9		SSE			1		10					Fog	George Mitchell.
Lampeter																			
Leicester			29.88	758.9	46.8	8.2		Calm			0		10						William J. Harrison
Llandudno			29.86	758.4	47.3	8.5		SW					10						Dr. James Nicol.
Malta, (Mediterranean)			29.87	758.7	57.0	13.9		E			5		10						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.79	757.0	40	5.6		Calm			0		6						William D. Penny.
Nassau, (Bahamas)			30.22	767.3	68.0	20.0		Calm			0		3						Surgeon I. Jameson.
North Shields			29.87	758.7	40	5.6		NNW			2		8						John Wm. Irvine.
Nottingham			29.88	758.9	48	8.9		N			1		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.88	758.9	47.0	8.3		WNW			1		9					Fog	St. Mary's College.
Oxford, Radcliffe Obs			29 87	758.4	48	8.9		WSW			1		10					Mist	Radcliffe Observatory.
Plymouth			29.88	758.9	52	11.1		W			1		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.85	758.2	52	11.1		W			4		8						W. Kennedy.
Saint Ann's Head			29.89	759.2	49	9.4		WNW			1		10					Fog	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.80	756.9	41.8	5.4		SSW	8	3.6			7						Rev. Dr. Clouston.
Scarboro'			29.87	758.7	42.2	5.7		NNW			1		8					Fog	F. Heard.
Scutari, (Turkey)			30.07	763.8	45.4	7.4		NNE			3		9					Mist	W. H. Lyne.
Sheffield			29.87	758.7	44	6.7		NNE			1		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.87	758.7	38.5	3.6		N			1		10			0.130	3.30	Mist	Francis Redford.
Somerleyton, (Lowestoft)			29.83	757.7	41.2	5.1		NE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.85	758.2	43.2	6.2		N			1		10					Haze	Stonyhurst Obs.
Stornoway, Lewis C., Helpr.			29.72	754.9	43	6.1		SSW			1		1						John Smith.
Strathfield Turgiss			29.89	759.2	45.2	7.3		W			1		10					Rain	Charles H. Griffith.
Streatley Vicarage			29.88	758.9	49.5	9.7		WSW			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.79	756.7	42	5.6		SSW			2								William Lawrence.
Taunton College																			
Thurso			29.77	756.1	46	7.8		S			2		1						John Trotter.
Truro, Royal Institution			29.87	758.7	53	11.7		W			6		10					Rain	Royal Institution.
Valencia			29.89	759.2	52.9	11.6		WSW	23	10.3								Rain & mist.	Meteorological Obs.
Wick																			
Wisbech																			
Worthing			29.92	760.0	42.7	5.9		W			2		10					Rain	S. H. Miller.
York																			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 Cape 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			30.10	764.5	28.4	— 2.0	84	WSW			1		10						
Fanöe			30.04	763.0	29.3	— 1.5	92	SSE			4		10						
Godthaab, (Greenland)			29.76	758.1	8.2	—13.2		NE			4		2						
Stykkisholm, (Iceland)			29.39	746.6	33.1	0.6	92	E			2		8						
Thorshavn, (Faröe)			29.63	752.5	43.9	6.6	83	Calm			0		5					Rain	
Vestervig			30.06	763.4	23.4	— 4.8	95	E			4		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	52.2	11.2	35						1						Normal School.
Alençon			30.09	764.3	32.0	0.0	93	SW			3		10			0	0		Normal School.
Amiens			30.04	762.9	34.7	1.5	93	WSW			3		10			0	0		Normal School.
Beaumette, (near Angers)			30.07	763.7	40.1	4.5	100	SSW	6.0	2.7			10		SW	0.118	3.0	Rain	Beaumette Observatory.
Beauvais			30.08	764.0	34.9	1.6	78	SSW			2		10		SSW	0.039	1.0	Mist	Normal School.
Besançon			30.26	768.6	32.4	0.2		S			2		10		SW	0	0		Normal School.
Bourges			30.29	769.4	32.0	0.0	85	WSW			2		10		WSW	0	0		Normal School.
Brest			29.94	760.6	52.0	11.1	95	NW			2					0.236	6.0	Fog & Rain	Naval Observatory.
Caen			30.01	762.2	36.3	2.4	93	SSW			2		10			0	0		Normal School.
Carcassonne			30.10	764.6	21.9	— 0.6		SSW			2		10			0	0		Normal School.
Chartres			30.19	766.9	33.1	0.6		SSW			3		10			0	0		Normal School.
Chaumont			30.12	765.0	33.1	0.5	86	S			2		10			0	0		Normal School.
Le Mans			30.14	765.5	30.7	— 0.7		NNW			4		10		SSW	0	0		Normal School.
Mirecourt			30.16	766.0	31.6	— 0.2	66	SSE			3		10		SE	0	0		Normal School.
Orleans			30.09	764.2	32.4	0.2	67	SSW			2		10			0	0		National Observatory.
Parthenay																			
La Roche sur Yon			30.15	765.8	40.6	4.8	97	W			2		10		N	0.087	2.2		Normal School.
Rouen			30.02	762.5	34.0	1.1	81	SE			1		10			0	0		Normal School.
Saint Lo			30.09	762.4	39.2	4.0	90	SW			1		10		SW	0.157	4.0		Normal School.
Villefranche			30.077	763.87	35.4	1.9	81	NNE			1		0			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.85	631.3			33.6	0.9	41	SW	3.7	1.66			9		NNW	0	0		—. Falguère.
Montsouris (near Paris)			30.09	76[illegible].4	31.5	— 0.2	72	SSW	8.7	3.89			10		S	0.004	0.1		Marié Davy.
Perpignan	30.08	764.1			48.0	8.8	36	NW	3.7	1.67			3			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.11	764.7	32.5	0.3	66	SSW			2		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.14	765.6	33.8	1.0	89	S			1		10			0	0	Rain	C. Marquet.
Versailles, (near Paris)			30.08	764.0	33.1	[illegible].6		SW			2		10			0.016	0.40	Snowy	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.14	765.5	27.5	— 2.5	80	SW			2		8			0	0		Prof. Hoh.
Berlin	—		30.19	766.8	31.6	— 0.2	65	S			2		7			0.043	1.1		Prof. Arndt.
Breslau			30.23	767.9	24.6	— 4.1	75	SE			2		3			0	0		Dr. P. Neugebauer.
Carlsruhe			30.20	767.2	24.8	— 4.0	77	SW			1-2		10			0	0		A. Leuz.
Cassel			30.01	762.2	25.5	— 3.6	86	S			4		10			0	0		Dr. H. Mohl.
Cologne			30.12	765.1	35.6	2.0	100	SSW			6		10			0.283	7.2	Snow	Dr. Gaithe.
Emden			30.06	763.6	25.5	— 3.6	97	SSE			2		10			0.295	7.5	Snow	Prof. Prestel.
Frankfort on the Main			30.31	769.8	26.2	— 3.2	86	SW			2		10			0	0		Physical Society.
Friedrichshafen			30.26	768.7	24.8	— 4.0	89	W					5			0.252	6.4	Snow	M. Wilhelm.
Hamburg			30.13	765.2	31.1	— 0.5	81	S			3		10			0.012	0.3	Snowy	W. Reinart.
Kiel			30.07	763.8	33.6	0.9	77	SSW			2		10			0.185	4.7		Prof. G. Karsten.
Königsberg			30.19	766.8	26.8	— 2.9	82	SW			2		10			0	0		Prof. E. Luther.
Köslin			29.39	772.0	25.5	— 3.6		SW			1		10			0.024	0.6		Dr. Tägert.
Leipsic			30.18	766.6	29.5	— 1.4	80	SSW			2		7			0	0		Prof. Bruhns.
Münster			30.17	766.2	27.7	— 2.4	92	NE			1		10			0.228	5.8	Snow	Prof. E. Heis.
Posen			30.23	767.8	27.1	— 2.7	84	S			1		6			0.020	0.5		Dr. Magerer.
Strassburg, (in Alsace)			30.22	767.5	29.8	— 1.2	82	SW					10			0	0		Hartwig and Fulk.
Stuttgart			30.24	768.2	24.8	— 4.0	63	SW					10			0.051	1.3	Snow	Mr. Wurth.
Thorn			30.2[illegible]	767.2	25.5	— 3.6	84	S			3		4			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.09	764.2	25.9	— 3.4	89	SW			3		10			0.232	5.9		Prof. Flesch.
Wustrow			30.12	765.1	28.0	— 2.2	90	S			2		10			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.27	768.8	33.6	0.9	87	WNW			2		9			0	0		
Mondovi			30.24	768.1	29.8	— 1.2	47	N			2		8	N		0	0		
Genoa			30.21	767.3	42.8	6.0	28	NW	1.3	0.6			0			0	0		
Pavia			30.25	768.4	34.[illegible]	1.1	55	N			2		0			0	0		
Verona																			
Padua			30.19	766.9	32.7	0.4	63	WNW	2.5	1.1			0	NNW		0	0		
Parma																			
Bologna			30.31	769.8	34.2	1.2	28	NW			2		2	E		0	0		
Livorno			30.19	766.8	42.1	5.6	30	NE	6.9	3.1			0			0	0		
Urbino			30.24	768.1	31.5	— 0.3		NE			2		0			0	0		
Ancona																			
Siena			30.15	765.9	38.3	3.5	47	ENE	0.7	0.3			0			0	0		
Rome			30.11	764.7	44.8	7.1	32	NNE			2		1			0	0		
Naples, O.U.			30.08	764.0	47.7	8.7	41	NE			4		8	NE		0	0		
Naples, S. R.																			
Lecce			30.11	764.9	45.3	7.4	73	ENE	20.6	9.2			10			?	?	Rain	Prof. F. Brioschi.
Cosenza			30.11	764.7	42.4	5.8	85	WNW			2		10			0	0		
Catania, (Sicily)			29.98	761.5	51.6	10.0	69	ENE			4		8	NE		0	0		
Liposto																			
Palermo			29.93	760.1	48.6	9.2	91	NE			4		10			0.177	4.5	Rain	

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.

NETHERLANDS SERIES.

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

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.
Flushing			29.93	760.1	33.8	1.0		SW			5								
Groningen					35.8	2.1		S			12								
Helder			29.78	756.3	38.7	3.7		SW			4								
Utrecht			29.83	757.8	31.8	— 0.1		SSW			5		10						

NOTE.—The originals give the force 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			30.07	763.8	26.6	— 3.0	57	W	1.3	0.6			0			0	0		
Christiania			30.18	766.6	21.2	— 6.0	69	NNE	5.8	2.6			9			0	0		
Tromsö			30.17	766.3	26.6	— 3.0	89	S			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	30.00	762.1			53.4	11.9	70	WSW	3.8	1.7			2						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.21	767.3	26.1	— 3.3	89	SE	4	2			5						Astronomical Obs.
Wilna			30.21	767.3	31.0	— 0.1	90	SE	4	2			10					Snow	Astronomical Obs.
Dorpat			30.34	770.6	26.6	— 3.0	83	SE	9	4			10						Physical Cabinet.
St. Petersburg			30.44	773.2	22.5	— 5.3	78	SE	13	6			4						Central Physical Obs.
Kieff			30.40	772.2	26.8	— 2.9	85	SE	13	6			4						Physical Cabinet.
Nikolaiev			30.36	771.0	32.7	0.4	85	E	13	6			10						
Kertch			30.18	766.6	41.7	5.4	77	E					7						Lagorio.
Moscow			30.83	783.2	11.3	—11.5	71	SSE	10.1	4.5			10						Meteorological Obs.
Lugan			30.48	774.2	27.3	— 2.6	62	E	16.8	7.5			0						Meteorological Obs.
Archangel			30.74	780.7	22.3	— 5.4	90	Calm	0	0			10						Ogorodnikof.
Tiflis			30.36	771.1	41.2	5.1	88	E	4	2			10						Physical Obs.
Astrakhan			30.71	780.0	34.2	1.2	55	ENE	7.8	3.5			0						Sebastianof.
Kasan			30.86	783.9	8.2	—13.2	100	N					2						Physical Cabinet.
Orenburg			30.74	780.6	— 2.2	—19.0	89	E	7.8	3.5			5						Tschernischef.
Ekaterinburg			30.85	783.6	6.8	—14.0	75	W	4	2			0						Meteorological Obs.
Kasaly			30.56	776.1	8.4	—13.1	45	N	7.8	3.5			0						Bobrof.
Tashkend			30.56	776.1	34.3	1.3	82	Calm	0	0			9						Michelson.
Barnaul			30.62	777.7	2.3	—16.5	80	SW	13	6			4						Meteorological Obs.
Yeniseisk			30.00	762.1	4.1	—15.7	91	NW	13	6			10						Yarks.
Irkutsk			30.15	765.7	2.3	—16.5	64	Calm	0	0			0						Usolzef.
Oorga			30.59	776.9	—14.3	—25.7	92	Calm	0	0			0						Messin.
Peking, (China)			30.33	770.3	23.4	— 4.8	34	NW	4	2			0						Physical Observatory.
Nertchinsk			30.26	768.7	—15.7	—26.5	92	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					10.0	—12.0		W	10.1	4.5			10						Kurdekof.

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.

Madrid			30.29	769.4	46.9	8.3	63	NE	2.2	1.00		2	1	NW		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.33	770.5	19.0	— 7.2	95	NE			2		10			0.067	1.7		Dr. Hildebrandsson.
Hernosand			30.26	768.7	18.3	— 7.6	97	NE			2		10			0.181	4.6	Snow	
Upsala			30.12	765.1	23.1	— 3.8	96	NNW			2		10			Blank	Blank	Snow	
Stockholm			30.09	764.4	29.5	— 1.4	92	ENE			0		10			0.063	1.6	Snow	
Wisby			30.13	765.4	33.8	1.0	85	S			4		5			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.75	730.2			33.4	0.8	59	W			2		8			0	0		The Observatory.
Zurich	28.48	723.4			35.6	— 2.0	66	W			1		6			0.217	5.5		Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +3.8mm.; Thermometer, —2° 6c.; 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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			30.02	762.6	63.1	17.3	53	NW			2		5						
Constantinople			30.10	764.5	45.0	7.2	83	N	14.5	6.5			10		SW	0	0	Fog	
Fao, (Persian Gulf)			30.08	764.0	61.3	16.3		NW			1		10						
Salonica			29.98	761.6	41.7	5.4		W			1		5						
Valona			29.97	761.2	45.1	7.3		NW			2		10						
Varna			30.16	766.1	41.0	5.0		E			2		10					Fog	

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.12	739.6	30	— 1.1	100	SE	62	27.7			10			1.30	33.0	Heavy snow.	
Chatham, N. B.			29.12	739.6	31	— 0.6	100	W	18	8.0		2	2	W	W	0.48	12.2	Clearing	
Charlottetown, P. E. Island			29.24	742.7	36	2.2	96	SE	22	9.8			10			0.11	2.8	Light rain	
Father Point, Quebec																			
Fort Garry, Manitoba			30.05	763.3	—36	—37.8	100	NW	2	0.9		0	0			0	0		
Halifax, N. S.			29.27	743.4	36	2.2	97	S	26	11.6			10			0.34	8.6	Light rain	
Kingston, Ontario			29.94	760.5	— 5	—20.6	64	W	10	4.5		2	0			0.25	6.3		
Montreal, Quebec			29.80	756.9	— 3	—19.4	73	W	17	7.6		5	2	W		0.12	3.0		
Ottawa, Ontario			29.83	757.7	— 6	—21.1	43	W	14	6.3		5	0	W		0.40	10.2	Threatening	
Parry Sound, Ontario			29.97	761.2	—15	—26.1	67	W	12	5.4			10		NW	0.20	5.1	Light snow	
Port Dover, Ontario			30.11	764.8	— 9	—22.8	100	W	16	7.2		0	0			0.05	1.3		
Port Stanley, Ontario			30.15	765.8	—11	—23.9	91	SW			4	0	0			0	0		
Quebec, Quebec			29.65	753.1	25	— 3.9	87	W	10	4.5		0	0			0.03	0.8		
Saugeen, Ontario			30.03	762.8	—13	—25.0	75	NW	18	8.0			10			0.03	0.8		
Sydney, C. B.			29.59	751.6	34	— 1.1	90	SE	33	14.8			10			0.12	3.0	Sleet	
Toronto, Ontario			30.03	762.8	— 5	—20.6	92	W	25	11.2		0	0			0.10	2.5		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			29.98	761.5	3	—16.1	75	SW	8	3.6		Haze	Haze			0.30	7.6		
Alpena, Mich.			30.05	763.3	—21	—29.4		W	4	1.8		0	Haze			0.01	0.2		
Atlantic City, N. J.			30.19	766.8	18	—7.8	69	W	6	2.7		0	0			0	0		
Augusta, Ga.			30.37	771.4	31	—0.6	79	NW	2	0.9		0	0			0.05	0.8		
Baltimore, Md.			30.19	766.8	20	—6.7	70	W	12	5.4		0	0			1.14	29.0		
Barnegat, N. J.			30.11	764.8	18	—7.8	83	W	5	2.2		0	0			0	0		
Benton, Montana			29.93	760.2	12	—11.1	80	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.10	764.5	—20	—28.9	27	Calm	0	0		0	0			0	0		
Boston, Mass			29.93	760.2	10	—12.2	79	NW	16	7.2		0	0			1.7	4.3		
Breckenridge, Minn			30.23	767.8	—29	—33.9	85	SW	4	1.8		0	0			0.04	1.0		
Buffalo, N. Y.			30.08	764.0	—5	—20.6	63	W	24	10.7			2			0.39	9.9		
Burlington, Vt.			29.85	758.2	5	—15.0	75	W	7	3.1			10			0	0		
Cairo, Ill.			30.19	766.8	21	—6.1	72	Calm	0	0		0	Haze			0	0		
Cape Hatteras, N. C.			30.28	769.1	37	—2.8	71	NW	8	3.6		0	0			0.52	13.2		
Cape Henry, Va.			30.26	768.6	34	1.1	79	NW	12	5.4		0	0			0.82	20.8		
Cape May, N. J.			30.2[illegible]	767.1	21	—6.1	60	NW	8	3.6		0	0			0.84	21.3		
Charleston, S. C.			30.36	771.1	37	2.8	71	W	6	2.7		0	Sm'e			0.48	12.2		
Cheyenne, W. T.			29.86	758.4	25	—3.9	48	Calm	0	0		5	0			0	0		
Chicago, Ill.			30.21	767.3	—3	—19.4	38	SW	6	2.7		10	0			0	0		
Cincinnati, Ohio			30.27	768.8	12	—11.1	61	W	4	1.8			10			0	0		
Cleveland, Ohio			30.20	767.1	—8	—22.2	61	W	12	5.4		0	0			0	0		
Colorado Springs, Col.			29.85	758.2	33	0.6	80	W	2	0.9		2	0			0	0		
Corsicana, Texas			30.19	766.8	36	2.2	80	S	7	3.1		5	0	W		0	0		
Davenport, Iowa			30.25	768.3	—7	—21.7	100	Calm	0	0			10			0.02	0.5	Light snow	
Denver, Col.			29.92	760.0	42	5.6	50	NE	7	3.1		0	0			0	0		
Detroit, Mich.			30.18	766.6	—11	—23.9	63	SW	11	4.9		0	Haze			0	0		
Dodge City, Kansas			29.76	755.9	29	—1.7	77	NW	3	1.3		2	0	NW		0	0		
Dubuque, Iowa			30.24	768.1	—17	—27.2	37	SE	2	0.9			10			0	0		
Duluth, Minn.			30.07	763.8	—23	—30.6		Calm	0	0		0	0			0	0		
Eastport, Me.			29.49	749.0	19	—7.2	69	NW	12	5.4		10	0	SW		0.33	8.4		
Erie, Penn.			30.15	765.8	—5	—20.6	63	SW	24	10.7		Haze	Haze			Blank	Blank		
Escanaba, Mich.			30.08	764.0	—23	—30.6	59	W	8	3.6		0	0			0	0		
Fort Gibson, I. T.			30.05	763.3	32	0.0	69	SE	10	4.5		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.04	763.0	5	—15.0	62	SE	4	1.8			10		SE	0.05	1.3		
Galveston, Texas			30.25	768.3	51	10.6	86	E	3	1.3		0	0			0	0		
Grand Haven, Mich.			30.13	765.3	2	—16.7	72	SW	26	11.6			10			Blank	Blank	Light snow.	
Indianapolis, Ind.			30.27	768.8	3	—16.1	73	SW	1	0.4			10		SW	0	0		
Indianola, Texas			30.23	767.8	51	10.6	93	NE	8	3.6		5	0	W		0.76	19.3		
Jacksonville, Fla.			30.37	771.4	43	6.1	75	N	6	2.7		0	Sm'e			0	0		
Keokuk, Iowa			30.16	766.1	—2	—18.9	100	NE	9	4.0			10		E	0.05	1.3	Light snow	
Key West, Fla.			30.23	767.8	67	19.4	69	NE	25	11.2		0	Haze			0.05	1.3		
Kittyhawk, N. C.			30.29	769.4	32	0.0	70	NW	4	1.8		0	0			0	0		
Knoxville, Tenn.			30.35	770.9	22	—5.6	85	N	3	1.3		0	0			0.11	2.8		
La Crosse, Wis.			30.22	767.6	—18	—27.8	69	S	6	2.7		0	0			0	0		
Leavenworth, Kan.			30.01	762.2	14	—10.0	83	Calm	0	0		0	5			0	0		
Lexington, Ky.			30.24	768.1	22	—5.6	72	SW	10	4.5			10			0	0		
Long Branch, N. J.			30.11	764.8	17	—8.3	83	SW	18	8.0		0	0			0	0		
Louisville, Ky.			30.23	767.8	22	—5.6	72	S	4	1.8			10			0.08	2.0		
Lynchburg, Va.			30.26	768.6	28	—2.2	54	SW	4	1.8		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.94	760.5	—26	—32.2	59	W	4	1.8		0	0			0	0		
Memphis, Tenn.			30.27	768.8	29	—1.7	78	SE	4	1.8		0	0			0	0		
Milwaukee, Wisconsin			30.25	768.3	—21	—29.4		W	7	3.1		5	Haze	W		0	0		
Mobile, Ala.			30.34	770.6	37	2.8	100	N	4	1.8			Fog			0	0	Fog	
Montgomery, Ala.			30.38	771.6	35	1.7	90	Calm	0	0		0	Sm'e			0	0		
Morgantown, W. Virginia			30.21	767.3	15	—9.4	65	SW	22	9.8		0	8			0.23	5.8		
Mt. Washington, N. H.			29.04	737.7	—16	—26.7	100	NW	80	35.8			Fog			0.13	3.3		
Nashville, Tenn.			30.25	768.3	29	—1.7	67	SE	2	0.9		0	0			0	0		
New Haven, Conn.			30.06	763.5	17	—8.3	67	W	12	5.4		0	0			0.01	0.2		
New London, Conn.			30.04	763.0	13	—10.6	54	W	16	7.2		0	2		W	1.29	32.7		
New Orleans, La.			30.29	769.4	48	8.9	70	E	6	2.7		2	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			30.12	765.0	11	—11.7	60	W	24	10.7		0	0			0.66	16.8		
Norfolk, Va.			30.28	769.1	34	1.1	61	W	8	3.6		0	Sm'e			0.22	5.6		
North Platte, Neb.			29.61	752.1	26	—3.3	75	NW	10	4.5		0	2		W	0	0		
Omaha, Neb.			30.00	762.0	11	—11.7	80	E	9	4.0			10			Bla k	Blank		
Oswego, N. Y.			29.96	761.0	6	—14.4	77	W	26	11.6			10		W	0	0		
Peck's Beach			30.21	767.3	20	—6.7	85	NW	12	5.4		0	0			0	0		
Pembina, D. T.			30.09	764.3	—38	—38.9		NW	4	1.8		0	0			0	0		
Philadelphia, Penn.			30.19	766.8	15	—9.4	65	W	1	0.4		0	0			0.89	22.6		
Pike's Peak, C. T.			29.71	754.6	6	—14.4	76	W	56	25.0		0	0			0	0		
Pittsburgh, Penn.			30.22	767.6	6	—14.4	64	W	16	7.2		0	2			0.04	1.0		
Port Huron, Mich.			30.14	765.5	—12	—24.4	75	SW	9	4.0		0	0			0	0		
Portland, Maine			29.76	755.9	10	—12.2	58	W	16	7.1		Haze	0			0.56	14.2		
Portland, Or.			30.19	766.8	35	1.7	90	N	1	0.4			10			0	0		
Punta Rassa, Fla.			30.31	769.9	59	15.0	76	NE	22	9.8			10		NE	0	0		
Rochester, N. Y.			30.00	762.0	—2	—18.9	67	W	26	11.6		Haze	5			0.05	1.3		
Salt Lake City, Utah			30.06	763.5	30	—1.1	67	NE	1	0.4		2	8			0	0		
Sandy Hook, N. J.			30.11	764.8	13	—10.6	52	W	35	15.6		0	0			0.74	18.8		
San Diego, Cal.			30.08	764.0	50	10.0	100	N	4	1.8			Fog			0	0	Fog	
San Francisco, Cal.			30.17	766.3	49	9.4	89	Calm	0	0			10			0	0		
Santa Fe, N. M.			29.75	755.6	23	—3.9	60	N	12	5.4		0	0			0	0		
Savannah, Georgia			30.37	771.4	37	2.8	71	W	6	2.7		0	Sm'e			0.05	1.3		
Shreveport, La.			30.25	768.3	35	1.7	90	S	4	1.8		0	0			0	0		
Springfield, Mass.			29.98	761.5	12	—11.1	61	SW			1	Sm'e	0			1.05	26.7		
St. Louis, Mo.			30.13	765.3	20	—6.7	70	SE	4	1.8			10		SE	0	0		
St. Marks, Fla.			30.35	770.9	36	2.2	95	N	3	1.3		0	0			0.09	2.3		
St. Paul, Minn.			30.12	765.0	—29	—33.9	43	SW	6	2.7		0	0			0	0		
St. Paul's Island, Alaska			29.24	742.7	38	3.3	90	SE	5	2.2		0	Fog			0.18	4.6		
Squan Beach, N. J.			30.17	766.3	14	—10.0	50	W	4	1.8		0	0			0.92	23.4		
Toledo, Ohio			30.13	765.3	—7	—21.7	59	S	12	5.4		0	0			0	0		
Tybee Island, Ga.			30.40	772.1	38	3.3	63	NW	6	2.7		0	0			0.03	0.8		
Vicksburg, Miss.			30.35	770.9	36	2.2	70	SE	9	4.0			10		SE	0	0		
Virginia City, Mon.			29.68	753.9	19	—7.2	69	Calm	0	0			10			0	0		
Washington, D. C.			30.22	767.6	19	—7.2	45	W	2	0.9		0	0			0.61	15.5		
Wilmington, N. C.			30.33	770.4	33	0.6	79	Calm	0	0		0	0			0.42	10.7		
Wood's Hole, Mass.			29.97	761.2	14	—10.0	46	NW	19	8.5		0	0			0	0		
Wytheville, Va.			30.07	763.8	19	—7.2	84	N	10	4.5		0	0			0	0		
Yankton, D. T.			30.13	765.3	3	—19.4	83	NE	4	1.8			10		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.12	765.0	77	25.0		N	2	0.9		5	5	NE		0	0		
Point-a-pitre, G'd'loupe, "			30.05	763.3	72	22.2		NE				5	0			0.13	3.3		
Havana, Cuba, W. I.			30.00	762.0	72	22.2	85	E	4	1.8		0	0			0	0		
Kingston, Jamaica, W. I.			30.27	768.8	74	23.3	97	Calm	0	0		1	2	E		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.97	761.2	71	21.7	81	NW	4	1.8		0	0			0	0		
St. Georges, Bermudas			30.11	764.8	64	17.8		SW				8	8	SW		0	0		
Honolulu, Sandwich Is.			30.10	764.5	58	14.4	88	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.81	706.4			54	12.2	72	SE	2	0.9		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.62	752.3	—32	—35.6		W	18	8.0			10			0	0		
Clifton, Jamaica, W. I.			30.14	765.5	64	17.8		NNW	6	2.7		2	5	NNE		0	0		C. Partridge.
St. Johns, Newfoundland			30.33	745.0	14	—10.0	100	S				0	0			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.19	766.7	73.6	23.1	72	NW			1	1	0			0.033	0.85		Leon M. Acuna.
Ellyria, Ohio	30.37	745.7			—10	—23.3		SW	10	4.5		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.23	742.4			—6	—14.4		NE					10			0.03	0.8	Snow	G. C. Carpenter.

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

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 13, 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.07	763.8															Charnot.
Algiers			30.07	763.7	57.4	14.1	70	W			3		6			0	0		Peter.
La Calle			29.82	757.4															Kuntz.
Tunis			29.78	756.4	53.4	11.9	57	NW			4		8			0.386	9.8	Fog	Jacques.
Sfax																			Chauvey.
Saida			30.06	763.5	50.0	10.0		NW			2		6			0	0		Grosjean.
Tebessa			29.85	758.1															Colin.
Geriville			30.07	763.7	45.7	6.5		N			4		0			0	0		Bernadach.
Laghouat			30.07	763.8	53.6	12.0	33	NW			5		4			0	0.		Poinsignon.
Biskra			29.91	759.7	59.2	15.1		NW			7		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.

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.
Agram			30.13	765.2	30.4	— 0.9	75	NE			2		4			0	0		Prof. Ivan Stozir.
Buda-Pesth			30.13	765.4	24.3	— 4.3	75	NW			1		1			0	0		I. R. Cen. M. I., Hungary
Cracow			30.27	768.8	0.9	—12.3	63	NE			2		0			0	0		I. R. Observatory.
Eperies			30.14	765.6	21.2	— 6.0	74	Calm			0		8			0	0	Fog	Julius Mikolik.
Gratz			30.15	765.8	25.2	— 3.8	71	S			2.5		0			0	0		Andreas Rospini.
Hermanstadt			30.04	763.0	24.6	— 4.1	91	ENE			1		10			0	0		Prof. Reissenberger.
Kremsmünster			30.18	766.5	23.0	— 5.0	74	Calm			0		10			0.072	1.8		Prof. C. Wagner.
Lemberg			30.21	767.3	14.0	—10.1	100	NE			3		10			0	0		Dr. T. Stanecki.
Nytrgyhaza			30.13	765.2	21.4	— 5.9	96	N			1		10			0.142	3.61		Habesuda Daniel.
Pola			29.90	759.5	38.8	3.8	40	NE			3		3			0	0		I. R. Hydrographic Office
Szegedin			30.10	764.5	19.4	— 7.0	94	E			3		10			0.053	1.35		Karl Stancel.
Trieste			29.91	759.6	35.4	1.9	49	ENE			4		2			0	0		Prof. V. Farolfi.
Vienna			30.18	766.6	22.1	— 5.5	82	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.

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.
Brussels	29.02	759.9			36.0	2.2	100	WS V			1		10			0.057	1.45		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.82	757.4	40.0	4.4		S	26	11.6			10			0.150	3.81		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.82	757.4	48	8.9		SSW			3		7						William McNeil.
Armagh Observatory			29.84	757.9	53.0	11.7		SSW	21	9.4			7						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			29.95	760.7	51.9	11.2		SE			1		9					Mist	The Liverpool Obs.
Birr Castle			29.86	758.4	53.7	12.1		SSW			8		9						J. Drever.
Bradford			29.96	761.0	40.5	4.7		Calm			0		10					Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.08	764.0	42.0	5.6		S			1		4						H. Todd.
Cape Town, Cape Colony			29.77	756.1	89	31.7		NW			1		3						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.81	757.2			92.6	33.7	35	SSE	8	3.6			1						The Royal Observatory
Cardington			30.08	764.0	39.0	3.9		S					10					Fog	John McLaren.
Carlisle			29.90	759.4	47.3	8.5		SE					10			0.01	0.2	Threatening	T. Bell.
Chatham			30.07	763.8	43.2	6.2		SE			1		10					Threatening	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	75.0	23.9		NE			1		2						Sgt. W. F. Hopkins
Dartmoor			30.13	765.3	46	7.8		W			2		10					Rain & fog	R. E. Power.
Donaghadee			29.85	758.2	49	9.4		S			3		10						J. Mac Gowan, Jr.
Dover			30.11	764.8	42	5.6		Calm			0		10						J. Costello.
Dublin																			
Durham Observatory			29.94	760.5	35.8	2.1		S					10						G. Goldney.
Eccles, (near Manchester)			29.99	761.7	45.5	7.5		SE	2.8	1.2			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.10	764.5	51.8	11.0		WSW	14	6.3			9						The Fa mouth Obs.
Fort Napier, (Natal)			29.81	757.2	69.0	20.6		E			3		10						Pvt. G. Salmon.
Galway			29.87	758.7	48	8.9		S			1		3						Queen's College.
Gibraltar, (Mediterranean)			30.17	766.3	63.2	17.4		WSW			7		0						Sgt. J. Brewster.
Glasgow Observatory			29.81	757.2	49.5	9.7		SW			3		10						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.10	764.5	38	3.3		SE			1		8					Mist	G. T. Watson.
Greenwich Royal Obs.			30.10	764.5	42.6	5.9		SSE			1		10					Rain	The Royal Observatory
Guernsey			30.10	764.5	51.5	10.8		WSW			1		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.94	760.5	40.7	4.8		Calm			0		10					Fog	Moorside Observatory
Halifax, (Nova Scotia)			30.04	763.0	2.7	—16.3		NW			3		1						Corp'l J. Y. Thompson
Helston			29.97	761.2	54	12.2		SW			4		10					Fog	W. B. Moyle.
Holyhead			29.92	760.0	49	9.4		SSW			4		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.10	764.5	42.8	6.0		SSE	4	1.8			10					Fog & Rain.	The Met. Office.
Kingstown			29.91	759.7	50	10.0		ENE			1		5						George Mitchell.
Lampeter																			
Leicester			30.05	763.3	42.0	5.6		S			1		10						William J. Harrison
Llandudno			29.93	760.2	51.0	10.6		WSW					8						Dr. James Nicol.
Malta, (Mediterranean)			29.64	752.8	53.0	11.7		E			4		10					Rain	Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.70	754.4	48	8.9		SW			2		7						William D. Penny.
Nassau, (Bahamas)			30.26	768.6	71.7	22.1		NE			3		1						Surgeon I. Jameson.
North Shields			29.96	761.0	39	3.9		SSW			5		8						John Wm. Irvine.
Nottingham			30.04	763.0	42	5.6		ESE			1		10					Rain	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.03	762.7	43.4	6.3		SSE			2		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs.			30.06	763.5	45.2	7.2		S			3		10					Mist	Radcliffe Observatory
Plymouth			30.08	764.0	51	10.6		SW			1		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.94	760.5	50	10.0		WSW			4		10						W. Kennedy.
Saint Ann's Head			30.02	762.5	48	8.9		SW			2		9					Fog	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.66	753.4	42.0	5.6		S	35	15.6			10					Mist	Rev. Dr. Clouston.
Scarboro'			30.03	762.7	37.0	2.8		S			3		10						F. Heard.
Scutari, (Turkey)			29.89	758.9	52.0	11.1		NE			2		4						W. H. Lyne.
Sheffield			30.02	762.5	42.1	5.6		S			1		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.89	759.2	47.9	8.8		SW			3		10			0.295	7.59		Francis Redford.
Somerleyton, (Lowestoft)			30.10	764.5	40.0	4.4		SE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.96	761.0	40.7	4.8		NE			1		10					Threatening	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.55	750.6	49	9.4		SW			6		10					Rain	John Smith.
Strathfield Turgiss			30.08	764.0	46.3	7.9		SW			1		10					Rain	Charles H. Griffith.
Streatley Vicarage			30.07	763.8	45.8	7.7		WSW			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.70	754.4	39	3.9		SSW			8								William Lawrence.
Taunton College																			
Thurso			29.65	753.1	44	6.7		SSE			4		8						John Trotter.
Truro, Royal Institution			30.00	762.0	53	11.7		W			5		8						Royal Institution.
Valencia			29.84	757.9	52.3	11.3		SSW	42	18.8			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.12	765.0	41.9	5.5		SSE			2		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 Cape 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			30.26	768.5	26.8	— 2.9	89	Calm			0		10						
Fanöe			30.26	768.5	29.7	— 1.3	74	SE			2		8						
Godthaab, (Greenland)			29.46	748.4	15.4	— 9.2		E			2		2						
Stykkisholm, (Iceland)			29.94	735.2	31.6	— 0.2	89	NE			6		8						
Thorshavn, (Faröe)			29.34	745.2	44.6	7.0	96	S			5		10					Rain	
Vestervig			30.25	768.4	27.3	— 2.6	74	ESE			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.

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.	Winds. Direction. 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			29.71	754.7	49.5	9.7	61						8						
Alençon			30.12	765.0	48.9	9.4	97	N			2		10			0	0		Normal School.
Amiens			30.13	765.2	42.1	5.6	78	WSW			3		10			0	0		Normal School.
Beaumette, (near Angers)			30.11	764.8	52.0	11.1	90	NW	0.0	0.0			10			0.087	2.2		Normal School.
Beauvais			30.15	765.7	44.1	6.7	77	S			1		10		N	0.012	0.3		Beaumette Observatory.
Besançon			30.15	765.7	39.2	4.0	75	S			2		10		WNW	0.031	0.8		Normal School.
Bourges			30.14	765.5	39.9	4.2	93	WSW			2		10		SW	0.335	8.5		Normal School.
Brest			30.09	764.4	52.3	11.3	92	W			2		10		WSW	0.039	1.0		Normal School.
Caen			30.14	765.5	48.0	8.9	100	NW			2		10		SW	0.217	5.5	Rain & fog	Naval Observatory.
Carcassonne																0.189	4.8		Normal School
Chartres			30.13	765.2	39.0	3.9		WNW			2		10			0	0	Fog	Normal School.
Chaumont			30.12	765.1	39.4	4.1		SW			5		10			0	0		Normal School.
Le Mans			30.10	764.5	47.5	8.6	97	NW			2		10		NE	0.087	2.2		Normal School.
Mirecourt			30.07	763.7	37.0	2.8		NNW			2		10		SSE	0	0		Normal School.
Orleans			30.14	765.6	40.6	4.8	97	W			2		10		SW	0	0		Normal School.
Paris			30.12	765.0	41.2	5.1	77	E			1					0.055	1.4	Fog	National Observatory.
Parthenay																			
La Roche sur Yon			30.17	766.3	52.2	11.2	93	E			2		5		W	0.299	7.6		Normal School.
Rouen			30.15	765.7	42.6	5.9	87	WNW			2		10			0.028	0.7		Normal School.
Saint Lo			30.09	764.4	64.4	18.0	89	SW			1		10		SW	0.118	3.0		Normal School.
Villefranche			30.12	765.0	43.5	6.4	89	NNE			1		0			0.331	8.4		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.83	630.7			41.0	5.0	84	NNE	8.0	3.84			6		NW	0	0		—. Falguère.
Montsouris (near Paris)			30.12	765.0	42.4	5.8	88	Calm	0.0	0.00			10			0.055	1.4		Marié Davy.
Perpignan	29.87	758.7			57.2	14.0	65	WNW	14.9	6.66			7		WNW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.12	765.1	42.8	6.0	81	NNE			1		10			0.090	2.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.32	770.1	45.7	7.6	94	NW			1		10			0.142	3.6	Rain	C. Marquet.
Versailles, (near Paris)			30.11	764.9	42.4	5.8	91	W			1		10			0.076	1.92	Fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.16	766.0	27.9	— 2.3	81	SW			1		10			0.075	1.9		Prof. Hoh.
Berlin			30.30	769.5	26.2	— 3.2	73	SW			3		8			0	0		Prof. Arndt.
Breslau			30.24	768.0	16.9	— 8.4	78	E			1		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.16	766.0	33.8	1.0	79	NE			1		10			0.157	4.0	Snow	A. Leux.
Cassel			30.15	765.8	31.6	— 0.2	87	SSW			2		8			0	0		Dr. H. Mohl.
Cologne			30.13	765.4	34.0	1.1	86	S			3		7			0	0		Dr. Gaithe.
Emden			30.33	770.3	29.5	— 1.4	79	E			1		1			0	0		Prof. Prestel.
Frankfort on the Main			30.29	769.3	28.6	— 1.9	86	E			2		10			0.114	2.9		Physical Society.
Friedrichshafen			30.13	765.2	33.8	1.0	90	SE					10			0	0		M. Wilhelm.
Hamburg			30.28	769.0	32.5	0.3	71	E			2		8			0	0		W. Reinart.
Kiel			30.23	767.9	33.6	0.9	68	E			2		9			0	0		Prof. G. Karsten.
Königsberg			30.33	770.3	24.8	— 4.0	72	SE			2		4			0.043	1.1	Snow	Prof. E. Luther.
Köslin			30.50	774.6	23.0	— 5.0		S			1		10			0.031	0.8		Dr. Tägert.
Leipsic			30.25	768.4	20.8	— 6.2	74	E			1		3			0	0		Prof. Bruhns.
Münster			30.17	766.4	31.1	— 0.5	93	NE			1		1			0	0		Prof. E. Heis.
Posen			30.30	769.5	19.0	— 7.2	72	S			1		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.15	765.7	35.8	2.1	89	NE					10			0	0		Hartwig and Fulk.
Stuttgart			30.15	765.7	32.4	0.2	81	NE					10			0.067	1.7		Mr. Wurth.
Thorn			30.28	769.1	21.4	— 5.9	74	ESE			2		4			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.08	764.1	35.1	1.7	77	NW			2		10			0	0		Prof. Flesch.
Wustrow			30.26	768.5	28.2	— 2.1	85	N			1		8			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Moncalieri			30.05	763.3	37.0	2.8	53	W			1		0			0	0		
Mondovi			30.02	762.4	32.9	0.5	56	NW			4		0	N		0	0		
Genoa			29.96	760.9	42.4	5.8	37	NW	5.6	2.5			0			0	0		
Pavia			30.00	761.9	38.3	3.5	45	N			1		0			0	0		
Verona																			
Padua			29.94	760.6	39.0	3.9	36	NE	7.4	3.3			0			0	0		
Parma																			
Bologna			30.00	762.0	36.5	2.5	35	NNW			2		2			0	0		
Livorno			29.86	758.7	44.6	7.0	47	ENE	6.9	3.1			2			0	0		
Urbino			29.95	760.7	29.3	— 1.5		N			4		10			0	0		
Ancona																			
Siena			29.84	758.0	38.3	3.5	66	ENE	0.2	0.1			3	NW		0	0		
Rome			29.80	756.8	39.6	4.2	39	NNE			2		8	WSW		0	0		
Naples, O.U.			29.78	756.3	38.3	3.5	54	N			4		5	SSW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.66	753.4	45.7	7.6	76	NNE	17.4	7.8			10			0	0		
Cosenza			29.79	756.7	44.2	6.8	72	N			2		10			0	0		
Catania, (Sicily)			29.66	753.4	51.4	10.8	73	NE			2		10	NE		0	0		
Hipposto																			
Palermo			29.72	755.0	49.3	9.6	82	NE			4		8			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.15	765.9	36.1	2.3		ESE			2								
Groningen			30.15	765.9	38.7	3.7		E			2								
Helder			30.15	765.9	30.2	— 1.0		ESE			3								
Utrecht			30.12	764.7	34.0	1.1		E			3		8						

NOTE.—The originals give the force 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.

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.
Bergen			30.17	766.2	29.5	— 1.4	64	SSE	12.5	5.6			10			0	0		
Christiania			30.31	769.8	14.4	— 9.8	87	W	0.9	0.4			0			0	0	Haze	
Tromsö			30.19	766.9	23.0	— 5.0	93				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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.92	760.0			50.7	10.4	95	Calm	2.5	1.1			10						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.30	769.6	22.6	— 5.2	90	SE	4	2			0						Astronomical Obs.
Wilna			30.37	771.3	27.1	— 2.7	91	S	4	2			10						Astronomical Obs.
Dorpat			30.49	774.5	23.5	— 4.7	76	SE	7	3			8						Physical Cabinet.
St. Petersburg			30.50	776.4	23.9	— 4.5	65	SSE	7	3			0						Central Physical Obs.
Kieff			30.30	774.7	25.7	— 3.5	87	ESE	9	4			4						Physical Cabinet.
Nikolaiev			30.30	769.5	31.3	— 0.4	85	NE	20	9			10						
Kertch			30.18	766.5	43.0	6.1	68	ESE					3						Lagorio.
Moscow			30.86	783.3	14.7	— 9.6	74	S	7.8	3.5			0						Meteorological Obs.
Lugan			30.48	774.2	23.7	— 4.6	67	ENE	16.8	7.5			0						Meteorological Obs.
Archangel			30.70	779.9	12.7	—10.7	86	SSW	4	2			10						Ogorodnikof.
Tiflis			30.33	770.4	39.6	4.2	87	S	4	2			9					Rain	Physical Obs.
Astrakhan			30.63	778.1	26.4	— 3.1	55	ENE	7.8	3.5			0						Sebastianof.
Kasan			30.73	780.6	15.1	— 9.4	78	N					2						Physical Cabinet.
Orenburg			30.87	784.0	2.5	—16.4	90	W	7.8	3.5			3						Tschernischef.
Ekaterinburg			29.63	778.0	14.0	—10.0	90	W	10.1	4.5			1						Meteorological Obs.
Kasaly			30.46	773.8	9.7	—12.4	54	N	13	6			0						Bobrof.
Tashkend			30.58	776.7	32.5	0.3	94	N	13	6			1						Michelson.
Barnaul			30.56	776.2	5.5	—14.7	82	SW	4	2			4						Meteorological Obs.
Yeniseisk			29.91	759.6	8.2	—13.2	91	E	10.1	4.5			10						Marks.
Irkutsk			30.27	768.9	0.9	—17.3	72	NE					2						Usolzef.
Oorga			30.54	775.8	— 8.0	—22.2	100	Calm	0	0			0						Messin.
Peking, (China)			30.15	765.9	27.3	— 2.6	42	SW	4	2			0						Physical Observatory
Nertchinsk			30.26	768.5	—17.9	—27.7	90	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					16.3	— 8.7		NW	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.

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.
Madrid			30.20	767.2	55.9	13.3	68	E	2.2	1.00		1	0	NW		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.34	770.7	20.8	— 6.2	95	NNE			2		10			0	0		
Hernosand			30.31	769.8	21.6	— 5.8	95	NE			2		10			0	0		
Upsala			30.23	767.8	20.5	— 1.4	93	Calm			0		10	SSE		Blank	Blank	Snow & fog	Dr. Hildebrandsson.
Stockholm			30.19	766.9	29.5	— 1.4	80	NE			0		10			0.004	0.1		
Wisby			30.24	768.1	29.8	— 1.2	100	NW			4		3			0.024	0.6		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			36.1	2.3	69	NE			2		3			0.240	6.1	Fog	The Observatory.
Zurich	28.40	721.4			34.0	1.1	80	S			1		10			0	0	Fog	Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +0.7mm.; Thermometer, —1°.3 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			29.94	760.4	55.8	13.2	62	N			1		10						
Constantinople			29.91	759.8	47.1	8.4	76	ENE	16	7			5		N	0	0		
Fao, (Persian Gulf)			30.08	764.0	62.6	17.0		NW			3		5						
Salonica			29.70	754.5	52.2	11.2		E			6		10						
Valona			29.67	753.7	49.1	9.5		W			2		4						
Varna			30.00	762.0	41.0	5.0		N			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.68	753.9	—10	—23.3	91	W	15	6.7		2	2	NW	NW	0.40	10.2		
Chatham, N. B.			29.92	760.0	—12	—24.4	91	SW	7	3.1		2	0	W		0	0		
Charlottetown, P. E. Island			29.99	761.7	— 7	—21.7	92	SW	10	4.5		0	0			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.19	766.6	—32	—35.6	100	Calm	0	0		0	0			0	0		
Halifax, N. S.			29.99	761.7	0	—17.8	77	W	3	1.3		0	2		W	0.01	0.2		
Kingston, Ontario			30.12	765.0	—10	—23.3	87	S	1	0.4		10	0	SW		0	0		
Montreal, Quebec			30.00	764.3	— 8	—22.2	74	SW	14	6.3		0	0			0	0		
Ottawa, Ontario			30.08	764.0	—30	—34.4	40	Calm	0	0		Haze	Fog	W		0	0		
Parry Sound, Ontario			30.00	763.5	—36	—37.8	36	NE	7	3.1		0	0			0	0		
Port Dover, Ontario			30.17	766.3	— 8.0	—22.2	79	SW	6	2.7		5	0	SW		0	0		
Port Stanley, Ontario			30.19	766.8	—15.0	—26.1	89	SW	6	2.7		5	0	W		0	0		
Quebec, Quebec			30.00	765.5	—18	—27.8	100	W	6	2.7		0	0			0	0		
Saugeen, Ontario			30.00	763.5	—12	—24.4	77	Calm	0	0		2	0			0	0		
Sydney, C. B.			29.96	761.0	2	—16.7	69	W	21	9.4		0	0			0	0		
Toronto, Ontario			30.13	765.3	11	—23.9	86	W	5	2.2		2	2	W	W	0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.18	766.6	—11	—23.9	56	Calm	0	0		0	Fog			0	0	Fog	
Alpena, Mich.			30.04	763.0	—19	—28.3		Calm	0	0		0	0			0	0		
Atlantic City, N. J.			30.15	765.8	22	— 5.6	85	N	7	3.1			10		W	0	0		
Augusta, Ga.			30.29	769.4	38	3.3	81	SE	2	0.9		5	5	W	SE	0	0		
Baltimore, Md.			30.14	765.5	25	— 3.9	87	NE	3	1.3			10		NW	0	0		
Barnegat, N. J.			30.09	764.3	21	— 6.1	85	SE	1	0.4			10		SE	0	0		
Benton, Montana			30.04	763.0	21	— 6.1	85	Calm	0	0			10			0	0		
Bismarck, Dakota			30.21	767.3	—14	—25.6	19	N	1	0.4		0	0			0	0		
Boston, Mass.			30.14	765.5	5	—15.0	50	NW	6	2.7		5	2	W		0	0		
Breckenridge, Minn.			30.26	768.6	—16	—26.7	87	NW	8	3.6		2	0	NW		0	0		
Buffalo, N. Y.			30.17	766.3	— 4	—20.0	100	SW	10	4.5		5	0	W		0	0		
Burlington, Vt.			30.14	765.5	— 6	—21.1	68	S	6	2.7		0	5			0	0		
Cairo, Ill.			30.18	766.6	29	— 1.7	85	NE	4	1.8		10	0			0	0		
Cape Hatteras, N. C.			30.22	767.6	54	—12.2	55	W	16	7.2		10	0	W		0	0		
Cape Henry, Va.			30.15	765.8	45	7.2	53	W	15	6.7		0	0			0	0		
Cape May, N. J.			30.16	766.1	25	— 3.9	75	NE	8	3.6			10		NW	0	0		
Charleston, S. C.			30.42	772.7	47	8.3	47	W	4	1.8		5	Sm'e			0	0		
Cheyenne, W. T.			29.85	758.2	32	0.0	61	S	4	1.8		0	0			0	0		
Chicago, Ill.			30.18	766.6	0	—17.8	100	SW	4	1.8		2	2	W		0	0		
Cincinnati, Ohio			30.25	768.3	18	— 7.8	68	N	2	0.9			10			0.01	0.2		
Cleveland, Ohio			30.19	766.8	0	—17.8	85	S	8	3.6		0	2			0	0		
Colorado Springs, Col.			29.89	759.2	33	0.6	70	W	4	1.8		0	0			0	0		
Corsicana, Texas			30.00	762.0	59	15.0	94	S	4	1.8			10			0	0		
Davenport, Iowa			30.27	768.8	2	—16.7	100	Calm	0	0			10			0.02	0.5		
Denver, Col.			29.33	745.0	34	1.1	43	NE	2	0.9		0	0			0	0		
Detroit, Mich.			30.19	766.8	6	—21.1	64	SW	6	2.7		0	2			0	0		
Dodge City, Kansas			29.78	756.4	30	— 1.1	78	N	5	2.2		5	0	N		0	0		
Dubuque, Iowa			30.24	768.1	—19	—22.8	79	S	4	1.8			10			0	0		
Duluth, Minn.			30.18	766.6	—16	—26.7		SW	4	1.8		0	0			0	0		
Eastport, Me.			30.09	764.3	— 5	—20.6	63	NW	13	5.8		0	0			0	0		
Erie, Penn.			30.18	766.6	3	—16.1	73	SW	12	5.4		2	2			0	0		
Escanaba, Mich.			30.09	764.3	—20	—28.9	27	W	8	3.6		0	0			0	0		
Fort Gibson, I. T.			29.96	761.0	38	3.3	71	NE	1	0.4			10		SW	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.22	767.6	7	—13.9	66	N	8	3.6			10		N	0	0		
Galveston, Texas			30.09	764.3	62	16.7	94	SE	4	1.8			10		SE	0	0		
Grand Haven, Mich.			30.13	765.3	5	—15.0	75	NW	21	9.4		2	2	NW	NW	Blank	Blank		
Indianapolis, Ind.			30.26	768.6	7	—13.9	65	N	3	1.3			10		W	1.08	2.0		
Indianola, Texas			30.05	763.3	66	18.9	94	S	10	4.5			10		S	0	0	Threatening	
Jacksonville, Fla.			30.32	770.1	44	6.7	83	E	2	0.9		8	Fog	SW.		0	0		
Keokuk, Iowa			30.19	766.8	8	—13.3	78	E	5	2.2			10		E	0.01	0.2		
Key West, Fla.			30.32	767.6	73	22.8	81	SE	4	1.8		Haze	2			0	0		
Kittyhawk, N. C.			30.20	767.1	45	7.2	78	S	10	4.5			10		S	0	0		
Knoxville, Tenn.			30.20	767.1	42	5.6	58	W	4	1.8		10	0	NW		0	0		
La Crosse, Wis.			30.23	767.8	— 5	—20.6	63	Calm	0	0		0	0			0	0		
Leavenworth, Kan.			30.11	764.8	17	— 8.3	83	NE	1	0.4		0	0			0	0		
Lexington, Ky.			30.23	767.8	30	— 1.1	78	S	4	1.8		8	0			0	0		
Long Branch, N. J.			30.18	766.6	23	— 5.0	100	NW	2	0.9			10			0.01	0.2		
Louisville, Ky.			30.23	767.8	20	— 6.7	70	N	2	0.9		0	0			0	0		
Lynchburg, Va.			30.12	765.0	36	2.2	46	W	4	1.8		5	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	—13	—25.0	74	W	4	1.8		0	0			0	0		
Memphis, Tenn.			30.13	765.3	46	7.8	60	Calm	0	0		2	8			0.02	0.5		
Milwaukee, Wisconsin			30.19	766.8	0	—17.8	85	W	12	5.4		0	5		W	0	0		
Mobile, Ala.			30.26	768.6	49	9.4	93	N	4	1.8			10		NW	0	0		
Montgomery, Ala.			30.30	769.6	46	7.8	81	Calm	0	0		10	Sm'e			0	0		
Morgantown, W. Virginia			30.21	767.3	20	— 6.7	85	N	2	0.9			10			0.04	1.0		
Mt. Washington, N. H.			29.40	746.7	—23	—30.6	100	NW	68	30.4			Fog			0	0		
Nashville, Tenn.			30.18	766.6	36	2.2	80	Calm	0	0		10	Sm'e	W		0	0		
New Haven, Conn.			30.18	766.6	12	—11.1	61	N	6	2.7		8	8		N	0.01	0.2		
New London, Conn.			30.18	766.6	14	—10.0	63	N	3	1.3			10		W	0.04	1.0		
New Orleans, La.			30.19	766.8	55	12.8	87	SE	2	0.9		8	Fog	SW		0	0		
Newport, R. I.																			
New York, N. Y.			30.20	767.1	20	— 6.7	84	W	3	1.3			10			0.05	1.3	Light snow.	
Norfolk, Va.			30.15	765.8	41	5.0	65	SW	9	4.0		Haze	2	W		0	0		
North Platte, Neb.			29.69	754.1	25	— 3.9	75	SW	1	0.4		0	0			0	0		
Omaha, Neb.			30.08	764.0	12	—11.1	90	SW	0	0		0	Sm'e			0	0		
Oswego, N. Y.			30.10	764.5	7	—13.9	78	NE	12	5.4			10			0.15	3.8		
Pack's Beach			30.18	766.6	22	— 5.6	85	NE	3	1.3			10			0	0		
Pembina, D. T.			30.23	767.8	—36	—37.8		SW	4	1.8		0	0			0	0		
Philadelphia, Penn.			30.19	766.8	21	— 6.1	85	NE	7	3.1			10		NE	0.01	0.2		
Pike's Peak, C. T.			29.76	755.9	13	—10.6	76	W	40	17.9		0	0			0	0		
Pittsburgh, Penn.			30.21	767.3	14	—10.0	64	W	5	2.2			10			0.13	3.3		
Port Huron, Mich.			30.16	766.1	—10	—23.3	77	S	10	4.5		0	5			0	0		
Portland, Maine			30.14	765.5	— 3	—19.4	66	W	10	4.5		0	0			0	0		
Portland, Or.			30.10	764.5	38	3.3	90	NW	4	1.8			10			0.65	16.5	Light rain.	
Punta Rassa, Fla.			30.28	769.1	62	16.7	88	NE	8	3.6		10	0	NW		0	0		
Rochester, N. Y.			30.14	765.5	— 3	—19.4	87	SW	8	3.6		5	0	W		0	0		
Salt Lake City, Utah			30.02	762.5	45	7.2	38	NW	6	2.7			10			0	0		
Sandy Hook, N. J.			30.15	765.8	22	— 5.6	78	W	4	1.8			10		W	0.02	0.5	Light snow.	
San Diego, Cal.			30.06	763.5	51	10.6	93	E	4	1.8			10			0	0		
San Francisco, Cal.			30.12	765.0	51	10.6	93	S	2	0.9			10			0	0		
Santa Fe, N. M.			29.72	754.9	28	— 2.2	54	N	4	1.8		2	0	SW		0	0		
Savannah, Georgia			30.33	770.4	42	5.6	83	SW	2	0.9		5	Sm'e	W		0	0		
Shreveport, La.			30.05	763.3	57	13.9	87	SE	1	0.4			10			0	0	Light rain.	
Springfield, Mass.			30.18	766.6	9	12.8	68	NW	4	1.8		Sm'e	2		N	0	0		
St. Louis, Mo.			30.20	767.1	14	10.0	64	E	4	1.8		0	2		E	0	0		
St. Marks, Fla.			30.30	769.6	38	3.3	45	N	3	1.3		8	0	W		0	0		
St. Paul, Minn.			30.17	766.3	—15	—26.1	72	W	4	1.8			10			0	0		
St. Paul's Island, Alaska			29.54	750.3	35	1.7	89	SE	5	2.2		0	8			0.3	7.6		
Squan Beach, N. J.			30.18	766.6	20	— 6.7	72	NW	3	1.3			1			0.01	0.2		
Toledo, Ohio			30.13	765.3	0	—17.8	69	S	9	4.0		0	Sm'e			0	0		
Tybee Island, Ga.			30.35	770.9	44	6.7	83	Calm	0	0		5	Haze	NW		0	0		
Vicksburg, Miss.			30.22	767.6	53	11.7	79	SE	4	1.8			10		S	0	0		
Virginia City, Mon.			29.64	752.8	25	— 3.9	75	Calm	0	0			10			0	0		
Washington, D. C.			30.16	766.1	23	— 5.0	72	NE	2	0.9			10		E	0	0		
Wilmington, N. C.			30.27	778.8	49	9.4	43	W	12	5.4		5	5	W	W	0	0		
Wood's Hole, Mass.			30.16	766.1	13	—10.6	63	NW	2	0.9			10			0	0		
Wytheville, Va.			29.92	760.0	40	4.4	56	W	10	4.5		2	0	NW		0	0		
Yankton, D. T.			30.28	769.1	— 3	—19.4	66	SW	1	0.4		0	5		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	78	25.6		NE	2	0.9		5	5	W		0	0		
Point-a-pitre, G'd'loupe, "			30.07	763.8	72	22.2		E				5	0			0.14	3.6		
Havana, Cuba, W. I.			30.02	762.5	72	22.2	81	E	5	2.2		0	0			0	0		
Kingston, Jamaica, W. I.			30.27	768.8	73	22.8	90	E	2	0.9		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	71	21.7	71	N	8	3.6		0	2		N	0	0		
St. Georges, Bermudas			30.34	770.6	58	14.4		Calm	0	0		8	0	N		0	0		
Honolulu, Sandwich Is.			30.10	764.5	66	18.9	89	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.33	706.6			59	15.0	81	Calm	0	0		0	0			0.46	10.2		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.76	755.9	—27	—32.8		NW	24	10.7			10			0	0		
Clifton, *Jamaica*, W. I.			30.16	766.1	60	15.6		N	4	1.8		0	1			0	0		C. Partridge.
St. Johns, Newfoundland			29.96	761.0	15	— 9.4	100	E					10			0.40	10.1		John Delaney.
St. Johns, Porto Rico, W. I.			30.19	766.7	70.9	21.6	82	E			2	2	6			0.024	0.60		Leca M. Acuna.
Ellyria, Ohio	29.32	44.7			— 3	—19.4		S	5	2.2		0	3			0	0		H. M. Redington.
Indianola, Iowa	29.32	44.7			0	—12.8		SE				0	1			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.12	765.0															Charnot.
Algiers			30.01	762.2	59.0	15.0	68	Calm			0		4			0	0	Fog	Peter.
La Calle			29.86	758.4															Kuntz.
Tunis			29.80	756.9	52.7	11.5	48	NNW			5		8			0.591	15.0	Fog	Jacques.
Sfax																			Chauvey.
Salda			29.87	758.6	57.4	14.1		NNW			1		2			0	0		Grosjean.
Tebessa			29.87	758.6															Colin.
Geriville			30.06	763.4	51.8	11.0		N			3		2			0	0		Bernadach.
Laghouat			30.00	761.9	57.2	14.0	43	NW			5		1			0	0		Poinsignon.
Biskra			29.87	758.7	67.1	19.5		NW			5		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.13	765.3	28.6	— 1.9	88	Calm			0		10			0.303	7.7	Snow	Prof. Ivan Stozir.
Buda-Pesth			30.13	765.2	25.7	— 3.5	72	W			3		9			0.035	0.9		I. R. Cen. M. I., Hungary
Cracow			30.26	768.5	21.9	— 5.6	60	W			2		10			0.072	1.8		I. R. Observatory.
Eperies			30.15	765.7	27.0	— 2.8	83	Calm			0		10			0.096	2.49		Julius Mikolik.
Gratz			30.15	765.9	26.1	— 3.3	79	WSW			2.5		7.5			0	0		Andreas Rospini.
Hermannstadt			30.01	762.2	35.1	1.7	73	E			1		6			0	0		Prof. Reissenberger.
Kremsmünster			30.30	769.6	21.6	— 5.8	85	NE			1		3			0.039	1.0		Prof. C. Wagner.
Lemberg			30.24	768.2	24.1	— 4.4	95	SE			5		10			0.189	4.8		Dr. T. Stanecki.
Nyiregyhaza			30.09	764.2	29.5	— 1.4	96	N			4		10			0.072	1.80		Habsauda Daniel.
Pola			29.93	760.1	40.1	4.5	45	E			5		1			0	0		I. R. Hydrographic Office
Szegedin			30.05	763.2	26.2	— 3.2	91	N			3		10			0.110	28.0		Karl Stancel.
Trieste			29.99	761.8	39.9	4.4	33	ENE			2		0			0	0		Prof. V. Farolfi.
Vienna			30.25	768.4	22.5	— 5.3	78	NW			3		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.

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.
Brussels	29.96	761.1			37.2	2.9	95	SSW			1		10			0.010	0.25		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.71	754.6	48.2	9.0		WSW	14	6.3			2			0.070	1.78		William Boswell.
Annabhill																			W. H. Dunlop.
Ardrossan			29.79	756.7				W			2		3						William McNeil.
Armagh Observatory			29.93	760.2	47.4	8.6		W	10	4.5									Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			29.90	759.4	45.9	7.6		W			3		10					Rain	The Liverpool Obs.
Birr Castle			29.99	761.7	50.8	10.4		WNW			1-3		3						J. Dreser.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.98	761.5	51.0	10.6		SW			2		4						H. Todd.
Cape Town, Cape Colony			29.81	757.2	69.8	21.0		NW			3		2						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.80	756.9			78.0	25.6	54	NW	18	8.0			0.5						The Royal Observatory.
Cardington			29.98	761.5	52.0	11.1		SW					9						John McLaren.
Carlisle			29.85	758 2	48.0	8.9		W					8			0.14	3.6		T. Bell.
Chatham			30.03	762.7	50.0	10.0		SW			3		10					Threatening	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.95	760.7	75.2	24.0		NE			2		0						Sgt. W. F. Hopkins
Dartmoor			30.08	764.0	47	8.3		SW			2		10					Fog & Rain.	R. E. Power.
Donaghadee			29.88	758.9	48	8.9		WSW			3		6						J. Mac Gowan, Jr.
Dover			30.08	764 0	45	7.2		SSW			4		10					Fog & rain	J. Costello.
Dublin																			
Durham Observatory			29.80	756.9	49.1	9.5		WNW					7						G. Goldney.
Eccles, (near Manchester)			29.89	759.2	47.0	8.3		SW	5.2	2.3			10					Rain	Thomas Mackereth.
Falmouth Observatory			30.05	763.3	51.9	11.1		WSW	26	11.6			10					Rain & fog.	The Falmouth Obs.
Fort Napier, (Natal)			29.83	757.7	78.4	25.8		NE			3		7						Pvt. G. Salmon.
Galway			29.97	761.2	51	10.6		Calm			0		7						Queen's College.
Gibraltar, (Mediterranean)			30.05	763.3	62.5	16.9		W			5		6						Sgt. J. Brewster.
Glasgow Observatory			29.80	756.9	45.0	7.2		W			2		5						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			29.99	761.7	47	8.3		SSW			3		10					Mist	G. T. Watson.
Greenwich Royal Obs.			30.04	763.0	48.5	9.2		SSW			3		10					Rainy	The Royal Observatory.
Guernsey			30.10	764.5	51	10.6		SSW			2		10					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			Moorside Observatory.
Halifax, (Nova Scotia)			29.92	760.0	2.9	—16.2		NW			1		4						Corp'l J. Y. Thompson.
Helston			29.94	760.5	54	12.2		WSW			4		10					Fog	W. B. Moyle.
Holyhead			29.94	760.5	48	8.9		W			3		3						John Tilston.
Hull Park																			
Kew Observatory			30.04	763.0	47.8	8.8		SW	14	6.3			10					Rain & Mist.	The Met. Office.
Kingstown			29.96	761.0	47	8.3		WNW			4		5						George Mitchell.
Lampeter																			
Leicester			29.94	760.5	53.0	11.7		SW			3		10						William J. Harrison
Llandudno			29.96	761.0	47.2	8.4		SW					9.2						Dr. James Nicol.
Malta, (Mediterranean)			29.71	754.6	54.0	12.2		NW			2		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.70	754.4	48	8.9		SW			1		2						William D. Penny.
Nassau, (Bahamas)			30.20	767.1	72.0	22.2		Calm			0		3						Surgeon I. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.92	760.0	53.6	12.0		SW			4		10						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.93	760.2	52.1	11.2		SSW			4		10					Mist	St. Mary's College.
Oxford, Radcliffe Obs.			29 99	761.7	53	11.7		SW			3		10					Mist	Radcliffe Observatory.
Plymouth			30.04	763.0	51.5	10.8		SW			1		10					Rain	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.99	761.7	48	8.9		NNW			4		5						W. Kennedy.
Saint Ann's Head																			John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.61	752.1	44.0	6.7		WSW	25	11.2			0						Rev. Dr. Clouston.
Scarboro'																			F. Heard.
Scutari, (Turkey)			29.48	748.8	48.4	9.1		ENE			2		9						W. H. Lyne.
Sheffield			29.88	758.9	51.5	10.8		W			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.85	758.2	9.5	12.5		WSW			4		0			0.025	0.63		Francis Redford.
Somerleyton, (Lowestoft)			29.96	761.0	49.5	9.7		SW			1		10					Rainy	Rev. C. J. Steward.
Stonyhurst Observatory			29.88	758.9	46.0	7.8		W			3								Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			29.62	752.3	41	5.0		W			4		7					Rain	John Smith.
Strathfield Turgiss			30.02	762.5	50.3	10.2		SW			1		10					Rain	Charles H. Griffith.
Streatley Vicarage			30.03	762.7	52.2	11.2		SSW			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.44	747.8	43	6.1		SW			5								William Lawrence.
Taunton College																			
Thurso			29.62	752.3	47	8.3		SW			3		4						John Trotter.
Truro, Royal Institution			29.99	761.7	53	11.7		W			4		10						Royal Institution.
Valencia			30.02	762.5	50.6	10.3		WNW	12	5.4			4						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
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 Cape 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			30.33	770.3	27.7	— 2.4	92	S			4		5						
Fanöe			30.18	766.5	27.5	— 2.5	72	S			6		10						
Godthaab, (Greenland)			29.26	743.1	23.0	— 5.0		S			2		10						
Stykkisholm, (Iceland)			29.22	742.1	28.8	— 1.8	98	E			2		8						
Thorshavn, (Faröe)			29.28	743.6	43.9	6.6	81	SW			6		5					Rain	
Vestervig			30.07	763.7	29.1	— 1.6	76	SSE			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.88	759.0	54.7	12.6	38						0						Normal School.
Alençon			30.10	766.7	45.3	7.4	97	SW			2		10			0	0		Normal School.
Amiens			30.18	766.5	41.7	5.4	88	WSW			3		10			0.047	1.2		Normal School.
Beaumette, (near Angers)			30.10	766.1	53.1	11.7	80	SW	0.0	0.0			10		W	0	0		Beaumette Observatory.
Beauvais			30.22	767.5	42.2	5.7	85	SSW			1		10			0.20	0.5	Mist	Normal School.
Besançon			30.26	768.6	36.0	2.2	6[illegible]	NNE			2		0			0	0		Normal School.
Bourges			30.22	767.5	46.8	8.2	75	ENE			2		2		ENE	0	0		Normal School.
Brest			30.07	763.8	51.3	10.7	9[illegible]	SW			3				SW	0.098	2.5	Rain & Fog.	Naval Observatory.
Caen			30.17	766.2	51.3	10.7	84	SSW			1		5		SW	0	0		Normal School
Carcassonne																			
Chartres			30.22	767.6	39.7	4.3		S			1		10			0.252	6.4		Normal School.
Chaumont			30.24	768.1	37.2	2.9		S			1		0			0.256	6.5		Normal School.
Le Mans			30.22	767.5	46.2	7.9	98	SE			2					0	0		Normal School.
Mirecourt			30.15	765.7	35.1	1.7		SE			2		5		NW	0	0		Normal School.
Orleans			30.22	767.5	42.4	5.8	88	W			2		10		SW	0.126	3.2		Normal School.
Paris			30.21	767.4	39.9	4.4	76	S			2		10			0	0		National Observatory.
Parthenay																			
La Roche sur Yon			30.19	766.9	51.8	11.0	79	E			2		2		W	0	0		Normal School.
Rouen			30.17	766.4	44.1	6.7	87	W			2		10			0	0		Normal School.
Saint Lo			30.08	764.1	50.4	10.2	93	W			3		10		W	0.020	0.5		Normal School.
Villefranche			29.96?	761.0?	40.5	4.7	92	N			2		0			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.84	631.0			44.2	6.8	66	NN	6.2	2.77			0			0	0		—. Falguère.
Montsouris (near Paris)			30.21	767.3	39.9	4.4	82	SSE	2.3	1.05			10			0	0	Rainy	Marié Davy.
Perpignan	29.87	758.8			59.0	15.0	52	WNW	20.5	9.17			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.22	767.5	40.6	4.8	84	S			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.20	767.2	43.3	6.3	90	E			1		10			0.008	0.2	Rain	C. Marquet.
Versailles, (near Paris)			30.19	766.9	41.7	5.4	84	S			1		10			0	0	Fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.25	768.3	18.5	— 7.5	87	Calm			0		8			0	0		Prof. Hoh.
Berlin	—		30.42	772.6	24.1	— 4.4	77	S			1		7			0	0		Prof. Arndt.
Breslau			30.34	770.7	15.8	— 9.0	93	NW			3		10			0	0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.27	768.9	32.0	0.0	67	NNE			1		0			0	0		A. Leuz.
Cassel			30.29	769.3	29.8	— 1.5	84	SSE			0		4			0.319	8.1		Dr. H. Mohl.
Cologne			30.24	768.1	35.4	1.9	93	SSE			3		9			0.047	1.2		Dr. Gaethe.
Emden			30.29	769.4	31.1	— 0.5	87	SSE			2		10			0.146	3.7	Snow	Prof. Prestel.
Frankfort on the Main			30.40	772.2	33.1	0.6	67	E			2		4			0	0		Physical Society.
Friedrichshafen			30.29	769.3	30.2	— 1.0	90	E					3			0	0		M. Wilhelm.
Hamburg			30.32	770.2	27.0	— 2.8	74	SE			5		8			0	0		W. Reimart.
Kiel			30.30	769.6	30.9	— 0.6	72	SSE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.38	771.7	29.3	— 1.5	85	SE			2		9			0.008	0.2	Snow	Prof. E. Luther.
Koslin			30.62	777.8	21.2	— 6.0		NE			2		3			0	0		Dr. Tägert.
Leipsic			30.39	771.9	18.0	— 7.8	89	S[illegible]			0		0			0	0		Prof. Bruhns.
Münster			30.11	764.9	34.3	1.3	98	NE			1		10			0.031	0.8		Prof. F. Heis.
Posen			30.63	771.2	23.0	— 5.0	88	N			5		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.28	769.2	30.7	— 0.7	9[illegible]	NE					10			0	0		Hartwig and Fulk.
Stuttgart			30.28	769.1	30.9	— 0.6	77	N					10			0	0		Mr. Wurth.
Thorn			30.33	770.3	25.5	— 3.6	84	NNE			3		8			0	0		Dr. Havenbalg.
Treves, (Trier)			30.21	767.3	32.9	0.5	76	W			2		10			0	0		Prof. Flesch.
Wustrow			30.39	771.8	22.3	— 5.4	87	E			5		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	762.2	41.9	5.5		SE			1		0			0	0		
Mondovi			30.01	762.2	39.0	3.9	39	NW			2		0	N		0	0		
Genoa			29.93	760.3	47.7	8.7	32	NW	3.1	1.4			0			0	0		
Savia			30.01	762.[illegible]	38.3	3.5	44	N			1		0			0	0		
Verona																			
Padua			29.98	761.6	38.7	3.7	32	WNW	1.8	0.8			0			0	0		
Parma																			
Bologna			30.06	763.5	38.3	3.5	29	W			2		2	W		0	0		
Livorno			29.91	759.6	48.2	9.0	28	ENE	16.8	7.5			0			0	0		
Urbino			29.94	760.5	31.2	1.[illegible]		NNE			4		2			0	0		
Ancona																			
Siena			29.85	758.3	42.3	5.7	27	ENE	1.8	0.8			1			0	0		
Rome			29.70	754.5	48.6	9.2	34	N			8		0			0	0		
Naples, O.U.			29.70	754.3	48.6	9.2	30	N			4		6	NE		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.60	751.8	48.7	9.3	72	NNE	16.1	7.2			8			0	0		
Cosenza			29.60	751.8	44.6	7.0	66	NNW			4		10			0	0		
Catania, (Sicily)			29.58	751.3	51.3	10.7	64	SE			2		0	SE		0	0		
Riposto																			
Palermo			29.61	752.2	47.1	8.4	53	NNW			4		9			0.004	1.4		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.15	765.8	39.0	3.9		S			4								
Groningen			30.11	764.7	34.7	1.5		S			3								
Helder			30.06	763.4	35.6	2.0		S			4								
Utrecht			30.11	764.7	34.5	1.4		SSE			3		10						

Note.—The originals give the force 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			29.74	755.3	35.1	1.7	69	S	31.8	14.4			10			0.295	7.5	Snow.	
Christiania			30.18	766.5	24.4	— 4.2	91	S	4.9	2.2			10			0	0	Snow.	
Tromsö			29.89	759.1	23.4	— 4.8	90	S			6		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	29.76	755.9			51.4	10.8	89	E	4.9	2.2			10						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.28	769.2	29.7	— 1.3	92	E	7	3			10					Snow.	Astronomical Obs.
Wilna			30.48	774.1	28.0	— 2.2	66	Calm	0	0			10						Astronomical Obs.
Dorpat			30.59	777.1	21.4	— 5.9	70	SE	7	3			10					Solar corona	Physical Cabinet.
St. Petersburg			30.63	778.0	17.1	— 8.3	71	SE	7	3			6						Central Physical Obs.
Kieff			30.56	776.1	24.1	— 4.4	73	NE	9	4			1						Physical Cabinet.
Nikolaiev			30.28	769.2	31.3	— 0.4	68	ENE	25	11			0						
Kertch			30.15	765.8	30.0	— 1.1	86	E					10						Lagorio.
Moscow			30.84	783.4	16.3	— 8.7	69	S	7.8	3.5			4						Meteorological Obs.
Lugan			30.39	772.0	20.3	— 6.5	65	ENE	20	9			4						Meteorological Obs.
Archangel			30.57	776.4	21.9	— 5.6	90	W	10.1	4.5			10						Ogorodnikof.
Tiflis			30.24	768.1	38.1	3.4	76	Calm	0	0			10						Physical Obs.
Astrakhan			30.57	776.5	27.7	— 2.4	52	ENE	13	6			0						Sebastianof.
Kasan			30.62	777.8	16.9	— 8.4	67	W					6						Physical Cabinet.
Orenburg			30.76	781.2	2.5	—16.4	90	W	4	2			0						Tschernischef.
Ekaterinburg			30.60	777.2	13.3	—10.4	86	W	7.8	3.5			10						Meteorological Obs.
Kasaly			30.30	769.5	10.4	—12.0	41	N	7.8	3.5			3						Bobrof.
Tashkend			30.33	770.4	38.5	3.6	58	Calm	0	0			0						Michelson.
Barnaul			30.27	768.8	5.4	—14.8	82	SW	7.8	3.5			6					Snow.	Meteorological Obs.
Yeniseisk			29.81	757.1	7.7	—13.5	87	SW	7.8	3.5			4					Lunar corona	Marks.
Irkutsk			30.25	768.3	5.9	—14.5	71	Calm	0	0			0						Usolzef.
Oorga			30.61	777.5	—10.8	—23.7	88	Calm	0	0			0						Mossin.
Peking, (China)			30.30	769.7	25.5	— 3.6	39	NNW	11	5			0						Physical Observatory.
Nertchinsk			30.26	768.5	—11.6	—24.2	89	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					15.1	— 9.4		W	10.1	4.5			10					Snow.	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.

Madrid			30.09	764.2	55.4	13.0	66	N	2.6	1.67		0	0			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.23	767.9	28.7	— 4.6	100	SW			7		10			0.067	1.7		Dr. Hildebrandsson.
Hernosand			30.22	767.6	22.6	— 5.2	85	S			6		9			0	0		
Upsala			30.37	771.4	22.5	— 5.3	90	S			2		4	SSW	N				
Stockholm			30.35	771.0	24.4	— 4.2	91	Calm			0		4			0	0		
Wisby			30.43	773.0	28.8	— 1.8	96	SE			4		7			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.74	729.9			34.7	1.5	70	NNE			4		5			0	0		The Observatory.
Zurich	28.52	724.3			31.5	— 0.3	85	NW			1		1			0	0		Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +3.6mm.; Thermometer, —2°.2 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.50	749.3	46.9	8.3	89	E	13	6			10		E	0.378	9.6		
Fao, (Persian Gulf)			30.12	765.0	65.8	18.8		NW			3		2						
Salonica			29.52	749.9	44.1	6.7		N			10		10						
Valona			29.42	747.3	57.6	14.2		SW			2		4						
Varna			29.78	756.4	43.5	6.4		E			10		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.67	753.6	—14	—25.6	74	W	5	2.2		0	0			0	0		
Chatham, N. B.			29.86	758.4	—23	—30.6	82	SW	1	0.4		0	0			0	0		
Charlottetown, P. E. Island			29.89	759.2	— 5	—20.6	100	W	10	4.5		0	0			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.41	772.4	—22	—30.6	92	NW	10	4.5		0	2		NE	0	0		
Halifax, N. S.			29.96	761.0	— 2	—18.9	80	W	4	1.8		2	0	S		0	0		
Kingston, Ontario			30.20	767.1	—10	—23.3	54	W	1	0.4		0	0			0	0		
Montreal, Quebec			30.04	763.0	— 8	—22.2	66	W	14	6.3		2	2	W		0	0		
Ottawa, Ontario			30.07	763.8	—18	—27.8	89	Calm	0	0		8	0	W		0	0		
Parry Sound, Ontario			30.21	767.3	—33	—36.1	86	NE	2	0.9		0	0			0	0		
Port Dover, Ontario			30.20	767.1	— 9	—22.8	100	NW	6	2.7		0	0			0	0		
Port Stanley, Ontario			30.21	767.3	—13	—25.0	95	N			2		10			0	0		
Quebec, Quebec			29.97	761.2	— 5	—20.6	89	SW	8	3.6		0	0			0	0		
Saugeen, Ontario			30.21	767.3	—22	—30.0	100	N	1	0.4		0	0			0	0		
Sydney, C. B.			29.84	757.9	— 2	—18.9	84	W	12	5.4		0	2			0	0		
Toronto, Ontario			30.20	767.1	—10	—23.3	87	W	6	2.7		0	0			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.08	763.5	3	—16.1	69	W	9	4.0		Haze	2			0	0		
Alpena, Mich.			30.24	768.1	—22	—30.0		NW	6	2.7		0	0			0	0		
Atlantic City, N. J.			30.08	764.0	28	— 2.2	94	N	10	4.5			10			0.01	0.2	Light snow	
Augusta, Ga.			30.08	764.0	52	11.1	93	S	4	1.8			10		S	0.05	1.3	Light rain	
Baltimore, Md.			30.02	762.5	32	0.0	68	NE	2	0.9		2	2	W	W	0	0		
Barnegat, N. J.			29.97	761.2	27	— 2.8	77	SE	1	0.4			10			0.02	0.5		
Benton, Montana			30.26	768.6	12	—11.1	100	Calm	0	0			Fog			0	0	Fog	
Bismarck, Dakota			30.63	778.0	—24	—31.1		N	3	1.3		0	0			0	0		
Boston, Mass			30.01	768.1	11	—11.7	70	NW	8	3.6		5	0	W		0	0		
Breckenridge, Minn.			30.60	777.2	—30	—34.4	85	NW	12	5.4		0	0			0	0		
Buffalo, N. Y.			30.17	766.5	— 2	—16.7	73	NW	4	1.8			10		NW	0	0	Light snow	
Burlington, Vt.			30.05	763.3	— 5	—20.6	57	N	5	2.2		0	2			0	0		
Cairo, Ill.			30.32	730.1	23	— 5.0	72	NE	8	3.6		2	Haze	N		0	0		
Cape Hatteras, N. C.			29.99	761.7	54	12.2	86	SW	15	6.7			10		W	0	0	Light rain	
Cape Henry, Va.			29.98	761.5	38	3.3	90	NW	3	1.3			10			0.02	0.5	Light rain	
Cape May, N. J.			30.03	762.7	29	— 1.7	89	NE	8	3.6			10			0.12	3.0		
Charleston, S. C.			30.72	765.0	55	12.8	93	SW	4	1.8			10		W	0.02	0.5	Threatening	
Cheyenne, W. T.			30.06	763.5	25	— 3.9	60	SW	2	0.9		5	0			0	0		
Chicago, Ill.			30.34	770.6	— 1	—18.3	68	NW	4	1.8		0	0			0	0		
Cincinnati, Ohio			30.27	768.8	15	— 5.0	64	N	12	5.4		0	Sm'e			0	0		
Cleveland, Ohio			30.18	766.6	7	—13.9	88	W	3	1.3		5	0	W		0	0		
Colorado Springs, Col.			30.04	763.0	25	— 3.9	87	N	4	1.8		0	0			0	0		
Corsicana, Texas			30.01	762.2	64	17.8	100	S	8	3.6			10			0.05	1.3	Threatening	
Davenport, Iowa			30.49	774.4	— 2	—18.9	100	NW	4	1.8		2	0			0	0		
Denver, Col.			30.15	765.8	20	— 3.3	63	Calm	0	0		0	0			0	0		
Detroit, Mich.			30.19	766.8	— 2	—18.9	67	N	5	2.2		0	2			0	0		
Dodge City, Kansas			30.15	765.8	21	— 6.1	71	NE	9	4.0			10			0	0		
Dubuque, Iowa			30.47	773.9	— 9	—22.8	56	W	6	2.7		0	0			0.02	0.5		
Duluth, Minn.			30.44	773.2	—18	—27.8		SW	4	1.8		Haze	5	SW		0	0		
Eastport, Me.			29.94	760.5	0	—17.8	70	Calm	0	0		2	0	W		0	0		
Erie, Penn.			30.17	766.3	3	—16.1	73	W	4	1.8		5	2	W		0	0		
Escanaba, Mich.			30.33	770.4	—20	—28.9	27	W	8	3.6		0	0			0	0		
Fort Gibson, I. T.			30.20	767.1	33	0.6	79	N	10	4.5		5	0	E		0.01	0.2		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.68	779.3	—10	—23.8	54	NW	3	1.3		0	0			0	0		
Galveston, Texas			30.07	763.8	65	18.3	94	S	4	1.8			Fog			0	0	Fog	
Grand Haven, Mich.			30.29	769.4	4	—15.6	48	N	8	3.6		2	0	NW		0	0		
Indianapolis, Ind.			30.33	770.4	6	—14.4	88	SW	2	0.9		5	Sm'e	W		0	0		
Indianola, Texas			30.07	763.8	68	20.0	97	NW	8	3.6			10		SW	0	0		
Jacksonville, Fla.			30.14	765.5	59	15.0	87	S	4	1.8			10			0	0		
Keokuk, Iowa			30.48	774.2	5	—15.0	75	NW	8	3.6		2	0	NW		0	0		
Key West, Fla.			30.17	766.3	73	22.8	76	SE	8	3.6		5	Haze	SE		0	0		
Kittyhawk, N. C.			29.97	761.2	47	8.3	85	SW	4	1.8			10			0	0	Light rain	
Knoxville, Tenn.			30.00	762.0	46	7.8	85	N	7	3.1			10		W	0.27	6.9		
La Crosse, Wis.			30.48	774.2	— 9	—22.8	25	NW	4	1.8		0	0			0	0		
Leavenworth, Kan.			30.51	774.9	14	—10.0	82	N	8	3.6		0	2			0	0		
Lexington, Ky.			30.30	769.6	22	— 5.6	72	N	8	3.6		Haze	0			0	0		
Long Branch, N. J.			30.05	763.6	30	— 1.1	78	NW	6	2.7		0	5			0.02	0.5		
Louisville, Ky.			30.26	768.6	20	— 6.7	70	NW	12	5.4		0	0			0	0		
Lynchburg, Va.			30.01	762.2	37	2.8	71	NE	4	1.8			10			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.29	769.4	—12	—24.4	75	Calm	0	0		0	0			0	0		
Memphis, Tenn.			30.19	766.8	39	3.9	81	NW	6	2.7			10			0.27	6.9		
Milwaukee, Wisconsin			30.40	772.2	— 9	—22.8	56	N	12	5.4		0	0			0	0		
Mobile, Ala.			30.09	764.3	65	18.3	94	SW	4	1.8			10		W	0	0		
Montgomery, Ala.			30.08	764.0	57	13.9	94	SE	6	2.7			10		SE	0.73	18.5	Light rain	
Morgantown, W. Virginia			30.16	766.1	18	— 7.8	68	N	5	2.2		2	2	W		0.01	0.2		
Mt. Washington, N. H.			29.25	742.9	—22	—30.0	100	NW	6	2.7			Fog			0	0		
Nashville, Tenn.			30.13	765.3	36	2.2	90	N	6	2.7			10		W	0.10	2.5		
New Haven, Conn.			30.02	762.5	12	—11.1	61	N	12	5.4		2	0	NE		0	0		
New London, Conn.			30.04	763.0	16	— 8.9	57	N	7	3.1		5	2	W	W	0	0		
New Orleans, La.			30.09	764.3	64	17.8	94	SW	8	3.6			Fog			0	0	Fog	
Newport, R. I.																			
New York, N. Y.			30.04	763.0	19	— 7.2	69	N	14	6.3		5	0			0	0		
Norfolk, Va.			29.98	761.5	39	3.9	82	NE	5	2.2			10			0.02	0.5	Light rain	
North Platte, Neb.			30.07	763.8	28	— 2.2	88	Calm	0	0			10			0.02	0.5		
Omaha, Neb.			30.56	776.2	6	—14.4	88	N	8	3.6			10		NW	0	0		
Oswego, N. Y.			30.13	765.3	0	—17.8	69	N	6	2.7			10			0.18	4.6		
Peck's Beach			30.03	762.7	28	— 2.2	87	NE	6	2.7			10			0.01	0.2		
Pembina, D. T.			30.48	774.2	—23	—30.6		NW	2	0.9		0	5			0	0		
Philadelphia, Penn.			30.06	763.5	24	— 4.4	62	W	11	4.9			10		N	0.01	0.2		
Pike's Peak, C. T.			29.81	757.2	— 3	—19.4	100	W	25	11.2		0				0	0		
Pittsburgh, Penn.			30.22	767.6	6	—14.4	76	Calm	0	0		5	Fog			0.11	2.8	Fog	
Port Huron, Mich.			30.22	767.6	— 6	—21.1	81	Calm	0	0		0	2			0	0		
Portland, Maine			29.98	761.5	1	—17.2	72	N	5	2.2		0	Haze			0	0		
Portland, Or.			30.29	769.4	34	1.1	90	N	2	0.9			10			0	0		
Punta Rassa, Fla.			30.21	767.3	66	18.9	90	NE	1	0.4		0	0			0	0		
Rochester, N. Y.			30.12	765.0	4	—15.6	74	NW	4	1.8			10			0.02	0.5	Light snow	
Salt Lake City, Utah			30.21	767.3	32	0.0	69	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.03	762.7	21	— 6.1	71	N	24	10.7		2	5	W		0.02	0.5		
San Diego, Cal.			30.08	764.0	54	12.2	86	NE	4	1.8			10			0	0		
San Francisco, Cal.			30.12	765.0	51	10.6	93	Calm	0	0			10			0	0		
Santa Fe, N. M.			29.79	756.7	31	— 0.6	58	NE	4	1.8			10			0	0		
Savannah, Georgia			30.11	764.8	59	15.0	70	SW	8	3.6		10	Sm'e	SW		0	0		
Shreveport, La.			30.04	763.0	63	17.2	100	Calm	0	0			10		NE	0.31	7.9	Threatening	
Springfield, Mass.			30.04	763.0	12	—11.1	61	N	4	1.8		2	Haze	W		0	0		
St. Louis, Mo.			30.45	773.4	11	—11.7	79	N	8	3.6		0	5		N	0	0		
St. Marks, Fla.			30.14	765.5	55	12.8	97	S	1	0.4			Fog			0	0		
St. Paul, Minn.			30.50	774.7	—22	—30.0	61	W	5	2.2		0	0			0	0		
St. Paul's Island, Alaska			29.29	744.0	34	1.1	100	NE	20	8.9			10	E		0.27	6.9		
Squan Beach, N. J.			29.93	760.2	24	— 4.4	73	NW	3	1.3		8	0	W		0	0		
Toledo, Ohio			30.15	765.8	5	—15.0	75	SW	8	3.6		0	0			0	0		
Tybee Island, Ga.			30.14	765.5	56	13.3	87	SW	6	2.7			10		SW	0.02	0.5		
Vicksburg, Miss.			30.10	764.5	62	16.7	94	NW	2	0.9			10		NW	1.83	46.5	Light rain	
Virginia City, Mon.			29.88	758.9	21	— 6.1	71	Calm	0	0		0	0			0	0		
Washington, D. C.			30.02	762.5	30	— 1.1	79	Calm	0	0			10		W	0	0		
Wilmington, N. C.			30.05	763.3	54	12.2	79	SW	8	3.6			10		SW	0.02	0.5		
Wood's Hole, Mass.			30.01	762.2	16	— 8.9	49	NW	10	4.5			10			0	0		
Wytheville, Va.			29.80	756.9	42	5.6	74	N	1	0.4		10	0	W		0.01	0.2		
Yankton, D. T.			30.67	779.0	— 2	—18.9	67	N	9	4.0			10		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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	79	26.1		NE	3	1.3		5	2	W		0	0		
Point-a-pitre, G'd'loupe, "			30.03	762.7	73	22.8		E				Haze	0			0	0	Fog	
Havana, Cuba, W. I.			29.98	761.5	71	21.7	81	NE	4	1.8		0	0			0	0		
Kingston, Jamaica, W. I.			30.28	769.1	74	23.3	90	Calm	0	0			10			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	70	21.1	75	NE	1	0.4		0	2		NE.	0	0		
St. Georges, Bermudas			30.18	766.6	61	16.1		SW				1	1	W	SW	0	0		
Honolulu, Sandwich Is.			30.09	764.3	65	18.3	84	Calm	0	0		0	2			0	0		
Makawao, Sandwich Is.																			
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.06	763.5	—13	—25.0	100	NW	20	8.9			10			0	0		
Clifton, Jamaica, W. I.			30.16	766.1	59	15.0		NE	2	0.9		5	2	E		0	0		C. Partridge.
St. Johns, Newfoundland			29.84	757.9	18	— 7.8	100	SW					10			0.25	6.3		John Delaney.
St. Johns, Porto Rico, W. I.			30.15	765.9	74.8	—23.8	69	E			3	0	3			0.092	2.35		Leon M. Acuña.
Ellyria, Ohio	29.33	745.0			3	—16.1	86	SW	8	3.6		0	5			0	0		H. M. Redington.
Indianola, Iowa	29.62	752.3			— 8	—22.3		NW				0	1			0	0		G. C. Carpenter.*

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.16	766.1															Charnot.
Algiers			30.11	764.7	62.6	17.0	70	Calm			0		0			0	0		Peter.
La Calle			30.06	763.4															Kuntz.
Tunis			30.04	762.9	55.9	13.3	46	N			4		2			0	0		Jacques.
Sfax																			Chauvey.
Gafsa			30.15	765.7	60.8	16.0		SSE			1		1			0	0		Grosjean.
Tebessa			30.06	763.5															Colin.
Gerlville			30.12	765.1	55.4	13.0		SSE			1		1			0	0		Bernadach.
Laghouat			30.08	764.0	63.5	17.5	26	N			2		0			0	0		Poinsignon.
Biskra			30.07	763.7	66.9	19.4		NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.24	788.0	32.2	0.1	65	W			2		10			0	0		Prof. Ivan Stozir.
Buda-Pesth			30.23	767.8	34.3	1.3	60	E			1		5			0	0		I. R. Cen. M. I., Hungary
Cracow			30.31	769.8	21.2	— 6.0	69	NE			2		10			0	0		I. R. Observatory.
Eperies			30.24	768.1	24.8	— 4.0	80	Calm			0		7			0	0		Julius Mikolik.
Gratz			30.22	767.5	33.6	0.9	58	SSE			2.5		7.5			0	0		Andreas Rospini.
Hermannstadt			30.21	762.4	20.5	— 6.4	76	ENE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			30.28	769.2	19.4	— 7.0	73	Calm			0		0			0	0		Prof. C. Wagner.
Lemberg			30.60	777.2	16.5	— 8.6	86	NW			3		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.24	768.2	28.8	— 1.8	92	N			2		4			0	0		Habzsuda Daniel.
Pola			30.08	764.1	44.2	6.8	38	NE			4		1			0	0		I. R. Hydrographic Office
Szegedin			30.10	766.8	23.0	— 5.0	100	NE			2		10			0	0		Karl Stancel.
Trieste			30.09	764.3	43.2	6.2	38	ENE			4		0			0	0		Prof. V. Farolfi.
Vienna			30.26	768.6	27.5	— 2.6	80	ESE			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.

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.
Brussels	30.02	762.4			42.4	5.8	96	W			1		6		NNW	0.197	5.00		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.20	767.1	46.9	8.3		W	17	7.6			4			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.29	769.4	47	8.3		SSW			1		5						William McNell.
Armagh Observatory			30.37	770.4	46.6	8.1		W	5	2.2			8						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.32	770.1	46.3	7.4		W			3		1						The Liverpool Obs.
Birr Castle			30.40	772.1	47.7	8.7		WNW			0.5		10						J. Dreyer.
Bradford			30.25	768.3	46.4	8.0		W			3		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.31	769.9	47.0	8.3		NW			1		3						H. Todd.
Cape Town, Cape Colony			29.94	760 5	80	26.7		SE			4		2						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.91	759.7			79.2	26.2	51	S	24	10.7			1						The Royal Observatory
Cardington			30.30	769.9	48.4	9.1		NW			4		2						John McLaren.
Carlisle			30.27	768.8	47.2	8.4		W			4		9			0.06	1.5		T. Bell.
Chatham			30.27	768.8	48.2	9.0		N			1		6						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.95	760 7	75.4	24.1		NE			3		2						Sgt. W. F. Hopkins
Dartmoor			30.39	771.9	44	6.7		NE			1		4						R. E. Power.
Donaghadee			30.35	770.9	47	8.3		WNW			3		3						J. Mac Gowan, Jr.
Dover			30.27	768.8	46	7.8		NNW			2		4						J. Costello.
Dublin																			
Durham Observatory																			G. Goldney.
Eccles, (near Manchester)			30.31	769.9	47.9	8.8		WNW	2.8	1.2			2					Mist	Thomas Mackereth.
Falmouth Observatory			30.35	770.9	50.2	10.1		NE	13	5.8			4						The Fa mouth Obs.
Fort Napier, (Natal)			29.74	755.4	84.5	29.2		E			3		0						Pvt. G. Salmon.
Galway			30.58	776.7	49	9.4		Calm			0		10						Queen's College.
Gibraltar, (Mediterranean)			30.12	765.0	58.6	14.8		W			5		10						Sgt. J. Brewster.
Glasgow Observatory			30.24	762.1	46.0	7.8		W			3		5						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.25	768.3	46	7.8		NW			2		3						G. T. Watson.
Greenwich Royal Obs			30.29	769.4	50.3	10.2		N			1		0					Fog	The Royal Observatory
Guernsey			30.30	769.6	49.5	9.7		NE			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.27	768.8	46.6	8.1		WNW					8						Moorside Observatory
Halifax, (Nova Scotia)			29.61	752.1	— 1.8	—18.8		NW			2		2					Mist	Corp'l J. Y. Thompson.
Helston			30.20	767.1	53	11.7		NE			4		4						W. B. Moyle.
Holyhead			30.36	771.1	47	8.3		WNW			2		1						John Tilston.
Hull Park																			
Kew Observatory			30.31	769.9	48.7	9.3		N	11	4.9			2						The Met. Office.
Kingstown			30.38	771.6	46	7.8		WNW			2		4						George Mitchell.
Lampeter																			
Leicester			30.31	769.9	47.9	8.8		W			2		0						William J. Harrison
Llandudno			30.35	770.9	50.4	10.2		W					0.3						Dr. James Nicol.
Malta, (Mediterranean)			29.98	761.5	55.6	12.8		N			1		4						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.20	767.1	47	8.3		WNW			1		1						William D. Penny.
Nassau, (Bahamas)			30.13	765.3	69.5	20.8		Calm			0		5						Surgeon I. Jameson.
North Shields			30.24	768.1	45	7.2		W			3		0						John Wm. Irvine.
Nottingham			30.30	769.6	49.4	9.7		NNW			4		1						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.32	770.1	45.4	7.4		NW			3		2						St. Mary's College.
Oxford, Radcliffe Obs			30.39	771.9	47	8.3		N			1		3						Radcliffe Observatory.
Plymouth			30.32	770.1	50.5	10.3		N			1		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.35	770.9	47	8.3		SSE			3		5						W. Kennedy.
Saint Ann's Head			30.36	771.1	49	9.4		Calm			0		3						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.06	763.5	44.1	6.7		W	35	15.6			0						Rev. Dr. Clouston.
Scarboro'			30.24	768.1	45.9	7.7		NW			2		2						F. Heard.
Scutari, (Turkey)			29.79	756.7	38.8	3.8		NE			4		10					Hail & sleet.	W. H. Lyne.
Sheffield			30.28	768.8	47.1	8.4		NNW			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.28	768.8	48.0	8.9		WSW			4		5			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.25	768.3	50.0	10.0		N			1		1						Rev. C. J. Steward.
Stonyhurst Observatory			30.29	769.4	46.8	8.2		W			1		7					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.20	767.1	46	7.8		WNW			2		10						John Smith.
Strathfield Turgiss			30.32	770.1	50.5	10.3		N			1		0						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			29.91	759.7	43	6.1		WNW			6								William Lawrence.
Taunton College																			
Thurso			30.11	764.8	47	8.3		WNW			5		3						John Trotter.
Truro, Royal Institution			30.27	768.8	53	11.7		NE			4		4						Royal Institution.
Valencia			30.37	771.4	47.8	8.8		SE	2	0.9			1						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.31	769.9	52	11.1		NE			1		7						S. H. Miller.
York																			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 Cape Good Hope Observatory is unknown.

DANISH SERIES.

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

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.
Copenhagen			30.15	765.7	28.9	— 2.7	85	S			2		10						
Fanöe			30.13	765.3	34.7	1.4	98	W			2		10					Fog	
Godthaab, (Greenland)			29.33	745.0	19.0	— 7.2		ESE			2		8						
Stykkisholm, (Iceland)			29.47	748.6	31.6	— 0.2	98	SE			4		0						
Thorshavn, (Faröe)			29.87	758.6	39.6	4.2	79	WNW			5		7						
Vestervig			30.12	765.0	33.4	0.8	98	Calm			0		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.17	766.2	56.5	13.6	50						2						Normal School.
Alençon			30.24	768.0	51.8	11.0	84	NE			2		8		NNE	0	0		Normal School.
Amiens			30.23	767.8	50.0	10.0	84	NE			3		5		NE	0.142	3.6		Normal School.
Beaumette, (near Angers)			30.23	767.8	47.5	8.6	97	NE	3.1	1.4			10		E	0	0		Beaumette Observatory.
Beauvais			30.26	768.5	49.5	9.7	64	NNE			2		5		NNE	0.020	0.5		Normal School.
Besançon			30.20	768.7	39.4	4.1	70	S			2		2		SW	0	0		Normal School.
Bourges			30.24	768.0	45.3	7.4	77	ENE			2		2		ENE	0	0		Normal School.
Brest			30.21	767.4	49.5	9.7	86	ENE			3		10		NE	0.051	1.3	Mist	Naval Observatory.
Caen			30.28	769.1	47.5	8.6	86	N			4		5		NNE	0.059	1.5		Normal School.
Carcassonne																			
Chartres			30.24	768.0	41.2	5.1		N			1		10			0	0		Normal School.
Chaumont			30.22	767.6	39.0	3.9		S			1		10			0	0	Fog	Normal School.
Le Mans			30.24	768.2	50.4	10.2	95	SSW			2		8		N	0	0		Normal School.
Mirecourt			30.13	765.4	37.0	2.8		NE			4		5		SW	0.276	7.0		Normal School.
Orleans			30.21	767.3	42.1	5.6	94	NW			2		10		W	0	0		Normal School.
Paris			30.23	767.8	47.8	8.8	67	NNE			2		10		NNE	0.024	0.6	Mist	National Observatory.
Parthenay																			
La Roche sur Yon			30.20	767.2	55.0	12.8	88	SW			2		0		E	0	0		Normal School.
Rouen			30.25	768.4	51.6	10.9	65	NNW			2		0		E	0.051	1.3		Normal School.
Saint Lo			30.28	769.2	50.9	10.5	84	NE			3		5		NE	0.059	1.5		Normal School.
Villefranche			30.10	766.8	43.0	6.1	97	NNW			1		0			0	0		Normal School.

FRENCH SUB-SERIES.

Station.	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.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.88	631.9			46.8	8.2	51	SW	2.5	1.11			0			0	0		—, Falguère.
Montsouris (near Paris)			30.22	767.7	48.2	9.0	81	N	5.6	2.44			10			0.035	0.9		Marié Davy.
Perpignan	29.98	761.6			54.5	12.5	65	SE	3.7	1.67			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.22	767.6	48.4	9.1	80	NW			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.22	767.7	48.9	9.4	84	NE			1		10			0	0	Fog	C. Marquet.
Versailles, (near Paris)			30.22	767.7	47.8	8.8	94	NNW			1		8			0.038	0.98		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	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.
Bamberg			30.21	767.4	29.3	— 1.5	82	SW			2		10			0.112	0.3		Prof. Hoh.
Berlin			30.22	767.5	30.0	— 1.1	72	S			2		8			0	0		Prof. Arndt.
Breslau			30.28	769.0	25.5	— 3.6	89	SE			2		6			0	0		Dr. P. Neugebauer.
Carlsruhe			30.20	767.2	33.8	1.0	83	S			1		10			0.035	0.9	Snow	A. Leus.
Cassel			30.12	765.0	31.8	— 0.1	85	SSW			2		10			0	0		Dr. H. Mohl.
Cologne			30.15	765.7	37.2	2.9	98	WNW			4		10			0	0		Dr. Gaithe.
Emden			30.26	768.6	37.0	3.1	96	Calm			0		10			0.106	2.7	Snow	Prof. Prestel.
Frankfort on the Main			30.31	769.9	31.6	— 0.2	99	S			0		10			0.094	2.4	Snow & fog	Physical Society.
Friedrichshafen			30.28	769.2	32.9	0.5	82	N					0			0	0	Snow	M. Wilhelm.
Hamburg			30.18	766.5	29.3	— 1.5	92	SE			3		10			0.193	4.9		W. Reinart.
Kiel			30.17	766.2	32.9	0.5	75	S			2		10			0	0		Prof. G. Karsten.
Königsberg			30.32	770.2	23.7	— 4.6	76	SE			2		2			0	0		Prof. E. Luther.
Köslin			30.47	774.0	23.9	— 4.5		S			2		8			0	0		Dr. Tägert.
Leipsic			30.19	766.7	32.5	0.3	85	SSW			2		10			0	0	Snowy	Prof. Bruhns.
Münster			30.17	766.4	36.9	2.7	100	N			1		1			0.051	1.3		Prof. E. Heis.
Posen			30.33	770.5	28.9	— 1.7	90	SW			2		6			0	0		Dr. Magerer.
Strassburg, (in Alsace)			30.21	767.3	35.2	1.8	80	SE					9			0.083	2.1		Hartwig and Fulk.
Stuttgart			30.20	767.1	32.8	1.0	94	E					10			0.067	1.7	Snow & rain	Mr. Wurth.
Thorn			30.30	769.7	23.7	— 4.6	85	SE			3		10			0	0		Dr. Hagenbalg.
Treves, (Trier)			30.14	765.5	35.6	2.0	91	W			2		10			0.114	2.9		Prof. Flesch.
Wustrow			30.18	766.6	23.9	— 4.5	89	SE			5		10						E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	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.
Moncalieri			30.16	766.0	42.6	5.9	40	NW			1		0			0	0		
Mondovi			30.16	766.0	38.7	3.7	41	NW			2		0			0	0		
Genoa			30.08	764.1	49.3	9.6	33	NW	3.1	1.4			0			0	0		
Pavia			30.15	765.9	42.1	5.6	45	N			1		0			0	0		
Verona																			
Padua			30.11	764.7	41.7	5.4	25	NW	2.5	1.1			1			0	0		
Parma																			
Bologna			30.18	766.6	39.7	4.3	44	W			2		2			0	0		
Livorno			30.06	763.6	50.0	10.0	26	ENE	7.4	3.3			0			0	0		
Urbino			30.21	767.3	34.7	1.5		NNE			4		10			0	0		
Ancona																			
Siena			30.04	763.0	43.7	6.5	42	NE	1.3	0.6			0			0	0		
Rome			29.93	760.3	53.2	11.8	71	NE			4		0			0	0		
Naples, O.U.			29.95	760.7	50.4	10.2	35	NE			6		2			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.85	758.1	48.0	8.9	51	NNE	10.5	4.7			5			0	0		
Cosenza			29.89	759.3	45.1	7.3	59	NNE			2		10			0	0		
Catania, (Sicily)			29.84	757.9	50.9	10.5	62	SE			2		0	SE		0	0		
Lipposto																			
Palermo			29.83	757.6	49.3	9.6	75	N			4		9			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.26	763.7	44.4	6.9		N			2								
Groningen			30.14	765.5	36.7	2.6		N			5								
Helder			30.19	766.8	39.7	4.3		NW			2								
Utrecht			30.17	766.4	40.3	4.6		NW			3		10						

Note.—The originals give the force 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	36.3	2.4	96	SSE	16.1	7.2			10			0.650	16.5	Fog	
Christiania			30.05	763.3	31.3	— 0.4	89	S	5.1	2.3			10			0.197	5.0		
Tromsö			29.67	753.5	25.9	— 3.4	89	S			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	29.66	753.4			57.2	14.0	73	S	22.4	10.0			8						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.34	770.7	24.4	— 4.2	91	SE	4	2			10						Astronomical Obs.
Wilna			30.48	774.3	22.3	— 5.4	72	SE	4	2			10						Astronomical Obs.
Dorpat			30.42	772.7	23.5	— 4.7	68	SSE	7	3			9						Physical Cabinet.
St. Petersburg			30.38	771.6	21.6	— 5.8	74	SSE	4	2			5						Central Physical Obs.
Kieff			29.41	772.3	20.5	— 6.4	69	NE	11	5			0						Physical Cabinet.
Nikolaiev			29.96	760.9	20.5	— 6.4	95	NNE	31	14			10					Snow	
Kertch			29.67	753.5	34.0	1.1	81	E					10						Lagorio.
Moscow			30.69	779.4	16.2	— 8.8	72	S	7.8	3.5			0					Solar & lunar coronæ.	Meteorological Obs.
Lugan			30.11	764.7	24.4	— 4.2	66	ENE	25	11			6						Meteorological Obs.
Archangel			30.57	776.4	18.0	— 7.8	94	W	16.8	7.5			10						Ogorodnikof.
Tiflis			30.06	763.4	33.4	0.8	92	SE	4	2			10					Snow	Physical Obs.
Astrakhan			30.32	770.0	28.0	— 2.2	77	ENE	16.8	7.5			5						Sebastianof.
Kasan			30.50	774.7	14.4	— 9.8	81	W					2						Physical Cabinet.
Orenburg			30.49	774.5	0.3	—17.6	89	NE	4	2			0						Tschernischef.
Ekaterinburg			30.33	770.5	12.2	—11.0	93	W	10.1	4.5			2						Meteorological Obs.
Kassly			30.20	767.9	9.3	—12.6	27	Calm	0	0			6						Bobrof.
Tashkend			30.35	770.8	28.9	— 1.7	82	Calm	0	0			10						Michelson.
Barnaul			30.55	775.9	— 5.6	—20.9	88	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.14	765.6	—11.0	—23.9	83	Calm	0	0			0						Marks.
Irkutsk			30.27	768.8	— 0.7	—17.9	76	NE					0						Usolzef.
Oorga			30.54	775.6	— 7.6	—22.0	96	Calm	0	0			0						Mossin.
Peking, (China)			30.27	768.8	27.0	— 2.8	43	NNW	11	5			0						Physical Observatory.
Nertchinsk			30.13	765.4	3.6	—16.1	57	NW	4	2			10					Lunar corona	Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					20.5	— 6.4		N	4	2			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.

Madrid			30.07	763.8	57.2	14.0	75	SE	6.0	2.67		0	1			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	24.8	— 4.0	95	SW			4		10			0.079	2.0		Dr. Hildebrandsson.
Hernosand			29.93	760.1	25.2	— 3.8	82	SSW			4		7			0	0		
Upsala			30.12	765.0	25.2	— 3.8	88	SSW			2		9						
Stockholm			30.12	765.0	27.7	— 2.4	75	SW			2		10			0	0		
Wisby			30.25	768.3	29.8	— 1.2	96	S			4		7			0.004	0.1		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.75	730.2			36.0	2.2	66	NW			2		1			0	0		The Observatory.
Zurich	28.51	724.1			33.0	0.9	87	NW			1		10			0	0	Rain	Prof. R. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +2.2mm.; Thermometer, —1°.5 C.; Relative Humidity, —5 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)			29.53	750.0	57.7	14.3		SW			4		10					Rain	
Constantinople			29.78	756.5	35.6	2.0	80	N	34	15			10		NNE	0	0	Sleet	
Fao, (Persian Gulf)			30.08	764.0	65.3	18.5		SE			3		10						
Salonica			29.88	758.9	39.7	4.3		N			3		10						
Valona			29.68	753.8	52.3	11.3		N			2		5						
Varna			29.95	760.8	26.2	— 3.2		NE			10		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.42	747.3	—13	—25.0	80	SW	2	0.9		8	8	SW	SW	0	0		
Chatham, N. B.			29.54	750.3	—21	—29.4	85	Calm	0	0		5	0	SW		0	0		
Charlottetown, P. E. Island			29.53	750.0	— 9	—22.8	100	SW	6	2.7		0	0			0	0		
Father Point, Quebec														W					
Fort Garry, Manitoba			30.50	774.7	—12	—24.4	94	W	3	1.3		Haze	8	SE	W	0	0		
Halifax, N. S.			29.67	751.1	— 5	—20.6	74	W	9	4.0		Haze	0			0.01	0.2		
Kingston, Ontario			30.22	767.6	—11	—23.9	47	W	3	1.3		0	0			0	0		
Montreal, Quebec			30.00	762.0	— 7	—21.7	71	W	22	9.8		0	Haze			0	0		
Ottawa, Ontario			30.07	763.8	—11	—23.9	52	W	8	3.6		5	5	W	W	0	0	Threatening	
Parry Sound, Ontario			30.26	768.6	—17	—27.2	43	W	9	4.0		0	0			0	0		
Port Dover, Ontario			30.34	770.6	— 8	—22.2	100	W	8	3.6		0	0			0	0		
Port Stanley, Ontario			30.39	771.9	—14	—25.6	89	SW			2		0			0	0		
Quebec, Quebec			29.85	758.2	— 9	—22.8	78	W	6	2.7		0	0			0	0		
Saugeen, Ontario			30.30	769.6	— 5	—20.6	89	W	11	4.9		2	0			0	0		
Sydney, C. B.			29.48	748.8	— 5	—20.5	81	W	12	5.4		0	0			0	0		
Toronto, Ontario			30.32	770.1	—12	—24.4	95	W	3	1.3		0	0			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	1	—17.2	72	NW	8	3.6		5	5	W		0	0		
Alpena, Mich.			30.36	771.1	—15	—26.1		W	7	3.1		0	0			0	0		
Atlantic City, N. J.			30.24	768.1	8	—13.3	79	N	8	3.6		0	0			0	0		
Augusta, Ga.			30.23	767.8	45	7.2	84	N	3	1.3		5	0	N		0.09	2.3		
Baltimore, Md.			30.32	770.1	13	—10.6	62	W	5	2.2		Haze	2			0	0		
Barnegat, N. J.			30.16	766.1	6	—14.4	76	NW	12	5.4		0	0			0	0		
Benton, Montana			30.25	768.3	— 6	—21.1	100	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.69	797.5	—23	—30.6	Blank	Calm	0	0		0	0			0	0		
Boston, Mass.			29.97	761.2	4	—15.6	70	NW	14	6.3		2	Haze			0	0		
Breckenridge, Minn.			29.73	780.5	—28	—33.3	87	Calm	0	0		0	0			0	0		
Buffalo, N. Y.			30.35	770.9	— 6	—21.1	61	W	8	3.6		0	2			0	0		
Burlington, Vt.			30.04	763.0	— 4	—20.0	64	W	8	3.6			10			0	0		
Cairo, Ill.			30.64	778.2	13	—10.6	61	Calm	0	0		0	Haze			0	0		
Cape Hatteras, N. C.			30.22	767.6	32	0.0	60	NE	24	10.7		5	2	W	NE	0.55	14.0		
Cape Henry, Va.			30.31	769.9	23	— 5.0	73	N	11	4.9		5	0	W		0	0		
Cape May, N. J.			30.28	769.1	11	—11.7	60	NW	20	8.9		0	0			0	0		
Charleston, S. C.			30.21	767.2	50	10.0	64	NE	12	5.4			10		N	0.04	1.0		
Cheyenne, W. T.			30.15	765.8	18	— 7.8	83	N	8	3.6		0	0			0	0		
Chicago, Ill.			30.53	775.4	— 6	—21.1	61	SW	8	3.6		0	0			0	0		
Cincinnati, Ohio			30.60	777.2	5	—15.0	75	NW	7	3.1		0	Sm'e			0	0		
Cleveland, Ohio			30.42	772.6	— 2	—18.9	83	W	12	5.4		5	0	W		0	0		
Colorado Springs, Col.			30.12	765.0	21	— 6.1	85	N	8	3.6		0	0			0	0		
Corsicana, Texas			30.30	769.6	46	7.8	54	NE	14	6.3			10			0	0		
Davenport, Iowa			30.66	778.7	—12	—24.4		NW	8	3.6		0	Sm'e			0	0		
Denver, Col.			30.2[illegible]	767.1	25	— 3.9	62	S	7	3.1		0	0			0	0		
Detroit, Mich.			30.44	773.2	— 8	—22.2	79	W	6	2.7		0	Haze			0	0		
Dodge City, Kansas			30.20	767.1	23	— 5.0	75	SW	3	1.3		5	0	S		0	0		
Dubuque, Iowa			30.64	778.2	—15	—26.1	42	SW	4	1.8		0	0			0	0		
Duluth, Minn.			30.57	776.5	—15	—26.1	Blank	SW	4	1.8		0	0			0	0		
Eastport, Me.			29.68	753.9	— 4	—20.0	65	NW	16	7.2		2	0	NW		0	0		
Erie, Penn.			30.37	771.4	— 2	—18.9	83	SW	12	5.4		5	2	SW		0	0		
Escanaba, Mich.			30.43	772.9	—17	—27.2	37	W	8	3.6		0	0			0	0		
Fort Gibson, I. T.			30.44	773.2	28	— 2.2	77	NE	4	1.8		10	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.70	779.8	1	—17.2	56	N	2	0.9			10		NW	0.12	3.0		
Galveston, Texas			30.14	765.5	55	12.8	87	NE	20	8.9			10		NE	0.06	1.5	Threatening	
Grand Haven, Mich.			30.47	773.9	— 6	—21.1	61	Calm	0	0		5	5	NW	NW	0	0		
Indianapolis, Ind.			30.61	777.2	— 5	—20.6	63	W	3	1.3		0	0			0	0		
Indianola, Texas			30.11	764.8	63	17.2	100	SE	1	0.4			10		S	0	0	Threatening	
Jacksonville, Fla.			30.17	766.3	61	16.1	88	NW	6	2.7			10			0.16	4.1		
Keokuk, Iowa			30.63	778.0	0	—17.8	69	N	1	0.4		2	2	NW		0	0		
Key West, Fla.			30.15	765.8	72	22.2	85	NE	3	1.3		Haze	2		N	0	0		
Kittyhawk, N. C.			30.28	769.1	27	— 2.8	67	NW	23	10.3		5	0	W		0.06	1.5		
Knoxville, Tenn.			30.44	773.2	22	— 5.6	66	N	8	3.6		2	0	W		0	0		
La Crosse, Wis.			30.62	777.8	—10	—23.3	54	W	5	2.2		0	0			0	0		
Leavenworth, Kan.			30.59	777.0	17	— 8.3	83	E	1	0.4			10			0	0		
Lexington, Ky.			30.59	777.0	11	—11.7	70	NW	19	4.5		0	0			0	0		
Long Branch, N. J.			30.23	767.8	7	—13.9	54	NW	32	14.3		0	0			0	0		
Louisville, Ky.			30.60	777.2	5	—15.0	75	NW	6	2.7		0	0			0	0		
Lynchburg, Va.			30.32	770.1	25	— 3.9	50	NW	8	3.6		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.38	771.6	— 6	—21.1	61	W	4	1.8		0	0			0	0		
Memphis, Tenn.			30.55	776.0	23	— 5.0	60	Calm	9	4.0		10	0			0	0		
Milwaukee, Wisconsin			30.57	776.5	—10	—23.3	54	W	11	4.9		0	0			0	0		
Mobile, Ala.			30.28	769.1	48	8.9	77	N	8	3.6			10		N	0.25	6.3		
Montgomery, Ala.			30.35	770.9	43	6.1	67	N	8	3.6		10	0	W		0.07	1.8		
Morgantown, W. Virginia			30.48	774.2	6	—14.4	64	NW	8	3.6		0	0			0	0		
Mt. Washington, N.			28.97	735.8	—32	—35.6	100	NW	90	40.2			Fog			0	0		
Nashville, Tenn.			30.58	776.7	17	— 8.3	67	N	6	2.7		2	0	W		0	0		
New Haven, Conn.			30.14	765.5	7	—13.9	76	W	2	0.9		2	0	NW		0	0		
New London, Conn.			30.09	764.3	7	—13.9	54	W	4	1.8		0	0			0	0		
New Orleans, La.			30.23	767.8	55	12.8	81	NE	14	6.3			10		NE	0	0	Threatening	
Newport, R. I.																			
New York, N. Y.			30.21	767.3	6	—14.4	52	W	16	7.2		0	0			0	0		
Norfolk, Va.			30.31	769.9	23	— 5.0	54	N	10	4.5		2	2	W		0	0		
North Platte, Neb.			30.08	764.0	24	— 4.4	100	E	2	0.9			Fog			0	0		
Omaha, Neb.			30.57	776.5	12	—11.1	100	E	4	1.8			10			0.06	1.5	Light snow.	
Oswego, N. Y.			30.24	768.1	— 1	—17.2	85	NW	16	7.2			10			Blank	Blank	Light snow	
Peck's Beach			30.27	768.8	9	—12.8	78	NW	16	7.2		2	Haze	N		0	0		
Pembina, D. T.			30.58	776.7	—14	—25.6	72	NW	8	3.6		0	0			0	0		
Philadelphia, Penn.			30.30	769.6	7	—13.9	54	NW	18	8.0		0	0			0	0		
Pike's Peak, C. T.			29.88	758.9	0	—17.8	85	N	30	13.4		0	2			0	0		
Pittsburgh, Penn.			30.50	774.7	— 7	—21.7	63	Calm	0	0			Fog			0	0	Fog	
Port Huron, Mich.			30.42	772.7	—10	—23.3	77	W	8	3.6		0	0			0	0		
Portland, Maine			29.86	758.4	— 1	—18.3	68	SW	9	4.0		10	0			0	0		
Portland, Or.			30.30	769.6	34	1.1	71	SW	5	2.2		0	0			0	0		
Punta Rassa, Fla.			30.16	766.1	66	18.9	94	Calm	0	0		5	Fog			0	0	Fog	
Rochester, N. Y.			30.21	767.3	1	—17.2	72	W	12	5.4			10			0.02	0.5	Light snow.	
Salt Lake City, Utah			30.20	767.1	30	— 1.1	48	NE	3	1.3		0	0			0	0		
Sandy Hook, N. J.			30.19	766.8	7	—13.9	54	NW	36	16.1		2	0	N		0	0		
San Diego, Cal.			30.10	764.5	53	11.7	86	N	4	1.8			10			0	0		
San Francisco, Cal.			30.13	765.3	50	10.0	80	Calm	0	0		Haze	5			0	0		
Santa Fe, N. M.			29.81	757.2	29	— 1.7	56	Calm	0	0		10	0	SW		0	0		
Savannah, Georgia			30.19	766.8	53	11.7	73	E	8	3.6			10			0.05	1.3		
Shreveport, La.			30.35	770.9	43	6.1	58	NE	9	4.0			10			0.49	12.4		
Springfield, Mass.			30.08	764.0	5	—15.0	50	N	8	3.6		0	8		W	0	0		
St. Louis, Mo.			30.68	779.3	3	—16.1	74	NE	4	1.8		0	0			0	0		
St. Marks, Fla.			30.18	766.6	56	13.3	87	N	6	2.7		0	5		W	0	0		
St. Paul, Minn.			30.61	777.5	—25	—31.7	54	SW	4	1.8		0	0			0			
St. Paul's Island, Alaska			28.76	730.5	35	1.7	100	NE	16	7.2			10	S		0.38	9.6		
Squan Beach, N. J.			30.25	768.3	7	—13.9		NW	22	9.8		0	Haze			0	0		
Toledo, Ohio			30.39	771.9	— 4	—20.0	65	SW	12	5.4		0	0			0	0		
Tybee Island, Ga.			30.21	767.3	50	10.0	86	NE	12	5.4			10		NE	0	0		
Vicksburg, Miss.			30.44	773.2	40	4.4	71	NE	7	3.1			10		NE	0.17	4.3		
Virginia City, Mon.			29.92	760.0	9	—12.8	78	Calm	0	0		0	0			0	0		
Washington, D. C.			30.33	770.4	11	—11.7	4[illegible]	N	10	4.5		0	Haze			0	0		
Wilmington, N. C.			30.24	768.1	39	3.9	55	N	6	2.7		2	5	W		0.08	2.0		
Wood's Hole, Mass.			30.02	762.5	7	—13.9	54	NW	24	10.7		0	0			0	0		
Wytheville, Va.			30.16	766.1	18	— 7.8	68	W	8	3.6		0	0			0	0		
Yankton, D. T.			30.74	780.8	— 1	—18.3	84	Calm	0	0			10		NW	0.02	0.5		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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		N	2	0.9		5	2	N		0	0		
Point-a-pitre, G'd'loupe, "			30.02	762.5	74	23.3		E				8	0			0.20	5.1		
Havana, Cuba, W. I.			29.96	761.0	71	21.7	81	SE	3	1.3		1	0	E		0	0		
Kingston, Jamaica, W. I.			30.26	768.6	76	24.4	87	Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.91	759.7	71	21.7	75	NW	6	2.7		0	0			0	0		
St. Georges, Bermudas			29.88	758.9	63	17.2		NW					10			0	0		
Honolulu, Sandwich Is.			30.09	764.3	61	16.1	94	Calm	0	0		2	2	N		0	0		
Makawao, Sandwich Is.																			
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.28	760.1	—20	—28.9		NW	12	5.4			10			0	0		C. Partridge.
Clifton, Jamaica, W. I.			30.12	763.0	66	18.9		SSE	4	1.8		0	2			0	0		John Delaney.
St. Johns, Newfoundland			29.38	746.2	6	—14.4	100	SW				5	5			0.25	6.3		Leon M. Acuña.
St. Johns, Porto Rico W. I.			30.11	764.8	76.3	24.6	73	E			3	0	5			0.037	0.95		H. M. Redington.
Ellyria, Ohio	29.55	750.6			— 7	—21.7	72	SW	19	8.5		0	0			0	0		
Indianola, Iowa	29.73	755.1			— 5	—20.6		N				0	10			0	0		G. C. Carpenter.*

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.17	766.2															Charnot.
Algiers			30.11	764.9	60.1	15.6	68	NW			3		6			0	0	Fog	Peter.
La Calle			30.08	764.1															Kuntz.
Tunis			30.06	763.6	59.7	15.4	56	NW			3		5			0	0		Jacques.
Sfax																			Chauvey.
Saïda			30.16	766.0	58.1	14.5		NW			4		1			0	0		Grosjean.
Tebessa			30.08	764.0															Colin.
Geriville			30.13	765.4	57.4	14.1		NW			2		2			0	0		Bernadach.
Laghouat			30.11	764.7	63.5	17.5	32	N			2		1			0	0		Poinsignon.
Biskra			30.09	764.2	69.8	21.0		NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.14	765.6	33.8	1.0	65	SW			1		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.23	767.9	16.7	−11.3	49	NE			2		0			0	0		I. R. Observatory.
Eperies			30.10	764.6	23.1	− 4.5	76	Calm			0		0			0	0		Julius Mikolik.
Gratz			30.15	765.7	33.8	1.0	77	S			2.5		7.5			0	0		Andreas Rospini.
Hermannstadt			29.97	761.2	24.1	− 4.4	79	E			1		10			0	0		Prof. Reissenberger.
Kremsmünster			30.26	768.5	31.0	− 0.2	94	W			3		10			0.382	9.7		Prof. C. Wagner.
Lemberg			30.16	766.1	14.0	−10.0	85	N			2		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.09	764.2	22.3	− 5.4	85	N			1		0			0	0		Habzsuda Daniel.
Pola			30.04	763.0	46.0	7.8	32	E			3		8			0	0		I. R. Hydrographic Office
Szegedin			30.07	763.8	15.8	− 9.0	94	E			2		2			0	0		Karl Stancel.
Trieste			30.04	762.9	46.9	8.3	30	ENE			1		10			0	0		Prof. V. Farolfi.
Vienna			30.16	766.1	33.1	0.6	80	NW			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.

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.
Brussels	30.21	767.3			39.9	4.4	88	NNW			1		9	NW		0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.29	769.4	47.0	8.3		W	27	12.1			7			0	0		William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			30.46	773.7	48	8.9		WNW			3		5						William McNeil.
Armagh Observatory			30.60	777.2	45.9	7.7		W	6	2.7			10						Stillman Call.
Bunbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.50	774.7	44.7	7.1		W			4		10						The Liverpool Obs.
Birr Castle			30.13	765.3	46.0	7.8		N			1		10						J. Dreyer.
Bradford			30.39	771.9	44.7	7.1		W			1		4						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.45	773.4	45.0	7.2		NW			2		4						H. Todd.
Cape Town, Cape Colony			29.85	758.2	83.5	28.4		NW			1		0						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.87	758.7			83.4	28.8	40	S	12	5.4			0.5						The Royal Observatory.
Cardington			30.44	773.2	40.0	4.4		W					7						John McLaren.
Carlisle			30.46	773.7	46.2	7.9		W					9			0	0		T. Bell.
Chatham			30.45	773.4	44.5	6.8		NW			2		9					Fog	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.93	760.2	78.0	26.1		NW			2		9						Sgt. W. F. Hopkins
Dartmoor			30.48	774.2	43	6.1		NE			1		2						R. E. Power.
Donaghadee			30.54	775.7	42	5.6		W			3		6						J. Mac Gowan, Jr.
Dover			30.35	770.9	42	5.6		NNW			2		4						J. Costello.
Dublin																			
Durham Observatory			30.38	771.6	48.2	9.0		NW					8						G. Goldney.
Eccles, (near Manchester)			30.50	774.7	40.0	4.4		WNW	0.8	0.4			8					Fog	Thomas Mackereth.
Falmouth Observatory			30.56	776.2	46.8	8.2		ENE	5	2.2			4						The Falmouth Obs.
Fort Napier, (Natal)			29.79	756.7	79.0	26.1		NE			2		1						Pvt. G. Salmon.
Galway			30.45	773.4	48.0	8.9		N			2		7						Queen's College.
Gibraltar, (Mediterranean)			30.12	764.8	64	17.8		W			4		10						Sgt. J. Brewster.
Glasgow Observatory			30.42	772.7	48.0	8.9		W			1		5						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.42	772.7	43	6.1		NW			2		3						G. T. Watson.
Greenwich Royal Obs.			30.48	774.2	43.2	6.3		NNW			5		10						The Royal Observatory.
Guernsey			30.50	774.7	48.7	9.2		NE			1		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.41	772.4	44.0	6.7		WNW					4						Moorside Observatory.
Halifax, (Nova Scotia)			29.94	760.5	61	−21.2		NW			1		0					Mist	Corp'l J. Y. Thompson.
Helston			30.42	772.7	50	10.0		E			2		0						W. B. Moyle.
Holyhead			30.54	775.7	47	8.3		WNW			2		6						John Tilston.
Hull Park																			
Kew Observatory			30.50	774.7	45.0	7.2		WNW	14	6.3			9						The Met. Office.
Kingstown			30.62	777.7	46	7.8		WNW			2		10					Fog	George Mitchell.
Lampeter																			
Leicester			30.47	773.9	41.1	5.5		W			1		10						William J. Harrison
Llandudno			30.55	776.0	47.2	8.4		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.03	762.7	56.0	13.3		NW			2		1						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.37	771.4	47	8.3		WNW			1		6						William D. Penny.
Nassau, (Bahamas)			30.15	765.8	73.5	23.1		Calm			0		4						Surgeon I. Jameson.
North Shields			30.40	772.1	44	6.7		W			3		7						John Wm. Irvine.
Nottingham			30.48	774.2	42.7	5.9		WNW			1		4					Fog & Halo.	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.49	774.4	42	5.6		NW			3		10					Mist	St. Mary's College.
Oxford, Radcliffe Obs.			30.40	772.1	45	7.2		NW			2		10						Radcliffe Observatory.
Plymouth			30.52	775.2	40	9.4		ESE			1		2						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.57	776.5	44	6.7		N			2		2						W. Kennedy.
Saint Ann's Head			30.58	776.7	47	8.3		Calm			0		7					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.28	769.1	42.8	6.9		NE	36	16.1			2						Rev. Dr. Clouston.
Scarboro'			30.39	771.9	45.9	7.7		NW			2		1						F. Heard.
Scutari, (Turkey)			29.92	760.0	33.0	0.6		NNW			2		3						W. H. Lyne.
Sheffield			30.44	773.2	46	7.3		NW			3		6						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.46	773.7	46.2	7.9		W			3		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.40	772.1	43.0	6.1		NW			1		10					Fog	Rev. C. J. Steward.
Stonyhurst Observatory			30.49	774.4	31.0	−0.6		SW			1							Mist	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.42	772.7	46	7.8		WNW			4		5						John Smith.
Strathfield Turgiss			30.49	774.4	45.2	7.3		N			1		5						Charles H. Griffith.
Streatley Vicarage			30.56	776.2	47.0	8.3		NW			2		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.09	764.3	44	6.7		NW			6								William Lawrence.
Taunton College																			
Thurso			30.31	769.9	47	8.3		WNW			6		8					Threatening	John Trotter.
Truro, Royal Institution			30.47	773.9	53	11.7		N			6		6						Royal Institution.
Valencia			30.60	777.2	47.5	8.6		ENE	2	0.9			1						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.45	773.4	47.3	8.5		NW			1		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 Cape 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			30.06	763.6	34.3	1.3	94	W			2		10						
Fanöe			30.14	765.6	36.1	2.3	98	W			4		10						
Godthaab, (Greenland)			29.05	737.9	20.3	−6.5		S			2		8						
Stykkisholm, (Iceland)			30.04	763.0	37.9	3.3	88	SE			6		10			Blank	Blank	Rain	
Thorshavn, (Faröe)			30.34	770.6	42.6	5.4	60	NW			2		2						
Vestervig			30.05	763.3	38.8	3.8	96	WNW			4		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.94	760.4	57.2	14.0	52						2						Normal School.
Alençon			30.47	773.8	43.5	6.4	84	NE			2		8		NNE	0	0		Normal School.
Amiens			30.47	773.9	45.7	7.6	69	NNE			4		10			0	0		Normal School.
Beaumette, (near Angers)			30.43	772.8	41.4	5.2	74	E	13.2	5.9			10		E	0	0		Beaumette Observatory.
Beauvais			30.46	773.6	44.1	6.7	75	NW			1		10		NE	0	0		Normal School.
Besançon			30.36	771.1	38.8	3.8	65	NE			2		2		NE	0.020	0.5		Normal School.
Bourges			30.43	772.8	39.9	4.4	90	NNE			4		10		NNE	0	0		Normal School.
Brest			30.41	772.5	48.7	9.3	73	ENE			3		0		ENE	0	0		Naval Observatory.
Caen			30.47	774.0	45.5	7.5	85	W			2		2		NE	0	0		Normal School.
Carcassonne																			
Chartres			30.44	773.2	38.8	3.8		NNE			1		10			0	0		Normal School.
Chaumont			30.39	772.0	40.5	4.7		NNW			2		5			0.20	0.5		Normal School.
Le Mans			30.48	774.1	41.4	5.2	78	NE			3		5		N	0	0		Normal School.
Mirecourt			30.33	770.4	37.4	3.0		NW			2				SE	0	0		Normal School.
Orleans			30.38	771.6	40.6	4.8	84	SE			3		8			0	0		Normal School.
Paris			30.43	773.0	41.4	5.2	83	NNE			2		10		NE	0.008	0.2	Fog	National Observatory.
Parthenay																			
La Roche sur Yon			30.37	771.4	43.8	6.6	79	NE			4				SW	0	0		Normal School.
Rouen			30.45	773.5	41.7	5.4	82	NE			2		10			0	0		Normal School.
Saint Lo			30.50	774.7	48.7	9.3	51				3				N	0.040	0.1		Normal School.
Villefranche			30.26	768.7	43.3	5.7	93	NNW			6		5		NW	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.91	759.8	79.5	26.4	31.5	SSE			1		1			0	0		Père Pascall.
Mont-Louis	21.88	631.8			41.4	5.2	53	N	9.3	4.16			6		SW	0	0		—. Faiguère.
Montsouris (near Paris)			30.43	772.9	41.4	5.2	84	NE	0.2	0.11			10			Blank	Blank		Marié Davy.
Perpignan	29.96	760.9			58.8	14.9	58	E	5.6	2.50			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.43	773.0	41.0	5.0	84	N			1		10			0.083	2.1		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.43	773.0	40.6	4.8	75	NE			2		10		ENE	0	0		C. Marquet.
Versailles, (near Paris)			30.43	772.9	41.4	5.2	92	NE			1		10			0	0	Light fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.23	767.0	36.5	2.5	84	W			1		10			0	0		Prof. Hoh.
Berlin			30.24	768.2	32.9	0.5	94	SW			1		10			0.055	1.4	Fog	Prof. Arndt.
Breslau			30.21	767.4	29.3	—6.5	94	SE			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.30	771.2	38.5	3.6	76	SE			2		10			0.008	0.2	Snow	A. Lenz.
Cassel			30.31	769.8	38.1	3.4	81	NW			2		10			0	0		Dr. H. Mohl.
Cologne			30.31	769.8	37.8	3.2	100	[illegible]			2		10			0.051	1.3	Fog	Dr. Gaithe.
Emden			30.35	770.9	40.3	4.6	94	WNW			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.44	773.2	39.6	4.2	89	SW			2		3			0	0		Physical Society.
Friedrichshafen			30.37	771.5	35.6	2.0	91	NW					10			0.102	2.6	Snow	M. Wilhelm.
Hamburg			30.26	768.5	39.2	4.0	91	WNW			4		10			0.004	0.1	Fog	W. Reinart.
Kiel			30.19	766.9	41.0	5.1	81	WNW			3		10			0	0		Prof. G. Karsten.
Königsberg			30.24	768.1	21.9	—5.6	70	SE			2		5			0	0		Prof. E. Luther.
Köslin			30.43	772.8	27.5	—2.5		SE			2		5			0	0		Dr. Tägert.
Leipsic			30.26	768.7	33.6	0.9	98	NW			2		10			0.070	2.0	Rain, fog, snow.	Prof. Bruhns.
Münster			30.35	770.8	36.7	2.7	93	N			1		10			0.142	3.6	Rain	Prof. E. Heis.
Posen			30.23	767.8	25.7	—3.5	84	SE			4		10			0	0		Dr. Magelier.
Strassburg, (in Alsace)			30.37	771.5	38.1	3.4	83	E					5			0.130	3.3		Hartwig and Fulk.
Stuttgart			30.38	771.7	36.5	2.5	80	W					7			0.016	0.4	Snow	Mr. Wurth.
Thorn			30.21	767.4	20.5	—6.4	69	SE			3		3			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.32	770.2	25.0	—3.9	89	W			1		10			0	0		Prof. Flesch.
Wustrow			30.18	766.6	33.3	0.7	87	SW			3		10			0	0	Fog	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	45.3	7.4	40	ESE			2		1			0	0		
Mondovi			30.05	763.3	43.3	6.3	35	NW			2		1	N		0	0		
Genoa			30.02	762.4	52.2	11.2	35	NW	0.7	0.3			0			0	0		
Pavia			30.10	764.5	43.7	6.5	40	NE			2		1	SW		0	0		
Verona																			
Padua			30.06	763.4	44.0	7.0	32	ESE	3.8	1.7			5	NW		0	0		
Parma																			
Bologna			30.14	765.5	43.2	6.2	48	WNW			2		4	E		0	0		
Livorno			30.02	762.6	52.9	11.6	44	E	1.3	0.6			3			0	0		
Urbino			30.06	763.6	38.3	3.5	64	NE			2		10			0	0		
Ancona																			
Siena			30.01	762.3	45.0	7.2	30	ESE	0.2	0.1			7	N		0	0		
Rome			29.99	761.8	50.7	10.4	46	Calm					5			0	0		
Naples, O. U.			30.02	762.6	52.2	11.2	31	SW			1		0			0	0		
Naples, S. R.																			
Lecce			30.03	762.8	47.1	8.4	50	NNE	3.1	1.4			5			0	0		Prof. F. Brioschi.
Cosenza			30.00	762.0	46.2	7.9	59	NE			2		3			0	0		
Catania, (Sicily)			30.00	762.0	51.3	10.7	62	SE			2		0			0	0		
Lipposto																			
Palermo			30.02	760.4	53.6	12.0	50	W			4		5			0	0		

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 140.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

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

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.
Flushing			30.45	773.5	41.4	5.2		NW			2								
Groningen			30.26	768.5	39.9	4.4		NW			2								
Helder			30.34	770.6	40.6	4.8		W			2								
Utrecht			30.69	777.6	45.9	7.7		NNW			3		8						

Note.—The originals give the force 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.

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.
Bergen			30.02	762.4	39.2	4.0	84	S	0.7	0.3			1			0	0		
Christiania			30.03	762.7	29.8	— 1.2	84	ENE	6.3	2.8			10			0	0		
Tromsö			29.78	756.5	31.3	— 0.4	89	SSW			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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.71	754.5			55.0	12.8	89	S	4.9	2.2			8			Blank	Blank		

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.24	768.0	19.6	— 6.9	86	ESE	4.5	2			0						Astronomical Obs.
Wilna			30.31	769.9	22.1	— 5.5	70	S	4.5	2			0						Astronomical Obs.
Dorpat			30.31	769.8	22.1	— 5.5	67	SSW	6.7	3			8						Physical Cabinet.
St. Petersburg			30.25	768.3	16.5	— 8.6	94	SSW	4.5	2			10					Snow	Central Physical Obs.
Kieff			30.12	765.0	22.1	— 5.5	61	NNE	15.7	7			8						Physical Cabinet.
Nikolaiev			29.82	757.5	27.7	— 2.4	92	NNE	13.4	6			10						
Kertch			29.74	755.4	28.9	— 1.7	93	SE	10.1	4.5			10					Snow	Lagorio.
Moscow			30.50	774.6	16.7	— 8.5	64	S	7.8	3.5			0						Meteorological Obs.
Lugan			29.97	761.1	27.0	— 2.8	64	E	24.6	11			10						Meteorological Obs.
Archangel			30.23	767.7	12.9	—10.6	93	NE	7.8	3.5			10					Snow	Ogorodnikof.
Tiflis			29.85	758.1	34.0	1.1	89	Calm	0	0			10					Snow	Physical Obs.
Astrakhan			30.25	768.3	27.7	— 2.4	59	ENE	10.1	4.5			10						Sebastianof.
Kasan			30.30	769.5	16.2	— 8.8	69	W	7.8	3.5			10						Physical Cabinet.
Orenburg			30.47	773.9	2.5	—16.4	90	NW	4.5	2			0						Tschernischef.
Ekaterinburg			30.09	764.2	17.6	— 8.0	65	W	7.8	3.5			10						Meteorological Obs.
Kasaly			30.21	767.3	7.9	—13.4	31	N	7.8	3.5			0						Bobrof.
Tashkend			30.23	767.8	39.0	— 3.9	59	Calm	0	0			6						Michelson.
Barnaul			30.14	765.5	— 2.2	—19.1	81	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.01	762.3	6.4	—14.2	91	E	13.4	6			10					Snow	Marks.
Irkutsk			30.49	774.4	— 8.5	—22.5	79	Calm	0	0			0						Usolzef.
Oorga			30.55	775.9	— 4.4	—20.2	88	Calm	0	0			0						Mossin.
Peking, (China)			30.24	768.1	25.0	— 3.9	42	Calm	0	0			0						Physical Observatory.
Nertchinsk			30.28	769.1	— 0.8	—18.2	83	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					22.3	— 5.4		N	7.8	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.

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.
Madrid			30.12	765.1	57.7	14.3	64	W	4.5	2.0			5			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	759.5	23.7	— 4.6	95	SW			4		9			0	0		Dr. Hildebrandsson.
Hernosand			29.97	761.3	23.0	— 5.0	86	Calm			0		5			0	0		
Upsala			30.03	762.8	27.5	— 2.5	94	S			2		10						
Stockholm			30.02	762.4	28.0	— 2.2	83	SSW			2		10			0.024	0.6	Fog.	
Wisby			30.13	765.3	30.9	— 0.6	100	SW			4		7			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.81	731.7			36.7	2.6	72	NNE			6		9			0	0		The Observatory.
Zurich	28.54	727.5			35.2	1.8	84	NE			1		10			0.232	5.9		Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +2.6mm.; Thermometer, —1°.2 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.

Beirut, (Syria)			29.69	754.0	56.3	13.5	87	SW			10		10						
Constantinople			29.88	759.4	31.3	— 0.4	97	NNW	6.7	3			5		NW				
Fao, (Persian Gulf)			30.00	762.0	64.4	18.0		SE			3		10					Rain.	
Salonica			29.90	759.5	45.1	7.3		N			2		0						
Valona			29.80	758.5	53.1	11.7		NW			1		0						
Varna			29.92	760.0	26.6	— 3.0		N			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.72	754.9	— 5	—20.6	66	NW	3	1.3		2	2	W		0.20	5.1		
Chatham, N. B.			29.91	759.7	—24	—31.1	100	W	3	1.3		0	0			0	0		
Charlottetown, P. E. Island			29.90	759.4	—10	—23.8	100	SW	8	3.6		0	0			0	0		
Father Point, Quebec			29.62	752.3	— 2	—18.9	72	SW	7	3.1		Haze	0	W		0	0		
Fort Garry, Manitoba			29.92	760.0	— 5	—20.6	96	SE	6	2.7			10			0.13	3.3	Light snow.	
Halifax, N. S.			29.90	759.4	—11	—23.9	80	NW	4	1.8		0	0			0.01	0.3		
Kingston, Ontario			30.29	769.4	2	—16.7	86	W	4	1.8		10	0			0	0		
Montreal, Quebec			30.20	767.1	— 1	—18.3	71	W	21	9.4		Haze	Haze	NW		0	0		
Ottawa, Ontario			30.20	767.1	2	—16.7	57	W	2	0.9		10	0	W		0	0		
Parry Sound, Ontario			30.27	768.8	— 1	—18.3	68	SW	5	2.2		5	2	SW	SW	0	0		
Port Dover, Ontario			30.35	770.9	— 5	—20.6	100	SW	4	1.8		0	0			0	0		
Port Stanley, Ontario			30.42	772.6	—20	—18.7	88	E			1	0	0			0	0		
Quebec, Quebec			30.12	765.0	— 9	—22.8	79	SW	9	4.0		2	2	NW	SW	0	0		
Saugeen, Ontario			30.30	769.6	5	—15.0	87	W	4	1.8			10			0	0		
Sydney, C. B.			29.79	756.6	— 5	—20.6	82	W	10	4.5		0	0			0	0		
Toronto, Ontario			30.34	770.6	2	—16.7	92	W	7	3.1		2	8	W	W	0.66	16.8		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.29	769.4	8	—13.3	78	W	1	0.4			10			0	0		
Alpena, Mich.			30.30	769.6	2	—16.7	86	W	2	0.9			10			0	0		
Atlantic City, N. J.			30.37	771.4	7	—13.9	65	NW	14	6.3		0	0			0	0		
Augusta, Ga.			30.34	770.6	43	6.1	51	NE	2	0.9			10		NE	0	0		
Baltimore, Md.			30.42	772.6	9	—12.8	78	NW	5	2.2		2	Sm'e	W		0	0		
Barnegat, N. J.			30.26	768.6	3	—16.7	48	W	6	2.7		2	0			0	0		
Benton, Montana			30.31	769.9	16	— 8.9	83	SW	8	3.6			10			0	0		
Bismarck, Dakota			30.02	762.5	13	—10.6	62	N	17	7.6		0	5			0	0		
Boston, Mass.			30.22	767.6	6	—14.4	76	NW	10	4.5		0	0			0	0		
Breckenridge, Minn.			30.10	764.5	3	—16.1	90	SE	12	5.4			10			0	0		
Buffalo, N. Y.			30.38	771.6	0	—17.8	70	SW	10	4.5		0	2			0	0		
Burlington, Vt.			30.27	768.8	— 1	—18.3	68	S	6	2.7			10			0.04	1.0		
Cairo, Ill.			30.53	775.4	23	— 5.0	72	NE	2	0.9		5	Haze			0	0		
Cape Hatteras, N. C.			30.37	771.4	27	— 2.8	77	NE	22	9.8		2	2	W	NE	0	0		
Cape Henry, Va.			30.42	772.6	19	— 7.2	67	N	15	6.7		5	0	W		0	0		
Cape May, N. J.			30.39	771.9	9	—12.8	78	NW	18	8.0		5	0	W		0	0		
Charleston, S. C.			30.34	770.6	45	7.2	67	N	8	3.6			10		N	0	0		
Cheyenne, W. T.			30.03	762.7	11	—11.7	79	W	8	3.6		0	0			0	0		
Chicago, Ill.			30.46	773.7	— 5	—20.6	63	SW	5	2.2		0	0			0	0		
Cincinnati, Ohio			30.54	775.7	12	—11.1	61	NW	4	1.8			10			0	0		
Cleveland, Ohio			30.41	772.4	— 1	—18.3	100	W	8	3.6		0	2			0	0		
Colorado Springs, Col.			30.00	762.0	22	— 5.6	72	N	8	3.6		0	0			0	0		
Corsicana, Texas			30.40	772.1	35	1.7	90	NE	6	2.7			10		NE	0.36	9.1	Threatening	
Davenport, Iowa			30.50	774.7	—10	—23.3		Calm	0	0		0	5			0.01	0.3		
Denver, Col.			30.11	764.8	18	— 7.8	52	S	5	2.2		0	0			0	0		
Detroit, Mich.			30.41	772.4	— 5	—20.6	63	SW	6	2.7		0	Sm'e			0	0		
Dodge City, Kansas			30.01	762.2	29	— 1.7	77	SW	2	0.9		0	0			0	0		
Dubuque, Iowa			30.38	771.6	—19	—22.8	30	S	2	0.9		0	Sm'e			0	0		
Duluth, Minn.			30.27	768.8	—14	—25.6		Calm	0	0		Haze	10		NW	0	0		
Eastport, Me.			30.05	763.3	1	—17.2	42	NW	8	3.6		8	0	NW		0	0		
Erie, Penn.			30.38	771.6	4	—15.6	74	SW	8	3.6		0	8			0	0		
Escanaba, Mich.			30.37	771.4	—22	—30.0	59	W	1	0.4		5	0			0	0		
Fort Gibson, I. T.			30.30	771.7	29	— 1.7	78	NW	1	0.4		10	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.17	766.3	22	— 5.6	65	N	8	3.6		0	8			0	0		
Galveston, Texas			30.27	768.8	43	6.1	100	NE	24	10.7			10		NE	0.83	21.1	Light rain	
Grand Haven, Mich.			30.40	772.1	—14	—25.6	45	W	2	0.9		0	0			0	0		
Indianapolis, Ind.			30.52	775.2	4	—15.6	87	NW	4	1.8		0	Sm'e			0	0		
Indianola, Texas			30.26	768.6	45	7.2	100	NE	28	12.5			10		SE	1.03	26.2	Light rain	
Jacksonville, Fla.			30.30	769.6	52	11.1	93	N	9	4.0			10			0.02	0.5	Light rain	
Keokuk, Iowa			30.46	773.5	— 1	—18.3	78	SE	3	1.3		Fog	Fog			0.08	2.1	Fog.	
Key West, Fla.			30.16	766.1	70	21.1	80	NE	8	3.6		0	2			0	0		
Kittyhawk, N. C.			30.41	772.4	23	— 5.0	63	NW	32	14.3		5	0	NW		0	0		
Knoxville, Tenn.			30.47	773.9	25	— 3.9	63	N	4	1.8		10	0	W		0	0		
La Crosse, Wis.			30.41	772.4	— 7	—21.7	59	S	10	4.5		10	0	S		0	0		
Leavenworth, Kan.			30.36	771.1	14	—10.0	70	S	4	1.8		Haze	0			0	0		
Lexington, Ky.			30.45	773.4	21	— 6.1	73	NW	6	2.7		5	5	SW		0	0		
Long Branch, N. J.			30.35	770.9	12	—11.1	42	W	5	2.2		0	0			0	0		
Louisville, Ky.			30.48	774.2	16	— 8.9	83	Calm	0	0			10			0	0		
Lynchburg, Va.			30.42	772.7	24	— 4.4	67	E	4	1.8		10	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.38	771.6	— 3	—19.4	66	W	2	0.9		0	0			0	0		
Memphis, Tenn.			30.49	774.4	25	— 3.9	63	NE	2	0.9		5	Haze			0	0		
Milwaukee, Wisconsin			30.45	773.4	— 7	—21.7	59	W	9	4.0		0	Haze			0	0		
Mobile, Ala.			30.44	773.2	42	5.6	65	N	12	5.4			10		N	0	0		
Montgomery, Ala.			30.39	771.9	42	5.6	66	N	4	1.8		10	0	NW		0	0		
Morgantown, W. Virginia			30.45	773.2	10	—12.2	79	W	6	2.7			10			0	0		
Mt. Washington, N. H.			29.68	752.6	—15	—26.1	100	NW	40	17.9			Fog			0	0		
Nashville, Tenn.			30.48	774.2	25	— 3.9	75	NE	2	0.9		5	0	W		0	0		
New Haven, Conn.			30.30	769.6	11	—11.7	79	NW	5	2.2		0	2		NW	0	0		
New London, Conn.			30.29	769.4	11	—11.7	60	NW	8	3.6		0	0			0	0		
New Orleans, La.			30.30	769.6	46	7.8	77	NE	16	7.2			10		SE	0.16	4.1	Light rain	
Newport, R. I.																			
New York, N. Y.			30.32	770.1	11	—11.7	60	NW	8	3.6		0	0			0	0		
Norfolk, Va.			30.42	772.7	20	— 6.7	63	NE	10	4.5		2	2			0	0		
North Platte, Neb.			29.95	760.7	21	— 6.1	71	Calm	0	0		0	0			0	0		
Omaha, Neb.			30.32	770.1	10	—12.2	89	Calm	0	0			10		S	0.02	0.5		
Oswego, N. Y.			30.30	769.6	9	—12.8	82	W	11	4.9			10			0.05	1.3	Light snow	
Peck's Beach			30.39	771.9	8	—13.3	55	NW	2	0.9		Haze	Haze			0	0		
Pembina, D. T.			30.36	771.1	—18	—27.8	68	SE	8	3.6		5	0			0	0		
Philadelphia, Penn.			30.40	772.1	6	—14.4	52	NW	18	8.0		0	0			0	0		
Pike's Peak, C. T.			29.83	757.7	— 8	—22.2	100	N	8	3.6		0	Fog			0	0		
Pittsburgh, Penn.			30.49	774.4	— 2	—18.9	83	Calm	0	0			Fog			0	0	Fog.	
Port Huron, Mich.			30.41	772.4	—10	—23.3	77	SW	8	3.6		0	2			0	0		
Portland, Maine			30.17	766.3	2	—16.7	72	W	12	5.4		10	Haze	NW		0	0		
Portland, Or.			30.30	769.6	31	— 0.6	77	NW	4	1.8		Haze	Haze			0	0		
Punta Rassa, Fla.			30.19	766.8	62	16.7	88	NE	6	2.7		Haze	2			0	0		
Rochester, N. Y.			30.33	770.4	4	—15.6	87	W	16	7.2			8			0.01	0.3		
Salt Lake City, Utah			30.07	763.8	31	— 0.6	61	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.32	770.1	9	—12.8	78	NW	16	7.2		0	0			0	0		
San Diego, Cal.			30.16	766.1	53	11.7	76	SE	4	1.8			10			0	0		
San Francisco, Cal.			30.12	765.0	48	8.9	85	W	10	4.5		0	0			0	0		
Santa Fe, N. M.			29.73	755.1	28	— 2.2	60	Calm	0	0			10			0	0		
Savannah, Georgia			30.30	769.6	49	9.4	77	N	3	1.3			10			0.06	1.5		
Shreveport, La.			30.43	772.9	35	1.7	80	NE	5	2.2			10		NE	0.41	10.4	Light rain	
Springfield, Mass.			30.28	769.1	6	—14.4	65	Calm	0	0		8	Haze	W		0	0		
St. Louis, Mo.			30.52	775.2	15	— 9.4	82	NE	3	1.3			10		NE	0	0		
St. Marks, Fla.			30.27	768.8	50	10.0	59	N	10	4.5			10		N	0	0		
St. Paul, Minn.			30.26	768.6	—15	—26.1	72	E	4	1.8			10			0	0		
St. Paul's Island, Alaska			28.94	735.1	34	1.1	100	N	3	1.3			Fog	SE		0.05	1.3		
Squan Beach, N. J.			30.34	770.6	7	—13.9		W	5	2.2		0	Haze			0	0		
Toledo, Ohio			30.36	771.1	1	—17.2	72	SW	7	3.1		0	Sm'e			0	0		
Tybee Island, Ga.			30.34	770.6	48	8.9	85	N	2	0.9			10		NW	0	0		
Vicksburg, Miss.			30.45	773.4	36	2.2	61	NE	3	1.3			10		NE	0	0		
Virginia City, Mon.			29.86	758.4	12	—11.1	79	Calm	0	0		0	0			0	0		
Washington, D. C.			30.55	773.4	9	—12.8	44	N	4	1.8		2	5	W		0	0		
Wilmington, N. C.			30.37	771.4	31	— 0.6	89	N	8	3.6		8	0	NE		0	0		
Wood's Hole, Mass.			30.25	768.3	7	—13.9	54	NW	9	4.0		0	0			0	0		
Wytheville, Va.			30.20	767.1	21	— 6.0	85	W	6	2.7		8	0	W		0	0		
Yankton, D. T.			30.09	764.3	20	— 6.7	77	W	15	6.7		0	0			0.01	0.3		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	761.3	80	26.7		NE	3	1.3		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.03	762.7	69	20.6		E				8	0			0	0		
Havana, Cuba, W. I.			29.96	761.0	74	23.3	81	E	3.6	1.6		1	0	E		0	0		
Kingston, Jamaica, W. I.			30.26	768.6	72	22.2		Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.93	760.2	74	23.3	76	NW	1.2	0.5		8	0	N		0	0		
St. Georges, Bermudas			30.07	763.8	58	14.4	67	NW				10	8	NW		0	0		
Honolulu, Sandwich Is.			30.06	763.5	56	13.3	88	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.70	703.6			56	13.3	61	Calm	0	0		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.18	766.6	—26	—32.2		NW	10	4.5		2	0	SW		0	0		C. Partridge.
Clifton, Jamaica, W. I.			30.14	765.5	59	15.0		N	8	3.6		0	0			0	0		John Delaney.
St. Johns, Newfoundland			29.54	750.3	— 6	—21.1	100	W				0	0			0	0		Leon M. Acuña.
St. Johns, Porto Rico, W. I.			30.15	765.8	74.5	—23.6	74	SW			1	8	0			0.010	0.25		H. M. Redington.
Ellyria, Ohio	29.54	750.3			— 5	—20.6	100	S	6	2.7		0	4			0	0		G. C. Carpenter.
Indianola, Iowa	29.52	749.8			— 4	—20.0		S					Fog			0.03	0.8	Fog	

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35, A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			30.12	765.0															Charnot.
Algiers			29.93	760.3	59.2	15.1	86	NW			3		6			0	0	Light rain	Peter.
La Calle			29.93	760.1															Kunts.
Tunis			29.89	759.3	58.5	14.7	56	NW			4		7			0.039	1.0	Rainy	Jacques.
Sfax																			Chauvey.
Saida			30.04	763.0	55.4	13.0		NW			1		3			0	0		Grosjean.
Tebessa			29.92	759.0															Colin.
Geriville			30.02	762.5	51.8	11.0		NNW			1		3			0	0		Bernadach.
Laghouat			29.95	760.6	61.9	16.6	32	NW			2		5			0	0		Poinsignon.
Biskra			29.93	760.2	68.0	20.0		NW			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.

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.
Agram			29.94	760.6	35.6	2.0	72	Calm			0		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.06	763.5	13.1	—10.5	55	W			2		10			0	0		I. R. Observatory.
Eperies			29.96	760.9	42.1	5.6	73	N			3		10			0	0		Julius Mikolik.
Gratz			29.92	759.9	32.7	0.4	92	SSW			2.5		7.5			0	0		Andreas Rospini.
Hermannstadt			29.91	759.7	23.7	— 4.6	81	ENE			3		10			0	0		Prof. Reissenberger.
Kremsmünster			29.96	760.9	33.1	0.6	92	NW			2		8			0.248	6.3		Prof. C. Wagner.
Lemberg			30.57	761.5	17.2	— 8.2	86	NE			3		6			0.047	1.2		Dr. T. Stanecki.
Nyiregyhaza			29.96	760.9	18.3	— 7.6	89	W			1		4			0	0		Habesuda Daniel.
Pola			29.89	759.2	45.7	7.6	55	SW			1		3			0	0		I. R. Hydrographic Office
Szegedin			29.96	761.0	9.7	—12.4	100	S			2		4			0	0		Karl Stancel.
Trieste			29.91	759.7	42.8	6.0	66	WNW			1		3			0	0		Prof. V. Farolfi.
Vienna			29.96	761.0	29.8	— 1.2	74	N			1					0.159	4.5		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.

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.
Brussels	29.89	759.1			38.5	3.6	85	NE			1		10	NE		0.134	3.40		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.44	773.2	43.0	6.1		NNW	18	8.0			3			0.025	0.63		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.47	773.9	45	7.2		NNW			2		5			0	0	Mist	William McNeil.
Armagh Observatory			30.50	774.7	45.4	7.4		NNE	11	4.9			5			0	0		Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.39	771.9	42.2	5.7		NNW			2		10						The Liverpool Obs.
Birr Castle			30.49	774.4	47.4	8.8		NNE			1		4						J. Dreyer.
Bradford			30.30	769.6	40.5	4.7		N			2		10					Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.25	768.3	41.9	5.5		N			2		10			Blank	Blank		H. Todd.
Cape Town, Cape Colony			29.84	757 9	71.4	21.9		SE			4		1						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.91	759.7			75.6	24.2	32	S	30	13.4			1						The Royal Observatory.
Cardington			30.28	769.1	40.0	4.4		N					8					Snow	John McLaren.
Carlisle			30.44	773.2	42.9	6.1		NE					8			0.01	2.5		T. Bell.
Chatham			30.21	767.3	42.1	5.6		N			3		10					Threatening	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759 4	80.6	27.0		NE			1		2						Sgt. W. F. Hopkins
Dartmoor			30.32	770.1	38	3.3		NE			1		9						R. E. Power.
Donaghadee			30.47	773.9	45	7.2		NNE			5		0						J. Mac Gowan. Jr.
Dover			30.17	766.3	41	5.0		NNE			6		5						J. Costello.
Dublin																			
Durham Observatory			30.37	771.4	40.3	4.6		N					9						G. Goldney.
Eccles, (near Manchester)			30.37	771.4	42.2	5.7		NE	1.4	0.6			7						Thomas Mackereth.
Falmouth Observatory			30.37	771.4	46.7	8.2		N	21	9.4			10						The Falmouth Obs.
Fort Napier, (Natal)			29.73	755.1	84.0	28.9		E			3		1						Pvt. G. Salmon.
Galway			30.32	770.1	42	5.6		N			1		3						Queen's College.
Gibraltar, (Mediterranean)			29.95	760.7	63.6	17.6		W			1		4						Sgt. J. Brewster.
Glasgow Observatory			30.45	773.4	44.2	6.8		N			3		7						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.22	767.6	40	4.4		NNE			3		7					Mist	G. T. Watson.
Greenwich Royal Obs			30.22	767.6	42.3	5.7		NNE			4		10			Blank	Blank		The Royal Observatory.
Guernsey			30.24	768.1	42.5	5.8		NNW			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.33	770.4	39.7	4.3		N					10					Threatening	Moorside Observatory.
Halifax, (Nova Scotia)			30.07	763.8	8.6	—13.3		W			1		2			Blank	Blank	Mist	Corp'l J. Y. Thompson.
Helston			30.30	769 6	50	10.0		N			3		6						W. B. Moyle.
Holyhead			30.44	773.2	49	9.4		NE			4		6						John Tilston.
Hull Park																			
Kew Observatory			30.25	768.3	42.2	5.7		NNE	17	7.6			10						The Met. Office.
Kingstown			30.50	774.7	44	6.7		N			4		5						George Mitchell.
Lampeter																			
Leicester			30.30	769.6	42.9	6.1		NE			4		10			Blank	Blank	Rainy	William J. Harrison
Llandudno			30.42	772.7	43.6	6.4		NE					9						Dr. James Nicol.
Malta, (Mediterranean)			29.89	759.2	57.6	13.9		NE			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.50	774.7	47	8.3		Calm			0		3						William D. Penny.
Nassau, (Bahamas)			30.14	765.5	78.8	22.7		Calm			0		3						Surgeon I. Jameson
North Shields			30.41	772.4	44	6.7		N			6		5						John Wm. Irvine.
Nottingham			30.33	770.4	42.0	5.6		NNW			2		10		N				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.33	770.4	40.9	4.9		NNE			3		10						St. Mary's College.
Oxford, Radcliffe Obs			30.26	768.6	43	6.1		NNW			4		10						Radcliffe Observatory.
Plymouth			30.34	770.6	45	7.2		NE			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.46	773.7	47	8.3		NNE			4		2						W. Kennedy.
Saint Ann's Head			30.39	771.9	45	7.2		N			4		5						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.48	774.2	42.2	5.7		N	17	7.6			0						Rev. Dr. Clouston
Scarboro'			30.33	770.4	46	7.8		NW			2		7						F. Heard.
Scutari, (Turkey)			29.98	761.5	39.4	4.1		SW			1		5			Blank	Blank		W. H. Lyne.
Sheffield			30.34	770.6	42.1	5.6		N			4		10			Blank	Blank	Rain	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.43	772.9	44	6.7		N			5		2			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.17	766.3	36.0	2.2		NE			1		10			Blank	Blank	Light rain	Rev. C. J. Steward.
Stonyhurst Observatory			30.37	771.4	43.2	6.2		NE			3		6					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.50	774.7	46	7.8		NW			2		4						John Smith.
Strathfield Turgiss			30.24	768.1	44.0	6.7		N			1		0						Charles H. Griffith.
Streatley Vicarage			30.28	769.1	42.5	5.8		N			5		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.42	772.7	41	5.0		N			2		2						William Lawrence.
Taunton College																			
Thurso			30.49	774.4	44	6.7		N			3		4						John Trotter.
Truro, Royal Institution			30.30	769.6	48	8.9		N			6		7						Royal Institution.
Valencia			30.50	774.7	48.0	8.9		E	10	4.5			3						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.23	767.8	42.4	5.8		NNE			2		10						S. H. Miller.
York																			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 Cape 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			30.11	764.7	32.9	0.5	87	ESE			2		10						
Fanöe			30.12	765.1	32.4	0.2	89	N			2		10						
Godthaab, (Greenland)			29.50	749.4	19.6	— 6.9		E			4		5						
Stykkisholm, (Iceland)			30.01	762.2	44.2	6.8	77	SE			6		10			Blank	Blank	Rain	
Thorshavn, (Faröe)			30.46	773.6	44.2	6.8	93	W			2		5						
Vestervig			30.15	765.7	32.7	0.4	89	NE			4		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	756.0	56.3	13.5	64						5						Normal School.
Alençon			30.15	765.8	43.5	6.4	71	NE			4	5		NNE		0	0		Normal School.
Amiens			30.13	765.3	41.0	5.0	81	NE			4		10			0.126	3.2		Normal School.
Beaumette, (near Angers)			30.12	765.1	45.0	7.2	62	NE	21.2	10.8			10		N	0.008	0.2		Beaumette Observatory.
Beauvais			30.14	765.6	40.1	4.5	77	NNE			2		10		NNE	0	0	Mist	Normal School.
Besançon			29.97	761.3	37.0	2.8	80	E			2		5		N	0.055	1.4		Normal School.
Bourges			30.09	764.3	36.7	2.6	89	NNE			4		10		NE	0	0		Normal School.
Brest			30.24	768.1	45.5	7.5	71	NE			3		8		NNE	0	0		Naval Observatory.
Caen			30.22	767.5	42.0	5.9	78	N			2		5		N	0	0		Normal School.
Carcassonne																			
Chartres			30.11	764.8	40.0	4.5		N			3		8		N	0	0		Normal School.
Chaumont			30.01	762.2	35.4	1.9		W			2		10		W	0	0		Normal School.
Le Mans			30.16	766.0	42.3	5.7	84	N			6		2		NE	0	0		Normal School.
Mirecourt			29.92	759.9	40.3	4.6		SW			2		10		NE	0	0		Normal School.
Orleans			30.00	762.0	39.6	4.2	83	N			8		2		N	0	0		Normal School.
Paris			30.09	764.2	40.8	4.9	65	N			3		8		N	0.031	0.8		National Observatory.
Parthenay																			
La Roche sur Yon			30.17	766.4	42.8	6.0	70	NE			4				SW	0	0		Normal School.
Rouen			30.13	765.3	44.4	6.9	64	NNE			2		2		E	0.043	1.2		Normal School.
Saint Lo			30.24	768.1	44.2	6.8	77	N			3		8		N	0.004	0.1		Normal School.
Villefranche			29.92	759.9	39.7	4.3	93	SE			1		10			0.205	5.2		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.95	760.7	70.7	21.5	47.8	NE			2		1			0	0		Père Pascall.
Mont-Louis	24.69	627.1			32.	0.0	54	NNE	2.9	1.28			4		WNW	0	0		—, Falguère.
Montsouris (near Paris)			30.08	764.0	40.1	4.5	65	N	10.0	4.47			10		NNE	Blank	Blank		Marié Davy.
Perpignan	29.87	758.6			46.0	7.8	77	WNW	20.5	9.17			3		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.09	764.2	41.4	5.2	67	N			2		10			0.055	1.4	Rainy	E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.12	765.1	43.3	6.3	69	NE			3		8		NE	0	0		C. Marquet.
Versailles, (near Paris)			30.09	764.3	41.0	5.0	69	NNE			3		10			0.031	0.78		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.09	764.3	35.6	2.0	98	W			2		9			0.039	1.0	Snow	Prof. Hoh.
Berlin			30.08	764.0	35.8	2.1	84	S			1		10			0	0	Fog	Prof. Arndt.
Breslau			30.07	763.8	43.9	6.6	100	E			1		10			0	0	Fog	Dr. P. Neugebauer.
Carlsruhe			30.01	762.2	38.1	3.4	76	SE			1		9			0.134	3.4		A. Leuz.
Cassel			29.98	761.4	38.7	3.7	85	NW			2		10			0.331	8.4	Snow & rain.	Dr. H. Mohl.
Cologne			30.04	763.1	39.2	4.0	90	ENE			4		7			0	0		Dr. Gaithe.
Emden			30.25	768.4	34.7	1.5	88	Calm			0		10			0	0		Prof. Prestel.
Frankfort on the Main			30.13	765.4	36.9	2.7	80	ENE			2		4			0.028	0.7		Physical Society.
Friedrichshafen			29.99	761.7	34.7	1.5	91	NE					7			0	0		M. Wilhelm.
Hamburg			30.11	764.9	34.7	1.5	93	N			3		10			0.020	0.5	Fog	W. Reinart.
Kiel			30.08	764.1	34.3	1.3	86	N			2		10			0	0		Prof. G. Karsten.
Königsberg			30.15	765.7	18.1	— 7.7	69	NE			2		2			0	0		Prof. E. Luther.
Köslin			30.32	770.2	25.3	3.7		SE			2		8			0	0		Dr. Tägert.
Leipsic			30.05	763.2	34.0	1.1	100	N			1		10			0.259	6.6	Light snow	Prof. Bruhns.
Münster			30.11	764.9	41.5	5.3	94	N			2		1			0	0		Prof. E. Heis.
Posen			30.12	765.4	17.6	— 8.0	100	S			3–4		6			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.00	761.9	37.9	3.3	78	SE					4			0	0		Hartwig and Fulk.
Stuttgart			30.02	762.6	34.9	1.6	83	NE					6			0.035	0.9	Snow	Mr. Wurth.
Thorn			30.11	764.8	18.7	— 7.4	77	NE			2		4			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.97	761.3	37.4	3.0	81	E			3		10			0.169	4.3		Prof. Flesch.
Wustrow			30.08	764.0	32.2	0.1	100	N			2		10			0	0	Fog	E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	39.4	4.1	57	NE			2		10			Blank	Blank	Snow	
Mondovi			29.93	760.1	32.4	0.2	71	NW			4		10	WNW		0	0	Snow	
Genoa			29.86	758.4	46.4	8.0	49	E	3.7	1.67			10			0	0		
Pavia			29.88	758.9	40.8	4.9	55	NE			4		9			0	0		
Verona																			
Padua			29.87	758.8	43.2	6.2	42	NNW	1.2	0.56			7	SW		0	0		
Parma																			
Bologna			29.96	760.9	44.2	6.8	35	NE			8		2	E		0	0		
Livorno			29.87	758.8	49.5	9.7	28	E	4.3	1.94			4			0	0		
Urbino			29.92	759.9	38.3	3.[illegible]	62	ESE			4		5			0	0		
Ancona																			
Siena			29.85	758.1	45.1	7.3	34	E	6.2	2.78			3	NW		0	0		
Rome			29.85	758.1	51.1	10.6	41	SSW			2		4			0	0		
Naples, O.U.			29.89	759.2	52.3	11.3	32	SE			2		2			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.98	761.6	46.0	7.8	51	SW	9.3	4.17			9			0	0		
Cosenza			29.91	759.6	44.0	7.0	71	N			2		10			0	0		
Catania, (Sicily)			29.84	758.0	49.1	9.5	75	ESE			2		2	W		0	0		
Riposto																			
Palermo			29.79	756.6	54.0	12.2	60	W			4		6			0.055	1.4		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.15	765.9	40.5	4.7		NE			5								
Groningen			30.06	763.6	35.1	1.7		Calm			0								
Helder			30.12	765.1	37.6	3.1		N			4								
Utrecht			30.07	763.8	36.3	2.3		NNE			4		10						

NOTE.—The originals give the force 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.

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.
Bergen			30.23	767.9	39.0	4.2	55	N	5.1	2.3			0			0	0		
Christiania			30.19	766.9	33.8	1.0	68	ESE	2.9	1.3			2			0	0		
Tromsö			30.22	767.5	34.3	1.3	86	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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.73	755.2			54.3	12.4	85	NE	16.3	7.2			4						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.06	763.6	16.5	— 8.6	94	E	4.5	2			7						Astronomical Obs.
Wilna			30.13	765.4	23.0	— 5.0	70	Calm	0	0			3						Astronomical Obs.
Dorpat			30.35	770.9	14.9	— 9.5	69	ENE	4.5	2			1						Physical Cabinet.
St. Petersburg			30.38	771.6	21.2	— 6.0	69	S	2.2	1			1						Central Physical Obs.
Kieff			30.05	763.2	24.6	— 4.1	87	E	6.7	3			10					Snow	Physical Cabinet.
Nikolaiev			29.98	761.4	33.4	0.8	82	SE	7.8	3.5			7						
Kertch			29.98	761.5	42.8	6.0	79	E	4.5	2			5						Lagorio.
Moscow			30.46	773.7	12.7	—10.7	76	S	7.8	3.5			0						Meteorological Obs.
Lugan			30.04	762.9	32.2	0.1	58	E	13.4	6			10						Meteorological Obs.
Archangel			30.82	782.7	—11.2	—24.0	65	NE	10.1	4.5			0						Ogorodnikof.
Tiflis			30.13	765.2	36.7	2.6	87	Calm	0	0			10						Physical Obs.
Astrakhan			30.35	771.0	32.7	0.4	47	E	7.8	3.5			8						Sebastianof.
Kasan			30.27	768.9	16.7	— 8.5	73	WNW	10.1	4.5			10						Physical Cabinet.
Orenburg			30.40	772.1	5.4	—14.8	87	SW	4.5	2			0						Tschernischef.
Ekaterinburg			30.22	767.6	4.3	—15.4	77	N	10.1	4.5			3						Meteorological Obs.
Kasaly			30.41	772.5	16.0	— 8.9	45	Calm	0	0			0						Bobrof.
Tashkend			30.19	766.8	37.9	3.3	66	W	7.8	3.5			10						Michelson.
Barnaul			30.11	764.7	7.7	—13.5	80	SSW	7.8	3.5			4						Meteorological Obs.
Yeniseisk			29.72	754.8	13.3	—10.4	86	E	10.1	4.5			8						Varks.
Irkutsk			30.24	768.0	1.2	—17.2	75	Calm	0	0			10					Fog	Usolzef.
Oorga			30.51	774.9	7.0	—13.9	80	E	13.4	6			10						Mossin.
Peking, (China)			30.41	772.5	28.8	— 1.8	36	S	7.8	3.5			3					Lunar halo	Physical Observatory
Nertchinsk			30.49	774.5	— 3.6	— 9.8	87	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					13.6	—10.2		W	10.1	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.

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.
Madrid			30.02	762.4	55.2	12.9	36	W	6.0	2.67		1	0	W		0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.27	768.8	26.6	— 3.0	100	Calm			0		10			0	0		Dr. Hildebrandsson.
Hernosand			30.26	768.6	23.4	— 4.8	95	N			2		10			0.047	1.2	Snow	
Upsala			30.19	766.9	28.6	— 1.9	91	Calm			0		10			0	0	Fog	
Stockholm			30.17	766.2	30.9	— 0.6	88	ENE			1		10			0.004	0.1		
Wisby			30.50	776.5	32.4	0.2	100	SE			2		7			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.83	732.2			33.4	0.8	76	NNE			2		8			0	0		The Observatory.
Zurich	28.28	718.3			33.1	0.6	83	NE			1		7			0	0		Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —3.0mm.; Thermometer, —3°.1 C.; Relative Humidity, +5 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	760.5	60.6	15.9	73	SW			3		5			Blank	Blank	Rain	
Constantinople			29.95	760.8	36.1	2.3	70	SE	4.5	2			5		W	Blank	Blank		
Fao, (Persian Gulf)			30.08	764.0	65.1	18.4		SE			3		10			Blank	Blank		
Salonica			29.88	758.9	53.2	11.8		N			1		2						
Valona			29.77	756.1	50.4	10.2		NW			1		0						
Varna			29.96	761.0	35.6	2.0		SW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.96	761.0	8	—13.3	89	N	1	0.4		5	5	W		0	0		
Chatham, N. B.			30.05	763.3	—13	—25.0	100	Calm	0	0		8	0	NW		0	0		
Charlottetown, P. E. Island			30.06	763.5	— 1	— 18.3	100	Calm	0	0		0	0			0	0		
Father Point, Quebec			29.92	760.0	4	—15.6	74	W	5	2.2		8	0	W		0	0		
Fort Garry, Manitoba			30.49	774.4	—24	—31.1	91	Calm	0	0		0	2			0.08	2.0		
Halifax, N. S.			30.01	762.2	0	—17.8	81	W	1	0.4		0	0			0	0		
Kingston, Ontario			29.83	757.7	0	—12.8	73	S	5	2.2			10			0	0		
Montreal, Quebec			29.88	758.9	8	—13.3	82	S	10	4.5			10			0	0	Light snow	
Ottawa, Ontario			29.82	757.4	7	—13.9	41	SE	6	2.7			Fog			0	0	Light snow	
Parry Sound, Ontario			29.76	755.9	8	—13.3	80	W	18	8.0			10			0	0	Light snow	
Port Dover, Ontario			29.87	758.7	—16	—26.7	83	SW	17	7.6		5	0	W		0	0		
Port Stanley, Ontario			29.97	761.2	12	—11.1	80	W			6	2	0	NW		0	0		
Quebec, Quebec			30.00	762.0	2	—16.7	100	Calm	0	0			10			0	0		
Saugeen, Ontario			29.87	758.7	4	—15.6	90	W	12	5.4		5	0	W		0.02	0.5		
Sydney, C. B.			30.04	763.0	6	—14.4	81	SW	12	5.4		0	0			0	0		
Toronto, Ontario			29.83	757.7	14	—10.0	86	W	10	8.5		5	0	W		0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 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	7	−13.9	78	S	7	3.1			10			0	0		
Alpena, Mich.			29.87	758.7	5	−15.0	87	W	22	9.8			10		W	0.02	0.5	Light snow.	
Atlantic City, N. J.			30.20	767.1	24	− 4.4	67	S	14	6.3		0	0			0	0		
Augusta, Ga.			30.27	768.8	35	1.7	90	Calm	0	0			10			0	0		
Baltimore, Md.			30.18	766.6	18	− 7.8	68	SW	2	0.9		5	Fog	W		0	0		
Barnegat, N. J.			30.13	765.3	19	− 7.2	48	SW	2	0.9		2	0			0	0		
Benton, Montana			30.11	764.8	9	−12.8	100	NE	4	1.8			Fog			0	0	Fog.	
Bismarck, Dakota			30.59	777.0	−27	−32.8	48	NE	4	1.8		8	0	E		0	0		
Boston, Mass.			30.13	765.3	13	−10.6	72	W	8	3.6		Haze	Haze			0	0		
Breckenridge, Minn.			30.88	784.3	−23	−30.6	87	NW	4	1.8		0	0			0.03	0.8		
Buffalo, N. Y.			29.93	760.2	11	−11.7	76	W	12	5.4		0	8			0	0		
Burlington, Vt.			29.93	760.2	11	−11.7	80	S	12	5.4			10			0	0		
Cairo, Ill.			30.39	771.9	30	− 1.1	68	N	12	5.4		2	Haze	N		0	0		
Cape Hatteras, N. C.			30.30	769.6	53	0.6	79	E	4	1.8		0	Haze			0	0		
Cape Henry, Va.			30.28	769.1	30	− 1.1	77	S	6	2.7		8	0	SW		0	0		
Cape May, N. J.			30.24	768.1	25	− 3.9	74	S	12	5.4		0	0			0	0		
Charleston, S. C.			30.26	768.6	47	8.3	77	N	4	1.8			10		N	0	0	Light rain.	
Cheyenne, W. T.			29.94	760.5	18	− 7.8	100	S	12	5.4			10			0	0	Threatening	
Chicago, Ill.			30.36	771.1	1	−17.2	71	W	10	4.5		0	0			0	0		
Cincinnati, Ohio			30.25	768.3	26	− 3.3	76	NW	8	3.6		0	5			0	0		
Cleveland, Ohio			30.05	763.3	12	−11.1	90	NW	26	11.6		2	2	NW		0	0		
Colorado Springs, Col.			29.99	761.7	20	− 6.7	85	SE	8	3.6			10			0	0		
Corsicana, Texas			30.20	767.1	45	7.2	92	NE	3	1.3			10		NE	0.10	2.5	Light rain.	
Davenport, Iowa			30.55	776.0	− 5	−20.6	100	NW	14	6.3		0	2			Blank	Blank		
Denver, Col.			30.05	763.3	26	− 3.3	75	NW	3	1.3			10			0	0		
Detroit, Mich.			30.08	764.0	7	−13.9	77	W	18	8.0		5	2	W	W	0	0		
Dodge City, Kansas			30.18	766.6	14	−10.0	82	NE	10	4.5			10			0.05	1.3		
Dubuque, Iowa			30.51	774.9	− 7	−21.7	59	W	4	1.8		0	0			0.03	.8		
Duluth, Minn.			30.46	773.7	− 8	−22.2	56	NW	2	0.9		Haze	2	NW		0.04	1.0		
Eastport, Me.			30.08	764.0	6	−14.4	76	Calm	0	0		0	0			0	0		
Erie, Penn.			29.93	760.2	17	− 8.3	83	W	32	14.3		2	5	SW		0	0		
Escanaba, Mich.			30.15	765.8	0	−17.8	69	NW	20	8.9		0	2			0.04	1.0		
Fort Gibson, I. T.			30.27	768.8	39	3.9	60	NE	12	5.4			10		NE	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.70	779.8	−17	−27.2	35	E	4	1.8		0	2			0	0		
Galveston, Texas			30.14	765.5	48	8.9	92	NE	16	7.2			10		NE	0.86	21.9	Threatening	
Grand Haven, Mich.			30.25	768.3	8	−13.3	66	NW	24	10.7			10			Blank	Blank	Light snow	
Indianapolis, Ind.			30.39	771.9	7	−13.9	79	NW	18	8		0	0			0	0		
Indianola, Texas			30.19	766.8	48	8.9	92	N	20	8.9			10		N	0.17	4.3		
Jacksonville, Fla.			30.20	767.1	49	9.4	85	NE	4	1.8			10			0.97	24.6	Light rain.	
Keokuk, Iowa			30.54	775.7	2	−16.7	72	NW	6	2.7		0	Haze			0	0		
Key West, Fla.			30.12	765.0	71	21.7	85	E	7	3.1		2	2	W	NE	0	0		
Kittyhawk, N. C.			30.30	769.6	32	0.0	61	SE	3	1.3		10	0	E		0	0		
Knoxville, Tenn.			30.31	769.9	28	− 2.2	38	SW	3	1.3		10	Fog	SW		0	0		
La Crosse, Wis.			30.49	774.4	− 3	−19.4	66	W	7	3.7		0	0			0.07	1.8		
Leavenworth, Kan.			30.59	777.0	5	−15.0	75	N	10	4.5		0	0			0	0		
Lexington, Ky.			30.28	769.1	30	− 1.1	78	W	12	5.4		5	0	W		0	0		
Long Branch, N. J.			30.21	767.3	17	− 8.3	67	SW	5	2.2		0	8		SW	0	0		
Louisville, Ky.			30.29	769.4	27	− 2.8	64	W	16	7.2		5	0	SW		0	0		
Lynchburg, Va.			30.27	768.8	22	− 5.6	72	Calm	0	0		10	Fog	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.18	766.6	− 2	−18.9	69	NW	20	8.9			10		NW	0	0		
Memphis, Tenn.			30.29	769.4	37	2.8	71	Calm	0	0			10			0	0		
Milwaukee, Wisconsin			30.38	771.6	− 4	−20.0	64	NW	20	8.9		0	0			0.07	1.8		
Mobile, Ala.			30.18	766.6	46	7.8	76	N	6	2.7			10		N	0.32	8.1		
Montgomery, Ala.			30.28	769.1	38	3.3	77	N	4	1.8		10	Haze			0	0		
Morgantown, W. Virginia			30.06	763.5	32	0.0	68	SW	19	8.5			10			0	0		
Mt. Washington, N. H.			29.61	752.1	− 1	−18.3	100	SW	44	19.7		8	2		SW	0	0		
Nashville, Tenn.			30.30	769.6	34	1.1	79	N	3	1.3		5	5	NW		0	0		
New Haven, Conn.			30.16	766.1	14	−10.0	64	W	6	2.7		5	2	W	W	0	0		
New London, Conn.			30.17	766.3	15	− 9.4	65	W	1	0.4		5	0	W		0	0		
New Orleans, La.			30.14	765.5	48	8.9	89	NE	12	5.4			10		NE	0.57	14.5	Light rain.	
Newport, R. I.																			
New York, N. Y.			30.20	767.1	13	−10.6	64	SW	16	7.2		2	5	W		0	0		
Norfolk, Va.			30.27	768.8	29	− 1.7	78	S	7	3.1		5	0			0	0		
North Platte, Neb.			30.26	768.6	9	−12.8	78	NE	6	2.7			10			0	0		
Omaha, Neb.			30.67	779.0	− 6	−21.1	100	N	8	3.6		0	Haze			0	0		
Oswego, N. Y.			29.85	758.2	14	−10.0	67	S	7	3.1			10			0.01	0.3	Light snow.	
Peck's Beach			30.22	767.6	23	− 5.0	73	SW	12	5.4		0	0			0	0		
Pembina, D. T.			30.56	776.2	−22	−30.0	64	NW	4	1.8		5	0			0	0		
Philadelphia, Penn.			30.19	766.8	17	− 8.3	67	SW	10	4.5		2	2	W	SW	0	0		
Pike's Peak, C. T.			29.74	755.4	− 4	−20.0	100	W	30	13.4			10			0	0		
Pittsburgh, Penn.			29.97	761.2	30	− 1.1	68	SW	15	6.7			10			0	0	Threatening	
Port Huron, Mich.			29.99	761.7	8	−13.3	78	W	20	8.9		5	0	W		0.02	0.5		
Portland, Maine			30.11	764.8	8	−13.3	78	W	1	0.4			10			0	0	Light snow	
Portland, Or.			30.30	769.6	13	−10.6	78	NW	4	1.8		Haze	Haze			0	0		
Punta Rassa, Fla.			30.15	765.8	61	16.1	91	NE	5	2.2		2	2	NW		0	0		
Rochester, N. Y.			29.83	757.7	18	− 7.8	68	SW	8	3.6			10			0	0	Light snow	
Salt Lake City, Utah			30.01	762.4	33	0.6	67	NE	1	0.4			10			0	0		
Sandy Hook, N. J.			30.19	766.8	18	− 7.8	84	SW	12	5.4			10		W	0	0		
San Diego, Cal.			30.18	766.6	48	8.9	92	W	4	1.8		0	0			0	0		
San Francisco, Cal.			30.15	765.8	49	9.4	85	Calm	0	0		2	5			0	0		
Santa Fe, N. M.			29.73	758.1	32	0.0	90	S	4	1.8			Fog			0.03	0.8	Fog.	
Savannah, Georgia			30.25	768.3	47	8.3	92	N	4	1.8			10			0.10	2.5	Light rain.	
Shreveport, La.			30.21	767.3	46	7.8	69	NE	4	1.8			10		NE	0.08	2.0	Threatening	
Springfield, Mass.			30.12	765.0	9	−12.8	78	S	4	1.8		2	2	W		0	0		
St. Louis, Mo.			30.51	774.9	16	− 8.9	65	S	16	7.2		0	5		N	0	0		
St. Marks, Fla.			30.19	766.8	46	7.8	92	NE	6	2.7			10		NE	0.20	5.1		
St. Paul, Minn.			30.50	774.7	−15	−26.1	72	W	8	3.6		0	0			0.06	1.5		
St. Paul's Island, Alaska			29.32	744.7	35	1.7	89	S	7	3.1			8	S		0.10	2.5		
Squan Beach, N. J.			30.20	767.1	15	− 9.4	65	SW	5	2.2		8	0	SW		0	0		
Toledo, Ohio			30.08	764.0	10	−12.2	58	W	24	10.7		0	5		W	Blank	Blank		
Tybee Island, Ga.			30.26	768.6	45	7.2	100	N	6	2.7			10		N	0.13	3.3	Light rain.	
Vicksburg, Miss.			30.28	769.1	40	4.4	67	E	1	0.4			10		E	0.05	1.3	Light rain.	
Virginia City, Mon.			29.68	753.9	11	−11.7	79	E	4	1.8		0	0			0	0		
Washington, D. C.			30.19	766.8	17	− 8.3	83	S	4	1.8		2	2	W		0	0		
Wilmington, N. C.			30.28	769.1	35	1.7	80	Calm	0	0		2	Haze	W		0	0		
Wood's Hole, Mass.			30.19	766.8	16	− 8.9	66	W	3	1.3		2	2	NW		0	0		
Wytheville, Va.			30.04	763.0	29	− 1.7	78	W	8	3.6		5	0	W		0	0		
Yankton, D. T.			30.81	782.6	−17	−27.2	68	NW	4	1.8		0	0			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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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		NE	4	1.8		0	5			0	0		
Point-a-pitre, G'd'loupe, "			30.07	763.8	72	22.2		E				5	0			2.00	50.8		
Havana, Cuba, W. I.			29.93	760.2	69	20.6	79	S	2.4	1.1		8	0	S		0	0		
Kingston, Jamaica, W. I.			30.29	769.4	75	23.9		E					10			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.93	760.2	71	21.7	79	Calm	0	0		2	0	W		0	0		
St. Georges, Bermudas			30.24	768.1	57	13.9	75	NW				8	8	NW		0.050	1.27		
Honolulu, Sandwich Is.			30.03	762.7	60	15.6	94	S	2	0.9		5	7	S		0	0	Threatening	
Makawao, Sandwich Is.	27.70	703.6			56	13.3	70	S			2.5	1	1	S		0.10	2.5	Stormy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.00	762.0	—14	—25.6		W	9	4.0		10	0	SW		0	0		C. Partridge.
Clifton, Jamaica, W. I.			30.11	764.8	62	16.7		N	7	3.1		2	2	E		0	0		John Delaney.
St. Johns, Newfoundland			29.98	761.5	11	—11.7	80	W				5	5			0	0		Leon M. Acuña.
St. Johns, Porto Rico, W. I.																			H. M. Redington.
Ellyria, Ohio	29.22	742.2			11	—11.7	80	SW	23	10.3		0	10			0	0		G. C. Carpenter.
Indianola, Iowa	29.68	753.9			—10	—23.3		NW				0	0			0	0		

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

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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.
1:8 P. M. GENEVA mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
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.

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.
Nemours			29.93	760.1															Charnot.
Algiers			29.67	753.5	51.8	11.0	77	N			3		10			1.016	25.8	Rain	Peter.
La Calle			29.67	753.7															Kuntz.
Tunis			29.71	754.5	58.8	14.9	64	SW			3		7			0	0		Jacques.
Sfax																			Chauvey.
Salda			29.80	759.1	53.6	12.0		ENE			3		8			0.276	7.0	Rainy	Grosjean.
Tebessa			29.68	753.9															Colin.
Geriville			29.79	756.7	44.6	7.0		N			4		8			0	0		Bernadach.
Laghouat			29.69	754.1	56.1	13.4	52	E			1		10			0.079	2.0		Poinsignon.
Biskra			29.68	753.8	62.6	17.0		NW			4		6						Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.09	764.2	34.0	1.1	76	NE			1		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.22	767.6	19.4	− 7.0	57	NE			2		1			0	0		I. R. Observatory.
Eperies			30.14	765.6	40.1	4.5	72	N			1		0			0	0		Julius Mikolik.
Gratz			30.09	764.3	32.0	0.0	88	SSW			2.5		10			0.205	5.2		Andreas Rospini.
Hermannstadt			30.10	764.5	23.7	− 4.6	88	ENE			1		10			0.049	1.25	Snow	Prof. Reissenberger.
Kremsmünster			30.06	763.5	24.4	− 4.2	75	NE			5		0			0	0		Prof. C. Wagner.
Lemberg			30.19	766.9	22.3	− 5.4	94	NNE			2		10			0.016	0.4		Dr. T. Stanecki.
Nyiregyhaza			30.16	766.0	24.8	− 4.0	87	W			1		0			0	0		Habesuda Daniel.
Pola			29.93	760.2	42.4	5.8	33	E			5		10			0	0		I. R. Hydrographic Office
Szegedin			30.14	765.6	17.6	− 8.0	88	SE			2		4			0	0		Karl Stancel.
Trieste			29.98	761.5	43.5	6.4	27	E			1		10			0	0		Prof. V. Farolfi.
Vienna			30.14	765.5	23.9	− 4.5	68	NE			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.

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.
Brussels	29.94	760.4			35.2	1.8	89	NE			1		10	NE		0.035	0.90		Royal Observatory.

NOTE.—The originals give the wind force 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.

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. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.40	772.1	39.0	3.9		N	10	4.5			5			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.39	771.9	41	5.0		E			3		6					Mist	William McNeil.
Armagh Observatory			30.40	772.1	35.0	1.7		NW	2	0.9			7					Fog	Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.33	770.4	39.6	4.2		N			2		10						The Liverpool Obs.
Birr Castle			30.37	771.4	41.2	5.1		N			1		1						J. Dreyer.
Bradford			30.26	768.6	41.8	5.4		NE			1		3						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.25	768.3	38.0	3.3		N			2		10			Blank	Blank		H. Todd.
Cape Town. Cape Colony			29.83	757.7	83	28.3		SE			5		0						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.86	758.4			80.2	26.8	47	SW	28	12.5			0.5						The Royal Observatory.
Cardington			30.26	768.6	38.0	3.3		NE					9					Snow	John McLaren.
Carlisle			30.35	770 9	40.9	4.9		N					9			0	0	Threatening	T. Bell.
Chatham			30.19	766.8	37.2	2.9		NE			3		10					Threatening	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.92	760.0	78.4	25.8		SW			2		5						Sgt. W. F. Hopkins
Dartmoor			30.40	772.1	32.8	0.4		NE			2		10						R. E. Power.
Donaghadee			30.39	771.9	41	5.0		E			1		0						J. Mac Gowan, Jr.
Dover			30.16	766 1	37	2.8		NNE			4		7					Snow	J. Costello.
Dublin																			
Durham Observatory			30.32	770.1	40.3	4.6		ENE					8			Blank	Blank		G. Goldney.
Eccles, (near Manchester)			30.33	770.4	43.0	6.4		NE	0.2	0.1			6					Mist	Thomas Mackereth.
Falmouth Observatory			30.28	769.1	41.0	5.3		NE	23	10.3			6						The Fa mouth Obs.
Fort Napier, (Natal)			29.88	758.9	68.6	20.3		S			3		10			Blank	Blank	Rain	Pvt. G. Salmon.
Galway			30.20	767.1	38.0	3.3		NE			1		1						Queen's College.
Gibraltar, (Mediterranean)			29.82	757.4	58.2	14.6		NNE			3		0						Sgt. J. Brewster.
Glasgow Observatory			30.38	771.6	39.0	3.9		E			2		5						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.24	768.1	36	2.2		ENE			5		7						G. T. Watson.
Greenwich Royal Obs			30.21	767.3	40.2	4.6		ENE			4		10			Blank	Blank		The Royal Observatory.
Guernsey			30.19	766.8	40	4.4		NNE			2		7			Blank	Blank		Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.29	769.4	40.0	4.8		ENE					9						Moorside Observatory.
Halifax, (Nova Scotia)			29.88	758.9	30.7	— 0.7		NW			1		0						Corp'l J. Y. Thompson.
Helston			30.24	768.1	45	7.2		NNE			4		4						W. B. Moyle.
Holyhead			30.34	770.6	42	5.6		NE			3		5						John Tilston.
Hull Park																			
Kew Observatory			30.22	767.6	39.6	4.2		NE	18	8.0			10					Threatening	The Met. Office.
Kingstown			30.40	772.1	41	5.0		NE			2		4						George Mitchell.
Lampeter																			
Leicester			30.28	769.1	38.0	3.3		NE			3		10			Blank	Blank	Snow	William J. Harrison
Llandudno			30.34	770.6	41.0	5.3		NE					10						Dr. James Nicol.
Malta, (Mediterranean)			29.89	759.2	60.0	15.6		SE			1		8						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.40	772.1	42	5.6		Calm			0		6						William D. Penny.
Nassau, (Bahamas)			30.04	763.0	73.4	23.0		SW			2		8						Surgeon I. Jameson.
North Shields			30.35	770.9	42	5.6		NE			2		1						John Wm. Irvine.
Nottingham			30.30	769.6	40.3	4.6		N			2		8		N	Blank	Blank		E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.29	769.4	38.4	3.6		NNE			2		10						St. Mary's College.
Oxford, Radcliffe Obs			30.18	766.6	39	3.9		NE			3		10						Radcliffe Observatory.
Plymouth			30.24	768.1	40	4.4		NE			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.34	770.6	42	5.6		E			3		5						W. Kennedy.
Saint Ann's Head			30.30	769.6	42	5.6		ENE			4		7						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.45	773.4	37.6	3.1		E	10	4.5			0						Rev. Dr. Clouston.
Scarboro'			30.33	770.4	40.4	4.7		NNE			5		10			Blank	Blank	Rain	F. Heard.
Scutari, (Turkey)			30.08	764.0	47.2	8.4		NE			1		9					Misty	W. H. Lyne.
Sheffield			30.30	769.6	40.8	4.9		E E			2		9					Threatening	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.35	770.9	41.0	5.0		NE			3		8			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.21	767.3	37.4	3.0		NE			1		8			Blank	Blank		Rev. C. J. Steward.
Stonyhurst Observatory			30.32	770.1	40.3	4.6		NE			1		9						Stonyhu st Obs.
Stornoway, Lews C., Hebr.			30.37	771.4	43	6.1		E			1		5						John Smith.
Strathfield Turgiss			30.23	767.8	40.8	4.9		N			1		8						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.41	772.4	42	5.6		E NE			1		2						William Lawrence.
Taunton College																			
Thurso			30.43	772.9	41	5.0		Calm			0		8						John Trotter.
Truro. Royal Institution			30.23	767.8	44	6.7		NE			6		6						Royal Institution.
Valencia			30.33	770.4	46.3	7.9		E	4	1.8			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.20	767.1	39.8	4.3		NNE			1		10						S. H. Miller.
York																			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 Cape 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	770.9	29.1	— 1.6	78	NE			2		9						
Fanöe			30.36	771.1	30.0	— 1.1	74	ENE			4		8						
Godthaab, (Greenland)			29.14	740.1	7.3	—13.7		W			6		10						
Stykkisholm, (Iceland)			29.80	756.8	37.6	3.1	84	S			2		5			Blank	Blank	Rain	
Thorshavn, (Faröe)			30.37	771.4	43.7	6.5	88	S			2		8						
Vestervig			30.39	772.0	32.7	— 0.4	89	ENE			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	755.9	56.8	13.8	53						2						Normal School.
Alençon			30.12	765.1	37.4	3.0	74	NE			2		8		NNE	0	0		Normal School.
Amiens			30.13	765.3	35.6	2.0	93	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)			30.07	763.7	39.2	4.0	69	NE	21.3	9.5			10		NNE	0	0		Beaumette Observatory.
Beauvais			30.15	765.7	40.3	4.6	47	E			2		10		E	0.12	0.3		Normal School.
Besançon			29.98	761.5	36.9	2.7	64	E			2		8		NE	0.016	0.4		Normal School.
Bourges			30.02	762.6	38.3	3.5	87				2		10		N	0.236	6.0		Normal School.
Brest			30.14	765.5	42.3	5.7	75	NNE			3		8		NE	0	0	Light sleet...	Naval Observatory.
Caen			30.15	765.8	39.6	4.2	62	ENE			2		8			0.197	5.0		Normal School.
Carcassonne																			
Chartres			30.10	764.6	36.5	2.5		N			2		8		N	0	0		Normal School.
Chaumont			29.98	761.5	45.7	7.6		N			4		3		N	0	0		Normal School.
Le Mans			30.12	765.1	37.4	3.0	69	N			3		8		NNE	0.039	1.0		Normal School.
Mirecourt			29.88	758.9	39.4	4.1		NNE			4		10		E	0	0		Normal School.
Orleans			30.08	763.9	38.5	3.6	67	E			3		8		N	0	0		Normal School.
Paris			30.09	764.2	38.7	3.7	64	ENE			3		10		NE	0	0		National Observatory.
Parthenay																			
La Roche sur Yon			30.09	764.2	40.5	4.7	80	N			4		10		S	0	0		Normal School.
Rouen			30.10	764.5	37.9	3.3	66	ENE			2		10			0	0		Normal School.
Saint Lo			30.18	766.5	44.4	6.9	38	NE			3		10		NE	0.118	3.0		Normal School.
Villefranche			29.91	759.7	38.3	3.5	90	N			3		2		NW	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.97	761.1	66.4	19.1	59.2	NNE			6		1			0	0		Père Pascall.
Mont-Louis	24.52	622.7			21.4	— 5.9	70	NNW	9.3	4.16			5		NNW	0.047	1.2		—, Falguère.
Montsouris (near Paris)			30.08	764.0	38.1	3.4	66	NNE	6.0	2.69			10		NE	0	0		Marié Davy.
Perpignan	29.72	755.0			44.6	7.0	42	NW	14.9	6.66			3		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.08	764.1	39.0	3.9	69	NNE			2		10			0.035	0.9		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.45	773.4	38.8	3.8	70	NE			2		10		NE	0	0		C. Marquet.
Versailles, (near Paris)			30.07	763.8	39.2	4.0	67	NE			3		10			0	0		Dr. A. Bérigny.
Z.-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.13	765.4	29.7	— 1.3	65	NW			3		3			0	0		Prof. Hoh.
Berlin			30.27	768.9	22.8	— 5.1	82	E			1		1			0	0		Prof. Arndt.
Breslau			30.23	767.8	21.6	— 5.8	91	ENE			1		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.04	763.0	36.0	2.2	54	NE			2.5		0			0	0		A. Lenz.
Cassel			30.12	765.1	35.2	1.8	74	NE			2		4			0	0		Dr. H. Mohl.
Cologne			30.11	764.9	37.6	3.1	88	NNW			3		9			0	0		Dr. Gaithe.
Emden			30.34	770.6	30.7	— 0.7	65	E			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.20	767.1	37.4	3.0	68	NE			3		8			0.004	0.1		Physical Society.
Friedrichshafen			29.97	761.2	32.9	0.5	90	E								0	0		M. Wilhelm.
Hamburg			30.31	769.9	34.7	1.5	58	NE			4		7			0.016	0.4		W. Reinart.
Kiel			30.31	769.8	31.5	— 0.3	70	NE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.37	771.5	26.2	— 3.2	82	E			2		10			0	0		Prof. E. Luther.
Köslin			30.53	775.5	26.6	— 3.0		SE			2		8			0.008	0.2		Dr. Tägert.
Leipsic			30.24	768.0	29.5	— 0.4	94	NE			2		6			0	0		Prof. Bruhns.
Münster			30.19	766.7	35.4	1.9	79	N			2		0			0	0		Prof. F. Heis.
Posen			30.30	769.7	22.6	— 5.2	82	S			5		9			0	0		Dr. Mageter.
Strassburg, (in Alsace)			30.02	762.5	35.2	1.8	69	NW					2			0	0		Hartwig and Fulk.
Stuttgart			30.04	762.9	33.4	0.8	66	E					2			0.016	0.4		Mr. Wurth.
Thorn			30.28	769.2	23.0	— 5.0	74	ENE			3		7			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.02	762.6	34.9	1.6	86	NE			2		10			0.354	9.0		Prof. Flesch.
Wustrow			30.30	769.5	32.2	0.1	81	NE			4		7			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.94	760.5	33.6	0.9	92	NNE			1		10			Blank	Blank	Snow	
Mondovi			29.92	760.0	30.4	— 0.9	94	NW			8		10			0.197	5.0	Snow	
Genoa			29.83	757.7	43.5	4.7	73	Calm			0		10			Blank	Blank	Rain	
Pavia			29.90	759.5	39.9	4.4	59	E			8		10			0.087	2.2	Snow	
Verona																			
Padua			29.95	760.7	41.3	4.6	44	NE	19.3	8.61			9	SE		0	0		
Parma																			
Bologna			29.96	760.9	41.4	5.2	48	E			6		10			Blank	Blank	Rain & snow	
Livorno			29.78	756.5	41.5	5.3	77	ENE	11.2	5.00			10			0	0		
Urbino			29.89	759.1	35.2	1.8	96	ENE			4		10			0	0		
Ancona																			
Siena			29.84	757.8	36.5	2.5	89	ENE	9.7	1.94			10			0.024	0.6		
Rome			29.83	757.6	41.0	5.0	84	E			4		10			0.295	7.5	Rain	
Naples, O. U.			29.88	758.9	54.7	12.6	59	S			2		8	SW		0.008	0.2		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.94	760.4	50.0	10.0	61	S	19.3	8.61			7			0	0		
Cosenza			29.96	761.0	50.0	10.0	60	ENE			1		4			0	0		
Catania, (Sicily)			29.94	760.4	50.9	10.5	83	SE			9		8	W		0	0		
Trapani																			
Palermo			29.74	755.3	52.7	12.5	69	SW			4		10			0.043	1.1		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.20	767.1	35.6	2.0		ENE			4								
Groningen			30.21	767.3	31.1	— 0.5		ENE			4								
Helder			30.23	767.9	33.3	0.7		NE			4								
Utrecht			30.15	765.7	34.3	1.3		NE			4		10						

Note.—The originals give the force 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.

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.
Bergen			30.47	773.8	37.0	2.8	52	Calm	0	0			0			0	0		
Christiania			30.58	776.6	32.7	0.4	87	NNE	8.3	3.7			10			0	0		
Tromsö			30.24	768.2	26.2	— 3.2	85	S			7		10			Blank	Blank	Rain & snow	

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.69	754.0			52.2	11.2	53	NNE	21.0	9.4			2						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.27	768.8	25.3	— 3.7	82	E	4.5	2			0						Astronomical Obs.
Wilna			30.38	771.7	24.6	— 4.1	79	E	10.1	4.5			5						Astronomical Obs.
Dorpat			30.64	778.3	15.1	— 9.4	70	E	6.7	3			1						Physical Cabinet.
St. Petersburg			30.72	780.3	21.0	— 6.1	93	E	2.2	1			10					Fog	Central Physical Obs.
Kieff			30.24	768.0	25.9	— 3.4	87	NNE	11.2	5			10					Snow & drift	Physical Cabinet.
Nikolaiev			30.20	767.1	34.0	1.0	79	S	4.5	2			5						
Kertch			30.2	767.1	46.0	7.8	68	W	4.5	2			5						Lagorio.
Moscow			30.71	780.1	15.3	— 9.3	81	ESE	7.8	3.5			7					Light snow	Meteorological Obs.
Lugan			30.15	765.8	30.7	— 0.7	61	E	13.4	6			10					Snow	Meteorological Obs.
Archangel			30.86	783.7	— 4.4	—20.2	65	S	4.5	2			0						Ogorodnikof.
Tiflis			30.12	765.0	49.3	— 9.6	53	N	13.4	6			6						Physical Obs.
Astrakhan			30.37	771.4	36.0	2.2	58	E	7.8	3.5			9						Sebastianof.
Kasan			30.04	762.9	— 8.7	—22.6	69	E	7.8	3.5			0						Physical Cabinet.
Orenburg			30.49	774.5	2.8	—16.2	90	Calm	0	0			0						Tschernischef.
Ekaterinburg			30.78	781.8	—11.9	—24.4	63	SW	4.5	2			1						Meteorological Obs.
Kasaly			30.41	772.5	12.0	—11.1	17	Calm	0	0			0						Bobrof.
Tashkend			30.49	774.4	34.5	1.4	96	Calm	0	0			10						Michelson.
Barnaul			30.22	767.6	9.9	—12.3	79	W	4.5	2			6						Meteorological Obs.
Yeniseisk			29.87	758.6	11.7	—11.3	87	SE	4.5	2			0						Marks.
Irkutsk			30.19	766.9	9.1	—12.7	74	Calm	0	0			10						Usolzef.
Oorga			30.46	773.6	3.7	—15.7	100	Calm	0	0			0						Messin.
Peking, (China)			30.43	773.0	26.4	— 3.1	57	Calm	0	0			0						Physical Observatory
Nertchinsk			30.54	775.6	—12.6	—24.8	89	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					7.7	—13.5		NW	7.8	3.5			9						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.

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.
Madrid			29.01	759.8	44.4	6.9	37	N	27.5	12.33		0	4			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.67	779.0	27.3	− 2.6	96	Calm			0		10			0	0		Dr. Hildebrandsson.
Hernosand			30.67	778.9	26.4	− 3.2	89	ENE			2		10			0	0		
Upsala			30.58	766.7	21.0	− 6.1	67	NNE			2		0			0	0		
Stockholm			30.15	774.9	21.9	− 5.6	60	ENE			4		3			0	0		
Wisby			30.46	773.6	27.7	− 2.4	100	E			4		5			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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, President of the Meteorological Commission of Switzerland, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.44	722.3			33.8	1.0	78	NNE			6		9			0	0		The Observatory.
Zurich	28.26	717.7			32.2	0.1	82	NE			1		8			0	0		Prof. B. Billwiller.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —3.8mm.; Thermometer, —3°.0 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, 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)			30.17	766.2	59.2	15.1	51	NW			3		5			Blank	Blank		
Constantinople			30.07	763.8	45.1	7.3	44	NE	2.2	1			10		NW				
Fao, (Persian Gulf)			30.08	764.0	65.5	18.6		NW			1		5						
Salonica			30.00	762.1	46.9	8.3		N			1		0						
Valona			29.88	759.0	54.1	12.3		NW			1		0						
Varna			30.12	765.0	44.6	7.0		NW			3		5						
																Blank	Blank		

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.60	751.8	9	−12.8	89	N	12	5.4		2	2	N		0	0		
Chatham, N. B.			29.78	756.4	− 2	−18.9	100	W	1	0.5		0	0			0	0		
Charlottetown, P. E. Island			29.75	755.6	9	−12.8	91	W	19	8.5		0	0			0.03	0.8		
Father Point, Quebec			29.89	759.2	2	−16.7	71	N	11	4.9		8	0	W		0	0		
Fort Garry, Manitoba			29.69	754.2	4	−15.6	97	SW	5	2.2		0	0			0	0		
Halifax, N. S.			29.78	756.4	23	5.0	83	SW	7	3.1		2	0	8		0.10	2.5		
Kingston, Ontario			30.35	770.9	− 9	−22.8	66	Calm	0	0		0	0			0.08	2.0		
Montreal, Quebec			30.24	768.1	− 5	−20.6	74	W	15	6.7		0	0			0.03	0.8		
Ottawa, Ontario			30.31	769.9	−15	−26.1	72	SW	2	0.9		0	0			0	0		
Parry Sound, Ontario			30.28	769.1	−27	−32.8	49	N				0	0			0	0		
Port Dover, Ontario			30.35	770.9	− 6	−21.1	100	NW	3	1.3		0	0			0	0		
Port Stanley, Ontario			29.99	761.7	−21	−29.4	92	NW			2	0	0			0	0		
Quebec, Quebec			30.12	765.0	−10	−23.3	77	W	14	6.3		0	0			0.20	5.1		
Saugeen, Ontario			30.30	769.6	−11	−23.9	77	Calm	0	0		2	0			0	0		
Sydney, C. B.			29.66	753.4	17	− 8.3	85	W	15	6.7		8	0	W		0.21	5.3		
Toronto, Ontario			30.36	771.1	− 8	−22.2	91	W	5	2.2		0	0			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.28	769.1	5	—15.0	75	W	4	1.8		0	Haze			0	0		
Alpena, Mich.			30.27	768.8	—13	—25.0		Calm	0	0		2	0			0	0		
Atlantic City, N. J.			30.31	769.9	11	—11.7	60	NW	10	4.5		0	0			0	0		
Augusta, Ga.			30.11	764.8	44	6.6	69	E	3	1.3			10		E	0	0		
Baltimore, Md.			30.36	771.1	12	—11.1	61	NW	5	2.2		0	0			0	0		
Barnegat, N. J.			30.23	767.8	10	—10.2	61	W	7	3.1		0	0			0	0		
Benton, Montana			29.97	761.2	31	— 0.6	89	SW	16	7.2		2	0	N		0	0		
Bismarck, Dakota			29.62	752.3	9	—12.8	78	SW	2	0.9			10			0	0		
Boston, Mass.			30.19	766.8	10	—12.2	79	W	10	4.5		0	0			0	0		
Breckenridge, Minn.			29.91	759.7	4	—15.6	90	SE	12	5.4			10			0	0		
Buffalo, N. Y.			30.37	771.4	0	—17.8	77	W	8	3.6		0	8		W	0	0		
Burlington, Vt.			30.28	769.1	0	—17.8	69	N	2	0.9		0	0		W	0	0		
Cairo, Ill.			30.29	769.4	17	— 8.3	67	NE	8	3.6		5	0			0	0		
Cape Hatteras, N. C.			30.15	765.8	32	0.0	69	NE	34	15.2		0	5		NE	0.11	2.8		
Cape Henry, Va.			30.30	769.6	22	— 5.6	58	N	17	7.6		0	0			0	0		
Cape May, N. J.			30.42	772.7	13	—10.6	67	N	16	7.2		0	0			0	0		
Charleston, S. C.			30.09	764.3	45	7.2	75	N	12	5.4		2	2	NE	NE	0.17	4.3		
Cheyenne, W. T.			29.68	753.9	21	— 6.1	72	NW	12	5.4		2	8			0	0		
Chicago, Ill.			30.29	769.4	0	—17.8	69	SW	3	1.3		0	0			0	0		
Cincinnati, Ohio			30.38	771.6	8	—13.3	55	NE	4	1.8		0	2			0	0		
Cleveland, Ohio			30.36	771.1	— 3	—19.4	82	W	4	1.8		0	0			0	0		
Colorado Springs, Col.			29.65	753.1	25	— 3.9	75	N	2	0.9		0	5		NW	0	0		
Corsicana, Texas			30.10	764.5	40	4.4	81	N	3	1.3			10		N	0	0		
Davenport, Iowa			30.30	769.6	- 5	—20.6	100	E	4	1.8		5	2			0	0		
Denver, Col.			29.77	756.1	23	— 5.0	61	NW	3	1.3		2	0			0	0		
Detroit, Mich.			30.36	771.1	— 3	—19.4	83	SW	4	1.8			2			0	0		
Dodge City, Kansas			29.53	750.0	23	— 5.0	86	NW	5	2.2			10			0	0	Light snow	
Dubuque, Iowa			30.28	769.1	—14	—25.6	73	SW	2	0.9			10			0	0		
Duluth, Minn.			29.95	760.7	— 3	—19.4	83	SW	8	3.6			10			0	0		
Eastport, Me.			29.97	761.2	9	—12.8	57	NW	10	4.5		0	0			0	0		
Erie, Penn.			30.35	770.9	1	—17.2	85	S	4	1.8		Haze	Fog			Blank	Blank		
Escanaba, Mich.			30.17	766.3	—13	—25.0	47	S	10	4.5		5	0	S		0	0		
Fort Gibson, I. T.			30.05	763.3	30	— 1.1	89	SW	1	0.4			10		W	0.04	1.0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.81	757.	10	—12.2	57	Calm	0	0		0	0			0	0		
Galveston, Texas			30.12	765.0	49	9.4	85	NW	8	3.6			10		NW	0	0		
Grand Haven, Mich.			30.31	769.9	—11	—23.9	30	S	5	2.2		0	Sm'e			Blank	Blank		
Indianapolis, Ind.			30.36	771.1	— 5	—20.6	81	NW	1	0.4		0	Fog			0	0		
Indianola, Texas			30.15	765.8	50	10.0	93	NE	8	3.6		5	5	W		0	0		
Jacksonville, Fla.			30.07	763.8	48	8.9	85	N	4	1.8		0	0			1.00	25.4		
Keokuk, Iowa			30.20	767.1	1	—17.2	91	SE	5	2.2		2	2	W		0	0		
Key West, Fla.			30.05	763.3	74	23.3	76	W	7	3.1		5	Haze	W		0	0		
Kittyhawk, N. C.			30.25	768.3	26	— 3.3	66	NE	48	21.5		5	0	NE		0	0		
Knoxville, Tenn.			30.20	767.1	23	— 5.0	60	N	8	3.6		10	0	W		0	0		
La Crosse, Wis.			30.23	767.8	1	—17.2	71	S	11	4.9			10		S	0	0		
Leavenworth, Kan.			30.08	764.0	15	— 9.4	83	SE	6	2.7			10			0	0	Light snow.	
Lexington, Ky.			30.34	770.9	12	—11.1	61	E	1	0.4		2	0			0	0		
Long Branch, N. J.			30.31	769.9	18	— 7.8	69	NW	17	7.6		0	0			0	0		
Louisville, Ky.			30.33	770.4	8	—13.3	55	N	11	4.9		0	0			0	0		
Lynchburg, Va.			30.36	771.1	21	— 6.1	57	E	4	1.8		5	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.04	763.0	— 4	—20.0	64	SW	24	10.7		2	0	W		0	0		
Memphis, Tenn.			30.24	768.1	25	— 3.9	75	NE	4	1.8			10			Blank	Blank		
Milwaukee, Wisconsin			30.31	769.9	— 5	—20.6	63	SW	9	4.0		5	Haze	W		0	0		
Mobile, Ala.			30.10	764.5	45	7.2	84	N	8	3.6			10		N	1.12	28.4		
Montgomery, Ala.			30.14	765.5	43	6.1	84	N	3	1.3			10		W	0.06	1.5		
Morgantown, W. Virginia			30.39	771.9	7	—13.9	77	NE	1	0.4		0	0			0	0		
Mt. Washington, N. H.			29.50	749.3	—23	—30.6	100	NW	88	39.3			Fog			0	0		
Nashville, Tenn.			30.26	768.6	23	— 5.0	60	NE	4	1.8		5	0	W		0	0		
New Haven, Conn.			30.28	769.1	15	— 9.4	65	W	5	2.2		0	0			0	0		
New London, Conn.			30.27	768.8	14	—10.0	54	NW	6	2.7		0	0			0.01	0.3		
New Orleans, La.			30.08	764.0	47	8.3	72	NE	4	1.8			10		NE	1.78	45.2		
Newport, R. I.																			
New York, N. Y.			30.30	769.6	12	—11.1	61	NW	10	4.5		0	0			0	0		
Norfolk, Va.			30.30	769.6	20	— 6.7	56	NE	19	8.5		2	0	N		0	0		
North Platte, Neb.			29.51	749.5	21	— 6.1	71	SE	2	0.9		2	2	W	W	0	0		
Omaha, Neb.			30.01	762.2	14	—10.0	82	S	10	4.5			10			0	0		
Oswego, N. Y.			30.32	770.1	5	—15.0	87	N	2	0.9		Haze	5			Blank	Blank		
Peck's Beach			30.41	772.4	10	—12.2	79	N	16	7.2		0	0			0	0		
Pembina, D. T.			29.67	753.6	8	—13.3	78	SW	8	3.6			10			0	0		
Philadelphia, Penn.			30.36	771.1	10	—12.2	58	NW	12	5.4		0	0			0	0		
Pike's Peak, C. T.			29.48	748.8	— 7	—21.7	100	W	16	7.2			Fog			0	0	Fog.	
Pittsburgh, Penn.			30.42	772.7	— 1	—18.3	84	Calm	0	0			Fog			0	0	Fog.	
Port Huron, Mich.			30.38	771.6	— 7	—21.7	80	SW	10	4.5		0	0			0	0		
Portland, Maine			30.13	765.3	11	—11.7	79	W	4	1.8		0	Haze			0	0		
Portland, Or.			30.33	770.4	32	0.0	79	Calm	0	0		0	0			0.02	0.5		
Punta Rassa, Fla.			30.06	763.5	67	19.4	94	NW	5	2.2			10		NW	0.01	0.3		
Rochester, N. Y.			30.32	770.1	8	—13.3	78	W	8	4.5			10			0.04	1.0	Light snow.	
Salt Lake City, Utah			29.93	760.2	31	— 0.6	60	N	9	4.0			10			0	0		
Sandy Hook, N. J.			30.30	769.6	12	—11.1	70	NW	10	4.5		0	Haze			0	0		
San Diego, Cal.			30.09	764.3	47	8.3	92	E	4	1.8		0	5			0	0		
San Francisco, Cal.			30.14	765.5	47	8.3	85	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.51	749.5	25	— 3.9	69	Calm	0	0			10			0.08	2.0		
Savannah, Georgia			30.08	764.0	45	7.2	100	NW	6	2.7			Fog			0.21	5.3	Fog.	
Shreveport, La.			30.12	765.0	44	6.7	59	E	3	1.3			10			0	0		
Springfield, Mass.			30.25	768.3	35	1.7	61	NW	6	2.7		0	0			0.01	0.3		
St. Louis, Mo.			30.28	769.1	7	—13.9	78	E	8	3.6		0	0			0	0		
St. Marks, Fla.			30.06	763.5	45	7.2	96	NE	6	2.7			10		NE	0.17	4.3		
St. Paul, Minn.			30.00	762.0	— 5	—20.6	82	E	5	2.2			10			0.05	1.3	Light snow.	
St. Paul's Island, Alaska			29.53	750.0	36	2.2	90	SE	10	4.5			10			0.28	7.1		
Squan Beach, N. J.			30.32	770.1	11	—11.7	60	NW	5	2.2		0	0			0	0		
Toledo, Ohio			30.30	769.6	0	—17.8	69	SW	4	1.8		Sm'e	0			0	0		
Tybee Island, Ga.			30.09	764.3	45	7.2	92	NW	4	1.8		2	Sm'e	W		0.19	4.3		
Vicksburg, Miss.			30.21	767.3	41	5.0	48	NE	4	1.8			10		NE	0.12	3.0		
Virginia City, Mon.			29.63	752.6	17	— 8.3	83	Calm	0	0			10			0	0		
Washington, D. C.			30.39	771.9	9	—12.8	47	NW	10	4.5		0	0			0	0		
Wilmington, N. C.			30.17	766.3	34	1.1	61	NE	16	7.2		2	0	W		0.07	1.8		
Wood's Hole, Mass.			30.20	767.1	14	—10.0	63	NW	14	6.3		0	0			0	0		
Wytheville, Va.			30.05	763.3	18	— 7.8	84	N	3	1.3		8	0	W		0	0		
Yankton, D. T.			29.93	760.2	14	—10.0	82	SE	3	1.3			10			0.01	0.3		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.	.....	.....	30.13	765.3	81	27.2	.....	SE	2	0.9	.....	5	2	E	.....	0	0	.....	
Point-a-pitre, G'd'loupe, "	.....	.....	29.99	761.7	71	21.7	.....	E	.....	.....	.....	5	0	.....	.....	0.4	10.2	.....	
Havana, Cuba, W. I.	.....	.....	29.89	759.2	70	21.1	75	S	2 4	1.1	.....	0	0	.....	.....	0	0	.....	
Kingston, Jamaica, W. I.	.....	.....	30.26	768.6	72	22.2	.....	Calm	0	0	.....	0	0	.....	.....	0	0	.....	
St. Thomas, W. I.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Santiago de Cuba, , W. I.	.....	.....	29.91	759.7	73	22.8	81	Calm	0	0	.....	8	0	S	.....	0	0	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Georges, Bermudas	.....	.....	29.96	761.0	59	15.0	88	S	.....	.....	.....	0	10	.....	.....	0.400	10.16	.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Honolulu, Sandwich Is.	.....	.....	30.04	763.0	59	15.0	94	NW	2	0.9	.....	7	5	.....	.....	0	0	.....	
Makawao, Sandwich Is.	27.83	706.9	.....	.....	55	12.8	74	N	.....	.....	2.5	0	3	.....	.....	0.25	6.3	Stormy	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	29.63	752.6	—14	—25.6	.....	W	7	3.1	.....	10	0	N	.....	0	0	.....	C. Partridge.
Clifton, Jamaica, W. I.	.....	.....	30.12	765.0	55	12.8	.....	NE	5	2.2	.....	0	0	.....	.....	0	0	.....	John Delaney.
St. Johns, Newfoundland	.....	.....	29.76	755.6	26	— 3.3	100	S	.....	.....	.....	0	10	.....	.....	0	0	Snow	Leon M. Acuña.
St. Johns, Porto Rico, W. I.	.....	.....	30.13	765.4	73.9	23.3	83	SW	.....	.....	2	2	5	.....	.....	0	0	.....	H. M. Redington.
Ellyria, Ohio	29.19	749.0	.....	.....	— 9	—22.8	59	SW	3	1.3	.....	0	0	.....	.....	0	0	.....	G. C. Carpenter.
Indianola, Iowa	29.24	742.7	.....	.....	7	—13.9	.....	S	.....	.....	.....	0	10	.....	.....	0	0	.....	

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —19° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.95	760.7															Charnot.
Algiers			29.77	756.2	50.0	10.0	83	NNW			5		10			1.154	29.3	Rain	Peter.
La Calle			29.45	748.0															Kuntz.
Tunis			29.83	745.0	59.5	15.3	64	NW			4		7			1.217	5.5	Threatening	Jacques.
Sfax																			Chauvey.
Saida			29.89	759.1	55.4	13.0		W			4		8			0.079	2.0		Grosjean.
Tebessa			29.51	750.2															Colin.
Geriville			29.87	758.6	46.4	8.0		NNW			4		8			0	0		Bernadach.
Laghouat			29.84	755.4	41.7	5.4	35	NW			6		5			0	0		Poinsignon.
Biskra			29.65	753.1														Threatening	Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.20	767.2	23.2	— 4.9	92	NE			3		10			0.343	8.7	Snow	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.42	772.6	25.2	— 3.8	47	NE			3		10			0	0		I. R. Observatory.
Eperies			30.36	771.1	38.8	3.8	82	NE			2		10			0	0		Julius Mikolik.
Gratz			30.27	768.8	27.3	— 2.6	72	S			2.5		10			0	0		Andreas Rospini.
Hermannstadt			30.32	770.2	24.1	— 4.4	84	ENE			1		3			0	0		Prof. Reissenberger.
Kremsmünster			30.03	762.8	25.2	— 3.8	82	E			8		10			0	0		Prof. C. Wagner.
Lemberg			30.39	771.8	24.3	— 4.3	88	N			2		10			0.110	2.8		Dr. T. Stanecki.
Nyiregyhaza			30.35	770.8	22.3	— 5.4	90	NW			1		0			0	0		Habzsada Daniel.
Pola			29.77	756.1	35.6	2.0	82	E			7		10			0	0		I. R. Hydrographic Office
Szegedin			30.30	769.7	19.4	— 7.0	89	E			2		8			0	0		Karl Stancel.
Trieste			29.83	757.6	36.4	2.2	53	ENE			8		10			Blank	Blank		Prof. V. Favoitt.
Vienna			30.28	769.0	25.9	— 3.4	68	SSE			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.

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.
Brussels	29.86	758.4			30.9	— 0.6	80	E			1		10	NE		0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.47	773.9	36.5	2.5		E	25	11.2			10			0.070	1.78	Snow	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.38	771.6	40	4.4		E			3		5					Mist	William McNeil.
Armagh Observatory			30.34	770.6	38.4	3.6		ENE	12	5.4			5						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.28	769.1	35.8	2.1		ENE			3		10						The Liverpool Obs.
Birr Castle			30.27	768.8	42.6	5.9		SE			1		4						J. Dreyer.
Bradford			30.22	767.6	35.1	1.7		NE			1		10					Snow	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.16	766.1	33.0	0.6		N			2		10			Blank	Blank	Snow	H. Todd.
Cape Town, Cape Colony			29.76	755.9	88.4	31.3		SE			2		9						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.81	757.2			84.0	28.9	34	SSW	20	8.9			10						The Royal Observatory.
Cardington			30.20	767.1	33.0	0.6		NE					10					Snow	John McLaren.
Carlisle			30.32	770.1	34.5	6.9		NE					10			0.06	1.5		T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759.4	78.0	25.6		NE			1		10						Sgt. W. F. Hopkins
Dartmoor			30.15	765.8	27.8	−2.3		NE			3		10						R. E. Power.
Donaghadee			30.34	770.6	38	3.3		ESE			5		5						J. Mac Gowan, Jr.
Dover			30.08	764.0	36	2.2		NE			5		7						J. Costello.
Dublin																			
Durham Observatory			30.31	769.9	35.1	1.7		ENE					10			Blank	Blank		G. Goldney.
Eccles, (near Manchester)			30.30	769.6	35.2	1.8		NE	2.0	0.9			10						Thomas Mackereth.
Falmouth Observatory			30.15	765.8	36.0	2.2		NE	23	10.3			9						The Falmouth Obs.
Fort Napier, (Natal)			29.94	760.5	71.0	21.7		N			1		10			Blank	Blank	Light rain	Pvt. G. Salmon.
Galway			30.18	766.6	35	7.2		NE			4		10						Queen's College.
Gibraltar, (Mediterranean)			30.01	762.2	57.2	14.0		W			4		3						Sgt. J. Browster.
Glasgow Observatory			30.39	771.9	37.0	2.8		NE			3		10						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.16	766.1	32	0.0		ENE			5		10			Blank	Blank	Snow	G. T. Watson.
Greenwich Royal Obs			30.13	765.3	33.7	0.9		NNE			2		10			Blank	Blank	Snow	The Royal Observatory.
Guernsey			30.07	763.8	36.5	2.5		NE			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.24	768.1	33.5	0.8		ENE					10			Blank	Blank	Snow	Moorside Observatory.
Halifax, (Nova Scotia)			30.26	768.6	−1.0	−18.3		NW			1		9					Mist	Corp'l J. Y. Thompson.
Helston			30.11	764.8	40	4.4		NE			4		6						W. B. Moyle.
Holyhead			30.27	768.8	37	2.8		ENE			3		6			Blank	Blank		John Tilston.
Hull Park																			
Kew Observatory			30.15	765.8	34.7	1.5		NNE	17	7.6			10						The Met. Office.
Kingstown			30.31	769.9	39	3.9		E			3		5						George Mitchell.
Lampeter																			
Leicester			30.21	767.3	33.4	0.8		NE			1		10			Blank	Blank	Snow	William J. Harrison
Llandudno			30.28	769.1	36.0	2.2		E					10						Dr. James Nicol.
Malta, (Mediterranean)			29.54	750.3	63.0	17.2		SE			2		10						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.45	773.4	38	3.3		Calm			0		6						William D. Penny.
Nassau, (Bahamas)			30.02	762.5	72.0	22.2		NW			1		3						Surgeon I. Jameson.
North Shields			30.35	770.9	42	5.6		E			3		7						John Wm. Irvine.
Nottingham			30.24	768.1	34.2	1.2		NNE			4		10		NNE	Blank	Blank	Snow	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.22	767.6	32.0	0.0		NNE			3		10			Blank	Blank	Light snow	St. Mary's College.
Oxford, Radcliffe Obs			30.16	766.1	34	1.1		N			1		10			Blank	Blank		Radcliffe Observatory.
Plymouth			30.16	766.1	34.5	1.4		NE			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.20	767.1	38	3.3		ESE			5		10						W. Kennedy.
Saint Ann's Head			30.23	767.8	35	1.7		ENE			3		9						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.52	775.2	37.4	3.0		SE	17	7.6			10			Blank	Blank	Rainy	Rev. Dr. Clouston.
Scarboro'			30.29	769.4	38.3	3.5		E			2		10						F. Heard.
Scutari, (Turkey)			30.21	767.3	47.0	8.3		NE			2		9			Blank	Blank	Rainy	W. H. Lyne.
Sheffield			30.25	768.3	35.4	1.9		NNE			2		10			Blank	Blank	Snow	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.33	770.4	37.8	3.2		NNE			4		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.14	765.5	32.1	0.1		NE			1		10			Blank	Blank	Snow	Rev. C. J. Steward.
Stonyhurst Observatory			30.27	768.8	35.0	1.7		NE			2		10						Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.40	772.1	41	5.0		SE			3		10						John Smith.
Strathfield Turgiss			30.14	765.5	33.6	0.9		NE			1		10			Blank	Blank	Rain	Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.54	775.7	42	5.6		SSE			3		5						William Lawrence.
Taunton College																			
Thurso			30.49	774.4	38	3.3		SSE			1		8						John Trotter.
Truro, Royal Institution			30.11	764.8	41	5.0		NE			4		6						Royal Institution.
Valencia			30.19	766.8	42.0	5.6		SE	15	6.7			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.12	765.0	33.7	0.9		NNE			1		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 Cape 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			30.60	774.7	29.7	−1.3	82	ENE			2		10						
Fanöe			30.43	772.9	29.8	−1.2	80	ESE			4		10						
Godthaab, (Greenland)			29.34	744.9	14.0	−10.0		E			6		0						
Stykkisholm, (Iceland)			30.24	768.1	36.0	2.2	82	S			2		6						
Thorshavn, (Faröe)			30.44	773.1	42.7	5.9	90	S			4		5						
Vestervig			30.48	774.3	28.8	−1.8	96	E			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.21	767.2	4[illegible].8	7.1	77						10						Normal School.
Alençon			30.01	762.3	33.8	1.0	82	NE			3		8		NNE	0	0		Normal School.
Amiens			30.06	763.5	36.0	2.2	85	NE			0		2		E	0	0		Normal School.
Beaumette, (near Angers)			29.99	761.7	35.4	1.9	88	N	4.9	2.2			10		NNE	0	0		Beaumette Observatory.
Beauvais			30.05	763.3	32.4	0.2	93	ENE			3		8		ENE	0	0		Normal School.
Besançon			29.95	760.6	34.2	1.2	78	NE			2		0			0	0		Normal School.
Bourges			29.97	761.3	35.1	1.6	89	NNE			4		5		NNE	0	0		Normal School.
Brest			30.01	762.3	37.6	3.1	83	NNE			3		10		NNE	0.059	1.5	Rain & snow	Naval Observatory.
Caen			30.08	763.9	35.6	2.0	71	NE			2		5		N	0	0		Normal School
Carcassonne																			
Chartres			30.01	762.3	32.5	0.3		N			2		8		N	0	0		Normal School.
Chaumont			29.94	760.5	31.3	— 0.4		NE			3		3		NE	0	0		Normal School.
Le Mans			30.02	762.5	33.3	0.7	72	E			3		5		E	0	0		Normal School.
Mirecourt			29.81	757.2	35.8	2.1		N			4		2		E	0	0		Normal School.
Orleans			29.91	759.7	33.4	0.8	57	NE			3		8		NE	0	0		Normal School.
Paris			29.98	761.6	33.3	0.7	62	N			3		8		NNE	0	0	Fog	National Observatory.
Parthenay																			
La Roche sur Yon			30.06	763.4	37.0	2.8	86	NW			2		10		SE	0	0		Normal School.
Rouen			30.04	762.9	35.1	1.7	73	N			0		2		N	0	0		Normal School.
Saint Lo			30.06	763.5	44.2	6.8	39	E			3		10		E	0.051	0.3		Normal School.
Villefranche			29.87	758.8	37.9	3.3	90	NNW			2		10			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Gorée, (Senegambia)			29.92	759.8	68.5	20.3	5[illegible].9	NNE			4		1			0	0		Père Pascall.
Mont-Louis	24.48	621.7			21.4	— 5.9	70	N	18.6	8.33			2			0.004	0.1		—. Faiguère.
Montsouris (near Paris)			29.98	761.6	32.7	0.4	66	N	6.5	2.89		9		NNE		0	0		Marié Davy.
Perpignan	29.98	753.8			41.5	5.3	40	NW	22.5	10.06			1		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.99	761.7	33.8	1.0	75	NE			2		1			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.00	761.9	33.3	0.7	78	NW			1		10		N	0	0		C. Marquet.
Versailles, (near Paris)			29.95	761.0	24.2	1.2	93	NE			3		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.11	764.9	28.2	— 2.1	82	E			4		7			0	0		Prof. Hoh.
Berlin			30.63	777.7	25.7	— 3.5	84	E			2		8			0	0		Prof. Arndt.
Breslau			30.41	772.3	23.9	— 4.5	89	E			2		6			0	0		Dr. P. Neugebauer.
Carlsruhe			30.01	762.2	23.9	— 4.5	80	NE			2.5		10			0	0		A. Lenz.
Cassel			30.14	765.5	29.8	— 1.2	70	NE			2		6			0	0		Dr. H. Mohl.
Cologne			30.11	764.8	29.3	— 1.5	94	E			2		5			0	0		Dr. Gaithe.
Emden			30.36	771.1	3[illegible].0	— 1.1	66	NE			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.16	766.0	[illegible]9.1	— 1.6	68	NE			3		9			0	0		Physical Society.
Friedrichshafen			29.98	761.6	21.2	— 6.0	100	N					10			0	0		M. Wilhelm.
Hamburg			30.39	771.8	28.4	— 2.0	67	E			5		4			0	0		W. Reinart.
Kiel			30.40	772.2	26.6	— 3.0	73	E			4		10			0	0		Prof. G. Karsten.
Königsberg			30.56	776.3	26.8	— 0.2	68	SE			2		0			0	0		Prof. E. Luther.
Köslin			30.76	781.2	27.3	— 2.6		E			2		10			0	0		Dr. Tägert.
Leipsic			30.26	768.5	25.5	— 3.6	76	E			4		3			0	0		Prof. Bruhns.
Münster			30.17	766.2	29.3	— 1.5	87	NE			2		0			0	0		Prof. E. Heis.
Posen			30.49	774.4	25.7	— 3.5	78	S			3–4		6			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.98	761.5	26.1	— 3.3	78	NW					5			0	0		Hartwig and Fulk.
Stuttgart			30.00	761.9	26.4	— 3.2	65	NE					10			0	0		Mr. Wurth.
Thorn			30.50	774.6	26.6	— 3.0	82	E			4		1			0	0		Dr. Hagenbalg.
Treves, (Trier)			29.95	760.7	26.4	— 3.1	65	NE			5		2			0	0		Prof. Flesch.
Wustrow			30.48	774.3	24.4	— 4.2	88	NE			4		10			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	34.5	1.4	87	N			2		10			Blank	Blank		
Mondovi			29.91	759.7	29.1	— 1.6	94	NW			2		10			0.236	6.0	Snow	
Genoa			29.87	758.8	30.2	4.0	97	N	8.1	3.61			10			0	0		
Pavia			29.89	759.3	34.2	1.2	83	E			4		10			0.236	6.0	Snow	
Verona																			
Padua			29.84	758.0	30.4	— 0.9	96	NE	26.0	16.11			10			0	0	Snow	
Parma																			
Bologna			29.91	759.6	32.7	0.4	71	NW			6		10			0	0		
Livorno			29.58	751.4	35.1	1.7	94	ENE	18.6	8.33			10			0.142	3.6	Rain & snow	
Urbino			29.74	755.4	35.8	2.1	94	N			2		10			0	0		
Ancona																			
Siena			29.61	752.0	39.7	4.3	95	NNW					10	E		0.059	1.5	Rain	
Rome			29.52	749.7	59.4	15.3	53	SSE			6		10	SSE		0	0		
Naples, O.U.			29.57	751.1	61.9	16.6	47	S			6		10	S		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.93	760.1	54.7	12.6	77	SSE	47.2	21.11			10			0	0		
Cosenza			29.72	754.9	51.8	11.0	73	WNW			2		10			0	0		
Catania, (Sicily)			29.64	752.8	57.6	14.2	80	SSE					8	SE		0	0		
Riposto																			
Palermo			29.38	746.3	62.1	16.7	85	S			4		10			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.13	765.2	32.7	0.4		ENE			4								
Groningen			30.19	766.7	28.6	— 1.9		E			5								
Helder			30.18	766.6	28.4	— 2.0		E ⅛ E			4								
Utrecht			30.09	764.2	30.7	— 0.7		ENE			4		5						

NOTE.—The originals give the force 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.

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.
Bergen			30.54	775.6	33.4	0.8	65	Calm	0	0			5			0	0		
Christiania			30.65	778.6	30.2	— 1.0	63	E	5.4	2.4			2			0	0		
Tromsö			30.29	769.3	36.7	2.6	91	S			2		10			Blank	Blank		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.73	755.1			50.7	10.4	42	NNW	8.7	3.9			8						

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.47	773.8	27.7	— 2.4	92	ENE	4.5	2			0						Astronomical Obs.
Wilna			30.57	776.4	19.9	— 6.7	69	E	4.5	2			0						Astronomical Obs.
Dorpat			30.70	779.8	10.9	—11.7	85	NE	2.2	1			0						Physical Cabinet.
St. Petersburg			30.60	777.3	17.1	— 8.3	97	W	6.7	3			10					Light snow.	Central Physical Obs.
Kieff			30.44	773.1	20.8	— 6.2	90	NE	4.5	2			10						Physical Cabinet.
Nikolajev			30.37	771.3	28.4	— 2.0	84	NW	4.5	2			10						
Kertch			30.28	769.0	46.9	8.3	73	SE	7.8	3.5			5						Lagorio.
Moscow			30.78	781.9	— 1.5	—18.6	71	S	7.8	3.5			0						Meteorological Obs.
Lugan			30.34	770.7	22.5	— 5.3	68	E	16.8	7.5			10						Meteorological Obs.
Archangel			30.02	762.6	23.0	— 5.0	95	W	20.1	9			10					Snow-drift	Ogorodnikof.
Tiflis			30.20	767.1	47.7	8.7	44	NW	10.1	4.5			5						Physical Obs.
Astrakhan			30.50	774.8	31.6	— 0.2	60	E	4.5	2			10						Sebastianof.
Kasan			30.77	781.5	— 7.2	—21.8	70	S	4.5	2			0						Physical Cabinet.
Orenburg			30.88	784.0	— 7.2	—21.8	100	Calm	0	0			0						Tschernischef.
Ekaterinburg			30.54	775.6	0.7	—17.4	68	W	24.6	11			1						Meteorological Obs.
Kasaly			30.34	770.7	15.8	— 9.0	66	Calm	0	0			0						Bobrof.
Tashkend			30.32	770.2	42.4	5.8	88	N	7.8	3.5			10						Michelson.
Barnaul			30.63	778.1	—26.1	—32.3	69	SW	7.8	3.5			2						Meteorological Obs.
Yeniseisk			30.05	763.2	3.9	—15.6	75	S	10.1	4.5			1						Marks.
Irkutsk			30.28	769.2	— 0.9	—18.3	86	Calm	0	0			0						Usolzof.
Oorga			30.42	772.6	6.6	—14.1	100	Calm	0	0			9						Mossin.
Peking (China)			30.35	770.8	26.6	— 3.0	59	Calm	0	0			3						Physical Observatory
Nertchinsk			30.38	771.6	— 9.0	—22.8	80	Calm	0	0			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					6.1	—14.4		NW	7.8	3.5			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.

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.
Madrid			29.07	761.2	43.3	6.3	42	NW	13.4	6.0			8			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.46	773.7	28.4	— 2.0	100	WSW			2		10			0	0		Dr. Hildebrandsson.
Hernosand			30.55	775.9	28.4	— 2.0	84	W			2		9			0	0		
Upsala			30.66	778.8	12.2	—11.0	98	Calm			0		0						
Stockholm			30.62	777.8	18.0	— 7.8	94	ESE			1		10			0	0		
Wisby			30.63	777.9	21.5	— 1.4	100	SE			4		0			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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	28.41	721.5			31.5	— 0.3	71	NNE			2		9			0	0		The Observatory.
Zurich	28.22	716.9			24.6	— 4.1	87	NE			1		10			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —4.7mm.; Thermometer, —4°.4 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.

Beirut, (Syria)			30.18	766.5	60.1	15.6	58	N			2		0			Blank	Blank		
Constantinople			30.20	767.0	44.8	7.1	74	NNE	12.3	5.			10		NW	Blank	Blank	Light rain	
Fao, (Persian Gulf)			30.19	766.7	63.0	17.7		NW			4		5			Blank	Blank		
Salonica			29.13	765 2	49.3	9.6		E			2		10						
Valona			29.84	757.8	62.4	16.9		SE			4		10						
Varna			30.24	768.0	37.4	3.0		W			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			30.03	762.7	4	—15.6	87	W	17	7.6		2	2	W	W	0	0		
Chatham, N. B.			30.14	765.5	— 3	—19.4	83	SW	5	2.2		2	0	SW		0	0		
Charlottetown, P. E. Island			30.23	767.8	1	—17.2	100	S	4	1.8		2	3			0	0		
Father Point, Quebec			29.97	761.2	4	—15.6	74	W	8	3.6		8	0	W		0	0		
Fort Garry, Manitoba			29.71	754.6	— 6	—21.1	96	SW	2	0.9		5	5	SW	SW	0	0		
Halifax, N. S.			30.22	767.6	— 2	—18.9	77	Calm	0	0		2	0	S		0	0		
Kingston, Ontario			30.44	773.2	5	—15.0	88	Calm	0	0		0	0			0	0		
Montreal, Quebec			29.98	761.5	4	—15.6	69	S	19	8.5		5	2	W		0	0		
Ottawa, Ontario			29.95	760.7	0	—17.8	85	NE	2	0.9		5	5	W		0	0		
Parry Sound, Ontario			29.84	757.2	6	—14.4	84	SE	9	4.0			10		SW	0.02	0.5		
Port Dover, Ontario			29.85	758.2	11	—11.7	90	E	8	1.3		10	0	W		0	0		
Port Stanley, Ontario			29.86	758.4	12	—11.1	90	NE	6	2.7			10			0.02	0.5	Light snow	
Quebec, Quebec			30.07	763.8	— 6	—21.1	61	Calm	0	0		0	0			0	0		
Saugeen, Ontario			29.81	757.2	9	- 12.8	90	SE	4	1.8			10			0	0	Light snow	
Sydney, C. B.			30.29	769.4	— 5	—20.6	93	SW	1	0.5		8	0			0	0		
Toronto, Ontario			29.88	758.0	10	—12.2	89	NW	1	0.5			10			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	15	— 0.4	65	S	12	5.4		5	5			0	0		
Alpena, Mich.			29.73	755.1	9	—12.8	78	SW	1	0.4			10			0.01	0.3		
Atlantic City, N. J.			30.11	764.8	26	— 3.3	88	NE	8	3.6			10			0	0		
Augusta, Ga.			29.97	761.2	43	6.1	75	SE	3	1.3			10		SE	0	0		
Baltimore, Md.			30.09	764.3	23	— 5.0	87	Calm	0	0			10			0	0	Light snow.	
Barnegat, N. J.			30.08	764.0	25	— 3.9	77	E	3	1.3			10			0	0		
Benton, Montana			29.91	759.7	35	1.7	90	SW	8	3.6			10			0.08	2.0		
Bismarck, Dakota			29.58	751.3	18	— 7.8	84	NW	10	4.5			10		N	0.01	0.3	Threatening	
Boston, Mass.			30.17	766.3	19	— 7.2	69	SW	7	3.1			10		SW	0	0		
Breckenridge, Minn.			29.79	756.7	8	—13.3	90	Calm	0	0			10			0.05	1.3		
Buffalo, N. Y.			29.84	757.9	15	— 9.4	65	SE	2	0.9		Haze	Sm'e			0	0		
Burlington, Vt.			30.00	762.0	12	—11.1	61	S	8	3.6		5	5			0	0		
Cairo, Ill.			29.74	755.4	35	1.7	80	E	1	0.4			10			0	0	Threatening	
Cape Hatteras, N. C.			29.98	761.5	43	6.1	100	NE	12	5.4			10		NE	0.05	1.3	Light rain	
Cape Henry, Va.			30.05	763.3	33	0.6	89	E	5	2.2			10		E	0	0		
Cape May, N. J.			30.17	766.3	25	— 3.9	75	NE	6	2.7			10			0	0		
Charleston, S. C.			29.98	761.5	41	5.0	91	N	4	1.8			10		N	0.02	0.5		
Cheyenne, W. T.			29.62	752.3	22	— 5.0	85	NW	12	5.4			10			0	0	Threatening	
Chicago, Ill.			29.67	753.6	22	— 5.6	72	SW	3	1.3			10			0.01	0.3	Threatening	
Cincinnati, Ohio			29.75	755.6	32	0.0	89	SE	4	1.8			10		SE	0.26	6.7	Light snow	
Cleveland, Ohio			29.72	754.9	18	— 7.8	100	S	12	5.8			10			0.02	0.5	Light snow	
Colorado Springs, Col.			29.61	752.1	10	—12.2	100	SE	4	1.8			10			0.16	4.1		
Corsicana, Texas			29.69	754.1	51	10.6	93	S	3	1.3			10		S	0	0		
Davenport, Iowa			29.72	754.9	17	— 8.3	100	SW	2	0.9			10			0.02	0.5		
Denver, Col.			29.68	753.9	25	— 3.9	62	Calm	0	0			10			0	0		
Detroit, Mich.			29.72	754.9	15	— 9.4	82	SE	4	1.8			10			0.01	.3	Light snow	
Dodge City, Kansas			29.88	758.9	24	— 4.4	87	N	20	8.9			10			0.01	0.3	Threatening	
Dubuque, Iowa			29.79	756.7	13	—10.6	90	SE	4	1.8			10			0.11	2.8	Light snow	
Duluth, Minn.			29.69	754.1	10	—12.2	79	NW	8	3.6			10			0.02	0.5		
Eastport, Me.			30.19	766.8	12	—11.1	61	Calm	0	0		10	0	SW		0	0		
Erie, Penn.			29.79	756.7	19	— 7.2	84	SE	20	8.9			Haze			0	0		
Escanaba, Mich.			29.70	754.4	8	—13.3	56	Calm	0	0			01			0.11	2.8		
Fort Gibson, I. T.			29.71	754.6	34	1.1	90	N	5	2.2			10			0.05	1.3		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.89	759.2	12	—11.1	61	NW	16	7.2			10		NW	0	0		
Galveston, Texas			29.69	754.1	56	13.3	100	E	3	1.3			Fog			0.07	1.8	Threatening	
Grand Haven, Mich.			29.67	753.6	17	— 8.3	75	Calm	0	0			10			Blank	Blank	Light snow.	
Indianapolis, Ind.			29.68	753.9	29	— 1.7	89	S	2	0.9			10		S	0.11	2.8	Threatening	
Indianola, Texas			29.68	753.9	56	13.3	100	N	6	2.7			10		N	1.11	2.8	Light rain	
Jacksonville, Fla.			29.95	760.7	52	11.1	86	N	4	1.8			10			0	0		
Keokuk, Iowa			30.69	754.1	21	— 6.1	85	SW	2	0.9			10		SW	0.08	2.0	Threatening	
Key West, Fla.			29.99	761.7	74	23.3	85	S	5	2.2		Haze	Haze			0	0		
Kittyhawk, N. C.			30.03	762.7	38	3.3	100	S	5	2.2			10			0.02	0.5	Light rain	
Knoxville, Tenn.			29.85	758.2	34	1.1	79	E	3	1.3			10		SW	0.01	0.3		
La Crosse, Wis.			29.72	754.9	17	— 8.3	83	S	3	1.3			10		S	0.23	5.8	Light snow	
Leavenworth, Kan.			29.82	757.4	19	— 7.2	83	NW	6	2.7			10		NW	0.40	10.2		
Lexington, Ky.			29.75	755.6	33	0.6	80	S	18	8			10		S	0.06	1.5		
Long Branch, N. J.			30.12	765.0	25	— 3.9	87	SE	1	0.4			10			0	0		
Louisville, Ky.			29.73	755.1	33	0.6	80	Calm	0	0			10			0.03	0.8	Threatening	
Lynchburg, Va.			30.08	764.0	24	— 4.4	93	Calm	0	0			10			0.92	23.4	Heavy snow.	
Malone, N. Y.																			
Marquette, Mich.			29.68	753.9	17	— 8.3	67	W	4	1.8			10		W	0	0		
Memphis, Tenn.			29.76	755.9	42	5.6	60	S	1	0.4		2	5			0	0		
Milwaukee, Wisconsin			29.71	754.6	16	— 8.9	83	W	4	1.8			10			0.03	0.8	Light snow.	
Mobile, Ala.			29.87	758.7	52	11.1	86	SW	5	2.2			10		SW	0.02	0.5		
Montgomery, Ala.			29.87	758.7	51	10.6	83	Calm	0	0			10			0	0		
Morgantown, W. Virginia			29.88	757.7	25	— 3.9	87	S	1	0.4			10			0	0	Light snow	
Mt. Washington, N. H.			29.69	754.1	— 1	—18.3	100	SW	24	10.7		8	0	SW		0	0		
Nashville, Tenn.			29.76	755.9	42	5.6	83	SE	1	0.4		5	5	W		0.06	1.5		
New Haven, Conn.			30.15	765.8	15	— 9.4	65	N	3	1.3		5	2	N	N	0	0		
New London, Conn.			30.17	766.3	13	—10.6	71	N	6	2.7			10			0	0		
New Orleans, La.			29.82	757.4	50	10.0	89	E	5	2.2			10		E	0.38	9.7	Light rain	
Newport, R. I.																			
New York, N. Y.			30.12	765.0	21	— 6.1	85	E	8	3.6			Fog			0	0	Fog	
Norfolk, Va.			30.05	763.3	31	— 0.6	79	E	2	0.9			10			0	0		
North Platte, Neb.			29.52	749.8	21	— 6.1	71	NE	2	0.9		5	2	W	W	0.03	.8		
Omaha, Neb.			29.81	757.2	19	— 7.2	92	NW	12	5.4			10		NW	0	0		
Oswego, N. Y.			29.94	760.5	10	—12.2	83	SE	10	4.5			10			0	0		
Peck's Beach			30.12	765.0	22	— 5.6	85	NE	6	2.7			10			0	0		
Pembina, D. T.			29.64	752.8	10	—12.2	89	NW	16	7.2			10			0	0		
Philadelphia, Penn.			30.12	765.0	18	— 7.8	84	E	3	1.3			10		E	0	0		
Pike's Peak, C. T.			29.39	746.5	— 9	—22.8	100	N	18	8.0			Fog			0.11	2.8	Fog	
Pittsburgh, Penn.			29.84	757.9	14	—10.0	81	NW	1	0.4			10			0.09	2.3	Light snow	
Port Huron, Mich.			29.75	755.6	12	—11.1	100	SE	5	2.2			10			0.03	0.8	Light snow	
Portland, Maine			30.19	766.8	8	—13.3	78	W	3	1.3		5	Haze			0	0		
Portland, Or.			30.36	771.1	30	— 1.1	90	Calm	0	0			Fog			0	0	Fog	
Punta Rassa, Fla.			29.96	761.0	71	21.7	95	S	9	4.0			10		S	0	0		
Rochester, N. Y.			29.89	759.2	13	—10.6	81	SE	8	3.6			10			0.01	0.3		
Salt Lake City, Utah			30.01	762.2	33	10.6	69	Calm	0	0			10			0	0		
Sandy Hook, N. J.			30.11	764.8	24	— 4.4	87	W	1	0.4			10		W	0	0		
San Diego, Cal.			30.13	765.3	48	8.9	85	NE	4	1.8			10			0	0		
San Francisco, Cal.			30.16	766.1	49	9.4	85	SW	4	1.8			10			0	0		
Santa Fe, N. M.			29.39	746.5	23	— 5.0	60	N	4	1.8		0	5			0	0		
Savannah, Georgia			29.94	760.5	43	6.1	91	NE	4	1.8			Fog			0	0	Fog	
Shreveport, La.			29.77	756.1	50	10.0	93	SE	4	1.8			10		SE	0.01	0.3	Light rain	
Springfield, Mass.			30.17	766.3	7	—13.9	65	NW	4	1.8			10			0	0		
St. Louis, Mo.			29.74	755.4	32	0.0	78	NW	4	1.8			10			0.36	9.1		
St. Marks, Fla.			29.90	759.4	53	11.7	93	SE	2	3.6			10		SE	0	0		
St. Paul, Minn.			29.65	753.1	10	—12.2	79	NW	5	2.2			10		S	0.13	3.3		
St. Paul's Island, Alaska			29.65	753.1	36	2.2	90	E	29	13.0			10			0.09	2.3		
Squan Beach, N. J.			30.10	764.5	24	— 4.4	75	E	3	1.8			10			0	0		
Toledo, Ohio			29.65	753.1	19	— 7.2	69	E	2	0.9			10		E	0.10	2.5	Light snow	
Tybee Island, Ga.			29.98	761.5	46	7.8	100	N	4	1.8			10		N	0	0	Fog	
Vicksburg, Miss.			29.87	758.7	47	8.3	92	Calm	0	0			10			0	0	Threatening	
Virginia City, Mon.			29.66	753.4	27	— 2.8	88	Calm	0	0			10			0.45	11.4		
Washington, D. C.			30.09	764.3	21	— 6.1	72	SE	3	1.3			10			0.03	0.8	Light snow.	
Wilmington, N. C.			29.99	761.7	32	0.0	79	NE	8	3.6			10			0.08	2.0		
Wood's Hole, Mass.			30.17	766.3	24	— 4.4	74	SE	9	4.0			10			0	0		
Wytheville, Va.			29.74	755.4	25	— 3.9	65	E	4	1.8			10			0	0		
Yankton, D. T.			29.89	759.2	11	—11.7	80	NW	6	2.7			10		NW	0.01	0.3		

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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		NE	2	0.9		0	8			0	0		
Point-a-pitre, G'd'loupe, "			29.99	761.7	73	22.8		E				0	2			0	0		
Havana, Cuba, W. I.			29.81	757.2	70	21.1	81	S	2.4	1.1		2	0	SW		0	0		
Kingston, Jamaica, W. I.			30.18	766.6	73	22.8		Calm		0		2	0	SE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.86	758.4	72	22.2	74	NW	2.4	1.1		0	0			0	0		
St. Georges, Bermudas			30.08	764.0	61	16.1	89	NE				8	8	NW		0.235	5.97		
Honolulu, Sandwich Is.			30.00	762.0	58	14.4	76	NW	1	0.4		0	0			0	0		
Makawao, Sandwich Is.	27.62	701.5			52	11.1	93	NW			1		10			0.30	7.6	Stormy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.63	752.6	—21	—29.4		N	16	7.2		10	0	W		0.01	2.5		C. Partridge.
Clifton, Jamaica, W. I.			30.08	764.0	60	15.6		N	4	1.8		0	1			0	0		John Delaney.
St. Johns, Newfoundland			30.35	770.9	11	—11.7	100	W				0	0			0	0		Leon M. Acuña.
St. Johns, Porto Rico, W. I.			30.07	763.8	73.9	23.3	79	SE			1	1	0	W		0	0		H. M. Rodington.
Ellyria, Ohio	28.92	734.6			19	— 7.2	69	SW	9	4.0		0	10			0	0		G. C. Carpenter.
Indianola, Iowa	28.95	735.3			16	— 8.9		NW				0	10			0	0		

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			30.12	765.0															Charnot.
Algiers			29.97	761.3	57.9	14.4	40	W			1		2			0	0		Peter.
La Calle			29.76	756.0															Kuntz.
Tunis			29.65	753.1	50.0	10.0	64	NW			6		10			0.153	3.9		Jacques.
Sfax																			Chauvey.
Saïda			30.11	764.9	50.0	10.0		W			3		6			0	0		Grosjean.
Tebessa			29.84	757.8															Colin.
Guelville			30.11	754.8	46.4	8.0		S			1		3			0	0		Bernadach.
Laghouat			30.04	763.1	52.7	11.5	30	NW			3		2			0	0		Poinsignon.
Biskra			29.95	760.8															Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.17	766.2	20.7	– 2.4	85	NE			2		10			0.070	1.8	Snow	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.36	770.8	23.4	– 4.8	60	NE			3		10			0	0		I. R. Observatory.
Eperies			30.27	768.8	40.8	4.9	76	NW			1		0			0	0		Julius Mikolik.
Gratz			30.20	767.0	30.4	– 0.9	89	S			2.5		10			0	0		Andreas Rospini.
Hermanustadt			30.21	767.4	19.4	– 7.0	83	ENE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			29.98	761.4	28.4	– 2.0	76	E			9		2			0	0		Prof. C. Wagner.
Lemberg			30.37	771.3	21.2	– 6.0	90	SE			3		10			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.24	768.1	27.3	– 2.6	92	NE			1		0			0	0		Habesuda Daniel.
Pola			29.78	756.4	47.1	8.4	47	ENE			5		9			0.022	0.56		I. R. Hydrographic Office
Szegedin			30.18	766.6	21.9	– 5.5	90	E			3		2			0	0		Karl Stancel.
Trieste			29.85	758.3	38.5	3.6	51	ENE			3		9			0	0		Prof. V. Farolfi.
Vienna			30.19	766.7	28.4	– 2.0	72	ESE			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.

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.
Brussels	29.80	756.9			34.3	1.3	67	SSE			1		7	ENE	SSE	0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.53	775.4	37.0	2.8		E	21	9.4			9			0.050	1.27	Squally.	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.36	771.1	38.0	3.3		ENE			4		8						William McNeil.
Armagh Observatory			30.20	767.1	37.0	2.8		NE	22	9.8			10					Threatening	Stillman Cail
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.13	765.3	35.0	1.7		ENE			6		10					Snow.	The Liverpool Obs.
Birr Castle			30.22	767.6	34.8	1.6		NNE			2		10						J. Dre er.
Bradford			30.15	765.8	35.5	1.9		NE			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.10	764.5	31.5	— 0.3		ENE			1		10			0.212	5.33	Snow	H. Todd.
Cape Town, Cape Colony			29 87	758.7	80	26.7		SE			2		7			Blank	Blank		Sgt. D. E. Hunt
Cape Good Hope Obs.	29.81	757.2			78.7	25.1	66	SE	14	6.3			9.5						Th Royal Observatory
Cardington			30.10	764.5	31.4	— 0.3		NE					10					Snow.	John McLaren.
Carlisle			30.27	768.8	36.6	2.6		E					10			0	0	Threatening	T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	79.2	26.2		Calm			0		9						Sgt. W. F. Hopkins
Dartmoor			30.13	765.0	28	— 2.2		E			1		10						R. E. Power.
Donaghadee			30.30	769.6	39	3.9		E			6		6						J. Mac Gowan, Jr.
Dover			30.02	762.5	33	0.6		ENE			4		6						J. Costello.
Dublin																			
Durham Observatory			30.30	769.6	34.9	1.6		ENE					10					Squally	G. Goldney.
Eccles, (near Manchester)			30.11	764.8	33.7	0.9		E	7.2	3.2			10					Light rain & mist	Thomas Mackereth.
Falmouth Observatory			30.04	763 0	35.4	1.9		E E	14	6.3			8						The Falmouth Obs.
Fort Napier, (Natal)			29.93	760.2	71.8	22.1		E			3		10						Pvt. G. Salmon.
Galway			30.22	767.6	36	2.2		N			2		1						Queen's College.
Gibraltar, (Mediterranean)			29.88	758.9	58.6	14.8		W			7		10					Thre tening	Sgt. J. Brewster.
Glasgow Observatory			30.38	771.6	36.9	2.7		ENE			6		10					Squally	The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.10	764.5	30	— 1.1		E			7		10			Blank	Blank	Snow.	G. T. Watson.
Greenwich Royal Obs			30.05	763.3	32.5	0.3		ENE			2		10			Blank	Blank	Snow.	The Royal Observatory
Guernsey			29.99	761.7	37.5	3.1		NNE			1		6			Blank	Blank		Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.15	765.8	34.5	1.4		ENE					10			Blank	Bla k	Snow.	Moorside Observatory.
Halifax, (Nova Scotia)			29.87	758.7	35.1	1.7		S			3		10			Blank	Blank	Rain	Corp'l J. Y. Thompson.
Helston			30.00	762.0	42	5.6		ENE			4		4						W. B. Moyle.
Holyhead			30.13	765.3	36	22.4		ENE			6		10			Blank	Blank	Snow.	John Tilston.
Hull Park																			
Kew Observatory			30.05	763.3	32.4	0.2		NE	12	5.4			10			Blank	Blank	Snow and fog	The Met. Office.
Kingstown			30.2	767.6	38	3.3		E			6		10			Blank	Blank	Rain	George Mitchell.
Lampeter																			
Leicester			30.12	765.0	30.8	0.7		E			2		10			Blank	Blank	Snow	William J. Harrison
Llandudno			30.15	765.8	34.2	1.2		E					10			Blank	Blank	Snow	Dr. James Nicol.
Malta, (Mediterranean)			29.65	753.1	53.0	11.7		NW			1		10			Blank	Blank	Rain	Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.54	775.7	38	3.3		E			1		7						William D. Penny.
Nassau, (Bahamas)			29.89	759.2	73.4	23.0		SE			3		6						Surgeon I. Jameson.
North Shields			30.35	770.9	38	3.3		ENE			6		9						John Wm. Irvine.
Nottingham			30.16	766.1	33.0	0.6		E N E			1		10		E N E	Blank	Blank	Snow.	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.11	764.8	29	— 1.7		ENE			3		10			Blank	Blank	Snow.	St. Mary's College.
Oxford, Radcliffe Obs			30.05	763.3	33	0.6		NE			1		10			Blank	Blank	Snow.	Radcliffe Observatory.
Plymouth			30.03	762.7	35	1.7		N			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.14	765.5	35	1.7		NE			5		10			Blank	Blank	Sleet	W. Kennedy.
Saint Ann's Head			30.05	763.3	36	2.2		ENE			3		7			Blank	Blank	Light rain	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.63	778.0	38.2	3.4		ESE	20	8.9			3			Blank	Blank		Rev. Dr. Clouston.
Scarboro'			30.28	769.1	35.0	1.7		ENE			4		10			Blank	Blank		F. Heard.
Scutari, (Turkey)			30.11	764.8	40.0	4.4		NE			3		9						W. H. Lyne.
Sheffield			30.16	766.1	35.5	1.9		ENE			4		10			Blank	Blank	Rain	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.29	769.4	37.0	2.8		ENE			6		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.10	764.5	31.0	— 0.6		NE			1		10			Blank	Blank	Snow.	Rev. C. J. Steward.
Stonyhurst Observatory			30.17	766.3	35.9	2.2		E			5		10			Blank	Blank	Snow.	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.53	775.4	39	3.9		E			3		4						John Smith.
Strathfield Turgiss			30.04	763.0	33.5	0.8		E			1		10			Blank	Blank	Rain & snow	Charles H. Griffith.
Streatley Vicarage			30.05	763.3	34.0	1.1		NW			2		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.59	777.0	39	3.9		ESE			1		2						William Lawrence.
Taunton College																			
Thurso			30.59	777.0	37	2.8		E			2		8						John Trotter.
Truro Royal Institution			29.99	761.7	41	5.0		NE			4		5						Royal Institution.
Valencia			30.20	767.1	38.9	3.8		ENE	20	8.9			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.04	763.0	35.0	1.7		NE			1		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 Cape 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			30.51	775.0	28.8	— 1.8	84	E			2		6						
Fanöe			30.45	773.5	31.6	— 0.2	79	E			6		1						
Godthaab, (Greenland)			29.95	760.7	10.9	—11.7		W			6		10						
Stykkisholm, (Iceland)			30.29	769.3	39.2	4.0	67	SE			7		10			Blank	Blank	Rain	
Thorshavn, (Faröe)			30.63	778.1	42.4	5.8	75	SSE			2		8						
Vestervig			30.52	775.2	26.6	— 3.0	87	ENE			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.

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.	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			29.65	753.0	40.3	9.6	71						10						Normal School.
Alençon			30.00	762.1	32.0	0.0	68	NE			2		5		NNE	0	0		Normal School.
Amiens			30.00	762.1	33.8	1.0	85	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.98	761.4	34.0	1.1	88		0.0	0.0			10		N	0	0	Light snow	Beaumette Observatory.
Beauvais			30.01	762.2	33.4	0.8	88	ENE			2		8		ENE	0	0		Normal School.
Besançon			30.02	762.4	31.3	— 0.4		SSW			2		8		SW	0.055	1.4		Normal School.
Bourges			30.03	762.7	33.4	0.8	94	NW			2		10		NW	0	0		Normal School.
Brest			29.91	759.8	40.1	4.5	83	E			1		10		E	0.12	0.3	Rain & snow	Naval Observatory.
Caen			30.01	762.2	35.2	1.8	86	W			1		10			0	0		Normal School.
Carcassonne																			
Chartres			30.00	762.0	28.9	— 1.7		N			1		10			0	0		Normal School.
Chaumont			29.94	760.4	35.8	2.1		NNW			2		10		NNW	0	0		Normal School.
Le Mans			30.01	762.3	31.5	— 0.3	70	E			2		10			0	0		Normal School.
Mirecourt			29.84	758.0	35.8	2.1		N			2		8		ESE	0	0		Normal School.
Orleans			29.94	760.5	29.8	— 1.2	68	NW			3		8		NW	0	0		Normal School.
Paris			29.98	761.4	32.2	0.1	61	NW			3		10			0	0		National Observatory.
Parthenay																			
La Roche sur Yon			29.98	761.5	25.6	2.0	83	NW			2		1		E	0	0		Normal School.
Rouen			29.97	761.3	33.3	0.7	78	SSE			2		10			0	0		Normal School.
Saint Lo			29.98	761.4	35.6	2.0	79	E			3		10		E	0	0		Normal School.
Villefranche			29.92	760.0	35.8	2.1	93	ENE			1		10			0	0		Normal School.

FRENCH 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.	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.
Gorée, (Senegambia)			29.94	760.4	68.9	20.5	51.5	N			4		1			0	0		Père Pascall.
Mont-Louis	24.47	623.5			28.6	— 1.9	50	NNE	21.9	9.77			0			0	0		— Falguère.
Montsouris (near Paris)			29.98	761.4	32.5	0.3	81	Calm	0.0	0.0			10			0	0		Marié Davy.
Perpignan	29.76	755.8			45.3	7.4	31	WNW	7.4	3.43			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.93	761.6	34.2	1.2	78	NE			1		8			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.99	761.7	33.8	1.0	76	NW			1		10		NW	0	0		C. Marquet.
Versailles, (near Paris)			29.97	761.2	33.1	0.6		NE			2		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	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			30.04	762.9	34.9	1.6	59	E			7		5			0	0		Prof. Hoh.
Berlin			30.39	771.8	23.7	— 4.6	85	E			4		3			0	0		Prof. Arndt.
Breslau			30.37	771.3	25.0	— 3.9	77	ENE			3		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.97	761.2	33.3	0.7	62	NE			2		9			0	0		A. Leuz.
Cassel			30.04	763.1	34.7	1.5	84	E			5		1			0	0		Dr. H. Mohl.
Cologne			30.04	763.0	35.8	2.1	81	ESE			3		6			0	0		Dr. Gaithe.
Emden			30.35	770.9	32.7	0.4	62	ENE			4		0			0	0		Prof. Prestel.
Frankfort on the Main			30.10	764.6	37.6	3.1	61	NE			2		4			0	0		Physical Society.
Friedrichshafen			29.97	761.3	28.4	— 2.0	90	W					10			0	0		M. Wilhelm.
Hamburg			30.36	771.2	35.6	2.0	73	E			6		3			0	0		W. Reinart.
Kiel			30.41	772.4	29.7	— 1.3	73	NE			4		1			0	0		Prof. G. Karsten.
Königsberg			30.48	774.3	18.5	— 7.5	69	W			2		7			0	0		Prof. E. Luther.
Köslin			30.71	779.9	27.7	— 2.4		SE			2		2			0	0		Dr. Tägert.
Leipsic			30.26	768.7	27.9	— 2.3	85	E			5		2			0	0		Prof. Bruhns.
Münster			30.11	764.9	25.6	2.0	92	NE			2		0			0	0		Prof. F. Hels.
Posen			30.46	773.6	23.0	— 5.0	82	SSE			5		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.98	761.5	31.1	— 0.5	87	NE					8			0	0		Hartwig and Fulk.
Stuttgart			29.95	760.8	32.5	0.3	63	N					5			0	0		Mr. Wurth.
Thorn			30.47	773.8	20.8	— 6.2	69	E			4		1			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.93	760.3	33.1	0.6	74	SE			5		10			0	0		Prof. Flesch.
Wustrow			30.47	774.0	28.4	— 2.0	77	ENE			4		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	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	760.7	33.8	1.0	96	NNE			2		10			Blank	Blank		
Mondovi			29.93	760.2	32.2	0.1	96	W			4		10			Blank	Blank	Snow	
Genoa			29.77	756.1	40.3	4.6	66	N	10.5	4.72			10			Blank	Blank		
Pavia			29.91	759.8	35.1	1.7	87	NE			1		10			0.708	19.5	Snow	
Verona																			
Padua			29.85	758.2	40.1	4.5	56	NE	24.8	11.11			10	SE		Blank	Blank		
Parma																			
Bologna			29.92	760.0	34.5	1.4	75	WNW			6		10			Blank	Blank	Heavy snow	
Livorno			29.63	752.7	48.9	9.4	62	ENE	11.8	5.28			10			0.146	3.7	Blank	
Urbino			29.84	757.8	37.0	2.8	100	NE			6		10			0	0		
Ancona																			
Siena			29.68	753.7	48.9	9.4	84	ENE	9.9	4.44			10	E		0.004	0.1	Rain	
Rome			29.61	752.0	57.2	14.0	64	NNE			4		10	ESE		0.031	0.8	Rain	
Naples, O.U.			29.56	750.8	61.3	16.3	48	NNW			6		10	NE		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.70	754.3	50.4	10.2	80	ESE	17.4	7.78			10			0	0		
Cosenza			29.53	750.0	53.2	11.8	67	SW			1		9			0.201	5.1		
Catania, (Sicily)			29.52	749.7	51.8	11.0	75	W			1		10	W		0	0		
Siposto																			
Palermo			29.43	747.6	53.4	11.9	88	NE			1		10			0.106	2.7	Rain	

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.07	763.7	33.1	0.6		E			4								
Groningen			30.16	766.1	30.4	— 0.9		ENE			6								
Helder			30.15	765.7	29.8	— 1.2		NE			5								
Utrecht			30.05	763.2	32.5	0.3		ENE			5		5						

NOTE.—The originals give the force 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.

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.
Bergen			30.58	776.8	30.2	— 1.0	65	Calm	0	0.0			0			0	0		
Christiania			30.61	777.4	16.5	— 8.6	88	Calm	0.4	0.2			5			0	0	Fog	
Tromsö			30.36	771.2	36.9	2.7	93	S			2		10			Blank	Blank	Rain	

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.53	750.1			52.2	11.3	77	NNW	2.5	1.1			10			Blank	Blank		

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.44	773.2	23.4	— 4.8	86	E	4.5	2			10						Astronomical Obs.
Wilna			30.45	773.4	18.9	— 7.3	71	Calm	0	0			10						Astronomical Obs.
Dorpat			30.32	770.1	24.6	— 4.1	87	NW	6.7	3			10						Physical Cabinet.
St. Petersburg			30.27	768 8	26.2	— 3.2	94	N	4.5	2			10						Central Physical Obs.
Kieff			30.46	772.2	11.3	—11.5	68	NNE	4.5	2			0						Physical Cabinet.
Nikolaiev			30.3	770.5	23.7	— 4.6	90	N	4.5	2			10						
Kertch			30.04	762.9	34.3	1.3	82	N	10.1	4.5			10					Snow	Lagorio.
Moscow			30.23	767.8	10.2	—12.1	74	W	10.1	4.5			7						Meteorological Obs.
Lugan			30.10	764.5	22.1	— 5.5	68	NE	10.1	4.5			5						Meteorological Obs.
Archangel			30.31	769.9	26.2	— 3.2	91	N	7.8	3.5			10						Ogorodnikof.
Tiflis			30.16	766.0	41.0	5.0	68	SSE	10.1	4.5			7						Physical Obs.
Astrakhan			30.26	768.7	27.3	— 2.6	66	ENE	10.1	4.5			5						Sebastianof.
Kasan			30.27	768.9	— 1.8	—18.8	94	S	10.1	4.5			4						Physical Cabinet.
Orenburg			30.56	776.2	— 9.0	—22.8	84	N	10.1	4.5			4						Tschernischef.
Ekaterinburg			30.35	771.0	5.0	—15.0	49	W	20.1	9			6						Meteorological Obs.
Kasaly			30.37	771.4	10.4	—12.0	27	Calm	0	0			0						Bobrof.
Tashkend			30.17	766.4	22.1	— 5.5	83	Calm	0	0			4						Michelson.
Barnaul			30.63	778.0	—18.9	—28.3	68	SW	4.5	2			4						Meteorological Obs.
Yeniseisk			30.42	772.6	—29.2	—34.0	73	S	13.4	6			0						Marks.
Irkutsk			30.3	769.6	9.9	—12.3	84	WSW	13.4	6			10						Usolzef.
Oorga			30.48	774.3	— 1.8	—18.8	100	Calm	0	0			0						Mossin.
Peking, (China)			30.28	769 1	30.4	— 0.9	59	N	7.8	3.5			0						Physical Observatory
Nertchinsk			30.39	771.9	— 9.0	—22.8	88	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					—11.6	—24 2		E	4.5	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.

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.
Madrid			29.94	760.4	36.1	2.3	90	SW	2.2	1.00			10			0.016	0.4		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.43	773.5	33.8	1.0	81	N			2		1			0	0		Dr. Hildebrandsson.
Hernosand			30.5[illegible]	774.7	35.6	2.0	57	Calm			0		0			0	0		
Upsala			30.44	773.2	23.4	— 4.8	99	NW			2		1			0	0		
Stockholm			30.40	772.2	20.1	— 6.6	84	WNW			2		4			0.008	0.2		
Wisby			30.51	774.9	23.7	— 4.6	100	NW			6		7			0	0		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.46	722.9			33.8	1.0	73	SW			2		8			0.008	0.2		The Observatory.
Zurich	28.24	717.4			28.4	— 2.0	87	NE			1		10			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —3.1mm.; Thermometer, —3°.2 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	762.0	63.3	17.4	65	N			1		10			0	0		
Constantinople			30.12	765.0	39.4	4.1	65	ENE	17.9	8			10		NE.	Blank	Blank		
Fao, (Persian Gulf)			30.20	767.0	66.2	19.0		NW			3		0						
Salonica			29.85	758.2	41.4	5.2		SW			6		10			Blank	Blank	Light rain	
Valona			29.63	752.6	51.4	10.8		SW			4		10						
Varna			30.24	768.0	32.0	0.0		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.00	762.0	22	— 5.6	93	SW	18	8.0		10	0			0	0		
Chatham, N. B.			29.92	760.0	23	— 5.0	86	E	5	2.2			10			0	0		
Charlottetown, P. E. Island			29.98	761.5	26	— 3.3	96	E	19	8.5			10			0.10	2.5		
Father Point, Quebec			29.69	754.1	6	—14.4	76	S	6	2.7			10			0.01	0.3	Light snow	
Fort Garry, Manitoba			29.92	760.0	—17	—27.2	94	N	3	1.3		2	5		N	0	0		
Halifax, N. S.			29.95	760.7	34	1.1	97	SE	9	4.0		0	10			0.26	6.6	Light rain	
Kingston, Ontario			29.57	751.1	23	— 5.0	87	S	7	3.1		8	0	W	SE	0	0		
Montreal, Quebec			29.59	751.6	16	— 8.9	92	SE	3	1.3			10			0.06	1.5	Light snow	
Ottawa, Ontario			29.56	750.8	16	— 8.9	66	NE	5	2.2			10		NE	0.20	5.1	Threatening	
Parry Sound, Ontario			29.50	749.3	14	—10.0	91	SE	4	1.8			10			0.15	3.8		
Port Dover, Ontario			29.54	750.3	22	— 5.6	100	Calm	0	0			10			0.01	0.3	Threatening	
Port Stanley, Ontario			29.56	750.8	21	— 6.1	96	W	3	1.3			10			0	0	Light snow.	
Quebec, Quebec			29.69	754.1	19	— 7.2	100	NE					10		NE	0.04	1.0	Light snow.	
Saugeen, Ontario			29.51	749.5	18	— 7.8	92	Calm	0	0			10			0	0	Light snow.	
Sydney, C. B.			30.16	766.1	27	— 2.8	95	SE	9	4.0			10			0	0	Heavy snow	
Toronto, Ontario			29.53	750.0	20	— 6.7	93	W	1	0.5			10			0.04	1.0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres 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.			30.58	751.3	30	— 1.1	89	S	1	0.4			10			0	0	Light snow	
Alpena, Mich.			29.46	748.3	13	—10.6	81	W	3	1.3			10		W	0.02	0.5		
Atlantic City, N. J.			29.54	750.3	32	0.0	100	NE	2	0.9			10			0.07	1.8	Light rain	
Augusta, Ga.			29.61	749.5	45	7.2	92	NW	6	2.7			10		NW	1.15	29.2		
Baltimore, Md.			29.52	749.8	33	0.6	100	E	1	0.4			10			0.05	1.3	Sleet	
Barnegat, N. J.			29.49	749.0	31	— 1.1	100	E	3	1.3			10		E	0.30	7.6		
Benton, Montana			29.94	760.5	37	2.8	71	W	16	7.2			10			0.02	0.5		
Bismarck, Dakota			29.66	753.4	4	—15.6	74	E	8	3.6			10			0.05	1.3		
Boston, Mass.			29.65	753.1	35	1.7	90	N	2	0.9			Fog			0.02	0.5	Fog.	
Breckenridge, Minn.			29.67	753.6	3	—16.1	87	NW	8	3.6		10	0	NW		0.04	1.0		
Buffalo, N. Y.			29.48	748.8	25	— 3.9	87	W	4	1.8		Haze	Sm'e			0.09	2.3		
Burlington, Vt.			29.58	751.3	30	— 1.1	78	S	6	2.7			10			0	0		
Cairo, Ill.			29.80	756.9	23	— 5.0	60	NW	8	3.6		0	Haze			0	0		
Cape Hatteras, N. C.			29.46	748.3	48	8.9	100	N	10	4.5			10			0.43	10.9	Light rain	
Cape Henry, Va.			29.47	748.5	38	3.3	95	SE	7	3.1			10			0.41	10.4	Light rain	
Cape May, N. J.			29.54	750.3	35	1.7	100	NE	6	2.7			10			0.32	8.1	Light rain	
Charleston, S. C.			29.53	750.0	50	10.0	93	N	4	1.8			10		N	1.33	33.8	Light rain	
Cheyenne, W. T.			29.63	752.6	31	— 0.6	79	W	32	14.3			10		W	0	0		
Chicago, Ill.			29.52	749.8	20	— 6.7	70	SW	8	3.6			10			0.02	0.5	Light snow	
Cincinnati, Ohio			29.62	752.3	29	— 1.7	68	NW	8	3.6			10		NW	0.01	0.3		
Cleveland, Ohio			29.50	749.3	25	— 3.9	94	W	10	4.5			10			0.01	0.3		
Colorado Springs, Col.			29.63	752.6	36	2.2	90	N	16	7.2		0	5		NW	0	0		
Corsicana, Texas			29.99	751.7	31	— 0.6	79	NW	6	2.7		0	0			0	0		
Davenport, Iowa			29.58	761.3	19	— 7.8	91	W	4	1.8		5	5	W		Blank	Blank		
Denver, Col.			29.71	754.6	40	4.4	56	NW	16	7.2			10			0.01	0.3		
Detroit, Mich.			29.50	749.3	21	— 6.1	85	W	5	2.2			10			0.06	1.5	Light snow	
Dodge City, Kansas			29.46	748.3	25	— 3.9	87	W	6	2.7			10			0	0		
Dubuque, Iowa			29.61	752.1	20	— 6.7	70	W	8	3.6		5	2	SW	SW	0.10	2.5		
Duluth, Minn.			29.60	751.8	12	—11.1	80	Calm	0	0			10		NW	0	0		
Eastport, Me.			29.77	756.1	31	— 0.6	100	NE	18	8.0			10			0.10	2.5	Light rain	
Erie, Penn.			29.48	748.8	27	— 2.8	88	NW	4	1.8			Haze			Blank	Blank		
Escanaba, Mich.			29.51	749.5	8	—13.3	78	N	4	1.8			10		N	0.01	0.3	Light snow	
Fort Gibson, I. T.			29.83	757.7	23	— 5.0	85	NE	1	0.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.59	751.6	18	— 7.8	68	SE	16	7.2			10		NW	0.12	3.0	Light snow	
Galveston, Texas			29.88	758.9	49	9.4	71	NW	34	15.2		0	10			0	0		
Grand Haven, Mich.			29.50	759.3	21	— 6.1	70	Calm	0	0			10			Blank	Blank		
Indianapolis, Ind.			29.65	753.1	18	— 7.8	84	W	8	3.6		0	10		W	0.02	0.5		
Indianola, Texas			29.98	761.5	47	8.3	69	N	28	12.5		10	0	SW		0.01	0.3		
Jacksonville, Fla.			29.57	751.1	64	17.8	94	SW	10	4.5			10			3.78	96.0	Light rain	
Keokuk, Iowa			29.57	751.1	23	— 5.0	73	W	5	2.2			10		W	0	0		
Key West, Fla.			29.79	756.7	75	13.9	81	S	20	8.9		5	2	SW	S	0	0		
Kittyhawk, N. C.			29.53	750.0	40	4.4	100	NE	4	1.8			10			0.59	15.0	Light rain	
Knoxville, Tenn.			29.54	750.3	34	1.1	90	N	10	4.5			10			0.69	17.5	Light snow	
La Crosse, Wis.			29.61	752.1	16	— 8.9	83	N	2	0.9			10			0.13	3.3		
Leavenworth, Kan.			29.66	753.4	13	—10.6	80	SE	1	0.4		Haze	0		N	0	0		
Lexington, Ky.			29.63	752.6	32	0.0	79	NW	8	3.6			10			1.49	12.4		
Long Branch, N. J.			29.60	751.8	32	0.0	100	NE	5	2.2			10			0.17	4.3	Light rain	
Louisville, Ky.			29.66	753.4	27	— 2.8	76	SW	12	5.4			10		W	0	0		
Lynchburg, Va.			29.48	748.8	32	0.0	95	Calm	0	0			10			1.50	12.7	Light rain	
Malone, N. Y.																			
Marquette, Mich.			29.51	749.5	12	—11.1	80	NW	4	1.8			10			0.04	1.0	Light snow	
Memphis, Tenn.			29.79	756.7	32	0.0	79	NW	16	7.2			10			0.39	9.9		
Milwaukee, Wisconsin			29.55	750.6	15	— 9.4	81	W	10	4.5			10			0.02	0.5		
Mobile, Ala.			29.67	753.6	53	11.7	100	NW	4	1.8			10		NW	2.60	66.0		
Montgomery, Ala.			29.60	751.8	51	10.6	93	NW	3	1.3			10		W	0.96	24.4		
Morgantown, W. Virginia			29.44	747.8	36	2.2	95	NE	1	0.4			10			0.28	7.1	Light snow	
Mt. Washington, N. H.			29.64	752.8	19	— 7.2	100	SW	20	8.9			Fog			0	0		
Nashville, Tenn.			29.72	754.9	33	0.6	90	NW	4	1.8			10			0.38	9.7		
New Haven, Conn.			29.63	752.6	30	— 1.1	89	Calm	0	0			10		NE	0.20	5.1	Light rain	
New London, Conn.			29.63	752.6	35	1.7	100	N	2	0.9			Fog			0.09	2.3	Light rain	
New Orleans, La.			29.69	754.1	54	12.2	87	NW	6	2.7			10		NW	5.85	148.6	Threatening	
Newport, R. I.																			
New York, N. Y.			29.58	751.3	33	0.6	100	E	12	5.4			Fog			0.05	1.3	Light rain	
Norfolk, Va.			29.47	748.5	36	2.2	90	SE	7	3.1			10			0.38	9.7	Light rain	
North Platte, Neb.			29.08	738.6	37	2.8	81	W	12	5.4			10		W	0	0		
Omaha, Neb.			29.52	749.8	21	— 6.1	85	S	4	1.8			10		S	0	0		
Oswego, N. Y.			29.53	750.0	28	— 2.2	83	S	6	2.7			10			0.05	1.3	Threatening	
Peck's Beach			29.55	750.6	33	0.6	89	E	4	1.8			10			0.09	2.3	Slee	
Pembina, D. T.			29.77	756.1	12	—11.1	87	NW	12	5.4			10			0	0		
Philadelphia, Penn.			29.54	750.3	31	— 0.6	100	E	12	5.4			10		E	0.06	1.5	Light rain	
Pike's Peak, C. T.			29.50	749.3	—19	—28.3	100	W	60	26.8			Fog			0	0	Fog.	
Pittsburgh, Penn.			29.46	748.3	33	0.6	89	NW	5	2.2			10			0.13	3.3	Light snow	
Port Huron, Mich.			29.49	749.0	18	— 7.8	100	W	6	2.7			10			0.03	0.8	Light snow	
Portland, Maine			29.70	754.4	36	2.2	70	E	6	2.7			Fog			0.08	2.0	Fog	
Portland, Or.			30.40	772.1	37	2.8	90	Calm	0	0			10			0	0		
Punta Rassa, Fla.			29.76	755.9	72	22.2	90	S	20	8.9		Haze	0			0	0		
Rochester, N. Y.			29.48	748.8	29	— 1.7	89	S	3	1.3			10			0.02	0.5		
Salt Lake City, Utah			30.01	762.2	38	3.3	54	NE	8	3.6		0	0			0	0		
Sandy Hook, N. J.			29.56	750.8	33	0.6	100	NE	8	3.6			10		NE	0.10	2.5	Light rain	
San Diego, Cal.			30.19	766.8	50	10.0	86	W	4	1.8			10			0	0		
San Francisco, Cal.			30.20	767.1	48	8.9	92	SW	2	0.9			10			0	0	Fog	
Santa Fe, N. M.			29.56	750.8	18	—7.8	60	N	4	1.8		0	5			0	0		
Savannah, Georgia			29.59	749.3	52	11.1	93	E	8	3.6			10		S	0.73	18.5		
Shreveport, La.			29.90	759.4	35	1.7	85	W	4	1.8		0	0			0.07	1.8		
Springfield, Mass.			29.63	752.6	28	— 2.2	88	NW	4	1.8			10			0.08	2.0	Sleet	
St. Louis, Mo.			29.72	754.9	22	— 5.6	85	SW	9	4.0		0	10		W	0	0		
St. Marks, Fla.			29.57	751.1	66	18.9	84	SW	8	3.6			10		W	0.53	13.5		
St. Paul, Minn.			29.52	749.8	13	—10.6	80	NW	5	2.2			10			0.02	0.5		
St. Paul's Island, Alaska			29.58	751.3	36	2.2	100	S	14	6.3			Fog			0.27	6.9		
Squan Beach, N. J.			29.56	750.8	30	— 1.1	100	NE	5	2.2			10		NE	0.05	1.3	Sleet	
Toledo, Ohio			29.47	748.5	24	— 4.4	74	W	13	5.8			10		SW	0	0	Light snow	
Tybee Island, Ga.			29.55	750.6	52	11.1	100	Calm	0	0			10			0.78	19.8	Light rain	
Vicksburg, Miss.			29.83	757.7	43	6.1	83	NW	5	2.2			10		NW	1.15	29.2		
Virginia City, Mon.			29.59	751.6	27	— 2.8	88	Calm	0	0			10			0	0		
Washington, D. C.			29.51	749.5	32	0.0	95	Calm	0	0			10			0.36	9.1	Light rain	
Wilmington, N. C.			29.59	749.3	51	10.6	93	E	1	0.4			Fog			0.63	16.0	Fog	
Wood's Hole, Mass.			29.65	753.1	37	2.8	100	Calm	0	0			Fog			0.03	0.8	Fog	
Wytheville, Va.			29.19	741.4	34	1.1	79	W	2	0.9			10			0.06	1.5		
Yankton, D. T.			29.57	751.1	22	— 5.6	78	SE	3	1.3			10			0.03	0.8	Light snow	

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. Metres 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.			30.11	764.8	82	27.8		NE	4	1.8		5	2	E		0	0		
Point-a-pitre, G'd'loupe, "			29.97	761.2	73	22.8		E				0	5			0	0		
Havana, Cuba, W. I.			29.62	752.3	77	25.0	76	S	10.8	4.8		2	0	S		0	0		
Kingston, Jamaica, W. I.			30.16	766.1	78	25.6		SE	7	3.1		0	2			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.85	758.2	78	25.6	69	SE			2	2	2	SE		0	0		
St. Georges, Bermudas			30.02	762.5	65	18.3	92	SE				10	1	SW		0.005	0.13		
Honolulu, Sandwich Is.			29.82	757.4	59	15.0	88	Calm	0	0		2	2	NW		0	0		
Makawao, Sandwich Is.	27.44	697.0			56	13.3	82	S			2.5	2	2	S		0.02	0.5		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.72	754.9	—23	—30.6		W	6	2.7		10	0	N		0	0		
Clifton, Jamaica, W. I.			30.63	762.7	62	16.7		S	8.4	3.6						0	0		C. Partridge.
St. Johns, Newfoundland			30.60	777.2	9	—12.8	78	SE				0	0			0.30	7.6		John Delaney.
St. Johns Porto Rico, W. I.			30.04	763.1	72.5	22.5	85	SE			1		9			Blank	Blank		Leon M. Acuña.
Ellyria, Ohio	28.72	729.5			24	— 4.4	86	W	6	2.7		0	10			0	0		H. M. Redington.
Indianola, Iowa	28.79	731.3			26	— 3.3		SW				0	9			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —19° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.80	757.0															Charnot.
Algiers			29.76	755.9	63.5	17.5	62	SW			2		5			0	0		Peter.
La Calle			29.86	758.4															Kuntz.
Tunis			29.90	759.5	57.6	14.2	57	NW			4		4			0	0		Jacques.
Sfax																			Chauvey.
Saida			29.78	756.5	57.4	14.1		WSW			3		7			0.039	1.0	Rainy	Grosjean.
Tob ssa			29.87	758.7															Colin.
Gerlville			29.79	756.7	52.7	11.5		SW			3		3			0	0		Bernadach.
Laghouat			29.78	756.4	59.0	15.0	13	SW			4		10			0	0		Poinsignon.
Biskra			29.82	757.3	61.7	16.5		E			3		5			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.08	764.0	55.1	1.7	57	NE			1		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																0	0		I. R. Cen. M. I., Hungary
Cracow			30.24	768.0	18.0	— 7.8	42	NE			3		10			0	0		I. R. Observatory.
Eperies			30.11	764.7	40.6	4.8	64	Calm			0		0			0	0		Julius Mikolik.
Gratz			30.10	764.6	32.5	0.3	91	S			2.5		10			0	0		Andreas Rospini.
Hermannstadt			30.09	764.2	21.9	— 5.6	87	E			1		1			0	0		Prof. Reissenberger.
Kremsmünster			30.05	763.3	23.4	— 4.8	86	E			8		0			0	0		Prof. C. Wagner.
Lemberg			30.13	765.4	17.6	— 8.0	93	NW			3		10			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.09	764.3	26.2	— 3.2	96	N			3		0			0	0		Habzsuda Daniel.
Pola			30.29	759.4	44.1	6.7	41	NE			2		7			0	0		I. R. Hydrographic Office
Szegedin			30.09	764.2	22.6	— 5.2	85	W			2		4			0	0		Karl Stancel.
Trieste			29.92	760.0	39.0	3.9	38	ENE			3		1			0	0		Prof. V. Farolfi.
Vienna			30.13	765.2	26.4	— 3.1	65	NE			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.

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.
Brussels	29.88	758.9			33.1	0.6	78	SE			3		0	N		0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.56	776.2	38.5	3.6		ENE	10	4.5			4			0.010	0.25		William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan																			William McNeil.
Armagh Observatory			30.40	772.1	39.0	3.9		ENE	14	6.3			0						Stillman Cell
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.28	769.1	40.0	4.4		ENE			4		5						The Liverpool Obs.
Birr Castle			30.28	769.1	40.8	4.9		ENE			4		7						J. Dreyer.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.19	766.8	36.0	2.2		NE			2		1			0	0		H. Todd.
Cape Town, Cape Colony			29.76	755.9	71.6	22.0		NW			3		8						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.83	757.7			73.6	23.1	65	W	10	4.5			7						The Royal Observatory.
Cardington			30.19	766.8	34.0	1.1		NE					1						John McLaren.
Carlisle			30.40	772.1	38.0	3.3		E					5			0	0		T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.88	758.9	75.0	23.9		NE			2		8						Sgt. W. F. Hopkins
Dartmoor			30.16	766.1	28	— 2.2		E			5		10			Blank	Blank	Snow	R. E. Power.
Donaghadee			30.40	772.1	41	5.0		E			0		2						J. Mac Gowan, Jr.
Dover			30.08	764.0	36	2.2		ENE			5		5						J. Costello.
Dublin																			
Durham Observatory			30.40	772.1	39.8	4.3		ENE					0						G. Goldney.
Eccles, (near Manchester)			30.28	769.1	40.9	4.9		ENE	4.2	1.9			2						Thomas Mackereth.
Falmouth Observatory			30.09	764.3	36.0	2.2		NE	21	9.4			10						The Falmouth Obs.
Fort Napier, (Natal)			29.84	757.9	77.2	25.1		E			3		8						Pvt. G. Salmon.
Galway			30.21	767.3	40	4.4		NE			1		3						Queen's College.
Gibraltar, (Mediterranean)			29.75	755.6	54.5	12.5		W			5		10						Sgt. J. Brewster.
Glasgow Observatory			30.46	773.7	38.4	3.6		NE			4		3					Squally	The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.29	767.1	37	2.8		ENE			6		2						G. T. Watson.
Greenwich Royal Obs.			30.13	765.3	36.5	2.5		ENE			8		7			Blank	Blank		The Royal Observatory.
Guernsey			30.04	763.0	38	3.3		ENE			1		8			Blank	Blank		Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			Moorside Observatory.
Halifax, (Nova Scotia)			29.09	738.9	37.6	3.1		NW			2		6			Blank	Blank		Corp'l J. Y. Thompson.
Helston			30.05	763.3	40	4.4		NE			3		6					Snow	W. B. Moyle.
Holyhead			30.25	768.3	45	7.2		ENE			6		3			Blank	Blank		John Tilston.
Hull Park																			
Kew Observatory			30.14	765.5	35.8	2.1		ENE	24	10.7			7					Mist	The Met. Office.
Kingstown			30.31	769.9	41	5.0		E	6	2.7			5						George Mitchell.
Lampeter																			
Leicester			30.23	767.8	27.4	— 2.6		E			2		1						William J. Harrison
Llandudno			30.29	769.4	41.0	5.0		E					0						Dr. James Nicol.
Malta, (Mediterranean)			29.99	761.7	56.0	12.3		NW			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.55	776.0	40	4.4		ESE			1		6						William D. Penny.
Nassau, (Bahamas)			30.04	763.0	75.2	24.0		SE			4		5						Surgeon I. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.28	769.1	38.7	3.7		ENE			5	1			ENE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.22	767.6	36.7	2.6		NE			5		9						St. Mary's College.
Oxford, Radcliffe Obs.			30.16	766.1	34	1.1		ENE			2		2						Radcliffe Observatory.
Plymouth			30.05	763.3	35	1.7		N			2		10			Blank	Blank	Snow & mist	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.16	766.1	35	1.7		NE			5		10			Blank	Blank	Snow	W. Kennedy.
Saint Ann's Head																			John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.59	777.0	38	3.3		SE	13	5.8			0						Rev. Dr. Clouston.
Scarboro'																			F. Heard.
Scutari, (Turkey)			29.89	759.2	42.4	5.8		NE			3		10						W. H. Lyne.
Sheffield			30.30	769.6	40	4.4		ESE			2		9			Blank	Blank	Rain	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.40	772.1	42.0	5.6		E			5		5			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	39.8	4.3		NE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.29	769.4	38.1	3.4		NE			3		10			Blank	Blank	Blank	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.49	774.4	39	3.9		E			2		0						John Smith.
Strathfield Turgiss			30.12	765.0	37.2	2.9		N			1		10			Blank	Blank		Charles H. Griffith.
Streatley Vicarage			30.16	766.1	36.2	2.3		ENE			6		5						Rev. John Slatter.
Sumburgh Head, Shetland			30.55	776.0	41	5.0		ESE			1		5						William Lawrence.
Taunton College																			
Thurso			30.58	776.7	41	5.0		ESE			2		5						John Trotter.
Truro Royal Institution			29.98	761.5	39	3.9		NE			6		10			Blank	Blank	Snow	Royal Institution.
Valencia			30.21	767.3	39.2	4.0		NE	27	12.1			8						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
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 Cape 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			30.41	772.5	26.8	— 2.9	91	ESE			2		10						
Faröe			30.41	772.5	28.4	— 2.0	92	E			4		10						
Godthaab, (Greenland)			30.24	768.0	20.5	— 6.4		SSE			3		10						
Stykkisholm, (Iceland)			30.25	768.4	31.1	— 0.5	83	SW			10		10			Blank	Blank	Snow & hail.	
Thorshavn, (Faröe)								S			4		8			Blank	Blank	Rain	
Vestervig			30.44	773.1	25.9	— 3.4	87	E			4		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.63	752.6	52.9	11.6	63						5						Normal School.
Alengon			29.95	760.8	35.6	2.0	79	NE			3		8		NNE	0	0		Normal School.
Amiens			30.03	762.8	33.8	1.0	85	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.98	761.6	33.6	0.9	86	ESE	4.5	2.0			10		E	0	0		Beaumette Observatory.
Beauvais			30.05	763.2	34.3	1.3	78	ESE			2		8		ESE	0	0		Normal School.
Besançon			29.97	761.3	36.5	2.5		SSW			2		10		SW	0	0		Normal School.
Bourges			30.02	762.4	35.6	2.0	85	NNE			2		10		NNE	0	0		Normal School.
Brest			29.94	760.4	37.6	3.1	69	NE			1		10		NE	0.012	0.3		Naval Observatory.
Caen			30.03	762.7	34.5	1.4	85	NE			2		10			0	0		Normal School.
Carcassonne																			
Chartres			29.99	761.8	34.7	1.5		E			1		10			0	0		Normal School.
Chaumont			29.99	761.7	36.7	2.6		W			2		10			0	0		Normal School.
Le Mans			30.00	762.0	34.2	1.2	73	E			2		8		E	0	0		Normal School.
Mirecourt			29.97	761.3	32.4	0.2		N			2		0			0	0		Normal School.
Orleans			30.00	761.9	35.2	1.8	74	N			3		2		N	0	0		Normal School.
Paris			29.99	761.8	35.2	1.8	67	NE			1		10			0	0	Mist	National Observatory.
Parthenay																			
La Roche sur Yon			29.98	761.5	35.2	1.8	74	N			4		0		SE	0	0		Normal School.
Rouen			30.02	762.4	34.2	1.2	83	SE			2		10			0	0		Normal School.
Saint Lo			29.9[illegible]	761.0	34.9	1.6	70	E			3		10		E	0	0		Normal School.
Villefranche			29.97	761.7	35.8	2.1	89	N			3		2			0.047	1.2		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.94	760.5	68.5	20.3	58.2	N			4		0			0	0		Père Pascall.
Mont-Louis	24.56	623.8			31.5	— 0.3	80	SW	4.6	2.08			10		SW	0	0		—. Falguère.
Montsouris (near Paris)			29.99	761.7	34.3	1.3	91	Calm	0.2	0.11			10		NE	0	0	Light snow.	Marié Davy.
Perpignan	29.78	756.4			43.7	6.5	70	NE	5.6	2.50			9			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.00	761.9	35.1	2.0	94	NE			0		10			0	0	Threatening	E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.98	761.5	34.2	1.2	76	ENE			1		10			0	0	Snow	C. Marquet.
Versailles, (near Paris)			29.98	761.4	34.2	1.2		NE			1		10			0.010	0.26	Snow	Dr. A. Bérigny.
Z.-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	30.9	— 0.6	65	E			3		2			0	0		Prof. Hoh.
Berlin			30.36	771.2	23.0	— 5.4	88	E			2		0			0	0		Prof. Arndt.
Breslau			30.30	769.6	17.6	— 8.0	86	N			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.06	763.4	30.2	— 1.0	59	NE			2.5		2			0	0		A. Leuz.
Cassel			30.17	766.3	31.6	— 0.2	92	NE			3		0			0	0		Dr. H. Mohl.
Cologne			30.13	765.3	37.4	3.0	91	SE			4		3			0	0		Dr. Gaithe.
Emden			30.44	773.1	34.0	1.1	65	ENE			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.21	767.2	33.3	0.7	89	NE			4		1			0	0		Physical Society.
Friedrichshafen			30.02	762.6	27.5	— 2.5	89	NE					10			0	0		M. Wilhelm.
Hamburg			30.36	771.1	36.1	2.3	56	ENE			3		2			0	0		W. Reinart.
Kiel			30.37	771.4	32.0	0.0	77	ENE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.33	770.4	27.1	— 2.7	79	NE			2		8			0	0		Prof. E. Luther.
Köslin			30.55	775.9	34.[illegible]	1.2	10	NE			1		10			0	0		Dr. Tägert.
Leipsic			30.28	769.2	20.8	— 6.2	93	NE			2		7			0	0		Prof. Bruhns.
Münster			30.22	767.5	33.8	1.0	72	NE			2		0			0	0		Prof. F. Heis.
Posen			30.33	770.3	20.3	— 6.5	94	NW			5		2			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			30.03	762.8	29.3	— 1.5	88	NE					7			0	0		Hartwig and Fulk.
Stuttgart			30.06	763.4	28.9	— 1.7	61	NE					2			0	0		Mr. Wurth.
Thorn			30.28	769.1	26.4	— 3.1	84	S			2		9			0	0		Dr. Hagenbalg.
Treves, (Trier)			30.00	761.9	30.7	— 0.7	77	SE			6		0			0	0		Prof. Flesch.
Wustrow			30.10	772.1	30.0	— 1.1	83	ENE			3		1			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astrônomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.99	761.8	35.4	1.9	93	WNW			2		2			0.827	21.0	Snow	
Mondovi			30.00	761.9	33.0	0.9	80	W			1		10	W		0	0		
Genoa			29.90	759.5	44.6	7.0	60	NE	1.9	0.83			2			Blank	Blank		
Pavia			29.97	761.3	36.0	2.2	83	NE			4		10			0.315	8.0	Snow	
Verona																			
Padua			29.93	760.2	39.4	4.1	58	NNE	3.7	1.67			8			0	0		
Parma																			
Bologna			30.00	761.9	36.1	2.3	53	NW			4		10			Blank	Blank	Snow	
Livorno			29.87	758.8	48.9	9.4	70	NNE					4			0.142	3.6		
Urbino			29.98	761.4	36.7	2.6	91	ESE			2		10			0.079	2.0	Rain	
Ancona																			
Siena			29.89	759.2	43.5	6.4	89	E			1		10	E		0.094	2.4		
Rome			29.87	758.8	54.9	12.7	77	WSW	3.1	1.39			10	S		0	0		
Naples, O.U.			29.88	758.9	60.1	15.6	63	SW			1		4	SW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			30.04	763.1	53.2	11.8	64	NW	7.4	3.33			7			0	0		
Cosenza			29.89	758.9	58.6	14.8	48	NW			2		6	SE		0	0		
Catania, (Sicily)			29.89	759.3	56.3	13.5	76	SW			2		4	W		0	0		
Riposto																			
Palermo			29.85	758.2	52.3	11.3	80	WNW			2		10			0.008	0.2		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.15	765.9	32.0	0.0		ENE			5								
Groningen			30.24	768.2	32.7	0.4		ENE			4								
Helder			30.24	768.1	31.8	0.1		NE			4								
Utrecht			30.14	765.6	35.8	2.0		ENE			4		0						

Note.—The originals give the force 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.

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.
Bergen			30.54	775.6	31.5	— 0.3	58	SSE	0.7	0.3			5			0	0		
Christiania			30.54	775.7	30.2	— 1.0	88	SSW	2.1	1.0			3			0	0		
Tromsö			30.26	768.5	33.8	1.0	92	S			2		5			0.264	0.7		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.48	748.9			50.4	10.2	51	NNW	4.0	1.8			5						

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.23	767.8	22.3	— 5.4	96	NNW	4.5	2			10					Snow	Astronomical Obs.
Wilna			30.26	768.6	25.5	— 3.6	77	NNE	7.8	3.5			10					Snow	Astronomical Obs.
Dorpat			30.40	772.2	28.0	— 2.2	80	NNW	4.5	2			10						Physical Cabinet.
St. Petersburg			30.30	769.6	25.9	— 3.4	98	WNW	4.5	2			10					Snow	Central Physical Obs.
Kieff			30.16	766.0	19.4	— 7.0	73	SSE	6.7	3			10						Physical Cabinet.
Nikolaiev			30.22	767.5	29.2	— 3.8	75	NE	4.4	2			8						
Kertch			30.09	764.3	30.7	— 0.7	79	NE	10.1	4.5			10						Lagorio.
Moscow			30.34	770.6	9.0	—12.8	76	SW	7.8	3.5			0						Meteorological Obs.
Lugan			30.12	765.1	16.2	— 8.8	72	NE	4.5	2			1						Meteorological Obs.
Archangel			30.24	768.2	26.2	— 3.2	91	NW	13.4	6			10						Ogorodnikof.
Tiflis			30.02	762.6	46.2	6.2	46	Calm	0	0			10						Physical Obs.
Astrakhan			30.18	766.5	30.4	— 0.9	78	ENE	4.5	2			10					Snow	Sebastianof.
Kasan			30.33	770.3	— 6.7	—21.5	71	S	5.6	2.5			0						Physical Cabinet.
Orenburg			30.49	774.4	0.3	—17.6	67	E	4.5	2			2						Tschernischef.
Ekaterinburg			30.32	770.2	5.7	—14.6	82	W	13.4	6			1						Meteorological Obs.
Kasaly			30.27	768.8	11.8	—11.2	30	Calm	0	0			0						Bobrof.
Tashkend			30.23	767.8	4.6	4.8	89	NE	7.8	3.5			10						Michelson.
Barnaul			30.36	771.1	—11.0	—23.9	74	SE	4.5	2			0						Meteorological Obs.
Yeniseisk			29.91	759.8	— 2.9	—19.4	83	E	13.4	6			10						Marks.
Irkutsk			30.46	773.6	—10.7	—23.7	71	NW	7.8	3.5			0						Usolzef.
Oorga			30.52	775.3	— 5.3	—20.7	100	Calm	0	0			0						Messin.
Peking, (China)			30.23	767.7	28.4	— 2.0	60	S	7.8	3.5			0						Physical Observatory
Nertchinsk			30.27	768.9	— 2.9	—19.4	87	Calm	0	0			6						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 7.6	—22.0		Calm	0	0			1						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.

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.
Madrid			29.76	755.8	42.3	5.7	65	E	2.9	1.3			10			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	755.5	29.1	— 1.6	96	NW			2		8			0	0		Dr. Hildebrandsson.
Hernosand			30.55	775.9	30.2	— 1.0	73	Calm			0		6			0	0		
Upsala			30.48	774.3	28.9	— 1.7	88	N			2		8	E					
Stockholm			30.43	773.0	31.6	0.2	81	NE			2		8			0.008	0.2		
Wisby			30.48	774.2	28.8	— 1.8	100	NW			2		7			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.49	723.6			34.2	1.2	77	NNE			2		9			0	0	Fog	The Observatory.
Zurich	28.28	718.4			29.3	— 1.5	73	SE			1		10			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —2.4mm.; Thermometer, —3°.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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.89	759.3	41.4	5.2	64	ENE	13.4	6			10		NE	Blank	Blank		
Fao, (Persian Gulf)			30.13	766.9	63.3	17.4		SE			3		10						
Salonica			29.92	759.9	50.0	10.0		N			1		2			Blank	Blank		
Valona			29.75	755.7	57.2	14.0		N			1		2						
Varna			30.[illegible]4	763.0	26.6	— 3.0		NW			6		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.63	752.6	27	— 2.8	100	E	2	0.9		2	8	W		0	0		
Chatham, N. B.			29.92	760.0	31	— 0.6	89	SW	15	6.7		0	0			0.76	19.3		
Charlottetown, P. E. Island			29.96	738.1	36	2.2	96	SW	16	7.2			10			0.60	15.2		
Father Point, Quebec			29.08	738.6	6	—14.4	76	NW	18	8.0			Haze			0	0		
Fort Garry, Manitoba			29.86	758.4	—12	—24.9	95	SW	10	5.4		5	5	NW	NW	0	0		
Halifax, N. S.			29.12	739.6	36	2.2	95	SW	19	8.5			5			0.46	11.7		
Kingston, Ontario			29.82	757.4	12	—11.1	84	W	6	2.7		0	0			0.06	1.5		
Montreal, Quebec			29.60	751.8	17	— 8.3	82	W	27	12.1		0	2			0.34	8.6		
Ottawa, Ontario			29.71	754.6	12	—11.1	65	W	6	2.7		2	0	W		0.10	2.5		
Parry Sound, Ontario			29.87	758.7	—11	—23.9	81	W	2	0.9		0	0			0.08	2.0		
Port Dover, Ontario			29.94	760.5	10	—12.2	100	W	6	2.7		0	0			0	0		
Port Stanley, Ontario			29.97	761.2	8	—13.3	79	NW			2	0	0			0	0		
Quebec, Quebec			29.36	745.7	19	— 7.2	84	W			2	0	0			0.38	9.7		
Saugeen, Ontario			29.93	760.2	9	—12.8	88	NW	3	1.3		2	8	W		0.02	0.5		
Sydney, C. B.			29.10	739.1	38	3.3	97	S	11	5.0			10			1.26	32.0		
Toronto, Ontario			29.90	759.4	9	—12.8	89	W	7	3.1		0	0			0.02	0.5		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			29.78	756.4	24	— 4.4	100	W	15	6.7		2	2	W	W	0.25	6.3		
Alpena, Mich.			29.96	761.0	— 4	—20.0	64	NW	10	4.5		0	2		W	0.05	1.3		
Atlantic City, N. J.			29.99	761.7	27	— 2.8	83	W	10	4.5		0	0			0.31	7.9		
Augusta, Ga.			30.11	764.8	33	0.6	89	NW	2	0.9		0	0			0.03	0.8		
Baltimore, Md.			29.97	761.2	28	— 2.2	78	NW	1	0.4		0	0			0.60	15.2		
Barnegat, N. J.			29.89	759.2	29	— 2.7	67	W	4	1.8		0	0			0	0		
Benton, Montana			29.61	752.1	26	— 3.3	100	NW	22	9.8			10			0	0	Light snow.	
Bismarck, Dakota			29.78	756.4	—10	—23.3	54	NE	3	1.3			10			0.08	2.0		
Boston, Mass.			29.66	753.4	26	— 3.3	72	NW	17	7.6		0	0			0.39	9.9		
Breckenridge, Minn.			30.00	762.0	—17	—27.2	87	SE	2	0.9		0	0			0	0		
Buffalo, N. Y.			29.92	760.0	12	—11.1	80	W	8	3.6		0	2			0.01	0.3		
Burlington, Vt.			29.68	753.9	23	— 5.0	60	W	5	2.2		2	2			0.31	7.9		
Cairo, Ill.			29.87	758.7	40	4.4	56	W	8	3.6		10	0			0	0		
Cape Hatteras, N. C.			30.02	762.5	39	3.9	81	N	15	6.7		0	2			0.10	2.5		
Cape Henry, Va.			30.03	762.7	39	3.9	64	NW	2	0.9		Haze	0			0.17	4.3		
Cape May, N. J.			30.00	762.0	29	— 1.7	67	NW	14	6.3		0	0			0.22	5.6		
Charleston, S. C.			30.08	764.0	40	4.4	71	N	4	1.8		2	0	N		0.03	0.8		
Cheyenne, W. T.			29.55	750.6	20	— 6.7	85	SW	4	1.8		8	2			0	0		
Chicago, Ill.			29.98	761.5	12	—11.1	61	N	2	0.9		2	0	W		0	0		
Cincinnati, Ohio			29.93	760.2	33	0.6	79	SE	4	1.8			10			0	0	Light snow.	
Cleveland, Ohio			29.97	761.2	12	—11.1	90	W	6	2.7		5	0			0.01	0.3		
Colorado Springs, Col.			29.62	752.3	26	— 3.3	88	SE	5	2.2			10			0	0		
Corsicana, Texas			29.98	761.5	40	4.4	82	S	16	7.2		0	0			0	0		
Davenport, Iowa			30.03	762.7	8	—13.3	89	E	1	0.4		2	Sm'e			0.01	0.3		
Denver, Col.			29.64	752.8	28	— 2.2	54	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.00	762.0	7	—13.9	65	W	3	1.3		2	2	W		0	0		
Dodge City, Kansas			29.62	752.3	26	— 3.3	88	E	3	1.3		0	0			0	0		
Dubuque, Iowa			30.02	762.5	— 5	—20.6	63	Calm	0	0			Fog			0	0	Fog	
Duluth, Minn.			29.95	760.7	—10	—23.3	76	Calm	0	0		Haze	0			0	0		
Eastport, Me.			29.27	743.4	32	0.0	69	NW	13	5.8		0	0			0.71	18.0		
Erie, Penn.			29.95	760.7	16	— 8.9	83	SW	16	7.2			10			Blank	Blank	Light snow.	
Escanaba, Mich.			30.02	762.5	—12	—24.4	47	Calm	0	0		0	0			0.01	0.3		
Fort Gibson, I. T.			29.92	760.0	30	— 1.1	86	N	3	1.3		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.88	758.9	— 1	—18.3	68	E	7	3.1			10		E	0	0		
Galveston, Texas			30.03	762.7	51	10.6	86	S	12	5.4		2	0	W		0	0		
Grand Haven, Mich.			30.02	762.5	3	—16.1	59	E	6	2.7			10			Blank	Blank		
Indianapolis, Ind.			29.91	759.7	26	— 3.3	76	NE	4	1.8			10			0.01	0.3	Light snow.	
Indianola, Texas			30.05	763.3	51	10.6	93	S	12	5.4		2	0	W		0	0		
Jacksonville, Fla.			30.12	765.0	47	8.3	77	N	6	2.7		5	0	SW		0.52	13.2		
Keokuk, Iowa			29.97	761.2	13	—10.6	62	N	8	3.6		0	Haze			0	0		
Key West, Fla.			30.04	763.0	67	19.4	79	NE	15	6.7			10		NE	0.10	2.5		
Kittyhawk, N. C.			30.04	763.0	37	2.8	73	NE	12	5.4		0	0			0.10	2.5		
Knoxville, Tenn.			30.04	763.0	28	— 2.2	88	NE	4	1.8		10	Fog	W		0.05	1.3		
La Crosse, Wis.			30.00	762.0	1	—17.2	71	S	8	3.6		Haze	Haze			0	0		
Leavenworth, Kan.			29.99	761.7	19	— 7.2	83	N	1	0.4		0	0			0.04	1.0		
Lexington, Ky.			29.93	760.2	33	0.8	70	S	12	5.4			10			0	0		
Long Branch, N. J.			29.93	760.2	28	— 2.2	77	NW	23	10.3		0	0			0.33	8.4		
Louisville, Ky.			29.87	758.7	34	1.1	74	SE	8	3.6			10			0	0		
Lynchburg, Va.			30.03	762.7	31	— 0.6	68	Calm	0	0		0	0			0.14	3.6		
Malone, N. Y.																			
Marquette, Mich.			29.96	761.0	— 5	—20.6	63	NW	4	1.8		0	0			0.01	0.3		
Memphis, Tenn.			29.93	760.2	40	4.4	56	SW	7	3.1		0	2			0	0		
Milwaukee, Wisconsin			30.04	763.0	8	—13.3	68	NW	5	2.2		5	Haze	W		0	0		
Mobile, Ala.			30.13	765.3	37	2.8	100	N	3	1.3			Fog			0	0		
Montgomery, Ala.			30.14	765.5	35	1.7	90	Calm	0	0		0	Fog			0	0		
Morgantown, W. Virginia			29.98	761.5	30	— 1.1	83	S	4	1.8			10			0.24	6.1		
Mt. Washington, N. H.			29.30	744.2	— 3	—19.4	100	NW	70	31.3			Fog			0.16	4.1		
Nashville, Tenn.			29.92	760.0	40	4.4	63	SE	4	1.8		5	5	SW		0	0		
New Haven, Conn.			29.83	757.7	31	— 0.6	68	W	14	6.3		0	0			1.47	37.4		
New London, Conn.			29.80	756.9	27	— 2.8	64	W	14	6.3		0	0			0.37	9.4		
New Orleans, La.			30.10	764.5	43	6.1	79	W	3	1.3		2	Fog	W		0	0		
Newport, R. I.																			
New York, N. Y.			29.89	759.2	26	— 3.3	64	W	16	7.2		0	0			0.48	12.2		
Norfolk, Va.			30.04	763.0	34	1.1	90	NW	1	0.4		0	Fog			0.12	3.0		
North Platte, Neb.			29.51	749.5	22	— 5.6	72	SW	2	0.9			10		W	0	0		
Omaha, Neb.			29.98	761.5	14	—10.0	100	N	1	0.4		0	Haze			0.01	0.3		
Oswego, N. Y.			29.83	767.6	21	— 6.1	88	NW	12	5.4			10		NW	0.40	10.2		
Peck's Beach			30.01	762.2	27	— 2.8	77	NW	12	5.4		0	0			0.54	13.7		
Pembina, D. T.					—16	—26.7	70	NW	4	1.8		0	5			0	0		
Philadelphia, Penn.			29.97	761.2	27	— 2.8	67	NW	22	9.8		0	0			0.62	15.7		
Pike's Peak, C. T.			29.41	747.0	— 7	—21.7	100	W	28	12.5			Fog			0	0	Fog	
Pittsburgh, Penn.			29.98	761.5	21	— 6.1	85	NW	2	0.9		5	0	NW		0.07	1.8		
Port Huron, Mich.			29.97	761.2	5	—15.0	87	W	5	2.2		2	0	W		0	0		
Portland, Maine			29.53	750.0	27	— 2.8	77	W	16	7.2		2	0	NW		0.26	6.6		
Portland, Or.			30.21	767.3	40	4.4	90	Calm	0	0			10			0.11	2.8		
Punta Rassa, Fla.			30.10	764.5	60	15.6	82	E	4	2.2			10			0.02	0.5		
Rochester, N. Y.			29.86	758.4	15	— 9.4	82	W	14	6.3		Haze	2			0.06	1.5		
Salt Lake City, Utah			29.71	741.6	38	3.3	54	N	32	14.3			10			0	0		
Sandy Hook, N. J.			29.90	759.4	27	— 2.8	77	W	27	12.1		0	Haze			0.42	10.7		
San Diego, Cal.			30.03	762.7	53	11.7	79	NW	4	1.8			10			0	0		
San Francisco, Cal.			29.98	761.5	49	9.4	85	S	4	1.8			10			0	0		
Santa Fe, N. M.			29.48	748.8	23	— 5.0	60	S	8	3.6		0	0			0	0		
Savannah, Georgia			30.11	764.8	40	4.4	63	W	16	7.2		2	0	SW		0	0		
Shreveport, La.			30.01	762.2	38	3.3	80	Calm	0	0		2	0			0	0		
Springfield, Mass.			29.78	756.4	27	— 2.8	82	SW	4	1.8		5	Haze	W		0.67	17.0		
St. Louis, Mo.			30.02	762.5	30	— 1.1	69	N	12	5.4			10		N	0	0		
St. Marks, Fla.			30.13	765.3	38	3.3	95	N	5	2.2		5	0	W		0	0		
St. Paul, Minn.			29.97	761.2	—10	—23.3	77	W	3	1.3		0	0			0	0		
St. Paul's Island, Alaska			29.89	759.2	34	1.1	89	E	5	2.2			10			0.09	2.3		
Squan Beach, N. J.			29.95	760.7	27	— 2.8	65	NW	8	3.6		0	0			0.40	10.2		
Toledo, Ohio			29.94	760.5	11	—11.7	79	SW	2	0.9		2	5	SW	W	0	0		
Tybee Island, Ga.			30.12	762.2	41	5.0	91	NW	4	1.8		5	2	SW		0	0		
Vicksburg, Miss.			30.11	764.8	41	5.0	56	S	6	2.7		0	0			0	0		
Virginia City, Mon.			29.30	744.2	21	— 6.1	85	SW	8	3.6			10			0.06	1.5		
Washington, D. C.			30.00	762.0	26	— 3.3	79	Calm	0	0		Haze	Sm'e			0.15	3.8		
Wilmington, N. C.			30.07	763.8	38	3.3	63	N	4	1.8		2	0	W		0	0		
Wood's Hole, Mass.			29.75	755.6	27	— 2.8	87	W	19	8.5		0	0			0.29	7.4		
Wytheville, Va.			29.82	757.4	26	— 3.3	88	W	3	1.3		5	0	W		0	0		
Yankton, D. T.			30.08	764.0	— 7	—21.7	59	SE	1	0.4		0	0			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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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		NE	2	0.9		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.04	763.0	74	23.3		E				2	5	E		0.7	17.8		
Havana, Cuba, W. I.			29.84	757.9	75	23.9	90	E	3.6	1.6		5	2	SW		0.07	1.8		
Kingston, Jamaica, W. I.			30.22	767.6	78	25.6		SE	4	1.8		0	2			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.90	759.4	75	23.9	76	NE	1.2	0.5		0	2		E	0	0	Clearing	
St. Georges, Bermudas			29.97	761.2	69	20.6	99	SW				2	10			0	0		
Honolulu, Sandwich Is.			29.94	760.5	56	13.3	94	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.53	699.2			55	12.8	80	NE			2	0	1			0.35	8.9	Stormy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.76	755.9	—36	—37.8		W	4	1.8		2	Fog	N		0	0	Fog	C. Partridge.
Clifton, Jamaica, W. I.			30.10	764.5	62	16.7		SE	4	1.8						0	0		John Delaney.
St. Johns, Newfoundland			29.68	753.9	28	— 2.2	100	SE								0.65	16.5	Snow	Leon M. Acuña.
St. Johns Porto Rico W. I.			30.15	765.7	76.5	24.7	75	SW			1	1	0			0.069	1.75		H. M. Redington.
Ellyria, Ohio	29.28	743.7			10	—12.2	79	W	4	1.8		0	0			0	0		G. C. Carpenter.
Indianola, Iowa	29.21	741.9			8	—13.3		SW				0	0			0	0		

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —19° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.85	758.2															Charnot.
Algiers			29.81	757.2	60.3	15.7	55	NW			4		6			0	0		Peter.
La Calle			29.80	757.0															Kuntz.
Tunis			29.80	756.9	63.1	17.3	43	W			3		9			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.84	758.0	52.2	11.2		ESE			2		1			0	0		Grosjean.
Tebessa			29.84	758.0															Colin.
Gerlville			29.88	758.9	54.3	12.4		S			2		3			0	0		Bernadach.
Laghouat			29.88	759.0	58.3	14.6	33	S			2		4			0	0		Poinsignon.
Biskra			29.85	758.1	67.1	19.5		E			4		5			0	0		Coulon.

AUSTRIAN SERIES.

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

Agram			30.11	764.9	26.8	− 2.9	76	NE			3		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																0			I. R. Cen. M. I., Hungary
Cracow			30.30	769.7	19.8	− 6.8	48	NNE			4		10			0.002	0.5		I. R. Observatory.
Eperies			30.16	766.0	43.7	6.5	68	N			4		10			0	0		Julius Mikolik.
Gratz			30.13	765.4	25.5	− 3.6	65	SW			5		0			0	0		Andreas Rospini.
Hermanstadt			30.02	762.5	23.7	− 4.6	95	ENE			0		10			0.217	5.5	Snow	Prof. Reissenberger.
Kremsmünster			30.24	768.1	19.4	− 7.0	62	NE			8		0			0	0		Prof. C. Wagner.
Lemberg			30.25	768.4	11.8	−11.2	95	E			5		5			0.071	1.8		Dr. T. Stanecki.
Nytregyhaza			30.11	764.9	25.5	− 3.6	90	N			3		5			0.097	2.48		Habzsuda Daniel.
Pola			29.93	760.2	37.2	2.9	33	E			4		2			0	0		I. R. Hydrographic Office
Szegedin			30.06	763.5	21.2	− 6.0	85	NE			2		10			0	0		Karl Stancel.
Trieste			29.94	760.6	32.4	0.2	60	ENE			5		0			0	0		Prof. V. Farolfi.
Vienna			30.20	767.0	23.7	− 4.6	75	N			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.

Brussels	29.90	759.5			31.8	− 0.1	83	E			3		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.37	771.4	39.0	3.9		NNW	6	2.7			6			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30,34	770.6	40	4.4		NE			2		7					Fog.	William McNeil.
Armagh Observatory			30,31	769.9	39.2	4.0		NE	10	4.5			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30,24	768.1	37.2	2.9		ENE			2		0					Mist	The Liverpool Obs.
Birr Castle			30,26	768.6	38.8	3.8		NNE			1		7						J. Dreyer.
Bradford			30,23	767.8	35.3	1.8		E			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30,2[illegible]	767.1	35.0	1.7		NE			2		2			0	0		H. Todd.
Cape Town, Cape Colony			29.72	754.9	76	24.0		NW			3		8			Blank	Blank		Sgt. D. E. Hunt
Cape Good Hope Obs.	29.73	755.1			71.2	21.8	75	W⇘W	19	8.5			7						The Royal Observatory.
Cardington			30,20	767.1	34.0	1.1		NE					1						John McLaren.
Carlisle			30,30	769.6	37.2	2.9		E					10			0.01	0.3		T Bell.
Chatham																			
Cochyfoel Farm																			James Conroy.
Colombo, (Ceylon)			29.91	759.7	74.6	23.7		NE			2		10						
Dartmoor			30,14	765.5	30.5	— 0.8		E			4		6						Sgt. W. F. Hopkins
Donaghadee			30,30	769.6	39	3.9		NE			4		10						R. E. Power.
Dover			30,12	765 0	37	2.8		NE			4		2						J. Mac Gowan, Jr.
Dublin																			J. Costello.
Durham Observatory			30,29	769.4	34.3	1.3		E					10			Blank	Blank	Snow	G. Goldney.
Eccles, (near Manchester)			30,25	768.3	33.9	1.1		NE	4.0	1.8			2						Thomas Mackereth.
Falmouth Observatory			30.08	764 0	36.8	2.7		NE	27	12.1			9						The Falmouth Obs.
Fort Napier, (Natal)			29.85	753.1	81.0	27.2		NW			4		9						Pvt. G. Salmon.
Galway			29.88	758.9	42	5.6		NE			1		8						Queen's College.
Gibraltar, (Mediterranean)			29.78	756.4	55.0	12.8		WSW			6		10					Thre tening	Sgt. J. Brewster.
Glasgow Observatory			30.32	770.1	39.0	3.9		NE			3		8						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30,21	767.3	34	1.1		ENE			6		3						G. T. Watson.
Greenwich Royal Obs			30.14	765.5	38.7	3.7		ENE			4		0						The Royal Observatory.
Guernsey			29.99	761.7	40	4.4		NE			5		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.25	768.3	34.1	1.2		E					10						Moorside Observatory.
Halifax, (Nova Scotia)			30,25	768.3	16.4	— 8.7		NW			4		1						Corp'l J. Y. Thompson.
Helston			30.04	763.0	40	4.4		NE			2		8						W. B. Moyle.
Holyhead			30.23	767.8	39	3.9		ENE			4		1						John Tilston.
Hull Park																			
Kew Observatory			30.14	765.5	37.7	3.2		NNE	19	8.5								Mist	The Met. Office.
Kingstown			30.29	769.4	41	5.0		ENE			3		7						George Mitchell.
Lampeter																			
Leicester			30.21	767.3	36.7	2.6		NE			3		1						William J. Harrison
Llandudno			30.24	768.1	37.8	3.2		E					0						Dr. James Nicol.
Malta, (Mediterranean)			29.99	759.4	61.0	16.1		SW			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.37	771.4	34	1.1		Calm			0		2						William D. Penny.
Nassau, (Bahamas)			30.20	767.1	73.0	22.8		Calm			0		6						Surgeon I. Jameson.
North Shields			30.33	770.4	38	3.3		SE			4		6						John Wm. Irvine.
Nottingham			30.24	768.1	40.0	4.4		E			4		5		ENE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.21	767.3	37.7	3.2		NE			4		1						St. Mary's College.
Oxford, Radcliffe Obs			30.14	765.5	34	1.1		NNE			3		0						Radcliffe Observatory.
Plymouth			30.06	763.5	38	3.3		E			4		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.20	767.1	40	4.4		NE			4		2						W. Kennedy.
Saint Ann's Head			30.19	766.8	39	3.9		ENE			4		2						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.37	771.4	37	2.8		S	3	1.3			10					Mist	Rev. Dr. Clouston.
Scarboro'			30.30	769.6	35.1	1.7		ESE			3		10						F. Heard.
Scutari, (Turkey)			29.91	759.7	45.8	7.7		NE			3		10						W. H. Lyne.
Sheffield			30.28	769.1	37.5	3.1		ESE			2		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.29	769.4	38.6	3.7		E			3		10						Francis Redford.
Somerleyton, (Lowestoft)			30.20	767.1	37.2	2.9		E			1		4						Rev. C. J. Steward.
Stonyhurst Observatory			30.24	768.1	37.1	2.8		E			3		6					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.34	770.8	38	3.3		ESE			1		1						John Smith.
Strathfield Turgiss			30.12	765.0	39.7	4.3		NE			1		0						Charles H. Griffith.
Streatley Vicarage			30.14	765.5	39.0	3.9		ENE			3		0						Rev. John Slatter.
Sumburgh Head, Shetland			30.29	769.4	40	4.4		W			1		8						William Lawrence.
Taunton College																			
Thurso			30.36	771.1	37	2.8		Calm			0		6						John Trotter.
Truro, Royal Institution			30.03	762.7	40	4.4		NE			4		5						Royal Institution.
Valencia			30.22	767.6	39.0	3.9		NE	24	10.7			1						Meteorological Obs.
Wick																			
Wisbeech																			
Worthing			30.07	763.8	40.8	4.9		NE			2		0						S. H. Miller.
York																			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 Cape 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			30.43	773.0	30.2	— 1.0	71	ESE			2		10						
Fanöe			30.41	772.5	29.1	— 1.0	16	ESE			4		10						
Godthaab, (Greenland)			29.39	744.1	43.2	6.2		ESE			4		10						
Stykkisholm, (Iceland)			30.46	773.7	27.7	— 2.4	94	NW			4		2						
Thorshavn, (Faröe)			30.31	769.8	39.6	4.2	74	WNW			2		10						
Vestervig			30.42	772.7	27.5	— 2.5	94	Calm			0		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.51	749.5	55.0	13.1	59					1							Normal School.
Alençon			29.97	761.1	34.5	1.4	75	NE			2		10			0	0		Normal School.
Amiens			30.07	763.7	39.0	4.2	90	ENE			3		0			0	0		Normal School.
Beaumette, (near Angers)			29.90	759.5	40.5	4.7	70	E	17.0	7.6			8		E	0	0		Beaumette Observatory.
Beauvais			30.03	762.7	37.0	2.8	53	E			4		0			0	0		Normal School.
Besançon			29.95	760.8	36.0	2.2		NE			2		0			0	0		Normal School.
Bourges			29.93	760.2	36.0	2.2	72	NNE			2		5		NE	0	0		Normal School.
Brest			29.89	759.1	35.8	2.1	74	NE			3		10		NE	0	0		Naval Observatory.
Caen			30.02	762.4	36.3	2.4	64	E			2		1		E	0	0		Normal School.
Carcassonne																			
Chartres			29.97	761.3	33.3	0.7		ENE			2		2		E	0	0		Normal School.
Chaumont			30.0[illegible]	761.9	34.[illegible]	1.1		E			3		0			0	0		Normal School.
Le Mans			29.96	760.9	35.2	1.8	67	SE			2		5		SE	0	0		Normal School.
Mirecourt			29.92	759.9	33.3	0.7		NNE			4		0			0	0		Normal School.
Orleans			29.97	761.3	37.0	2.8	75	NE			3		5		N	0	0		Normal School.
Paris			29.99	761.8	32.4	0.1	90	ENE			2		2		E	0	0	Mist	National Observatory.
Parthenay																			
La Roche sur Yon			29.84	757.9	37.6	3.1	87	NNE			4		5		W	0	0		Normal School.
Rouen			30.00	761.9	34.7	1.5	89	SSE			2		10			0.035	0.9		Normal School.
Saint Lo			29.99	761.8	36.5	2.5	64	SE			3				SE	0	0		Normal School.
Villefranche			29.89	759.1	35.8	2.1	89	N			1		10			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.87	758.6	68.9	20.5	67.2	N			2		1			0	0		Père Pascall.
Mont-Louis	24.48	621.8			32.0	0.0	86	ENE	6.2	2.77			10		SW	0.081	4.6		—. Falguère.
Montsouris (near Paris)			29.99	761.7	33.8	1.0	72	ENE	4.7	2.11			2			0.016	0.4		Marié Davy.
Perpignan	29.66	753.3			42.1	5.6	92	W	3.8	1.67			10		?	0.362	9.3	Rain	Dr. Fines.
Saint Maur, (near Paris)			29.99	761.8	34.7	1.5	65	E			2		0			0.051	1.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.96	759.4	39.7	4.3	65	E			2		2		E	0	0		C. Marquet.
Versailles, (near Paris)			29.99	761.7	33.1	0.6		E			2		9			0.007	0.17	Light fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.24	768.1	26.6	— 3.0	63	E			1		2			0	0		Prof. Hoh.
Berlin			30.44	773.1	27.5	— 2.5	71	E			3		4			0	0		Prof. Arndt.
Breslau			30.37	771.4	23.2	— 4.9	76	E			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.13	765.4	28.4	— 2.0	56	NE			7.5		0			0	0		A. Leux.
Cassel			30.27	768.9	27.5	— 2.5	82	E			5		0			0	0		Dr. H. Mohl.
Cologne			30.14	765.5	30.9	— 0.6	70	ESE			5		0			0	0		Dr. Gaithe.
Emden			30.43	772.8	32.4	0.2	62	E			2		2			0	0		Prof. Prestel.
Frankfort on the Main			30.32	770.2	30.2	— 1.0	63	E			3		0			0	0		Physical Society.
Friedrichshafen			30.08	763.9	25.7	— 3.5	1.0	NE					2			0	0		M. Wilhelm.
Hamburg			30.41	772.4	30.2	— 1.0	53	SE			4		3			0	0		W. Reinart.
Kiel			30.40	772.2	31.8	— 0.1	75	ESE			4		2			0	0		Prof. G. Karsten.
Königsberg			30.41	772.5	27.1	— 2.7	69	SE			2		6			0	0		Prof. E. Luther.
Köslin			30.67	778.9	30.7	— 0.7		NE			1		8			0	0		Dr. Tägert.
Leipsic			30.38	771.6	24.4	— 4.2	81	E			4		9			0	0	Snow	Prof. Bruhns.
Münster			30.26	768.5	29.8	— 1.2	88	NE			2		0			0	0		Prof. E. Heis.
Posen			30.39	771.8	25.0	— 3.9	73	NE			1		6			0.008	0.2		Dr. Magener.
Strassburg, (in Alsace)			30.08	764.0	30.4	— 0.9	63	NE					0			0	0		Hartwig and Fulk.
Stuttgart			30.06	766.3	27.9	— 2.3	48	E					0			0	0		Mr. Worth.
Thorn			30.41	772.3	21.7	— 5.7	64	NE			4		9			0.020	0.5		Dr. Hasenbalg.
Treves, (Trier)			30.07	763.8	29.8	— 1.2	63	E			7		0			0	0		Prof. Flesch.
Wustrow			30.47	774.0	28.9	— 1.7	70	E			4		4			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	761.3	35.6	2.0	82	ENE			1		10			0	0		
Mondovi			29.96	760.9	33.8	0.7	74	NW			2		10			0	0		
Genoa			29.86	758.5	45.3	7.4	59	N	2.5	1.11			2			0	0		
Pavia			29.95	760.7	37.6	3.1	76	NE			1		10			0.098	2.5		
Verona																			
Padua			29.96	760.9	36.7	2.6	53	NE	13.7	6.11			2			0	0		
Parma																			
Bologna			30.[illegible]0	762.1	39.0	3.9	51	NW			4		4	W		0	0		
Livorno			29.85	758.1	48.7	9.3	51	ENE	11.2	5.00			6			Blank	Blank	Snow	
Urbino			29.98	761.4	32.0	0.0		NNE			2		10			0	0		
Ancona																			
Siena			29.84	758.0	45.3	7.4	56	NE	0.6	0.28			7	W		0	0		
Rome			30.54	755.7	50.7	10.4	65	NE	2.5	1.11			5	NW		0	0		
Naples, O.U.			29.83	757.6	58.3	14.6	56	SSW			1		6	SW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.80	759.3	51.4	10.8	80	NNE	12.4	5.50			9			Blank	Blank		
Cosenza			29.79	756.6	58.8	14.9	46	SSE			2		7	SE		0	0		
Catania, (Sicily)			29.84	758.0	56.1	13.4	64	W			3		6	SW		0	0		
Riposto																			
Palermo			29.75	755.7	55.8	13.2	76	NE			2		6			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			30.18	766.6	33.8	0.8		E			5								
Groningen			30.30	769.5	32.2	0.1		E			4								
Helder			30.26	768.6	31.6	— 0.2		ENE			4								
Utrecht			30.17	766.2	33.3	0.7		E			4		0						

NOTE.—The originals give the force 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.

Station.	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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.40	772.1	34.5	1.4	74	S	3.6	1.6			10			0	0		
Christiania			30.37	771.5	29.5	— 1.4	80	E	3.8	1.7			10			0	0		
Tromsö			29.80	756.9	37.0	2.8	01	S			7		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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.41	746.9			49.6	9.8	50	NNW	12.5	5.6			4			Blank	Blank		

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Station.	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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.37	771.3	21.9	— 5.6	96	NE	4.5	2			10						Astronomical Obs.
Wilna			30.39	772.0	23.0	— 5.0	77	NE	4.5	2			10						Astronomical Obs.
Dorpat			30.39	771.9	29.3	— 1.5	74	W	2.2	1			10						Physical Cabinet.
St. Petersburg			30.38	771.6	26.8	— 2.9	70	ENE	2.2	1			5						Central Physical Obs.
Kieff			30.35	771.0	14.0	—10.0	84	NNE	6.7	3			8					Snow	Physical Cabinet.
Nikolaiev			30.21	767.4	19.8	— 6.8	81	N	7.8	3.5			0						
Kertch			30.04	763.0	29.1	— 1.6	82	ENE	10.1	4.5			10						Lagorio.
Moscow			30.33	770.3	20.3	— 6.5	84	NW	7.8	3.5			10						Meteorological Obs.
Lugan			30.15	765.8	18.5	— 7.5	78	N	7.8	3.5			10						Meteorological Obs.
Archangel			30.24	768.1	24.1	— 4.4	86	WNW	10.1	4.5			10						Ogorodnikof.
Tiflis			30.05	763.3	42.3	5.7	75	SE	7.8	3.5			10						Physical Obs.
Astrakhan			30.26	768.5	27.3	— 2.6	70	NNE	4.5	2			10						Sebastianof.
Kasan			30.19	766.9	7.9	—13.4	84	NNW	5.6	2.5			10						Physical Cabinet.
Orenburg			30.41	772.5	0.0	—17.8	83	NW	4.5	2			4						Tschernischef.
Ekaterinburg			30.15	765.8	5.0	—15.0	82	SW	13.4	6			8						Meteorological Obs.
Kasaly			30.20	767.0	12.0	—11.1	17	Calm	0	0			0						Bobrof.
Tashkend			30.34	770.5	40.4	8.0	55	Calm	0	0			8						Michelson.
Barnaul			30.37	771.5	— 9.6	—23.1	74	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.06	763.5	0.3	—17.6	83	SE	4.5	2			10						Clarks.
Irkutsk			30.37	771.4	— 1.3	—18.5	76	Calm	0	0			0						Usolzef.
Oorga			30.48	774.1	— 4.4	—20.2	86	Calm	0	0			0						Messin.
Peking, (China)			30.20	767.1	30.6	— 0.8	71	Calm	0	0			0						Physical Observatory
Nertchinsk			30.26	768.6	— 2.0	—18.9	94	Calm	0	0			6						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 8.0	—22.2		W	7.8	3.5			5						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.

Station.	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—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.80	756.8	37.9	3.3	86	S	15.0	6.7			10			0.012	0.3		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.21	767.3	26.2	— 3.2	96	Calm			0		3			0.102	2.6		Dr. Hildebrandsson.
Hernosand			30.26	768.7	34.2	1.2	54	Calm			0		0			0	0		
Upsala			30.31	769.8	32.5	0.3	74	WSW			2		5	NNW		0	0		
Stockholm			30.30	769.7	34.5	1.4	64	W			2		9			0	0		
Wisby			30.38	771.6	32.4	0.2	100	N			2		7			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.47	723.2			22.4	0.2	80	N			4		10			0	0		The Observatory.
Zurich	28.34	719.8			23.5	— 4.7	85	NE			1		10			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —2.7mm.; Thermometer, —4°.6 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. Conmbary, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			29.86	758.5	44.6	7.0	71	W			2		10			Blank	Blank	Rain	
Constantinople			29.01	759.6	43.9	6.6	81	ENE	10.3	4.5			10		NE				
Fao, (Persian Gulf)			30.04	763.0	66.2	19.0		SW			4		0			Blank	Blank		
Salonica			29.81	757.1	48.7	9.3		NW			2		10						
Valona			29.78	756.4	53.6	12.0		SW			2		10			Blank	Blank	Rain	
Varna			30.00	762.0	37.4	3.0		S			3		10			Blank	Blank		

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.01	762.2	2	—16.7	72	NW	13	5.8		0	0			0	0		
Chatham, N. B.			30.20	767.1	1	—17.2	100	SW	1	0.5		0	0			0	0		
Charlottetown, P. E. Island			30.16	766.1	9	—12.8	87	W	14	6.3		0	0			0	0		
Father Point, Quebec			30.18	766.6	— 7	—21.7	54	NW	11	5.0		5	0	W		0	0		
Fort Garry, Manitoba			30.02	762.5	— 4	—20.0	93	Calm	0	0		5	5	NW	NW	0.93	0.8		
Halifax, N. S.			30.17	766.3	15	— 9.4	48	NW	15	6.7		0	0			0	0		
Kingston, Ontario			30.31	769.9	6.8	—14.0	65	N	2	0.9		0	0			0	0		
Montreal, Quebec			30.33	770.4	7	—13.9	72	W	13	5.8		0	2			0	0		
Ottawa, Ontario			30.35	770.9	—12	—24.4	50	Calm	0	0		0	Fog			0	0		
Parry Sound, Ontario			30.18	766.6	— 4	—20.0	82	SE	11	5.0		0	0			0	0		
Port Dover, Ontario			30.22	767.6	— 7	—21.7	77	Calm	0	0		10	0			0	0		
Port Stanley, Ontario			30.22	767.6	14	—10.0	60	E			2	0	10			0	0		
Quebec, Quebec			30.32	770.1	— 4	—20.0	64	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.13	765.3	6	—14.4	87	S	7	3.1		10	0	SE		0	0		
Sydney, C. B.			30.03	762.7	18	— 7.8	70	W	18	8.0		5	5	SW		0	0		
Toronto, Ontario			30.27	768.8	4	—15.6	92	NW	1	0.5			Fog			0	0	Fog	

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			30.45	773.4	2	—16.7	72	S	3	1.3		0	Fog			0	0		
Alpena, Mich.			29.99	761.7	13	—10.6	81	S	16	7.2			10			0	0		
Atlantic City, N. J.			30.43	772.9	32	0.0	89	NE	9	4		0	0			0	0		
Augusta, Ga.			30.39	771.9	35	1.7	90	Calm	0	0		5	0	NW		0	0		
Baltimore, Md.			30.37	771.4	32	0.0	89	Calm	0	0		0	Fog			0	0		
Barnegat, N. J.			30.36	771.1	30	— 1.1	89	SW	3	1.3			10			0	0		
Benton, Montana			29.74	755.4	18	— 7.8	84	NE	4	1.8			10			0.18	4.6	Light snow	
Bismarck, Dakota			29.98	761.5	— 8	—22.2	56	W	1	0.4			10			0	0		
Boston, Mass.			30.44	773.2	19	— 7.2	69	NW	6	2.7		0	Sm'e			0	0		
Breckenridge, Minn.			30.03	762.7	—12	—24.4	87	NW	4	1.8		0	0			0.16	4.1		
Buffalo, N. Y.			30.26	768.6	15	— 9.4	74	SE	4	1.8		Haze	Sm'e			0	0		
Burlington, Vt.			30.39	771.9	10	—12.2	58	S	6	2.7		0	0			0	0		
Cairo, Ill.			30.03	762.77	45	7.2	60	S	8	3.6		2	0			0	0		
Cape Hatteras, N. C.			30.417	772.4	42	5.6	75	NE	4	1.8		2	0			0	0		
Cape Henry, Va.			30.41	772.4	42	5.6	66	S	12	5.4		0	0			0	0		
Cape May, N. J.			30.41	772.4	34	1.1	80	E	6	2.7		0	0			0	0		
Charleston, S. C.			30.38	771.6	42	5.6	83	N	4	1.8		2	Sm'e			0	0		
Cheyenne, W. T.			29.68	753.9	14	—10.0	61	NW	4	1.8			10			0	0		
Chicago, Ill.			29.84	757.9	29	— 1.7	77	SE	8	3.6		2	5	S		0	0		
Cincinnati, Ohio			30.16	766.1	29	— 1.7	78	NE	4	1.8			10			0.08	2.0		
Cleveland, Ohio			30.15	765.8	22	— 5.6	93	S	16	7.2		2	0			0	0		
Colorado Springs, Col.			29.68	753.9	23	— 5.0	100	Calm	0	0			10			0.01	0.3		
Corsicana, Texas			29.94	760.5	51	10.6	78	SE	11	4.8		10	0	S		0	0		
Davenport, Iowa			29.77	756.1	29	— 1.7	100	SE	8	3.6			10		W	Blank	Blank	Threatening	
Denver, Col.			29.80	756.9	24	— 4.4	74	SE	5	2.2			10			0	0		
Detroit, Mich.			30.11	764.8	22	— 5.6	85	SW	4	1.8			10		SE	0	0		
Dodge City, Kansas			29.57	749.5	30	— 1.1	89	N	9	4.0			10			0	0		
Dubuque, Iowa			29.78	756.4	24	— 4.4	93	SE	6	2.7			10			0.11	2.8	Heavy snow	
Duluth, Minn.			29.88	758.9	14	—10.0	81	W	4	1.8			10			0.03	0.8		
Eastport, Me.			30.38	771.6	11	—11.7	60	NW	11	4.9		0	0			0	0		
Erie, Penn.			30.17	766.3	26	— 2.8	83	SE	14	6.3			10			0	0		
Escanaba, Mich.			29.99	759.4	16	— 8.9	67	SW	6	2.7			10		SW	0.05	1.3	Light snow	
Fort Gibson, I. T.			29.82	757.4	52	11.1	72	SE	16	7.2		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.09	764.3	1	—17.2	72	NW	8	3.6		5	0	NW		0.02	0.5		
Galveston, Texas			30.09	762.0	58	14.4	87	SE	4	1.8		10	0	SW		0	0		
Grand Haven, Mich.			29.87	758.7	29	— 1.7	78	S	16	7.2			10			0	0		
Indianapolis, Ind.			30.02	762.5	32	0.0	79	SE	8	3.6		0	0			0.01	0.3		
Indianola, Texas			29.95	760.7	63	17.2	83	SE	16	7.2			10		SW	0	0		
Jacksonville, Fla.			30.32	770.1	48	8.9	85	NE	6	2.7		5	Fog	SW		0	0		
Keokuk, Iowa			29.68	753.9	36	2.2	80	S	6	2.7		5	5	S	S	0	0		
Key West, Fla.			30.18	766.6	69	20.6	84	E	5	2.2		0	10		E	0.16	4.1		
Kittyhawk, N. C.			30.44	773.2	40	4.4	61	Calm	0	0		0	0			0	0		
Knoxville, Tenn.			30.31	769.9	30	— 1.1	89	NE	4	1.8		0	Fog			0	0		
La Crosse, Wis.			29.77	756.1	25	— 3.9	87	Calm	0	0			10			0.18	4.6		
Leavenworth, Kan.			29.68	753.8	42	5.6	75	SW	6	2.7		0	2		W	0	0		
Lexington, Ky.			30.14	765.5	37	2.8	62	S	16	7.2		0	0			0	0		
Long Branch, N. J.			30.46	773.7	28	— 2.2	88	NE	6	2.7		0	10			0	0		
Louisville, Ky.			30.09	764.3	29	— 1.7	77	Calm	0	0		0	Fog			0	0		
Lynchburg, Va.			30.39	771.9	29	— 1.7	88	Calm	0	0			Fog			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.85	758.2	17	— 8.3	83	S	6	1.3			10		S	0	0		
Memphis, Tenn.			30.12	765.0	46	7.8	60	S	6	2.7		0	Haze			0	0		
Milwaukee, Wisconsin			29.88	758.9	23	— 5.0	100	SE	3	1.3			10			0.05	1.3	Heavy snow	
Mobile, Ala.			30.34	770.6	43	6.1	91	SE	5	2.2		0	0			0	0		
Montgomery, Ala.			30.30	769.6	43	6.1	87	E	4	1.8		0	0			0	0		
Morgantown, W. Virginia			30.27	768.8	27	— 2.8	88	E	1	0.4			Fog			0.01	0.3	Fog	
Mt. Washington, N. H.			29.93	760.2	— 6	—21.1	100	NW	35	15.6		0	0			0	0		
Nashville, Tenn.			30.19	766.8	44	6.7	67	SE	4	1.8		0	0			0	0		
New Haven, Conn.			30.48	774.2	20	— 6.7	85	Calm	0	0		8	Sm'e	NW		0	0		
New London, Conn.			30.49	774.4	23	— 5.0	60	W	1	0.4		0	0			0	0		
New Orleans, La.			30.19	766.1	50	10.0	82	SE	8	3.6		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.46	773.7	26	— 3.3	76	E	6	2.7			10			0	0		
Norfolk, Va.			30.41	772.4	36	2.3	80	S	4	1.8		0	Fog			0	0		
North Platte, Neb.			29.63	752.6	16	— 8.9	66	NW	16	7.2		0	5		W	0.01	0.3		
Omaha, Neb.			29.75	755.6	25	— 3.9	81	N	16	7.2			10		NW	0.07	1.8		
Oswego, N. Y.			30.34	770.6	4	—15.6	93	SE	5	2.2		5	Haze			0	0		
Peck's Beach			30.43	772.9	32	0.0	89	E	12	5.4		Haze	Haze			0	0		
Pembina, D. T.			30.01	762.2	— 6	—21.1	81	NW	4	1.8		0	0			0	0		
Philadelphia, Penn.			30.43	772.9	30	— 1.1	68	E	10	4.5		2	2	W	E	0	0		
Pike's Peak, C. T.			30.02	762.5	—11	—23.9	100	W	16	7.2			Fog			0	0	Fog	
Pittsburgh, Penn.			30.25	768.3	30	— 1.1	78	S	1	0.4		Haze	Sm'e			0.01	0.3		
Port Huron, Mich.			30.13	765.3	17	— 8.3	84	SE	9	4.0			10			0	0		
Portland, Maine			30.40	772.1	16	— 8.9	66	W	6	2.7		0	0			0	0		
Portland, Or.			30.04	763.0	40	4.4	97	SE	2	0.9			10			0	0		
Punta Rassa, Fla.			30.23	767.8	64	17.8	88	NE	12	5.4			10		NW	0	0		
Rochester, N. Y.			30.29	769.4	11	—11.7	79	S	2	0.9			10			0	0		
Salt Lake City, Utah			29.82	767.4	25	— 3.9	67	NE	8	3.6		0	0			0	0		
Sandy Hook, N. J.			30.45	773.4	27	— 2.8	88	N	4	1.8			10		SW	0	0		
San Diego, Cal.			29.79	756.7	47	8.3	85	SE	16	7.2			10			0.45	11.4	Heavy rain	
San Francisco, Cal.			29.96	761.0	50	10.0	45	NW	8	3.6		Haze	Haze			0	0		
Santa Fe, N. M.			29.40	746.7	28	— 2.2	60	SE	8	3.6		5	0	SW		0	0		
Savannah, Georgia			30.35	770.9	41	5.0	91	Calm	0	0		2	0			0	0		
Shreveport, La.			30.09	764.3	46	7.8	85	SE	4	1.8		0	0			0	0		
Springfield, Mass.			30.46	773.7	18	— 7.8	67	S	4	1.8		Sm'e	Fog			0	0		
St. Louis, Mo.			29.90	759.4	37	2.8	62	S	12	5.4		0	2		S	0	0		
St. Marks, Fla.			30.27	768.8	46	7.8	85	E	8	3.6		5	2	SW	E	0	0		
St. Paul, Minn.			29.75	755.6	16	— 8.9	100	N	4	1.8			10			0.40	10.1		
St. Paul's Island, Alaska			29.49	749.0	40	4.4	91	SE	21	9.4			10			0.47	11.9		
Squan Beach, N. J.			30.44	773.2	30	— 1.1	75	E	6	2.7		5	0	W		0	0		
Toledo, Ohio			30.02	762.5	23	— 5.0	93	SE	8	3.6		Haze	5		S	0	0		
Tybee Island, Ga.			30.42	772.7	47	8.3	85	NE	10	4.5		0	0			0	0		
Vicksburg, Miss.			30.21	767.3	44	6.7	75	SE	6	2.7		0	Haze			0	0		
Virginia City, Mon.			29.39	746.5	16	— 8.9	85	SE	12	5.4			10			0.10	2.5		
Washington, D. C.			30.39	776.9	29	— 1.7	94	Calm	0	0		Fog	Haze			0	0		
Wilmington, N. C.			30.41	772.4	41	5.0	83	E	3	1.3		2	Fog	SW		0	0		
Wood's Hole, Mass.			30.46	773.7	24	— 4.4	48	NW	3	1.3		0	0			0	0		
Wytheville, Va.			30.23	767.8	25	— 3.9	88	Calm	0	0		0	0			0	0		
Yankton, D. T.			29.96	761.0	6	—14.4	76	NW	25	11.2			10		NE	0.05	1.3	Light snow	

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	79	26.1		NE	3	1.3			10			0	0		
Point-a-pitre, G'd'loupe, "			30.06	763.5	73	22.8		E				0	5			0.3	7.6		
Havana, Cuba, W. I.			29.96	761.0	73	22.8	85	E	2.4	1.1		2	0	E		0	0		
Kingston, Jamaica, W. I.			30.27	768.8	74	23.3		Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.97	761.2	72	22.2	75	N	1.2	0.5		0	0			0	0		
St. Georges, Bermudas			30.37	771.4	62	16.7	68	NNE	3.6	16.1		0	1	NNE		0.130	3.30		
Honolulu, Sandwich Is.			29.91	759.7	64	17.8	94	Calm	0	0		2	5	S		0	0	Threatening	
Makawao, Sandwich Is.	27.70	703.6				12.8	81	S			3		2			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.79	756.7	—41	-40.6		SW	4	1.8			Fog			0	0	Fog	
Clifton, Jamaica, W. I.			30.13	765.3	65	18.3		N	2	0.9		2	2	N		0	0		C. Partridge.
St. Johns, Newfoundland			29.99	759.4	26	— 3.3	75	W				2	5			0	0		John Delaney.
St. Johns Porto Rico W. I.			30.17	766.2	75.6	24.2	81	NE			3	1	8			Blank	Blank	Rainy	Leon M. Acuña.
Ellyria, Ohio	29.31	744.6			17	— 8.3	83	S	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.86	733.0			34	1.7		N				0	10			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.61	752.0															Charnot.
Algiers			29.68	753.8	57.4	14.1	80	NW			2		10			0	0	Fog	Peter.
La Calle			29.74	755.3															Kuntz.
Tunis			29.76	755.9	66.9	19.4	36	SW			3		9			0	0		Jacques.
Sfax																			Chauvey.
Saida			29.61	752.2	57.2	14.0		NNW			2		1			0	0		Grosjean.
Tebessa			29.72	755.0															Colin.
Geriville			29.61	752.1	57.4	14.1		S			3		1			0	0		Bernadach.
Laghouat			29.65	753.1	62.8	17.1	26	SW			4		4			0	0		Poinsignon.
Biskra			29.71	754.7	68.4	20.2		E			3		7			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			30.09	764.4	23.4	— 4.8	72	SW			2		1			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.20	767.2	14.2	— 9.9	46	NNE			3		10			0	0		I. R. Observatory.
Eperies			30.07	763.9	46.9	8.3	73	N			3		10			0	0		Julius Mikolik.
Gratz			30.07	763.9	21.2	— 6.0	75	SSW			2.5		0			0	0		Andreas Rospini.
Hermannstadt			29.99	761.7	20.3	— 6.5	95	ENE			1		10			0.327	8.30	Snow	Prof. Reissenberger.
Kremsmünster			30.11	764.8	17.6	— 8.0	67	E			3		0			0	0		Prof. C. Wagner.
Lemberg			30.17	766.4	12.4	—10.9	87	E			3		9			0.012	0.3		Dr. T. Stanecki.
Nyiregyhaza			30.08	762.8	21.2	— 6.0	100	N			3		10			0.022	0.45		Habzsuda Daniel.
Pola			30.00	761.9	35.2	1.8	57	W			1		0			0	0		I. R. Hydrographic Office
Szegedin			30.02	762.6	20.5	— 6.4	90	N			1		8			0.116	2.95		Karl Stancel.
Trieste			30.03	762.8	32.7	0.4	64	NW			1		0			0	0		Prof. V. Farolfi.
Vienna			30.00	764.2	19.0	— 7.2	64	N			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.

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.
Brussels	29.60	751.8			33.3	0.7	61	SE			2		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.86	758.4	33.4	0.8		WNW	16	7.2			10			0	0	Snow	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.90	759.4	39.0	3.9		WNW			3		7						William McNeil.
Armagh Observatory			29.96	761.0	40.0	4.4		N	5	2.2			9						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.88	758.9	32.0	0.0		NE			1		10					Mist	The Liverpool Obs.
Birr Castle			29.95	760.7	41.0	5.0		NNE			1		4						J. Dreyer.
Bradford			29.84	757.9	33.1	0.6		E			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.84	757.9	33.0	0.6		NE			1		3			0	0		H. Todd.
Cape Town, Cape Colony			29.87	758.7	68	20.0		NW			3		9			Blank	Blank		Sgt. D. E. Hunt
Cape Good Hope Obs.	29.90	759.4			72.9	22.7	78	WSW	15	6.7			9.5						The Royal Observatory.
Cardington			29.78	756.4	30.0	— 1.1		NE					7						John McLaren.
Carlisle			29.85	758.2	38.1	3.4		Calm					5			0	0		T Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759 4	76.9	24.9		NE			1		5						Sgt. W. F. Hopkins
Dartmoor			29.90	759.4	24.6	— 4.1		NE			1		10						R. E. Power.
Donaghadee			29.92	760.0	40.0	4.4		NNW			2		7						J. Mac Gowan, Jr.
Dover			29.78	756.4	31	— 0.6		ESE			2		0						J. Costello.
Dublin																			
Durham Observatory			29.87	758.7	34.7	1.5		ENE					8						G. Goldney.
Eccles, (near Manchester)			29.84	757.9	34.0	1.1		E	0.8	0.4			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.82	757.4	32.0	0.0		NNE	17	7.6			10						The Falmouth Obs.
Fort Napier, (Natal)			29.66	753.4	87.2	30.7		E			2		8						Pvt. G. Salmon.
Galway			29.93	760.2	35	1.7		NE			7		3						Queen's College.
Gibraltar, (Mediterranean)			29.69	754.1	55.8	13.2		W			3		10						Sgt. J. Brewster.
Glasgow Observatory			29.88	758.9	36.5	2.5		NW			3		10						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.86	758.4	33	0.6		SE			4		4						G. T. Watson.
Greenwich Royal Obs			29.79	756.7	36.7	2.6		ENE			2		6						The Royal Observatory.
Guernsey			29.72	754.9	37	2.8		NE			2		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.85	758.2	32.0	0.0		E					10						Moorside Observatory.
Halifax, (Nova Scotia)			30.18	766.6	35.0	1.7		W			6		10						Corp'l J. Y. Thompson.
Helston			29.78	756.4	35	1.7		NE			3		10						W. B. Moyle.
Holyhead			29.87	758.7	36	2.2		NE			3		3						John Tilston.
Hull Park																			
Kew Observatory			29.80	756.9	34.2	1.2		NE	15	6.7			7		W			Mist	The Met. Office.
Kingstown			29.95	760.7	39	3.9		N			3		9						George Mitchell.
Lampeter																			
Leicester			29.86	758.4	32.5	0.3		NE			1		5						William J. Harrison
Llandudno			29.88	758 9	33.7	0.9		E					8						Dr. James Nicol.
Malta, (Mediterranean)			29.94	760.5	62.0	16.7		E			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.97	761.2	33	0.6		NE			3		10			Blank	Blank	Snow	William D. Penny.
Nassau, (Bahamas)			30.22	767.6	73.4	23.0		SE			1		9						Surgeon I. Jameson.
North Shields			29.94	760.5	36	2.2		NNW			1		8					Mist	John Wm. Irvine.
Nottingham			29.87	758.7	37.0	2.8		E			6		3		ENE	Blank	Blank		E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.86	758.4	32.9	0.5		NNE			3		5						St. Mary's College.
Oxford, Radcliffe Obs			29.79	756.7	32	0.0		NE			1		3						Radcliffe Observatory.
Plymouth			29.80	756.9	31.5	— 0.3		ENE			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.90	759.4	38	3.3		NE			5		5						W. Kennedy.
Saint Ann's Head			29.87	758.7	34	1.1		NE			3		10						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.94	760.5	30.1	— 1.1		N	45	20.1			10			Blank	Blank	Snow	Rev. Dr. Clouston.
Scarboro'			29.90	759.4	35.0	1.7		ESE			1		6						F. Heard.
Scutari, (Turkey)			29.81	757.2	56.0	13.3		SW			1		6						W. H. Lyne.
Sheffield			29.88	758.9	36.6	2.6		E			2		5						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.89	759.2	40.0	4.4		NW			1		2			0.100	2.54		Francis Redford.
Somerleyton, (Lowestoft)			29.83	757.7	37.8	3.2		SE			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			29.87	758.7	32.2	0.1		N			1		10			Blank	Blank	Snow	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.05	763.3	32	0.0		NW			6		7			Blank	Blank	Snow	John Smith.
Strathfield Turgiss			29.75	755.6	34.1	1.2		E			1		4						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			29.88	758.9	29	1.7		N			6		10			Blank	Blank	Snow	William Lawrence.
Taunton College																			
Thurso			29.94	760.5	33	0.6		N			6		10			Blank	Blank	Snow	John Trotter.
Truro, Royal Institution			29.75	755.6	32	0.0		NE			2		10			Blank	Blank	Snow	Royal Institution.
Valencia			29.97	761.2	41.3	5.2		NE	19	8.5			8						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.78	756.4	33.7	0.9		ESE			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 pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape 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			30.13	765.2	27.1	— 2.7	77	SSW			4		9						
Fanöe			30.06	763.6	22.6	— 5.2	76	S			4		10						
Godthaab, (Greenland)			29.63	752.5	24.6	— 4.1		S			6		10			Blank	Blank	Snow	
Stykkisholm, (Iceland)			30.49	774.4	21.7	— 5.7	96	E			4		5						
Thorshavn, (Faröe)			30.22	767.5	20.8	— 6.2	69	N			5		5			Blank	Blank	Snow	
Vestervig			30.02	762.5	24.8	— 4.0	80	S			2		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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	755.1	55.0	12.8	65						10						Normal School.
Alençon			29.72	754.9	33.8	1.0	82	NE			2	2		NNE		0	0		Normal School.
Amiens			29.76	757.0	43.2	6.2	65	ESE			6		5		ESE	0.055	1.4		Normal School.
Beaumette, (near Angers)			29.61	752.2	35.1	1.7	71	NE	5.4	2.4			10		SE	0	0		Beaumette Observatory.
Beauvais			29.79	756.6	29.3	— 1.5	75	ESE			2		0			0	0		Normal School.
Besançon			29.82	757.4	36.7	2.6		E			2		0			0	0		Normal School.
Bourges			29.69	754.2	45.0	7.2	74	S			2		2		SE	0	0		Normal School.
Brest			29.63	752.7	38.3	3.5	69	NE			3		5		ENE	0	0		Naval Observatory.
Caen			29.74	755.5	32.5	0.3	92	NE			2				E	0	0		Normal School.
Carcassonne																			
Chartres			29.72	754.9	31.6	— 0.2		E			1		2		E	0	0		Normal School.
Chaumont			29.79	756.7	34.9	1.6		ESE			4		0			0	0		Normal School.
Le Mans			29.71	754.7	31.3	— 0.4	73	E			4		2		SE	0	0		Normal School.
Mirecourt			29.95	760.8	35.8	2.1		NE			1		0			0	0		Normal School.
Orleans			29.71	754.7	34.5	1.4	70	NE			3		0			0	0		Normal School.
Paris			29.75	755.6	28.2	— 2.1	75	SE			2		10		E	0	0		National Observatory.
Parthenay																			
La Roche sur Yon			29.59	751.6	37.2	2.9	90	NNE			2		8		NNE	0	0		Normal School.
Rouen			29.75	755.6	34.0	1.1	89	SSE			2		0			0	0		Normal School.
Saint Lo			29.75	755.7	35.2	1.8	67	E			3				E	0.020	0.5		Normal School.
Villefranche			29.89	759.1	35.8	2.1	86	NW			2		2		NW	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.80	759.2	70.0	21.1	65.0	N			1		1			0	0		Père Pascall.
Mont-Louis	24.40	619.7			29.3	— 1.5	82	SW	18.6	8.33			10		SW	0.048	3.7		—, Falguère.
Montsouris (near Paris)			29.74	755.5	35.1	1.7	88	SE	1.1	0.50			10		ESE	Blank	Blank		Marié Davy.
Perpignan	29.51	749.6			51.4	10.8	63	WSW	13.0	6.83			6		SW	0.134	28.8	Rain	Dr. Fines.
Saint Maur, (near Paris)			29.74	755.5	30.0	— 1.1	79	E			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.66	753.4	33.3	0.7	81	NE			1		10		SE	0	0		C. Marquet.
Versailles, (near Paris)			30.72	755.0	34.5	1.4		SE			3		9			0.035	0.09		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			30.11	764.7	25.5	— 3.7	61	SE			4		2			0	0		Prof. Hoh.
Berlin			30.19	766.9	25.3	— 3.7	72	SE			2		1			0	0		Prof. Arndt.
Breslau			30.20	767.0	16.5	— 8.6	75	NE			2		1			0	0		Dr. P. Neugebauer.
Carlsruhe			29.93	760.1	30.2	— 1.0	47	NE			2.5		0			0	0		A. Leuz.
Cassel			29.97	761.1	31.6	— 0.2	82	E			2		0			0	0		Dr. H. Mohl.
Cologne			30.10	764.5	27.1	— 2.7	78	SE			3		8			0	0		Dr. Gaithe.
Emden			30.56	776.2	39.4	— 0.9	54	SE			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.10	764.5	31.3	— 0.4	55	E			3		0			0	0		Physical Society.
Friedrichshafen			30.01	762.3	18.5	— 7.5	86	NE					3			0	0		M. Wilhelm.
Hamburg			30.14	765.5	28.4	— 2.0	55	SE			6		2			0	0		W. Reinart.
Kiel			30.12	765.0	27.9	— 2.3	59	SE			3		1			0	0		Prof. G. Karsten.
Königsberg			30.27	768.8	23.5	— 4.7	71	SE			2		2			0.004	0.1	Snow	Prof. E. Luther.
Köslin			30.45	773.4	29.1	— 1.6					2		8			0	0		Dr. Tägert.
Leipsic			30.16	766.1	18.3	— 7.6	78	E			2		0			0	0		Prof. Bruhns.
Münster			29.96	761.0	29.8	— 1.2	71	NE			2		0			0	0		Prof. E. Heis.
Posen			30.27	768.9	24.5	— 6.4	78	SE			5		6			0.008	0.2		Dr. Mager.
Strasburg, (in Alsace)			29.91	759.8	28.6	— 1.9	67	NE					0			0	0		Hartwig and Fulk.
Stuttgart			29.98	761.4	28.9	— 1.7	46	E					0			0	0		Mr. Wurth.
Thorn			30.27	768.9	20.3	— 6.5	68	ESE			4		9			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.82	757.6	32.0	0.0	49	E			6		0			0	0		Prof. Flesch.
Wustrow			30.18	766.5	25.0	— 3.9	77	SE			6		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	763.5	31.5	— 0.3	66	WNW			2		10			Blank	Blank		
Mondovi			30.06	763.6	27.0	— 2.8	83	NW			2		10			Blank	Blank	Snow.	
Genoa			29.94	760.5	25.3	— 3.7	54	N	11.2	5.00			2			0	0		
Pavia			30.04	763.0	34.2	1.2	62	NE			4		3	NE		0	0		
Verona																			
Padua			30.02	762.5	32.9	0.5	56	SE	1.9	0.83			0			0	0		
Parma																			
Bologna			30.13	765.2	34.2	1.2	20	W			4		2	E		0	0		
Livorno			29.91	759.7	41.5	5.3	37	E	10.5	4.72			9			0	0		
Urbino			30.43	772.9	29.7	— 1.3		NE			2		3			0	0		
Ancona																			
Siena			29.91	759.8	36.9	2.7	45	E	4.4	1.94			9	W		0	0		
Rome			29.89	759.3	40.3	4.6	66	NNE	9.3	4.17			10			0.028	0.6		
Naples, O.U.			29.90	759.4	47.5	8.6	56	N			2		10	N		0.008	0.2		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			30.02	762.5	42.4	5.8	78	NW	8.7	3.89			10			0.185	4.7		
Cosenza			30.01	762.2	42.3	5.7	74	NNW			2		10			0.394	10.0	Rain, hail, snow	
Catania, (Sicily)			29.43	760.2	55.4	13.0	77	SE			2		2	N		0	0		
Riposto																			
Palermo			29.78	756.3	57.4	14.1	84	NE			2		2			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			29.84	758.0	33.4	0.8		ESE			5								
Groningen			29.94	760.5	31.1	— 0.5		E			3								
Helder			29.91	759.7	27.0	— 2.8		ESE			4								
Utrecht			29.90	759.5	33.1	0.6		ESE			4		0						

Note.—The originals give the force 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.

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.
Bergen			29.81	757.1	32.7	0.4	100	S	25.1	11.2			10			0.157	4.0	Snow	
Christiania			29.90	759.5	27.7	— 2.4	89	W	2.9	1.3			1			0	0		
Tromsö			29.66	753.4	27.3	— 2.6	94	W			2		10			Blank	Blank	Rain & snow	

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.72	754.8			47.3	8.5	80	NW	4.7	2.2			6			Blank	Blank		

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.27	768.8	14.9	— 9.5	84	E	4.5	2			0						Astronomical Obs.
Wilna			30.33	770.3	19.2	— 7.1	75	SE	4.5	2			10					Snow	Astronomical Obs.
Dorpat			30.23	767.9	23.5	— 4.7	85	WSW	6.7	3			10						Physical Cabinet.
St. Petersburg			30.14	765.5	24.8	— 4.0	87	SW	6.7	3			10					Snow	Central Physical Obs.
Kieff			30.34	770.5	12.0	—11.9	81	ENE	11.2	5			1						Physical Cabinet.
Nikolaiev			30.17	766.4	23.0	— 5.0	81	NNE	13.4	6			8						
Kertch			30.05	763.3	32.2	0.1	89	E	10.1	4.5			8						Lagorio.
Moscow			30.38	771.6	21.2	— 6.0	79	SW	7.8	3.5			10						Meteorological Obs.
Lugan			30.17	766.2	23.5	— 4.7	69	ENE	13.4	6			10						Meteorological Obs.
Archangel			29.98	761.9	23.4	— 4.8	90	SSW	10.1	4.5			10						Ogorodnikof.
Tiflis			30.13	765.4	21.7	— 5.7	70	SE	7.8	3.5			9						Physical Obs.
Astrakhan			30.35	771.0	29.5	— 1.4	76	NE	4.5	2			10						Sebastianof.
Kasan			30.33	770.4	19.4	— 7.0	75	W	2.2	1			10						Physical Cabinet.
Orenburg			30.92	785.3	4.3	—15.4	81	Calm	0	0			3						Tschernischef.
Ekaterinburg			30.30	769.6	15.1	— 9.4	69	W	13.4	6			3						Meteorological Obs.
Kasaly			30.27	768.7	18.3	— 7.6	72	NNE	7.8	3.5			3						Bobrof.
Tashkend			30.21	767.7	48.9	9.4	50	N	7.8	3.5			10						Michelson.
Barnaul			30.09	764.2	17.4	— 8.1	82	SW	7.8	3.5			4						Meteorological Obs.
Yeniseisk			29.89	759.1	9.7	—12.4	79	SE	7.8	3.5			8						Parks.
Irkutsk			30.29	769.3	— 0.2	—17.9	84	Calm	0	0			0						Usolzef.
Oorga			30.57	776.5	1.9	—16.7	77	E	4.5	2			0						Mossin.
Peking, (China)			30.39	771.8	31.8	— 0.1	50	NW	7.8	3.5			0						Physical Observatory
Nertchinsk			30.39	771.9	— 3.5	—19.7	82	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					2.5	—16.4		Calm	4.5	2			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.

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.
Madrid			29.70	754.3	39.2	4.0	73	SW	15.7	7.0			10			0.035	0.9		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	757.1	20.5	— 6.4	100	SSW			2		9			0.134	3.4		Dr. Hildebrandsson.
Hernosand			29.77	756.1	22.3	— 5.4	76	SSW			2		7			0	0		
Upsala			29.97	761.2	37.2	2.9	86	SW			4		10			0	0		
Stockholm			29.98	761.4	27.3	— 2.6	77	SW			4		10			0	0		
Wisby			30.14	765.5	29.1	— 1.6	100	WNW			2		5			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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	28.41	721.5			29.3	— 1.5	80	NE			2		10			0	0		The Observatory.
Zurich	28.23	717.0			22.8	— 5.1	78	W			1		7			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —4.3mm.; Thermometer, —6°.3 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)			29.93	760.1	54.3	12.4	91	SW			1		10			Blank	Blank	Rain	
Constantinople			29.82	757.4	50.7	10.4	68	ESE	4.5	2			5		SW	Blank	Blank	Snow	
Fao, (Persian Gulf)			30.09	764.3	65.1	18.4		SE			3		10						
Salonica			29.74	755.5	50.0	10.0		N			3		10			Blank	Blank		
Valona			29.85	758.3	41.5	5.3		NW			2		10			Blank	Blank		
Varna			29.88	759.0	30.2	— 1.0		SW			8		10			Blank	Blank	Snow	

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.99	761.7	20	— 6.7	92	SW	8	3.6		5	5	SW		0	0		
Chatham, N. B.			30.01	762.2	23	- 5.0	86	W	1	0.5		2	8	W		0.33	8.4		
Charlottetown, P. E. Island			30.09	764.3	32	0.0	95	S	13	5.9			10			0.10	2.5		
Father Point, Quebec			30.26	768.6	2	--16.7	72	S	4	1.8		Haze	0	S		0.01	0.3		
Fort Garry, Manitoba			30.22	767.6	—24	—31.1	91	Calm	0	0		0	2		NW	0	0		
Halifax, N. S.			30.13	765.3	34	— 1.1	91	SW	16	7.2			10			0	0	Threatening	
Kingston, Ontario			30.05	763.3	27	— 2.8	96	NE	10	4.5			10			0.15	3.8	Heavy snow	
Montreal, Quebec			30.04	763.0	20	— 6.7	96	NE	7	3.1			10		NE	0.35	8.9	Light snow.	
Ottawa, Ontario			30.01	762.2	21	— 6.1	73	Calm	0	0			Fog			0.30	7.6	Light snow.	
Parry Sound, Ontario			30.07	763.8	11	—11.7	90	N	1	0.5		2	0	SW		0	0		
Port Dover, Ontario			29.97	761.2	37	2.8	81	NE	2	0.9		10	0	SW		0	0		
Port Stanley, Ontario			29.96	761.0	34	1.1	88	N			2		10			0.04	1.0		
Quebec, Quebec			30.03	762.7	23	— 5.0	99	Calm	0	0			10			0.40	10.2		
Saugeen, Ontario			30.04	763.0	16	— 8.9	91	Calm	0	0			10			0.30	7.6		
Sydney, C. B.			30.21	767.3	27	— 2.8	98	S	15	6.7			10			0.10	2.5	Heavy snow	
Toronto, Ontario			30.02	762.5	29	— 1.7	87	NW	6	2.7			10			0.14	3.6		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Byt. 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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	37	2.8	90	SE	15	6.7		Haze	0			0	0		
Alpena, Mich.			30.07	763.8	4	−15.6	87	NW	6	2.7		5	2	W	W	0.35	8.9		
Atlantic City, N. J.			30.23	767.8	36	2.2	90	S	10	4.5		0	0			0	0		
Augusta, Ga.			30.17	766.3	51	10.6	93	E	1	0.4			10		E	0.19	4.8	Heavy rain	
Baltimore, Md.			30.21	767.3	36	2.2	80	Calm	0	0		5	Fog	W		0	0	Fog	
Barnegat, N. J.			30.19	766.8	34	1.1	69	S	3	1.3		2	0			0	0		
Benton, Montana			29.86	758.4	2	−16.7	100	E	8	3.6		0	0			0.48	12.2		
Bismarck, Dakota			30.12	765.0	−9	−22.8	56	N	2	0.9		Haze	Haze	N		0.09	2.3		
Boston, Mass.			30.12	765.0	42	5.6	74	SW	10	4.5		0	0			0	0		
Breckenridge, Minn.			30.12	765.0	0	−17.8	90	N	4	1.8			10			0	0		
Buffalo, N. Y.			30.95	760.7	36	2.2	90	NE	4	1.8			10		SW	0	0		
Burlington, Vt.			30.00	762.0	38	3.2	72	W	4	1.8			10			0	0		
Cairo, Ill.			29.84	775.7	53	11.7	72	SE	4	1.8			10		S	0	0	Threatening	
Cape Hatteras, N. C.			30.28	769.1	57	13.9	75	S	7	3.1		5	Haze	W		0	0		
Cape Henry, Va.			30.26	768.6	57	13.9	69	S	7	3.1		5	0			0	0		
Cape May, N. J.			30.24	768.1	35	1.7	90	S	8	3.6		5	0	W		0	0		
Charleston, S. C.			30.18	766.6	55	12.8	86	N	6	2.7			10	W	N	0.02	0.5	Threatening	
Cheyenne, W. T.			29.47	748.5	10	−12.2	79	NW	4	1.8		2	0			0	0		
Chicago, Ill.			29.88	758.9	28	−2.2	77	N	10	4.5			10			0.59	15.0		
Cincinnati, Ohio			29.97	761.2	46	7.8	57	SE	4	1.8			10			0	0		
Cleveland, Ohio			29.96	759.3	46	7.8	52	S	12	5.4		10	0			0	0		
Colorado Springs, Col.			29.42	747.3	22	5.6	72	N	9	4			10	SW		0.01	0.3		
Corsicana, Texas			29.65	753.1	63	17.2	96	S	6	2.7			10			0.09	2.3	Threatening	
Davenport, Iowa			29.91	759.7	26	−3.3	100	NE	8	3.6			10			0	0		
Denver, Col.			29.55	750.6	23	−5.0	73	N	10	4.5			10			0	0	Light snow	
Detroit, Mich.			29.94	760.5	29	−1.7	89	NE	8	3.6			10			0	0		
Dodge City, Kansas			29.26	743.2	22	−5.6	86	E	2	0.9			10			0	0	Sleet	
Dubuque, Iowa			30.00	762.0	22	−5.6	86	NE	4	1.8			10			0.19	4.8		
Duluth, Minn.			30.07	763.8	−4	−20.0	94	Calm	0	0		0	2			0	0		
Eastport, Me.			30.04	763.0	38	3.3	90	SW	16	7.2		0	10		SW	0.02	0.5		
Erie, Penn.			29.92	760.0	48	8.9	56	SE	18	8.0			10			0	0		
Escanaba, Mich.			30.12	765.0	−4	−20.0	28	N	3	1.5		0	5			0.23	5.8		
Fort Gibson, I. T.			29.57	751.1	58	14.4	93	SE	12	5.4			10		S	0.04	1.0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.06	763.5	−6	−21.1	61	N	6	2.7		0	0			0	0		
Galveston, Texas			29.77	756.1	63	17.2	100	SE	8	3.6			Fog			1.04	1.0	Threatening	
Grand Haven, Mich.			29.95	760.7	25	3.9	81	E	9	4.0			10			Blank	Blank		
Indianapolis, Ind.			29.85	758.2	46	5.8	61	S	8	3.6		5	Sm'e	W		0	0		
Indianola, Texas			29.75	755.6	67	19.4	94	S	14	6.3		0	10		S	0	0		
Jacksonville, Fla.			30.15	765.8	60	15.6	94	Calm	0	0			10			0.05	1.3	Fog	
Keokuk, Iowa			29.78	756.4	30	−1.6	94	NE	8	3.6			10		NE	1.11	2.8	Light rain	
Key West, Fla.			30.14	765.5	74	23.3	72	SE	12	5.4		Haze	Sm'e			0.03	0.8		
Kittyhawk, N. C.			30.29	769.4	45	7.2	78	SE	5	2.2		8	0	NW		0	0		
Knoxville, Tenn.			30.10	764.5	40	4.4	73	Calm	0	0			10			0.02	0.5	Light rain	
La Crosse, Wis.			30.00	762.0	6	−14.4	87	N	2	0.9			10		N	0.09	2.3		
Leavenworth, Kan.			29.71	754.6	32	0.0	80	N	6	2.7			10			0.03	0.8	Light rain	
Lexington, Ky.			29.98	761.5	46	7.8	69	S	14	6.3			10		S	0	0		
Long Branch, N. J.			30.22	767.6	45	7.2	84	SW	3	1.3		2	Haze	W		0	0		
Louisville, Ky.			29.93	760.2	47	8.3	62	SE	4	1.8		5	0	SW		0	0		
Lynchburg, Va.			30.26	768.3	34	1.1	79	Calm	0	0		10	Fog	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.05	763.3	11	−11.7	60	Calm	0	0		5	0			0	0		
Memphis, Tenn.			29.84	757.9	57	13.9	87	SE	6	2.7			10			0.02	0.5		
Milwaukee, Wisconsin			29.98	761.5	22	−5.6	72	NE	12	5.4			10			0.24	1.1		
Mobile, Ala.			29.90	761.7	64	17.8	100	S	10	4.5			10			0	0		
Montgomery, Ala.			30.04	763.0	55	12.8	97	E	2	0.9			Fog			1.06	26.9	Fog	
Morgantown, W. Virginia			30.09	764.3	42	5.6	58	S	1	0.4		2	0	SW		0	0		
Mt. Washington, N. H.			29.95	760.7	24	−4.4	100	NW	80	35.8		5	5		NW	0	0		
Nashville, Tenn.			29.93	760.2	52	11.1	86	SE	3	1.3		5	5	SE		0	0		
New Haven, Conn.			30.22	767.6	36	2.2	80	S	4	1.8		2	Sm'e	SW		0	0		
New London, Conn.			30.24	768.1	39	3.9	82	SW	3	1.3		0	0			0	0		
New Orleans, La.			29.92	760.0	67	19.4	95	S	8	3.6		5	5	S	S	0.58	14.7		
Newport, R. I.																			
New York, N. Y.			30.20	767.1	39	3.8	72	SW	10	4.5		0	0			0	0		
Norfolk, Va.			30.27	768.8	47	8.3	77	Calm	0	0		5	Fog			0	0		
North Platte, Neb.			29.32	770.1	25	−3.9	87	Calm	0	0			10			0	0		
Omaha, Neb.			29.85	758.2	20	−6.7	92	NE	8	3.6			10		E	0	0		
Oswego, N. Y.			29.98	761.5	41	5.0	67	SW	2	0.9		2	2	NW	W	0	0		
Peck's Beach			30.25	768.3	34	1.1	90	SW	8	3.6		5	0			0	0		
Pembina, D. T.			30.26	768.6	−23	−30.6		NW	8	3.6			10			0	0		
Philadelphia, Penn.			30.22	767.6	39	3.9	71	SW	4	1.8		Haze	2		SW	0	0		
Pike's Peak, C. T.			29.24	742.7	4	15.6	100	NW	3	1.3		0	Fog			0.11	2.8	Fog	
Pittsburgh, Penn.			30.03	762.7	47	8.3	48	S	11	4.9		5	0	W		0	0		
Port Huron, Mich.			29.99	761.7	25	−3.9	87	N	15	6.7			10			0.24	1.1	Threatening	
Portland, Maine			30.07	763.8	40	4.4	72	W	9	4.0		5	0	W		0	0		
Portland, Or.			30.00	762.0	40	4.4	91	Calm	0	0			10			0.45	11.4		
Punta Rassa, Fla.			30.17	766.3	69	20.6	90	E	12	5.4		2	0	E		0	0		
Rochester, N. Y.			29.95	760.7	39	3.9	91	Calm	0	0			10			0	0		
Salt Lake City, Utah			29.51	749.5	30	1.1	78	Calm	0	0			10			0.05	1.3		
Sandy Hook, N. J.			30.19	766.8	40	4.4	82	SW	4	1.8		2	Haze	W		0	0		
San Diego, Cal.			29.95	760.7	52	11.1	86	SW	8	3.6		0	5			0	0		
San Francisco, Cal.			29.93	760.2	48	8.9	78	Calm	0	0		5	2			0	0		
Santa Fe, N. M.			29.35	745.5	23	−5.0	73	W	12	5.4			10			0.18	4.6		
Savannah, Georgia			30.14	765.5	55	12.8	87	N	3	1.3			10			0.20	5.1		
Shreveport, La.			29.77	756.1	59	15.0	100	E	4	1.8			10			0.10	2.5	Threatening	
Springfield, Mass.			30.15	765.8	38	3.3	63	S	4	1.8		0	Haze			0	0		
St. Louis, Mo.			29.84	757.9	42	5.6	83	E	4	1.8			10		E	0	0		
St. Marks, Fla.			30.10	764.5	60	15.6	94	S	8	3.6			Fog			0.03	0.8	Fog	
St. Paul, Minn.			30.02	762.5	−11	−23.9	76	Calm	0	0			10			0.04	1.0		
St. Paul's Island, Alaska			29.66	753.4	30	2.2	80	SW	30	13.4			2	W		0.06	1.8		
Squan Beach, N. J.			30.22	767.6	34	1.1	90	SW	3	1.3		0	Haze			0	0		
Toledo, Ohio			29.86	758.4	37	2.8	80	NE	10	4.5		10	0	W		0	0		
Tybee Island, Ga.			30.17	766.3	54	12.2	100	Calm	0	0			10			0.06	1.5	Fog	
Vicksburg, Miss.			29.80	759.2	62	17.2	88	S	11	4.9			10		S	0.98	24.9	Light rain	
Virginia City, Mon.			29.29	744.0	9	−12.8	79	Calm	0	0			10			0.04	1.0		
Washington, D. C.			30.21	767.3	40	4.4	83	Calm	0	0		5	2	W		0	0		
Wilmington, N. C.			30.22	767.6	59	15.0	87	E	8	3.6			10		SW	0	0	Light rain	
Wood's Hole, Mass.			30.23	767.8	43	6.1	83	SW	16	7.2		0	0			0	0		
Wytheville, Va.			30.04	763.0	35	1.7	80	Calm	0	0			10			0	0		
Yankton, D. T.			29.99	761.7	3	−16.1	73	NE	2	0.9			10		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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	81	27.2		NE	4	1.8		0	5			0	0		
Point-a-pitre, G'd'loupe, "			30.02	762.5	72	22.2		E					10			2.00	50.8	Rainy	
Havana, Cuba, W. I.			29.94	760.5	71	21.7	81	E	6	2.7		0	0			0	0		
Kingston, Jamaica, W. I.			30.27	768.8	74	23.3		Calm	0	0		2	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.94	760.5	74	23.3	69	NE	6	2.7		0	0			0	0		
St. Georges, Bermudas			30.49	774.4	61	16.1	74	SE				0	8			0	0		
Honolulu, Sandwich Is.			29.99	761.7	62	16.7	94	Calm	0	0		0	0			0	0		
Makawao, Sandwich Is.	27.71	703.8			59	15.0	81	S			1	10	1			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.65	753.1	—28	—33.3		W	21	9.4			10			0	0		C. Partridge.
Clifton, Jamaica, W. I.			30.13	765.3	68	20.0													John Delaney.
St. Johns, Newfoundland			30.59	777.0	10	—12.2	100	W				Sm'e	Sm'e			0	0		Leon M. Acuña.
St. Johns, Porto Rico W. I.			30.18	766.5	73.9	23.3	74	NE	1		4		10			0.020	0.50		H. M. Redington.
Ellyria, Ohio	29.14	740.1			45	7.2	60	S	10	4.5		0	10			0	0		G. C. Carpenter.
Indianola, Iowa	29.07	738.4			20	— 6.7		NE				0	10			0	0		

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

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.33	745.0															Charnot.
Algiers			29.41	746.9	59.8	15.0	78	NE			1		9			0	0	Fog	Peter.
La Calle			29.52	749.8															Kuntz.
Tunis			29.54	750.4	59.7	15.4	55	E			3		9			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.49	745.1	59.0	15.0		W			4		6			0	0		Grosjean.
Tebessa			29.52	749.7												0	0		Colin.
Gerlville			29.34	745.2	59.9	15.5		NW			4		7			0	0		Bernadach.
Laghouat			29.40	746.8	67.3	19.6	20	SW			6		8			0	0		Poinsignon.
Biskra			29.15	748.1	71.6	22.0		E			4		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.

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.
Agram			29.06	761.1	25.3	– 3.7	72	NE			1		0			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.06	763.5	11.3	–11.5	39	NE			2		0			0	0		I. R. Observatory.
Eperies			29.96	761.0	45.3	7.4	64	Calm			0		3			0	0		Julius Mikolik.
Gratz			29.93	760.3	21.2	– 6.0	70	SE			2.5		0			0	0		Andreas Rospini.
Hermanostadt			29.95	760.7	19.4	– 7.0	80	ENE			1		2			0.033	0.85		Prof. Reissenberger.
Kremsmünster			29.64	752.9	17.6	– 8.0	77	E			7		0			0	0		Prof. C. Wagner.
Lemberg			30.02	762.2	11.1	–11.6	92	NE			2		7			0.004	0.1		Dr. T. Stanecki.
Nyiregyhaza			30.00	762.0	17.6	– 8.0	94	W			1		0			0	0		Habzsuda Daniel.
Pola			29.84	757.9	28.5	3.6	44	ENE			2		10			0	0		I. R. Hydrographic Office
Szegedin			30.00	761.0	11.7	– 9.0	87	SE			1		3			0.018	0.45		Karl Stancel.
Trieste			29.84	758.0	39.7	4.3	36	NW			1		10			0	0		Prof. V. Farolfi.
Vienna			29.89	759.2	22.1	– 5.5	76	SE			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.

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.
Brussels	29.24	742.6			32.4	0.2	98	SSE			1		10			0.028	0.70	Snow	Royal Observatory.

NOTE.—The originals give the wind force 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.

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. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.74	755.4	35.0	1.7		NE	40	17.9			10			0.250	6.35	Snow	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.62	752.3	39.0	3.9		NE			6		4						William McNeil.
Armagh Observatory			29.64	752.8	33.9	1.1		NNE	23	10.3			10					Snow	Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.44	747.8	34.0	1.1		NE			3		9						The Liverpool Obs.
Birr Castle			29.60	751.8	31.2	— 0.4		N			2		10					Snow	J. Dreyer.
Bradford			29.37	746.0	33.9	1.1		E			3		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.34	745.2	33.0	0.6		NE			1		4			0	0	Snow	H. Todd.
Cape Town, Cape Colony			29.86	758.4	74.4	23.6		NW			2		4						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.88	758.9			77.0	25.6	57	NW	16	7.2			1						The Royal Observatory
Cardington			29.38	746.2	33.0	0.6		NE					10					Snow	John McLaren.
Carlisle			29.55	750.6	36.5	2.5		E					4			0	0		T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.88	758.9	74.9	23.8		NE			1		7						Sgt. W. F. Hopkins
Dartmoor			29.54	750.3	26.4	— 3.1		NE			1		10			Blank	Blank	Snow	R. E. Power.
Donaghadee			29.60	751.8	38	3.3		NE			6		5						J. Mac Gowan, Jr.
Dover			29.32	744 7	38	3.3		SE			3		6						J. Costello.
Dublin																			
Durham Observatory			29.52	749.8	34	1.1		ENE					6			Blank	Blank		G. Goldney.
Eccles, (near Manchester)			29.41	747.0	32.1	0.1		NE	2.6	0.9			5					Mist	Thomas Mackereth.
Falmouth Observatory			29.35	745 5	34.2	1.2		NE	7	3.1			9						The Fa mouth Obs.
Fort Napier, (Natal)			29.82	757.4	76.0	24.4		E			3		9						Pvt. G. Salmon.
Galway			29.49	749.0	38	3.3		NE			7		10						Queen's College.
Gibraltar, (Mediterranean)			29.68	753.9	49.2	9.6		W			3		2						Sgt. J. Brewster.
Glasgow Observatory			29.65	753.1	36.0	2.2		NE			6		8					Squally	The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			29.40	746.7	36	2.2		ESE			4		10			Blank	Blank	Snow	G. T. Watson.
Greenwich Royal Obs			29.31	744.5	33.7	0.9		ENE			1		10			Blank	Blank	Snow	The Royal Observatory.
Guernsey			29.31	744.5	35	1.7		NNW			1		7			Blank	Blank		Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.43	747.3	34.0	1.1		E					10			Blank	Blank		Moorside Observatory.
Halifax, (Nova Scotia)			30.20	767.1	32.0	0.0		SE			2		10			Blank	Blank	Mist	Corp'l J. Y. Thompson.
Helston			29.32	744.7	38	3.3		NE			4		4			Blank	Blank	Snow	W. B. Moyle.
Holyhead			29.45	748.0	37	2.8		NE			6		5			Blank	Blank		John Tilston.
Hull Park																			
Kew Observatory			29.31	744.5	32.8	0.4		N E	10	4.5			10			Blank	Blank	Snow and fog	The Met. Office.
Kingstown			29.52	749.8	36	2.2		N			7		10			Blank	Blank	Snow	George Mitchell.
Lampeter																			
Leicester			29.39	746.5	34.0	1.1		NE			2		10			Blank	Blank	Snow	William J. Harrison
Llandudno			29.45	748.0	35.3	1.8		E					10			Blank	Blank		Dr. James Nicol.
Malta, (Mediterranean)			29.75	755.6	64.2	17.9		NW			1		2			Blank	Blank		Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.84	757.9	35	1.7		NE			2		4						William D. Penny.
Nassau, (Bahamas)			29.91	759.7	75.6	24.2		NE			3		9						Surgeon I. Jameson.
North Shields			29.56	750.8	35	1.7		NE			4		7			Blank	Blank	Snow	John Wm. Irvine.
Nottingham			29.42	747.3	36.0	2.2		NE			3		10		NE	Blank	Blank	Snow	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.38	746.2	33.5	0.8		NNE			4		10						St. Mary's College.
Oxford, Radcliffe Obs			29.33	745.0	32	0.0		NE			1		10			Blank	Blank	Snow	Radcliffe Observatory.
Plymouth			29.34	745.2	33	0.6		N			1		10			Blank	Blank		John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.49	749.0	34	1.1		NNE			6		6						W. Kennedy.
Saint Ann's Head			29.38	746.2	35	1.7		ENE			4		5						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.93	760.2	30	— 1.1		NE	24	10.7			2			Blank	Blank	Rainy	Rev. Dr. Clouston.
Scarboro'			29.49	749.0	35.7	2.1		ENE			3		10						F. Heard.
Scutari, (Turkey)			29.91	759.7	33.4	0.8		NE			2		10			Blank	Blank		W. H. Lyne.
Sheffield			29.44	747.8	36.2	2.3		NE			3		10			Blank	Blank	Snow	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.55	750.6	35.0	1.7		NE			4		2						Francis Redford.
Somerleyton, (Lowestoft)			29.88	758.9	36.8	2.7		E			1		10			Blank	Blank	Snow	Rev. C. J. Steward.
Stonyhurst Observatory			29.44	747.8	33.9	1.1		E			4		6			Blank	Blank	Threatening	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.94	760.5	33	0.6		NNE			6		5			Bla k	Blank		John Smith.
Strathfield Turgiss			29.29	744.0	32.2	0.1		N			1		10			Blank	Blank	Snow	Charles H. Griffith.
Streatley Vicarage			29.32	744.7	32.0	0.0		E			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.86	758.4	30	— 1.1		NNE			6		10			Blank	Blank	Snow	William Lawrence.
Taunton College																			
Thurso			29.88	758.9	36	2.2		N E			5		4						John Trotter.
Truro Royal Institution			29.35	745.5	36	2.2		N			4		8			Blank	Blank	Snow	Royal Institution.
Valencia			29.60	751.8	35.8	2.1		NE	33	14.8			10			Blank	Blank	Snow	Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.30	744.2	32.0	0.0		NNE			1		10			Blank	Blank	Snow	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 Cape 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	27.0	— 2.8	76	SE			4		2						
Fanöe			29.71	754.7	32.5	0.3	70	SE			4		1						
Godthaab, (Greenland)			29.88	759.0	18.1	— 7.7		S			7		10			Blank	Blank	Snow	
Stykkisholm, (Iceland)			30.28	769.1	34.9	1.6	85	S			2		8						
Thorshavn, (Faröe)			30.17	766.4	30.4	— 0.9	74	NE			2		5			Blank	Blank	Snow	
Vesterviig			29.71	754.5	31.5	— 0.3	79	ESE			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.48	748.7	61.5	16.4	60					5							Normal School.
Alençon			29.32	744.8	39.2	4.0	83	SW			3		10			0.252	6.4		Normal School.
Amiens			29.37	746.0	43.9	6.6	68	S			6		5		ESE	0	0		Normal School.
Beaumette, (near Angers)			29.34	745.1	36.5	2.5	96	SW	8.1	3.6			10		SW	0.252	6.4	Rain	Beaumette Observatory.
Beauvais			29.37	746.1	44.6	7.0	71	S			4		8		SSW	0.039	1.0		Normal School.
Besançon			29.55	750.6	42.1	5.6	78.5	S			2		5		SW	0	0		Normal School.
Bourges			29.38	746.2	38.8	3.8	87	SSE			2		10		SSE	0	0		Normal School.
Brest			29.30	743.6	36.9	2.7	75	NNW			2		10		NW	0	0		Naval Observatory.
Caen			29.33	744.9	35.6	2.0	93	E			1		10			0.059	1.5		Normal School
Carcassonne																			
Chartres			29.34	745.3	43.3	6.3		SW			1		8		SW	0.181	4.6		Normal School.
Chaumont			29.50	749.2	37.9	3.3		S			6		10			0	0		Normal School.
Le Mans			29.32	744.7	39.2	4.0	93	S			2		5		S	0.087	2.2		Normal School.
Mirecourt			29.44	747.8	33.8	1.0		SSW			2		5			0	0		Normal School.
Orleans			29.37	745.9	40.6	4.8	90	SW			3		5		W	0	0		Normal School.
Paris			29.36	745.8	43.9	6.6	68	S			2		10		S	0.024	0.6		National Observatory.
Parthenay																			
La Roche sur Yon			29.34	745.3	37.4	3.0	83	W			2		8		ENE	0.189	4.8		Normal School.
Rouen			29.32	744.6	40.5	4.7	76	SSE			2		5		S	0	0		Normal School.
Saint Lo			29.32	744.8	34.2	1.2	93	NE			2		10		NE	0	0		Normal School.
Villefranche			29.46	748.3	42.1	5.6	92	SE			2		2		S	0.173	4.4		Normal School.

FRENCH SUB-SERIES.

Station.	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Upper 0—10.	Lower 0—10.	Upper From—	Lower From—	Inches.	Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.89	759.3	70.9	21.6	63.6	N			2		1			0	0		Père Pascall.
Mont-Louis	24.28	616.6			26.8	— 2.9	69	SW	9.3	4.16			4		SW	0.169	4.3		—. Falguère.
Montsouris (near Paris)			29.35	745.6	44.6	7.0	71	SSE	5.2	2.33			7		S	0.028	0.7	Rainy	Marié Davy.
Perpignan	29.35	745.6			52.2	11.2	63	SE	4.2	0.83			5		E	0.098	2.5	Rain	Dr. Fines.
Saint Maur, (near Paris)			29.34	745.4	46.0	7.8	64	S			4		3			0.032	0.8		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.34	745.1	41.4	5.2	78	S			1		10		S	0.012	0.3		C. Marquet.
Versailles, (near Paris)			29.35	745.4	43.9	6.6	70	SSE			2		8			0.015	0.39		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Upper 0—10.	Lower 0—10.	Upper From—	Lower From—	Inches.	Millimeters.	Weather.	Observer.
Bamberg			29.02	752.4	30.9	— 0.6	56	SE			2		5			0	0		Prof. Hoh.
Berlin			29.85	758.3	26.2	— 3.2	55	SE			4		0			0	0		Prof. Arndt.
Breslau			29.96	760.9	20.5	— 6.4	68	SE			5		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.54	750.5	29.8	— 1.2	55	S			1		10			0	0		A. Leuz.
Cassel			29.51	749.9	38.7	3.7	76	E			2		2			0	0		Dr. H. Mohl.
Cologne			29.61	752.0	25.3	— 3.7	77	SE			3		8			0	0		Dr. Gaithe.
Emden			29.66	753.4	37.6	3.1	90	SE			4		1			0	0		Prof. Prestel.
Frankfort on the Main			29.70	754.4	32.0	0.0	48	E			3		0			0	0		Physical Society.
Friedrichshafen			29.65	753.1	27.5	— 2.5	89	NW					9			0	0		M. Wilhelm.
Hamburg			29.70	754.4	33.4	0.8	49	SE			6		2			0	0		W. Reinart.
Kiel			29.76	756.0	32.9	0.5	57	SE			4		0			0	0		Prof. G. Karsten.
Königsberg			30.14	765.5	20.3	— 6.5	59	SE			2		0			0	0		Prof. E. Luther.
Köslin			30.24	768.2	21.9	— 5.6		SE			4		0			0	0		Dr. Tägert.
Leipsic			29.74	755.4	25.7	— 3.5	89	E			4		1			0	0		Prof. Bruhns.
Münster			29.54	750.2	34.0	1.1	88	E			2		5			0	0		Prof. E. Heis.
Posen			30.04	763.1	14.9	— 9.5	85	SE			5		0			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			29.59	751.5	28.0	— 2.2	75	SW					10			0	0		Hartwig and Fulk.
Stuttgart			29.59	751.6	29.3	— 1.5	50	SW					8			0	0		Mr. Wurth.
Thorn			30.04	763.1	19.6	— 6.9	55	E			5		0			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.47	748.4	30.9	— 0.6	68	SW			1		10			0.004	0.1		Prof. Flesch.
Wustrow			29.88	759.0	24.8	— 4.0	69	SE			4		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	Upper 0—10.	Lower 0—10.	Upper From—	Lower From—	Inches.	Millimeters.	Weather.	Observer.
Moncalieri			29.89	759.2	31.3	— 0.4	78	NW			2		9	NE		0.193	4.9	Snow	
Mondovi			29.89	759.2	28.2	— 2.1	65	NW			2		7			Blank	Blank		
Genoa			29.75	755.6	30.0	— 1.1	50	N	16.8	7.50			10			Blank	Blank	Snow	
Pavia			29.88	759.0	28.6	— 1.9	86	NE			1		10			0.259	6.5	Snow	
Verona																			
Padua			29.85	758.2	31.3	— 0.4	54	NNE	8.7	3.89			10			0	0		
Parma																			
Bologna			29.88	759.0	31.1	— 0.5	53	W			4		10			Blank	Blank	Snow	
Livorno			29.67	753.6	35.1	1.7	70	ENE	13.0	5.82			10			0.039	1.0	Rain & sleet.	
Urbino			29.85	758.1	30.7	— 0.7		SE			2		10			0	0		
Ancona																			
Siena			29.68	754.2	34.9	1.6	91	ENE	3.1	1.39			10	E		0.012	0.3	Snow, rain, hail.	
Rome			29.63	752.5	56.5	13.6	55	SSE	10.5	4.72			4	SE		0	0		
Naples, O.U.			29.69	754.2	55.8	13.2	53	N	4.5	2			4			0	0		Prof. F. Brioschi.
Naples, S. R.																			
Lecce			29.84	758.0	46.4	8.0	79	ENE	9.3	4.17			10			0	0		
Cosenza			29.83	757.6	44.2	6.8	72	NNW			1		10			0	0		
Catania, (Sicily)			29.74	755.5	56.3	13.5	78	ESE			2		8	SE		0	0		
Riposto																			
Palermo			29.54	750.4	64.9	18.3	40	NE			1		1			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			29.44	747.7	33.6	0.9		SE			4								
Groningen			29.49	749.1	33.8	1.0		ESE			4								
Helder			29.47	748.4	32.2	0.1		E			3								
Utrecht			29.43	747.4	36.9	2.7		SE			3		5						

NOTE.—The originals give the force 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.

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.
Bergen			29.78	756.4	31.1	— 0.5	86	SSE	8.5	3.8			10			Blank	Blank	Snow	
Christiania			29.87	758.8	28.8	— 1.8	80	SSW	16.8	7.5			9			0	0		
Tromsö			29.88	758.9	19.8	— 6.8	89	N			6		10			Blank	Blank		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.33	745.0			48.9	9.4	76	W	4.9	2.2			8			Blank	Blank		

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.08	763.9	18.3	— 7.6	89	E	4.5	2			0						Astronomical Obs.
Wilna			30.19	766.8	20.3	— 6.5	72	SE	4.5	2			0						Astronomical Obs.
Dorpat			30.23	767.8	19.4	— 7.0	77	SSW	6.7	3			10						Physical Cabinet.
St. Petersburg			30.11	764.7	23.4	— 4.8	76	SW	4.5	2			10						Central Physical Obs.
Kieff			29.96	760.9	16.9	— 8.4	94	NE	13.4	6			10					Snow	Physical Cabinet.
Nikolaiev			29.77	756.1	26.6	— 3.0	85	S	16.8	7.5			10						
Kertch			29.76	756.0	37.9	3.3	90	SE	7.5	3.5			10					Fog	Lagorio.
Moscow			30.39	772.0	11.1	—11.6	82	S	10.1	4.5			0						Meteorological Obs.
Lugan			30.02	762.5	28.2	— 2.1	79	E	20.1	9			10					Snow	Meteorological Obs.
Archangel			29.87	758.7	25.2	— 3.8	91	SSW	13.4	6			10						Ogorodnikof.
Tiflis			30.13	765.3	18.3	— 7.6	65	S	10.1	4.5			7						Physical Obs.
Astrakhan			30.36	771.2	25.9	— 3.4	80	E	2.2	1			10						Sebastianof.
Kasan			30.42	772.6	18.9	— 7.3	81	WSW	5.4	2.5			10						Physical Cabinet.
Orenburg			30.39	772.0	1.4	—17.0	90	SW	4.5	2			0						Tschernischef.
Ekaterinburg			30.43	772.8	15.4	— 9.2	78	W	16.8	7.5			10						Meteorological Obs.
Kasaly			30.35	770.9	12.7	—10.7	53	NE	10.1	6			0						Bobrof.
Tashkend			30.30	769.7	15.3	— 9.3	66	NW	7.5	3.5			10					Rain	Michelson.
Barnaul			30.50	774.6	— 0.2	—17.9	78	Calm	0	0			4						Meteorological Obs.
Yeniseisk			30.11	764.9	9.0	—12.8	75	W	7.5	3.5			7						Clarks.
Irkutsk			30.24	768.1	0.9	—17.3	78	Calm	0	0			0						Usolzef.
Oorga			30.33	770.4	11.1	—11.6	69	Calm	0	0			0						Mossin.
Peking, (China)			30.47	773.8	30.4	— 0.9	56	Calm	0	0			3						Physical Observatory
Nertchinsk			30.45	773.5	—11.6	—24.2	86	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 6.5	—21.4		Calm	0	0			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.

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.
Madrid			29.60	751.5	45.3	7.4	60	SW	7.4	3.3			8			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	25.9	− 3.4	95	NE			2		10			0	0		Dr. Hildebrandsson.
Hernosand			29.75	755.6	29.1	− 1.6	80	SW			2		7			0	0		
Upsala			29.93	760.3	23.4	− 4.8	75	SW			2		4			0	0		
Stockholm			29.88	758.9	25.9	− 3.4	72	SW			4		8			0	0		
Wisby			30.06	763.5	29.3	− 1.5										0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.12	714.2			34.7	1.5	75	N			1		3			0.043	1.1	Fog	The Observatory.
Zurich	28.71	729.7			36.9	− 2.7	87	SE			1		4			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —11.5mm.; Thermometer, —3°5. 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, 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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)			30.01	762.2	65.4	18.8	70	WSW			2		5			Blank	Blank	Rain	
Constantinople			29.91	759.6	30.5	0.3	88	NNE	7.8	3.5			10		NE	Blank	Blank		
Fao, (Persian Gulf)			30.08	764.0	63.5	17.5		SE			3		10						
Salonica			30.18	766.6	46.0	7.8		N			1		10						
Valona			29.78	756.3	46.9	8.3		W			1		10						
Varna			29.96	761.0	26.6	− 3.0		NW			4		2			Blank	Blank		

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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			30.23	767.8	23	− 5.0	86	S	7	3.1		2	5	S		0	0		
Chatham, N. B			30.18	766.6	27	− 2.8	94	NE	2	0.9			Haze			0.03	0.8		
Charlottetown, P. E. Island			30.23	767.8	33	0.6	90	SE	9	4.0			10			0.65	16.5		
Father Point, Quebec			29.65	753.1	5	−15.0	75	NE	11	4.9			Haze			0.01	0.3	Light snow	
Fort Garry, Manitoba			30.32	770.1	−25	−31.7	100	Calm	0	0		2	5	W	W	0	0		
Halifax, N. S			30.14	765.5	32	0.0	99	SE	8	3.6			Fog			0	0	Fog	
Kingston, Ontario			29.69	754.1	41	5.0	84	S	21	9.4			10			0.08	2.0		
Montreal, Quebec			29.70	754.4	20	− 1.7	98	NE	12	5.4			Fog			0.16	4.1		
Ottawa, O tario			29.63	752.6	30	− 1.1	70	S	2	0.0			Fog			0.05	1.3	Threatening	
Parry Sound, Ontario			29.55	750.6	34	1.1	89	SE	4	1.8			10			0.09	2.3	Light rain	
Port Dover, Ontario			29.65	753.1	42	5.6	91	S	5	2.2			10			0	0	Light rain	
Port Stanley, Ontario			29.65	753.1	40	4.4	93	SW	6	2.7			10			0.51	13.0	Light rain	
Quebec, Quebec			29.88	758.9	26	− 3.3	99	NE	24	10.8			10			0	0		
Saugeen, Ontario			29.55	750.6	35	1.7	100	S	4	1.8			10			0.17	4.3	Light snow	
Sydney, C. B			30.30	769.6	32	0.0	96	NE	3	1.3			10			0.18	4.6	Fog	
Toronto, Ontario			29.65	753.1	34	1.1	96	S	13	5.8			10			0.14	3.6		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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.			29.81	757.2	45	7.2	100	SE	14	6.3		Haze	8			0	0	Clearing	
Alpena, Mich.			29.60	751.8	24	4.4	87	N	8	3.6			10		N	0.11	2.8	Slee	
Atlantic City, N. J.			29.92	760.0	43	6.1	100	SW	12	4.5			10			0.13	3.6	Light rain	
Augusta, Ga.			30.07	763.8	63	17.2	94	S	4	1.8		5	5	S	S	0.36	9.1		
Baltimore, Md.			29.92	760.0	45	7.2	92	Calm	0	0			Fog			0.13	3.3	Fog	
Barnegat, N. J.			29.84	757.9	39	3.9	100	S	1	0.4			Fog			0	0	Fog	
Benton, Montana			30.03	762.7	—5	—20.6	100	Calm	0	0		5	0	W		0.01	0.3		
Bismarck, Dakota			30.26	768.6	—12	—24.4	75	S	4	1.8			10		S	0	0		
Boston, Mass.			29.91	759.7	48	8.9	100	S	4	1.8			Fog			0.01	0.3	Light rain	
Breckenridge, Minn.			30.27	768.8	—18	—27.8	85	NW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.64	754.8	47	8.3	81	W	8	3.6			10		SW	0.05	1.3		
Burlington, Vt.			29.76	756.9	42	5.6	74	S	11	4.9			10			0	0		
Cairo, Ill.			29.76	755.9	55	12.8	93	S	8	3.6		0	0			0.30	9.9		
Cape Hatteras, N. C.			30.11	764.8	62	16.7	94	SW	18	4			10			0.05	1.3		
Cape Henry, Va.			30.03	762.7	67	19.4	89	SW	14	6.3		8	0	SW		0.19	4.8		
Cape May, N. J.			29.94	760.5	41	5.0	100	S	20	8.9			Fog			0.44	11.2	Fog	
Charleston, S. C.			30.15	765.8	60	15.6	83	S	4	1.8		2	Sm'e	S		0.05	1.3		
Cheyenne, W. T.			29.64	752.8	8	—13.3	100	S	4	1.8			10			0.03	0.8		
Chicago, Ill.			29.65	753.1	30	—1.1	100	N	8	3.6			10			0.47	11.9	Threatening	
Cincinnati, Ohio			29.74	755.4	56	13.3	87	Calm	0	0		2	Sm'e			0.33	8.4		
Cleveland, Ohio			29.63	752.6	52	11.1	84	SW	12	5.4		10	0	W		0.03	0.8	Clearing	
Colorado Springs, Col.			29.63	752.6	12	—11.1	100	Calm	0	0			10			0.21	5.3	Light snow	
Corsicana, Texas			29.82	757.4	54	12.2	73	S	6	2.7		0	5			0.03	0.8		
Davenport, Iowa			29.77	756.1	23	—5.0	100	N	8	3.6			10			0.12	3.0		
Denver, Col.			29.75	755.6	13	—10.6	79	NE	4	1.8			10			1.15	3.8		
Detroit, Mich.			29.54	750.3	46	7.8	92	S	10	4.5			Fog			0.28	7.1	Fog	
Dodge City, Kansas			29.69	754.1	11	—11.7	80	N	21	8.9			10			0.01	0.3	Light snow	
Dubuque, Iowa			29.87	758.7	12	—11.1	80	N	12	4.5			10			0.45	11.4	Threatenin	
Duluth, Minn.			30.16	766.1	0	—17.8	69	N	16	7.2			10			0	0		
Eastport, Me.			30.09	764.3	34	1.1	100	E	6	2.7			10			0.03	0.8	Light rain	
Erie, Penn.			29.61	752.1	55	12.8	80	SW	30	12.4			10			0.03	0.8		
Escanaba, Mich.			29.90	759.4	5	—15.0	76	N	24	10.7			10		N	0.22	5.6		
Fort Gibson, I. T.			29.88	758.9	30	—1.1	78	N	10	4.5		2	2	W		0.02	0.5		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.34	770.6	—6	—21.1	61	N	6	2.7		0	5		N	0	0		
Galveston, Texas			29.80	756.9	65	18.3	100	SE	6	2.7			Fog			0.02	0.5	Fog	
Grand Haven, Mich.			29.60	751.8	32	0.0	79	N			4		10			Blank	Blank		
Indianapolis, Ind.			29.66	753.4	52	11.1	93	SW	7	3.1		10	0	SW		0.02	0.5		
Indianola, Texas			29.79	756.7	68	20.0	94	S	6	2.7			10		SW	0	0		
Jacksonville, Fla.			30.17	766.3	64	17.8	83	SE	6	2.7		0	0			0	0		
Keokuk, Iowa			29.79	756.7	30	—1.1	89	NW	16	7.2			10		NW	0.55	14.0		
Key West, Fla.			30.16	766.1	75	23.9	81	SE	9	4.0		2	Sm'e	SE		0	0		
Kittyhawk, N. C.			30.07	763.8	64	17.8	89	SW	20	8.9		5	2	NW		0.37	9.4		
Knoxville, Tenn.			29.87	758.7	56	13.3	100	NW	10	4.5			10		NW	3.11	79.0	Heavy rain	
La Crosse, Wis.			29.92	760.0	15	—9.4	100	N	12	5.4			10		N	0.91	23.1	Heavy snow	
Leavenworth, Kan.			29.96	761.0	23	—5.0	83	N	6	2.7			10		N	0.15	3.8		
Lexington, Ky.			29.80	756.9	53	11.7	96	S	12	5.4		5	0	SW		1.29	32.8		
Long Branch, N. J.			29.91	759.7	40	4.4	100	S	5	2.2			Fog			0.28	7.1	Fog	
Louisville, Ky.			29.73	755.1	56	13.3	87	SE	2	0.9		0	5			0.65	16.5		
Lynchburg, Va.			30.00	762.0	47	8.3	100	Calm	0	0			10			0.99	25.1	Light rain	
Malone, N. Y.																			
Marquette, Mich.			30.02	762.8	2	—16.7	73	NW	20	8.9			10		NW	0.08	2.0	Light snow	
Memphis, Tenn.			29.83	757.7	61	16.1	100	SW	1	0.4		10	0	SW		0.05	1.3		
Milwaukee, Wisconsin			29.78	756.4	17	—8.3	83	N	15	6.7			10			0.34	8.6	Light snow	
Mobile, Ala.			29.98	761.5	65	18.3	94	S	6	2.7			Fog			0	0	Fog	
Montgomery, Ala.			29.98	761.5	68	20.0	94	S	3	1.3		10	0	SW		0.18	4.6		
Morgantown, W. Virginia			29.76	755.9	58	14.5	75	S	8	3.6		2	8	SW	SW	0.15	3.8		
Mt. Washington, N. H.			29.91	759.7	35	1.7	100	SW	52	23.2			10			0.10	2.5	Light rain	
Nashville, Tenn.			29.81	757.2	63	17.2	83	SW	4	1.8		2	2	SW		0.80	20.3		
New Haven, Conn.			29.89	759.2	45	7.2	100	SE	5	2.2			10			0.09	2.3	Fog	
New London, Conn.			29.92	760.0	44	6.7	100	SE	3	1.3			Fog			0.21	5.3	Fog	
New Orleans, La.			29.91	759.7	71	21.7	90	SE	9	4.0			10		SE	0	0		
Newport, R. I.													Fog						
New York, N. Y.			29.91	759.7	46	7.8	100	SE	4	1.8			Fog		SW	0.15	3.8	Fog	
Norfolk, Va.			30.03	762.7	63	17.2	94	SW	11	4.9			10			0.22	5.6		
North Platte, Neb.			29.84	757.2	5	—15.0	75	NE	4	1.8			10			0.15	3.8		
Omaha, Neb.			30.03	762.7	10	—12.2	100	N	13	5.8		0	2			0.22	5.6		
Oswego, N. Y.			29.69	754.1	47	8.3	81	S	8	3.6			10		W	0.06	1.5	Threatening	
Peck's Beach			29.92	760.0	42	5.6	100	SW	12	5.4			10			0.21	5.3	Light rain	
Pembina, D. T.			30.39	771.9	—23	—30.6		Calm	0	0			10			0	0		
Philadelphia, Penn.			29.90	759.4	47	8.3	100	SW	11	4.9			Fog			0.17	4.3	Fog	
Pike's Peak, C. T.			29.33	745.0	7	—13.9	100	Calm	0	0			Fog			0.21	5.3	Fog	
Pittsburgh, Penn.			29.72	754.9	56	13.3	80	SW	10	4.5		5	5	W	W	0	0		
Port Huron, Mich.			29.53	750.0	43	6.1	100	S	12	5.4			10		W	0.30	7.6		
Portland, Maine			29.96	761.0	39	3.9	81	Calm	0	0			10			0.30	7.6	Heavy rain	
Portland, Or.			30.20	767.1	43	6.1	91	Calm	0	0			10			0	0		
Punta Rassa, Fla.			30.20	767.1	71	21.7	85	SE	12	5.4		0	0			0	0		
Rochester, N. Y.			29.63	752.6	50	10.0	71	S	8	3.6		0	5			0	0		
Salt Lake City, Utah			29.88	758.9	23	—5.0	72	SE	4	1.8		5	0	SW		0.58	14.7		
Sandy Hook, N. J.			29.88	758.9	45	7.2	96	S	15	6.7			Fog			0.17	4.3	Fog	
San Diego, Cal.			30.12	764.8	50	10.0	77	E	4	1.8		0	8			0	0		
San Francisco, Cal.			30.09	764.3	46	7.8	81	Calm	0	0		Haze	Haze			0	0		
Santa Fe, N. M.			29.41	747.0	4	—15.6	61	W	4	1.8		0	5			0	0		
Savannah, Georgia			30.15	765.8	62	16.7	88	S	9	4.0		0	2	SW		0	0		
Shreveport, La.			29.84	757.9	63	17.2	94	Calm	0	0		8	0	SW		0.17	4.3	Clearing	
Springfield, Mass.			29.89	759.2	40	4.4	91	SE	4	1.8			Fog			0.10	2.5	Light rain	
St. Louis, Mo.			29.93	760.2	47	8.3	77	NW	16	7.2			10			0.03	0.8	Cloudy	
St. Marks, Fla.			30.11	764.8	64	17.8	94	S	8	3.6			10			0	0		
St. Paul, Minn.			30.02	762.5	6	—14.4	76	N	13	5.8		Haze	5			0.30	7.6		
St. Paul's Island, Alaska			29.78	756.4	36	2.2	80	S	11	4.9		10	0	SW		0	0		
Squan Beach, N. J.			29.89	759.2	36	2.2	90	SE	6	2.7			10			0.27	6.9	Light rain	
Toledo, Ohio			29.51	748.5	50	10.0	86	S	11	4.9		0	0			0.31	7.9		
Tybee Island, Ga.			30.17	766.3	59	15.0	94	S	2	0.9		5	2	W		0	0		
Vicksburg, Miss.			29.88	758.9	67	19.4	94	SE	10	4.5			10		SE	0.90	22.9		
Virginia City, Mon.			29.53	750.0	3	—16.1	75	Calm	0	0			10			0.08	2.0		
Washington, D. C.			29.93	760.2	46	7.8	100	S	3	1.3			Fog			0.10	2.5	Fog	
Wilmington, N. C.			30.14	765.5	66	18.9	94	SW	16	7.2			10		SW	0.29	7.4		
Wood's Hole, Mass.			29.91	759.7	46	7.8	100	S	9	4.0			10			0.27	6.9	Heavy rain	
Wytheville, Va.			29.77	756.1	47	8.3	92	S	2	0.9			10			0.84	21.3	Heavy rain	
Yankton, D. T.			30.26	768.6	—10	—23.3	76	NW	16	7.2		0	0			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.			30.09	764.3	79	26.1		NE	3	1.3		5	5	NE		0	0		
Point-a-pitre, G'd'loupe, "			30.01	762.2	72	22.2		NE				2	5			0.8	2.0		
Havana, Cuba, W. I.			29.95	760.7	74	23.3	81	SE	6	2.7		0	0			0	0		
Kingston, Jamaica, W. I.			30.30	769.6	74	23.3		NE	2	0.9			10			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	72	22.2	71	Calm	0	0		0	2		E	0	0		
St. Georges, Bermudas			30.41	772.4	64	17.8	78	S	13.4	6.0		0	2			0.050	1.27		
Honolulu, Sandwich Is			30.12	765.0	66	18.9	90	Calm	0	0		10	10	S		1.53	38.8	Rain	
Makawao, Sandwich Is.	27.84	707.1			61	16.1	88	S			1	10	10			0.05	1.3	Stormy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.88	758.9	−20	−28.9			16	7.2		10	0	N		0	0		
Clifton, Jamaica, W. I.			30.14	765.4	67	19.4		W											C. Partridge.
St. Johns, Newfoundland			30.48	774.2	27	− 2.8	94	E				Sm'e	Sm'e			0.25	7.0		John Delaney.
St. Johns, Porto Rico W. I.			30.17	766.3	76.6	24.8	61	E			4	1	1	W		0.008	0.20		Leon M. Acuña.
Ellyria, Ohio	28.87	733.3			50	10.0		S	9	4.0		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.07	738.4			13	−10.6		N				0	0			0.30	0.7		G. C. Carpenter.

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.88	759.0															Charnot.
Algiers			29.85	758.1	59.0	15.0	55	WSW			2		4			0	0		Peter.
La Calle			29.81	757.2															Kuntz.
Tunis			29.80	756.9	59.7	15.4	53	WNW			6		7			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.89	759.3	54.5	12.5		WSW			2		6			0	0		Grosjean.
Tebessa			29.82	757.5															Colin.
Gerlville			29.88	759.0	54.5	12.5		S			2		1			0	0		Bernadach.
Laghouat			29.87	758.6	56.8	13.8	24	NW			3		6			0	0		Poinsignon.
Biskra			29.84	758.0	65.3	18.5		NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

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

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.
Agram			29.82	757.4	21.4	— 5.9	98	Calm			0		10			1.350	34.3	Snow	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.99	761.8	12.6	—10.8	38	NE			2		0			0	0		I. R. Observatory.
Eperies			29.93	760.2	45.0	7.2	69	Calm			0		0			0	0		Julius Mikolik.
Gratz			29.85	758.1	24.1	— 4.4	85	SSW			2.5		10			0.016	2.7		Andreas Rospini.
Hermanustadt			29.94	760.5	14.7	— 9.6	91	ENE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			29.73	755.1	20.5	— 6.4	84	E			7		10			0.150	3.8		Prof. C. Wagner.
Lemberg			29.96	760.9	16.5	— 8.2	89	NE			3		10			0.004	0.1		Dr. T. Stanecki.
Nyiregyhaza			29.95	760.7	13.3	—10.4	93	NE			2		0			0	0		Habzsuda Daniel.
Pola			29.34	745.3	34.5	1.4	83	ENE			7		10			0.096	2.44	Rain	I. R. Hydrographic Of'ce
Szegedin			29.83	757.6	14.4	— 9.8	94	E			3		7			0	0		Karl Stancel.
Trieste			29.48	748.9	28.4	— 2.0	82	ENE			6		10					Snow	Prof. V. Farolfi.
Vienna			29.85	758.1	24.8	— 4.0	72	SE			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.

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.
Brussels	29.40	746.8			40.5	4.7	91	SSW			1		0			0.087	2.20		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			29.84	757.9	36.0	2.2		E	38	17.0			10			0.160	4.06		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.68	753.9	37.0	2.8		ENE			5		7						William McNeil.
Armagh Observatory			29.60	751.8	38.0	3.3		NE	25	11.2			10					Squally	Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.51	749.5	36.2	2.3		ENE			4		10					Mist	The Liverpool Obs.
Birr Castle			29.51	749.5	35.7	2.1		NE			2		10					Snow	J. Dreaper.
Bradford			29.51	749.5	34.1	1.2		NE			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.50	749.3	37.0	2.8		SSE			1		4			0	0		H. Todd.
Cape Town, Cape Colony			29.98	761.5	74.2	23.4		W			4		4						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.90	759.4			79.2	26.2	39	W	16	7.1			1						The Royal Observatory.
Cardington			29.49	749.0	38.4	3.6		E					10					Snow	John McLaren.
Carlisle			29.63	752.6	35.4	1.9		E			6		9			0	0		T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.89	759.2	78.0	25.6		NE			2		4						Sgt. W. F. Hopkins
Dartmoor			29.45	748.0	30.2	— 1.0		E			3		10			Blank	Blank	Snow	R. E. Power.
Donaghadee			29.59	751.6	38	3.6		ENE			6		5						J. Mac Gowan, Jr.
Dover			29.53	750.1	38	3.6		SW			2		6						J. Costello.
Dublin																			
Durham Observatory			29.62	752.3	32.3	0.2		ENE					10			Blank	Blank	Snow	G. Goldney.
Eccles, (near Manchester)			29.51	749.5	38.0	3.6		ENE	5.6	2.5			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.35	745.0	37.5	3.1		E	32	14.5			10					Rain	The Falmouth Obs.
Fort Napier, (Natal)			29.74	755.4	86.0	30.0					2		1						Pvt. G. Salmon.
Galway			29.39	746.5	39	3.9		NE			7		10						Queen's College.
Gibraltar, (Mediterranean)			29.79	756.7	63.4	17.4		W			4		6						Sgt. J. Brewster.
Glasgow Observatory			29.70	754.4	35.8	2.1		NE			5		10					Squally	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.55	750.6	38	3.3		SSE			3		8						G. T. Watson.
Greenwich Royal Obs			29.50	749.3	39.4	4.1		SE			1		6			Blank	Blank		The Royal Observatory.
Guernsey			29.33	745.0	40.5	4.7		SE			4		8			Blank	Blank		Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.51	749.5	33.0	0.6		NE					10			Blank	Blank		Moorside Observatory.
Halifax, (Nova Scotia)			29.90	759.4	35.9	2.2		Calm			0		10			Blank	Blank	Mist	Corp'l J. Y. Thompson.
Helston			29.30	744.2	38	3.3		NE			4		10			Blank	Blank	Snow	W. B. Moyle.
Holyhead			29.48	748.8	39	3.9		ENE			5		2					Mist	John Tilston.
Hull Park																			
Kew Observatory			29.50	749.3	39.0	3.9		SE	13	5.8			6						The Met. Office.
Kingstown			29.50	749.3	38	3.3		ENE			5		10						George Mitchell.
Lampeter																			
Leicester			29.49	749.0	35.1	1.7		NE			1		10						William J. Harrison
Llandudno			29.51	749.5	38.4	3.6		E					4						Dr. James Nicol.
Malta, (Mediterranean)			29.66	753.4	60.0	15.6		NW			2		10						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.88	758.9	35.0	1.7		NE			2		9						William D. Penny.
Nassau, (Bahamas)			30.21	744.5	76.0	24.4		SE			2		4						Surgeon I. Jameson.
North Shields			29.64	752.8	36	2.2		E			6		9						John Wm. Irvine.
Nottingham			29.51	749.5	35.3	1.8		ENE			2		10		ENE	Blank	Blank	Rain	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.48	748.8	33	0.9		NE			2		10			Blank	Blank	Snow	St. Mary's College.
Oxford, Radcliffe Obs			29.45	748.0	36	2.2		E			2		0			Blank	Blank	Snow	Radcliffe Observatory.
Plymouth			29.35	745.5	34.5	1.4		E			2		10			Blank	Blank	Snow & mist	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.39	746.5	38	3.3		NE			4		10			Blank	Blank		W. Kennedy.
Saint Ann's Head			29.40	746.7	39	3.9		ESE			3		6						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.99	761.7	36	2.2		E	26	11.6			3			Blank	Blank	Rainy	Rev. Dr. Clouston.
Scarboro'			29.59	751.6	37.5	3.1		E			4		10					Hazy	F. Heard.
Scutari, (Turkey)			29.93	760.2	38.0	3.3		NE			2		10			Blank	Blank	Mist	W. H. Lyne.
Sheffield			29.51	749.5	35.1	1.7		E			1		10			Blank	Blank		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.60	751.8	35.1	1.7		NE			6		5						Francis Redford.
Somerleyton, (Lowestoft)			29.54	750.3	39.6	4.2		SE			1		9						Rev. C. J. Steward.
Stonyhurst Observatory			29.53	750.0	34.0	4.1		NE			2		10			Blank	Blank	Threatening	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			29.92	760.0	38	3.3		ENE			5		8			Blank	Blank	Light rain & hail	John Smith.
Strathfield Turgiss			29.46	748.3	39.7	4.3		E			1		8						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			29.98	761.5	36	2.2		N			6		8						William Lawrence.
Taunton College																			
Thurso			29.95	760.7	37	2.8		E			3		4						John Trotter.
Truro Royal Institution			29.29	744.0	38	3.3		NE			4		10			Blank	Blank	Rain	Royal Institution.
Valencia			29.43	747.3	38	3.3		NE	35	15.6			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			29.47	748.5	37.7	3.2		SE			4		10						S. H. Miller.
York																			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 Cape 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	762.4	28.8	— 1.8	74	SE			4		0						
Fanöe			29.87	758.8	30.6	— 0.8	66	ESE			6		1						
Godthaab, (Greenland)			29.94	760.5	18.5	— 7.5		S			7		10			Blank	Blank	Snow	
Stykkisholm, (Iceland)			29.92	760.0	37.4	3.0	96	S			4		10			Blank	Blank	Rain	
Thorshavn, (Faröe)			30.17	766.4	35.1	1.7	85	NE			1		2						
Vestervig			29.95	760.6	31.3	— 0.4	70	E			7		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.

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.	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			29.51	749.5	55.2	12.9	66						5						Normal School.
Alençon			29.49	749.1	43.5	6.4	85	SW			2		2		ESE	0.157	4.0		Normal School.
Amiens			29.50	749.5	43.9	6.6	88	S			6		5		S	0.118	3.0		Normal School.
Beaumette, (near Angers)			29.47	748.5	49.8	9.9	42	SW	8.9	4.0			2		SW	0.047	1.2		Beaumette Observatory.
Beauvais			29.53	750.1	44.1	6.7	74	S			1		10		S	0	0		Normal School.
Besançon			29.66	753.4	42.8	6.0	67	SSW			2		0			0.031	0.8		Normal School.
Bourges			29.69	751.7	47.5	8.6	70	S			2		8		S	0.135	3.4		Normal School.
Brest			29.28	743.6	41.2	5.1	80	WSW			2		5		SW	0.020	0.5		Naval Observatory.
Caen			29.46	748.2	41.2	5.1	84	S			4		1		S	0	0		Normal School
Carcassonne																			
Chartres			29.52	749.9	41.2	5.1		SSW			2		10			0.063	1.6		Normal School.
Chaumont			29.66	753.3	33.1	0.6		S			2		5		S	0.118	3.0		Normal School.
Le Mans			29.51	749.5	43.7	6.5	65	SE			2		5		SE	0.276	7.0		Normal School.
Mirecourt			29.60	751.7	41.4	5.2		NE			2		0			0	0		Normal School.
Orleans			29.56	750.8	44.6	7.0	83	SW			2		8		SW	0	0		Normal School.
Paris			29.55	750.6	41.7	5.4	88	SSW			2		10			0.067	1.7	Rain	National Observatory.
Parthenay															NNE				
La Roche sur Yon			29.49	749.1	48.0	8.9	50	SSW			4		8			0.240	6.1		Normal School.
Rouen			29.52	749.8	40.8	4.9	81	SSE			2		10			0	0		Normal School.
Saint Lo			29.43	747.6	42.8	6.0	65	S			3				S	0.079	2.0		Normal School.
Villefranche			29.85	758.2	49.3	9.6	90	NNW			1		0			0	0		Normal School.

FRENCH 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.	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.
Gorée, (Senegambia)			29.87	758.7	70.2	21.2	63.6	NNE			3		0			0	0		Père Pascall.
Mont-Louis	24.43	620.4			29.3	− 1.5	75	SW	18.6	8.33			4		SW	0	0		—Falguère.
Montsouris (near Paris)			29.56	750.7	40.8	4.9	87	S	8.9	3.97			10		S	0.059	1.5		Charié-Davy.
Perpignan	29.51	749.6			51.8	11.0	72	E	5.6	2.50			0			0.063	1.6		Dr. Blaes.
Saint Maur, (near Paris)			29.56	750.8	42.1	5.6	95	SSW			2		10			0.051	1.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.54	750.4	46.0	7.8	77	SW			1		8		SW	0.024	0.6		C. Marquet.
Versailles, (near Paris)			29.54	750.3	43.9	6.6	88	S			2		10			0.136	3.44		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	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			29.63	752.5	29.8	− 1.2	65	SE			1		6			0	0		Prof. Hoh.
Berlin			29.90	759.5	24.8	− 4.0	72	SE			2		1			0	0		Prof. Arndt.
Breslau			29.93	760.3	23.0	− 5.0	61	E			3		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.68	753.9	36.7	2.6	56	NE			2		7			0	0		A. Leuz.
Cassel			29.67	753.6	39.4	4.1	79	SSE			1		3			0	0		Dr. H. Mohl.
Cologne			29.70	754.3	36.3	2.4	67	SE			4		2			0	0		Dr. Gaithe.
Emden			29.8	758.2	34.0	1.1	61	E			1		0			0	0		Prof. Prestel.
Frankfort on the Main			29.83	757.6	36.5	2.5	56				2		5			0	0		Physical Society.
Friedrichshafen			29.68	753.8	32.9	0.5	82	W					10			0.071	1.8	Snow	M. Wilhelm.
Hamburg			29.84	757.9	32.0	0.0	52	E			5		4			0	0		W. Reinart.
Kiel			29.85	758.3	27.7	− 2.4	61	E			4		0			0	0		Prof. G. Karsten.
Königsberg			30.12	765.0	20.3	− 6.5	65	E			2					0	0		Prof. E. Luther.
Köslin			30.68	779.2	25.3	− 3.7		SE			4		0			0	0		Dr. Tägert.
Leipsic			29.81	757.2	27.7	− 2.4	75	E			2		4			0	0		Prof. Bruhns.
Münster			29.72	754.8	41.0	5.0	72	NE			2		0			0	0		Prof. E. Heis.
Posen			30.03	762.8	20.8	− 6.2	50	SE			6–7		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.67	753.6	37.9	3.3	60	N					3			0	0		Hartwig and Fulk.
Stuttgart			29.70	754.3	35.2	1.8	59	E					5			0	0	Fog	Mr. Wurth.
Thorn			30.06	763.6	19.9	− 6.7	55	E			6		0			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.60	751.9	42.6	5.9	56	NE			3		0			0	0		Prof. Flesch.
Wustrow			29.95	760.7	23.9	− 4.5	69	ENE			5		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	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			29.59	751.5	34.5	1.4	65	SE			4		1	S		0	0		
Mondovi			29.58	751.2	37.9	3.3	46	NW			2		0			0	0		
Genoa			29.54	750.4	41.9	5.5	45	NW	9.3	4.17			4			0	0		
Pavia			29.59	751.5	37.9	3.3	65	W			2		9			0	0		
Verona																			
Padua			29.50	749.2	32.2	0.1	94	NE	18.6	8.33			10			Blank	Blank	Snow	
Parma																			
Bologna			29.61	752.0	34.3	1.3	81	NW			8		10			Blank	Blank	Snow	
Livorno			29.48	748.8	35.6	2.0	87	NE			1		10			0.059	1.5	Snow	
Urbino			29.47	748.7	30.0	− 1.1		NE			4		10			Blank	Blank	Snow	
Ancona																			
Siena			29.47	748.6	29.7	− 1.3	69	NW	14.9	6.67			10			0.035	0.9	Snow	
Rome			29.47	748.5	47.1	8.4	74	W	13.7	6.11			10	W		1.012	0.3		
Naples, O.U.			29.49	749.0	52.9	11.6	71	W			6		10			0.118	3.0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.59	751.5	54.7	12.6	85	S	39.8	17.78			10			0	0		
Cosenza			29.56	750.8	52.9	11.6	69	SE			2		10			0.276	7.0	Rain	
Catania, (Sicily)			29.58	751.4	57.2	14.0	91	SW			2		8	W		0	0		
Trapani																			
Palermo			29.56	750.9	55.8	13.2	61	W			4		9			0.028	0.7		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			29.62	752.3	38.3	3.8		ESE			4								
Groningen			29.65	753.1	34.0	1.1		E			2								
Helder			29.65	753.0	35.2	1.8		ESE			3								
Utrecht			29.61	752.1	41.7	5.4		SSE			2		5						

NOTE.—The originals give the force 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.

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.
Bergen			30.04	763.0	30.6	— 0.8	62	Calm	0	0.0			0			0	0		
Christiania			30.24	767.0	28.6	— 2.2	63	NE	6.7	3.0			0			0	0		
Tromsö			30.02	762.4	20.5	— 6.4	18	SSW	0		6		5			0.201	5.1		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.28	743.8			54.0	12.2	76	SSW	24.8	11.1			10			Blank	Blank		

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.04	763.1	19.2	— 7.1	75	ENE	4.5	2			0						Astronomical Obs.
Wilna			30.10	764.6	21.7	— 5.7	72	Calm	0	0			0						Astronomical Obs.
Dorpat			30.18	766.6	22.5	— 5.3	75	WNW	2.2	1			10						Physical Cabinet.
St. Petersburg			30.09	764.4	17.1	— 8.3	89	SW	4.5	2			10					Snow	Central Physical Obs.
Kieff			29.87	758.6	21.0	— 6.1	90	ESE	6.7	3			10					Snow	Physical Cabinet.
Nikolaiev			29.87	758.6	16.9	— 8.4	73	NW	4.5	2			3						
Kertch			29.85	758.3	40.1	4.5	74	WSW	7.8	3.5			8						Lagorio.
Moscow			30.28	769.1	15.1	— 9.4	66	SSE	10.1	4.5			0						Meteorological Obs.
Lugan			29.79	756.6	32.9	0.5	80	WSW	7.8	3.5			2						Meteorological Obs.
Archangel			29.93	760.3	18.7	— 7.4	89	NW	4.5	2			10					Snow	Ogorodnikof.
Tiflis			29.97	761.3	53.2	11.8	48	Calm	0	0			7						Physical Obs.
Astrakhan			30.16	766.1	34.5	1.4	71	ESE	10.1	4.5			10						Sebastianof.
Kasan			30.40	772.2	14.4	— 9.8	71	SSW	5.6	2.5			0						Physical Cabinet.
Orenburg			30.63	778.1	1.4	—17.0	90	NE	4.5	2			0						Tschernischef.
Ekaterinburg			30.45	773.3	14.7	— 9.6	81	W	13.4	6			9						Meteorological Obs.
Kasaly			30.36	771.1	18.7	— 7.4	58	E	13.4	6			0						Bobrof.
Tashkend			30.39	772.0	50.7	10.4	70	SW	7.8	3.5			9						Michelson.
Barnaul			30.59	776.9	— 6.3	—12.3	78	NE	4.5	2			0						Meteorological Obs.
Yeniseisk			30.38	771.7	10.0	—12.2	79	SE	7.8	3.5			0						Marks.
Irkutsk			30.45	773.5	— 0.2	—17.9	83	Calm	0	0			0						Usolzef.
Oorga			30.23	767.7	14.2	— 9.9	100	Calm	0	0			0						Mossin.
Peking, (China)			30.33	770.4	—30.4	— 0.9	58	Calm	0	0			0						Physical Observatory
Nertchinsk			30.37	771.3	— 8.7	—22.6	90	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 8.9	—22.7		Calm	0	0			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.

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.
Madrid			29.74	755.5	43.5	6.4	83	SW	13.4	6.0			9			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	766.2	13.3	—10.4	86	Calm			0		0			0	0		Dr. Hildebrandsson.
Hernosand			30.21	767.4	24.8	— 4.0	50	NNE			2		0			0	0		
Upsala			30.18	766.5	26.8	— 2.9	79	N			4		10			0	0		
Stockholm			30.13	765.3	27.0	— 2.8	74	N			4		10			0.004	0.1	Light snow.	
Wisby			30.18	766.6	29.1	— 1.6	96	N			2		10			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.20	716.3			38.1	3.4	59	NNW			2		1			0.094	2.4		The Observatory.
Zurich	27.99	710.9			34.5	1.4	90	NW			1		9			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —0.4mm.; Thermometer, —1°7. C.; Relative Humidity, —9 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	762.0	61.8	16.5	70	N			2		5			Blank	Blank		
Constantinople			29.90	759.4	38.5	3.6	83	ENE	11.2	5			10		NE	Blank	Blank		
Fao, (Persian Gulf)			30.07	763.7	68.0	20.0		NE			3		0						
Salonica			29.79	756.6	46.8	8.2		NW			2		10			Blank	Blank	Light rain	
Valona			29.46	748.2	46.0	7.8		S			3		10						
Varna			29.96	761.0	35.6	2.0		S			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.93	760.2	28	— 2.2	92	NW	3	1.3		2	5	N		0.53	13.5		
Chatham, N. B.			29.86	758.4	35	1.7	96	Calm	0	0		2	2			0.50	12.7		
Charlottetown, P. E. Island			29.92	760.6	38	3.2	95	W	6	2.7			10			0.205	5.20		
Father Point, Quebec			30.04	763.0	11	—11.7	70	SW	6	2.7		0	0			0.02	5.1		
Fort Garry, Manitoba			30.04	763.0	—16	—26.7	94	N	11	4.9		0	0			0.04	10.2		
Halifax, N. S.			29.86	758.4	35	1.7	99	Calm	0	0			Fog			0.31	7.9	Fog	
Kingston, Ontario			30.14	765.5	19.8	— 6.8	85	W	2	0.9		5	0			0.09	22.9	Light snow.	
Montreal, Quebec			29.86	758.4	19	— 7.2	84	NE	18	8.0			10		NE	0.01	0.3	Light snow.	
Ottawa, Ontario			29.83	757.7	18	— 7.8	73	N	6	2.7			10			0.13	3.3	Heavy snow	
Parry Sound, Ontario			29.75	755.6	15	— 9.4	82	NE	9	4.0			10		W	0	0		
Port Dover, Ontario			29.62	752.3	30	— 1.1	89	E	8	3.6			10			0	0	Threatening	
Port Stanley, Ontario			29.67	753.6	31	— 0.6	93	NW	10	4.5			10			0.10	2.5		
Quebec, Quebec			29.92	760.0	32	— 5.6	72	NE	12	5.4			10		NE	0.07	1.8		
Saugeen, Ontario			29.72	754.9	13	—10.6	9	Calm	0	0		10	0			0	0	Light snow.	
Sydney, C. B.			29.88	758.9	40	4.4	96	W	7	3.1		8	0	W		0.32	8.1		
Toronto, Ontario			29.63	752.6	30	1.1	99	NE	16	7.2			10			0.12	3.0	Light rain	

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres 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 and Showers. Inches.	Rain-fall and Showers. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.71	754.6	38	3.3	100	N	3	1.3			Fog			0	0	Fog	
Alpena, Mich.			29.75	755.6	9	−12.8	78	NE	4	1.8			10		NE	0.02	0.5	Threatening	
Atlantic City, N. J.			29.78	756.4	44	6.7	100	Calm	0	0			Fog			0.09	2.3	Fog	
Augusta, Ga.			29.90	759.4	66	19.9	79	S	10	4.5		10	0	SW		0.25	6.3		
Baltimore, Md.			29.71	754.6	51	10.6	100	Calm	0	0			Fog			0.30	7.6	Fog	
Barnegat, N. J.			29.67	753.6	40	4.4	100	SW	6	2.7			10		S	0.04	1.0	Light rain	
Benton, Montana			29.59	751.6	11	−11.7	100	N	4	1.8			10			0	0		
Bismarck, Dakota			29.09	761.7	−12	−24.4	50	N	10	4.5			10		N	0.13	3.3		
Boston, Mass.			29.80	756.9	46	7.8	94	NW	4	1.8			Fog			0	0	Light rain	
Breckenridge, Minn.			30.03	762.7	− 7	−21.7	73	NW	12	4.5			10			0	0		
Buffalo, N. Y.			29.62	752.3	32	0.0	100	E	3	1.3			10			0.37	9.4	Light rain	
Burlington, Vt.			29.81	757.2	30	− 1.1	78	N	12	5.4			10			0	0		
Cairo, Ill.			30.03	762.7	31	− 0.6	100	NW	12	5.4			10			0	0	Light snow	
Cape Hatteras, N. C.			29.98	761.7	65	18.3	89	SW	28	12.5		0	5		SW	0.03	0.8	Clearing	
Cape Henry, Va.			29.85	758.2	67	19.4	84	S	12	5.4		2	5	SW		1.00	25.4		
Cape May, N. J.			29.76	755.9	49	9.4	100	S	8	3.6			Fog			0.87	22.1	Fog	
Charleston, S. C.			30.04	763.0	63	17.2	88	SW	14	6.3		10	Sm'e	SW		0	0		
Cheyenne, W. T.			29.75	755.6	27	− 2.8	77	W	24	10.7		2	2			0	0		
Chicago, Ill.			29.88	758.9	18	− 7.8	68	SW	7	3.1		5	0	S		0.01	0.3		
Cincinnati, Ohio			29.79	756.7	41	5.0	83	W	12	5.4			10			0.22	5.6	Threatening	
Cleveland, Ohio			29.59	751.6	36	2.2	91	SE	12	5.4			10		SW	0.25	6.3	Threatening	
Colorado Springs, Col.			29.78	756.4	16	− 8.9	83	NE	4	1.8		2	0	NW		0	0		
Corsicana, Texas			30.37	771.4	30	− 1.1	78	N	12	5.4		0	0			0	0		
Davenport, Iowa			30.01	762.2	14	−10.0	83	W	4	1.8		5	Sm'e			0	0		
Denver, Col.			29.84	757.9	30	− 1.1	46	SW	7	3.1		0	5			0	0		
Detroit, Mich.			29.66	753.4	24	− 4.4	87	NW	7	3.1			10			0.07	17.8	Light rain	
Dodge City, Kansas			29.88	758.9	11	−11.7	80	W	2	0.9		5	0	W		0.01	0.3		
Dubuque, Iowa			30.10	764.5	3	−16.1	73	NW	2	0.9		0	0			0	0		
Duluth, Minn.			29.81	757.2	3	−16.1	73	NE	4	1.8			10			0.02	.5		
Eastport, Me.			29.91	759.7	35	1.7	90	S	4	1.8			10		SW	0.70	17.8		
Erie, Penn.			29.53	750.0	40	4.4	91	SE	12	5.4		Haze	10			0.40	10.2		
Escanaba, Mich.			29.85	758.2	1	−17.2	71	NW	5	2.2			10		NW	0.04	1.0	Light snow	
Fort Gibson, I. T.			30.26	768.6	27	− 2.8	77	NW	7	3.1		10	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.02	762.5	− 8	−22.2	58	NW	1	.4		8	0	NW		0	0		
Galveston, Texas			30.24	768.1	52	11.1	64	N	40	17.9		5	0	W		0	0		
Grand Haven, Mich.			29.78	756.4	23	− 5.0	80	Calm	0	0			10			0	0		
Indianapolis, Ind.			29.87	758.7	25	− 3.9	88	NW	14	6.3			10		NW	0.08	2.0	Threatening	
Indianola, Texas			30.31	769.9	53	11.7	48	N	32	14.3		2	0	W		0	0		
Jacksonville, Fla.			30.08	764.0	67	19.4	84	S	8	3.6		0	5	SW		0	0		
Keokuk, Iowa			30.01	762.2	20	6.7	70	NW	9	4.0			10		NW	0	0		
Key West, Fla.			30.14	765.5	75	23.9	81	SE	8	3.6		Haze	2			0	0		
Kittyhawk, N. C.			29.91	759.7	65	18.3	84	S	24	10.7		2	0	W		0.15	3.8		
Knoxville, Tenn.			29.69	754.1	61	16.1	94	S	12	5.4			10		W	4.43	112.5		
La Crosse, Wis.			29.96	761.0	12	−11.1	80	W	4	1.8		Haze	Haze			0.19	4.8		
Leavenworth, Kan.			30.18	766.6	12	−11.1	79	W	2	0.9		0	0			0	0		
Lexington, Ky.			29.75	755.6	46	7.8	77	NW	11	4.9			10		NW	0.07	1.8		
Long Branch, N. J.			29.70	754.4	37	2.8	100	SE	16	7.2			Fog			0.27	6.9	Fog	
Louisville, Ky.			29.82	757.4	34	1.1	79	W	17	7.6			10		W	0.28	7.1		
Lynchburg, Va.			29.80	756.9	55	12.8	100	NE	4	1.8			10			2.52	64.0	Heavy rain	
Malone, N. Y.																			
Marquette, Mich.			29.86	758.4	1	−17.2	71	Calm	0	0			10			0.01	0.3		
Memphis, Tenn.			30.07	763.8	58	3.3	71	W	16	7.2			10		W	Blank	Blank		
Milwaukee, Wisconsin			29.91	759.7	11	−11.7	79	NW	8	3.6			10			0.04	1.00		
Mobile, Ala.			29.97	761.2	68	20.0	9	SW	8	3.6		5	5	W	W	0.22	5.6		
Montgomery, Ala.			29.87	758.7	68	20.0	95	SW	16	7.2			10		SW	0.91	23.1	Heavy rain	
Morgantown, W. Virginia			29.63	752.6	46	7.8	92	NW	10	4.5			10			0.08	2.0	Light rain	
Mt. Washington, N. H.			29.94	760.5	35	1.7	100	NW	44	19.7			Fog			0.06	1.5		
Nashville, Tenn.			29.86	758.4	43	6.1	83	NW	12	5.4			10			0.38	9.7		
New Haven, Conn.			29.77	756.1	41	5.0	100	Calm	0	0			Fog			0.10	2.5	Fog	
New London, Conn.			29.83	757.7	38	3.3	95	SE	6	2.7			Fog			0.14	3.6	Light rain	
New Orleans, La.			30.03	762.7	68	20.0	84	W	12	5.4		2	2	W	W	0	0		
Newport, R. I.																			
New York, N. Y.			29.68	753.9	48	8.9	93	SE	12	5.4			Fog			0.16	4.1	Fog	
Norfolk, Va.			29.85	758.2	63	17.2	94	SW	16	7.2			10		SW	0.76	19.3		
North Platte, Neb.			29.68	753.9	10	−12.2	79	NW	4	1.8		5	0	W		0.01	0.3		
Omaha, Neb.			30.10	764.5	0	−17.8	100	SW	7	3.1		0	0			0	0		
Oswego, N. Y.			29.70	754.4	31	− 0.6	95	NE	6	2.7			10			0	0	Light rain	
Peck's Beach			29.75	755.6	43	6.1	100	SE	3	1.3			Fog			0.40	10.2	Fog	
Pembina, D. T.			30.05	763.3	−21	29.4		N	12	5.4		0	5			0	0		
Philadelphia, Penn.			29.72	754.9	52	11.1	96	W	6	2.7		2	8	SW	W	0.27	6.9		
Pike's Peak, C. T.			29.59	751.6	−18	−27.8	100	W	86	38.4			Fog			0	0	Fog	
Pittsburgh, Penn.			29.65	753.1	42	5.6	91	NW	2	0.9			Fog			0.18	4.6	Fog	
Port Huron, Mich.			29.71	754.6	20	6.7	85	NW	9	4.0			10			0.02	0.5	Light snow	
Portland, Maine			29.85	758.2	42	5.6	74	NE	1	0.4			Fog			0.14	3.6	Fog	
Portland, Or.			30.15	765.8	45	7.2	84	S	12	5.4			10			0	0		
Punta Rassa, Fla.			30.18	766.6	69	20.6	90	SE	6	2.7			5			0	0		
Rochester, N. Y.			29.68	753.9	32	0.0	100		8	3.6			10			0.18	4.6	Light rain	
Salt Lake City, Utah			30.11	764.8	29	− 1.7	78	S	2	0.9						0	0		
Sandy Hook, N. J.			29.64	752.8	47	8.3	100	SE	12	5.4			Fog			0.13	3.3	Fog	
San Diego, Cal.			30.25	768.3	45	7.2	85	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.20	767.1	48	8.9	92	SW	2	0.9			Fog			0	0	Fog	
Santa Fe, N. M.			29.78	756.4	15	9.4	65	SE	30	13.4		5	0	SW		0	0		
Savannah, Georgia			30.02	762.5	66	18.9	90	SW	16	7.2		10	Sm'e	SW		0	0		
Shreveport, La.			30.29	769.4	37	2.8	71	W	18	8.0		2	0	NW		0	0		
Springfield, Mass.			29.75	755.6	41	5.0	91	N	4	1.8		0	Fog			0.10	2.5	Light rain	
St. Louis, Mo.			30.08	764.0	28	− 2.2	88	NW	16	7.2			10		NW	0	0		
St. Marks, Fla.			30.05	763.3	66	18.9	97	S	12	5.4			10		S	0	0		
St. Paul, Minn.			29.90	759.5	− 5	−20.6	82	SW	10	4.5			10			0	0		
St. Paul's Island, Alaska			29.19	741.4	40	4.4	91	S	13	5.8			Fog			0.56	14.2		
Squan Beach, N. J.			29.72	754.9	35	1.7	100	SE	9	4.0			10			0.27	6.9	Light rain	
Toledo, Ohio			29.61	752.1	31	− 1.6	79	NW	12	5.4			10		N	0.16	4.1	Threatening	
Tybee Island, Ga.			30.05	763.3	65	18.3	83	SW	16	7.2		5	2	S	SW	0	0		
Vicksburg, Miss.			30.16	766.1	50	10.0	64	NW	6	2.7			10		W	0.46	11.7		
Virginia City, Mon.			29.46	748.3	27	− 2.8	77	SW	20	8.9			10			0.13	3.3		
Washington, D. C.			29.72	754.9	53	11.7	96	S	12	5.4			10			0.14	3.6		
Wilmington, N. C.			29.99	761.7	66	18.9	84	SW	14	6.3		2	2	W	W	0	0		
Wood's Hole, Mass.			29.85	758.2	40	4.4	100	SE	7	3.1			Fog			0	0	Fog	
Wytheville, Va.			29.49	749.0	52	11.1	93	W	4	1.8			10			2.91	73.9	Light rain	
Yankton, D. T.			30.12	765.0	−15	−26.1	70	Calm	0	0		0	0			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.			30.08	764.0	78	25.6		NE	3	1.3		5	8			0	0		
Point-a-pitre, G'd'loupe, "			29.98	761.5	74	23.3		NE				0	10			1.1	27.9		
Havana, Cuba, W. I.			29.95	760.7	72	22.2	81	SE	3.6	1.6		0	0			0	0		
Kingston, Jamaica, W. I.			30.24	768.1	74	23.3		Calm	0	0		0	0			0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.93	760.2	72	22.2	71	NW	2.4	1.1		0	0			0	0		
St. Georges, Bermudas			30.31	769.9	66	18.9	81	S				0	2			0	0		
Honolulu, Sandwich Is.			30.09	764.3	63	17.2	89	S	1	0.4		0	0			0	0		
Makawao, Sandwich Is.	27.78	705.6			60	15.6	86	Calm			0	8	2			0.70	17.8		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.98	761.5	—31	—35.0		W	6	2.7		3	0	N					
Clifton, Jamaica, W. I.			30.14	765.5	60	15.6		N	3	1.3						0	0		C. Partridge.
St. Johns, Newfoundland			30.19	766.8	28	— 2.2	100	SE				Haze	Haze			0	0		John Delaney.
St. Johns Porto Rico W. I.			30.13	765.3	75.4	24.1	73	E			4	1	3	W		0	0		Leon M. Acuña.
Ellyria, Ohio	28.87	733.3			35	1.7	90	W	7	3.1		0	10			0	0		H. M. Redington.
Indianola, Iowa	29.25	742.5			2	—16.7		SW				0	0			0	0		G. C. Carpenter.

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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.
1:18 P. M. BERN 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.
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.

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.
Nemours			29.80	756.8															Charnot.
Algiers			29.78	756.5	68.7	20.4	45	W			2		4			0	0	Sirocco	Peter.
La Calle			29.84	757.0															Kuntz.
Tunis			29.82	757.4	69.4	20.8	36	W			3		5			0	0		Jacques.
Sfax																			Chauvey.
Saida			29.81	757.1	59.9	15.5		W			2		6			0	0		Grosjean.
Tebessa			29.84	757.8															Colin.
Geriville			29.84	758.0	63.5	17.5		W			2		3			0	0		Bernadach.
Laghouat			29.80	758.4	68.0	20.0	21	SW			3		4			0	0		Poinsignon.
Biskra			29.84	757.9	72.0	22.2		NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

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

Agram			29.77	756.1	29.3	− 1.5	82	SW			1		10			0.008	0.2		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.96	761.0	20.3	− 6.5	72	NNE			5		10			0	0		I. R. Observatory.
Eperies			29.83	757.8	36.0	2.2	71	Calm			0		8			0	0		Julius Mikolik.
Gratz			29.77	756.2	30.9	− 0.6	88	S			2.5		10			0.150	3.8		Andreas Rospini.
Hermannstadt			29.68	753.9	37.0	2.8	71	S			6		2			0	0		Prof. Reissenberger.
Kremsmünster			29.80	756.8	26.2	− 3.2	82	NE			1		10			0.028	0.7		Prof. C. Wagner.
Lemberg			29.97	761.3	23.2	− 4.9	83	SE			4		10			0	0		Dr. T. Stanecki.
Nytregyhaza			29.78	756.4	32.4	0.2	96	NE			1		9			0.035	0.90		Habzsuda Daniel.
Pola			29.72	754.8	38.5	3.6	63	WNW			1		4			0.044	1.12		I. R. Hydrographic Of'ce
Szegedin			29.77	756.2	25.9	− 3.4	91	S			3		10			0.222	5.65		Karl Stancel.
Trieste			29.73	755.2	37.2	2.9	51	ENE			1		10			0	0		Prof. V. Farolfi.
Vienna			29.83	757.6	23.0	− 5.0	74	NW			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.

Brussels	29.45	748.2			41.7	5.4	73	S			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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. Low. r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.00	762.0	36.0	2.2		ESE	25	11.2			10			0.020	0.51		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.80	756.9	38.0	3.3		E			6		8						William McNeil.
Armagh Observatory			29.60	751.8	36.7	2.7		ENE	28	12.5			10					Rain	Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.56	750.8	39.9	4.4		ENE			6		10						The Liverpool Obs.
Birr Castle			29.43	747.3	38.4	3.6		NE			2		10						J. Drever.
Bradford			29.65	753.1	37.1	2.8		E			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.60	751.8	44.0	6.7		E			3		4			0	0		H. Todd.
Cape Town, Cape Colony			29.94	760.5	77	25.0		NW			2		0						Sgt. D. E. Hunt
Cape Good Hope Obs	29.96	761.0			80.0	26.7		SSE	6	2.7			6						The Royal Observatory.
Cardington			29.58	751.3	45.0	7.2		SE					9						John McLaren.
Carlisle			29.76	755.9	36.7	2.6		E					10			0	0	Threatening	T Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.91	759.7	77.5	25.3		NE			3		7						Sgt. W. F. Hopkins
Dartmoor			29.49	749.0	34	1.1		E			1		10			Blank	Blank	Snow and fog	R. E. Power.
Donaghadee			29.62	752.3	39	3.9		E			6		6						J. Mac Gowan, Jr.
Dover			29.54	750 3	43	6.1		ESE			4		6						J. Costello.
Dublin																			
Durham Observatory			29.78	756.4	34.8	1.6		E					10			Blank	Blank		G. Goldney.
Eccles, (near Manchester)			29.62	752.3	40.2	4.6		ENE	7.6	3.4			10						Thomas Mackereth.
Falmouth Observatory			29.35	745 5	43.0	6.1		E	19	8.5			8						The Falmouth Obs.
Fort Napier, (Natal)			29.89	759.2	80.5	26.9		E			2		5						Pvt. G. Salmon.
Galway			29.37	746.0	40	4.4		NE			6		10			Blank	Blank	Rain	Queen's College.
Gibraltar, (Mediterranean)			29.82	757.4	60.5	15.8		W			6		10						Sgt. J. Brewster.
Glasgow Observatory			29.82	757.4	36.1	2.3		ENE			6		10					Squally	The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			29.68	753.9	37	2.8		E			6		4					Mist	G. T. Watson.
Greenwich Royal Obs			29.54	750.3	45.3	7.4		E			4		4					Mist	The Royal Observatory.
Guernsey			29.36	745.7	38.5	3.6		SE			2		10			Blank	Blank	Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.65	753.1	36.4	2.4		E					10			Blank	Blank	Rain & snow	Moorside Observatory.
Halifax, (Nova Scotia)			29.10	739.1	37.0	2.8		NW			7		8						Corp'l J. Y. Thompson.
Helston			29.31	744.5	45	7.2		ESE			4		3						W. B. Moyle.
Holyhead			29.51	749.5	39	3.9		ENE			6		7					Mist	John Tilston.
Hull Park																			
Kew Observatory			29.53	750.1	45.0	7.2		E	34	15.2								Mist	The Met. Office.
Kingstown			29.48	748.8	40	4.4		E			6		10			Blank	Blank	Rain	George Mitchell.
Lampeter																			
Leicester			29.60	751.8	40.6	4.8		E			4		10						William J. Harrison
Llandudno			29.56	750.8	36.4	2.4		E			5		10						Dr. James Nicol.
Malta, (Mediterranean)			30.05	763.3	60.2	15.7		W			2		3						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.08	764.0	35	1.7		Calm			0		4						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	70.6	21.4		NE			2		6						Surgeon I. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.80	758.4	31.2	— 0.4		NE			4		10		NE	Blank	Blank	Snow	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.85	758.2	30.0	— 1.1		ENE			3		10			Blank	Blank	Snow	St. Mary's College.
Oxford, Radcliffe Obs			29.80	756.9	31	— 0.6		ENE			2		10						Radcliffe Observatory.
Plymouth			29.71	754.6	35	1.7		NE			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.86	758.4	37	2.8		NE			4		10			Blank	Blank		W. Kennedy.
Saint Ann's Head																			John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.14	765.5	33.5	0.8		ESE	22	9.8			10					Mist	Rev. Dr. Clouston.
Scarboro'																			F. Heard.
Scutari, (Turkey)			29.93	760.2	40.8	4.9		NE			2		10						W. H. Lyne.
Sheffield			29.86	758.4	32.6	0.3		E			2		10			Blank	Blank	Snow	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.95	760.7	34.0	1.1		ENE			5		10						Francis Redford.
Somerleyton, (Lowestoft)			29.78	756.4	31.4	— 0.3		E			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.87	758.7	31.9	— 0.1		E			2					Blank	Blank	Blank	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.08	764.0	39	3.9		ESE			1		10						John Smith.
Strathfield Turgiss			29.70	754.4	30.2	— 1.0		NE			1		10						Charles H. Griffith.
Streatley Vicarage			29.80	756.9	32	0.0		E			2		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.16	766.1	35	1.7		E			2		8						William Lawrence.
Taunton College																			
Thurso			30.12	765.0	36	2.2		ESE			2		8						John Trotter.
Truro Royal Institution			29.72	754.9	37	2.8		NE			4		10			Blank	Blank	Snow	Royal Institution.
Valencia			29.91	759.7	38.5	3.6		ENE	11	4.9			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
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 Cape 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	27.1	— 2.7	70	ESE			2		0						
Fanöe			30.06	763.4	30.4	— 0.9	63	ESE			6		1						
Godthaab, (Greenland)			29.11	739.3	28.9	— 1.7		S			2		8						
Stykkisholm, (Iceland)			29.83	757.7	37.2	2.9	69	SE			4		8						
Thorshavn, (Faröe)			30.16	766.0	36.1	2.3	85	Calm			0		8						
Vestervig			30.09	764.4	27.3	— 2.6	77	E			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.66	753.4	55.6	13.1	53						5						Normal School.
Alençon			29.30	746.5	42.8	6.0	85	E			3		10			0.559	14.2		Normal School.
Amiens			29.48	748.7	42.4	5.8	88	ESE			3					0	0		Normal School.
Beaumette, (near Angers)			29.31	744.5	45.0	7.2	91	SE	5.4	2.4			10		S	0.331	8.4		Beaumette Observatory.
Beauvais			29.53	750.0	48.4	9.1	50	E			3		10			0	0		Normal School.
Besançon			29.61	752.0	45.7	7.6	62	NE			3		0			0	0		Normal School.
Bourges			29.50	749.4	43.9	6.6	82	ESE			2		10		ESE	0	0		Normal School.
Brest			29.29	744.0	46.2	7.9	80	SSE			1		5		S	0.031	0.8		Naval Observatory.
Caen			29.40	746.7	44.1	6.7	77	SSE			2		10			0.264	6.7		Normal School.
Carcassonne																			
Chartres			29.46	748.3	44.2	6.8		E			1		10			0	0		Normal School.
Chaumont			29.57	751.0	44.4	6.9		ESE			4		0			0	0		Normal School.
Le Mans			29.38	746.2	42.8	6.0	66	SE			2		8		SE	0.165	4.2		Normal School.
Mirecourt			29.58	751.4	40.5	4.7		NE			2		0			0	0		Normal School.
Orleans			29.45	748.0	48.2	9.0	61	ESE			3		8		S	0	0		Normal School.
Paris			29.49	749.0	48.0	8.9	49	SE			4		8		S	0.012	0.3		National Observatory.
Parthenay																			
La Roche sur Yon			29.30	746.4	44.6	7.0	69	SW			4		5		N	0.890	22.6		Normal School.
Rouen			29.44	747.7	49.1	9.5	44	SE			6		10			0	0		Normal School.
Saint Lo			29.36	745.8	42.4	5.8	91	SE			2		10		SE	0.650	16.5		Normal School.
Villefranche			29.57	751.1	43.3	6.1	97	E			1		10			0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.80	759.2	73.2	22.9	47.0	NNE			4		1			0	0		Père Pascall.
Mont-Louis	24.39	619.5			37.0	2.8	78	SW	18.6	8.33			5		SW	0.008	0.2		—. Falguère.
Montsouris (near Paris)			29.48	749.0	47.5	8.6	55	E	4.4	1.07			10		S	0.020	0.5		Marié Davy.
Perpignan	29.38	746.3			53.2	11.8	69	N	1.9	0.84			3		NE	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.48	748.9	48.0	8.9	54	ESE			3		6			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.39	746.6	44.4	6.9	85	SE			2		10			0.024	0.6	Heavy rain.	C. Marquet.
Versailles, (near Paris)			29.47	748.6	48.2	9.0	57	SE			3		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.76	756.0	30.4	— 0.9	83	SE			1		10			0.118	3.0	Snow.	Prof. Hoh.
Berlin			30.06	763.6	23.9	— 4.5	66	SE			2		10			0	0		Prof. Arndt.
Breslau			30.01	762.2	21.2	— 6.0	80	E			5		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.72	754.8	31.1	— 0.5	67	NE			2–5		0			0	0		A. Lenz.
Cassel			29.76	755.8	30.4	— 0.9	85	NE			2		10			0	0		Dr. H. Mohl.
Cologne			29.81	757.2	30.7	— 0.7	92	SSE			3		1			0	0		Dr. Gaithe.
Emden			30.02	762.5	32.2	0.1	58	ESE			4		5			0	0		Prof. Prestel.
Frankfort on the Main			29.88	758.9	33.3	0.7	71	ENE			2		8			0.012	0.3		Physical Society.
Friedrichshafen			29.71	754.5	34.7	1.5	91	W					3			0	0		M. Wilhelm.
Hamburg			30.05	763.2	31.8	— 0.1	48	E			5		8			0	0		W. Reinart.
Kiel			30.05	763.3	31.5	— 0.3	56	E			4		5			0	0		Prof. G. Karsten.
Königsberg			30.24	768.0	20.3	— 6.5	68	NE			2		1			0	0		Prof. E. Luther.
Köslin			30.41	772.3	25.7	— 3.5		E			2		3			0	0		Dr. Tägert.
Leipsic			29.95	760.6	21.6	— 5.8	80	NE			4		2			0	0		Prof. Bruhns.
Münster			29.84	757.8	30.7	— 0.7	86	NE			4		5			0.012	0.3	Rain.	Prof. E. Heis.
Posen			30.12	765.0	18.1	— 7.7	86	N			6–7		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.69	754.0	35.8	2.1	62	NE					0			0	0		Hartwig and Fulk.
Stuttgart			29.72	755.2	32.4	0.3	73	E					0			0	0		Mr. Wurth.
Thorn			30.13	765.4	16.3	— 8.7	70	E			7		2			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.63	752.5	38.1	3.4	55	NE			3		0			0	0		Prof. Flesch.
Wustrow			30.15	765.7	27.5	— 2.5	66	ENE			4		3			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.80	756.9	27.5	— 2.5	83	NNW			1		10			0	0		
Mondovi			29.76	755.7	32.4	1.2	76	NW			2		9			0	0		
Genoa			29.67	753.6	45.1	7.3	60	Calm	0	0			10			0	0		
Pavia			29.77	756.2	29.3	— 1.5	80	S			1		10			0	0		
Verona																			
Padua			29.73	755.2	36.3	2.4	62	SE	0.4	0.18			2	NW		0	0		
Parma																			
Bologna			29.84	757.8	36.0	2.2	28	NE			2		2			0	0		
Livorno			29.68	753.9	43.0	6.1	74	ENE	5.6	2.50			10			0	0		
Urbino			30.12	765.0	34.3	1.3		NE			2		6			0	0		
Ancona																			
Siena			29.72	755.0	40.0	4.4	89	NW	0.2	0.01			9	W		0.042	3.6		
Rome			29.74	755.3	56.5	13.6	53	S	4.3	1.94			8	SW		0	0		
Naples, O.U			29.78	756.3	57.4	14.1	47	W			2		5			0	0		
Naples, S. R																			Prof. F. Brioschi.
Lecce			29.78	756.3	52.2	11.2	55	NNE	8.1	3.61			5			0	0		
Cosenza			29.83	757.6	52.9	11.7	75	WNW			2		10			0.055	1.4		
Catania, (Sicily)			29.87	758.8	59.9	15.5	49	W			4		2			0	0		
Riposto																			
Palermo			29.76	755.9	61.0	16.1	47	WSW			8		5			0	0		

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.

NETHERLANDS SERIES.

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

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. Low'r 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	754.1	40.5	4.7		E			4								
Groningen			29.82	757.5	29.3	— 1.5		E			5								
Helder			29.79	756.6	29.1	— 1.6		E			4								
Utrecht			29.71	754.5	37.0	2.8		ENE			4		0						

NOTE.—The originals give the force 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			30.23	767.9	27.3	— 2.6	62	Calm	0	0.0			0			0	0	Rain & snow	
Christiania			30.35	770.8	23.0	— 5.0	81	E-E	5.1	2.3			0			0	0		
Tromsö			29.62	752.2	—35.1	1.7	93	SW			6		10			Blank	Blank		

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., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	29.26	743.1			51.3	10.7	80	WNW	18.6	8.3			4			Blank	Blank		

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.09	764.3	20.7	— 6.3	98	E	4.5	2			10						Astronomical Obs.
Wilna			30.20	767.0	21.4	— 5.9	77	N	4.5	2			7						Astronomical Obs.
Dorpat			30.33	770.3	13.1	—10.5	79	WSW	4.5	2			1						Physical Cabinet.
St. Petersburg			30.25	768.3	9.9	—12.3	80	WNW	2.2	1			0						Central Physical Obs.
Kieff			30.04	763.1	20.3	— 6.5	73	NW	6.7	3			2						Physical Cabinet.
Nikolaiev			30.11	764.9	20.5	— 6.4	76	N	4.5	2			0						
Kertch			30.04	763.0	35.1	1.7	68	NNE	7.8	3.5			6						Lagorio.
Moscow			29.99	761.8	15.8	— 9.0	83	N	10.1	4.5			10					Snow	Meteorological Obs.
Lugan			29.82	757.3	20.1	— 6.6	79	W	24.5	11			1						Meteorological Obs.
Archangel			30.26	767.8	8.2	—13.2	84	NW	4.5	2			0						Ogorodnikof.
Tiflis			29.96	761.0	59.0	15.0	32	SSW	7.8	3.5			7						Physical Obs.
Astrakhan			30.06	763.4	38.8	3.8	67	ESE	2.2	1			10						Sebastianof.
Kasan			29.97	761.2	19.9	— 6.7	84	SE	6.7	3			10						Physical Cabinet.
Orenburg			30.38	771.7	8.6	—13.0	84	E	7.8	3.5			10						Tschernischef.
Ekaterinburg			30.46	773.7	20.3	— 6.5	60	SW	4.5	2			4						Meteorological Obs.
Kasaly			30.21	767.3	27.3	— 2.6	79	Calm	0	0			0						Bobrof.
Tashkend			30.22	767.6	51.3	10.7	65	N	7.8	3.5			10						Michelson.
Barnaul			30.59	777.0	8.1	—22.3	75	W	4.5	2			0						Meteorological Obs.
Yeniseisk			30.26	768.7	6.6	—14.1	77	SE	4.5	2			0						arks.
Irkutsk			30.42	772.7	0.2	—17.9	82	Calm	0	0			0						Usolsef.
Oorga			30.31	769.8	16.9	— 8.4	80	NE	4.5	2			5						Mossin.
Peking, (China)			30.18	766.6	35.4	1.9	54	Calm	0	0			1						Physical Observatory.
Nertchinsk			30.38	771.6	— 6.0	—21.2	90	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					—11.2	—24.0		W	4.5	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.

Madrid			29.66	753.4	43.2	6.2	88	SW	27.7	12.4			10			0.587	14.9		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	762.4	28.4	— 2.0	84	Calm			0		0			0	0		Dr. Hildebrandsson.
Hernosand			30.21	767.3	32.0	0.0	88	W			2		0			0	0		
Upsala			30.70	779.7	17.1	— 8.8	100	Calm			0		0		ESE	0	0		
Stockholm			30.31	769.9	19.9	— 6.7	70	NW			2		0			0	0		
Wisby			30.34	770.7	27.0	— 2.8	100	SE			2		5			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	28.21	716.5			37.8	3.2	66	N			2		9			0	0		The Observatory.
Zurich	28.00	711.3			30.5	2.5	86	NW			1		1			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —0.1mm.; Thermometer, —1°.0 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	64.9	18.3	58	N			3		5						
Constantinople			29.64	755.5	47.1	8.4	86	ENE	4.4	2			10		NE	Blank	Blank	Light rain	
Fao, (Persian Gulf)			30.24	768.0	69.8	21.0		SE			3		5			Blank	Blank		
Salonica			29.58	750.2	53.6	12.0		W			1		4			Blank	Blank		
Valona			29.72	754.9	55.2	12.9		W			2		2			Blank	Blank		
Varna			29.82	757.7	39.2	4.0		SW			6		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Cape Roziere, Quebec			29.78	756.4	23	— 5.0	100	N	32	14.6			10			0	0	Light snow	
Chatham, N. B.			29.44	747.8	29	— 1.7	88	W	7	13.1		8	2	NW		0	0	Clearing	
Charlottetown, P. E. Island			28.88	733.5	35	1.7	84	W	30	13.4			10			0.235	5.98	Clearing	
Father Point, Quebec			29.16	740.7	7	—13.9	65	SW	25	11.2		Haze	5			0.06	1.5		
Fort Garry, Manitoba			30.33	770.4	—10	—23.3	100	Calm	0	0			10		W	0	0		
Halifax, N. S.			28.86	733.0	36	2.2	93	W	26	11.7		2	2		NW	0.77	19.6	Clearing	
Kingston, Ontario			29.89	759.2	12	—11.1	86	W	15	6.7		0	0			0	0		
Montreal, Quebec			29.60	751.8	16	— 8.9	76	SW	30	13.4		5	5	W	W	0.33	8.4		
Ottawa, Ontario			29.80	756.9	10	—12.2	64	W	13	5.8		2	0			0.50	12.7		
Parry Sound, Ontario			29.93	760.3	— 1	—18.3	84	W	12	5.4		0	0			0.30	7.6		
Port Dover, Ontario			30.02	762.5	14	—10.0	82	W	12	5.4			10			0	0	Light snow	
Port Stanley, Ontario			30.02	762.5	14	—10.0	92	NW	25	11.2			10			0.12	3.0	Light snow	
Quebec, Quebec			29.42	747.2	11	—11.7	79	SW	13	5.8		0	0			1.00	25.0		
Saugeen, Ontario			30.00	762.0	2	—16.7	86	NW	16	7.2		2	0			0.01	0.3		
Sydney, C. B.			28.85	732.8	44	6.7	46	S	17	7.6			10			0	0	Heavy rain	
Toronto, Ontario			29.98	761.7	72	+12.8	72	W	10	4.5		5	2	W	W	0.03	0.8		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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. Metres per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	26	— 3.3	100	W	32	14.3			10			0.08	2.0	Light snow	
Alpena, Mich.			30.05	763.3	— 1	—18.3	68	NW	6	2.7		0	2		NW	0.01	0.3		
Atlantic City, N. J.			30.03	762.7	33	0.6	79	SW	10	4.5		0	0			0.19	4.8		
Augusta, Ga.			30.26	768.6	39	3.9	82	NW	2	0.9		0	0			0.31	7.9		
Baltimore, Md.			30.07	763.9	37	2.8	53	W	4	1.8		0	0			0.06	1.5		
Barnegat, N. J.			29.95	760.7	31	— 0.6	69	SW	5	2.2		0	0			0.56	14.2		
Benton, Montana			30.10	764.5	—14	—25.6	100	Calm	0	0		0	0			0.13	3.3		
Bismarck, Dakota			30.21	767.3	— 8	—22.2	56	E	3	1.3			10			0.23	5.8		
Boston, Mass.			29.72	754.9	32	0.0	61	NW	16	7.2		5	0	NW		1.18	30.0		
Breckenridge, Minn.			30.28	769.4	—12	—24.4	87	NW	4	1.8			10			0	0		
Buffalo, N. Y.			29.98	761.5	15	— 9.4	64	NW	10	5.4			10			0.09	2.3	Light snow	
Burlington, Vt.			29.66	753.4	22	— 5.6	72	W	21	9.4		5	5	W		0.05	1.3		
Cairo, Ill.			30.13	765.3	36	2.2	62	S	8	3.6		0	0			0.03	0.8		
Cape Hatteras, N. C.			30.16	766.1	44	6.7	67	NW	13	5.8		0	0			0	0		
Cape Henry, Va.			30.17	766.3	40	4.4	73	NW	12	5.4		0	0			0.70	17.8		
Cape May, N. J.			30.07	763.8	34	1.1	69	NW	18	8.0		0	0			0.31	7.9		
Charleston, S. C.			30.24	768.1	45	7.2	67	N	4	1.8		2	Sm'e			0.24	6.1		
Cheyenne, W. T.			29.79	756.7	31	— 0.6	69	W	24	10.7		0	2			0	0		
Chicago, Ill.			30.04	763.0	18	— 7.8	68	SW	10	4.5			10			0	0		
Cincinnati, Ohio			30.11	764.3	32	0.0	79	S	4	1.8		2	0	S		0.03	0.8		
Cleveland, Ohio			29.93	760.2	29	— 1.7	83	W	8	3.6			10			0.02	0.5	Light snow	
Colorado Springs, Col.			29.80	756.9	34	1.1	79	E	3	1.3		5	0			0	0		
Corsicana, Texas			30.14	765.5	40	4.4	56	S	8	3.6		0	0			0	0		
Davenport, Iowa			30.02	762.5	15	— 9.4	91	NE	10	4.5			10			0	0		
Denver, Col.			29.87	758.7	42	5.6	19	W	14	6.3		0	0			0	0		
Detroit, Mich.			30.00	762.0	16	— 8.9	83	NW	6	2.9			10			0.02	0.5	Light snow	
Dodge City, Kansas			29.69	754.1	31	— 0.6	89	N	9	4.0		5	0	SW		0	0		
Dubuque, Iowa			30.12	765.0	11	—11.7	80	NE	8	3.6			10			0	0	Threatening	
Duluth, Minn.			30.22	767.6	— 3	—16.1	64	NE	4	1.8		Haze	8	NE	NW	0	0		
Eastport, Me.			29.35	745.5	28	— 2.2	77	W	18	8.0		5	0	W		0.92	23.4		
Erie, Penn.			29.96	761.0	24	— 4.4	93	NW	8	3.6			10			0.03	0.8	Light snow	
Escanaba, Mich.			30.16	766.1	— 7	—21.7	54	W	6	2.9		2	0	W		0.03	0.8		
Fort Gibson, I. T.			29.95	760.7	41	5.0	41	SE	12	5.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.35	770.9	— 4	—20.0	65	NE	6	2.9			10		NE	0.01	0.3		
Galveston, Texas			30.20	767.1	53	1.7	73	NW	2	0.9		0	0			0	0		
Grand Haven, Mich.			30.07	763.8	13	—10.6	81	NE	8	3.6			10		NW	Blank	Blank	Light snow	
Indianapolis, Ind.			30.00	762.0	35	1.7	52	S	12	5.4		8	0	W		0.03	0.8		
Indianola, Texas			30.20	767.1	54	12.2	68	S	6	2.9		0	0			0	0		
Jacksonville, Fla.			30.23	767.8	52	11.1	53	NW	4	1.8		5	0	SW		0.06	1.5		
Keokuk, Iowa			29.86	758.4	34	1.1	69	SW	3	1.3		2	0	W		0	0		
Key West, Fla.			30.11	764.8	73	22.8	85	Calm	0	0		2	Sm'e	E		0	0		
Kittyhawk, N. C.			30.20	767.7	40	44.4	61	NW	6	2.9		0	0			0.79	20.1		
Knoxville, Tenn.			30.27	768.8	28	— 2.2	88	Calm	0	0		0	Fog			0.24	6.1		
La Crosse, Wis.			30.11	764.8	7	—13.9	77	N	4	1.8			10		N	0.02	0.5		
Leavenworth, Kan.			29.90	759.4	25	— 3.9	68	S	2	0.9		0	2			0	0		
Lexington, Ky.			30.18	766.6	28	— 2.2	65	S	18	8.0		0	0			0	0		
Long Branch, N. J.			29.99	761.7	35	1.7	63	W	15	6.7		0	0			0.39	9.9		
Louisville, Ky.			30.12	765.0	30	— 1.1	67	SE	6	2.9		0	0			0.04	1.0		
Lynchburg, Va.			30.20	767.1	35	1.7	54	SW	4	1.8		0	0			0.26	6.6		
Malone, N. Y.																			
Marquette, Mich.			30.15	768.8	— 1	—18.3	68	W	4	1.8		5	0	N		0	0		
Memphis, Tenn.			30.19	766.8	36	2.2	70	SE	2	0.9		0	Haze			0	0		
Milwaukee, Wisconsin			30.13	765.3	10	—12.2	79	N	10	4.5			10			0.17	4.3		
Mobile, Ala.			30.28	769.2	44	6.7	75	N	4	1.8		0	0			0	0		
Montgomery, Ala.			30.30	769.6	39	3.9	77	N	2	0.9		0	Sm'e			0.04	1.0		
Morgantown, W. Virginia			30.09	764.3	31	— 0.6	63	SW	14	6.3		2	2	SW		0.30	7.6		
Mt. Washington, N. H.			29.12	739.7	— 3	—19.4	100	NW	108	48.3			Fog			0.10	2.5		
Nashville, Tenn.			30.21	767.3	35	1.7	70	S	1	0.4		0	0			0.01	0.3		
New Haven, Conn.			29.87	758.7	36	2.2	62	W	21	9.4		0	2			0.71	18.0		
New London, Conn.			29.86	758.4	34	1.1	67	W	13	5.8		0	0			0.91	23.1		
New Orleans, La.			30.26	768.6	49	9.4	61	E	6	2.7		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.94	760.5	31	— 0.6	60	W	30	13.4		0	0			0.84	21.3		
Norfolk, Va.			30.18	766.6	39	3.9	59	NW	8	3.6		0	Sm'e			0.66	16.8		
North Platte, Neb.			29.72	754.9	16	— 8.9	65	NE	4	1.8		0	5			0	0		
Omaha, Neb.			30.09	764.3	5	—15.0	100	N	10	4.5		2	0	W		0	0		
Oswego, N. Y.			29.88	758.9	19	— 7.2	79	NW	28	12.5		0	8		NW	0.43	10.9		
Peck's Beach			30.06	763.5	34	1.1	69	W	2	0.9		0	0			0.61	15.5		
Pembina, D. T.					—17	—27.2	69	NW	6	2.7			10			0	0		
Philadelphia, Penn.			30.03	762.7	33	0.6	51	W	12	5.4		0	0			0.39	9.9		
Pike's Peak, C. T.			29.65	753.1	2	—16.7	100	W	46	20.6		0	Fog			0.31	7.9		
Pittsburgh, Penn.			30.05	763.3	27	2.8	77	SW	12	5.4			10		W	0	0		
Port Huron, Mich.			30.04	763.0	12	—11.1	80	N	10	4.5			10			0.02	0.5	Light snow	
Portland, Maine			29.59	750.8	20	— 1.7	59	W	24	10.7		5	0	NW		0.71	18.0		
Portland, Or.			30.34	770.6	41	5.0	82	Calm	0	0			10			0	0		
Punta Rassa, Fla.			30.18	766.6	70	21.1	95	NW	12	5.4		0	10		NW	0	0		
Rochester, N. Y.			29.92	760.0	17	— 8.3	67	W	24	10.7			10			0.26	6.6	Threatening	
Salt Lake City, Utah			29.99	761.7	37	2.8	63	E	5	2.2		0	0			0	0		
Sandy Hook, N. J.			29.95	760.7	33	0.6	69	W	30	13.4		0	2		W	0.75	19.0		
San Diego, Cal.			30.06	763.5	45	7.2	72	NE	4	1.8		0	2			0	0		
San Francisco, Cal.			30.11	764.8	48	8.9	92	Calm	0	0			Fog			0	0	Fog	
Santa Fe, N. M.			29.69	754.1	22	5.6	58	SE	8	3.6		5	0	SW		0	0		
Savannah, Georgia			30.25	768.3	44	6.7	67	NW	8	3.6		2	0	NW		0.15	3.8		
Shreveport, La.			30.22	767.6	37	2.8	90	S	4	1.8		0	0			0	0		
Springfield, Mass.			29.78	756.4	35	1.7	61	W	12	5.4		10	0	W		0.24	6.1	Threatening	
St. Louis, Mo.			30.00	762.0	39	3.9	91	SW	16	7.2		0	5		SW	0	0		
St. Marks, Fla.			30.24	768.1	45	7.2	67	N	8	3.6		5	0	W		0.23	5.8		
St. Paul, Minn.			30.14	765.5	— 6	—21.1	78	N	4	1.8		5	0	W		0	0		
St. Paul's Island, Alaska			29.43	747.3	38	3.3	81	S	5	2.2			10			0.02	0.5		
Squan Beach, N. J.			29.99	761.7	32	0.0	60	W	6	2.7		0	0			0.45	11.4		
Toledo, Ohio			29.91	759.7	20	— 3.3	76	N	6	2.7			10		W	0.01	0.3	Threatening	
Tybee Island, Ga.			30.25	768.3	44	6.7	67	NW	12	5.4		5	0	NW		0.10	2.5		
Vicksburg, Miss.			30.29	769.4	40	4.4	63	SE	8	3.6		0	0			0	0		
Virginia City, Mon.			29.66	753.4	26	— 3.3	66	SW	4	1.8		0	5		SW	0	0		
Washington, D. C.			30.11	764.8	32	0.0	65	SW	2	0.9		0	0			0.16	4.1		
Wilmington, N. C.			30.23	767.8	42	5.6	49	N	8	3.6		0	0			0.04	1.0		
Wood's Hole, Mass.			29.80	756.9	32	0.0	68	W	15	6.7		0	0			0.55	14.0		
Wytheville, Va.			30.01	763.3	27	— 2.8	77	W	6	2.7		0	0			0.14	3.6		
Yankton, D. T.			30.28	769.1	0	—17.8	69	N	10	4.5			10	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.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7		N	2	0.9		8	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.04	763.0	72	22.2		NE				5	0			0	0		
Havana, Cuba, W. I.			29.98	761.5	75	23.9	85	S	3.6	1.6		2	0	NE		0	0		
Kingston, Jamaica, W. I.			30.27	768.8	76	24.4		Calm	0	0		0	0			0	0		
St. Thomas, W. I.			29.93	760.2	72	22.2	71	NW	3.6	1.6		0	0			0	0		
Santiago de Cuba, , W. I.																			
St. Georges, Bermudas			30.08	764.0	67	19.4	87	SW	35.7	16.0		10	0	NW		0	0		
Honolulu, Sandwich Is.			30.07	763.8	68	20.0	75	NE	3	1.3		5	7	NE		0.28	7.1	Rain	
Makawao, Sandwich Is.	27.77	705.3			59	15.0	94	S			1	0	10			0	0	Stormy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.02	762.5	—32	—35.6		W	4	1.8		10	1	W		0	0		
Clifton, Jamaica, W. I.			30.14	765.5	65	18.3		N	2	0.9		2		N		0	0		C. Partridge.
St. Johns, Newfoundland			29.52	749.8	36	2.2	100	S					10			0.15	3.8		John Delaney.
St. Johns, Porto Rico W. I.			30.15	765.8	72.7	22.6	80	SE			3	2	7			0.029	0.75		Leon M. Acuña.
Ellyria, Ohio	29.12	739.6			29	—1.7		SW	8	3.6		0	10			0	0		H. M. Redington.
Indianola, Iowa	29.16	740.7			11	—11.7		NE				0	10			0.25	7.0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.73	755.1															
Algiers			29.80	756.8	62.6	17.0	63	W			6		4			0.079	2.0	Light rain	Charnot.
La Calle			29.76	756.0															Peter.
Tunis			29.76	756.0	64.5	18.1	53	W			4		8			0.047	1.2	Sprinkling	Kuntz.
Sfax																			Jacques.
Saïda			29.79	756.7	54.5	12.5		NW			1		6			0.039	1.0		Chauvey.
Tebessa			29.80	756.8															Grosjean.
Gerlville			29.80	757.0	54.1	12.3		NW			4		3			0	0		Colin.
Laghouat			29.83	757.7	63.3	17.4	32	NW			3		8			0	0		Bernadach.
Biskra			29.82	757.4	68.0	20.0		NW			4		2			0	0		Poinsignon.
																			Coulon.

AUSTRIAN SERIES.

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

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.
Agram			29.78	756.5	35.1	1.7	71	SW			2		10			0.067	1.7		Prof. Ivan Stozir.
Buda-Pesth			29.97	761.2	23.0	— 5.0	61	NNE			4		10			0	0		I. R. Cen. M. I., Hungary
Cracow			29.80	759.2	37.2	2.9	72	N			2		10			0.033	0.85		I. R. Observatory.
Eperies			29.78	756.5	29.3	— 1.5	81	E			2.5		10			0.213	5.4		Julius Mikolik.
Gratz			29.79	756.6	33.8	1.0	75	SE			1		2			0.008	0.20		Andreas Rospini.
Hermannstadt			29.69	754.0	25.9	— 3.4	87	E			9		10			0	0		Prof. Reissenberger.
Kremsmünster			30.02	762.5	29.3	— 6.5	94	NE			4		10			0.087	2.2		Prof. C. Wagner.
Lemberg			29.86	758.4	30.6	— 0.8	96	N			3		10			0.178	4.51		Dr. T. Stanecki.
Nyiregyhaza			29.68	753.8	42.1	5.6	54	ESE			1		10			0	0		Habzsuda Daniel.
Pola			29.93	757.6	26.6	— 2.0	88	SE			2		10			0.213	5.40		I. R. Hydrographic Office
Szegedin			29.69	754.1	43.2	6.2	48	ENE			1		10			0	0		Karl Stancel.
Trieste			29.83	757.8	27.7	— 2.4	70	ESE			2					0.205	5.2		Prof. V. Farolfi.
Vienna																			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.

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.
Brussels	29.41	746.9			36.1	2.3	68	E			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.04	763.0	36.0	2.2		ESE	24	10.7			10			0	0		William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			29.91	759.7	37.0	2.8		E			4		8						William McNeil.
Armagh Observatory			29.83	757.7	36.8	2.7		ENE	11	4.9			10						Stillman Cull
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			29.76	755.9	33.4	0.8		ENE			4		10					Mist	The Liverpool Obs.
Birr Castle			29.72	754.9	37.8	3.2		ENE			1		10						J. Dreaper.
Bradford			29.75	755.6	32.9	0.		E			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.70	754.4	32.0	0.0		NE			3		4			Blank	Blank		H. Todd.
Cape Town, Cape Colony			29.90	759.4	75	23.9		NW			2		0						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.93	760.2			80.0	26.7	43	WNW	15	6.7			0						The Royal Observatory.
Cardington			29.72	754.9	32.5	0.0		E					10						John McLaren.
Carlisle			29.86	758.4	34.7	1.5		E					10			0	0	Threatening	T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759.4	80.8	27.1		NE			3		10						Sgt. W. F. Hopkins
Dartmoor			29.67	753.4	32	0.0		E			1		10					Fog	R. E. Power.
Donaghadee			29.80	756.9	36	2.2		E			6		6						J. Mac Gowan, Jr.
Dover			29.62	752.3	35	1.7		ENE			4		7			0	0		J. Costello.
Dublin																			
Durham Observatory			29.85	758.2	33	0.6		ENE					10						G. Goldney.
Eccles, (near Manchester)			29.77	756.1	33.5	0.8		NE	4.2	1.9			10						Thomas Mackereth.
Falmouth Observatory			30.56	759.8	42.1	5.6		ENE	30	13.4			9					Fog.	The Falmouth Obs.
Fort Napier, (Natal)			29.78	756.4	95.0	35.0		NE			1		1						Pvt. G. Salmon.
Galway			29.69	754.1	39	3.9		NE			5		10						Queen's College.
Gibraltar, (Mediterranean)			29.95	760.7	58.2	14.6		WNW			5		3						Sgt. J. Brewster.
Glasgow Observatory			29.90	759.4	36.2	2.3		E			4		10					Squally	The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			29.69	754.1	31	— 0.6		E			6		10						G. T. Watson.
Greenwich Royal Obs.			29.66	753.4	34.4	1.3		ENE			4		10						The Royal Observatory.
Guernsey			29.55	750.6	44.5	6.9		ENE			1		6						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.76	755.9	31.6	— 0.6		E					10			Blank	Blank		Moorside Observatory
Halifax, (Nova Scotia)			29.74	755.4	20.6	— 6.3		NW			6		1			Blank	Blank		Corp'l J. Y. Thompson.
Helston			29.54	749.8	45	7.2		E			1		8						W. B. Moyle.
Holyhead			29.73	755.1	37	2.8		E			5		7					Mist	John Tilston.
Hull Park																			
Kew Observatory			29.67	753.6	34.1	1.2		E	20	8.9			10						The Met. Office.
Kingstown			29.75	755.6	38	3.3		E			4		10						George Mitchell.
Lampeter																			
Leicester			29.74	755.4	31.0	— 0.6		NE			2		10			Blank	Blank	Snow	William J. Harrison
Llandudno			29.76	755.9	34.3	1.3		ESE					10						Dr. James Nicol.
Malta, (Mediterranean)			30.80	756.9	67.0	19.4		SW			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.03	762.7	35	1.7		ESE			1		6						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	71.6	22.0		Calm			0		2						Surgeon I. Jameson.
North Shields			29.89	759.2	35	1.7		E			6		8						John Wm. Irvine.
Nottingham			29.77	756.1	31.5	— 0.3		ENE			3		10		ENE	Blank	Blank	Snow	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.74	755.4	29.9	— 1.2		ENE			4		10			Blank	Blank	Snow	St. Mary's College.
Oxford, Radcliffe Obs.			30.00	751.8	33	0.6		NE			5		10			Blank	Blank	Threatening	Radcliffe Observatory.
Plymouth			29.65	753.1	39	3.9		E			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.68	753.9	44	6.7		E			5		10			Blank	Blank		W. Kennedy.
Saint Ann's Head			29.63	752.6	38	3.3		E			4		10					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.13	765.3	34.7	1.5		ESE	20	8.9			10					Mist	Rev. Dr. Clouston.
Scarboro'			29.84	757.9	34.0	1.1		E			6		10						F. Heard.
Scutari, (Turkey)			29.77	756.1	45.4	7.4		NE			3		7					Mist	W. H. Lyne.
Sheffield			29.77	756.1	35.5	1.9		E			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.82	757.4	35.5	1.9		E			5		10						Francis Redford.
Somerleyton, (Lowestoft)			29.70	754.4	31.0	— 0.6		NE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.76	755.9	33.2	1.8		E			3		10			Blank	Blank	Threatening	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.01	762.2	38	3.3		E			5		8						John Smith.
Strathfield Turgiss			29.66	753.4	33.7	0.9		NE			1		10						Charles H. Griffith.
Streatley Vicarage			29.68	753.9	34.5	1.4		ENE			3		0						Rev. John Slatter.
Sumburgh Head, Shetland			30.18	765.3	36	2.2		SE			5		8					Solar halo	William Lawrence.
Taunton College																			
Thurso			30.09	764.3	37	2.8		SSW			2		9						John Trotter.
Truro Royal Institution			29.52	749.8	44	6.7		E			6		10			Blank	Blank	Snow	Royal Institution.
Valencia			29.60	751.8	41.0	5.0		NNE	22	9.8			6						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.57	751.1	35.7	2.1		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 Cape 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	766.8	27.3	— 2.6		ESE			6		2						
Fanöe			30.07	763.7	28.9	— 1.7	68	ESE			6		6						
Godthaab, (Greenland)			29.22	742.2	21.9	— 5.6		E			6		10						
Stykkisholm, (Iceland)			29.91	759.4	31.6	— 0.2	87	E			4		10						
Thorshavn, (Faröe)			30.15	765.9	40.1	4.5	60	SE			4		8						
Vestervig			30.15	765.7	28.4	— 2.0	88	E			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.66	753.4	58.1	14.5	70						8						Normal School.
Alençon			29.58	751.3	44.6	7.0	97	NE			3		8		NNE	0	0		Normal School.
Amiens			29.47	748.4	43.2	6.2	73	ENE			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.53	750.1	46.9	8.3	70	S	0.0	0.0			10		W	0	0		Beaumette Observatory.
Beauvais			29.58	751.2	38.1	3.4	83	E			1		10		E	0	0		Normal School.
Besançon			29.50	751.5	37.6	3.1	89	SSW			2		5		SW	0	0		Normal School.
Bourges			29.55	750.6	37.8	3.2	93	W			2		10		W	0.157	4.0		Normal School.
Brest			29.45	748.1	51.6	10.9	74	S			1					0.022	0.5		Naval Observatory.
Caen			29.56	750.7	43.7	6.5	82	W			1		10			0.150	3.8		Normal School.
Carcassonne																			
Chartres			29.65	753.2	39.4	4.1		NNE			1		10			0	0		Normal School.
Chaumont			29.50	749.4	44.8	7.1		SSE			3		10			0	0		Normal School.
Le Mans			29.56	750.8	43.3	6.3	85	NE			2		8		NE	0.090	2.3		Normal School.
Mirecourt			29.51	749.5	38.7	3.7		N			2		0			0	0		Normal School.
Orleans			29.52	749.9	38.5	3.6	97	NW			2		10		W	0.252	6.4		Normal School.
Paris			29.52	749.9	40.6	4.8	81	NW			1		10			0.004	0.1	Light fog	National Observatory.
Parthenay																			
La Roche sur Yon			29.54	750.2	46.2	7.9	81	SSE			1		5		NW	0.102	2.6		Normal School.
Rouen			29.57	751.0	38.3	3.5	83	SE			2		10			0.094	2.4		Normal School.
Saint Lo			29.58	751.3	44.6	7.0	83	S			2		10		S	0.256	6.5		Normal School.
Villefranche			29.54	750.2	44.1	6.7	91	SE			3		8		SW	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer
Gorée, (Senegambia)			29.85	758.1	73.2	22.9	60.4	N			3		1			0	0		Père Pascall.
Mont-Louis	24.40	619.7			33.1	0.6	69	WSW	14.9	6.66			2		SW	0.008	0.2		—, Falguère.
Montsouris (near Paris)			29.52	749.7	40.3	4.6	86	NNW	3.3	1.47			10			0.004	0.1	Mist	Merié Davy.
Perpignan	29.47	748.4			56.8	13.8	30	WNW	13.	5.83			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.52	749.8	41.5	5.3	80	N			1		10			0.063	1.6	Threatening	E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.50	749.4	44.1	6.7	83	SW			1		10		N	0.256	6.5		C. Marquet.
Versailles, (near Paris)			29.52	749.9	39.2	4.0	93	NE			1		10			0.035	0.9	Light fog	Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.69	754.2	32.0	0.0	74	E			3		6			0	0		Prof. Hoh.
Berlin			30.02	762.6	25.3	— 3.7	83	SE			4		10			0.012	0.3		Prof. Arndt.
Breslau			30.00	761.9	23.7	— 4.6	80	E			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.60	751.7	35.6	2.0	64	NE			5		0			0	0		A. Leuz.
Cassel			29.71	754.6	3 .0	— 1.1	82	E			5		3			0	0		Dr. H. Mohl.
Cologne			29.72	754.9	32.9	0.5	69	SE			4		4			0	0		Dr. Gaithe.
Emden			29.98	761.6	23.7	— 4.6	76	E			2		10			0	0		Prof. Prestel.
Frankfort on the Main			29.78	756.4	34.2	1.2	63	NE			2		2			0	0		Physical Society.
Friedrichshafen			29.60	751.8	27.5	— 2.5	80	NE					1			0	0		M. Wilhelm.
Hamburg			30.01	762.2	23.9	— 4.5	74	E			6		10			0	0		W. Reinart.
Kiel			30.05	763.3	29.3	— 1.5	59	E			5		5			0	0		Prof. G. Karsten.
Königsberg			30.31	769.9	18.5	— 7.5	62	NE			2		0			0	0		Prof. E. Luther.
Köslin			30.41	772.4	23.9	— 4.5		E			4					0	0		Dr. T gert.
Leipsic			29.84	757.8	28.0	— 2.2	85	E			5		8			0	0		Prof. Bruhns.
Münster			29.78	756.4	30.0	— 1.1	90	NE			4		0			0	0		Prof. E. Heis.
Posen			30.10	764.6	22.8	— 5.1	73	E			8		10			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			29.57	751.1	35.1	1.7	69	E					1			0	0		Hartwig and Fulk.
Stuttgart			29.64	752.9	33.6	0.9	67	E					0			0	0		Mr. Wurth.
Thorn			30.16	766.0	21.4	— 5.9	64	E			8		0			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.55	750.5	34.9	1.6	73	NE			6		0			0	0		Prof. Flesch.
Wustrow			30.13	765.3	25.5	— 3.6	78	ENE			4		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.72	754.9	31.8	— 0.1	87	NW			1		10			0.035	0.9		
Mondovi			29.71	754.7	31.6	— 0.8	80	W			2		10			Blank	Blank	Snow	
Genoa			29.55	750.6	36.7	2.6	72	N	12.4	5.56			10			Blank	Blank	Snow	
avia			29.69	754.1	34.7	1.5	91	E			1		10			Blank	Blank	Snow	
Verona																			
P d a			29.69	754.0	33.8	1.0	81	N	3.7	1.67			10			0	0		
Pa ma																			
Bologna			29.67	753.5	34.2	1.2	44	ENE			4		10			Blank	Blank	Snow	
Livorno			29.52	749.0	46.8	8.2	52	ENE	9.9	4.41			10			0	0		
Urb no			29.72	754.8	34.7	1.5		NE			2		10			0.512	13.0	Rain	
Anco a																			
Siena			29.56	750.9	44.8	7.1	99	E	0.6	0.28			10	E		0.059	1.5	Rain	
Rome			29.59	751.5	58.6	14.8	63	SE	19.3	8.61			5	S		0	0		
Naples, O.U			29.66	753.3	58.8	14.9	73	S			4		10			0	0		
Naples, S. R																			Prof. F. Brioschi.
Lecce			29.71	754.7	55.6	13.1	55	WSW	8.7	3.89			5			0	0		
Cosenza			29.71	754.6	58.8	14.9	48	SE			1		10			0	0		
Catania, (Sicily)			29.74	755.4	57.2	14.0	67	ENE			2		2	E		0	0		
I posto																			
Palermo			29.62	752.3	63.7	17.6	56	SW			8		9			0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			29.66	753.3	34.5	1.4		E			5								
Groningen			29.80	756.8	25.2	— 3.8		E			6								
Helder			29.75	755.7	28.2	— 2.1		E			5								
Utrecht			29.66	753.3	32.4	0.2		ENE			4		5						

Note.—The originals give the force 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.

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.
Bergen			30.26	768.6	27.7	— 2.4	67	Calm	0	0.0			5			0	0		
Christiania			30.32	770.0	17.8	— 7.9	74	SSW	0.9	0.4			0			0	0	Haze	
Tromsö			29.83	757.6	27.7	— 2.4	89	W			2		10			0.405	10.3		

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, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

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.
Lisbon	29.54	750.2			53.6	12.0	68	WSW	23.7	10.6			8			Blank	Blank		

Note.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

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.
Warsaw			30.14	765.6	20.3	— 6.5	97	E	11.2	5			0						Astronomical Obs.
Wilna			30.29	769.4	18.7	— 7.4	64	NNE	4.5	2			0						Astronomical Obs.
Dorpat			29.27	768.8	17.6	— 8.0	76	W	8.9	4			1						Physical Cabinet.
St. Petersburg			30.01	762.2	21.0	— 6.1	73	W	8.9	4			1						Central Physical Obs.
Kieff			30.19	766.9	13.3	—10.4	74	NNW	11.2	5			2						Physical Cabinet.
Nikolaiev			30.05	763.2	20.5	— 6.4	87	N	6.7	3			8						
Kertch			29.82	757.4	35.1	1.8	80	E	10.1	4.5			10						Lagorio.
Moscow			30.09	764.4	14.0	—10.0	64	NW	16.8	7.5			0						Meteorological Obs.
Lugan			29.95	760.6	20.1	— 6.6	79	N	10.1	4.5			8						Meteorological Obs.
Archangel			29.69	754.2	13.3	—10.4	93	S	14.5	6			10						Ogorodnikof.
Tiflis			30.04	763.1	56.5	13.6	51	S	10.1	4.5			3						Physical Obs.
Astrakhan			30.16	766.0	38.3	3.5	46	Calm	0	0			8						Sebastianof.
Kasan			29.59	751.6	17.2	— 8.2	91	NNW	3.4	1.5			10					Snow	Physical Cabinet.
Orenburg			30.18	766.5	17.6	— 8.0	88	SW	10.1	4.5			10						Tschernischef.
Ekaterinburg			29.95	760.7	6.4	—14.2	83	S	14.5	6			0						Meteorological Obs.
Kasaly			30.11	764.8	42.3	5.7	80	ESE	7.8	3.5			0						Bobrof.
Tashkend			30.35	771.0	47.3	8.5	92	NE	7.8	3.5			10					Rain	Michelson.
Barnaul			30.64	780.8	— 2.7	—19.3	75	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.25	768.7	10.9	—11.7	85	S	16.8	7.5			10						Marks.
Irkutsk			30.55	775.9	— 4.2	—20.1	83	NE	7.8	3.5			0						Usolzef.
Oorga			30.23	767.7	14.5	— 9.6	100	Calm	0	0			10					Snow	Mossin.
Peking, (China)			30.31	769.9	35.4	— 1.9	63	Calm	0	0			10						Physical Observatory
Nertchinsk			30.47	773.8	— 8.3	—22.4	87	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor					— 7.6	—22.0		Calm	0	0			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.

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.
Madrid			29.84	758.0	43.9	6.6	74	SW	21.3	9.7		0	5			0.020	0.5		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	31.5	— 0.3	76	NW			2		5			0	0		Dr. Hildebrandsson.
Hernosand			30.08	764.1	24.4	4.2	97	Calm			0		2			0	0		
Upsala			30.26	768.6	22.6	— 5.2	65	SW			2		0			0	0		
Stockholm			30.24	768.1	24.4	— 4.2	55	W			4		0			0	0		
Wisby			30.32	770.1	27.3	— 2.6	100	WNW			2		5			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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	28.12	714.2			35.4	1.9	92	WSW			2		10			0.063	1.6	Snow	The Observatory.
Zurich	27.87	707.0			28.2	— 2.1	91	E			1		2			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —11.4mm.; Thermometer, —3°.4 C.; Relative Humidity, +25 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)			29.77	756.1	68.5	20.3	73	S			4		10						
Constantinople			29.79	756.6	43.2	6.2	83	N	7.8	3.5			10		N	Blank	Blank		
Fao, (Persian Gulf)			30.19	766.7	69.8	21.0		SE			3		10						
Salonica			28.87	733.3	55.9	13.3		N			1		0						
Valona			29.68	753.8	57.4	14.1		SW			2		5						
Varna			29.84	758.0	28.4	— 2.0		SW			6		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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.33	745.0	7	—13.9	72	W	17	7.6		0	0			0	0		
Chatham, N. B.			29.63	752.6	4	—15.6	74	W	12	5.4		0	0			0	0		
Charlottetown, P. E. Island			29.65	753.1	10	—12.2	68	W	17	7.6		5	0	W		0	0		
Father Point, Quebec			29.91	759.7	— 4	—20.0	74	NW	28	12.5		0	Haze			0	0		
Fort Garry, Manitoba			30.42	772.7	—34	—36.7	100	NW	3	1.3		2	2	W	W	0	0		
Halifax, N. S.			29.70	754.4	19	— 7.2	77	W	16	7.2		0	0			0	0		
Kingston, Ontario			30.02	762.5	4	—15.6	81	NE	2	0.9		10	0			0	0		
Montreal, Quebec			29.97	761.2	4	—15.6	72	W	25	11.2		0	2			0	0		
Ottawa, Ontario			30.00	762.0	— 5	—20.6	45	Calm	0	0		5	5			0	0		
Parry Sound, Ontario			30.01	762.2	—12	—24.4	74	NE	3	1.3		5	2			0	0		
Port Dover, Ontario			30.00	762.0	7	—13.9	72	NW	9	4.0		10	0	NW		0	0		
Port Stanley, Ontario			30.03	762.7	6	—14.4	92	NW	9	4.0		8	0	SW		0.02	0.5		
Quebec, Quebec			29.87	758.7	1	—17.2	72	W	7	3.1		0	0			0	0		
Saugeen, Ontario			30.05	763.3	—10	—23.3	77	Calm	0	0		2	0			0	0		
Sydney, C. B.			29.52	749.8	13	—10.6	93	W	22	9.8		8	Haze	W		0.07	1.8		
Toronto, Ontario			30.01	762.2	3	—16.1	80	W	4	1.8			10			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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.			29.92	760.0	18	— 7.8	100	NW	1	0.5			10			0	0	Light rain	
Alpena, Mich.			30.05	763.3	— 6	—21.1	61	W	4	1.8		5	5	W		0	0		
Atlantic City, N. J.			29.81	757.2	34	1.1	95	NE	2	0.9		10	Haze	SW		0	0		
Augusta, Ga.			30.03	762.7	46	7.8	77	S	2	0.9		10	0	SW		0	0		
Baltimore, Md.			29.77	756.1	37	2.8	80	NE	4	1.8		5	5	W	W	0	0		
Barnegat, N. J.			29.72	754.9	32	0.0	79	E	8	3.6			10		E	0	0		
Benton, Montana			29.86	758.4	12	—11.1	100	E	10	4.5			10			0	0		
Bismarck, Dakota			30.37	771.4	—15	—26.1	42	NE	3	1.3		2	0			0	0		
Boston, Mass.			29.95	760.7	25	— 3.9	63	NE	3	1.3			10			0	0	Light rain	
Breckenridge, Minn.			30.44	773.2	—20	—28.9	85	NW	10	4.5		0	0			0	0		
Buffalo, N. Y.			29.93	760.2	12	—11.1	80	N	4	1.8			10			0.01	0.3	Light rain	
Burlington, Vt.			29.95	760.7	1[illegible]	—12.2	79	N	4	1.8		5	5			0	0		
Cairo, Ill.			30.25	768.3	29	— 1.7	78	NE	9	4.0			10				0		
Cape Hatteras, N. C.			29.96	761.0	53	11.7	79	W	11	4.9		5	Haze			0	0		
Cape Henry, Va.			29.88	758.9	44	6.7	68	SE	13	5.8		5	2	W		0	0		
Cape May, N. J.			29.81	757.2	36	2.2	90	S	8	3.6		10	0	W		0	0		
Charleston, S. C.			30.07	763.8	49	9.4	77	SW	4	1.8		5	Sm'e	W		0	0		
Cheyenne, W. T.			29.89	759.2	36	2.2	37	W	20	8.9		0	0			0	0		
Chicago, Ill.			30.20	767.1	8	13.3	77	W	9	4.0			10		W	0.03	0.8		
Cincinnati, Ohio			30.08	764.0	27	— 2.8	77	NW	20	8.9			10			0	0		
Cleveland, Ohio			29.96	761.0	12	—11.1	90	N	10	4.5		5	0	W		0.23	5.8	Clearing	
Colorado Springs, Col.			29.94	760.5	25	— 3.9	75	NE	2	0.9		0	0			0	0		
Corsicana, Texas			30.18	766.6	41	5.0	73		8	3.6		0	0			0	0		
Davenport, Iowa			30.34	770.6	2	—16.7	86	NW	8	3.6		2	2	W		Blank	Blank		
Denver, Col.			29.99	761.7	30	— 1.1	57	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.03	762.7	7	—13.9	77	N	3	1.3		Haze	Haze			0.09	2.3		
Dodge City, Kansas			30.04	763.0	18	— 7.8	84	NW	1	0.4		0	0			0	0		
Dubuque, Iowa			30.33	770.4	— 5	—20.6	63	W	4	1.8		5	0	W		0	0		
Duluth, Minn.			30.20	767.6	— 9	—22.8	78	NW	8	3.6		Haze	2	NW		0	0		
Eastport, Me.			29.83	757.7	14	—10.0	64	W	15	2.2		2	0	W		0	0		
Erie, Penn.			29.94	760.5	13	—10.6	91	NW	12	5.4			10			0.17	4.3	Light snow	
Escanaba, Mich.			30.06	763.5	1	—17.2	71	NW	2	0.9			10		NW	0	0		
Fort Gibson, I. T.			30.29	769.4	25	— 3.9	88	N	8	3.6		0	2		N	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.40	772.1	— 1	—18.3	65	N	1	0.4		8	1	NW	N	0	0		
Galveston, Texas			30.14	765.5	59	15.0	9	NE	4	1.8		0	0			0	0		
Grand Haven, Mich.			30.11	764.8	— 7	—21.7	59	S	3	1.3			10			0	0		
Indianapolis, Ind.			30.20	767.1	14	—10.0	72	NW	14	6.3		0	0			0.06	1.5		
Indianola, Texas			30.14	765.5	61	—16.1	94		6	2.7		0	2			0	0		
Jacksonville, Fla.			30.14	765.5	51	10.6	86	SW	4	1.8		0	0			0	0		
Keokuk, Iowa			30.34	770.6	12	—11.1	61	NW	7	3.1		0	0			0	0		
Key West, Fla.			30.15	765.8	73	22.8	81	NE	2	0.9		Haze	Sm'e			0	0		
Kittyhawk, N. C.			29.93	760.2	45	7.2	65	W	12	5.4		10	0			0	0		
Knoxville, Tenn.			29.97	761.2	41	5.0	57	SW	4	1.8		10	0	W		0	0		
La Crosse, Wis.			30.27	768.8	3	—16.1	71	W	3	1.3		5	Haze	W		0	0		
Leavenworth, Kan.			30.43	772.9	9	—12.8	78	NW	3	1.3		0	0			0	0		
Lexington, Ky.			30.09	764.3	33	0.6	80	NW	18	8.0			10		NW	0	0		
Long Branch, N. J.			29.87	758.7	32	0.0	90	NE	17	7.6			10			0	0		
Louisville, Ky.			30.12	765.0	26	— 3.3	75	W	22	9.8			10		N	0	0		
Lynchburg, Va.			29.83	757.7	40	4.4	55	SW	4	1.8		10	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.04	763.0	6	—14.4	76	W	4	1.8			10			0	0		
Memphis, Tenn.			30.21	767.3	41	5.0	66	N	8	3.6		0	0			0	0		
Milwaukee, Wisconsin			30.20	767.1	0	—17.8	69	NW	13	5.8		5	Haze			0	0		
Mobile, Ala.			30.17	766.3	55	12.8	93	NW	2	0.9		0	2			0	0		
Montgomery, Ala.			30.14	765.5	53	11.7	8[illegible]	SW	4	1.8		2	Sm'e	SW		0	0		
Morgantown, W. Virginia			29.75	755.6	38	3.3	86	SW	12	5.4			10			0.01	0.3		
Mt. Washington, N. H.			29.55	750.6	— 8	—22.2	100	N	64	28.6		8	0	W		0	0		
Nashville, Tenn.			30.13	765.3	39	3.9	56	NW	10	4.5		10	0	W		0	0		
New Haven, Conn.			29.93	760.2	24	— 4.4	74	NE	10	4.5			10			0.02	0.5	Light snow	
New London, Conn.			29.95	760.7	25	— 3.9	75	N	6	2.7			10		W	0	0		
New Orleans, La.			30.17	766.3	58	14.4	85	Calm	0	0		0	5		W	0	0		
Newport, R. I.																			
New York, N. Y.			29.88	758.9	30	— 1.1	78	NE	15	6.7			Fog			0	0	Fog	
Norfolk, Va.			29.88	758.9	43	6.1	71	SW	12	5.4			10			0	0		
North Platte, Neb.			29.86	758.4	24	— 4.4	74	Calm	0	0		0	0			0	0		
Omaha, Neb.			30.38	771.6	5	—15.0	100	Calm	0	0			10			0	0		
Oswego, N. Y.			29.93	760.2	12	—11.1	70	NE	7	3.1			10			0	0		
Peck's Beach			29.81	757.[illegible]	35	1.7	100	SW	4	1.8			10		W	0	0		
Pembina, D. T.			30.35	770.9	—24	—31.1		Calm	0	0		0	2			0	0		
Philadelphia, Penn.			29.83	757.7	30	— 1.1	78	E	12	5.4			10		E	0	0		
Pike's Peak, C. T.			29.86	758.4	10	—12.2	79	W	38	17.0		0	0			0	0		
Pittsburgh, Penn.			29.85	758.2	22	— 5.6	85	NW	13	5.8			10			0.02	0.5	Light snow	
Port Huron, Mich.			30.04	763.0	6	—14.4	88	NE	5	2.2		0	0			0	0		
Portland, Maine			29.91	795.6	17	— 8.3	67	W	8	3.6			10			0	0		
Portland, Or.			30.10	764.5	42	5.6		SW	10	4.5			10		S	0.22	5.6	Light ra	
Punta Rassa, Fla.			30.18	766.6	68	20.0	74	E	4	1.8		Haze	2			0	0		
Rochester, N. Y.			29.90	759.4	14	—10.0	81	E	8	3.6			10			0.02	.5	Light snow	
Salt Lake City, Utah			30.03	762.7	31	— 0.6	60	S	1	.4		0	0			0	0		
Sandy Hook, N. J.			29.84	757.9	31	— 0.6	79	NE	12	5.4			10		W	0	0		
San Diego, Cal.			30.05	763.3	51	10.6	93	N	4	1.8			10			0	0		
San Francisco, Cal.			30.02	762.5	46	7.8	92	SW	12	5.4			Fog			0	0	Fog	
Santa Fe, N. M.			29.80	756.9	25	— 3.9	63	SW	2	0.9		2	0	SW		0	0		
Savannah, Georgia			30.08	764.0	50	10.0	71	SW	9	4.0		8	Sm'e	SW		0	0		
Shreveport, La.			30.17	766.3	48	8.9	92	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.94	760.5	22	— 5.6	85	NE	4	1.8			10			0.03	0.8	Light snow	
St. Louis, Mo.			30.31	769.9	21	— 6.1	73	N	8	3.6		0	5			0	0		
St. Marks, Fla.			30.17	766.3	48	8.9	92	NW	3	1.3			10		W	0	0		
St. Paul, Minn.			30.25	768.3	—12	—24.4	75	SW	5	2.2		0	0			0	0		
St. Paul's Island, Alaska			29.44	747.8	34	1.1	89	W	2	0.9			2			0.13	3.3		
Squan Beach, N. J.			29.84	757.9	32	0.0	89	E	8	3.6			10			0	0		
Toledo, Ohio			29.97	761.2	15	— 9.4	65	NW	3	1.3			10			Blank	Blank		
Tybee Island, Ga.			30.11	764.8	52	11.1	86	SW	2	0.9		5	5	SW		0	0		
Vicksburg, Miss.			30.22	767.6	52	11.1	86	Calm	0	0		0	Haze			0	0		
Virginia City, Mon.			29.57	751.1	23	— 5.0	73	SE	2	0.9		0	2			0	0		
Washington, D. C.			29.78	756.4	35	1.7	75	Calm	0	0		2	8	W		0	0		
Wilmington, N. C.			30.00	762.0	46	7.8	85	SW	9	4.0		2	8	W	W	0.01	0.3	Cloudy	
Wood's Hole, Mass.			29.96	761.0	29	— 1.7	59	Calm	0	0			10			0	0		
Wytheville, Va.			29.67	753.6	38	3.3	54	W	12	5.4		2	0			0	0		
Yankton, D. T.			30.47	773.9	— 2	—18.9	67	NW	1	0.4		0	0			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	80	26.7		N	2	0.9		5	5	W		0	0		
Point-a-pitre, G'd'loupe, "			30.05	763.3	70	21.1		NE				8	2	NE		0.4	10.2		
Havana, Cuba, W. I.			29.97	761.2	72	22.2	75	SE	2.4	1.1		0	0			0	0		
Kingston, Jamaica, W. I.			30.27	768.8	76	24.4		Calm				1	0	NE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.91	759.7	76	24.4	76	Calm	0	0		0	2		NE	0	0		
St. Georges, Bermudas			30.11	764.8	65	18.3	78	S	3	1.3		10	0	SW		0.095	2.41		
Honolulu, Sandwich Is.			30.08	764.0	69	20.6	70	NE	2	0.9		7	7	NE		0	0		
Makawao, Sandwich Is.	27.75	704.8			63	17.2	62	SE			3	2	9	SE		0.38	9.6	Stormy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.21	767.3	—36	—37.8		NW	6	2.7		1	1	N		0	0		
Clifton, Jamaica, W. I.			30.14	765.5	63	17.2		N	3	0.9		2	5	N		0	0		C. Partridge.
St. Johns, Newfoundland			29.54	750.3	24	— 4.4	100	W				5	5			0.22	5.6		John Delaney.
St. Johns Porto Rico, W. I.			30.14	765.6	73.4	23.0	70	E			4	1	1	Calm		0.096	2.45		Leon M. Acuña.
Ellyria, Ohio	29.15	740.4			11	—11.7	100	N	6	2.7		0	2			0.43	10.9		H. M. Rodington.
Indianola, Iowa	29.49	749.0			— 4	—20.0		SW				0	1			0	0		G. C. Carpenter.

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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 AT 7:35 A. M., FEBRUARY 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. BERN 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.
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.

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.
Nemours			29.90	759.4									7						Charnot.
Algiers			29.78	756.3	61.2	16.2	61	WNW			3		7			0	0	Light rain	Peter.
La Calle			29.80	756.9															Kuntz.
Tunis			29.84	757.8	62.4	16.9	38	WNW			3		4			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.87	758.7	52.5	11.4		W			2		7			0.591	15.0	Rainy	Grosjean.
Tebessa			29.8[illegible]	758.2															Colin.
Geriville			29.91	759.6	53.0	12.2		S			3		7			0	0		Bernadach.
Laghouat			29.91	759.7	59.4	15.2	44	NW			4		10			0	0		Poinsignon.
Biskra			29.86	758.4	64.6	18.1		NW			4		7			0	0	Rainy	Coulon.

AUSTRIAN SERIES.

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

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.
Agram			29.78	756.3	29.3	− 1.5	82	Calm			0		10			0.220	5.6	Snow	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.01	762.2	19.4	− 7.0	72	NNE			4		2			0	0		I. R. Observatory.
Eperies			29.90	759.4	32.0	0.0	85	Calm			0		5			0	0		Julius Mikolik.
Gratz			29.83	757.8	30.6	− 0.8	79	NW			2.5		10			0	0		Andreas Rospini.
Hermannstadt			29.81	757.3	35.4	1.9	73	SE			3		5			0	0		Prof. Reissenberger.
Kremsmünster			29.70	756.6	27.3	− 2.6	87	NE			3		6			0	0		Prof. C. Wagner.
Lemberg			30.07	763.7	21.0	− 6.1	100	E			4		10			0.075	1.9		Dr. T. Stanecki.
Nyiregyhaza			29.80	759.2	34.5	1.4	96	N			1		0			0	0		Habzsuda Daniel.
Pola			29.62	752.4	36.3	2.4	85	ESE			1		10			0.089	2.26	Snow & rain	I. R. Hydrographic Office
Szegedin			29.77	756.1	31.6	− 0.2	85	SE			2		10			0.140	3.55		Karl Stancel.
Trieste			29.63	752.6	36.3	2.4	52	ENE			4		10			Blank	Blank	Snow	Prof. V. Farolfi.
Vienna			29.86	758.4	30.2	− 1.0	82	ESE			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.

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.
Brussels	29.50	749.3			35.1	1.7	78	E			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force 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.

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.
Aberdeen			30.08	764.0	34.0	1.1		E	19	8.5			10			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan																			William McNeil.
Armagh Observatory			29.98	761.5	34.7	1.5		ENE	13	5.8									Stillman Gall
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.88	758.9	33.0	0.6		ENE			3		10						The Liverpool Obs.
Birr Castle			29.94	760.5	35.4	1.9		NNE			1		10						J. Dreyer.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.81	757.2	31.0	— 0.6		NE			1		4			0	0		H. Todd.
Cape Town, Cape Colony			29.92	760.0	75.2	24.0		S			4		2						Sgt. D. E. Hunt
Cape Good Hope Obs	29.95	760.7			84.0	28.9	46	SSE	17	7.6			6						The Royal Observatory.
Cardington			29.81	757.2	31.0	— 0.6		E					10						John McLaren.
Carlisle			29.96	761.0	33.3	0.7		E					10			0	0		T. Bell.
Chatham																			James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759.4	74.8	23.8		NE			2		8						Sgt. W. F. Hopkins
Dartmoor			29.86	758.4	27.2	— 2.7		NE			1		10					Fog	R. E. Power.
Donaghadee			29.96	761.0	36	2.2		E			6		10						J. Mac Gowan, Jr.
Dover			29.72	754 9	35	1.7		NNE			4		7			Blank	Blank	Snow	J. Costello.
Dublin																			
Durham Observatory			29.94	760.5	32.1	0.1		NE					10			Blank	Blank	Snow	G. Goldney.
Eccles, (near Manchester)			29.88	758.9	33.7	0.9		ENE	4.0	1.8			10						Thomas Mackereth.
Falmouth Observatory			29.79	756 7	35.5	1.9		NE	13	5.8			10					Fog	The Falmouth Obs.
Fort Napier, (Natal)			29.80	756.9	83.5	28.6		E			2		9						Pvt. G. Salmon.
Galway			29.88	758.9	40	4.4		NE			3		10						Queen's College.
Gibraltar, (Mediterranean)			29.75	755.6	52.2	11.2		NNW			2		10					Threatening	Sgt. J. Brewster.
Glasgow Observatory			29.99	761.7	34.1	1.2		E			3		10						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.80	756.9	31	— 0.6		ENE			5		10			Blank	Blank	Snow	G. T. Watson.
Greenwich Royal Obs			29.78	756.4	31.6	— 0.2		NE			2		10			Blank	Blank	Snow	The Royal Observatory.
Guernsey			29.71	754.6	44	6.7		N			4		10			Blank	Blank	Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.87	758.7	31.0	— 0.6		ENE					10			Blank	Blank		Moorside Observatory
Halifax, (Nova Scotia)			29.24	742.7	17.6	— 8.0		N			7		10			Blank	Blank	Snow	Corp'l J. Y. Thompson.
Helston			29.76	755.9	37	2.8		NE			4		10						W. B. Moyle.
Holyhead			29.89	759.2	35	1.7		ENE			4		10						John Tilston.
Hull Park																			
Kew Observatory			29.79	756.6	31.9	— 0.1		NNE	17	7.6			10						The Met. Office.
Kingstown			29.94	760.5	37	2.8		ENE			4		10						George Mitchell.
Lampeter																			
Leicester			29.83	757.7	31.0	0.6		NE			2		10			Blank	Blank	Snow	William J. Harrison
Llandudno			29.90	759.4	34.1	1.2		E					10						Dr. James Nicol.
Malta, (Mediterranean)			29.87	758.7	60.0	15.6		NW			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.88	758.9	35	1.7		NE			2		9						William D. Penny.
Nassau, (Bahamas)			30.12	765.0	70.2	21.2		Calm			0		3						Surgeon I. Jameson.
North Shields			29.83	757.7	37	2.8		E			6		6						John Wm. Irvine.
Nottingham			29.63	752.6	39.8	4.3		ENE			4		7		E	Blank	Blank		E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.57	751.1	37.9	3.3		ENE			4		10						St. Mary's College.
Oxford, Radcliffe Obs			29.50	749.3	43	6.1		E			3		10						Radcliffe Observatory.
Plymouth			29.36	745.7	41.5	5.3		E			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.35	745.5	43	6.1		ESE			5		5			Blank	Blank		W. Kennedy.
Saint Ann's Head			29.41	747.0	42	5.6		E			4		7					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.08	764.0	35	1.7		ESE	23	10.3			10					Mist	Rev. Dr. Clouston.
Scarboro'			29.78	756.4	37.0	2.8		E			6		7						F. Heard.
Scutari, (Turkey)			29.72	754.9	51.2	10.7		NE			1		10			Blank	Blank		W. H. Lyne.
Sheffield			29.65	753.1	40.2	4.6		ESE			3		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.74	755.1	37.2	2.9		E			6		10						Francis Redford.
Somerleyton, (Lowestoft)			29.67	753.6	41.0	5.0		SE			2		1						Rev. C. J. Steward.
Stonyhurst Observatory			29.64	752.8	37.0	2.8		E			5		10			Blank	Blank	Threatening	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.98	761.5	39	3.9		E			4		5						John Smith.
Strathfield Turgiss			29.19	749.0	40.8	4.9		SE			2		10						Charles H. Griffith.
Streatley Vicarage			29.50	749.3	42.8	6.0		ESE			6		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.15	765.8	36	2.2		SE			6		10						William Lawrence.
Taunton College																			
Thurso			30.04	763.0	36	2.2		SSE			3		8						John Trotter.
Truro, Royal Institution			29.30	744.2	45	7.2		SE			5		7						Royal Institution.
Valencia			29.36	745.7	41.0	5.0		ENE	23	10.3			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.48	748.8	42.8	6.0		SE			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 Cape 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	767.2	30.4	— 0.9	71	ESE			4		10						
Fanöe			30.10	764.6	31.6	— 0.2	63	ESE			6		1						
Godthaab, (Greenland)			29.27	743.5	21.9	— 5.6		NE			2		10			Blank	Blank	Snow	
Stykkisholm, (Iceland)			30.04	763.0	32.4	0.2	85	SE			4		8						
Thorshavn, (Faröe)			30.15	765.8	39.4	4.1	58	SSE			2		8						
Vestervig			30.17	766.3	29.1	— 1.6	68	E			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.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.32	744.7	57.0	13.9	29						1						Normal School.
Alençon			29.68	753.8	38.1	3.4	90	NE			2		10			0.051	1.3		Normal School.
Amiens			29.71	754.5	41.7	5.4	75	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.61	752.2	46.0	7.8	75	E	4.0	1.8			10		E	0	0		Beaumette Observatory.
Beauvais			29.69	754.1	39.7	4.3	74	ENE			1		10		E	0	0		Normal School.
Besançon			29.71	754.7	42.1	5.6	78	NE			2		5		SW	0	0		Normal School.
Bourges			29.66	753.3	45.3	7.4	86	SW			2		5		SW	0 256	6.5		Normal School.
Brest			29.60	751.9	44.4	6.9	82	NNE			2				NE	0. 12	0.3		Naval Observatory.
Caen			29.70	754.4	38.5	3.6	80	NNE			1		10			0	0		Normal School.
Carcassonne																			
Chartres			29.54	750.2	39.6	4.2		N			1		10			0.336	9 3		Normal School.
Chaumont			29.67	753.6	39.0	3.9		S			2		10		S	0.012	0.3		Normal School.
Le Mans			29.67	753.5	40.5	4.7	84	NE			2		8		NE	0.059	1.5		Normal School.
Mirecourt			29.61	752.0	45.9	7.7		SSE			6		10			0	0		Normal School.
Orleans			29.64	752.8	39.6	4.2	93	W			2		5		W	0	0		Normal School.
Paris			29.65	753.2	38.8	3.8	85	NE			2		10			0.075	1.9	Fog	National Observatory.
Parthenay																			
La Roche sur Yon			29.61	752 2	45.7	7.6	89	SE			1		5		N	0 059	1.5		Normal School.
Rouen			29.68	753.8	45.9	7.7	89	E			4		1			0	0		Normal School.
Saint Lo			29.69	754.0	39.0	3.9	87	NE			3		10			0	0		Normal School.
Villefranche			29.66	753.2	44.2	6.8	93	SE			2		0		SW	0	0		Normal School.

FRENCH 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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.92	759.9	73.4	23.0	66.0	NNW			2		0			0	0		Père Pascall.
Mont-Louis	24.41	620.0			33.3	0.7	76	SSW	0.3	4.16			5		SSW	0	0		—. Falguère.
Montsouris (near Paris)			29.65	753.0	38.5	3.6	88	N	3.8	1.25			10			0.083	2.1	Light fog	Marié Davy.
Perpignan	29.51	749.6			54.7	12.6	65	NE	3.7	1.67			6		?	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.65	753.2	39.6	4.2	85	ENE			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.65	753.0	45.3	7.4	77	SE			1		10			0	0		C. Marquet.
Versailles, (near Paris)			29.66	753.3	37.0	2.8	97	NE			1		10			0.061	1.56	Heavy fog	Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.77	756.1	31.1	— 0.5	85	E			2		10			0	0		Prof. Hoh.
Berlin			30.04	763.0	22.1	— 5.5	79	E			2		2			0	0		Prof. Arndt.
Breslau			30.02	762.5	20.3	— 6.5	74	ESE			2		1			0	0		Dr. P. Neugebauer.
Carlsruhe			29.75	755.6	31.8	— 0.1	65	NW			2–5		10			0	0		A. Lenz.
Cassel			29.76	756.0	32.0	0.0	84	E			4		10			0	0		Dr. H. Mohl.
Cologne			29.84	757.8	36.9	2.7	95	SW			3		7			0	0		Dr. Gaithe.
Emden			30.01	762.3	31.6	— 0.2	61	E			1		10			0	0		Prof. Prestel.
Frankfort on the Main			29.89	759.2	32.9	0.5	67	E			1		10			0	0		Physical Society.
Friedrichshafen			29.74	755 5	31.1	— 0.5	71	NE			1		10			0	0		M. Wilhelm.
Hamburg			30.01	762.3	27.9	— 2.3	58	E			5		3			0	0		W. Reinart.
Kiel			30.02	762.8	27.5	— 2.5	59	E			5		3			0	0		Prof. G. Karsten.
Königsberg			30.27	768.9	21.7	— 5.7	64	NE			2		0			0	0		Prof. E. Luther.
Köslin			30.39	771.8	21.9	— 5.6		E			4		10			0	0		Dr. Tägert.
Leipsic			29.93	760.1	25.8	— 3.4	89	NE			4		3			0	0		Prof. Bruhns.
Münster			29.83	757.6	30.4	— 0.9	77	NE			4		10			0	0		Prof. E. Heis.
Posen			30.10	764.5	19.9	— 6.7	81	NE			6–7		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.74	755.6	32.2	0.1	70	NE					9			0	0		Hartwig and Fulk.
Stuttgart			29.76	756.0	30.2	— 1.0	74	NE					10			0	0		Mr. Wurth.
Thorn			30.15	765.9	19.6	— 6.9	59	E			6		0			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.68	753.8	35.1	1.7	70	NE			4		10			0	0		Prof. Flesch.
Wustrow			30.11	764.7	24.1	— 4.4	80	E			5		0			0	0		E. F. Schutz.

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 Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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			29.69	754.0	26.4	— 3.1	71	SE			1		7	WNW		0.311	7.9		
Mondovi			29.65	753.2	36.5	2.5	58	N			2		1			0	0		
Genoa			29.62	752.4	44.6	7.0	51	Calm			0		2			0	0		
Savia			29.66	753.4	39.2	4.0	77	SE			1		9			0.287	7.3		
Verona																			
Padua			29.65	753.0	35.8	2.1	80	N	8.1	3.61			10			0	0		
Parma																			
Bologna			29.74	755.3	36.9	2.7	49	N			4		10			0	0		
Livorno			29.62	752.3	49.5	9.7	63	WSW	0.6	0.28			3			0	0		
Urbino			29.65	753.0	32.2	0.1		NE			4		10			0	0		
Ancona																			
Siena			29.63	752.6	45.9	7.7	74	WSW	3.7	1.67			5			0	0		
Rome			29.65	753.2	55.9	13.3	58	SSW	5.0	2.22			8			0	0		
Naples, O.U.			29.72	754 8	54.3	12.4	52	WSW			4		4			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.68	753.8	54.5	12.5	46	N	8.1	3.61			5			0	0		
Cosenza			29.71	754.6	57.2	14.0	59	NNW			2		10			0	0		
Catania, (Sicily)			29.78	756.3	59.9	15.5	36	SW			4		0			0	0		
Trapani																			
Palermo			29.71	754.6	58.8	14.9	42	W			4		5	W		0	0		

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.

NETHERLANDS' SERIES.

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

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.
Flushing			29.76	755.8	33.8	1.0		E			3								
Groningen			29.84	757.8	28.6	— 1.9		E			5								
Helder			29.82	757.5	29.1	— 1.6		ENE			4								
Utrecht			29.73	755.2	35.2	1.8		E			4		5						

NOTE.—The originals give the force 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.

Station.	Corrected Inches.	Corrected Millimeters.	Reduced to sea-level Inches.	Reduced to sea-level Millimeters.	Temperature Fahrenheit.	Temperature Centigrade.	Relative Humidity.	Wind Direction.	Wind Velocity Miles per hour.	Wind Velocity Meters per second.	Wind Force.	Clouds Amount Up'er	Clouds Amount Low'r	Clouds Direction Upper	Clouds Direction Lower	Rain-fall Inches.	Rain-fall Millimeters.	Weather.	Observer.
Bergen			30.22	767.5	30.6	0.8	77	Calm	0	0.0			6			0	0		
Christiania			30.24	768.2	16.9	— 8.4	76	SW	0.4	0.2			0			0	0		
Tromsö			29.94	760.4	29.5	— 1.4	94	W			7		10			0.234	6.0		

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. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Corrected Inches.	Corrected Millimeters.	Reduced to sea-level Inches.	Reduced to sea-level Millimeters.	Temperature Fahrenheit.	Temperature Centigrade.	Relative Humidity.	Wind Direction.	Wind Velocity Miles per hour.	Wind Velocity Meters per second.	Wind Force.	Clouds Amount Up'er	Clouds Amount Low'r	Clouds Direction Upper	Clouds Direction Lower	Rain-fall Inches.	Rain-fall Millimeters.	Weather.	Observer.
Lisbon	29.39	746.4			49.6	9.8	77	WNW	16.1	7.2			10			Blank	Blank		

NOTE.—The originals give the wind velocity 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 Russian Central Physical Observatory at St. Petersburg.

Station.	Corrected Inches.	Corrected Millimeters.	Reduced to sea-level Inches.	Reduced to sea-level Millimeters.	Temperature Fahrenheit.	Temperature Centigrade.	Relative Humidity.	Wind Direction.	Wind Velocity Miles per hour.	Wind Velocity Meters per second.	Wind Force.	Clouds Amount Up'er	Clouds Amount Low'r	Clouds Direction Upper	Clouds Direction Lower	Rain-fall Inches.	Rain-fall Millimeters.	Weather.	Observer.
Warsaw			30.15	765.9	18.9	— 7.3	81	E	11.2	5			0						Astronomical Obs.
Wilna			30.32	770.0	20.3	— 6.5	66	Calm	0	0			3						Astronomical Obs.
Dorpat			30.24	768.0	22.8	— 5.1	83	W	6.7	3			1						Physical Cabinet.
St. Petersburg			30.09	764.3	18.1	— 7.7	86	NW	13.4	6			1						Central Physical Obs.
Kieff			30.31	769.9	14.0	—10.0	67	NNE	2.2	1			1					Fog	Physical Cabinet.
Nikolaiev			30.15	765.7	20.1	— 6.6	76	NE	13.4	6			10						
Kertch			29.99	761.8	30.7	— 0.7	88	NE	10.1	4.5			10						Lagorio.
Moscow			30.01	762.3	22.8	— 5.1	71	WNW	13.4	6			0						Meteorological Obs.
Lugan			30.07	763.7	14.5	— 9.7	74	N	7.8	3.5			0						Meteorological Obs.
Archangel			29.79	756.7	18.3	— 7.6	89	NW	10.1	4.5			9						Ogorodnikof.
Tiflis			29.88	758.9	64.0	17.8	41	Calm	0	0			5						Physical Obs.
Astrakhan			30.09	764.5	38.5	3.6	43	NE	4.5	2			10						Sebastianof.
Kasan			29.64	752.9	10.9	—11.7	85	W	7.8	3.5			6						Physical Cabinet.
Orenburg			30.09	764.3	15.8	— 9.	88	SW	4.5	2			10						Tschernischef.
Ekaterinburg			29.82	757.4	13.8	—10.1	67	SW	13.4	6			3						Meteorological Obs.
Kasaly			29.92	760.0	42.1	5.6	71	SW	13.4	6			0						Bobrof.
Tashkend			30.31	769.9	52.0	11.1	74	N	2.2	1			0						Michelson.
Barnaul			30.40	772.1	1.8	—16.8	70	S	4.5	2			4						Meteorological Obs.
Yeniseisk			30.20	767.1	10.8	—11.8	78	S	7.8	3.5			3						Marks.
Irkutsk			30.51	774.9	— 1.3	—18.5	82	Calm	0	0			0						Usolzef.
Oorga			30.81	784.7	— 2.0	—18.9	100	NW	4.5	2			0					Snow	Mossin.
Peking, (China)			30.33	770.4	30.0	— 1.1	100	Calm	0	0			10						Physical Observatory
Nertchinsk			30.42	772.6	— 2.2	—19.0	83	Calm	0	0			0						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor					— 5.8	—21.0		E	7.8	3.5			0						Kurdokof.

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.

Station.	Corrected Inches.	Corrected Millimeters.	Reduced to sea-level Inches.	Reduced to sea-level Millimeters.	Temperature Fahrenheit.	Temperature Centigrade.	Relative Humidity.	Wind Direction.	Wind Velocity Miles per hour.	Wind Velocity Meters per second.	Wind Force.	Clouds Amount Up'er	Clouds Amount Low'r	Clouds Direction Upper	Clouds Direction Lower	Rain-fall Inches.	Rain-fall Millimeters.	Weather.	Observer.
Madrid			29.71	754.6	45.3	7.4	72	SW	15.0	7.67		0	6			0	0		Royal 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. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 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	763.9	0.8	— 5.2	90	W			2		0			0	0		Dr. Hildebrandsson.
Hernosand			30.15	765.9	30.6	— 0.8	64	S			2		10			0	0		
Upsala			30.23	767.7	27.1	— 2.7	70	Calm			0		10			0	0		
Stockholm			30.20	767.0	24.1	— 4.4	59	W			2		2			0	0		
Wisby			30.28	769.2	27.0	— 2.8	100	NE			2		0			0	0		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. 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	28.24	717.2			39.7	4.3	83	N			2		9			0.047	1.2		The Observatory.
Zurich	28.02	711.8			35.2	1.8	91	NE			1		10			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —8.4mm.; Thermometer, —°1.1 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)																			
Constantinople			29.93	760.1	38.5	3.6	88	W	7.8	3.5			10		NE				
Fao, (Persian Gulf)			30.10	764.6	63.3	17.4		SE			4		10			Blank	Blank	Rain	
Salonica			29.62	752.4	52.2	11.2		SE			8		10						
Valona			29.64	752.8	56.3	13.5		S			2		10						
Varna			30.00	762.0	35.6	2.0		SW			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.

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, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Cape Roziere, Quebec			29.53	750.0	8	—13.3	89	N	22	9.8		5	5	N		0	0		
Chatham, N. B.			29.43	747.5	10	—12.2	89	NW	8	3.6			10			0	0		
Charlottetown, P. E. Island			29.74	742.7	16	— 8.9	98	NW	13	5.8			10			0.15	3.8		
Father Point, Quebec			29.65	753.1	— 4	—20.0	74	N	12	5.4		2	0	N		0	0		
Fort Garry, Manitoba			30.23	767.8	—11	—23.9	95	SE	9	4.0			10			0	0		
Halifax, N. S.			29.18	741.2	17	— 8.3	93	NW	12	5.4			10			0.68	17.3	Heavy snow	
Kingston, Ontario			30.28	769.1	— 3	—19.4	64	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.06	763.5	— 5	—20.6	63	NW	20	8.9		0	0			0	0		
Ottawa, Ontario			30.14	765.5	— 9	—22.8	56	W	13	5.8		0	0			0	0		
Parry Sound, Ontario			30.35	770.9	—21	—29.4	61	W	3	1.3		0	0			0	0		
Port Dover, Ontario			30.38	771.6	0	—17.8	100	NW	2	0.9		2	0			0	0		
Port Stanley, Ontario			30.37	771.4	— 3	—19.4	83	NW	2	0.9		2	0			0.02	0.5		
Quebec, Quebec			29.80	756.9	— 1	—18.3	69	W	15	6.7			Fog			0	0	Fog	
Saugeen, Ontario			30.34	770.6	— 9	—22.8	72	Calm	0	0		5	0			0	0		
Sydney, C. B.			28.94	749.0	18	7.8	97	NE	15	6.7			10			0.40	10.2	Heavy snow.	
Toronto, Ontario			30.38	771.6	— 1	—18.3	80	W	10	4.5		0	2		NW	0	0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

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.			30.08	764.0	9	−12.8	78	W	9	4.0		0	0			0.20	5.1		
Alpena, Mich.			30.30	769.6	−11	−23.9	76	NW	6	2.7		0	1			0.02	0.5		
Atlantic City, N. J.			30.19	766.8	24	− 4.4	88	W	14	6.3		8	0	W		0.01	0.3		
Augusta, Ga.			30.25	768.3	40	4.4	73	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.24	768.1	21	− 6.1	58	NW	13	5.8		2	0	W		0	0		
Barnegat, N. J.			30.10	764.5	12	−11.1	61	NW	10	4.5			5		NW	0	0		
Benton, Montana			29.64	752.8	26	− 3.3	88	Calm	0	0			10			0	0		
Bismarck, Dakota			29.81	757.2	− 5	20.6	82	E	8	3.6			10		E	0	0		
Boston, Mass.			29.89	759.2	11	−11.7	80	NW	16	7.2		0	0			0.33	8.4		
Breckenridge, Minn.			30.08	764.0	0	−17.8	90	SE	2	0.9			10			0	0		
Buffalo, N. Y.			30.33	770.4	3	−16.1	73	W	12	5.4		0	2		W	0.01	0.3		
Burlington, Vt.			30.05	763.3	0	17.8	69	NW	14	6.3		0	2			0	0		
Cairo, Ill.			30.18	766.6	29	− 1.7	78	E	12	5.4		5	0	W		0	0		
Cape Hatteras, N. C.			30.18	766.6	42	5.6	65	N	11	4.9		0	0			0	0		
Cape Henry, Va.			30.22	767.6	35	1.7	70	N	14	6.3		0	0			0	0		
Cape May, N. J.			30.23	767.8	22	− 5.6	59	NW	28	12.5		2	0	NW		0	0		
Charleston, S. C.			30.25	768.3	47	8.3	48	N	4	1.8		0	Sm'e			0	0		
Cheyenne, W. T.			29.52	749.8	35	1.7	69	NW	12	5.4		0	0			0	0		
Chicago, Ill.			30.35	770.9	7	−13.9	63	E	6	2.7			10			0	0		
Cincinnati, Ohio			30.36	771.1	24	− 4.4	74	NE	4	1.8		2	0	NW		0	0		
Cleveland, Ohio			30.37	771.4	7	−13.9	88	NW	4	1.8		0	5		W	0	0		
Colorado Springs, Col.			29.53	750.0	35	1.7	80	W	4	1.8		0	0			0	0		
Corsicana, Texas			29.87	758.7	55	12.8	87	SE	5	2.2			10		SE	0	0		
Davenport, Iowa			30.25	768.3	6	−14.4	76	E	14	6.3		5	2	W		0	0		
Denver, Col.			29.58	751.3	42	5.6	18	SW	4	1.8		0	0			0	0		
Detroit, Mich.			30.41	772.4	1	−17.2	72	NW	6	2.7		0	2			0	0		
Dodge City, Kansas			29.32	744.7	34	1.1	63	NW	1	0.4		0	0			0	0		
Dubuque, Iowa			30.24	768.1	2	−16.7	72	E	12	5.4			10		SE	0	0		
Duluth, Minn.			30.36	771.1	− 3	−19.4	66	NE	8	3.6			10			0	0		
Eastport, Me.			29.54	750.3	11	−11.7	79	N	22	9.8			10			0	0	Light snow.	
Erie, Penn.			30.35	770.9	4	−15.6	87	W	10	4.5		0	0			0	0		
Escanaba, Mich.			30.45	773.4	− 4	−20.0	64	Calm	0	0		0	0			0	0		
Fort Gibson, I. T.			29.82	757.4	49	9.4	37	SE	16	7.2			10		SW	0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.72	754.9	7	−13.9	77	S	8	3.6			10		S	0.02	0.5	Heavy snow.	
Galveston, Texas			29.97	761.2	64	17.8	100	SE	9	4.0			Fog			0	0	Fog	
Grand Haven, Mich.			30.43	772.9	− 4	−20.0	76	E	4	1.8		2	0	NW		0	0		
Indianapolis, Ind.			30.32	757.4	16	− 8.9	66	E	6	2.7		0	0			0	0		
Indianola, Texas			29.95	748.0	67	19.4	100	S	9	4.0			10			0	0	Threatening	
Jacksonville, Fla.			30.23	767.8	51	10.6	79	N	6	2.7		0	0			0	0		
Keokuk, Iowa			30.09	764.3	15	− 9.4	65	E	15	6.7			10			0	0		
Key West, Fla.			30.15	765.8	73	22.8	76	NE	9	4.0		2	Haze	W		0	0		
Kittyhawk, N. C.			30.23	767.8	36	2.2	64	NE				0	0			0	0		
Knoxville, Tenn.			30.30	769.6	29	− 1.7	67	NE	4	1.8		2	Fog			0	0		
La Crosse, Wis.			30.29	769.4	6	−14.4	75	SE	10	4.5			10		SE	0	0		
Leavenworth, Kan.			29.79	756.7	30	− 1.1	79	SE	12	5.4		0	Haze			0	0		
Lexington, Ky.			30.31	769.9	31	− 0.6	58	E	4	1.8		0	0			0	0		
Long Branch, N. J.			30.17	766.3	19	− 7.2	69	NW	20	8.9		0	0			0	0		
Louisville, Ky.			30.28	769.1	23	− 5.0	60	NE	4	1.8		0	0			0	0		
Lynchburg, Va.			30.21	767.3	33	0.6	51	W	4	1.8		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.46	773.7	−12	−24.4	50	W	8	3.6		5	0			0	0		
Memphis, Tenn.			30.13	765.3	37	2.8	63	E	5	2.2		5	0			0	0		
Milwaukee, Wisconsin			30.41	772.4	5	−15.0	75	E	16	7.2		5	Haze	E		0	0		
Mobile, Ala.			30.18	766.6	52	11.1	47	E	3	1.3		0	Haze			0	0		
Montgomery, Ala.			30.24	768.1	43	6.1	55	N	3	1.3		2	Sm'e	W		0	0		
Morgantown, W. Virginia			30.40	772.1	11	−11.7	69	N	5	2.2			2			0.13	3.3		
Mt. Washington, N. H.			29.27	734.4	−21	−29.4	100	NW	96	42.9			Fog			0	0		
Nashville, Tenn.			30.23	767.8	35	1.7	61	E	1	0.4		2	0	W		0	0		
New Haven, Conn.			30.09	764.3	16	− 8.9	66	NW	3	1.3		0	0			0.05	1.3		
New London, Conn.			30.03	762.7	15	− 9.4	56	NW	19	8.5		0	0			0.03	0.8		
New Orleans, La.			30.13	765.3	57	13.9	73	SE	11	4.9		8	Sm'e	SW		0	0		
Newport, R. I.																			
New York, N. Y.			30.15	765.8	15	9.4	64	NW	18	8.0		0	0			0.18	4.6		
Norfolk, Va.			30.22	767.6	32	0.0	65	NE	6	2.7		0	Sm'e			0	0		
North Platte, Neb.			29.23	742.4	23	− 5.0	86	Calm	0	0			Fog			0	0		
Omaha, Neb.			29.77	756.1	14	−10.0	91	SE	25	11.2		5	0	W		0	0		
Oswego, N. Y.			30.25	768.3	4	−15.6	74	N	12	5.4		Haze	2		W	0	0		
Peck's Beach			30.23	767.8	21	− 6.1	56	NW	32	14.3		0	0			0.05	1.3		
Pembina, D. T.			30.17	766.3	− 8	−22.2	79	SE	4	1.8			10			0	0	Light snow.	
Philadelphia, Penn.			30.22	767.6	17	− 8.3	67	NW	24	10.7		0	0			0	0		
Pike's Peak, C. T.			29.47	748.5	7	−13.9	100	W	50	22.4			Fog			0	0		
Pittsburgh, Penn.			30.40	772.1	7	−13.9	77	NW	8	3.6		0	0			0	0		
Port Huron, Mich.			30.43	772.7	− 3	−19.4	83	NW	8	3.6		0	0			0.01	0.3		
Portland, Maine			29.76	755.9	13	−10.6	80	NW	11	4.9			10			0.27	6.9		
Portland, Or.			30.06	763.5	39	3.9	90	S	10	4.5			10			0.32	8.1		
Punta Rassa, Fla.			30.19	766.8	65	18.3	88	NE	8	3.6		2	0			0	0		
Rochester, N. Y.			30.25	768.3	8	−13.3	55	NW	20	8.9			10			0.05	1.3	Light snow.	
Salt Lake City, Utah			29.75	755.6	34	1.1	61	NE	1	0.4			10			0.12	3.0		
Sandy Hook, N. J.			30.15	765.8	16	− 8.9	66	NW	35	15.6		2	0	N		0	0		
San Diego, Cal.			30.00	762.0	57	13.9	86	Calm	0	0			10			0	0		
San Francisco, Cal.			30.03	762.7	47	8.3	70	SW	2	0.9		0	0			0	0		
Santa Fe, N. M.			29.40	746.7	33	0.6	70	SW	4	1.8			10			0	0		
Savannah, Georgia			30.24	768.1	48	8.9	42	NW	4	1.8		0	Sm'e			0	0		
Shreveport, La.			29.98	761.5	54	12.2	61	SE	4	1.8		10	0	S		0	0		
Springfield, Mass.			30.02	762.5	13	−10.6	61	NW	8	3.6		0	0			0.29	7.4		
St. Louis, Mo.			30.18	766.6	26	− 3.3	76	SE	8	3.6		2	8	W	SE	0	0		
St. Marks, Fla.			30.21	767.3	46	7.8	68	NE	5	2.2		0	0			0	0		
St. Paul, Minn.			30.15	765.5	0	−17.8	69	E	9	4.0			10			0	0		
St. Paul's Island, Alaska			29.54	750.3	35	1.7	89	E	10	4.5			10			0.12	3.0		
Squan Beach, N. J.			30.18	766.6	17	− 8.3	67	W	14	6.3			10			0.05	1.3		
Toledo, Ohio			30.33	770.4	6	−14.4	76	W	2	0.9		0	0			0	0		
Tybee Island, Ga.			30.28	769.1	49	9.4	77	N	10	4.5		2	2	NW		0	0		
Vicksburg, Miss.			30.15	765.8	49	9.4	37	SE	14	6.3		10	0	NW		0	0		
Virginia City, Mon.			29.38	746.2	21	− 6.1	85		16	7.2		0	5		SW	0.06	1.5		
Washington, D. C.			30.28	769.1	19	− 7.2	45	NW	12	5.4		0	Haze			0	0		
Wilmington, N. C.			30.25	768.3	42	5.6	42	S	3	1.3		0	0			0	0		
Wood's Hole, Mass.			29.95	760.7	15	− 9.4	65	NW	26	11.6		0	0			0.21	5.3		
Wytheville, Va.			30.01	762.2	26	− 3.3	76	W	10	4.5		0	0			0	0		
Yankton, D. T.			29.88	758.9	0	−17.8	69	E	5	2.2		5	0	W		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.			30.07	763.8	80	26.7		SE	3	1.3			10			0	0		
Point-a-pitre, G'd'loupe, "			29.99	761.7	71	21.7		NE				5	0			0	0		
Havana, Cuba, W. I.			29.94	760.5	71	21.7	84	SE	3.6	1.6		2	0	E		0	0		
Kingston, Jamaica, W. I.			30.21	767.3	76	24.4		Calm	0	0			10			0.01	0.3		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.92	760.0	72	22.2	67	N	4.8	2.1		0	2			0	0		
			29.96	761.0	67	19.4	79	W	10.8	4.8		8	0	W		0.095	2.41		
St. Georges, Bermudas																			
			30.07	763.8	67	19.4	85	Calm	0	0		2	2			0	0		
Honolulu, Sandwich Is.																0.06	1.5		
Makawao, Sandwich Is.																			
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.								S	5	2.2		0	Fog			0	0		
York Factory, B. A.			30.45	773.4	—41	—41.8		NNE	2	0.9		2	5	NE		0	0		C. Partridge.
Clifton, Jamaica, W. I.			30.14	765.5	57	13.9		SE					10			0	0	Snow, sleet and rain.	John Delaney.
St. Johns, Newfoundland			29.27	743.4	32	0.0	79	S			1	1	0	W		0.01	0.25		Leon M. Acuña.
St. Johns Porto Rico, W. I.			30.13	765.0	75.6	24.2	76					0	10			0	0		H. M. Redington.
Ellyria, Ohio	29.56	750.8			5	—16.1	100	SW	6	2.7		3		W		0	0		G. C. Carpenter.
Indianola, Iowa	29.17	740.9			9	—12.8		SE											

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

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

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.

BRITISH SERIES.

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

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 of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.09	764.3	36.8	2.7		SSW	2	1					0.010	2.5	Fog	William Boswell.
Annanhill			30.06	763.5	41.0	5.0		ESE	1	0			9					W. H. Dunlop.
Ardrossan			30.04	763.0	42	5.6		SE	3	1			8					William McNeil.
Armagh Observatory			29.95	760.7	44.3	6.8		SE	20	9			10					Stillman Call.
Banbridge																		
Barnstaple																		
Battersea																		
Bidston, the Liverpool Ob'y			30.06	763.5	39.0	3.9		ESE			2		10				Mist	The Liverpool Observatory.
Birr Castle			29.77	756.1	47.4	8.6		SE			5		10					J. Dreyer.
Bradford			30.08	764.0	39.3	4.1		E			1		10					J. Mc. Landsborough.
Bywell																		
Cambridge Observatory			30.16	766.0	39.8	4.3		S			1		10					H. Todd.
Cape Town			29.98	761.5	75	23.9		SE			6		3					Sgt. D. E. Hunt
Cape Good Hope Observatory	30.05	763.3			75.9	24.4	48	SSW	35	16			1					The Royal Observatory.
Cardington			30.15	765.8	40.0	4.4		S			1		10				Fog	John McLaren.
Carlisle			30.05	763.3	40.8	4.9		S			4		8		0.05	1.3		T. Bell.
Chatham			30.15	765.8	40.8	4.9		S			1		10					James Conroy.
Cochyfoel Farm																		
Colombo, Ceylon			29.92	759.9	74.2	23.4		NE			3		9					Sgt. W. F. Hopkins
Dartmoor			30.07	763.8	42.8	6.0		SE			4		9					R. E. Power.
Donaghadee			29.96	761.0	45	7.2		SSE			5		8					J. Mac Gowan, Jr.
Dover			30.17	766.3	41	5.0							10					J. Costello.
Dublin																		
Durham Observatory			30.08	764.0	36.8	2.2		S			1		10					G. Goldney.
Eccles, (near Manchester)			30.10	764.5	39.7	4.3		SE	0.8	0.4			10					Thomas Mackereth.
Falmouth Observatory			29.97	761.2	49.2	9.6		SSE	29	13			10					The Falmouth Observatory.
Fort Napier, (Natal)			29.74	755.4	82.0	27.8		SE			4		6					Pvt. G. Salmon.
Galway			29.57	751.1	50	10.0		SE			1		10				Fog	Queen's College.
Gibraltar, (Mediterranean Sea)			30.21	767.3	59.4	15.2		E					8					Sgt. J. Brewster.
Glasgow Observatory			30.03	762.7	34.9	1.6		NE			1		10					The Glasgow Observatory.
Gloucester, the G. Co. Asylum			30.12	765.0	43.7	6.5		SE			3		10					F. Toller.
Great Yarmouth			30.17	766.3	38	3.3		Calm			0		10				Fog	G. T. Watson.
Greenwich Royal Observatory			30.15	765.8	40.7	4.8		SSE			1		10					The Royal Observatory.
Guernsey			30.10	764.5	45	7.2		SE			1		8				Mist	Dr. S. E. Hoskins.
Halifax, England			30.13	765.3	37.7	3.2		E			1		10				Mist	Moorside Observatory.
Halifax, Nova Scotia			29.35	745.5	30.4	− 0.9		NE			2		10				Threatening	Corp'l J. Y. Thompson.
Helston			29.98	761.5	51	10.6		SE			4		10				Rainy	W. B. Moyle.
Holyhead			29.99	761.7	45	7.2		SSE			2		5					John Tilston.
Hull Park																		
Kew Observatory			30.15	765.8	42.3	5.7		ESE	8	4			10				Mist	The Meteorological Office.
Kingstown			29.96	761.0	46	7.8		SSE			4		10					George Mitchell.
Lampeter																		
Leicester			30.12	765.0	39.8	4.3		S			1		10					William J. Harrison
Llandudno			30.00	762.0	44.5	6.9		ESE			0		2					Dr. James Nicol.
Malta, (Mediterranean Sea)					59.0	15.0		NE			1		2					Sergt. E. Dowling.
Markree																		
Marlborough College																		
Moville																		
Nairn			30.02	762.5	39	3.9		Calm			0		1					William D. Penny.
Nassau			30.17	766.3	69.0	20.6		Calm			0		6					Surgeon I. Jameson.
Nottingham			30.14	765.5	40.7	4.8		SSE			2		10					E. J. Lowe.
North Shields			30.12	765.0	40	4.4		S			3		8					John Wm. Irvine.
Osborne, New Barn Cottage			30.11	764.8	43.8	6.6		SE					10				Rainy	J. R. Mann.
Oscott, (near Birmingham)			30.10	764.5	38.8	3.8		ESE			2		10				Fog	St. Mary's College.
Oxford, the Radcliffe Obser'y			30.09	764.3	42	5.7		SE			1		10					Radcliffe Observatory.
Plymouth			30.13	762.7	49.0	9.4		SSE			1		10					John Merrifield.
Portishead																		
Prospect, Bermuda																		
Roche's Point			29.76	755.9	47	8.3		S			7		10					W. Kennedy.
Saint Ann's Head			29.94	760.5	45	7.8		SE			5		5					John C. Walker.
St. Helier, Jersey																		
Sandwick Manse, Orkneys			30.08	761.0	37.1	2.8		SSE	10	5			0					Rev. Dr. Clouston.
Scarboro'			30.13	765.3	38.8	3.8		SSE			1		10					F. Heard.
Scutari, Turkey			30.07	763.8	32.2	0.1		N			5		8				Snow	W. H. Lyne.
Sheffield			30.11	764.8	39.0	3.9		S			1		10					W. F. Cooper.
Sidmouth																		
Silloth Rectory			30.04	763.0	41.5	5.3		S			2		7		0.020	0.5		Francis Redford.
Somercleyton, (Lowestoft)			30.16	766.0	39.8	4.3		SW			0		10					Rev. C. J. Steward.
Stonyhurst Observatory			30.06	763.5	40.0	4.4		SE			1		10					Stonyhurst Observatory.
Stornoway, Lews Castle, Hebr.			30.02	762.5	40	4.4		W			1		3					John Smith.
Strathfield Turgiss			30.14	765.5	42.2	5.7		SE			1		10					Charles H. Griffith.
Streatley Vicarage			30.14	765.5	42.7	5.9		SSE			1		10					Rev. John Slatter.
Sumburgh Head, Shetland Is.			30.04	763.0	47	8.3		S			1		8					William Lawrence.
Taunton College																		
Thurso			30.04	763.0	36	2.2		Calm			0		6				Mist	John Trotter.
Truro, Royal Institution			29.91	759.7	50	10.0		SE			7		8					Royal Institution.
Valencia			29.57	751.1	48.8	9.3		SSE	45	20			10				Rain	Meteorological Observatory
Wick																		
Wisbech			30.14	765.5	38.6	3.7		S			0		10					S. H. Miller.
Worthing			30.14	765.5	43.8	6.6		SSE			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. Occasionally the barometer is reduced to sea-level by the editor.

DANISH SERIES.

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

Copenhagen			30.28	769.2	30.6	− 0.8	96	W			2		10					
Faröe			30.28	769.2	29.1	− 1.6	96	S			4		10					
Thorshavn, (Faröe)			29.99	761.7	43.5	6.4	87	Calm			0		7					
Vestervig			30.21	767.3	31.6	− 0.2	96	S			4		10					
Stykkisholm, (Iceland)			29.86	758.5	30.7	− 0.7	86	E			7		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 MM. Marié Davy, E. Renou, Dr. Fines, Dr. Bérigny, and Père Pascall.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Alengon			30.21	767.4	39.9	4.4	97	S			1		10		0	0		Normal School.
Amiens			30.16	766.1	41.4	5.2	90	ENE			2		5		0	0		Normal School.
Baumette, (near Angiers)			30.19	766.7	41.4	5.2	93	SE	4.2	1.9			10		0	0		Baumette Observatory.
Beauvais			30.23	767.8	44.2	6.8	85	SW			2		10		0.016	0.40		Normal School.
Besançon			30.35	770.9	38.1	3.4	87	ENE			2		10		0	0		Normal School.
Bourges			30.24	768.1	45.0	7.2	88	E			2		3		0.008	0.2		Normal School.
Brest			29.95	760.7	49.8	9.9	86	S			3		8		0.080	2.0		Naval Observatory.
Caen			30.16	766.0	44.8	7.1	91	SSW			4		3		0			Normal School.
Carcassonne																		
Chartres																		
Chaumont			30.20	769.4	40.5	4.7		S			3		10		0.016	0.4		Normal School.
Gorée, (Senegambia)			29.91	759.8	73.0	22.8	57	N			2		1		0	0		Père Pascall
Le Mans			30.22	767.7	39.9	4.4	97	S			2		10		0.028	0.7		Normal School.
Mirecourt			30.03?	762.7?	38.1	3.4		SSW			1		10		0	0		M. Falguère.
Mont-Louis	24.94	633.4			33.3	0.7	86	WSW	18.6	8.3			7		0	0		Normal School.
Montsouris, (near Paris)			30.23	767.8	40.5	4.7	93	SW	3.7	1.6					0.008	0.2		Marié Davy.
Orleans			30.26	768.5	40.6	4.8	97	SSW			2		10		0	0		Normal School.
Paris			30.23	767.8	41.4	5.2	85	SW			1		10		0.115	0.37		National Observatory.
Parthenay			30.25	768.4	50.0	10.0	91	SE			2		10		0.008	0.2		Normal School.
Perpignan	30.13	765.4			51.1	10.6	69	NE	5.6	2.5			0		0	0		Dr. Fines.
Roche sur Yon			30.17	766.2	42.8	6.0	94	SE			2		0		0.039	1.0		Normal School.
Rouen			30.19	766.9	45.3	7.4	96	SSE			0		3		0	0		Normal School.
Saint Lo			30.20	767.1	46.8	8.2	86	S			3		5		0	0		Normal School.
Saint Maur, (near Paris)			30.23	767.9	41.0	5.0	96	SW			1		10		0.028	0.7		M. E. Renou.
Saint Pierre, (Martinique)																		
Tours																		
Tunis, (Africa)			30.23	767.8	57.6	14.2	78	WNW			3		9		0	0		M. Jacques.
Versailles, (near Paris)			30.22	767.6	41.4	5.2	97	SW			2		10		0.012	0.30		Dr. A. Bérigny.
Villefranche			30.33	770.5	44.1	6.7	94	SE			1		0		0	0		Normal School.

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.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.31	769.9	37.0	2.8	82	E			1		10		0	0		Prof. Hoh.
Berlin			30.40	772.1	28.0	— 2.2	79	S			2		0		0	0		Prof. Arndts
Breslau			30.42	772.7	19.2	— 7.1	90	SE			4		0		0	0		Dr. P. Neugebauer.
Carlsruhe			30.30	769.6	38.1	3.4	89	S			1		10		0	0		A. Leuz.
Cassel			30.29	769.3	36.5	2.5	71	SE			4		9		0	0		Dr. H. Mohl.
Cologne			30.17	766.3	40.1	4.5	92	S			3		9		0	0	Fog	Dr. Gaithe.
Emden			30.39	771.8	31.6	— 0.2	86	SE			1		0		0	0		Prof. Prestel.
Frankfort			30.40	772.2	37.6	3.1	79	E			1		10		0	0		Physical Society.
Friedrichshafen			30.30	769.5	36.5	2.5	91	E					9		0	0		M. Wilhelm.
Hamburg			30.35	770.8	29.1	1.6	90	SE			3		10		0	0	Fog.	W. Reinart.
Kiel			30.26	768.6	30.9	— 0.6	76	SSE			2		1		0	0		Prof. G. Karsten.
Königsberg			30.34	770.7	19.4	— 7.0	87	SW			6		10		0	0		Prof. E. Luther.
Köslin			30.66	778.7	25.3	— 3.7		SW			1		10		0.024	0.6		Dr. Tägert.
Leipsic			30.30	771.2	33.8	1.0	79	S			1		9		0	0		Prof. Bruhns.
Münster			30.15	765.9	39.9	4.4	80	SW			5		10		0.028	0.7	Rain	Prof. E. Heis.
Posen			30.46	773.7	21.9	— 5.6	89	NE			3-4		10		0	0		Dr. Magener.
Strassburg, in E.			30.31	769.8	38.3	3.5	95	W					8		0	0		Hartwig and Fulk.
Stuttgart			30.22	767.5	37.9	3.3	85	E					10		0	0	Fog	Mr. Wurth.
Thorn			30.42	772.7	16.0	— 8.9	78	SW			2		5		0	0		Dr. Hasenbalg.
Treves, (Trier)			30.23	767.9	38.3	3.5	87	W			2		5		0.020	0.5		Prof. Flesch.
Wustrow			30.38	771.7	29.3	— 1.5	78	SSE			2		6		0	0		E. F. Schutz.

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.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

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.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction of upper. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.39	771.8	34.7	1.5	93	WNW	0	0			10		0	0		
Mondovi			30.38	771.7	37.4	3.0	88	NW			2		10		0	0		
Genoa			30.32	770.0	45.9	7.7	65	N	3.7	1.6			10	SW	0.004	0.1		
Pavia			30.37	771.5	34.7	1.5	83	N			1		10		0	0		
Padua			30.35	771.0	37.4	3.0	78	NNW	3.1	1.4			10		0	0		
Parma			30.39	772.0	34.3	1.3		W			2				0	0	Fog	
Bologna			30.39	771.8	36.0	2.2	47	W			4		10		0	0		
Urbino			30.38	771.7	37.4	3.0	100	NE			4		10		0	0		
Ancona			30.39	771.8	40.5	4.7	72	NW			4		2		0	0		
Florence			30.31	769.9	49.1	9.5	61	SE			2		10	NNW	0	0		
Livorno			30.28	769.1	48.6	9.2	58	NE	8.1	4.0			10		0	0		
Rome			30.28	769.1	49.6	9.8	71	NNE			2		9	SSW	0	0		
Naples, O.U.			30.28	769.2	53.2	11.8	43	NNE			4		1	W	0	0		
Naples, S. R.	29.74	755.4			50.0	10.0	55	ENE			2		0	E	0	0		Prof. F. Brioschi.
Lecce																		
Cosenza			30.22	767.6	47.7	8.7	57	NNW			4		5		0	0		
Catania, (Sicily)			30.24	768.0	52.7	11.5	76	NW					2		0	0		
Palermo			30.17	766.4	55.6	13.1	62	NE			2		10		0	0		

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.