DESCRIPTION OF TABLES AND CHARTS.

Table I gives the data ordinarily needed for climatological studies for about 158 Weather Bureau stations making simultaneous observations at 8 a. m. and 8 p. m., daily, 75th meridian time, and for about 41 others making only one observation. The altitudes of the instruments above ground are also given.

Table II gives a record of precipitation, the intensity of which at some period of the storm's continuance equaled or exceeded the following rates:

Duration (minutes)	5	10	15	20	25	30	35	40	45	50	60
Rates per hour (inches)	3.00	1.80	1.40	1.20	1.08	1.00	0.94	0.90	0.87	0.84	0.80

It is impracticable to make this table sufficiently wide to accommodate on one line the record of accumulated falls that continue at an excessive rate for several hours. In this case *the record is broken at the end of each 50 minutes*, the accumulated amounts being recorded on successive lines until the successive rate ends.

In cases where no storm of sufficient intensity to entitle it to a place in the full table has occurred the greatest precipitation of any single storm has been given, also the greatest hourly fall during that storm.

The tipping-bucket mechanism is *dismounted* and removed when there is danger of snow or water freezing in the same. Table II records this condition by entering an asterisk (*).

Table III gives, for about 30 stations of the Canadian Meteorological Service, the means of pressure and temperature, total precipitation and depth of snowfall, and the respective departures from normal values except in the case of snowfall.

Chart I.—Hydrographs for several of the principal rivers of the United States.

Chart II.—Tracks of centers of high areas; and

Chart III.—Tracks of centers of low areas. The roman numerals show the chronological order of the centers. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the observations at 8 a. m. and 8 p. m., 75th meridian time. Within each circle is also given (Chart II) the last three figures of the highest barometric reading or (Chart III) the lowest reading reported at or near the center at that time, and in both cases as reduced to sea level and standard gravity.

Chart IV.—Temperature departures. This chart presents the departures of the monthly mean temperatures from the monthly normals. The normals used in computing the departures were computed for a period of 33 years (1873 to 1905) and are published in Weather Bureau Bulletin "R," Washington, 1908. Stations whose records were too short to justify the preparation of normals in 1908 have been provided with normals as adequate records became available, and all have been reduced to the 33-year interval 1873–1905. The shaded portions of the chart indicate areas of positive departures and unshaded portions indicate areas of negative departures. Generalized lines connect places having approximately equal departures of like sign. This chart of monthly temperature departures in the United States was first published in the MONTHLY WEATHER REVIEW for July, 1909.

Chart V.—Total precipitation. The scale of shades showing the depth is given on the chart. Where the monthly amounts are too small to justify shading and over sections of the country where stations are too widely separated or the topography is too diversified to warrant reasonable accuracy in shading, the actual depths are given for a limited number of representative stations. Amounts less than 0.005 inch are indicated by the letter T, and no precipitation by 0.

Chart VI.—Percentage of clear sky between sunrise and sunset. The average cloudiness at each Weather Bureau station is determined by numerous personal observations between sunrise and sunset. The difference between the observed cloudiness and 100 is assumed to represent the percentage of clear sky, and the values thus obtained are the basis of this chart. The chart does not relate to the nighttime.

Chart VII.—Isobars and isotherms at sea level and prevailing wind directions. The pressures have been reduced to sea level and standard gravity by the method described by Prof. Frank H. Bigelow on pages 13–16 of the REWIEW for January, 1902. The pressures have also been reduced to the mean of the 24 hours by the application of a suitable correction to the mean of the 8 a. m. and 8 p. m. readings at stations taking two observations daily, and to the 8 a. m. or the 8 p. m. observation, respectively, at stations taking but a single observation. The diurnal corrections so applied will be found in the Annual Report of the Chief of the Weather Bureau, 1900–1901, volume 2, Table 27, pages 140–164.

The isotherms on the sea-level plane have been constructed by means of the data summarized in chapter 8 of volume 2 of the annual report just mentioned. The correction, t_0–t, or temperature on the sea-level plane minus the station temperature as given by Table 48 of that report, is added to the observed surface temperature to obtain the adopted sea-level temperature.

The prevailing wind directions are determined from hourly observations at the great majority of the stations; a few stations having no self-recording wind-direction apparatus determine the prevailing direction from the daily or twice-daily observations only.

Chart VIII.—Total snowfall. This is based on the reports from regular and cooperative observers and shows the depth in inches and tenths of the snowfall during the month. In general, the depth is shown by lines inclosing areas of equal snowfall, but in special cases figures are also given. Chart VIII is published only when the general snow cover is sufficiently extensive to justify its preparation.

Chart IX.—Average values of pressure, temperature, and prevailing wind directions, and storm tracks over the North Atlantic Ocean, *for the corresponding month of last year.*

[Charts XLIV–72 to XLIV–76 illustrate paper by Cleve Hallenbeck, pp. 341–342.]

TABLE I.—*Climatological data for Weather Bureau Stations, June, 1916.*

Districts and stations.	Elevation of instruments.			Pressure.			Temperature of the air.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity.	Precipitation.			Wind.					Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max.+mean min.÷2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01 inch or more.	Total movement.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
	Ft.	Ft.	Ft.	In.	In.	In.	°F.	°F.	°F		°F	°F.		°F	°F.	°F.	°F.	%		In.	In.		Miles.								0-10	In.	In.
New England.							60.1	− 3.5										82		4.67	+ 1.6										6.4		
Eastport	76	67	85	29.88	29.96	+0.03	53.5	− 0.9	72	29	61	40	16	46	24	50	48	86		3.79	+ 0.6	14	6,241	s.	40	e.	10	3	10	17	7.0		
Greenville	1,070	6		28.80	29.96		57.5		81	27	67	38	4	48	38					3.99		16											
Portland, Me.	103	82	117	29.86	29.98	+ .03	58.2	− 4.4	77	29	65	44	10	51	28	54	50	78		6.32	+ 3.0	16	6,247	e.	30	nw.	22	8	9	13	6.3		
Concord	288	70	79	29.65	29.95	− .01	60.2	− 4.2	83	27	70	42	2	51	36					6.26	+ 2.9	19	3,638	nw.	25	nw.	22	9	9	12	5.8		
Burlington	404	11	48	29.50	29.93	− .03	61.0	− 2.8	79	27	69	40	1	53	32					4.32	+ 1.1	18	6,403	s.	33	s.	9	4	10	16	6.9		
Northfield	876	12	60	29.02	29.96	.00	57.5	− 5.2	83	27	67	34	1	48	41	54	51	77		4.47	+ 1.2	19	4,971	s.	26	sw.	18	4	4	22	7.7		
Boston	125	115	188	29.82	29.96	.00	62.6	− 3.2	84	27	70	49	10	55	24	58	54	78		5.04	+ 2.0	12	6,846	e.	28	e.	8	8	11	11	5.3		
Nantucket	12	14	90	29.94	29.95	− .03	59.6	− 1.7	75	26	66	47	15	53	23	56	54	89		4.89	+ 2.5	16	9,404	sw.	35	ne.	8	9	11	10	5.9		
Block Island	26	11	46	29.91	29.94	− .03	59.5	− 2.1	75	28	65	48	11	54	19	57	56	90		3.36	+ 0.5	12	10,478	w.	36	e.	8	10	8	12	5.8		
Narragansett Pier		9					60.0	− 4.2	78	29	67	45	2	53	25					4.73		19		sw.				13	7	10			
Providence	160	215	251	29.78	29.95	− .02	62.8	− 5.5	83	28	71	48	10	54	26	58	55	80		4.20	+ 1.1	16	8,410	nw.	45	nw.	22	8	9	13	6.1		
Hartford	159	122	140	29.77	29.95	− .02	63.4	− 3.7	83	28	72	47	10	55	29	58	55	78		3.86	+ 0.8	16	4,929	nw.	38	nw.	22	7	9	14	6.7		
New Haven	106	117	155	29.83	29.94	− .03	63.0	− 3.9	84	28	71	48	10	55	25	58	56	80		4.90	+ 1.7	16	6,181	nw.	33	e.	17	7	11	12	6.4		
Middle Atlantic States.							66.8	− 3.5										74		4.27	+ 0.6										5.8		
Albany	97	102	115	29.83	29.93	− .04	63.0	− 4.9	81	27	71	46	1	55	31	58	53	71		2.24	− 1.5	15	5,323	s.	31	s.	3	10	9	11	6.0		
Binghamton	871	10	69	29.02	29.94	− .03	61.4	− 4.8	82	27	70	39	1	52	35					3.88	+ 0.3	17	3,132	e.	27	nw.	22	3	16	11	6.7		
New York	314	414	454	29.61	29.94	− .04	64.2	− 4.3	82	28	71	51	10	57	26	58	54	75		3.94	+ 0.7	13	9,924	nw.	53	se.	16	4	13	13	6.9		
Harrisburg	374	94	104	29.55	29.94	− .05	66.4	− 3.9	84	26	75	50	1	58	25	59	55	70		3.98	+ 0.4	14	4,760	e.	33	e.	7	11	7	12	5.9		
Philadelphia	117	123	190	29.82	29.95	− .03	67.9	− 3.3	84	29	76	54	10	60	22	60	56	71		2.83	− 0.5	10	7,020	nw.	30	e.	7	8	11	11	6.0		
Reading	325	81	98	29.60	29.95		66.2		85	27	75	49	1	58	29	59	55	71		4.51	+ 0.8	13	5,138	se.	33	e.	7	5	11	14	6.8		
Scranton	805	111	119	29.10	29.95	− .03	63.0	− 4.2	84	27	72	44	1	54	35	58	54	74		4.68	+ 1.1	14	4,220	ne.	39	w.	18	7	12	11	6.0		
Atlantic City	52	37	48	29.90	29.95	− .03	63.8	− 3.0	78	20	69	52	1	59	23	60	58	83		2.33	− 0.7	14	5,526	sw.	24	se.	7	7	6	17	6.9		
Cape May	18	13	49	29.95	29.97	− .01	65.3	− 2.4	81	29	71	50	1	59	22					3.11	+ 0.1	12	5,563	e.	30	nw.	3	10	11	9	5.2		
Sandy Hook	22	10	57	29.92	29.94		64.0		82	29	70	53	10	58	21	60	58	86		3.48		12	9,320	nw.	40	w.	10	9	7	14	6.1		
Trenton	190	159	183	29.73	29.93		65.8		84	26	74	50	1	58	25	59	55	74		2.94	− 0.6	11	7,557	se.	35	nw.	3	5	13	12	6.6		
Baltimore	123	100	113	29.81	29.94	− .05	69.4	− 3.6	86	28	77	53	1	62	24	62	57	68		5.33	+ 1.5	13	5,227	n.	25	e.	7	10	11	9	5.5		
Washington	112	62	85	29.80	29.93	− .07	69.7	− 3.0	87	28	79	49	1	60	29	62	59	72		7.53	+ 3.4	13	4,196	nw.	28	se.	10	9	11	10	5.5		
Lynchburg	681	153	188	29.19	29.92	− .09	71.0	− 2.5	93	28	82	51	1	60	29	63	60	74		6.28	+ 2.4	16	3,903	n.	37	w.	29	7	21	2	5.0		
Norfolk	91	170	205	29.85	29.94	− .06	72.1	− 2.3	91	28	80	55	2	64	25	65	62	74		1.98	− 2.4	11	7,571	se.	75	nw.	21	13	9	8	4.8		
Richmond	144	11	52	29.79	29.93	− .08	71.7	− 3.4	89	24	81	53	2	62	28	65	62	78		8.72	+ 5.2	17	4,809	se.	38	nw.	24	9	13	8	5.2		
Wytheville	2,293	49	55	27.61	29.92	− .09	65.8	− 2.9	86	27	77	44	1	55	31	60	57	76		4.09	0.0	13	3,627	w.	27	sw.	6	15	11	4	3.9		
South Atlantic States.							75.7	− 0.4										76		5.69	+ 0.1										5.7		
Asheville	2,255	70	84	27.64	29.93	− .08	67.8	− 0.9	88	29	78	48	1	57	29	61	58	75		5.15	+ 0.8	13	4,095	nw.	33	e.	27	3	21	6	5.6		
Charlotte	773	153	161	29.11	29.93	− .08	74.1	− 1.4	93	29	84	58	1	64	27	66	63	73		5.55	+ 1.1	13	6,338	sw.	72	w.	20	5	21	4	5.1		
Hatteras	11	12	50	29.94	29.95	− .06	73.9	− 0.5	86	28	79	61	1	68	17	69	67	80		3.89	− 0.4	10	8,745	sw.	64	nw.	3	6	18	6	5.9		
Manteo	12	4	46				72.4		90	21	81	45	2	64						3.91	− 0.4	9		sw.				15	12	3			
Raleigh	376	103	110	29.54	29.93	− .08	73.6	− 1.5	92	28	83	58	2	64	26	67	63	75		7.17	+ 2.4	14	4,733	sw.	40	sw.	24	7	18	5	5.2		
Wilmington	78	81	91	29.87	29.95	− .06	75.2	− 0.3	92	30	83	58	2	67	25	69	67	81		6.73	+ 1.1	11	5,133	sw.	34	n.	30	9	13	8	5.3		
Charleston	48	11	92	29.90	29.96	− .05	78.0	− 0.5	92	12	84	67	7	72	23	72	69	76		9.75	+ 4.4	12	6,816	s.	38	nw.	7	7	13	10	5.9		
Columbia, S. C.	351	41	57	29.57	29.94	− .07	78.0	− 0.2	93	30	88	62	1	68	28	68	63	70		4.15	0.0	11	5,063	w.	30	sw.	23	7	12	11	5.8		
Augusta	180	62	77	29.74	29.93	− .08	78.2	+ 0.1	95	22	88	60	9	68	29	70	66	73		7.41	+ 2.9	10	3,944	s.	41	nw.	6	8	10	12	5.7		
Savannah	65	150	194	29.89	29.96	− .05	78.9	+ 0.7	95	22	87	66	7	70	26	71	68	78		2.44	− 3.6	14	7,416	sw.	50	w.	7	3	18	9	6.2		
Jacksonville	43	200	245	29.92	29.97	− .04	79.4	+ 0.4	93	7	87	66	4	72	23	72	70	79		6.45	+ 0.9	15	8,162	sw.	50	sw.	29	5	14	11	6.1		
Florida Peninsula.							80.2	− 0.2										75		4.93	− 1.9										5.2		
Key West	22	10	64	29.95	29.97	− .02	82.0	− 0.2	89	27	87	70	13	77	15	75	72	73		1.86	− 2.4	5	5,883	se.	38	s.	17	11	13	6	4.8		
Miami	25	71	79	29.97	30.00		79.4	− 1.0	87	27	85	65	4	74	18	74	71	74		6.36	− 1.5	12	5,516	se.	36	w.	18	6	14	10	6.1		
Sand Key	23	39	72	29.92	29.95	− .04	81.4		89	26	84	72	2	79	11	75	73	76		0.46		5	7,377	se.	48	s.	17	14	11	5	4.1		
Tampa	35	79	96	29.95	29.98	− .03	79.3	+ 0.6	92	30	87	66	3	72	19	72	70	76		6.58	− 1.8	12	4,115	se.	34	nw.	8	5	17	8	6.0		
Titusville	44	6																															
East Gulf States.							78.0	− 0.1										74		4.03	− 0.5										5.2		
Atlanta	1,174	190	216	28.74	29.95	− .06	75.2	− 0.4	91	30	84	59	9	66	23	66	61	67		3.28	− 0.6	12	6,264	w.	36	w.	6	8	10	12	5.7		
Macon	370	78	87	29.54	29.93	− .07	78.2	+ 1.1	95	22	88	58	9	68	30	69	65	69		3.62	0.0	10	3,852	s.	29	s.	6	8	14	8	5.7		
Thomasville	273	49	58	29.67	29.96	− .04	78.6	− 0.9	95	22	88	64	2	69	27	70	67	76		3.55	− 1.2	15	3,138	sw.	20	nw.	12	3	9	18	7.4		
Pensacola	56	140	182	29.90	29.96	− .03	79.1	− 0.9	92	23	85	65	13	73	26	72	70	77		4.70	− 0.2	13	8,171	sw.	66	s.	13	8	12	10	5.9		
Anniston	741	9	57	29.18	29.96	− .04	75.6	+ 0.6	94	30	87	55	8	64	31					1.71	− 2.2	12	3,151	nw.	28	w.	6	13	16	1	3.9		
Birmingham	700	11	48	29.21	29.96	− .03	76.2	− 2.0	94	22	86	58	8	66	29	67	64	72		2.02	− 1.9	9	4,009	s.	37	s.	6	4	17	9	5.8		
Mobile	57	125	161	29.89	29.95	− .04	79.6	+ 0.5	94	26	87	66	9	72	23	72	70	78		5.42	− 0.5	13	6,036	sw.	39	n.	30	7	19	4	5.1		
Montgomery	223	100	112	29.70	29.95	− .05	79.2	+ 0.1	94	22	89	58	9	69	30	70	65	68		2.81	− 1.4	10	4,197	w.	41	nw.	12	7	17	6	5.3		
Corinth	469	6					75.6		96	30		54	17		30					4.02		8						2	27	1			
Jackson	304	5					78.5		96	22	89	55	9	68	33					4.47		8		s.				7	20	3			
Meridian	375	85	93	29.54	29.93	− .05	77.0	− 0.3	93	22	87	57	9	67	30	71	68	77		2.79	− 1.8	15	3,388	sw.	32	w.	27	11	11	8	4.9		
Vicksburg	247	65	74	29.67	29.94	− .03	77.7	− 0.8	91	22	86	62	8	69	23	71	68	78		4.77	+ 0.3	13	4,246	sw.	30	w.	6	10	15	5	3.0		
New Orleans	51	76	84	29.89	29.94	− .04	81.6	+ 2.0	92	23	89	68	15	74	19	74	72	77		9.70	+ 3.5	15	3,900	sw.	28	se.	23	7	23	0	4.6		
West Gulf States.							79.4	+ 0.4										73		2.48	− 1.4										4.7		
Shreveport	249	77	93	29.64	29.90	− .06	79.4	− 0.2	95	21	89	62	8	70	24	71	68	73		3.08	− 0.5	13	4,774	s.	35	s.	5	14	7	9	4.9		
Bentonville	1,303	11	44	28.54	29.88	− .06	71.8	− 2.3	90	29	82	53	8	62	29					4.73	+ 0.2	14	2,804	sw.	21	nw.	11	7	16	7	5.3		
Fort Smith	457	79	94	29.40	29.87	− .07	76.1	− 0.7	93	20	86	56	8	67	26	70	67	77		2.72	− 1.3	12	5,725	e.	44	w.	6	7	11	12	6.0		
Little Rock	357	139	147	29.53	29.89	− .07	76.6	− 0.6	93	22	85	55	8	68	28	68	65	71		3.00	− 1.1	11	6,274	s.	52	s.	5	9	12	9	5.4		
Brownsville	57	3	40				84.4		99	16	94	71	17	75	26					0.17		2		se.									
Corpus Christi	20	69	77	29.86	29.88	− .03	81.9	+ 1.3	95	15	86	70	29	77	19	76	74	82		1.98	− 0.8	3	12,749	se.	46	se.	5	10	14	6	5.0		
Dallas	512	109	117	29.34	29.87		79.8		96	2	90	60	8	70	28					4.08		9	7,768	se.	55	ne.	26	12	14	4	4.6		
Forth Worth	670	106	114	29.14	29.84	− .08	80.2	+ 0.1	97	26	90	58	8	70	27	69	64	62		3.30	+ 0.3	4	8,674	se.	40	nw.	25	5	19	6	5.2		
Galveston	54	106	114	29.87	29.93	− .02	81.0	+ 0.1	89	17	85	64	7	77	17	75	73	80		3.15	− 1.6	4	8,946	s.	40	nw.	15	23	5	2	3.0		
Houston	138	111	121	29.76	29.90		81.6	+ 0.6	97	26	91	64	8	72	24					1.80		7	5,906	se.	40	n.	7	8	14	8	5.5		
Palestine	510	64	72	29.36	29.88	− .06	78.8	+ 0.4	92	21	88	59	9	70	29	71	68	75		1.87	− 2.1	6	5,579	s.	30	sw.	5	15	10	5	4.4		
San Antonio	701	109	132	29.13	29.84	− .06	84.0	+ 3.6	100	4	96	63	15	72	28	71	66	63		0.49	− 2.6	5	6,956	sw.	40	se.	27	23	7	0	2.9		
Taylor	582	55	63	29.29	29.90	− .02	82.0	+ 2.0	98	24	92	63	8	72	26					0.48	− 3.0	3	8,144	s.	39	ne.	27	14	15	1	3.8		

TABLE I.—*Climatological data for Weather Bureau Stations, June, 1916*—Continued.

Districts and stations.	Elevation of instruments. Barometer above sea level.	Thermometer above ground.	Anemometer above ground.	Pressure. Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Temperature of the air. Mean max.+mean min.÷2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity.	Precipitation. Total.	Departure from normal.	Days with 0.01 inch or more.	Wind. Total movement.	Prevailing direction.	Maximum velocity. Miles per hour.	Direction.	Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness.	Total snowfall.	Snow on ground at end of month.
	Ft.	Ft.	Ft.	In.	In.	In.	°F.	°F.	°F		°F	°F.		°F	°F.	°F.	°F.	%	In.	In.		Miles.								0-10	In.	In.
Ohio Valley and Tennessee.							69.3	− 3.8										71	6.64	+ 0.4										5.8		
Chattanooga	762	189	213	29.15	29.94	−0.06	73.4	− 2.0	92	30	83	56	17	64	24	65	61	70	5.08	+ 0.8	16	5,144	w.	46	sw.	6	6	15	9	5.7	.....	....
Knoxville	996	93	100	28.89	29.92	− .08	72.8	− 0.6	93	29	83	56	4	63	25	65	61	71	5.29	+ 1.1	12	3,349	sw.	28	w.	16	6	14	10	5.8	.....	....
Memphis	399	76	97	29.51	29.93	− .04	75.9	− 1.8	92	29	84	61	7	68	22	68	64	70	3.19	− 1.2	12	5,870	sw.	50	sw.	6	10	9	11	5.8	.....	....
Nashville	546	168	191	29.35	29.93	− .06	72.9	− 3.4	93	30	82	55	4	63	26	65	61	69	4.62	+ 0.2	13	5,835	w.	45	sw.	6	12	10	8	5.1	.....	....
Lexington	989	193	230	28.86	29.90	− .10	69.0	− 4.2	90	30	78	54	10	60	30	.....	.....	.....	5.33	+ 1.3	12	8,602	sw.	46	sw.	2	9	13	8	5.2	.....	....
Louisville	525	219	255	29.34	29.93	− .06	70.6	− 4.4	92	30	80	54	4	62	26	63	58	67	6.05	+ 1.8	14	8,144	sw.	54	w.	8	8	11	11	6.0	.....	....
Evansville	431	139	175	29.44	29.90	− .07	71.9	− 3.4	96	30	81	58	8	63	26	65	61	70	4.58	+ 0.4	12	7,403	sw.	45	sw.	8	11	12	7	5.0	.....	....
Indianapolis	822	194	230	29.02	29.89	− .08	67.2	− 5.2	88	29	76	51	11	58	26	60	56	70	5.92	+ 1.6	14	7,899	sw.	39	n.	14	4	13	13	6.3	.....	....
Terre Haute	575	96	129	29.26	29.86	.....	68.6	.....	94	30	78	54	4	59	28	61	57	71	5.32	.....	15	6,608	sw.	35	w.	7	0	20	10	6.9	.....	....
Cincinnati	628	11	51	29.23	29.90	− .09	67.3	− 4.4	92	30	77	50	22	58	28	61	57	70	4.32	+ 0.3	12	4,761	sw.	29	sw.	8	6	12	12	6.0	.....	....
Columbus	824	173	222	29.04	29.90	− .09	65.9	− 5.1	86	29	75	49	22	57	25	60	56	73	3.49	0.0	13	6,995	sw.	40	w.	16	17	9	4	3.9	.....	....
Dayton	890	181	216	28.93	29.87	.....	66.2	− 6.0	88	29	75	51	22	57	30	60	57	75	5.06	+ 1.1	12	6,739	sw.	44	nw.	2	7	14	9	5.7	.....	....
Pittsburgh	842	353	410	29.03	29.92	− .07	65.3	− 5.8	83	26	74	48	1	57	29	59	55	70	3.82	− 0.1	13	7,358	nw.	44	nw.	3	1	16	13	7.1	.....	....
Elkins	1,940	41	50	27.92	29.93	− .07	63.7	− 2.9	87	24	76	40	1	51	40	57	55	80	4.86	− 0.2	14	2,316	nw.	20	w.	3	3	11	16	7.3	.....	....
Parkersburg	638	77	84	29.28	29.93	− .07	67.6	− 3.9	86	29	78	48	4	58	29	61	57	74	3.30	− 1.4	15	3,354	n.	24	sw.	8	10	10	10	5.4	.....	....
Lower Lake Region.							62.6	− 4.4										75	4.07	+ 0.5										5.9		
Buffalo	767	247	280	29.09	29.91	− .06	61.4	− 3.7	81	24	68	46	1	55	26	56	53	78	4.04	+ 0.9	16	9,149	sw.	58	sw.	9	4	10	16	6.9	.....	....
Canton	448	10	61	29.44	29.91	.....	61.2	− 4.6	83	2	70	40	1	52	37	.....	.....	.....	2.84	− 0.6	15	6,424	w.	58	sw.	18	4	15	11	6.2	.....	....
Oswego	335	76	91	29.56	29.92	− .05	59.1	− 4.7	80	2	66	43	1	52	31	55	52	80	5.85	+ 2.4	15	6,274	w.	34	se.	7	7	10	13	6.1	.....	....
Rochester	523	97	113	29.37	29.93	− .04	62.6	− 3.5	84	24	71	45	1	54	28	57	53	72	5.72	+ 2.6	16	5,332	se.	29	w.	18	7	8	15	6.6	.....	....
Syracuse	597	97	113	29.31	29.95	− .02	61.3	− 5.6	81	27	69	47	1	54	28	57	54	78	5.12	+ 1.2	17	6,806	nw.	31	nw.	22	6	13	11	6.3	.....	....
Erie	714	130	166	29.14	29.91	− .07	63.2	− 3.8	86	24	71	43	1	56	28	58	54	75	3.35	− 0.4	13	9,219	se.	52	sw.	24	5	23	2	5.1	.....	....
Cleveland	762	190	201	29.09	29.90	− .08	62.8	− 5.1	82	24	70	44	1	56	30	58	54	72	1.98	− 1.7	15	7,805	s.	39	w.	16	6	13	11	6.0	.....	....
Sandusky	629	62	103	29.21	29.89	− .09	64.8	− 4.0	85	26	73	46	1	57	27	59	55	73	4.36	+ 0.5	14	7,440	sw.	38	sw.	2	3	21	6	5.6	.....	....
Toledo	628	208	243	29.22	29.89	− .08	64.6	− 4.8	84	26	73	48	1	56	25	58	54	72	4.42	+ 1.0	16	9,480	sw.	45	sw.	2	13	11	6	4.8	.....	....
Fort Wayne	856	113	124	28.97	29.89	.....	64.2	− 4.3	84	23	73	48	11	55	27	59	56	77	5.78	.....	17	6,374	sw.	37	sw.	2	5	16	9	6.1	.....	....
Detroit	730	218	245	29.11	29.89	− .08	63.4	− 4.4	81	13	71	48	20	56	22	57	53	71	3.00	− 0.9	15	7,614	s.	37	w.	2	8	15	7	4.8	.....	....
Upper Lake Region.							58.2	− 4.3										77	5.45	+ 2.1										6.2		
Alpena	609	13	92	29.23	29.89	− .07	57.0	− 3.3	78	24	65	40	20	49	27	53	50	80	3.67	+ 0.1	14	8,094	se.	48	e.	7	5	13	12	6.1	.....	....
Escanaba	612	54	60	29.21	29.87	− .07	56.3	− 4.3	78	26	64	38	20	49	30	52	49	77	6.01	+ 2.4	18	6,536	s.	39	e.	7	9	7	14	6.1	.....	....
Grand Haven	632	54	92	29.18	29.85	− .11	59.0	− 5.7	82	29	67	44	10	51	25	54	51	79	6.07	+ 3.6	14	7,118	w.	44	s.	2	15	7	8	4.3	.....	....
Grand Rapids	707	70	87	29.11	29.87	− .10	62.5	− 5.6	81	13	72	46	20	53	27	57	52	71	6.56	+ 4.0	14	4,410	w.	22	w.	15	5	16	9	5.8	.....	....
Houghton	684	62	72	29.13	29.85	− .09	54.9	− 4.5	75	23	63	40	3	46	34	.....	.....	.....	5.34	+ 1.8	16	6,982	e.	40	ne.	7	4	9	17	7.3	.....	....
Lansing	878	11	62	28.94	29.87	.....	61.4	− 6.0	81	13	71	41	20	51	30	57	53	76	5.39	+ 2.0	18	3,818	sw.	21	e.	6	4	16	10	6.3	.....	....
Ludington	637	60	66	29.17	29.86	.....	57.1	.....	77	30	64	42	11	50	23	53	50	79	3.94	.....	13	6,234	s.	33	sw.	2	12	12	6	4.7	.....	....
Marquette	734	77	111	29.10	29.90	− .04	52.9	− 5.6	75	26	61	37	21	45	29	50	47	81	7.26	+ 3.8	18	5,549	nw.	43	e.	7	1	9	20	8.0	.....	....
Port Huron	638	70	120	29.20	29.89	− .08	60.0	− 3.8	81	2	69	42	1	52	27	55	52	77	2.41	− 0.8	16	6,979	ne.	36	se.	7	5	22	3	5.4	.....	....
Saginaw	641	48	82	29.19	29.88	.....	62.2	.....	82	13	72	42	20	53	29	57	53	72	2.68	0.0	11	6,297	s.	38	se.	8	3	12	15	7.2	.....	....
Sault Ste. Marie	614	11	61	29.21	29.90	− .06	55.2	− 2.4	78	30	64	37	18	46	31	51	48	79	4.15	+ 1.4	14	6,068	w.	38	se.	7	8	5	17	6.9	.....	....
Chicago	823	140	310	29.00	29.88	− .08	63.5	− 2.8	88	29	70	50	7	57	24	57	54	75	7.25	+ 3.6	18	8,262	w.	44	ne.	6	10	10	10	5.5	.....	....
Green Bay	617	109	144	29.18	29.84	− .11	60.4	− 4.7	80	23	68	45	20	53	25	56	52	76	6.73	+ 3.2	15	7,612	ne.	44	ne.	7	1	18	11	7.1	.....	....
Milwaukee	681	119	133	29.12	29.85	− .10	60.0	− 3.5	81	23	67	47	7	53	26	55	52	77	6.60	+ 2.9	17	6,592	w.	56	se.	2	8	15	7	5.4	.....	....
Duluth	1,133	11	47	28.68	29.89	− .03	53.8	− 3.9	76	12	63	36	19	45	31	50	46	77	5.81	+ 1.3	12	8,024	ne.	42	sw.	14	9	4	17	6.3	.....	....
North Dakota.							58.9	− 4.8										71	3.66	0.0										5.8		
Moorhead	940	8	57	28.88	29.89	− .01	60.3	− 4.0	84	30	71	40	2	50	30	54	52	76	4.28	+ 0.2	14	5,811	nw.	32	e.	22	10	11	9	5.1	.....	....
Bismarck	1,674	8	57	28.14	29.91	+ .04	59.2	− 5.0	82	30	70	38	2	48	37	53	47	68	1.50	− 2.0	11	7,482	nw.	40	e.	22	8	12	10	5.9	.....	....
Devils Lake	1,482	11	44	28.30	29.86	− .02	57.5	− 5.1	78	30	68	37	4	48	32	52	47	70	4.14	+ 0.6	10	7,557	w.	46	e.	22	7	8	15	6.2	.....	....
Grand Forks	835	12	89	.....	.....	.....	58.6	.....	81	30	70	35	2	47	35	.....	.....	.....	3.40	.....	11	.....	nw.	70	se.	22	10	13	7	.....	.....	....
Williston	1,872	41	48	27.90	29.86	.00	58.6	− 4.9	80	27	69	37	2	48	34	52	47	69	4.73	+ 1.2	14	7,736	e.	40	nw.	6	6	13	11	6.0	.....	....
Upper Mississippi Valley.							66.2	− 4.7										72	4.20	− 0.2										5.8		
Minneapolis	918	10	208	28.88	29.85	.....	62.9	.....	85	30	71	48	9	55	25	.....	.....	.....	4.54	+ 0.5	14	8,390	nw.	36	n.	25	2	13	15	7.3	.....	....
St. Paul	837	201	236	28.94	29.84	− .08	62.7	− 4.7	82	25	71	48	9	54	26	.....	.....	.....	3.79	− 0.6	15	8,836	nw.	56	se.	22	8	17	5	5.0	.....	....
La Crosse	714	11	48	29.08	29.84	− .09	63.2	− 5.0	84	29	72	48	5	54	29	.....	.....	.....	4.30	− 0.1	13	3,434	nw.	19	nw.	7	2	18	10	6.6	.....	....
Madison	974	70	78	28.83	29.86	− .08	61.8	− 5.5	86	29	70	45	21	54	28	56	53	75	4.52	+ 0.4	13	6,114	w.	30	nw.	7	2	13	15	7.4	.....	....
Wausau	1,247	4	.....	28.53	29.85	.....	59.0	.....	79	12	68	42	19	50	32	.....	.....	.....	5.74	.....	17	.....	nw.	.....	.....	.....	4	10	16	6.9	.....	....
Charles City	1,015	10	49	28.80	29.86	− .05	62.6	− 6.2	92	30	73	44	5	52	32	58	55	75	4.65	− 0.4	13	4,678	nw.	27	se.	22	6	19	5	5.1	.....	....
Davenport	606	71	79	29.20	29.86	− .08	65.8	− 5.1	92	30	75	49	21	57	28	59	55	70	3.19	− 0.9	8	5,596	nw.	32	nw.	15	7	13	10	6.0	.....	....
Des Moines	861	84	97	28.97	29.86	− .06	66.5	− 3.9	92	30	76	46	3	57	31	59	54	67	2.24	− 2.7	13	5,123	nw.	27	sw.	29	7	12	11	5.8	.....	....
Dubuque	698	81	96	29.14	29.88	− .05	64.0	− 5.6	90	29	73	49	21	55	26	58	54	71	4.61	+ 0.1	14	4,617	nw.	29	nw.	1	5	15	10	6.0	.....	....
Keokuk	614	64	78	29.21	29.87	− .07	67.4	− 5.1	93	30	76	51	7	59	21	62	59	75	3.74	− 0.6	13	5,345	w.	44	se.	23	12	12	6	4.5	.....	....
Cairo	356	87	93	29.50	29.87	− .10	73.1	− 2.1	93	30	81	57	8	65	25	67	64	76	8.00	+ 3.7	13	5,316	n.	50	sw.	18	7	14	9	5.9	.....	....
Peoria	609	11	45	29.22	29.87	− .08	65.8	− 5.1	92	30	75	49	5	56	29	60	57	76	2.55	− 1.8	12	4,758	w.	25	ne.	20	14	9	7	4.9	.....	....
Springfield, Ill	644	10	91	29.19	29.86	− .09	68.3	− 4.0	96	30	78	53	9	59	29	61	57	70	3.14	− 1.2	9	6,063	w.	30	w.	7	10	9	11	5.8	.....	....
Hannibal	534	74	109	29.30	29.86	− .09	68.0	− 5.3	94	30	77	51	7	59	26	.....	.....	.....	5.56	+ 2.0	13	6,043	sw.	35	nw.	7	12	10	8	4.8	.....	....
St. Louis	567	265	303	29.27	29.87	− .08	71.5	− 3.6	95	30	80	55	7	63	26	63	59	67	3.97	− 0.5	11	8,660	nw.	43	se.	22	12	13	5	4.9	.....	....
Missouri Valley.							67.1	− 3.9										70	4.20	− 0.2										4.7		
Columbia, Mo.	781	11	84	29.05	29.86	− .09	69.0	− 5.5	93	30	78	52	10	60	26	.....	.....	.....	3.64	− 0.7	11	5,368	w.	36	w.	2	9	13	8	5.2	.....	....
Kansas City	963	161	181	28.86	29.87	− .05	70.5	− 2.5	91	30	79	52	6	62	22	63	58	68	5.51	+ 0.8	11	8,103	n.	45	n.	6	16	10	4	4.0	.....	....
St. Joseph	967	11	49	28.86	29.87	.....	69.6	.....	92	30	80	51	8	60	29	62	57	70	3.34	.....	10	5,714	nw.	35	nw.	8	12	15	3	4.1	.....	....
Springfield, Mo.	1,324	98	104	28.51	29.89	− .06	70.0	− 2.3	88	30	78	53	7	62	24	64	61	75	5.00	− 0.2	11	6,868	se.	35	w.	8	13	12	5	4.1	.....	....
Iola	984	11	50	28.86	29.84	− .09	71.4	− 2.0	91	1	81	50	9	62	29	.....	.....	.....	8.58	+ 3.8	10	4,704	s.	29	n.	26	12	16	2	3.8	.....	....
Topeka	983	85	101	.....	.....	.....	70.2	− 3.3	90	29	80	51	9	61	28	.....	.....	.....	5.97	+ 1.2	12	6,659	nw.	34	e.	20	9	16	5	5.0	.....	....
Drexel	1,299	10	53	28.52	29.89	.....	65.4	.....	91	30	76	44	7	55	32	60	57	75	3.13	.....	12	6,854	nw.	40	e.	21	12	11	7	4.8	.....	....
Lincoln	1,189	11	84	28.63	29.87	− .03	67.8	− 3.8	94	30	79	46	7	57	36	60	55	68	3.11	− 1.2	10	7,117	n.	42	nw.	22	12	12	6	4.6	.....	....
Omaha	1,105	115	121	28.72	29.88	− .03	68.0	− 3.6	92	30	77	50	7	59	30	61	57	69	2.58	− 2.5	10	5,753	nw.	33	nw.	15	10	14	6	4.9	.....	....
Valentine	2,598	47	54	27.23	29.91	+ .05	62.2	− 4.9	92	29	74	40	8	51	34	55	50	69	3.15	− 0.7	14	7,364	nw.	46	n.	25	8	14	8	5.5	.....	....
Sioux City	1,135	94	164	28.69	29.88	− .02	65.2	− 4.2	92	30	76	47	19	55	34	59	55	70	2.32	− 1.6	13	8,857	nw.	60	nw.	22	13	14	3	3.9	.....	....
Huron	1,306	59	74	28.52	29.91	− .03	62.2	− 4.4	88	28	73	45	7	52	29	57	54	75	3.51	− 0.3	13	8,023	nw.	46	s.	27	8	13	9	5.5	.....	....
Pierre	1,572	70	75	28.25	29.89	+ .02	63.5	− 5.4	95	28	74	45	7	53	32	56	60	65	2.33	− 0.8	15	7,343	nw.	42	w.	23	11	12	7	5.1	.....	....
Yankton	1,233	49	57	28.58	29.88	+ .01	64.8	− 4.6	94	30	75	48	7	55	29	.....	.....	.....	4.68	+ 0.4	11	5,890	nw.	31	nw.	7	11	13	6	5.0	.....	....

TABLE I.—*Climatological data for Weather Bureau Stations, June, 1916*—Continued.

Districts and stations.	Elevation of instruments.			Pressure.			Temperature of the air.												Precipitation.			Wind.										
	Barometer above sea level.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max.+mean min.÷2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity.	Total.	Departure from normal.	Days with 0.01 inch or more.	Total movement.	Prevailing direction.	Maximum velocity: Miles per hour.	Maximum velocity: Direction.	Maximum velocity: Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness.	Total snowfall.	Snow on ground at end of month.
	Ft.	Ft.	Ft.	In.	In.	In.	°F.	°F.	°F		°F	°F.		°F	°F.	°F.	°F.	%	In.	In.		Miles.								0-10	In.	In.
Northern Slope.							58.8	− 3.3										61	2.64	+ 0.4										4.8		
Billings	3,140	5					61.4		92	17	76	36	7	47	46				2.50				sw.				11	15	4			
Havre	2,505	11	44	27.28	29.89	+0.04	59.3	− 3.1	84	16	69	40	6	49	29	53	48	72	4.03	+ 1.2	16	6,279	nw.	30	w.	2	8	12	10	5.8		
Helena	4,110	87	114	25.78	29.93	+ .05	57.2	− 3.4	89	17	68	35	21	46	36	47	40	59	3.60	+ 1.5	13	6,642	sw.	35	sw.	5	12	11	7	4.7		
Kalispell	2,962	11	34	26.90	29.92	+ .03	55.3	− 3.5	88	18	67	33	2	43	40	48	42	68	3.91	+ 2.2	14	3,126	w.	36	sw.	18	6	17	7	5.8	T.	
Miles City	3,259	50	58	27.39	29.91	+ .06	63.4	− 2.6	90	29	76	38	2	51	36	55	49	64	3.96	+ 1.2	17	5,083	nw.	34	w.	5	7	20	3	4.7		
Rapid City	3,259	50	58	26.56	29.93	+ .08	60.1	− 3.7	92	28	70	42	7	51	32	52	46	60	2.30	− 1.3	16	6,265	n.	39	nw.	5	8	13	9	5.8		
Cheyenne	6,088	84	101	23.99	29.84	.00	58.4	− 3.1	88	28	72	30	7	45	41	47	38	54	0.37	− 1.2	5	8,081	nw.	54	w.	22	15	13	2	4.1		
Lander	5,372	60	68	24.61	29.85	.00	60.2	− 1.1	94	27	76	31	2	44	44	46	31	42	0.19	− 0.9	3	4,299	w.	32	w.	9	19	10	1	3.4		
Sheridan	3,790	10	47	26.06	29.91		59.0		90	29	72	35	2	46	39	51	44	62	2.23		15	4,348	nw.	36	sw.	9	14	8	8	4.7		
Yellowstone Park	6,200	11	48	23.88	29.92	+ .06	50.5	− 5.5	80	17	64	29	12	37	40	41	32	56	2.36	+ 0.7	13	4,737	s.	34	s.	29	12	11	7	4.8	3.7	
North Platte	2,821	11	51	27.03	29.92	+ .06	64.6	− 3.8	95	28	77	38	7	52	38	57	52	71	3.09	− 0.2	13	5,214	se.	33	n.	25	14	8	8	4.5		
Middle Slope.							70.4	− 1.4										62	4.27	+ 1.1										4.3		
Denver	5,292	106	113	24.69	29.84	.00	66.1	− 0.3	96	29	80	42	7	52	39	51	38	43	0.08	− 1.4	2	5,570	se.	39	n.	19	16	14	0	3.6		
Pueblo	4,685	80	86	25.22	29.80	− .03	69.6	+ 0.6	99	29	85	43	5	54	43	53	41	46	1.22	− 0.2	5	5,157	se.	37	e.	10	17	11	2	3.1		
Concordia	1,392	50	58	28.44	29.88	− .02	69.2	− 3.5	90	29	80	48	8	59	30	62	57	69	4.66	− 0.3	9	5,673	nw.	31	s.	25	7	16	7	5.3		
Dodge	2,509	11	51	27.31	29.85	− .02	70.6	− 2.5	94	1	82	50	8	59	42	62	58	69	5.16	+ 1.8	15	7,959	se.	38	ne.	11	13	13	4	4.2		
Wichita	1,358	139	158	28.44	29.84	− .07	72.4	− 1.9	94	1	82	55	8	63	26	65	61	73	8.32	+ 3.6	10	9,033	s.	52	ne.	5	14	13	3	4.4		
Altus	1,410	5					79.0		105	1	92	54	8	66	40				3.74		10		se.				14	5	11			
Muskogee	652	4					75.0		93	27	85	55	8	65	28				3.17		14		s.				17	3	10			
Oklahoma	1,214	10	47	28.61	29.85	− .06	74.6	− 1.1	96	1	84	55	6	65	32	67	64	73	6.16	+ 3.1	15	9,912	s.	61	n.	14	10	17	3	5.1		
Southern Slope.							80.0	+ 2.9										49	1.19	− 1.5										3.8		
Abilene	1,738	10	52	28.04	29.79	− .09	81.0	+ 2.8	102	26	93	53	8	69	36	67	60	54	2.05	− 1.1	7	9,243	se.	47	n.	26	21	8	1	3.1		
Amarillo	3,676	10	49	26.18	29.82	− .03	74.6	+ 2.6	100	21	89	50	7	60	37	62	56	61	2.18	− 0.8	7	8,988	s.	35	n.	4	17	11	2	3.2		
Del Rio	944	64	71	28.84	29.79	− .06	86.4	+ 4.3	109	6	98	66	15	75	36				0.08	− 2.4	1	9,356	se.	42	e.	30	20	10	0	2.9		
Roswell	3,566	75	85	26.24	29.75	− .05	78.2	+ 1.9	100	25	95	53	5	62	41	56	38	31	0.44	− 1.6	1	6,281	s.	39	sw.	4	24	6	0	1.9		
Southern Plateau.							74.6	0.0										25	0.08	− 0.3										1.0		
El Paso	3,762	110	133	26.06	29.69	− .06	83.8	+ 4.2	102	29	97	62	8	70	33	56	28	17	0.00	− 0.6	0	8,501	nw.	52	w.	4	28	2	0	1.2		
Santa Fe	7,013	57	66	23.25	29.73	− .08	66.2	0.0	87	30	80	44	1	53	32	46	27	26	0.38	− 0.7	1	5,787	sw.	30	n.	4	20	3	2	2.4		
Flagstaff	6,908	8	57	23.36	29.79	+ .01	58.9	− 0.4	86	16	78	32	19	40	49				0.00		0		w.	38	sw.	20	25	5	0			
Phoenix	1,108	76	81	28.60	29.72	− .02	93.9	− 0.5	111	15	101	57	1	67	44	58	37	22	0.00	− 0.1	0	3,981	e.	22	w.	3	30	0	0	0.3		
Yuma	141	9	54	29.57	29.71	− .03	85.4	+ 0.7	116	15	104	56	4	66	48	63	48	35	0.00	0.0	0	3,712	w.	27	w.	3	30	0	0	0.1		
Independence	3,910	11	42	25.87	29.78	.00	69.5	− 3.9	97	16	88	40	3	51	44				0.00	− 0.1	0	4,654	se.	27	w.	27	29	1	0			
Middle Plateau.							64.1	− 1.0										30	0.11	− 0.4										2.0		
Reno	4,532	74	81	25.44	29.87	+ .01	61.8	+ 0.8	96	16	78	34	2	46	44	46	31	40	0.11	− 0.1	1	5,450	w.	36	w.	19	22	7	1	2.3		
Tonopah	6,090	12	20	24.03	29.83		64.6		87	16	77	34	21	52	29	45	25	25	0.00	− 0.4	0	6,420	w.	36	nw.	20	23	7	0	2.1		
Winnemucca	4,344	18	56	25.58	29.91	+ .03	61.6	− 1.7	98	16	79	29	22	44	44	44	28	36	0.00	− 0.6	0	4,744	ne.	29	nw.	19	24	5	1	1.7		
Modena	5,479	10	43	24.56	29.80	− .02	63.0	− 0.2	91	16	82	32	2	44	47	43	20	25	0.01	− 0.4	1	8,734	w.	44	s.	20	25	5	0	1.7		
Salt Lake City	4,360	147	189	25.56	29.85	.00	65.9	− 2.4	96	17	78	40	22	54	35	49	32	32	0.66	− 0.1	3	6,058	nw.	35	n.	20	21	6	3	2.6		
Durango	6,546	10		23.65	29.81	− .01	60.8	− 1.9	87	30	81	33	1	40	45				T.	− 0.8	0		nw.				28	2	0			
Grand Junction	4,602	82	96	25.29	29.79	− .04	71.7	− 0.9	94	30	86	43	2	57	37	49	25	20	T.	− 0.4	0	6,082	nw.	34	s.	21	25	5	0	1.7		
Northern Plateau.							61.2	− 3.8										51	1.63	+ 0.5										4.7		
Baker	3,471	48	53	26.44	30.00	+ .05	55.7	− 2.9	93	17	69	31	10	42	40	46	38	58	1.43	+ 0.2	8	4,134	se.	22	n.	4	13	8	9	4.5		
Boise	2,739	78	86	27.12	29.96	+ .05	61.8	− 4.2	98	16	76	36	21	48	43	49	37	48	1.68	+ 0.8	7	3,821	nw.	26	w.	20	15	8	7	4.1		
Lewiston	757	40	48	29.16	29.96	+ .02	64.4	− 4.7	104	17	78	43	2	51	46				1.91	+ 0.9	11	2,419	ne.	24	nw.	9	9	11	10	5.2		
Pocatello	4,477	46	54	25.43	29.89	+ .02	60.0	− 4.2	92	17	75	34	11	45	41	45	31	39	0.32	− 0.7	4	6,308	sw.	38	sw.	5	18	10	2	3.5	T.	
Spokane	1,929	101	110	27.93	29.95	+ .01	60.6	− 2.8	96	17	73	38	11	49	36	50	41	57	2.70	+ 1.1	13	4,365	sw.	36	sw.	27	7	10	13	6.2		
Walla Walla	991	57	65	28.88	29.94	− .02	64.4	− 3.8	99	16	76	41	22	52	35	53	42	51	1.77	+ 0.6	8	3,419	s.	24	sw.	4	12	8	10	4.8		
North Pacific Coast Region.							57.8	− 0.4										74	1.56	− 0.5										5.6		
North Head	211	11	56	29.84	30.06	+ .07	53.2	− 1.8	68	12	56	46	9	50	15	50	49	88	1.27	− 0.5	12	12,007	nw.	52	se.	30	5	11	14	6.4		
Seattle	125	215	250	29.94	30.06	+ .06	58.8	− 1.3	82	16	67	44	5	51	27	52	47	70	1.82	+ 0.1	9	5,104	n.	30	sw.	27	9	6	15	6.4		
Tacoma	213	113	120	29.84	30.06	+ .03	58.8	− 0.6	81	16	68	43	10	50	28	52	48	72	1.66	− 0.5	12	4,006	n.	20	sw.	4	8	8	14	6.0		
Tatoosh Island	109	7	57	29.97	30.06	+ .04	52.8	− 0.2	71	12	57	46	11	48	23	50	48	89	1.88	− 2.3	10	6,434	sw.	30	e.	30	9	9	12	5.4		
Medford	1,425	4					63.8		101	16	80	35	10	47	51				0.73		9		nw.				13	3	14			
North Yakima	1,076	4					64.4		96	17	78	41	28	51	40				0.63		6						13	6	11			
Portland, Oreg.	153	68	106	29.87	30.03	+ .01	62.0	+ 0.7	92	16	72	41	10	52	32	53	47	63	1.83	0.0	11	4,284	nw.	31	sw.	17	10	8	12	5.6		
Roseburg	510	9	57	29.49	30.04	+ .01	61.4	+ 0.5	98	16	75	37	10	48	45	52	45	63	0.91	− 0.2	8	2,645	nw.	18	n.	5	14	12	4	3.8		
Middle Pacific Coast Region.							60.7	− 1.9										61	0.54	0.0										3.1		
Eureka	62	73	89	29.98	30.05	.00	52.8	− 1.8	71	30	58	41	10	48	18	49	47	84	1.00	− 0.1	7	6,032	n.	38	sw.	30	9	6	15	6.1		
Mount Tamalpais	2,375	11	18	27.51	29.96	+ .01	60.0	− 4.1	86	7	69	38	2	51	30	49	38	51	0.02	− 0.4	1	12,083	nw.	92	nw.	8	21	6	3	2.2		
Point Reyes Light	490	7	18	29.43	29.94		51.1	− 1.7	61	27	55	44	11	47	10				0.22		1	17,694	nw.	85	nw.	19	11	6	13	5.7		
Red Bluff	332	50	56	29.53	29.88	.00	73.4	− 2.3	102	15	86	47	28	60	40	55	39	36	1.14	+ 0.7	1	4,512	se.	26	nw.	20	19	6	5	2.7		
Sacramento	69	106	117	29.83	29.90	+ .01	68.0	− 0.9	98	14	83	44	1	53	43	56	48	59	0.01	− 0.1	1	6,671	s.	31	nw.	20	28	1	1	0.8		
San Francisco	155	209	213	29.80	29.97	+ .01	57.4	+ 0.4	76	6	64	47	14	51	25	51	48	76	T.	− 0.2	0	8,451	sw.	38	sw.	7	21	7	2	2.3		
San Jose	141	12	110	29.83	29.98		62.4	− 2.6	91	6	76	41	2	49	46				T.	− 0.1	0	2,825	nw.	20	nw.	1	27	3	0	2.0		
South Pacific Coast Region.							64.4	− 1.7										68	0.00	− 0.1										2.8		
Fresno	327	89	98	29.53	29.88	+ .03	73.2	− 2.6	103	15	89	46	1	57	40	56	41	39	0.00	− 0.1	0	7,243	nw.	28	nw.	27	27	3	0	1.1		
Los Angeles	338	159	191	29.55	29.91	+ .01	63.6	− 0.9	80	30	72	51	1	55	24	57	53	76	0.00	− 0.1	0	3,903	sw.	20	sw.	3	16	14	0	3.3		
San Diego	87	62	70	29.82	29.91	− .01	61.4	− 2.4	74	30	66	52	2	57	17	57	55	83	T.	0.0	0	4,922	nw.	21	s.	20	14	12	4	4.3		
San Luis Obispo	201	32	40	29.77	29.99	+ .04	59.4	− 1.0	89	23	72	41	21	47	40	52	48	75	0.00	− 0.1	0	3,542	w.	18	w.	20	20	10	0	2.6		
West Indies.																																
San Juan, P. R.	82	8	54	29.89	29.97	− .02	80.4		91	14	86	73	12	75	15				3.94	− 1.9	18	6,509	se.	36	ne.	22	3	19	8	6.1		
Panama.																																
Balboa Heights	118	7	97																													
Colon	25	5	71																													

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during June, 1916, at all stations furnished with self-registering gages.*

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated. 3 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Abilene, Tex.	26	7:30 p. m.	D. N. p. m.	0.98	8:58 p. m.	9:35 p. m.	0.06	0.06	0.11	0.20	0.35	0.49	0.60	0.69	0.73						
Albany, N. Y.	18			0.33														0.31			
Alpena, Mich.	4	11:44 a. m.	6:45 p. m.	0.94	1:40 p. m.	1:56 p. m.	.13	.12	.32	.40	.42										
Amarillo, Tex.	4	4:32 p. m.	9:27 p. m.	1.38	6:49 p. m.	7:13 p. m.	.13	.20	.66	.92	1.06	1.12									
Anniston, Ala.	12			0.32														.30			
Asheville, N. C.	24	12:35 p. m.	4:50 p. m.	0.77	12:42 p. m.	12:53 p. m.	.01	.23	.37	.39											
Atlanta, Ga.	12	D. N. a. m.	7:38 a. m.	0.89	5:28 a. m.	5:41 a. m.	.33	.22	.32	.36											
	30	2:54 p. m.	3:25 p. m.	0.42	2:57 p. m.	3:11 p. m.	.01	.11	.28	.39											
Atlantic City, N. J.	16			0.48														.39			
Augusta, Ga.	6	8:50 p. m.	D. N. p. m.	1.12	9:00 p. m.	9:26 p. m.	.02	.14	.42	.51	.58	.97	1.00								
	15	7:25 p. m.	9:40 p. m.	1.05	7:32 p. m.	7:57 p. m.	.01	.25	.53	.59	.67	.90									
	23	5:00 p. m.	7:10 p. m.	1.28	5:51 p. m.	6:33 p. m.	.33	.19	.37	.48	.59	.67	.71	.76	.87	0.90					
	27	3:15 p. m.	7:00 p. m.	1.04	3:32 p. m.	4:24 p. m.	.05	.10	.20	.23	.25	.30	.33	.40	.53	.68	0.80	.86			
Baker, Oreg.	19			0.74														.26			
Baltimore, Md.	15-16			1.75														*			
Bentonville, Ark.	11	5:00 a. m.	8:10 a. m.	1.16	5:04 a. m.	5:21 a. m.	.01	.36	.65	.80	.85										
Binghamton, N. Y.	2-3			1.33														.31			
Birmingham, Ala.	6	5:00 a. m.	6:15 a. m.	0.73	5:10 a. m.	5:56 a. m.	.02	.05	.16	.22	.24	.34	.42	.50	.52	.69	.71				
Bismarck, N. Dak.	22-23			0.68														.31			
Block Island, R. I.	17			1.10														.32			
Boise, Idaho.	18	11:55 a. m.	9:25 p. m.	1.10	1:05 p. m.	1:39 p. m.	.14	.07	.13	.20	.34	.44	.50	.56							
Boston, Mass.	17			1.51														.47			
Buffalo, N. Y.	3	7:25 a. m.	8:20 a. m.	0.40	7:32 a. m.	7:41 a. m.	T.	.23	.38												
Burlington, Vt.	5	5:15 p. m.	8:10 p. m.	0.52	7:24 p. m.	7:35 p. m.	.08	.15	.35	.39											
Cairo, Ill.	2	5:53 p. m.	6:45 p. m.	1.20	6:00 p. m.	6:40 p. m.	.01	.07	.26	.39	.43	.63	.90	1.12	1.19						
	5-6	8:07 p. m.	D. N. a. m.	1.17	1:43 a. m.	1:55 a. m.	.55	.22	.47	.56											
	22	5:58 p. m.	7:55 p. m.	0.72	7:12 p. m.	7:34 p. m.	.17	.16	.35	.43	.49	.53									
	23	4:30 p. m.	7:52 p. m.	0.77	4:30 p. m.	4:55 p. m.	.00	.10	.25	.43	.34	.59									
Canton, N. Y.	18	1:54 p. m.	4:10 p. m.	0.61	2:21 p. m.	2:44 p. m.	.05	.11	.16	.18	.39	.46									
Charles City, Iowa.	1	2:53 p. m.	9:10 p. m.	2.55	3:13 p. m.	3:31 p. m.	.02	.16	.38	.47	.61										
					5:45 p. m.	6:19 p. m.	.89	.13	.40	.85	1.04	1.20	1.31	1.37							
Charleston, S. C.	15	7:35 a. m.	12:55 p. m.	2.04	11:27 a. m.	12:07 p. m.	.14	.10	.35	.55	.78	1.14	1.34	1.60	1.81						
	27	12:14 p. m.	4:45 p. m.	3.47	12:41 p. m.	2:05 p. m.	.01	.06	.27	.57	.72	1.00	1.19	1.46	1.69	1.93	2.14	2.57	3.09	3.23	
	30-1	8:55 p. m.	D. N. a. m.	1.17	8:59 p. m.	9:18 p. m.	.01	.22	.56	.80	.91										
Charlotte, N. C.	6	5:15 a. m.	8:57 a. m.	2.15	5:37 a. m.	6:25 a. m.	.01	.09	.27	.41	.53	.60	.88	1.20	1.69	1.88	1.92				
Chattanooga, Tenn.	11-12	10:08 p. m.	2:15 a. m.	0.92	11:02 p. m.	11:26 p. m.	.12	.23	.33	.34	.41	.52									
	24-25	16:16 p. m.	1:57 a. m.	1.01	11:48 p. m.	12:40 a. m.	.12	.09	.16	.25	.33	.40	.50	.55	.64	.70	.75	.77			
Cheyenne, Wyo.	10			0.24														.17			
Chicago, Ill.	6-8			4.00														*			
Cincinnati, Ohio.	2	6:25 p. m.	10:15 p. m.	0.74	8:23 p. m.	8:33 p. m.	.27	.20	.40												
Cleveland, Ohio.	10	5:25 p. m.	6:45 p. m.	0.53	5:49 p. m.	6:04 p. m.	.01	.19	.38	.44											
Columbia, Mo.	23	10:12 a. m.	11:27 a. m.	0.62	10:33 a. m.	11:04 a. m.	.06	.06	.12	.22	.32	.46	.51	.54							
Columbia, S. C.	6-7	7:38 p. m.	D. N. a. m.	1.84	8:12 p. m.	8:54 p. m.	.02	.16	.41	.56	.71	.92	1.17	1.37	1.50	1.58					
	15	7:50 p. m.	8:38 p. m.	0.55	7:57 p. m.	8:08 p. m.	.01	.15	.50	.53											
	21	7:18 p. m.	9:55 p. m.	0.95	7:49 p. m.	8:10 p. m.	.29	.34	.45	.52	.60	.63									
Columbus, Ohio.	2-3			0.96														.53			
Concord, N. H.	16-17			0.94														.36			
Concordia, Kans.	20	12:30 a. m.	5:00 p. m.	1.32	1:32 a. m.	2:04 a. m.	.16	.15	.26	.30	.39	.62	.80	.86							
	25	10:45 p. m.	11:52 p. m.	0.67	10:51 p. m.	11:11 p. m.	.01	.11	.30	.48	.59										
Corpus Christi, Tex.	12	1:30 p. m.	3:22 p. m.	1.01	2:23 p. m.	2:46 p. m.	.10	.13	.45	.65	.81	.89									
Davenport, Iowa.	6-8			1.78														*			
Dayton, Ohio.	2	5:40 p. m.	8:44 p. m.	1.26	5:54 p. m.	6:10 p. m.	.05	.11	.22	.57	.63										
					8:23 p. m.	8:30 p. m.	.94	.22	.29												
Del Rio, Tex.	15			0.05														.05			
Denver, Colo.	11			0.07														.06			
Des Moines, Iowa.	20			0.46														.20			
Detroit, Mich.	8	1:08 p. m.	2:47 p. m.	0.42	1:56 p. m.	2:11 p. m.	.01	.08	.19	.35											
Devils Lake, N. Dak.	22-23	12:05 p. m.	D. N. a. m.	1.11	8:36 p. m.	8:51 p. m.	.40	.18	.32	.45											
Dodge City, Kans.	19-20	10:25 p. m.	D. N. a. m.	1.75	10:38 p. m.	12:12 a. m.	.01	.09	.19	.29	.36	.40	.49	.57	.72	.87	1.02	1.14	1.36	1.53	
Dubuque, Iowa.	1	7:55 p. m.	10:25 p. m.	1.21	9:26 p. m.	9:59 p. m.	.05	.24	.50	.71	.87	.98	1.08	1.12							
Duluth, Minn.	13	D. N. a. m.	10:30 a. m.	1.57	6:07 a. m.	6:42 a. m.	.68	.09	.20	.25	.31	.37	.45	.55							
Durango, Colo.	4			T.														T.			
Eastport, Me.	28			0.89														.50			
Elkins, W. Va.	24-25			1.30														.52			
El Paso, Tex.	‡																				
Erie, Pa.	24	3:20 p. m.	4:10 p. m.	0.45	3:23 p. m.	3:38 p. m.	.04	.22	.30	.37											
Escanaba, Mich.	4	10:50 a. m.	11:50 a. m.	0.94	10:59 a. m.	11:34 a. m.	.01	.06	.23	.48	.74	.78	.79	.88							
Eureka, Cal.	27-28			0.44														.15			
Evansville, Ind.	15	9:13 p. m.	10:45 p. m.	0.82	9:18 p. m.	9:46 p. m.	.01	.10	.21	.27	.39	.50	.56								
Flagstaff, Ariz.	‡																				
Fort Smith, Ark.	5	10:23 a. m.	2:14 p. m.	1.02	12:23 p. m.	12:42 p. m.	0.16	0.18	0.38	0.65	0.73										
Fort Wayne, Ind.	6-7			1.78														*			
Fort Worth, Tex.	14	6:34 a. m.	10:04 a. m.	1.72	6:47 a. m.	8:26 a. m.	.01	.11	.29	.37	.42	.47	.54	.57	.59	.59	.72	.93	1.16	1.62	
	14	10:32 p. m.	11:58 p. m.	1.08	10:35 p. m.	11:26 p. m.	.01	.15	.36	.52	.65	.70	.74	.84	.90	.75	1.01				
Fresno, Cal.	‡																				
Galveston, Tex.	7	5:20 a. m.	7:45 a. m.	1.24	5:43 a. m.	6:10 a. m.	.01	.14	.15	.23	.45	.66	.75								
	27	11:14 a. m.	5:35 p. m.	1.50	1:30 p. m.	2:05 p. m.	.02	.19	.53	.86	1.02	1.11	1.17	1.20							
Grand Haven, Mich.	29	7:15 p. m.	D. N. p. m.	1.54	8:13 p. m.	9:55 p. m.	.19	.09	.12	.18	.22	.28	.34	.41	.44	.50	.57	.62	1.15	1.27	
Grand Junction, Colo.	5																				
	18			T.														T.			
Grand Rapids, Mich.	2	1:00 a. m.	4:15 a. m.	0.68	1:45 a. m.	1:59 a. m.	.08	.09	.25	.44											
Green Bay, Wis.	12	12:59 p. m.	2:30 p. m.	0.81	1:08 p. m.	1:43 p. m.	.02	.07	.22	.31	.37	.47	.70	.77							
Hannibal, Mo.	20	3:14 p. m.	3:42 p. m.	0.45	3:21 p. m.	3:32 p. m.	.02	.23	.40	.43											
Harrisburg, Pa.	15-18			1.41														*			
Hartford, Conn.	17			1.22														*			
Hatteras, N. C.	3	6:54 p. m.	9:40 p. m.	0.75	8:02 p. m.	8:25 p. m.	.21	.08	.12	.19	.37	.49									
Havre, Mont.	21-22			1.06														*			
Helena, Mont.	21			0.83														*			
Houghton, Mich.	2			1.84														*			
Houston, Tex.	27	1:51 p. m.	4:30 p. m.	0.60	2:03 p. m.	2:20 p. m.	.02	.12	.31	.44	.50										
Huron, S. Dak.	12			1.47														.70			
Independence, Cal.	‡																				
Indianapolis, Ind.	20-21	9:20 p. m.	D. N. a. m.	1.18	10:48 p. m.	11:10 p. m.	.12	.07	.23	.44	.53	.57									
	5	5:53 p. m.	11:43 p. m.	0.93	8:59 p. m.	9:32 p. m.	.14	.09	.17	.28	.37	.44	.57	.64							
Iola, Kans.	10-11	10:01 p. m.	6:32 a. m.	2.56	1:41 a. m.	2:26 a. m.	.53	.15	.33	.45	.50	.54	.61	.71	.73	.83					
					3:12 a. m.	3:58 a. m.	1.51	.05	.14	.24	.28	.32	.37	.44	.54	.66	.70				

* Self-register not working. † Record partly estimated. ‡ No precipitation occurred during month.

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during June, 1916, at all stations furnished with self-registering gages*—Continued.

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began.	3 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Jacksonville, Fla.	14	8:05 a.m.	11:25 a.m.	1.28	9:40 a.m.	10:26 a.m.	0.01	0.13	0.16	0.19	0.28	0.47	0.73	0.93	1.05	1.21	1.23				
	18	1:30 p.m.	5:20 p.m.	0.84	2:31 p.m.	3:02 p.m.	.03	.06	.17	.43	.60	.71	.77	.80							
	24	11:54 a.m.	2:25 p.m.	1.07	11:56 a.m.	12:36 p.m.	.01	.30	.37	.39	.39	.41	.78	.92	1.02						
	29	3:43 p.m.	5:15 p.m.	0.88	4:05 p.m.	4:27 p.m.	.03	.27	.43	.59	.73	.79									
Kalispell, Mont.	18–20			1.68														0.31			
Kansas City, Mo.	5–6			2.70														*			
Keokuk, Iowa	20	2:30 p.m.	4:50 p.m.	1.40	3:36 p.m.	4:04 p.m.	.20	.17	.50	.83	1.04	1.10	1.17								
Key West, Fla.	13	9:29 a.m.	10:30 a.m.	0.98	9:42 a.m.	10:10 a.m.	.02	.21	.48	.65	.81	.90	.95								
Knoxville, Tenn.	11–12	5:50 p.m.	7:50 a.m.	1.72	6:20 p.m.	6:45 p.m.	.01	*	*	*	*	.65									
La Crosse, Wis.	25–26	11:27 p.m.	D. N. a.m.	0.68	11:28 p.m.	11:37 p.m.	.01	.30	.39												
Lander, Wyo.	21			0.13														.06			
Lansing, Mich.	29–30			1.58														.40			
Lewiston, Idaho	25–26			0.51														.30			
Lexington, Ky.	2	10:12 p.m.	D. N. p.m.	0.82	10:12 p.m.	10:50 p.m.	.00	.17	.28	.33	.40	.50	.59	.66	.78						
	18	3:45 p.m.	5:15 p.m.	0.71	4:13 p.m.	4:38 p.m.	.01	.14	.24	.30	.39	.44	.55	.68							
Lincoln, Nebr.	20			0.78														*			
Little Rock, Ark.	5	4:10 p.m.	6:10 p.m.	1.07	4:26 p.m.	4:49 p.m.	.04	.06	.16	.37	.64	.74									
	23	3:58 p.m.	4:45 p.m.	0.72	4:07 p.m.	4:23 p.m.	.01	.19	.51	.68	.70										
Los Angeles, Cal.	‡																				
Louisville, Ky.	18	2:58 p.m.	6:47 p.m.	1.65	5:06 p.m.	5:28 p.m.	.05	.24	.37	.51	.74	.82									
					6:10 p.m.	6:35 p.m.	1.02	.15	.27	.40	.50	.59									
Ludington, Mich.	8–9			1.00														.32			
Lynchburg, Va.	29–30	10:30 p.m.	12:40 a.m.	1.73	11:06 p.m.	12:01 a.m.	.08	.06	.10	.19	.53	.83	1.09	1.27	1.43	1.50	1.56	1.63			
Macon, Ga.	22–23	7:36 p.m.	D. N. a.m.	1.18	7:46 p.m.	8:15 p.m.	.03	.08	.14	.27	.63	.90	.99								
Madison, Wis.	1	9:50 p.m.	D. N. p.m.	0.87	10:58 p.m.	11:18 p.m.	.09	.09	.13	.22	.29	.40	.45	.62	.77						
Marquette, Mich.	1–2	1:44 p.m.	6:14 p.m.	4.46	6:40 a.m.		1.25	.05	.08	.12	.18	.23	.28	.35	.42	.46	.50				
								.56	.60	.65	.71	.76	.81	.86	.91	.98	1.04				
								1.11	1.23	1.30	1.38	1.46	1.55	1.61	1.69	1.75	1.82				
						3:50 a.m.		1.89	1.96	2.02	2.09	2.19	2.26	2.32	2.37						
Memphis, Tenn.	19	7:30 p.m.	D. N. p.m.	0.74	7:50 p.m.	8:14 p.m.	.01	.10	.24	.32	.54	.66									
Meridian, Miss.	27	10:52 a.m.	11:45 a.m.	1.03	10:53 a.m.	11:17 a.m.	T.	.24	.57	.74	.90	1.01									
Miami, Fla.	16	1:23 p.m.	4:00 p.m.	2.33	1:53 p.m.	3:09 p.m.	.01	.22	.45	.62	.69	.76	.78	.88	1.11	1.37	1.53	1.70	1.99		
	18	D. N. a.m.	D. N. a.m.	1.07	1:56 a.m.	2:30 a.m.	.03	.06	.17	.44	.57	.68	.80	.93							
	29	D. N. a.m.	6:15 a.m.	1.24	5:29 a.m.	6:04 a.m.	.10	.30	.48	.79	.95	.95	.97	1.14							
Milwaukee, Wis.	6–8			3.26														*			
Minneapolis, Minn.	29	12:55 a.m.	D. N. a.m.	1.40	12:55 a.m.	1:59 a.m.	.00	.12	.30	.48	.56	.61	.64	.69	.71	.74	.78	.98	1.09		
Mobile, Ala.	28	3:28 p.m.	6:10 p.m.	1.27	3:32 p.m.	4:10 p.m.	.01	.10	.16	.32	.53	.84	1.04	1.15	1.19						
Modena, Utah	10			0.01														.01			
Montgomery, Ala.	12	2:35 p.m.	6:20 p.m.	0.91	3:36 p.m.	4:10 p.m.	.01	.14	.29	.44	.64	.73	.80	.85							
	26	2:12 p.m.	3:35 p.m.	0.71	2:27 p.m.	2:44 p.m.	.01	.25	.51	.63	.66										
Moorehead, Minn.	28	5:40 p.m.	11:15 p.m.	1.88	5:52 p.m.	6:27 p.m.	.03	.13	.42	.64	.91	1.07	1.28	1.36							
Mount Tamalpais, Cal.	30			0.02														.01			
Nantucket, Mass.	17–18			1.94														.71			
Nashville, Tenn.	11	12:50 p.m.	8:45 p.m.	1.51	7:46 p.m.	8:16 p.m.	.75	.09	.13	.17	.40	.57	.70								
New Haven, Conn.	16–17			1.26														.58			
New Orleans, La.	12	11:39 a.m.	1:25 p.m.	1.57	12:21 p.m.	12:36 p.m.	.07	.20	.52	.90	1.31	1.38									
	17	5:25 p.m.	6:00 p.m.	0.52	5:36 p.m.	5:56 p.m.	.02	.09	.27	.39	.50										
	23	8:30 p.m.	9:45 p.m.	0.70	8:35 p.m.	9:00 p.m.	.01	.08	.27	.40	.50	.55									
	25	D. N. a.m.	6:05 a.m.	3.29	3:59 a.m.	5:21 a.m.	.14	.20	.39	.74	1.30	1.52	1.71	1.80	1.97	2.21	2.45	2.81	3.02	3.08	
New York, N. Y.	17	3:10 p.m.	3:34 p.m.	0.50	3:23 p.m.	3:33 p.m.	T.	.22	.50												
Norfolk, Va.	7			0.45														.40			
Northfield, Vt.	27–28			0.66														.52			
North Head, Wash.	27			0.34														.20			
North Platte, Nebr.	10	D. N. a.m.	6:05 a.m.	0.67	3:44 a.m.	3:54 a.m.	.09	.15	.39												
Oklahoma, Okla.	12	1:05 a.m.	4:20 a.m.	0.76	1:34 a.m.	1:57 a.m.	.04	.08	.22	.34	.47	.53									
	14	2:05 a.m.	8:10 a.m.	0.99	2:13 a.m.	2:33 a.m.	.01	.23	.50	.59	.66										
	23	8:52 p.m.	11:30 p.m.	2.23	9:03 p.m.	10:02 p.m.	.01	.15	.42	.82	.98	1.27	1.63	1.78	1.82	1.87	1.91	2.11			
Omaha, Nebr.	25	9:30 p.m.	12 mid.	1.10	9:59 p.m.	10:16 p.m.	.01	.19	.64	.85	.87										
Oswego, N. Y.	3	11:32 a.m.	3:05 p.m.	0.63	12:05 p.m.	12:24 p.m.	.01	.20	.24	.35	.46	.50									
Palestine, Tex.	15			0.49														.26			
Parkersburg, W. Va.	21			1.15														.53			
Pensacola, Fla.	13	12:50 p.m.	4:50 p.m.	2.45	1:12 p.m.	2:19 p.m.	.01	.07	.12	.18	.48	.78	1.22	1.56	1.78	1.91	2.00	2.20	2.39		
Peoria, Ill.	20			1.03														.46			
Philadelphia, Pa.	7–8			1.72														.40			
Phoenix, Ariz.	‡																				
Pierre, S. Dak.	19–20			0.66														.33			
Pittsburgh, Pa.	2–3			1.12														.60			
Pocatello, Idaho	4			0.20														.14			
Point Reyes Light, Cal.	30			0.22														.05			
Port Huron, Mich.	2			0.32														.31			
Portland, Me.	8–12			3.06														*			
Portland, Oreg.	29–30			0.51														*			
Providence, R. I.	17			2.27														.63			
Pueblo, Colo.	11	3:58 p.m.	5:34 p.m.	0.80	4:39 p.m.	5:02 p.m.	.01	.06	.32	.55	.81	.87									
Raleigh, N. C.	3	3:50 p.m.	5:46 p.m.	0.65	3:56 p.m.	4:11 p.m.	.02	.25	.47	.59											
	6–7	8:50 p.m.	D. N. a.m.	1.45	8:56 p.m.	9:33 p.m.	.01	.13	.26	.34	.50	.62	.68	.77	.84						
	15	10:55 a.m.	7:29 p.m.	6.23	6:05 p.m.	6:30 p.m.	.52	.11	.14	.25	.33	.57	.69								
	24–25	7:27 p.m.	D. N. a.m.	1.27	7:31 p.m.	8:02 p.m.	.04	.13	.40	.61	.80	.85									
Rapid City, S. Dak.	12			0.54														*			
Reading, Pa.	3	4:21 p.m.	5:32 p.m.	0.18	4:46 p.m.	5:02 p.m.	.02	.11	.30	.39	.42										
Red Bluff, Cal.	30			1.14														.12			
Reno, Nev.	21			0.11														.05			
Richmond, Va.	24	7:05 p.m.	9:26 p.m.	0.82	7:17 p.m.	7:43 p.m.	.01	.21	.40	.42	.49	.66	.69								
	24–25	9:55 p.m.	3:00 a.m.	1.51	9:59 p.m.	10:31 p.m.	.01	.15	.33	.36	.49	.83	1.14	1.19							
	28	9:07 p.m.	9:54 p.m.	0.93	9:10 p.m.	9:37 p.m.	.02	.20	.42	.61	.76	.84	.88								
Rochester, N. Y.	2	8:55 p.m.	10:45 p.m.	0.70	9:30 p.m.	9:50 p.m.	.02	.07	.27	.40	.58										
	24	3:13 p.m.	6:25 p.m.	1.21	5:04 p.m.	5:21 p.m.	.26	.14	.43	.61	.67										
Roseburg, Oreg.	30			0.19														.12			
Roswell, N. Mex.	12			0.44														.44			
Sacramento, Cal.	30			0.01														.01			
Saginaw, Mich.	2	3:44 a.m.	6:23 a.m.	0.60	4:22 a.m.	4:34 a.m.	.05	.19	.33	.38	.48	.51									
St. Joseph, Mo.	5–6			1.75														*			
St. Louis, Mo.	2	8:34 a.m.	9:32 a.m.	0.80	8:41 a.m.	9.01 a.m.	.01	.26	.53	.69	.76										
St. Paul, Minn.	25	5:28 p.m.	9:30 p.m.	0.85	6:32 p.m.	6:45 p.m.	.11	.18	.43	.49											
Salt Lake City, Utah	21			0.44														.09			
San Antonio, Tex.	15			0.38														.27			
San Diego, Cal.	20			T.														T.			
Sand Key, Fla.	2			0.39														.27			
Sandusky, Ohio	16	1:50 p.m.	5:30 p.m.	0.81	1:55 p.m.	2:27 p.m.	T.	.13	.21	.25	.31	.44	.45	.58							
San Francisco, Cal.	30			T.														T.			
San Jose, Cal.	27			T.														T.			

* Self-register not working. † Record partly estimated. ‡ No precipitation occurred during month.

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for the principal storms in which the rate of fall equaled or exceeded 0.25 inch in any 5 minutes, or 0.80 in 1 hour, during June, 1916, at all stations furnished with self-registering gages*—Continued.

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated. 3 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
San Luis Obispo, Cal	‡																				
Santa Fe, N. Mex	4			0.38														0.38			
Sault Ste. Marie, Mich	16-18			1.39														*			
Savannah, Ga	28	12:33 p.m.	1:50 p.m.	0.65	12:41 p.m.	1:01 p.m.	0.01	0.27	0.44	0.55	0.60										
Scranton, Pa	27	9:15 p.m.	D. N. p.m.	1.98	9:33 p.m.	10:12 p.m.	.08	.05	.21	.34	.64	0.86	0.92	1.01	1.07						
Seattle, Wash	20			0.44																	
Sheridan, Wyo	4			0.33														.33			
Shreveport, La	5	3:25 p.m.	4:08 p.m.	0.62	3:45 p.m.	4:06 p.m.	.03	.12	.24	.41	.58	.59									
	24	4:00 a.m.	5:50 a.m.	0.90	4:25 a.m.	4:39 a.m.	.07	.19	.36	.51	.57										
Sioux City, Iowa	22-23	8:15 p.m.	D. N. a.m.	0.51	8:50 p.m.	9:00 p.m.	.02	.19	.31									*			
Spokane, Wash	24			0.29														.25			
Springfield, Ill	6	7:50 a.m.	4:50 p.m.	0.71	9:14 a.m.	9:43 a.m.	.03	.08	.20	.28	.37	.42	.51								
Springfield, Mo	5			1.56														*			
Syracuse, N. Y	24	7:15 p.m.	8:30 p.m.	0.72	7:53 p.m.	8:25 p.m.	.03	.08	.20	.36	.46	.53	.66	.69							
Tacoma, Wash	30			0.41														.12			
Tampa, Fla	8	7:08 a.m.	9:28 a.m.	1.33	7:30 a.m.	8:12 a.m.	.08	.20	.37	.53	.70	.83	.91	1.01	1.13	1.18					
	18	5:45 p.m.	6:28 p.m.	1.15	5:48 p.m.	6:14 p.m.	.01	.38	.71	.83	1.01	1.09	1.12								
Tatoosh Island, Wash	27-30			1.01														.13			
Taylor, Tex	15			0.44														.21			
Terre Haute, Ind	20-21	7:54 p.m.	D. N. a.m.	1.64	9:00 p.m.	9:28 p.m.	.20	.25	.41	.80	1.05	1.27	1.34								
Thomasville, Ga	4	4:35 p.m.	6:20 p.m.	1.22	5:04 p.m.	5:37 p.m.	.02	.37	.69	.85	.88	.90	1.06	1.17							
Toledo, Ohio	17-18	10:00 p.m.	D. N. a.m.	0.47	11:06 p.m.	11:10 p.m.	.01	.20	.34												
Tonopah, Nev	‡																				
Topeka, Kans	26	12:35 a.m.	D. N. a.m.	0.70	12:48 a.m.	1:14 a.m.	.01	.12	.26	.35	.44	.51	.55								
Valentine, Nebr	12	2:35 p.m.	5:35 p.m.	0.69	3:42 p.m.	4:02 p.m.	.08	.11	.37	.51	.58										
	17	8:10 p.m.	9:40 p.m.	0.59	8:57 p.m.	9:14 p.m.	.01	.21	.38	.50	.56										
Vicksburg, Miss	24	D. N. a.m.	9:20 a.m.	2.17	5:38 a.m.	6:14 a.m.	.13	.05	.10	.24	.58	.66	.72	.80	.83						
					6:50 a.m.	7:12 a.m.	1.01	.11	.40	.55	.68	.73									
Walla Walla, Wash	25-26			1.15														.36			
Washington, D. C	10	6:45 p.m.	10:25 p.m.	2.18	7:01 p.m.	7:54 p.m.	.01	.08	.27	.59	.81	1.11	1.49	1.61	1.63	1.65	1.73	1.85			
Wichita, Kans	5	12:50 a.m.	7:40 p.m.	4.76	11:36 a.m.	12:30 p.m.	2.73	.14	.23	.31	.43	.48	.53	.59	.72	.82	.93	1.02			
	11	12:50 a.m.	5:50 a.m.	1.01	1:01 a.m.	1:29 a.m.	.01	.13	.22	.25	.38	.47	.52								
	20	D. N. a.m.	D. N. a.m.	1.05	1:27 a.m.	11:56 a.m.	.02	.11	.39	.61	.71	.76	.82								
Williston, N. Dak	29	9:15 p.m.	11:35 p.m.	0.98	10:05 p.m.		.01	.40	.65	.85	.90										
Wilmington, N. C	6-7	11:58 p.m.	D. N. a.m.	1.14	12:03 a.m.	12:55 a.m.	.03	.08	.10	.22	.36	.49	.57	.65	.70	.77	.87	.92			
	25	12:24 p.m.	1:55 p.m.	1.01	12:51 p.m.	1:08 p.m.	.05	.18	.40	.70	.77										
		3:40 p.m.	8:15 p.m.	1.84	4:39 p.m.	5:19 p.m.	.01	.34	.73	.94	1.05	1.17	1.26	1.31	1.37						
	30	3:58 p.m.	5:55 p.m.	1.44	3:45 p.m.	4:20 p.m.	.01	.10	.21	.51	.78	.98	1.20	1.31							
Winnemucca, Nev	‡																				
Wytheville, Va	24	12:08 p.m.	2:30 p.m.	0.59	1:01 p.m.	1:20 p.m.	.08	.08	.23	.31	.40										
Yankton, S. Dak	11	7:40 a.m.	10:45 a.m.	1.25	7:55 a.m.	8:17 a.m.	.04	.25	.45	.48	.55	.62									
	22	6:40 p.m.	10:15 p.m.	1.39	6:57 p.m.	7:32 p.m.	.02	.11	.33	.49	.62	.80	.92	1.00							
Yellowstone Park, Wyo.	20-21			1.18														*			

* Self-register not working. † Record partly estimated. ‡ No precipitation occurred during month.

TABLE III.—*Data furnished by the Canadian Meteorological Service, June, 1916.*

Stations.	Altitude above M. S. L.* Jan. 1, 1916.	Pressure. Station reduced to mean of 24 hours.	Pressure. Sea level reduced to mean of 24 hours.	Pressure. Departure from normal.	Temperature of the air. Mean max.+mean min.÷2.	Temperature of the air. Departure from normal.	Temperature of the air. Mean maximum.	Temperature of the air. Mean minimum.	Temperature of the air. Highest.	Temperature of the air. Lowest.	Precipitation. Total.	Precipitation. Departure from normal.	Precipitation. Total snowfall.
	Feet.	*Inches.*	*Inches.*	*Inches.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	*Inches.*	*Inches.*	*Inches.*
St. Johns, N. F	125	29.87	30.01	+0.10	53.2	+1.6	61.0	45.4	78	36	1.82	−1.78	
Sydney, C. B. I	48	29.96	*30.00*	+ *.05*	55.8	+0.4	65.7	45.9	78	32	3.46	+0.23	
Halifax, N. S	88	29.90	*30.00*	+ *.05*	57.1	−0.6	66.3	47.9	80	37	5.31	+1.55	
Yarmouth, N. S	65	29.89	29.96	+ .01	54.9	−0.1	62.8	46.9	71	41	6.72	+3.96	
Charlottetown, P. E. I	38	29.93	29.97	+ .05	59.2	+1.8	66.7	51.7	75	41	2.55	−0.12	
Chatham, N. B	28	29.95	*29.97*	+ *.08*	60.3	+0.3	69.8	50.8	82	37	4.42	+0.96	
Father Point, Que	20	29.90	29.92	+ .05	55.1	+2.1	62.6	47.6	80	40	3.48	+0.50	
Quebec, Que	296	29.62	29.94	+ .02	61.3	+0.1	69.3	53.4	83	44	5.38	−1.73	
Montreal, Que	187	29.71	29.91	− .03	63.2	−1.7	71.1	55.4	80	49	4.20	+0.67	
Stonecliffe, Ont	489	29.30	*29.90*	− *.04*	60.0	−1.6	71.3	48.7	85	33	3.05	−0.11	
Ottawa, Ont	236	29.65	*29.91*	− *.03*	61.7	−3.6	70.0	53.3	80	42	4.20	+1.28	
Kingston, Ont	285	29.62	29.93	− .04	60.4	−3.0	67.5	53.3	74	42	6.20	+3.77	
Toronto, Ont	379	29.50	*29.90*	− *.05*	60.1	−3.3	69.1	51.2	78	40	4.29	+1.49	
White River, Ont	1,244	28.55	*29.87*	− *.09*	52.8	−5.9	65.7	39.9	79	28	5.95	+3.73	
Port Stanley, Ont	502	29.28	29.92	− .05	59.8	−4.0	68.6	51.0	75	35	3.51	+0.81	
Southampton, Ont	656	29.21			57.5	−2.9	66.4	48.6	81	36	5.95	+3.60	
Parry Sound, Ont	688	29.22	29.90	− .06	59.5	−2.2	69.0	50.1	80	34	3.18	+0.76	
Port Arthur, Ont	644	29.17	29.88	− .06	54.6	−1.8	63.8	45.4	76	36	3.03	+0.30	
Winnipeg, Man	760	29.05	29.87	− .02	58.3	−3.9	69.1	47.5	80	34	4.12	+0.83	
Minnedosa, Man	1,690	28.08	29.87	− .02	55.5	−4.1	66.0	44.9	78	32	3.55	+0.55	
Qu'Appelle, Sask	2,115	27.60	29.82	− .05	55.7	−4.2	66.1	45.3	78	34	4.10	+0.68	
Medicine Hat, Alberta	2,144	27.59	*29.84*	− *.01*	61.3	−0.7	73.6	49.1	87	38	4.09	+1.33	
Swift Current, Sask	2,392	27.29	*29.83*	− *.04*	56.3	−3.7	68.1	44.5	79	28	4.05	+1.38	
Calgary, Alberta	3,428	26.40	*29.89*	+ *.05*	56.1	+0.1	68.5	43.8	82	34	1.46	−0.99	
Banff, Alberta	4,521	25.37	29.89	+0.05	51.3	−0.2	63.8	38.9	79	28	2.65	−0.68	
Edmonton, Alberta	2,150	27.60	*29.86*	+ *.02*	56.0	−0.9	68.0	44.0	77	29	2.62	−0.24	
Prince Albert, Sask	1,450	28.31	*29.85*	− *.02*	56.2	−1.5	67.0	45.5	77	30	2.60	+0.09	
Battleford, Sask	1,592	28.12	*29.84*	− *.02*	57.2	−2.3	68.7	45.7	78	32	3.66	+0.35	
Kamloops, B. C	1,262	28.70	29.97	+ .10	63.8	0.0	75.9	51.6	95	38	2.82	+1.40	
Victoria, B. C	230	29.79	30.04	+ .03	56.4	+0.1	64.2	48.5	81	44	0.52	−0.68	
Barkerville, B. C	4,180	25.72	30.01	+ .14	50.3	−0.4	62.7	37.9	75	24	2.86	−0.62	
Hamilton, Bermuda	151	29.92	30.08	− .04	73.0	−2.0	78.8	67.3	82	62	2.11	−3.81	

* The altitudes given were furnished by the Director, Canadian Meteorological Service, March 9, 1916, and refer to cisterns of barometers at the respective stations. Where sea-level pressures and departures are *italicized* new reduction factors are in course of computation.—C. A., Jr.

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