CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data, as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course the number of such records is smaller than the total number of stations.

Summary of temperature and precipitation, by sections, July, 1914.

Section.	Temperature (°F.).								Precipitation (in inches and hundredths).					
	Section average.	Departure from the normal.	Monthly extremes.						Section average.	Departure from the normal.	Greatest monthly.		Least monthly.	
			Station.	Highest.	Date.	Station.	Lowest.	Date.			Station.	Amount.	Station.	Amount.
Alabama	81.6	+1.5	Newbern	107	26	2 stations	56	8	4.23	−1.03	Mentone	9.06	Fort Deposit	0.86
Arizona	78.7	−1.3	Mohawk	117	27†	Fort Valley	39	22	3.10	+0.86	Willow, Wash	8.59	Yuma	T.
Arkansas	82.6	+2.8	5 stations	107	14†	2 stations	54	31	2.69	−1.05	Bentonville	7.51	Corning	0.32
California	72.4	−1.6	Greenland Ranch	122	8	Greenville	28	9	0.06	+0.02	Nellie	3.75	70 stations	0.00
Colorado	66.1	−0.2	2 stations	102	12†	Dillon	29	1†	3.50	+1.15	Victor	11.23	Palisades	T.
Florida	81.6	+0.5	Federal Point	102	25†	Jasper	58	31	5.97	−1.77	Homestead	13.51	Malabar	1.87
Georgia	80.8	+0.7	Waynesboro	108	26	Blue Ridge	50	31	4.74	−0.78	Marshallville	8.53	Savannah	1.85
Hawaii (June)	71.2	.....	Makaweli	92	14	Volcano House	51	18	8.23	.....	Hakalau	43.35	2 stations	0.00
Idaho	69.7	+1.4	Culdesac	111	11	New Meadows	25	21	0.87	+0.24	Blackfoot	2.80	Murtaugh	T.
Illinois	79.0	+3.1	Greenville	109	16	Morris	42	3	1.50	−2.06	Olney	3.63	Metropolis	0.05
Indiana	77.6	+2.2	Shoals	112	12	Salamonia	43	30	1.85	−1.82	Forest Reserve	5.82	Notre Dame	0.20
Iowa	76.6	+2.5	Centerville	109	12	2 stations	43	3†	2.27	−1.69	Oskaloosa	6.50	Davenport	0.44
Kansas	79.9	+2.4	Minneapolis	111	15	Blakeman	45	1	2.69	−1.06	Madison	7.14	Dodge City	0.36
Kentucky	78.8	+2.0	Greensburg	109	12	Williamstown	43	30	3.20	−1.15	Berea	7.90	Paducah	T.
Louisiana	83.0	+1.2	2 stations	106	1†	Antioch	57	31	7.07	+0.42	Cades	18.66	Logansport	0.60
Maryland & Delaware	74.4	−1.2	.....do	101	23†	Deer Park	35	30†	3.10	−1.01	Delaware City	7.38	Woodstock	1.28
Michigan	69.8	−1.2	Adrian	103	22	Seney	33	19	2.64	−0.15	Iron Mountain	9.42	Bloomingdale	0.27
Minnesota	72.4	+3.5	Moose Lake	101	26	2 stations	36	18	2.48	−1.30	New London	5.73	Moose Lake	0.62
Mississippi	82.2	+1.5	3 stations	105	1†	Duck Hill	55	31	3.76	−1.27	Pearlington	7.68	Hernando	0.62
Missouri	80.5	+3.7	Grant City	109	12	Ironton	45	30	2.67	−1.66	Warsaw	7.61	Cardwell	0.34
Montana	68.7	+3.2	Fallon	107	20	Pleasant Valley	23	22	0.80	−0.57	Fallon	3.48	Hamilton	0.00
Nebraska	76.6	+2.1	Ewing	111	26	Hillside	37	1	1.84	−1.63	Orleans	5.04	Arcadia	0.37
Nevada	72.4	−0.6	Leeland	118	17	Tecoma	32	23	0.52	+0.14	Sharp	1.70	2 stations	0.00
New England	66.4	−2.7	Cavendish, Vt.	93	18	Bloomfield, Vt.	35	26	3.59	−0.23	Bridgeport, Conn.	7.10	Fairfield, Me.	0.93
New Jersey	71.5	−2.3	Bridgeton	97	23	Charlotteburg	40	20	6.05	+1.17	Haddonfield	8.57	Cape May	1.94
New Mexico	70.1	−1.9	2 stations	102	16†	Harvey's Upper Ranch.	37	18	4.83	+2.38	Gallinas P. sta	12.02	Lanark	1.27
New York	68.2	−1.4	Otto	98	16†	Lake Placid	31	20	3.25	−0.85	Sharon Springs	9.55	Fredonia	0.56
North Carolina	76.7	−0.2	2 stations	106	25†	Banners Elk	41	31	4.71	−0.95	Rock House	9.56	Elizabethtown	0.70
North Dakota	72.1	+4.5	Napoleon	109	26	2 stations	36	9†	2.31	−0.36	Dickinson	5.50	Beach	0.41
Ohio	74.0	+0.5	Hamilton	106	12	.....do	41	30†	2.19	−1.80	Cambridge	8.36	2 stations	0.72
Oklahoma	84.6	+4.6	Chattanooga	113	31	Hurley	50	1	1.63	−1.73	Hurley	5.50	.....do	T.
Oregon	67.4	+1.7	Umatilla	110	18	Whitaker	17	21	0.29	−0.23	Headworks (2)	2.35	Deadwood	0.00
Pennsylvania	71.3	−0.9	Punxsutawney	101	24	West Bingham	38	31	4.19	−0.30	Coatesville	10.29	Ridgway	1.10
Porto Rico	78.3	−0.5	Jayuya	97	3†	Albonito	52	12	4.48	−1.84	Rio Grande	20.84	Santa Isabel	0.77
South Carolina	80.0	+0.1	2 stations	107	25	Conway	53	22	5.16	−0.40	Rimini	9.90	Dillon	0.78
South Dakota	75.9	+4.1	Oelrichs	110	26	2 stations	39	17	2.13	−0.84	Fairfax	6.45	Hot Springs	0.43
Tennessee	79.4	+2.0	Wildersville	110	12	Erasmus	42	31	4.34	−0.45	Erasmus	8.95	Brownsville	0.29
Texas	84.4	+2.1	7 stations	110	19†	Mount Blanco	54	25	1.51	−1.57	Andrews	11.90	13 stations	0.00
Utah	70.1	−2.0	Lemay	110	27	Scofield	31	4	1.81	+1.27	Parowan	5.19	Low	0.00
Virginia	74.3	−0.9	Charlottesville	102	25	Burkes Garden	36	30†	4.27	−0.38	Blacksburg	9.60	Winchester	0.81
Washington	67.5	+1.3	Eltopia	111	18	2 stations	30	20	0.35	−0.47	Pomeroy	1.80	9 stations	0.00
West Virginia	73.1	−0.1	Point Pleasant	106	12	Bayard	38	31	4.11	−0.71	Elkins	7.74	Beckley	0.98
Wisconsin	71.6	+2.4	Grantsburg (2)	100	11†	Long Lake	38	29	3.29	−0.88	Florence	7.06	Neillsville	0.85
Wyoming	65.5	+1.6	Hyattsville	103	9	Norris, Y. N. P.	26	23	1.14	−0.23	Knowles	4.38	3 stations	0.00

† Other dates also.

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., seventy-fifth meridian time daily, 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

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.

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., seventy-fifth meridian time. Within each circle is also given (Chart II) the last three figures of the highest barometric reading and (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.—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 V.—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 VI.—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 REVIEW 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. observations, 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 VII.—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.—Depth of snow on ground at end of the month, expressed in inches and tenths.

Charts VII and VIII are published only when the general snow cover is sufficiently extensive to justify their preparation.

TABLE I.—*Climatological data for United States Weather Bureau stations, July, 1914.*

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.												Precipitation, inches.			Wind.									
	Barometer above sea level, feet.	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, per cent.	Total.	Departure from normal.	Days with 0.01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
New England.					✓		66.0	− 2.7										81	3.43	− 0.2										6.2		
Eastport	76	67	85	29.88	29.96	+ .03	60.1	+ 0.3	83	14	69	47	2	52	30	55	52	78	1.21	− 2.2	8	5,648	s.	28	e.	7	7	14	10	6.2		
Greenville	1,070	6		28.83	29.98		63.4		88	15	74	41	22	52	39				2.62		11											
Portland, Me.	103	82	117	29.88	30.00	+ .05	64.6	− 3.4	90	18	73	48	2	57	26	59	55	74	3.10	− 0.2	10	5,950	sw.	29	nw.	21	12	8	11	5.7		
Concord	288	70	79	29.68	29.98	+ .02	66.8	− 2.3	89	17	77	46	4	57	33				3.49	− 0.3	11	3,410	se.	34	nw.	21	8	12	11	5.9		
Burlington	404	11	48	29.55	29.98	+ .04	66.6	− 1.6	88	17	76	44	20	57	32				1.94	− 1.8	13	5,419	s.	25	sw.	17	4	18	9	5.9		
Northfield	876	12	60	29.06	30.00	+ .06	63.3	− 3.3	85	17	75	39	22	52	36	60	58	84	4.22	+ 0.5	14	4,081	s.	41	s.	17	4	14	13	6.4		
Boston	125	115	188	29.85	29.98	+ .02	68.6	− 2.7	90	18	76	51	3	61	24	63	60	78	2.64	− 0.7	10	6,435	sw.	34	nw.	21	8	13	10	5.6		
Nantucket	12	14	90	29.97	29.98	.00	64.6	− 2.9	81	26	70	51	4	59	18	61	60	91	3.25	+ 0.6	11	10,854	sw.	47	ne.	6	9	13	9	5.8		
Block Island	26	11	46	29.95	29.98	+ .01	65.2	− 2.9	82	18	71	53	4	60	17	62	61	89	4.27	+ 1.0	14	10,076	sw.	56	ne.	6	5	14	12	6.3		
Narragansett Pier		9					66.0	− 3.9	87	18	73	50	4	59	20				4.94		12		s.				13	7	11			
Providence	160	215	251	29.82	29.99	+ .02	68.0	− 5.4	87	18	76	51	3	60	24	62	58	76	2.81	− 0.7	11	7,875	sw.	48	nw.	21	5	14	12	6.6		
Hartford	159	122	140	29.81	29.97	.00	69.4	− 2.2	89	13	78	54	20	61	26	63	60	77	4.30	+ 0.2	14	4,785	s.	26	ne.	6	5	6	20	7.1		
New Haven	106	117	155	29.87	29.98	+ .01	69.4	− 2.5	89	18	77	54	1	62	23	63	60	78	6.51	+ 1.7	13	5,793	s.	39	n.	6	3	12	16	6.8		
Middle Atlantic States.							73.0	− 1.4										76	4.41	− 0.1										6.0		
Albany	97	102	115	29.87	29.97	+ .01	71.0	− 1.0	90	17	80	51	1	62	28	63	59	70	2.25	− 1.6	12	4,679	s.	25	nw.	21	9	13	9	5.2		
Binghamton	871	10	69	29.07	29.98	+ .01	69.4	− 0.5	89	9	79	48	1	60	30				3.98	+ 0.4	17	2,898	e.	24	n.	21	4	14	13	6.4		
New York	314	414	454	29.65	29.98	.00	71.1	− 2.4	90	23	78	54	7	64	24	63	60	73	5.13	+ 0.6	15	9,107	s.	88	nw.	23	5	7	19	7.3		
Harrisburg	374	94	104	29.60	29.99	+ .01	73.8	− 0.7	94	23	82	55	31	65	27	66	62	72	6.21	+ 2.3	13	4,146	e.	33	ne.	10	6	14	11	5.9		
Philadelphia	117	123	190	29.87	29.99	+ .01	74.0	− 1.8	96	23	81	58	31	67	27	67	64	75	7.75	+ 3.4	13	5,974	sw.	36	ne.	29	6	9	16	6.5		
Reading	325	81	98	29.64	29.98		73.3		95	23	82	54	30	65	30	66	62	74	4.21	0.0	17	4,058	se.	32	ne.	27	4	8	19	7.1		
Scranton	805	111	119	29.15	30.00	+ .02	70.4	− 1.4	89	17	80	49	20	61	31	66	64	84	6.71	+ 2.9	16	3,842	n.	36	sw.	27	3	18	10	6.2		
Atlantic City	52	37	48	29.94	29.99	+ .01	70.6	− 1.9	88	18	75	58	31	66	17	66	64	82	6.82	+ 3.0	16	5,282	sw.	27	s.	1	4	10	17	7.2		
Cape May	18	13	49	29.99	30.01	+ .03	71.6	− 1.8	93	18	78	56	30	66	20	67	65	84	1.94	− 1.8	15	5,107	s.	21	nw.	19	5	18	8	5.7		
Trenton	190	159	183	29.77	29.97		72.0		93	23	80	56	30	64	28	65	63	78	4.75	0.0	16	6,629	ne.	72	ne.	27	6	8	17	7.1		
Baltimore	123	100	113	29.86	29.98	.00	76.3	− 1.0	99	23	84	57	31	68	27	68	63	67	2.55	− 2.3	11	4,799	s.	24	n.	11	6	17	8	5.7		
Washington	112	62	85	29.86	29.98	− .02	75.9	− 0.9	98	23	85	56	30	67	27	68	65	73	2.32	− 2.3	12	3,877	s.	32	nw.	28	7	12	12	5.9		
Lynchburg	681	153	188	29.26	29.99	− .02	76.0	− 1.3	98	12	87	50	31	65	31	68	65	74	4.53	+ 0.5	13	4,086	w.	40	nw.	1	13	13	5	5.1		
Mount Weather	1,725	10	75	28.21	29.97	− .02	70.2	− 1.2	90	23	78	50	30	63	22	64	60	77	4.31	− 0.4	12	8,712	nw.	40	nw.	28	6	12	13	6.5		
Norfolk	91	170	205	29.91	30.00	.00	76.7	− 1.7	93	24	84	59	30	69	23	71	68	79	3.91	− 1.9	17	7,911	sw.	58	w.	15	6	17	8	5.7		
Richmond	144	11	52	29.85	30.00	− .01	76.9	− 2.3	98	25	87	57	31	67	29	69	65	74	3.00	− 1.4	13	4,854	s.	27	e.	11	9	18	4	4.8		
Wytheville	2,293	40	47	27.70	30.00	.00	72.0	− 0.6	92	12	84	43	31	60	34	65	63	81	4.65	+ 0.2	11	2,999	w.	27	sw.	9	15	14	2	3.2		
South Atlantic States.							79.1	+ 0.1										75	4.56	− 1.5										5.1		
Asheville	2,255	70	84	27.75	30.03	+ .01	72.3	+ 0.6	90	13	83	53	31	61	31	64	61	77	3.31	− 1.6	11	3,997	nw.	35	s.	13	11	15	5	4.5		
Charlotte	773	68	76	29.20	30.02	.00	78.4	− 0.3	100	26	88	56	31	68	28	69	65	70	4.83	− 0.7	14	4,054	sw.	35	w.	14	8	18	5	5.1		
Hatteras	11	12	50	29.99	30.00	− .01	77.6	− 1.0	92	25	83	65	7	72	18	73	71	82	2.88	− 3.2	11	9,229	sw.	40	nw.	13	17	10	4	4.0		
Manteo	12	12	46				77.8		96	28	87	55	21	69					2.82		8		sw.				16	10	5			
Raleigh	376	103	110	29.60	29.99	− .03	78.4	− 0.1	100	26	88	55	31	68	28	69	65	70	7.29	+ 1.2	10	4,910	ne.	37	nw.	14	13	14	4	4.3		
Wilmington	78	81	91	29.93	30.01	.00	79.4	+ 0.7	99	25	88	60	31	71	27	72	70	78	2.38	− 4.6	7	5,552	sw.	28	sw.	16	9	21	1	4.6		
Charleston	48	11	92	29.97	30.02	− .01	81.0	− 0.3	96	25	88	69	30	74	19	73	70	74	7.14	− 0.1	9	7,102	sw.	38	s.	3	11	14	6	4.8		
Columbia, S. C.	351	41	57	29.64	30.01	− .01	80.2	− 0.9	102	26	90	61	31	70	30	71	68	74	4.41	− 1.6	13	4,512	s.	59	sw.	9	12	17	2	4.4		
Augusta	180	89	97	29.82	30.01	− .01	80.8	+ 0.3	102	26	91	64	31	71	32	71	68	73	6.39	+ 1.1	15	3,982	se.	50	n.	26	3	18	10	6.0		
Savannah	65	150	194	29.96	30.03	.00	81.0	+ 0.5	100	25	90	69	10	72	26	73	71	78	1.85	− 4.3	12	7,330	sw.	38	s.	26	3	20	8	5.9		
Jacksonville	43	96	129	29.99	30.04	+ .01	82.0	+ 1.1	99	25	90	69	31	74	24	74	71	78	5.13	− 1.1	12	6,276	sw.	32	w.	26	0	18	13	7.1		
Florida Peninsula.							81.7	− 0.2										75	4.24	− 2.2										5.3		
Key West	22	10	64	30.01	30.03	.00	83.6	− 0.1	91	21	89	74	25	78	15	76	73	71	1.99	− 1.6	12	5,159	se.	31	sw.	8	15	13	3	4.4		
Miami	25	37	72	30.03	30.06		81.2	− 0.7	92	5	88	70	31	74	19	75	73	76	4.52	− 2.7	15	4,321	se.	27	w.	30	3	13	15	7.2		
Sand Key	23	39	72	29.99	30.02	− .01	83.0		90	17	86	72	6	80	13	77	74	75	2.56		6	6,350	se.	37	sw.	8	15	13	3	4.0		
Tampa	35	79	96	30.01	30.04	.00	81.0	+ 1.0	92	13	89	68	10	73	21	75	72	77	6.21	− 2.2	16	4,086	ne.	28	ne.	14	3	22	6	6.6		
Titusville	44	6					80.9	− 1.2	100	15	91	65	12	71	28				3.03		9						11	17	2	4.5		
East Gulf States.							81.3	+ 1.0										76	4.86	− 0.5										5.6		
Atlanta	1,174	190	216	28.83	30.04	+ .02	79.1	+ 1.5	95	12	88	64	8	70	28	70	67	72	3.66	− 1.1	13	6,136	w.	48	nw.	28	9	12	10	5.6		
Macon	370	78	87	29.62	30.01	− .01	81.0	+ 1.3	99	25	91	65	23	71	28	72	69	72	5.68	+ 1.0	10	3,868	s.	36	n.	3	8	17	6	5.3		
Thomasville	273	8	57	29.74	30.03	.00	81.8	0.0	100	26	92	65	31	71	26	73	72	82	6.20	+ 0.9	14	3,348	sw.	23	sw.	27	7	17	7	5.7		
Pensacola	56	140	182	29.97	30.03	+ .02	81.6	+ 0.2	95	5	87	69	23	76	21	75	74	80	2.82	− 4.4	12	8,519	sw.	42	ne.	28	4	13	14	6.8		
Anniston	741	9	57	29.26	30.04	+ .02	79.6	+ 1.7	96	1	91	60	30	68	31				5.37	+ 0.6	11	3,178	se.	40	nw.	17	12	13	6	4.8		
Birmingham	700	11	48	29.28	30.03	+ .02	80.8	− 0.7	95	1	91	64	30	70	30	70	67	70	3.91	− 0.8	9	4,032	s.	39	nw.	2	10	17	4	4.8		
Mobile	57	125	161	29.96	30.02	+ .01	81.8	+ 1.3	97	6	90	69	15	74	25	75	73	78	5.17	− 1.9	11	6,127	sw.	38	n.	27	4	23	4	5.6		
Montgomery	223	100	112	29.78	30.02	.00	82.6	+ 1.6	98	26	92	69	7	73	26	72	68	69	2.26	− 2.4	9	4,172	sw.	27	nw.	27	10	17	4	4.6		
Meridian	375	85	93	29.62	30.00	− .02	81.2	+ 1.2	98	7	91	64	31	71	30	72	69	74	4.34	− 0.2	13	3,397	sw.	32	w.	3	3	11	17	7.2		
Vicksburg	247	62	74	29.75	30.02	+ .02	81.8	+ 1.4	95	3	90	69	10	73	23	74	72	79	4.88	+ 0.5	12	4,112	sw.	30	w.	2	9	13	9	5.2		
New Orleans	51	90	121	29.96	30.01	+ .01	82.6	+ 1.3	96	1	90	70	18	75	22	76	74	82	9.18	+ 2.7	19	5,293	sw.	39	n.	18	4	19	8	6.2		
West Gulf States.							84.0	+ 2.1										68	1.80	− 1.4										4.1		
Shreveport	249	77	93	29.73	29.99	+ .01	85.5	+ 3.4	103	14	96	70	23	75	27	74	70	67	0.84	− 2.9	7	4,520	se.	24	se.	22	16	13	2	3.9		
Bentonville	1,303	11	44	28.66	29.99	+ .02	78.6	+ 0.1	98	15	88	60	19	70	25				7.51	+ 3.2	9	1,704	se.	14	n.	7	17	9	5	4.1		
Fort Smith	457	79	94	29.49	29.96	− .01	83.9	+ 2.9	105	15	94	65	31	74	28	72	67	63	2.65	− 1.2	10	4,620	e.	39	s.	4	11	13	7	5.3		
Little Rock	357	139	147	29.62	29.98	− .01	82.7	+ 2.1	101	14	92	67	31	74	24	72	68	67	3.71	− 0.3	11	4,940	sw.	42	n.	4	2	24	5	5.8		
Brownsville	57	3	40				85.0		98	19	94	72	13	76	23				T.		0		s.									
Corpus Christi	20	69	77	29.98	30.00	+ .04	82.8	+ 0.1	95	19	88	72	12	77	19	77	76	83	0.91	− 0.8	2	10,927	se.	42	se.	16	17	14	0	3.7		
Dallas	512	109	117	29.44	29.97		87.4		102	30	98	71	24	77	25				1.00		3	5,985	se.	31	sw.	25	12	18	1	4.1		
Fort Worth	670	106	114	29.24	29.93	− .03	86.6	+ 2.9	106	31	98	69	24	75	30	72	65	54	0.73	− 2.3	2	6,555	s.	50	e.	24	12	17	2	4.1		
Galveston	54	106	114	29.97	30.03	+ .05	83.0	0.0	94	7	88	74	11	79	18	77	75	82	1.29	− 2.7	6	6,470	s.	25	se.	9	15	12	4	4.0		
Houston	138	111	121	29.87	30.01		84.8	+ 1.8	102	30	94	70	22	75	27				1.77		5	5,006	s.	33	e.	22	12	15	4	4.8		
Palestine	510	64	72	29.45	29.97	.00	85.3	+ 3.8	100	7	96	70	25	75	25	74	69	65	0.17	− 2.8	1	4,737	sw.	21	se.	22	22	9	0	3.2		
San Antonio	701	80	91	29.26	29.97	+ .02	85.6	+ 3.2	102	8	97	71	20	74	28	73	67	63	0.02	− 2.2	2	5,952	s.	30	se.	9	18	13	0	3.1		
Taylor	582	55	63	29.41	30.02	+ .00	85.0	+ 2.3	101	7	96	72	4	74	28				0.21	− 2.4	1	6,470	s.	27	se.	12	17	14	0	3.6		

TABLE I.—*Climatological data for United States Weather Bureau stations, July, 1914*—Continued.

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.												Precipitation, inches.			Wind.										
	Barometer above sea level, feet.	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, per cent.	Total.	Departure from normal.	Days with 0.01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
Ohio Valley and Tennessee.							**78.0**	**+ 1.2**										**62**	**3.02**	**− 1.0**										**4.5**		
Chattanooga	762	189	213	29.24	30.03	+ .01	79.6	+ 1.8	97	11	90	63	31	69	30	69	64	66	6.91	+ 3.0	9	5,238	ne.	47	nw.	14	12	12	7	4.9	....	....
Knoxville	996	93	100	28.99	30.02	.00	77.4	+ 1.2	98	12	88	59	31	66	29	68	64	68	7.11	+ 2.9	11	3,230	sw.	37	nw.	14	12	6	13	5.5	....	....
Memphis	399	76	97	29.60	30.02	+ .02	83.2	+ 2.5	98	11	92	66	30	74	28	73	68	66	0.58	− 2.9	7	5,401	sw.	40	sw.	15	11	12	8	5.0	....	....
Nashville	546	168	191	29.44	30.01	.00	81.4	+ 2.0	102	12	92	61	31	71	32	68	62	59	2.58	− 1.8	10	5,670	se.	48	nw.	1	13	11	7	4.3	....	....
Lexington	989	75	102	28.96	30.00	− .01	77.6	+ 1.0	100	12	88	57	19	67	29	....	....	....	2.63	− 1.8	8	5,797	s.	34	nw.	26	14	10	7	3.9	....	....
Louisville	525	219	255	29.44	30.01	+ .01	80.4	+ 1.8	102	12	91	58	19	70	32	67	60	55	2.59	− 1.2	7	6,674	n.	52	se.	10	16	9	6	3.8	....	....
Evansville	431	72	82	29.53	29.99	− .01	82.2	+ 2.9	102	12	93	60	19	72	28	68	61	55	1.41	− 2.4	4	3,989	ne.	39	n.	17	17	9	5	3.8	....	....
Indianapolis	832	154	164	29.13	30.00	+ .01	78.5	+ 2.3	100	13	90	55	19	68	29	65	58	54	0.49	− 3.6	4	4,774	sw.	31	sw.	13	11	18	2	4.3	....	....
Terra Haute	575	96	139	29.38	29.98	.....	80.0	.....	101	13	92	57	19	68	33	66	59	53	1.12	.....	7	5,106	sw.	45	e.	16	11	18	2	4.6	....	....
Cincinnati	628	152	160	29.33	30.00	.00	79.2	+ 1.5	103	12	90	58	19	69	32	67	61	59	3.00	− 0.5	8	4,063	n.	37	sw.	16	10	17	4	4.9	....	....
Columbus	824	173	232	29.14	29.99	− .01	75.9	+ 0.6	100	12	87	53	19	65	31	66	61	63	1.64	− 2.0	7	6,137	nw.	40	nw.	13	19	6	6	3.6	....	....
Dayton	899	181	216	29.05	29.97	.....	76.4	+ 0.2	101	12	88	53	19	65	31	66	60	63	1.72	− 1.6	6	5,663	n.	47	nw.	13	15	11	5	3.9	....	....
Pittsburgh	842	353	410	29.10	29.99	− .01	74.0	− 0.6	94	12	84	55	31	64	29	65	60	64	1.89	− 2.5	9	5,954	nw.	54	nw.	12	10	14	7	4.7	....	....
Elkins	1,940	41	50	28.02	30.01	.00	69.8	− 0.7	93	12	82	43	31	57	35	62	60	79	7.74	+ 3.1	10	2,189	w.	26	nw.	24	9	13	9	5.6	....	....
Parkersburg	638	77	84	29.36	30.01	.00	76.0	+ 0.5	100	12	87	53	31	65	37	66	61	64	2.13	− 2.5	5	3,529	n.	27	nw.	13	16	12	3	4.2	....	....
Lower Lake Region.							**71.2**	**− 0.5**										**69**	**1.53**	**− 1.9**										**4.5**		
Buffalo	767	247	280	29.17	29.98	+ .01	70.0	− 0.2	86	9	77	51	19	63	26	64	61	74	1.30	− 2.1	11	8,598	sw.	42	sw.	21	6	18	7	5.5	....	....
Canton	448	10	61	29.51	29.98	.....	66.6	− 3.9	90	15	78	39	22	55	39	....	....	....	2.38	− 0.8	11	5,255	ne.	31	sw.	17	18	10	3	3.2	....	....
Oswego	335	76	91	29.61	29.98	+ .02	68.0	− 1.6	88	17	75	53	1	61	22	62	59	71	1.15	− 2.1	7	5,053	w.	27	ne.	28	16	4	11	4.8	....	....
Rochester	523	97	113	29.44	30.00	+ .03	71.1	+ 0.7	90	11	80	54	20	63	25	62	57	64	0.91	− 2.2	8	4,775	ne.	30	nw.	21	15	7	9	4.8	....	....
Syracuse	597	97	113	29.36	30.00	+ .03	69.8	− 1.0	88	9	78	53	22	61	28	63	59	72	2.64	− 1.0	12	5,642	s.	38	nw.	17	8	17	6	5.3	....	....
Erie	714	92	102	29.24	29.99	+ .01	70.8	− 1.0	86	23	78	56	31	64	20	64	60	69	1.33	− 1.9	6	5,663	w.	28	n.	12	7	18	6	5.2	....	....
Cleveland	762	190	201	29.19	30.00	+ .01	71.8	− 0.7	90	22	78	56	31	65	25	65	61	69	1.00	− 2.6	8	7,239	se.	33	nw.	23	11	15	5	4.4	....	....
Sandusky	629	62	103	29.32	29.99	.00	73.6	0.0	93	22	81	58	4	66	25	66	61	67	1.55	− 2.2	6	6,500	ne.	33	n.	28	9	16	6	4.6	....	....
Toledo	628	208	246	29.33	30.00	+ .01	74.3	+ 0.6	97	22	84	52	19	65	28	65	61	65	1.25	− 2.0	5	7,759	n.	37	nw.	23	17	10	4	3.4	....	....
Fort Wayne	856	113	124	29.09	30.00	.....	75.0	+ 1.5	97	12	86	51	19	64	32	67	63	68	3.17	.....	6	4,626	ne.	52	nw.	24	16	11	4	4.0	....	....
Detroit	730	218	245	29.23	30.00	+ .02	72.6	+ 0.6	93	11	82	53	29	63	27	64	59	67	1.80	− 1.7	5	6,473	e.	34	ne.	28	12	14	5	4.8	....	....
Upper Lake Region.							**69.2**	**+ 1.2**										**74**	**2.56**	**− 0.6**										**4.2**		
Alpena	609	13	92	29.36	30.02	+ .05	66.1	+ 0.3	88	25	75	45	19	57	37	62	58	77	1.01	− 2.0	9	6,487	se.	31	se.	3	9	19	3	4.5	....	....
Escanaba	612	54	60	29.35	30.00	+ .03	67.4	+ 0.9	87	16	75	49	2	60	23	63	60	79	5.96	+ 2.6	12	5,912	s.	31	ne.	27	14	10	7	4.4	....	....
Grand Haven	632	54	92	29.32	29.99	+ .01	70.2	+ 0.5	90	22	78	52	29	62	24	64	60	71	1.32	− 1.3	7	5,428	w.	29	nw.	27	17	10	4	3.2	....	....
Grand Rapids	707	70	87	29.24	29.99	+ .01	73.8	+ 1.2	95	22	84	53	29	64	29	65	60	63	1.18	− 1.4	5	3,326	w.	21	w.	17	12	14	5	4.3	....	....
Houghton	684	62	72	29.26	29.98	+ .02	66.4	+ 1.1	90	6	77	48	8	56	36	....	....	....	3.00	− 0.1	9	5,301	se.	34	n.	26	21	4	6	3.3	....	....
Lansing	878	11	62	29.07	29.99	.....	71.0	− 0.1	95	22	83	46	30	59	35	65	61	74	1.65	− 1.6	5	2,585	ne.	18	se.	13	13	12	6	4.4	....	....
Ludington	637	60	66	29.32	30.00	.....	67.5	.....	86	22	75	50	2	60	22	63	60	76	4.40	.....	7	5,181	s.	28	n.	12	17	9	5	3.7	....	....
Marquette	734	77	111	29.22	30.02	+ .06	66.4	+ 1.5	94	6	76	45	18	57	36	60	57	75	3.45	+ 0.4	11	5,194	e.	36	nw.	26	12	10	9	4.9	....	....
Port Huron	638	70	120	29.31	30.00	+ .02	69.2	+ 0.2	90	26	78	50	19	60	32	63	60	76	2.36	− 0.4	8	5,787	ne.	36	nw.	13	13	12	6	4.4	....	....
Saginaw	641	48	82	29.32	30.01	.....	70.8	.....	95	22	81	50	29	60	31	65	62	74	3.40	− 0.3	8	4,226	nw.	22	w.	17	13	10	8	4.5	....	....
Sault Sainte Marie	614	11	61	29.33	30.02	+ .05	65.2	+ 3.3	88	16	76	45	19	54	33	59	56	74	1.46	− 1.3	7	4,762	w.	27	nw.	18	12	13	6	4.6	....	....
Chicago	823	140	310	29.14	30.01	+ .03	75.0	+ 2.6	99	23	81	59	19	69	28	67	62	69	2.11	− 1.5	5	6,859	ne.	39	sw.	16	15	16	0	3.2	....	....
Green Bay	617	109	144	29.33	29.98	+ .01	72.4	+ 2.9	92	21	82	53	18	63	26	66	63	74	4.95	+ 1.4	11	6,700	s.	46	ne.	27	9	13	9	5.6	....	....
Milwaukee	681	119	133	29.28	30.01	+ .04	72.1	+ 2.4	93	22	80	58	9	65	25	65	61	71	1.03	− 2.0	7	5,510	se.	25	nw.	27	14	14	3	3.9	....	....
Duluth	1,133	11	47	28.80	30.00	+ .05	65.4	− 0.6	87	25	75	45	18	56	31	62	60	84	2.99	− 0.7	8	6,940	ne.	40	nw.	25	11	15	5	4.4	....	....
North Dakota.							**72.8**	**+ 3.8**										**68**	**2.41**	**− 0.5**										**3.0**		
Moorhead	940	8	57	28.98	29.97	+ .03	73.1	+ 4.4	95	27	85	51	23	61	36	67	64	75	3.65	− 0.1	9	5,069	se.	28	nw.	25	27	2	2	1.5	....	....
Bismarck	1,674	8	57	28.22	29.97	+ .04	73.3	+ 3.1	98	26	86	49	19	60	37	64	60	67	2.04	− 0.1	10	6,358	se.	39	sw.	26	22	6	3	2.7	....	....
Devils Lake	1,482	11	44	28.38	29.92	− .01	71.8	+ 3.7	96	27	84	48	17	60	33	64	60	69	1.63	− 2.2	7	6,778	s.	34	w.	16	17	10	4	3.7	....	....
Williston	1,872	40	47	27.97	29.90	− .02	73.2	+ 3.8	98	27	87	46	17	60	40	62	57	61	2.32	+ 0.3	6	4,798	se.	39	nw.	15	13	14	4	4.0	....	....
Upper Mississippi Valley.							**78.3**	**+ 2.9**										**63**	**1.33**	**− 2.3**										**4.1**		
Minneapolis	918	10	208	.....	.....	.....	75.1	.....	96	26	85	54	18	66	28	....	....	....	1.17	− 2.6	5	6,972	s.	27	w.	12	14	10	7	4.4	....	....
St. Paul	837	201	236	29.09	29.97	+ .02	74.6	+ 2.5	95	26	84	53	18	65	30	66	62	66	0.95	− 2.4	4	7,112	se.	36	nw.	12	14	15	2	4.0	....	....
La Crosse	714	11	48	29.24	29.99	+ .03	74.8	+ 2.2	93	11	84	55	18	65	27	....	....	....	2.39	− 1.7	8	2,980	s.	24	s.	12	10	13	8	4.8	....	....
Madison	974	70	78	28.99	30.01	+ .04	73.8	+ 1.4	92	11	83	55	30	65	26	66	62	68	1.49	− 2.5	8	5,027	sw.	32	ne.	27	13	13	5	4.7	....	....
Charles City	1,015	10	49	28.95	30.00	+ .04	74.8	+ 1.3	98	11	87	49	18	63	33	68	64	72	2.30	− 1.3	3	3,552	se.	20	ne.	27	19	11	1	3.5	....	....
Davenport	606	71	79	29.34	29.99	+ .02	78.6	+ 3.2	100	11	90	55	18	68	27	68	63	62	0.44	− 3.1	5	4,273	e.	33	n.	16	15	12	4	4.1	....	....
Des Moines	861	84	97	29.08	29.96	.00	78.6	+ 3.1	101	12	90	56	18	68	29	68	64	64	1.22	− 2.6	4	3,992	e.	27	nw.	16	12	14	5	4.3	....	....
Dubuque	698	81	96	29.28	30.01	+ .04	76.4	+ 1.7	97	11	86	56	18	66	28	68	63	67	1.57	− 2.7	6	3,691	s.	26	n.	16	15	13	3	4.0	....	....
Keokuk	614	64	78	29.34	30.00	+ .02	80.4	+ 3.4	102	11	92	59	18	69	29	70	65	64	2.09	− 1.9	9	4,123	ne.	29	n.	16	14	17	0	3.5	....	....
Cairo	356	87	93	29.60	29.97	− .03	83.2	+ 4.6	101	12	93	64	19	73	28	70	65	60	0.35	− 3.1	3	4,680	s.	28	ne.	10	14	10	7	4.5	....	....
Peoria	609	11	45	29.35	30.01	+ .03	78.8	+ 3.4	102	23	91	54	19	66	36	67	62	62	0.82	− 2.2	4	3,443	ne.	34	w.	16	19	10	2	3.2	....	....
Springfield, Ill	644	10	91	29.32	29.99	+ .01	81.0	+ 4.5	104	16	93	59	30	70	31	67	61	55	1.39	− 1.5	6	4,457	ne.	32	nw.	16	11	15	5	4.6	....	....
Hannibal	34	74	109	29.43	29.99	+ .01	80.0	+ 2.6	101	11	91	56	19	69	32	....	....	....	0.87	− 2.9	7	4,850	sw.	35	sw.	16	19	9	3	3.7	....	....
St. Louis	567	265	303	29.38	29.98	− .01	83.1	+ 4.0	102	11	93	65	30	74	26	69	62	52	1.52	− 1.9	7	6,625	nw.	32	sw.	16	20	8	3	3.8	....	....
Missouri Valley.							**78.7**	**+ 2.9**										**62**	**2.20**	**− 1.6**										**3.9**		
Columbia, Mo.	781	11	84	29.18	29.99	+ .01	80.0	+ 2.6	100	16	91	59	20	69	32	....	....	....	1.70	− 2.0	8	3,808	s.	24	sw.	16	9	12	10	6.0	....	....
Kansas City	963	161	181	28.97	29.97	.00	80.8	+ 3.2	101	16	89	62	31	72	26	70	65	62	2.81	− 2.0	7	6,994	s.	36	se.	21	12	15	4	4.4	....	....
St. Joseph	967	11	49	28.97	29.97	.....	80.8	.....	102	16	91	60	20	70	31	70	65	66	1.38	.....	7	4,415	se.	32	nw.	12	16	12	3	3.9	....	....
Springfield, Mo.	1,324	98	104	28.63	30.00	+ .02	78.8	+ 2.4	97	15	86	64	21	71	24	69	64	64	3.35	− 1.4	10	5,307	se.	29	nw.	1	16	8	7	4.0	....	....
Iola	984	11	50	28.95	29.96	+ .01	80.4	+ 2.3	101	15	91	58	2	70	28	....	....	....	3.75	− 0.2	9	3,798	se.	24	n.	31	14	12	5	3.9	....	....
Topeka	983	85	101	.....	.....	.....	80.2	+ 2.6	102	16	90	62	2	70	32	....	....	....	2.27	− 2.6	8	5,564	s.	50	nw.	16	13	15	3	4.2	....	....
Lincoln	1,189	11	84	28.73	29.96	+ .01	79.2	+ 2.8	103	12	91	58	18	67	32	68	64	66	4.84	+ 1.0	8	5,517	s.	38	sw.	25	14	13	4	3.8	....	....
Omaha	1,105	115	121	28.82	29.97	+ .02	79.4	+ 2.9	100	12	89	60	31	70	25	69	64	63	1.09	− 3.2	3	4,615	se.	32	n.	16	18	9	4	3.6	....	....
Valentine	2,598	47	54	27.33	29.99	+ .06	75.9	+ 2.7	98	9	90	49	17	62	36	63	55	57	1.43	− 2.0	9	6,766	s.	36	sw.	8	23	7	1	2.8	....	....
Sioux City	1,135	94	164	28.78	29.96	+ .01	77.4	+ 3.2	99	11	88	57	2	66	31	68	63	63	1.16	− 2.4	5	7,204	s.	35	n.	16	14	14	3	3.8	....	....
Huron	1,306	59	74	28.61	29.97	+ .03	75.8	+ 4.3	101	26	88	52	18	63	38	66	60	64	0.96	− 2.0	3	7,116	se.	37	nw.	5	22	7	2	2.9	....	....
Pierce	1,572	70	75	28.34	29.96	+ .03	78.7	+ 3.5	102	26	91	54	19	66	34	65	57	53	1.53	− 0.8	6	6,834	se.	36	nw.	29	19	12	0	3.0	....	....
Yankton	1,233	49	57	28.67	29.96	+ .02	77.4	+ 2.8	101	11	89	58	17	66	30	....	....	....	1.51	− 2.0	7	4,837	nw.	26	se.	3	13	14	4	4.5	....	....

TABLE I.—*Climatological data for United States Weather Bureau stations, July, 1914*—Continued.

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.												Precipitation, inches.			Wind										
	Barometer above sea level, feet.	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, per cent.	Total.	Departure from normal.	Days with 0.01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
Northern Slope.							70.5	+ 2.4										53	0.78	− 0.8										3.9		
Havre	2,505	11	44	27.32	29.89	− .02	72.0	+ 3.9	99	27	88	42	17	56	44	58	50	55	0.41	− 1.5	5	5,110	w.	43	w.	6	21	8	2	2.9	.....	....
Helena	4,110	87	114	25.85	29.96	+ .03	69.5	+ 2.9	93	19	84	48	1	55	37	54	45	49	0.21	− 0.9	8	6,179	s.	44	s.	13	14	13	4	3.8	.....	....
Kalispell	2,962	11	34	26.93	29.92	− .01	66.7	+ 2.4	97	30	83	42	21	50	45	54	45	53	0.69	− 0.2	7	3,491	w.	24	sw.	13	19	11	1	3.2	.....	....
Miles City	2,371	26	48	27.46	29.94	+ .02	78.1	+ 5.2	104	27	93	50	17	63	44	63	53	49	0.78	− 0.6	6	3,737	s.	30	nw.	14	15	16	0	3.4	.....	....
Rapid City	3,259	50	58	26.65	29.98	+ .05	74.2	+ 4.0	98	26	88	53	1	60	40	60	51	49	2.17	− 0.4	9	6,155	w.	42	w.	14	10	17	4	4.2	.....	....
Cheyenne	6,088	84	101	24.15	29.99	+ .07	66.6	− 0.8	86	26	79	43	1	54	35	54	47	57	1.30	− 0.7	14	7,190	s.	38	se.	28	4	19	8	6.1	.....	....
Lander	5,372	60	68	24.75	29.98	+ .06	69.2	+ 1.2	93	13	86	43	1	53	42	53	42	45	0.50	− 0.4	7	3,853	sw.	36	s.	9	10	20	1	4.9	.....	....
Sheridan	3,790	10	47	26.16	29.98	.....	70.4	.....	96	20	87	42	1	54	47	58	49	52	0.13	.....	5	3,820	se.	31	se.	22	20	7	4	3.4	.....	....
Yellowstone Park	6,200	11	48	24.02	30.02	+ .10	62.0	+ 0.5	84	12	77	38	17	47	40	50	42	57	0.36	− 0.8	6	5,461	s.	34	nw.	24	13	13	5	4.2	.....	....
North Platte	2,821	11	51	27.14	30.00	+ .07	76.0	+ 2.1	100	11	90	49	1	63	34	65	60	66	0.58	− 2.1	6	4,489	s.	27	ne.	16	22	7	2	2.8	.....	....
Middle Slope.							79.1	+ 2.3										60	1.52	− 1.4										4.5		
Denver	5,291	129	172	24.85	30.00	+ .09	73.2	+ 0.4	94	8	84	50	22	60	34	58	52	58	1.49	− 0.1	13	5,095	sw.	34	n.	1	5	21	5	5.2	.....	....
Pueblo	4,685	80	86	25.39	29.98	+ .07	73.2	− 1.0	93	14	86	49	1	61	34	60	55	63	3.92	+ 2.0	11	4,373	nw.	34	nw.	12	11	15	5	4.5	.....	....
Concordia	1,398	42	50	28.53	29.96	+ .01	82.1	+ 4.0	110	15	95	59	2	70	38	69	64	61	1.13	− 2.5	7	4,385	se.	25	se.	28	2	22	7	5.9	.....	....
Dodge	2,509	11	51	27.41	29.94	+ .01	79.3	+ 1.6	102	15	91	57	8	67	32	67	62	63	0.36	− 3.0	7	5,751	s.	29	ne.	16	16	12	3	3.7	.....	....
Wichita	1,358	139	158	28.54	29.93	− .03	82.4	+ 3.4	103	15	92	62	19	72	27	69	64	61	1.60	− 2.0	7	7,872	s.	36	s.	28	19	6	6	3.8	.....	....
Oklahoma	1,214	10	47	28.70	29.95	− .01	85.2	+ 5.4	106	31	97	66	2	73	31	70	64	57	0.62	− 3.0	5	8,162	s.	34	nw.	17	14	15	2	4.1	.....	....
Southern Slope.							80.8	+ 0.4										60	3.06	+ 0.2										3.3		
Abilene	1,738	10	52	28.19	29.94	+ .01	84.0	+ 1.8	104	31	96	68	23	72	30	69	61	54	1.05	− 1.4	5	6,117	s.	34	e.	23	14	13	4	3.7	.....	....
Amarillo	3,676	10	49	26.33	29.98	+ .06	77.8	+ 1.7	97	31	90	60	2	66	30	65	60	64	3.07	− 0.1	8	6,023	s.	40	sw.	20	19	12	0	3.5	.....	....
Del Rio	944	64	71	28.96	29.93	+ .03	84.2	− 0.5	99	31	95	67	2	74	28	.....	.....	.....	6.17	+ 3.9	3	6,059	se.	30	se.	2	26	5	0	1.9	.....	....
Roswell	3,566	75	85	26.40	29.94	+ .06	77.4	− 1.5	94	31	89	61	2	66	30	64	58	62	1.97	− 1.5	7	4,735	s.	34	se.	28	13	16	2	4.2	.....	....
Southern Plateau.							77.1	− 1.9										50	1.85	− 0.6										4.3		
El Paso	3,762	110	133	26.22	29.89	+ .05	78.0	− 2.5	95	31	89	64	17	67	27	64	58	59	4.91	+ 2.8	16	6,645	e.	39	s.	23	12	16	3	4.4	.....	....
Santa Fe	7,013	57	62	23.40	29.93	+ .05	67.0	− 1.7	86	31	77	53	24	57	26	56	51	64	3.98	+ 1.3	17	4,326	se.	34	s.	17	1	23	7	6.1	.....	....
Flagstaff	6,908	8	57	.....	.....	.....	62.7	− 2.3	83	7	74	41	22	51	38	.....	.....	.....	4.48	.....	20	.....	nw.	31	s.	12	1	18	12	6.6	.....	....
Phoenix	1,108	76	81	28.70	29.81	+ .03	88.8	− 1.6	108	8	100	72	16	77	32	69	58	40	0.21	− 0.9	6	4,139	e.	34	ne.	29	13	13	5	4.5	.....	....
Yuma	141	9	58	29.65	29.79	+ .03	91.6	+ 0.7	112	7	107	70	5	77	41	72	64	46	T.	− 0.1	0	4,239	sw.	30	n.	15	28	3	0	0.9	.....	....
Independence	3,910	11	42	25.99	29.90	+ .07	74.4	− 4.1	96	1	90	53	28	58	39	57	45	42	0.16	0.0	3	4,400	se.	32	se.	12	18	12	1	3.1	.....	....
Middle Plateau.							71.4	− 0.7										46	1.05	+ 0.4										4.4		
Reno	4,532	74	81	25.51	29.92	+ .05	70.6	+ 3.1	94	31	88	49	4	53	41	51	37	37	T.	− 0.1	0	5,198	w.	31	w.	20	25	5	1	2.1	.....	....
Tonopah	6,090	12	20	24.14	29.93	.....	72.0	.....	90	1	83	48	21	61	27	52	34	31	0.59	+ 0.3	7	6,449	se.	30	nw.	20	16	13	2	4.3	.....	....
Winnemucca	4,344	18	56	25.63	29.94	+ .04	72.0	+ 0.4	96	19	90	46	9	54	46	52	37	36	0.19	0.0	3	3,889	sw.	26	s.	27	18	12	1	3.0	.....	....
Modena	5,479	10	43	24.70	29.94	+ .08	69.0	− 0.7	90	8	83	45	22	55	40	54	44	52	1.50	+ 0.2	10	6,889	sw.	43	s.	21	9	13	9	5.6	T.	....
Salt Lake City	4,360	147	189	25.66	29.94	+ .04	75.2	− 1.0	96	8	86	56	23	64	31	60	52	50	1.20	+ 0.7	8	5,147	se.	39	nw.	20	10	14	7	4.9	.....	....
Durango	6,546	18	56	23.79	29.97	+ .08	66.5	− 2.2	90	12	81	45	23	52	40	55	51	69	3.03	+ 1.5	16	3,429	nw.	24	ne.	25	6	17	8	5.5	.....	....
Grand Junction	4,602	82	96	25.44	29.97	+ .08	75.4	− 3.8	95	8	87	57	22	64	32	59	51	49	0.86	+ 0.4	12	5,350	se.	40	se.	3	11	12	8	5.1	.....	....
Northern Plateau.							73.7	+ 2.8										42	0.89	+ 0.4										3.3		
Baker	3,471	48	53	26.48	29.99	+ .04	68.0	+ 3.0	96	30	84	37	21	52	40	53	42	47	0.71	+ 0.3	3	4,497	nw.	23	sw.	4	19	12	0	2.6	.....	....
Boise	2,739	78	86	27.14	29.93	.00	75.2	+ 2.4	98	19	90	43	21	60	37	57	43	39	1.04	+ 0.9	4	3,984	nw.	32	se.	11	18	7	6	3.3	.....	....
Lewiston	757	40	48	29.14	29.93	− .02	77.8	+ 4.2	106	30	94	49	21	62	42	.....	.....	.....	0.43	0.0	3	2,918	e.	26	nw.	20	16	14	1	2.9	.....	....
Pocatello	4,477	46	54	25.52	29.94	+ .02	71.6	+ 0.4	93	19	86	47	22	58	38	55	44	45	1.78	+ 1.2	11	5,344	se.	33	s.	24	9	15	7	5.0	.....	....
Spokane	1,929	101	110	27.94	29.94	− .02	72.6	+ 3.8	99	30	87	48	21	58	42	56	43	42	1.28	+ 0.6	4	4,307	sw.	31	sw.	13	18	10	3	3.2	.....	....
Walla Walla	1,000	57	65	28.89	29.94	− .03	77.2	+ 3.1	100	30	91	53	21	64	36	58	44	35	0.12	− 0.3	2	3,271	s.	18	sw.	20	20	9	2	2.9	.....	....
North Pacific Coast Region.							61.5	− 0.3										72	0.07	− 0.7										3.6		
North Head	211	11	56	29.90	30.13	+ .05	55.3	− 2.4	62	26	58	49	6	53	8	53	52	88	0.07	− 0.5	2	13,054	nw.	42	nw.	15	15	11	5	4.1	.....	....
Port Crescent	259	8	53	29.85	30.14	+ .08	54.4	− 1.9	76	17	63	36	28	46	30	.....	.....	.....	0.03	− 0.6	2	3,791	nw.	15	nw.	19	9	19	3	4.5	.....	....
Seattle	125	215	250	29.96	30.09	+ .05	64.2	+ 0.7	88	18	74	49	6	54	29	57	52	69	0.01	− 0.7	1	5,737	ne.	26	n.	19	16	9	6	3.6	.....	....
Tacoma	213	113	120	29.86	30.09	+ .03	63.8	+ 0.4	90	18	74	48	28	53	32	56	49	64	0.01	− 0.6	1	4,411	n.	19	sw.	20	16	10	5	3.8	.....	....
Tatoosh Island	109	7	57	30.02	30.11	+ .06	54.6	− 0.5	63	17	58	48	27	51	13	53	52	93	0.32	− 1.5	5	6,965	s.	25	s.	14	11	11	9	5.0	.....	....
Portland, Oreg.	153	68	106	29.88	30.04	− .01	68.6	+ 2.3	94	18	80	50	21	57	31	58	51	59	0.01	− 0.5	1	5,021	n.	22	n.	19	19	8	4	3.3	.....	....
Roseburg	510	9	57	29.48	30.02	− .01	69.6	+ 3.5	102	17	86	46	21	53	46	57	49	58	0.01	− 0.3	1	2,877	n.	18	n.	15	28	3	0	1.2	.....	....
Middle Pacific Coast Region.							64.2	− 1.3										64	0.00	0.0										4.0		
Eureka	62	73	89	29.99	30.06	+ .01	54.1	− 1.2	63	15	58	46	27	50	12	52	50	89	0.01	− 0.1	1	4,462	nw.	25	sw.	16	4	10	17	7.0	.....	....
Mount Tamalpais	2,375	11	18	27.54	29.98	+ .03	67.6	− 2.9	86	15	74	46	21	61	24	55	44	46	T.	0.0	0	8,781	nw.	50	nw.	7	25	5	1	1.6	.....	....
Point Reyes Light	490	7	18	29.45	29.97	.....	53.8	+ 0.1	66	14	57	48	9	50	16	.....	.....	.....	0.07	.....	4	14,932	nw.	48	nw.	9	1	6	24	8.7	.....	....
Red Bluff	332	50	56	29.53	29.87	− .02	80.2	− 1.9	105	16	95	58	12	65	38	61	47	38	T.	0.0	0	3,214	se.	18	n.	16	27	4	0	1.1	.....	....
Sacramento	69	106	117	29.83	29.90	+ .02	71.0	− 1.5	102	15	86	52	23	56	42	60	52	60	0.00	0.0	0	5,900	s.	23	s.	11	30	1	0	0.7	.....	....
San Francisco	155	200	204	29.82	29.98	+ .03	57.0	− 0.3	73	14	62	49	8	52	20	53	52	88	0.02	0.0	1	9,212	w.	37	w.	15	5	19	7	5.8	.....	....
San Jose	141	12	110	29.83	29.98	.....	65.6	− 1.3	92	14	77	48	29	54	42	.....	.....	.....	0.00	0.0	0	4,272	nw.	24	s.	16	24	7	0	2.9	.....	....
South Pacific Coast Region.							69.3	− 0.6										68	0.00	0.0										3.2		
Fresno	327	89	98	29.53	29.87	+ .04	80.5	− 1.5	104	24	97	57	13	64	40	60	45	36	T.	0.0	0	6,334	nw.	30	nw.	12	27	2	2	1.2	.....	....
Los Angeles	338	159	191	29.59	29.96	+ .06	66.8	− 0.6	81	31	76	56	23	58	24	61	58	80	0.01	0.0	1	3,895	s.	15	s.	10	18	13	0	3.4	.....	....
San Diego	87	62	70	29.86	29.95	+ .03	65.8	− 1.1	73	8	70	60	29	62	11	61	59	82	0.00	0.0	0	4,694	nw.	19	nw.	31	14	17	0	3.7	.....	....
San Luis Obispo	201	47	54	29.82	30.03	+ .08	64.1	+ 0.9	82	8	76	48	8	53	34	56	52	76	T.	0.0	0	2,443	nw.	12	w.	12	8	22	1	4.5	.....	....
West Indies.																																
San Juan	82	8	54	29.97	30.06	+ .07	79.4	.....	87	12	84	72	25	75	14	.....	.....	.....	5.70	− 0.7	23	11,352	e.	40	ne.	20	13	15	3	4.4	.....	....
Panama.																																
Ancon	92	6	69	.....	29.79	.....	82.4	.....	94	2	91	70	28	74	20	77	75	87	4.32	− 3.4	13	6,024	nw.	23	n.	16	8	11	12	6.4	.....	....
Culebra	404	5	62	.....	29.82	.....	81.3	.....	93	6	89	70	28	74	18	76	75	91	5.28	− 3.9	14	6,164	nw.	25	ne.	23	0	13	18	7.9	.....	....
Colon	10	5	71	.....	29.83	.....	82.0	.....	88	3	85	74	15	78	10	78	77	86	10.74	− 5.5	20	8,503	n.	26	n.	2	5	15	11	6.5	.....	....

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 July, 1914, at all stations furnished with self-registering gages.*

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 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.	23			0.47														.47			
Albany, N. Y.	7			0.99														.15			
Alpena, Mich.	23			0.33														.13			
Amarillo, Tex.	4	1.50 p.m.	2.30 p.m.	0.71	1.55 p.m.	2.08 p.m.	T.	.19	.59	.70											
		4.20 p.m.	6.00 p.m.	1.00	4.30 p.m.	5.08 p.m.	.02	.18	.34	.40	.40	.47	.69	.90	.95						
Anniston, Ala.	11	1.28 p.m.	2.33 p.m.	0.94	1.28 p.m.	2.18 p.m.	.00	.06	.11	.23	.29	.40	.50	.59	.69	.80	.88				
	16	7.55 a.m.	9.15 a.m.	0.84	8.20 a.m.	8.38 a.m.	.06	.36	.50	.65	.72										
	17	2.25 p.m.	3.33 p.m.	0.98	2.58 p.m.	3.18 p.m.	.03	.34	.71	.87	.95										
Asheville, N. C.	14			0.76														.56			
Atlanta, Ga.	4	10.15 a.m.	11.40 a.m.	0.93	10.20 a.m.	10.35 a.m.	.01	.27	.65	.84											
	28	3.45 p.m.	8.40 p.m.	0.74	3.50 p.m.	4.55 p.m.	.01	.07	.35	.43	.46	.56									
Atlantic City, N. J.	25	6.21 p.m.	7.10 p.m.	0.92	6.36 p.m.	6.51 p.m.	.01	.18	.58	.86											
	30	5.15 a.m.	7.54 a.m.	0.97	5.19 a.m.	5.39 a.m.	.01	.35	.52	.77	.83										
Augusta, Ga.	6	9.10 p.m.	10.10 p.m.	1.13	9.23 p.m.	9.46 p.m.	.01	.12	.42	.78	1.04	1.11									
Do.	13	3.15 p.m.	4.49 p.m.	1.62	3.19 p.m.	3.59 p.m.	.01	.18	.35	.60	.99	1.23	1.35	1.48	1.57						
Do.	15	4.00 p.m.	7.15 p.m.	0.84	4.46 p.m.	5.01 p.m.	.09	.27	.46	.63											
Do.	28	4.25 p.m.	8.30 p.m.	0.99	4.27 p.m.	4.56 p.m.	.01	.08	.16	.28	.52	.69	.76								
Baker, Oreg.	4			0.42														.31			
Baltimore, Md.	11	12.05 a.m.	D.N.a.m.	1.10	12.32 a.m.	1.07 a.m.	.05	.06	.11	.18	.39	.60	.82	.97							
Bentonville, Ark.	3	8.50 a.m.	11.50 a.m.	1.95	9.56 a.m.	10.35 a.m.	.08	.06	.35	.55	.78	1.10	1.28	1.47	1.57						
	7	12.55 a.m.	2.35 a.m.	1.19	1.08 a.m.	2.01 a.m.	.01	.11	.26	.41	.51	.70	.81	.84	.89	1.05	1.10	1.17			
Binghamton, N. Y.	9	6.18 p.m.	8.40 p.m.	1.62	6.38 p.m.	7.23 p.m.	.02	.10	.33	.39	.54	.76	.94	1.18	1.42	1.50					
Birmingham, Ala.	2	1.47 p.m.	2.25 p.m.	0.59	1.55 p.m.	2.06 p.m.	.01	.29	.55	.58											
	18	D.N.a.m.	D.N.a.m.	1.10	1.24 a.m.	1.41 a.m.	.03	.13	.42	.70	.81										
Bismarck, N. Dak.	28–29	D.N.p.m.	D.N.a.m.	1.20	3.15 a.m.	3.49 a.m.	.21	.11	.20	.28	.47	.58	.82	.97							
Block Island, R. I.	2	7.45 p.m.	7.15 a.m.	2.30	2.55 a.m.	3.45 a.m.	.53	.10	.21	.26	.31	.36	.43	.50	.58	.69	.87				
Boise, Idaho.	4			0.49														.35			
Boston, Mass.	7			0.96														.56			
Buffalo, N. Y.	14			0.45														.40			
Burlington, Vt.	17			0.35														.35			
Cairo, Ill.	10			0.32														.23			
Canton, N. Y.	25			0.54														.52			
Charles City, Iowa.	24			1.20														.60			
Charleston, S. C.	3	D.N.a.m.	7.35 a.m.	1.88	4.32 a.m.	5.39 a.m.	.24	.06	.09	.28	.51	.59	.72	.84	.95	1.06	1.12	1.26	1.52		
	4	10.49 a.m.	8.15 p.m.	2.24	10.57 a.m.	11.33 a.m.	.02	.14	.32	.58	.84	.94	1.03	1.08	1.12						
Charlotte, N. C.	6	6.50 p.m.	7.12 p.m.	0.54	6.50 p.m.	7.03 p.m.	.00	.32	.47	.53											
Chattanooga, Tenn.	14	5.28 p.m.	11.52 p.m.	1.43	11.00 p.m.	11.27 p.m.	.68	.06	.22	.43	.56	.70	.73								
	15–16	4.20 p.m.	1.16 a.m.	1.95	10.17 p.m.	10.57 p.m.	.47	.15	.35	.46	.59	.83	.90	.94	1.05						
	28	1.44 p.m.	3.20 p.m.	0.91	1.56 p.m.	2.36 p.m.	.01	.13	.28	.40	.51	.61	.69	.75	.81						
Cheyenne, Wyo.	17			0.45														.45			
Chicago, Ill.	16	1.58 p.m.	3.25 p.m.	1.65	1.58 p.m.	2.32 p.m.	.00	.24	.50	.69	.82	1.13	1.46	1.62							
Cincinnati, Ohio.	25	11.00 p.m.	11.40 p.m.	0.66	11.00 p.m.	11.17 p.m.	.00	.10	.37	.62	.66										
Cleveland, Ohio.	23			0.44														.38			
Columbia, Mo.	7			0.66														.37			
Columbia, S. C.	6–7	11.24 p.m.	D.N.a.m.	1.35	12.24 a.m.	1.05 a.m.	.11	.07	.10	.13	.30	.56	.78	.93	1.05	1.09					
	9	5.25 p.m.	D.N.p.m.	1.23	5.28 p.m.	5.57 p.m.	.03	.12	.19	.27	.49	.57	.64								
Columbus, Ohio.	13			0.76														.58			
Concord, N. H.	11			0.82														*			
Concordia, Kans.	28	3.37 p.m.	5.58 p.m.	0.94	4.44 p.m.	5.16 p.m.	.12	.21	.38	.42	.61	.70	.76	.79							
Corpus Christi, Tex.	12	9.06 a.m.	10.41 a.m.	0.78	9.54 a.m.	10.24 a.m.	.03	.17	.21	.24	.44	.66	.72								
Dallas, Tex.	24			0.50														.46			
Davenport, Iowa.	16			0.28														.18			
Dayton, Ohio.	13			1.28														.43			
Del Rio, Tex.	1–2	11.50 p.m.	8.20 a.m.	5.37	2.07 a.m.	3.58 a.m.	.17	.08	.18	.36	.56	.84	.99	1.10	1.32	1.45	1.65	2.13	2.93	3.31	3.56
	2				5.08 a.m.	5.31 a.m.	3.76	.27	.47	.61	.75	.79									
Denver, Colo.	22			0.51														.46			
Des Moines, Iowa.	16			0.51														.44			
Detroit, Mich.	13			1.48														.66			
Devils Lake, N. Dak.	5	8.40 p.m.	D.N.p.m.	0.93	8.44 p.m.	9.13 p.m.	.01	.16	.36	.45	.57	.64	.69								
Dodge City, Kans.	19, 20			0.21														.16			
Dubuque, Iowa.	27			0.62														.47			
Duluth, Minn.	11–12	9.10 p.m.	D.N.a.m.	2.41	9.49 p.m.	10.39 p.m.	.06	.06	.10	.13	.26	.46	.49	.57	.65	.80	.95				
					10.39 p.m.	11.29 p.m.		1.07	1.23	1.34	1.45	1.52	1.57	1.61	1.64	1.71	1.85				
					11.29 p.m.	11.56 p.m.		1.92	1.97	2.03	2.06	2.17	2.21								
Durango, Colo.	4			0.97														*			
Eastport, Me.	12			0.57														.24			
Elkins, W. Va.	4	12.42 p.m.	2.54 p.m.	1.07	12.57 p.m.	1.19 p.m.	.01	.17	.48	.78	.98	1.02									
Do.	14–15	7.10 p.m.	D.N.a.m.	2.24	7.16 p.m.	7.39 p.m.	.01	.17	.29	.44	.55	.62									
Do.	25–26	10.45 p.m.	9.30 a.m.	1.60	1.39 a.m.	1.52 a.m.	.41	.24	.44	.56											
Do.	28	D.N.a.m.	D.N.a.m.	0.72	3.38 a.m.	3.53 a.m.	.03	.12	.29	.59	.69										
El Paso, Tex.	16	5.40 p.m.	7.20 p.m.	1.15	6.32 p.m.	7.05 p.m.	.26	.06	.12	.24	.39	.59	.78	.85							
Erie, Pa.	13			0.82														.27			
Escanaba, Mich.	26–27	11.30 p.m.	9.45 a.m.	1.32	6.12 a.m.	6.37 a.m.	.44	.10	.33	.38	.51	.59									
Eureka, Cal.	3			0.01														.01			
Evansville, Ind.	16–17	7.25 p.m.	D.N.a.m.	0.92	1.37 a.m.	1.57 a.m.	.12	.15	.41	.67	.78										
Fort Smith, Ark.	3–4			0.91														*			
Fort Wayne, Ind.	1	4.25 p.m.	5.15 p.m.	0.71	4.35 p.m.	4.54 p.m.	.02	.09	.28	.58	.68										
	13	6.40 p.m.	9.20 p.m.	1.05	6.52 p.m.	7.19 p.m.	.02	.16	.37	.46	.68	.92	.96								
Fort Worth, Tex.	25			0.55														.39			
Fresno, Cal.	16			T.														T.			
Galveston, Tex.	11			0.39														.36			
Grand Haven, Mich.	27			0.59														.56			
Grand Junction, Colo.	13			0.30														.30			
Grand Rapids, Mich.	27			0.55														.47			
Green Bay, Wis.	22	11.30 p.m.	11.55 p.m.	0.63	11.37 p.m.	11.50 p.m.	.01	.11	.47	.62											
	23	12.40 a.m.	5.05 a.m.	0.98	12.48 a.m.	1.02 a.m.	.02	.38	.64	.73											
	27	8.55 a.m.	10.45 a.m.	1.11	9.05 a.m.	9.30 a.m.	.03	.16	.40	.57	.69	.78									
Hannibal, Mo.	31			0.19														.13			
Harrisburg, Pa.	10–11	8.00 p.m.	D.N.a.m.	1.21	8.43 p.m.	9.21 p.m.	.02	.21	.55	.72	.85	.88	.93	1.01	1.07						
Do.	14	4.10 a.m.	2.10 p.m.	1.27	5.57 a.m.	6.27 a.m.	.13	.05	.11	.27	.43	.55	.61								
Do.	15	10.40 a.m.	12.30 p.m.	0.62	10.55 a.m.	11.25 a.m.	.01	.06	.10	.27	.41	.45	.51								
Do.	25	3.20 p.m.	4.05 p.m.	0.74	3.25 p.m.	3.43 p.m.	.01	.10	.22	.62	.73										
Hartford, Conn.	2			1.10														.47			
Hatteras, N. C.	19	11.33 a.m.	1.05 p.m.	0.98	11.53 a.m.	12.16 a.m.	.07	.16	.42	.62	.78	.85									
Havre, Mont.	11			0.13														.13			
Helena, Mont.	20			0.05														.05			
Houghton, Mich.	26	8.45 p.m.	D.N.p.m.	0.56	8.56 p.m.	9.18 p.m.	.01	.11	.23	.25	.45	.50									
Houston, Tex.	9	2.40 p.m.	3.45 p.m.	0.94	2.51 p.m.	3.35 p.m.	.01	.22	.42	.47	.48	.52	.54	.65	.85	.91					
	22	9.11 p.m.	D.N.p.m.	0.58	9.18 p.m.	9.32 p.m.	.01	.20	.47	.54											

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 July, 1914, at all stations furnished with self-registering gages*—Continued.

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 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.
Huron, S. Dak.	30			0.24														.11			
Independence, Cal.	20			0.08														.05			
Indianapolis, Ind.	1			0.31														.08			
Iola, Kans.	4	5.20 a.m.	2.12 p.m.	1.72	11.27 a.m.	12.02 p.m.	.80	.08	.13	.18	.25	.40	.62	.79							
Jacksonville, Fla.	20	2.31 p.m.	7.35 p.m.	1.41	2.36 p.m.	3.12 p.m.	.01	.09	.17	.34	.46	.58	.76	.88	.91						
	26	3.20 p.m.	4.50 p.m.	0.81	3.31 p.m.	4.18 p.m.	.02	.14	.26	.34	.41	.47	.53	.60	.64	.69	.72				
Kalispell, Mont.	13			0.19														.10			
Kansas City, Mo.	6	3.15 a.m.	5.00 a.m.	1.19	3.21 a.m.	3.58 a.m.	.01	.20	.29	.36	.47	.66	.81	1.09	1.15						
		6.25 p.m.	7.05 p.m.	0.67	6.27 p.m.	6.37 p.m.	.01	.35	.58												
Keokuk, Iowa**	16–17	10.10 p.m.	12.20 a.m.	0.57	10.13 p.m.	10.31 p.m.	.01	.14	.30	.43	.50										
Key West, Fla.	6			0.66														.28			
Knoxville, Tenn.	14–15	2.31 p.m.	11.05 a.m.	3.04	2.42 p.m.	3.06 p.m.	.01	.13	.23	.43	.62	.71									
					7.50 a.m.	8.32 a.m.	2.09	.05	.24	.36	.43	.50	.63	.72	.77	.81					
	26	3.40 p.m.	D. N. p.m.	1.83	5.25 p.m.	6.27 p.m.	.37	.07	.21	.30	.33	.33	.34	.38	.48	.74	.93	1.12	1.18		
La Crosse, Wis.	12	5.00 a.m.	6.02 a.m.	1.38	5.12 a.m.	5.43 a.m.	.01	.17	.31	.64	.96	1.20	1.34	1.36							
Lander, Wyo.	28			0.27														.17			
Lansing, Mich.	13	D. N. a.m.	D. N. a.m.	0.61	12.18 a.m.	12.43 a.m.	.01	.13	.17	.19	.36	.58									
Lewiston, Idaho.	7			0.18														.18			
Lexington, Ky.	15	1.37 p.m.	3.58 p.m.	1.23	1.41 p.m.	2.10 p.m.	.01	.20	.39	.50	.79	1.06	1.14								
Lincoln, Nebr.	25	5.20 p.m.	6.37 p.m.	3.12	5.29 p.m.	6.19 p.m.	.02	.29	.72	1.26	1.88	2.18	2.53	2.78	2.90	2.99	3.06				
	30	9.18 p.m.	10.15 p.m.	0.94	9.29 p.m.	10.09 p.m.	.05	.10	.18	.34	.45	.57	.71	.83	.88						
Little Rock, Ark.	6	7.00 a.m.	10.00 a.m.	0.86	9.01 a.m.	9.31 a.m.	.16	.06	.16	.28	.48	.61	.66								
	8	D. N. a.m.	9.30 a.m.	1.67	4.24 a.m.	5.42 a.m.	.33	.06	.09	.17	.19	.23	.28	.46	.55.	.58	.64	.80	1.04		
Los Angeles, Cal.	16			0.01														.01			
Louisville, Ky.	9–10	11.53 p.m.	12.35 a.m.	0.60	11.58 p.m.	12.23 a.m.	.03	.09	.15	.23	.35	.55									
	10	5.22 p.m.	6.31 p.m.	0.72	6.01 p.m.	6.17 p.m.	.01	.19	.46	.65	.70										
Ludington, Mich.	12	7.40 p.m.	10.30 p.m.	1.32	8.10 p.m.	8.32 p.m.	.06	.11	.35	.70	93	.98									
Lynchburg, Va.	1	5.55 p.m.	7.30 p.m.	0.66	6.08 p.m.	6.28 p.m.	.01	.14	.29	.48	.55										
Macon, Ga.	3	12.30 p.m.	1.10 p.m.	1.18	12.30 p.m.	12.57 p.m.	.00	.25	.65	.85	1.03	1.14	1.18								
	28	5.31 p.m.	D. N. p.m.	2.30	5.48 p.m.	7.23 p.m.	.01	.11	.34	.49	.61	.80	1.00	1.12	1.17	1.22	1.25	1.37	1.68	1.93	
Madison, Wis.	4			0.54														.42			
Marquette, Mich.	22–23	2.10 p.m.	D. N. a.m.	1.33	2.31 p.m.	3.01 p.m.	.02	.06	.09	.22	.50	.78	.90								
Memphis, Tenn.	2			0.31														.18			
Meridian, Miss.	3–4	7.45 p.m.	6.10 a.m.	2.50	7.49 p.m.	8.46 p.m.	.01	.20	.52	.82	1.02	1.30	1.54	1.77	1.98	2.08	2.13	2.21			
Miami, Fla.	13	5.47 a.m.	7.33 a.m.	1.18	5.49 a.m.	6.16 a.m.	.01	.12	.29	.31	.52	.79	.92								
Milwaukee, Wis.	23			0.34														.22			
Minneapolis, Minn.	30			0.54														.29			
Mobile, Ala.	15	7.54 a.m.	1.55 p.m.	2.32	8.09 a.m.	8.34 a.m.	.02	.18	.57	.88	1.15	1.21									
Modena, Utah.	21			0.65														.37			
Montgomery, Ala.	3–4	5.33 p.m.	D. N. a.m.	1.07	7.39 p.m.	7.51 p.m.	.23	.20	.49	.56											
Moorhead, Minn.	15	1.25 a.m.	4.25 a.m.	1.58	1.31 a.m.	2.11 a.m.	.01	.17	.39	.61	.72	.84	.97	1.10	1.21						
Mount Tamalpais, Cal.	20			T.														T.			
Mount Weather, Va.	1	D. N. p.m.	D. N. p.m.	0.79	10.30 p.m.	11.00 p.m.	.05	.13	.33	.49	.52	.59	.73								
	17	2.03 p.m.	2.47 p.m.	1.69	2.08 p.m.	2.41 p.m.	.01	.17	.32	.49	.63	.85	1.33	1.68							
Nantucket, Mass.	2			0.98														.37			
Nashville, Tenn.	17	4.10 p.m.	4.35 p.m.	0.55	4.14 p.m.	4.29 p.m.	.01	.24	.39	.53											
New Haven, Conn.	7	D. N. a.m.	9.15 a.m.	0.56	5.39 a.m.	5.58 a.m.	.01	.14	.24	.39	.50										
	29	2.28 p.m.	6.00 p.m.	1.75	2.28 p.m.	3.21 p.m.	.00	.22	.44	.51	.63	.74	1.05	1.26	1.37	1.45	1.58				
New Orleans, La.	2	8.35 a.m.	10.35 a.m.	1.28	8.41 a.m.	9.31 a.m.	.02	.05	.27	.54	.66	.71	.77	.81	.83	.96	1.14				
Do.	3	2.00 p.m.	2.35 p.m.	0.68	2.01 p.m.	2.26 p.m.	.01	.25	.34	.46	.61	.66									
Do.	10	8.20 a.m.	12.20 p.m.	2.31	9.26 a.m.	9.45 a.m.	.47	.07	.30	.49	.54										
Do.					10.47 a.m.	11.22 a.m.	1.25	.23	.55	.70	.84	89	.96	1.01							
Do.	18	6.50 p.m.	D. N. p.m.	1.18	6.50 p.m.	7.10 p.m.	.00	.32	.60	.79	.93										
Do.	31	11.50 a.m.	12.55 p.m.	0.84	12.02 p.m.	12.30 p.m.	.01	.17	.33	.46	.57	.71	.78								
New York, N. Y.	2			1.38														.61			
Norfolk, Va.	15	9.00 p.m.	10.05 p.m.	0.83	9.10 p.m.	9.24 p.m.	.04	.33	.67	.74											
Northfield, Vt.	5	11.43 a.m.	1.50 p.m.	1.03	12.13 p.m.	12.27 p.m.	.07	.33	.76	.88											
North Head, Wash.	25			0.06														.02			
North Platte, Nebr.	22			0.43														.26			
Oklahoma, Okla.	2			0.20														.19			
Omaha, Nebr.	6	1.10 p.m.	2.25 p.m.	0.66	1.14 p.m.	1.40 p.m.	.01	.07	.18	.31	.48	.54	.58								
Oswego, N. Y.	17			0.23														.23			
Palestine, Tex.	25			0.17														.17			
Parkersburg, W. Va.	26	4.14 p.m.	5.45 p.m.	1.70	4.21 p.m.	5.41 p.m.	.01	.21	.23	.24	.24	.28	.47	.60	.81	1.04	1.20	1.49	1.69		
Pensacola, Fla.	24	5.35 a.m.	7.15 a.m.	0.63	5.39 a.m.	6.03 a.m.	.01	.16	.23	.35	.50	.55									
	28	11.35 a.m.	1.30 p.m.	0.78	11.41 a.m.	12.12 p.m.	.01	.10	.20	.33	.40	.50	.55	.58							
Peoria, Ill.	16			0.41														.38			
Philadelphia, Pa.	1–2	12.57 p.m.	D. N. a.m.	1.87	12.58 a.m.	1.18 a.m.	.71	.20	.41	.87	1.05										
Do.	15	1.00 p.m.	3.35 p.m.	0.86	2.00 p.m.	2.14 p.m.	.01	.14	.41	.70											
Do.	16	8.30 p.m.	9.10 p.m.	0.58	8.30 p.m.	8.47 p.m.	.00	.24	.38	.47	.53										
Do.	27–28	8.45 p.m.	7.25 a.m.	2.16	2.08 a.m.	2.38 a.m.	.56	.12	.20	.27	.34	.45	.50								
Phoenix, Ariz.	29			0.05														.05			
Pierre, S. Dak.	23			0.60														.59			
Pittsburgh, Pa.	24	9.15 p.m.	9.50 p.m.	0.32	9.28 p.m.	9.38 p.m.	.01	.24	.31												
Pocatello, Idaho.	13			0.67														.40			
Point Reyes Light, Cal.	16			0.03														.01			
Port Huron, Mich.	13	3.56 p.m.	6.54 p.m.	0.66	4.39 p.m.	4.59 p.m.	.05	.08	.23	.36	.40										
Portland, Me.	21			0.34														.34			
Portland, Oreg.	12			0.01														.01			
Providence, R. I.	2			1.13														.34			
Pueblo, Colo.	17	4.28 p.m.	6.36 p.m.	1.24	5.32 p.m.	6.02 p.m.	.12	.14	.44	.78	.94	1.05	1.11								
Raleigh, N. C.	1–2	10.56 p.m.	D. N. a.m.	1.42	11.07 p.m.	11.36 p.m.	.02	.14	.48	.73	.87	.95	1.00								
	2	6.34 p.m.	8.36 p.m.	1.29	6.43 p.m.	7.59 p.m.	.01	.18	.38	.42	.49	.56	.56	.56	.57	.62	.74	.92	1.25		
	5	4.16 a.m.	7.20 a.m.	0.76	4.27 a.m.	4.51 a.m.	.03	.14	.27	.37	.54	.60									
	14	3.45 p.m.	5.06 p.m.	3.03	3.51 p.m.	4.39 p.m.	.01	.22	.56	.86	1.48	2.21	2.57	2.76	2.87	2.94	2.99				
Rapid City, S. Dak.	2	1.03 p.m.	1.35 p.m.	0.55	1.03 p.m.	1.28 p.m.	.00	.20	.25	.35	.46	.53									
Reading, Pa.	27			0.44														.37			
Red Bluff, Cal.	19			T.														T.			
Reno, Nev.	22			T.														T.			
Richmond, Va.	5			1.11														.55			
Rochester, N. Y.	23			0.69														.32			
Roseburg, Oreg.	7			0.01														.01			
Roswell, N. Mex.	2			1.69														.54			
Sacramento, Cal.				‡																	
Saginaw, Mich.	13			1.24														.56			
St. Joseph, Mo.	6	5.58 p.m.	7.22 p.m.	1.14	6.07 p.m.	6.32 p.m.	.05	.25	.48	.70	.93	1.06									
St. Louis, Mo.	28			0.58														.27			
St. Paul, Minn.	16			0.25														.21			

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 July, 1914, 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.	5 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.
Salt Lake City, Utah	4			0.44														.26			
San Antonio, Tex	12, 31			0.01														.01			
San Diego, Cal	1			(‡)																	
Sand Key, Fla	12	12.05 p. m.	2.05 p. m.	1.04	12.25 p. m.	12.36 p. m.	.03	.27	.68	.71											
Sandusky, Ohio	14			0.85														.45			
San Francisco, Cal	11			0.03														.01			
San Jose, Cal				(‡)																	
San Luis Obispo, Cal	16			T.														T.			
Santa Fe, N. Mex	3			0.54														.44			
Sault Ste. Marie, Mich	27			0.33														.19			
Savannah, Ga	27			0.44														.43			
Scranton, Pa	10	2.05 p. m.	5.20 p. m.	1.14	3.47 p. m.	4.09 p. m.	.43	.15	.27	.45	.57	.64									
	25	D. N. a.m.	D.N. a.m.	1.95	4.15 a. m.	5.19 a. m.	.78	.09	.20	.29	.42	.47	.49	.51	.57	.66	.74	.97	1.12		
Seattle, Wash	25			0.01														T.			
Sheridan, Wyo	10			0.03														.02			
Shreveport, La	22			0.22														.22			
Sioux City, Iowa	30			0.70														.18			
Spokane, Wash	13			0.69														.22			
Springfield, Ill	17			0.78														.58			
Springfield, Mo	1			0.77														(*)			
Syracuse, N. Y	17			0.88														.48			
Tacoma, Wash	25			0.01														T.			
Tampa, Fla	10	1.55 p. m.	3.10 p. m.	0.94	2.13 p. m.	2.35 p. m.	.15	.16	.49	.56	.70	.77									
	28	8.26 a. m.	10.05 a. m.	0.76	8.29 a. m.	8.46 a. m.	.01	.14	.33	.47	.52										
Tatoosh Island, Wash	25			0.18														.03			
Taylor, Tex	12			0.21														.21			
Terre Haute, Ind	16			0.27														.18			
Thomasville, Ga	7	2.00 a. m.	D.N. a.m.	1.86	2.52 a. m.	3.32 a. m.	.07	.31	.66	.89	1.09	1.30	1.51	1.61	1.68						
	12	5.45 p. m.	7.27 p. m.	1.12	5.51 p. m.	6.31 p. m.	.01	.07	.11	.22	.47	.67	.82	.98	1.05						
Toledo, Ohio	24			0.46														.43			
Tonopah, Nev	18			0.30														.30			
Topeka, Kans	23	3.42 p. m.	4.10 p. m.	0.46	3.54 p. m.	4.05 p. m.	.02	.17	.40	.44											
Trenton, N. J	29			0.57														.49			
Valentine, Nebr	29			0.83														.49			
Vicksburg, Miss	15	2.30 a. m.	5.35 a. m.	2.73	2.53 a. m.	3.52 a. m.	.03	.09	.20	.32	.47	.82	1.25	1.54	1.81	2.09	2.24	2.38			
Walla Walla, Wash	4			0.11														.04			
Washington, D. C	28	3.12 p. m.	3.58 p. m.	0.50	3.15 p. m.	3.29 p. m.	.01	.19	.39	.46											
Wichita, Kans	5			0.41														.41			
Williston, N. Dak	11	3.50 a. m.	5.50 a. m.	1.32	4.16 a. m.	4.43 a. m.	.07	.22	.54	.71	.81	.92	.98								
	28	6.16 p. m.	10.10 p. m.	0.65	6.16 p. m.	6.50 p. m.	.00	.17	.27	.28	.39	.44	.48	.56							
Wilmington, N. C	7	3.40 p. m.	4.35 p. m.	0.97	3.54 p. m.	4.23 p. m.	.01	.23	.50	.60	.73	.83	.93								
Winnemucca, Nev	3			0.17														.12			
Wytheville, Va																		(*)			
Yankton, S. Dak	30			0.87														.57			
Yellowstone Park, Wyo	14			0.11														.07			

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

TABLE III.—*Data furnished by the Canadian Meteorological Service, July, 1914.*

Stations.	Pressure. Station reduced to mean of 24 hours.	Pressure. Sea-level reduced to mean of 24 hours.	Pressure. Departure from normal.	Temperature. Mean max. + mean min. ÷ 2.	Temperature. Departure from normal.	Temperature. Mean maximum.	Temperature. Mean minimum.	Temperature. Highest.	Temperature. Lowest.	Precipitation. Total.	Precipitation. Departure from normal.	Precipitation. Total snowfall.
	Inches.	*Inches.*	*Inches.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	°*F.*	*Inches.*	*Inches.*	*Inches.*
St. Johns, N. F	29.77	29.90	—.07	56.0	—3.3	63.5	48.5	82	39	4.13	+0.24	
Sydney, C. B. I	29.92	29.96	+.03	61.5	—0.8	70.4	52.7	85	41	2.28	—1.37	
Halifax, N. S	29.87	29.97	+.01	61.4	—2.0	70.9	51.8	88	41	4.09	+0.04	
Yarmouth, N. S	29.92	29.99	+.04	59.0	—0.5	65.9	52.1	75	44	1.10	—2.52	
Charlottetown, P. E. I	29.91	29.95	+.05	63.4	—0.7	71.7	55.1	81	39	2.14	—1.35	
Chatham, N. B	29.92	29.94	+.06	65.8	+0.8	77.9	53.7	90	42	2.07	—2.12	
Father Point, Que	29.88	29.90	+.05	58.7	+1.1	68.3	49.1	90	36	2.02	—1.02	
Quebec, Que	29.63	29.95	+.04	66.4	+0.9	77.6	55.3	92	46	1.18	—3.08	
Montreal, Que	29.76	29.96	+.03	68.3	—0.2	77.7	58.8	91	50	0.96	—3.33	
Stonecliffe, Ont	29.38	29.98	+.04	66.0	+0.4	80.3	51.6	92	40	1.52	—1.60	
Ottawa, Ont	29.72	30.04	+.10	67.4	—2.1	77.3	57.5	88	46	2.35	—1.12	
Kingston, Ont	29.68	29.98	+.01	70.5	+2.3	76.8	64.2	86	50	0.98	—1.91	
Toronto, Ont	29.58	29.94	—.03	70.4	+2.4	80.5	60.4	93	48	1.00	—1.92	
White River, Ont												
Port Stanley, Ont	29.36	29.99	+.01	68.9	+1.1	78.4	59.4	89	48	3.36	+0.32	
Southampton, Ont	29.31			65.4	+0.7	73.8	57.0	85	45	1.70	—0.28	
Parry Sound, Ont	29.32	30.00	+.04	67.5	+1.5	79.3	55.7	92	45	1.05	—1.57	
Port Arthur, Ont	29.29	30.00	+.06	63.5	+1.5	74.1	53.5	88	41	2.30	—1.18	
Winnipeg, Man	29.10	29.91	—.02	72.2	+6.2	83.9	60.6	94	47	7.14	+4.06	
Minnedosa, Man	28.14	29.90	—.03	70.6	+8.4	84.6	56.5	99	42	2.23	—0.37	
Qu'Appelle, Sask	27.66	29.86	—.06	69.5	+6.0	82.4	56.6	97	42	4.76	+2.28	
Medicine Hat, Alberta	27.59	29.80	—.10	75.6	+7.8	93.0	58.1	104	46	0.34	—1.75	
Swift Current, Sask	27.33	29.82	—.09	72.5	+6.0	90.5	54.5	101	40	0.76	—1.68	
Calgary, Alberta	26.37	29.81	—.09	66.4	+5.8	82.3	50.6	94	42	2.52	—0.16	
Banff, Alberta	25.42	29.92	+.02	60.8	+4.2	76.8	44.7	90	34	1.11	—2.13	
Edmonton, Alberta	27.60	29.84	—.06	63.5	+2.9	75.2	51.8	85	40	3.24	+0.21	
Prince Albert, Sask	28.31	29.84	—.07	67.0	+5.1	78.2	55.9	93	45	1.15	—0.90	
Battleford, Sask	28.13	29.82	—.08	69.5	+4.8	83.5	55.5	96	47	1.28	—1.06	
Kamloops, B. C	28.72	29.96	+.02	70.9	+2.4	85.0	56.9	95	44	0.53	—1.08	
Victoria, B. C	29.83	29.97	—.08	59.7	—0.3	67.5	51.8	80	48	T.	—0.40	
Barkerville, B. C	25.75	30.04	+.17	52.1	—3.0	63.5	40.6	74	32	4.69	+1.67	
Hamilton, Bermuda	30.03	30.19	+.05	77.8	—0.9	83.0	72.7	87	69	1.64	—2.80	