CLIMATOLOGICAL SUMMARY.

By Mr. P. C. DAY, Acting Chief, Climatological Division.

TEMPERATURE AND PRECIPITATION BY SECTIONS, AUGUST, 1908.

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

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

Section.	Temperature—in degrees Fahrenheit.								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	79.4	0.0	Lock No. 4	104	16	Valley Head Albertville	52 52	10 11	3.44	− 1.56	Tuskegee	6.28	Highland Home	0.61
Arizona	80.8	− 1.0	Fort Mohave	119	7	Williams	41	29	2.49	+ 0.40	Bisbee	8.17	Fort Mohave	0.10
Arkansas	79.3	− 0.4	Lewisville McNeil	103 103	6 16	Bergman	52	26	4.48	+ 1.40	Alicia	8.50	Prescott	1.14
California	78.3	+ 0.3	Orland	120	7	Alturas	24	31	0.12	+ 0.02	Cuyamaca	2.87	Many stations	0.00
Colorado	64.4	− 1.7	Las Animas	106	5	Lay	19	31	2.50	+ 0.87	Santa Clara	6.77	Wagon Wheel Gap	0.26
Florida	81.1	− 0.3	Mariana	103	16	Molino	61	31	6.67	− 0.75	Arcadia	18.24	Macclenny	1.11
Georgia	79.0	− 0.2	Helena	105	18	Clayton Point Peter	54 54	31 30	6.04	+ 0.30	Carlton	20.18	Harrison	1.54
Hawaii														
Idaho	64.9	− 1.7	Orofino	110	1	Vanwyck	18	31	0.72	+ 0.19	Paris	2.00	Nevins Ranch	0.00
Illinois	73.9	+ 0.2	Mount Vernon	104	17	Lanark	38	24	2.47	− 0.68	La Grange	7.75	Streator	0.41
Indiana	73.9	+ 0.8	Zelma	104	2	3 stations	42	3 d't's	1.93	− 1.44	Columbus	5.06	Northfield	0.50
Iowa	70.0	− 1.8	Oskaloosa Ottumwa	101 101	3 3	Atlantic	38	24	4.77	+ 0.78	Pella	10.58	Rock Rapids	1.35
Kansas	76.2	− 0.9	Liberal	108	10	3 stations	43	20, 31	4.00	+ 0.92	Frankfort	11.48	Coolidge, Liberal	0.65
Kentucky	76.3	0.0	Catlettsburg	104	8	Shelby City	49	28	2.79	− 0.46	Beaverdam	5.27	Falmouth	0.07
Louisiana	81.3	− 0.2	Opelousas	104	13	4 stations	60	1, 31	6.61	+ 1.88	Lawrence	14.80	Plain Dealing	2.18
Maryland and Delaware	71.7	− 1.6	Green Sp'g Fur., Md.	101	4	Deer Park, Md	34	20	4.99	+ 0.74	Cheltenham, Md	10.61	Chewsville, Md	1.98
Michigan	66.4	− 0.2	Pontiac	101	3	3 stations	29	24	3.01	+ 0.59	Olivet	8.62	Charlevoix	0.26
Minnesota	65.5	− 1.3	Alexandria	99	2	Angus	29	22, 23	2.06	− 1.54	Hallock	7.56	Farmington	0.39
Mississippi	80.0	− 0.5	Duck Hill	102	17	Lake Como Waynesboro	58 58	30 30	5.84	+ 1.26	Fayette	14.14	Batesville	1.56
Missouri	76.4	+ 0.1	Warsaw Jefferson City	102 102	5 15	Linneus Louisiana	46 46	21 26	3.87	+ 0.17	Maryville	7.28	St. Charles	0.78
Montana	62.4	− 1.2	Chinook Valentine	109 109	1 1	Grayling	17	26	1.03	− 0.05	Great Falls	3.13	Harlowton	T.
Nebraska	70.5	− 2.4	Cambridge	105	5	Fort Robinson	31	31	3.60	+ 0.66	Bluehill	8.49	Bridgeport	0.89
Nevada	69.7	− 0.3	Logan	108	7	Geyser	18	17	0.36	− 0.22	Las Vegas	1.35	7 stations	0.60
New England*	65.8	− 1.1	Torrington, Conn	98	13	5 stations	32	28, 29	4.91	+ 1.28	Norwalk, Conn	11.38	Burlington, Vt	1.70
New Jersey	70.6	− 1.8	Browns Mills	103	4	Layton	36	21	5.05	+ 0.28	Freehold	9.23	Layton	2.43
New Mexico	69.8	− 1.8	Orange	106	12	4 stations	37	8 d't's	3.38	+ 1.11	Las Vegas	9.24	Luna	0.70
New York	66.5	− 0.6	Port Jervis	100	4	Bensons Mines New Lisbon	32 32	20, 25 21	2.81	− 1.03	Bedford	7.99	Fayetteville	0.89
North Carolina	75.2	− 1.3	Selma Lexington	100 100	12 17	Banners Elk	42	30	10.18	+ 4.53	Monroe	19.38	Waynesville	3.74
North Dakota	63.2	− 2.9	Beach Mott	104 104	1 1	Napoleon	25	22	2.28	+ 0.69	Valley City	4.86	Buford	0.54
Ohio	71.2	− 0.5	Jacksonburg	104	3	Garrettsville Orangeville	37 37	21 21	2.59	− 0.57	Toledo	7.63	New Richmond	0.58
Oklahoma	79.8	− 0.9	Buffalo	107	10	Buffalo	46	9	2.18	− 0.78	Wagoner	5.65	Ardmore	0.41
Oregon	65.3	0.0	Unity, Baker Co	106	1	Christmas Lake	15	30	0.84	+ 0.24	Glenora	3.18	3 stations	0.00
Pennsylvania	69.4	− 0.8	Hanover	102	4	Dushore	30	21	3.22	− 1.38	Forks of Neshaminy	8.06	Saegerstown	1.22
Porto Rico	79.4	.....	Manati	98	20	Las Marias	59	21	5.51	.....	Maricao	13.27	Santa Isabel	0.77
South Carolina	78.6	− 0.5	5 stations	100	6 d't's	Trenton	49	29	9.11	+ 4.91	Greenville	19.52	Yemassee	3.16
South Dakota	67.8	− 2.6	Cherry Creek Howell	107 107	1 2	3 stations	32	22	2.19	− 0.29	Greenwood	4.69	Cascade Springs	0.27
Tennessee	76.6	+ 0.1	Carthage Lewisburg	100 100	17 18	Rugby	46	2	4.40	+ 0.73	Tellico Plains	10.35	Carthage	1.29
Texas	81.4	− 0.8	Fairland Henrietta	108 108	2 19	Plemons	49	8	3.00	+ 0.42	Kaufman	16.07	Chillicothe	T.
Utah	68.1	− 2.3	Green River	109	4	Richfield	22	31	1.20	+ 0.39	Pinto	3.45	Lucin, Castle Dale	T.
Virginia	72.1	− 2.1	Lincoln	100	4	Rocky Mount	40	26	6.38	+ 1.85	Petersburg	11.68	Brist l	3 05
Washington	65.1	− 1.1	Zindel	107	17	Wilbur	25	26	1.10	+ 0.28	Quiniault	4.40	3 stations	T.
West Virginia	70.9	− 1.7	Moorfield	101	4	Bayard	37	21	2.82	− 1.30	Creston	5.63	Huntington	0.84
Wisconsin	67.0	− 0.6	Sauk City	102	3	Long Lake	28	24	1.83	− 1.49	Portage	4.26	New Richmond	0.79
Wyoming	60.4	− 2.7	Basin	110	1	Riverside, Y. N. P.	15	27, 31	1.88	+ 0.76	Soda Butte, Y. N. P.	4.74	Gillette	0.54

* Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

DESCRIPTION OF TABLES AND CHARTS.

By Mr. P. C. DAY, Acting Chief, Climatological Division.

For description of tables and charts see page 8 of REVIEW for January, 1908.

TABLE I.—*Climatological data for U. S. Weather Bureau stations, August, 1908.*

Stations.	Elevation of instruments.			Pressure, in inches.			Temperature of the air, in degrees Fahrenheit.												Precipitation, in inches.			Wind.									
	Barometer above sea level, feet.	Thermometers above ground.	Anemometer above ground.	Actual, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hrs.	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 .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 during daylight, tenths.	Total snowfall.
New England.							66.5	− 0.9										80	4.55	+ 0.6										5.2	
Eastport	76	69	85	29.92	30.00	+ .04	60.8	+ 1.1	82	14	69	48	28	53	27	56	53	79	3.32	+ 0.1	12	6,455	s.	31	se.	6	9	11	11	5.9	
Greenville	1,070	6	....	28.86	30.02	.....	60.0	.....	80	12	71	33	29	49	40	....	....	....	7.96	.....	10	.....	.....	....	.....	....	....	....	....	....	
Portland, Me.	103	81	117	29.90	30.02	+ .04	65.4	− 0.8	82	14	73	46	29	58	29	60	56	76	3.73	+ 0.2	12	6,206	s.	28	s.	5	13	5	13	5.3	
Concord	288	70	79	29.71	30.02	+ .04	65.2	− 1.4	90	13	76	39	29	55	37	....	....	....	5.58	+ 1.8	10	3,121	nw.	27	w.	13	21	5	5	3.3	
Burlington	404	12	47	29.57	30.00	+ .03	66.0	− 2.7	84	6	76	44	25	56	31	....	....	....	1.70	− 2.3	12	6,806	s.	39	se.	4	9	15	7	5.0	
Northfield	876	16	70	29.10	30.03	+ .05	61.8	− 1.1	86	13	74	37	28	50	36	59	58	89	3.73	− 0.2	14	5,023	s.	28	se.	5	9	13	9	5.5	
Boston	125	115	188	29.89	30.02	+ .03	69.4	+ 0.5	90	14	76	47	29	63	25	63	59	73	4.35	+ 0.3	9	7,013	sw.	28	ne.	27	10	10	11	5.8	
Nantucket	12	14	90	30.00	30.01	+ .02	67.0	− 1.0	81	18	73	54	17	61	19	64	63	89	4.28	+ 1.2	12	10,973	sw.	55	ne.	27	11	7	13	5.8	
Block Island	26	11	46	29.99	30.02	+ .03	67.6	− 1.1	84	14	73	55	26	62	15	64	62	84	3.34	− 1.1	8	10,527	sw.	50	ne.	26	13	9	9	5.0	
Narragansett	....	9	....	.....	.....	.....	67.4	− 1.1	86	14	74	47	21	60	27	....	....	....	7.27	.....	10	.....	sw.	....	.....	....	17	3	11	....	
Providence	160	57	67	29.87	30.04	+ .05	68.4	− 2.6	89	14	77	47	29	60	27	62	59	76	5.16	+ 1.1	10	4,326	w.	22	ne.	27	16	7	8	4.8	
Hartford	159	122	132	29.86	30.03	+ .04	69.0	+ 0.1	88	13	78	43	29	60	31	63	61	81	6.74	+ 2.2	9	4,506	s.	30	sw.	5	9	11	11	6.1	
New Haven	106	116	155	29.91	30.02	+ .03	69.6	− 0.5	91	14	78	45	29	61	27	63	60	76	8.12	+ 3.1	11	6,153	n.	48	sw.	5	16	7	8	4.8	
Mid. Atlantic States.							71.7	− 1.1										76	5.23	+ 0.8										5.4	
Albany	97	102	115	29.92	30.02	+ .04	69.6	+ 0.1	93	13	79	48	28	60	29	62	58	71	3.63	− 0.3	9	4,800	s.	28	sw.	17	11	15	5	4.8	
Binghamton	871	78	90	29.12	30.04	+ .05	66.4	− 1.1	95	4	78	40	28	54	38	....	....	....	1.29	− 2.1	10	3,423	n.	34	sw.	13	6	15	10	5.7	
New York	314	108	350	29.69	30.01	+ .01	72.5	+ 0.3	91	4	79	56	27	66	20	65	61	71	5.65	+ 1.1	10	7,139	s.	37	ne.	26	12	10	9	5.3	
Harrisburg	374	94	104	29.64	30.03	+ .02	71.4	− 0.7	93	4	80	50	21	62	29	63	59	69	2.43	− 1.8	10	3,760	se.	36	w.	6	11	12	8	5.0	
Philadelphia	117	116	184	29.91	30.03	+ .03	73.4	− 0.4	94	4	80	56	26	66	24	65	61	71	5.41	+ 0.8	11	6,441	s.	31	n.	1	10	10	11	5.3	
Scranton	805	111	119	29.18	30.03	+ .03	68.6	+ 0.7	95	4	80	43	21	57	36	61	57	72	3.44	− 0.8	10	4,391	ne.	26	sw.	5	11	12	8	4.6	
Atlantic City	52	87	48	29.97	30.03	+ .03	71.0	− 1.6	87	18	76	54	30	66	23	66	64	79	4.33	0.0	11	6,036	ne.	32	ne.	26	9	8	14	6.2	
Cape May	17	48	52	30.02	30.04	+ .04	70.8	− 2.6	83	18	76	52	29	66	17	67	....	....	5.03	+ 0.8	15	5,404	ne.	29	ne.	26	11	9	11	5.2	
Baltimore	123	100	113	29.88	30.01	.00	74.2	− 0.5	95	4	82	55	29	66	23	66	63	71	5.17	+ 1.0	10	4,903	sw.	27	n.	1	10	8	13	5.7	
Washington	112	59	76	29.90	30.02	+ .01	73.2	− 1.3	95	4	82	52	30	64	30	67	65	79	5.14	+ 0.7	9	4,180	n.	30	nw.	5	11	6	14	5.6	
Cape Henry	18	9	58	30.00	30.02	+ .02	76.7	− 0.2	92	13	82	64	28	71	21	....	....	....	6.01	− 0.1	14	10,271	sw.	46	ne.	1	9	9	13	5.6	
Lynchburg	681	88	88	29.31	30.04	+ .02	73.4	− 1.4	97	4	83	50	30	64	31	67	65	80	6.55	+ 2.3	12	2,269	ne.	16	nw.	1	9	13	9	5.5	
Mount Weather	1,725	10	54	28.25	30.02	+ .01	68.2	− 1.2	89	4	75	50	25	62	18	62	59	78	7.40	+ 3.8	10	6,885	nw.	41	nw.	6	9	9	13	5.8	
Norfolk	91	102	111	29.92	30.02	+ .02	76.1	− 0.6	93	15	82	63	28	70	20	71	69	83	8.00	+ 2.0	13	6,191	s.	26	w.	15	8	9	14	6.2	
Richmond	144	145	153	29.88	30.02	+ .01	74.0	− 3.5	95	14	82	55	30	66	25	....	....	....	10.40	+ 6.0	14	5,263	s.	36	nw.	19	12	8	11	5.1	
Wytheville	2,293	40	47	27.92	30.04	+ .03	68.4	− 2.1	90	3	78	48	31	59	35	64	64	94	3.74	− 0.8	18	2,305	e.	13	nw.	1	11	10	10	5.8	
S. Atlantic States.							77.9	+ 0.1										83	9.02	+ 2.9										5.4	
Asheville	2,255	53	75	27.73	30.02	.00	71.4	+ 0.9	89	18	81	54	28	62	28	65	64	88	7.44	+ 2.6	14	3,850	se.	26	e.	3	4	16	11	6.4	
Charlotte	773	68	76	29.22	30.04	+ .02	75.6	− 0.1	95	4	84	56	30	67	28	69	67	83	14.61	+ 9.1	16	3,871	ne.	30	n.	18	10	9	12	5.8	
Hatteras	11	12	47	30.00	30.01	+ .01	78.8	+ 0.6	88	17	84	69	11	74	15	75	74	86	14.93	+ 9.1	15	9,996	sw.	49	nw.	1	18	10	3	3.8	
Manteo	....	....	....	.....	.....	.....	77.6	.....	89	18	83	67	2	72	....	....	....	....	13.64	+ 7.7	12	.....	s.	....	.....	....	....	....	....	....	
Raleigh	376	71	79	29.63	30.01	.00	75.0	− 1.8	94	15	83	57	31	67	22	69	68	84	13.63	+ 7.7	12	4,885	ne.	34	nw.	19	11	7	13	5.7	
Wilmington	78	81	91	29.94	30.02	+ .02	78.4	+ 0.8	92	8	86	63	27	71	20	73	72	84	9.52	+ 3.0	15	5,441	sw.	30	e.	18	9	15	7	5.4	
Charleston	48	14	92	29.96	30.01	.00	80.4	+ 0.1	95	1	86	66	28	74	19	74	72	79	4.88	− 2.1	12	7,213	s.	35	sw.	25	13	16	2	4.5	
Columbia, S. C.	351	41	57	29.63	30.01	.00	79.0	− 0.5	96	3	88	59	30	70	26	71	68	78	7.65	+ 0.9	9	4,381	s.	24	w.	8	5	11	15	6.5	
Augusta	180	89	97	29.81	30.00	− .01	79.4	+ 0.5	96	14	88	58	30	70	26	72	70	80	5.91	+ 0.3	13	3,924	s.	34	sw.	2	10	11	10	5.4	
Savannah	65	81	89	29.94	30.01	.00	80.2	+ 0.8	95	1	87	65	29	73	19	73	71	82	4.13	− 3.4	15	4,898	sw.	28	n.	2	9	13	9	5.5	
Jacksonville	43	101	129	29.96	30.02	+ .01	80.4	+ 0.3	95	2	87	68	29	74	18	75	74	86	2.90	− 3.3	12	7,102	sw.	58	s.	20	11	13	7	5.0	
Florida Peninsula.							81.3	− 0.5										82	7.29	+ 1.4										5.8	
Jupiter	28	10	48	29.98	30.01	+ .01	80.4	− 1.1	90	20	87	70	26	74	18	76	74	85	9.20	+ 3.4	22	5,802	sw.	36	e.	14	3	21	7	5.8	
Key West	22	10	53	29.98	30.00	+ .02	82.2	− 1.6	91	25	89	71	28	76	19	76	74	78	7.74	+ 3.0	16	4,539	s.	40	w.	27	4	18	9	6.2	
Sand Key	25	41	71	29.96	29.99	+ .01	82.2	.....	94	8	87	68	13	78	18	....	....	....	4.76	+ 0.1	16	7,103	se.	47	e.	13	3	22	6	5.7	
Tampa	35	79	96	29.98	30.01	+ .01	81.2	+ 1.2	96	2	89	68	27	73	28	75	73	82	7.48	− 1.1	20	4,948	ne.	26	s.	26	7	17	7	5.4	
East Gulf States.							80.0	+ 0.8										79	3.71	− 1.0										5.3	
Atlanta	1,174	190	216	28.80	30.01	.00	77.2	+ 1.1	96	15	86	60	30	68	24	69	67	79	5.44	+ 1.0	12	5,574	se.	40	nw.	8	9	8	14	5.9	
Macon	370	78	87	29.61	30.00	− .01	79.6	+ 1.4	96	15	89	61	31	70	26	....	....	....	6.12	+ 1.9	12	3,438	ne.	26	nw.	7	10	12	9	5.3	
Thomasville	273	8	58	29.71	30.00	.00	80.4	− 0.6	97	3	90	61	11	70	31	73	72	84	3.03	− 2.0	12	3,283	se.	21	sw.	21	5	18	8	5.7	
Pensacola	56	79	96	29.94	30.00	+ .02	81.0	0.0	93	15	87	69	29	75	18	....	....	....	3.66	− 3.5	6	6,266	sw.	36	w.	22	13	9	9	4.8	
Anniston	741	9	58	29.25	30.03	+ .04	78.3	+ 1.9	98	16	89	58	10	68	31	....	....	....	1.99	− 2.5	18	2,825	se.	21	w.	17	8	10	13	6.2	
Birmingham	700	11	48	29.26	30.02	+ .03	79.6	− 0.2	98	16	89	61	10	70	26	71	68	78	1.06	− 3.4	10	3,376	n.	35	nw.	8	2	21	8	6.3	
Mobile	57	98	106	29.93	29.99	+ .01	81.9	+ 2.2	96	15	90	67	10	74	20	74	71	77	3.91	− 2.9	12	4,547	s.	22	se.	2	13	16	2	4.2	
Montgomery	223	100	112	29.75	30.00	+ .01	80.2	+ 0.5	98	16	90	62	29	71	26	71	68	74	2.72	− 1.5	7	3,689	w.	48	s.	7	7	13	11	5.8	
Meridian	375	84	93	29.61	29.99	+ .01	78.8	+ 0.3	95	16	88	60	10	70	25	71	69	80	3.53	0.0	9	3,030	sw.	21	n.	8	17	11	3	4.0	
Vicksburg	247	62	74	29.72	29.99	+ .01	80.2	+ 0.6	96	17	88	67	9	72	22	73	71	81	3.71	+ 0.2	8	3,314	n.	25	nw.	8	12	11	8	4.7	
New Orleans	51	88	121	29.94	29.98	.00	82.5	+ 1.5	94	15	89	73	30	76	16	75	73	81	5.65	0.0	17	4,931	s.	27	se.	6	7	20	4	5.2	
West Gulf States.							81.2	+ 0.4										78	3.40	+ 0.4										4.1	
Shreveport	249	77	84	29.72	29.98	+ .01	81.6	+ 0.2	96	16	90	68	31	73	23	73	70	73	3.07	+ 0.8	10	3,626	se.	27	ne.	1	17	8	6	3.8	
Bentonville	1,303	11	44	28.65	29.98	+ .01	77.0	+ 0.5	95	6	88	56	9	66	31	....	....	....	3.94	− 0.1	7	2,962	s.	20	s.	11	18	9	4	3.6	
Fort Smith	457	79	94	29.49	29.96	− .01	80.1	+ 0.7	97	6	90	63	9	70	27	72	69	79	7.32	+ 3.7	9	4,024	e.	26	e.	2	17	8	6	3.6	
Little Rock	357	139	147	29.62	29.99	+ .01	80.0	+ 0.8	95	17	88	67	26	72	23	72	69	76	2.58	− 1.1	10	4,673	e.	30	nw.	18	11	12	8	4.8	
Corpus Christi	20	48	53	29.94	29.96	+ .03	83.0	+ 0.9	95	1	89	70	20	77	18	76	74	81	1.55	− 0.7	8	7,227	se.	31	se.	11	15	14	2	3.6	
Fort Worth	670	106	114	29.28	29.98	+ .04	82.2	− 0.7	100	7	92	62	9	72	31	....	....	....	2.74	+ 0.9	5	5,155	s.	36	se.	17	14	16	1	3.5	
Galveston	54	106	112	29.94	30.00	+ .04	83.1	+ 0.5	91	25	87	72	21	79	12	76	74	78	4.16	− 0.8	8	6,527	s.	26	n.	1	15	11	5	4.3	
Palestine	510	73	79	29.44	29.96	− .01	80.7	+ 0.2	95	16	90	68	10	72	25	72	70	77	2.69	+ 0.5	7	2,488	s.	10	sw.	22	8	13	10	5.6	
San Antonio	701	80	91	29.23	29.94	+ .01	82.7	+ 0.7	99	2	93	68	17	72	27	72	69	75	4.27	+ 1.6	10	3,960	se.	36	nw.	8	7	19	5	5.0	
Taylor	583	55	63	29.37	29.98	+ .03	81.7	0.0	96	10	92	65	10	71	31	....	....	....	1.67	− 0.8	10	4,954	s.	33	sw.	16	19	7	5	3.6	
Ohio Val. and Tenn.							75.3	+ 0.5										71	3.05	− 0.4										4.6	
Chattanooga	762	106	112	29.23	30.02	+ .02	77.2	+ 0.7	94	15	86	61	10	68	25	70	67	77	7.04	+ 3.3	13	3,301	sw.	31	nw.	19	8	13	10	5.6	
Knoxville	1,004	98	100	28.98	30.01	.00	75.8	+ 1.1	93	17	85	59	10	67	26	68	66	78	3.95	0.0	10	2,696	ne.	20	se.	3	4	14	13	6.5	
Memphis	399	76	97	29.59	30.01	+ .03	79.4	+ 0.2	93	16	87	66	25	72	19	72	70	79	4.52	+ 1.3	8	4,535	n.	32	nw.	7	14	7	10	4.8	
Nashville	546	79	91	29.44	30.01	+ .01	78.6	+ 0.8	96	17	88	60	9	69	28	71	68	76	1.69	− 1.8	9	3,016	n.	25	n.	31	11	12	8	4.9	
Lexington	989	75	102	28.98	30.02	+ .01	74.6	0.0	93	3	84	55	28	65	28	....	....	....	2.98	− 0.6	6	5,295	ne.	24	s.	21	17	11	3	3.4	
Louisville	525	111	132	29.45	30.02	+ .02	78.4	+ 1.9	98	16	89	60	28	68	30	67	62	65	2.29	− 1.2	6	4,388	n.	28	nw.	17	14	12	5	3.9	
Evansville	431	72	82	29.53	29.99	.00	78.0	+ 1.0	94	2	87	61	10	69	29	....	....	....	4.58	+ 1.3	7	4,339	s.	38	n.	10	14	15	2	4.0	
Indianapolis	822	154	164	29.14	30.01	+ .01	74.6	+ 1.0	95	16	85	55	23	64	30	64	59	62	1.67	− 1.7	3	5,519	ne.	38	sw.	12	11	16	4	5.0	
Cincinnati	628	152	160	29.35	30.01	.00	76.6	+ 1.1	98	16	87	58	25	66	31	65	58	58	1.69	− 1.6	6	4,044	ne.	32	nw.	17	13	15	3	4.1	
Columbus	824	173	224	29.17	30.03	+ .02	72.7	− 0.3	95	3	84	55	25	62	30	63	58	66	2.34	− 0.9	7	6,764	e.	44	w.	17	17	12	2	3.3	
Pittsburg	842	336	352	29.14	30.03	+ .02	71.6	− 0.9	94	4	81	53	21	62	30	62	57	64	2.48	− 0.7	9	5,516	ne.	36	w.	4	11	17	3	4.6	
Parkersburg	638	77	84	29.38	30.04	+ .03	73.4	+ 0.1	98	17	85	54	21	62	34	64	60	71	1.88	− 1.6	8	3,307	sw.	22	n.	17	16	12	3	4.0	
Elkins	1,940	41	50	28.05	30.05	+ .03	67.8	− 0.6	92	4	80	44	21	56	39	62	60	85	2.60	− 1.0	12	1,914	n.	22	w.	4	10	12	9	5.4	
Lower Lake Region.							68.4	− 1.1										69	2.55	− 0.4										4.4	
Buffalo	767	178	206	29.20	30.02	+ .03	67.7	− 1.1	86	4	75	48	25	60	24	62	58	72	2.85	− 0.1	9	7,732	sw.	60	sw.	4	13	11	7	4.6	
Canton	448	10	71	29.54	30.00	.....	65.0	− 2.8	85	31	76	40	25	54	35	....	....	....	1.01	− 1.7	9	6,765	sw.	38	w.	19	14	11	6	4.8	
Oswego	335	76	91	29.64	30.01	+ .02	67.4	− 1.4	88	4	75	51	21	60	27	62	58	73	1.62	− 1.1	7	5,942	s.	32	ne.	1	14	12	5	4.1	
Rochester	523	81	102	29.47	30.03	+ .04	68.1	− 0.2	91	4	78	48	25	58	31	60	55	68	1.18	− 1.8	5	4,907	sw.	34	w.	12	15	11	5	4.4	
Syracuse	597	97	113	29.39	30.03	+ .04	67.6	− 1.0	92	4	77	46	25	58	29	....	....	....	0.66	− 2.7	7	6,711	s.	36	s.	4	10	13	8	4.8	
Erie	713	92	102	29.26	30.02	+ .01	68.2	− 1.7	90	4	76	49	21	61	26	61	56	64	1.32	− 1.9	9	6,461	s.	28	sw.	4	15	8	8	4.1	
Cleveland	762	190	201	29.22	30.02	+ .01	68.9	− 1.5	91	3	76	50	21	61	24	61	56	65	1.75	− 1.4	9	9,110	se.	38	s.	12	17	11	3	3.5	
Sandusky	629	62	70	29.35	30.02	+ .01	70.7	− 0.8	95	3	79	52	21	62	27	....	....	....	2.96	− 0.4	8	5,390	ne.	30	nw.	4	18	9	4	3.1	
Toledo	628	207	246	29.36	30.03	+ .03	70.6	− 0.3	94	3	80	50	20	61	28	62	58	68	7.63	+ 4.9	10	8,317	sw.	51	sw.	12	20	6	5	2.7	
Detroit	730	218	258	29.25	30.03	+ .02	69.7	− 0.2	95	3	79	50	20	60	29	62	59	72	4.49	+ 1.7	10	8,643	s.	44	sw.	12	14	13	4	4.2	
Upper Lake Region.							66.4	+ 0.3										73	2.89	− 0.1										4.4	
Alpena	609	13	92	29.36	30.02	+ .02	64.0	+ 0.2	88	3	75	40	25	53	33	59	56	78	1.87	− 1.5	7	7,050	nw.	30	se.	12	13	12	6	4.6	

TABLE I.—*Climatological data for U. S. Weather Bureau stations, August, 1908*—Continued.

Stations.	Elevation of instruments.			Pressure, in inches.			Temperature of the air, in degrees Fahrenheit.											Precipitation, in inches.			Wind.									
	Barometer above sea level, feet.	Thermometers above ground.	Anemometer above ground.	Actual, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hrs.	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 .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 during daylight, tenths.	Total snowfall.
Up. Lake Reg—Cont.																															
Escanaba	612	40	82	29.35	30.00	+ .01	64.2	− 0.3	86	4	73	41	24	55	33	59	56	77	1.06	− 2.6	10	6,492	s.	27	nw.	21	11	11	9	4.8	
Grand Haven	632	54	92	29.34	30.00	+ .01	66.4	− 1.4	86	3	76	45	26	57	31	62	58	76	5.78	+ 3.2	8	6,430	sw.	33	nw.	3	20	9	2	3.1	
Grand Rapids	707	121	162	28.26	30.02	+ .02	69.1	− 0.9	93	3	80	46	20	58	28	60	56	67	5.55	+ 3.0	9	6,187	w.	48	w.	3	14	13	4	4.2	
Houghton	668	66	74	29.26	29.98	+ .01	64.0	+ 0.7	90	30	73	43	24	55	32	...	...	...	1.00	− 1.9	7	5,154	w.	30	nw.	1	12	12	7	1.6	
Marquette	784	77	116	29.20	30.00	+ .02	65.0	+ 1.5	93	31	74	47	24	56	32	57	52	68	1.08	− 1.8	6	7,695	w.	36	s.	31	11	12	8	4.8	
Port Huron	638	70	120	29.33	30.02	+ .02	67.4	+ 0.1	95	3	77	45	20	58	29	61	58	73	4.80	+ 2.2	7	6,667	ne.	37	w.	12	15	11	5	4.3	
Sault Sainte Marie	614	40	61	29.32	30.01	+ .02	62.3	+ 1.7	89	31	71	42	25	54	27	57	54	79	2.29	− 0.8	7	5,691	nw.	32	nw.	19	10	10	11	5.5	
Chicago	823	140	310	29.15	30.02	+ .02	73.4	+ 2.2	96	3	80	58	23	67	23	65	60	67	6.35	+ 3.5	8	9,089	ne.	49	sw.	12	17	11	3	3.6	
Milwaukee	681	122	139	29.30	30.04	+ .04	70.2	+ 1.5	95	3	78	53	24	63	26	62	58	70	1.63	− 1.2	9	6,995	se.	42	nw.	16	19	10	2	3.0	
Green Bay	617	49	86	29.33	29.99	.00	68.6	+ 1.6	91	31	79	44	20	58	30	60	56	70	1.19	− 1.9	5	6,563	sw.	36	n.	19	8	16	7	5.8	
Duluth	1,133	11	47	28.78	29.99	+ .02	62.1	− 2.8	83	3	71	43	22	53	27	57	54	80	2.10	− 1.4	8	8,789	ne.	45	nw.	18	8	19	4	4.9	
North Dakota.							63.9	− 2.8										64	2.06	− 0.2										3.7	
Moorhead	940	8	57	28.97	29.98	+ .02	65.1	− 0.8	96	2	78	38	22	52	38	57	54	73*	3.01	− 0.1	8	5,257	se.	40	nw.	29	18	9	4	3.0	
Bismarck	1,674	8	57	28.24	30.00	+ .06	65.2	− 2.9	100	1	79	35	22	51	44	55	48	62	2.44	+ 0.5	8	7,640	nw.	68	nw.	10	15	10	6	3.9	
Devils Lake	1,482	11	44	28.38	29.94	.00	62.4	− 2.7	90	20	76	32	22	49	42	54	48	64	1.70	− 1.1	8	8,167	w.	48	ne.	30	16	11	4	3.6	
Williston	1,875	14	56	27.99	29.94	+ .01	62.9	− 5.0	102	1	77	32	22	48	51	53	44	57	1.11	− 0.2	9	7,584	n.	67	w.	25	14	12	5	4.2	
Upper Miss. Valley.							72.2	− 0.6										70	2.91	− 0.3										4.2	
Minneapolis	...	102	208	...	...	...	69.0	...	92	2	79	46	22	59	27	...	...	...	0.62	− 3.1	8	7,768	se.	36	s.	30	16	10	5	4.1	
St. Paul	837	171	179	29.10	30.00	+ .03	68.4	− 1.1	90	2	78	46	22	59	28	60	54	67	1.07	− 2.4	6	6,435	se.	35	n.	21	15	14	2	3.4	
La Crosse	714	10	49	29.25	30.01	+ .03	68.8	− 1.2	93	2	80	46	23	57	31	...	...	...	1.76	− 1.6	6	3,043	s.	15	sw.	31	7	16	8	5.4	
Madison	974	70	78	28.98	30.01	+ .02	69.1	− 0.5	94	3	79	52	25	59	28	61	57	70	2.53	− 0.7	8	5,234	sw.	30	ne.	11	17	11	3	3.5	
Charles City	1,015	10	49	28.96	30.02	+ .05	67.4	− 3.3	90	2	79	43	24	56	33	62	59	78	3.48	+ 0.1	8	3,673	sw.	19	w.	15	7	17	7	5.2	
Davenport	606	71	79	29.36	30.01	+ .03	72.2	− 0.8	95	3	82	51	24	62	28	64	60	70	6.23	+ 2.6	9	3,896	sw.	26	nw.	11	16	9	6	4.0	
Des Moines	861	84	101	29.09	29.99	+ .02	71.4	− 1.6	95	3	81	52	24	62	29	64	60	70	6.54	+ 2.9	12	4,652	sw.	26	sw.	26	8	17	6	5.5	
Dubuque	698	100	117	29.28	30.02	+ .04	69.6	− 2.4	96	3	80	46	24	59	32	62	59	72	2.92	− 0.1	7	2,791	se.	20	nw.	28	13	12	6	4.1	
Keokuk	614	64	77	29.35	30.01	+ .03	74.5	− 0.1	95	16	85	54	25	64	31	65	62	70	2.50	− 0.7	5	3,633	s.	30	sw.	11	20	8	3	3.0	
Cairo	356	87	93	29.62	29.99	.00	78.2	+ 1.2	96	17	86	63	8	70	22	70	68	76	4.28	+ 1.4	10	4,746	n.	39	ne.	8	14	12	5	4.4	
La Salle	536	56	64	29.47	30.04	+ .05	72.2	+ 0.2	95	3	84	49	24	60	33	...	...	...	1.82	− 1.0	6	3,920	ne.	54	nw.	15	15	11	5	3.9	
Peoria	609	11	45	29.37	30.03	+ .04	72.6	+ 0.1	95	3	84	46	21	61	36	64	60	72	2.78	− 0.2	8	3,969	ne.	24	sw.	12	21	7	3	3.3	
Springfield, Ill	644	10	92	29.33	30.00	+ .01	75.2	+ 1.2	97	16	86	54	25	64	35	65	60	64	2.62	− 0.2	6	4,793	sw.	31	w.	12	20	6	5	3.2	
Hannibal	584	75	109	29.44	30.00	+ .02	74.4	− 0.6	95	16	85	52	21	64	36	...	...	...	2.94	− 0.4	9	4,986	sw.	33	n.	28	15	8	8	4.3	
St. Louis	567	208	217	29.39	29.98	− .01	77.5	+ 0.3	98	16	86	59	26	69	23	68	63	66	1.55	− 1.1	7	5,770	ne.	31	nw.	5	10	10	11	5.5	
Missouri Valley.							72.7	− 1.1										69	3.56	+ 0.2										4.2	
Columbia, Mo	784	11	84	29.18	29.99	+ .02	75.3	+ 0.6	97	15	87	55	25	64	34	...	...	...	4.74	+ 1.7	8	4,337	ne.	27	nw.	28	12	13	6	4.1	
Kansas City	963	116	181	28.97	29.97	.00	75.6	− 0.2	94	16	85	57	20	66	25	67	64	70	4.97	+ 0.2	12	7,637	s.	45	nw.	5	16	12	3	3.6	
Springfield, Mo	1,324	98	104	28.62	29.99	+ .02	75.9	+ 1.1	93	6	85	58	8	67	25	68	65	77	3.66	− 0.6	9	5,430	s.	24	w.	19	24	6	1	1.8	
Iola	984	11	50	28.96	29.98	+ .02	77.6	+ 1.3	97	11	89	59	8	66	31	...	...	...	3.29	− 0.2	9	4,364	s.	36	ne.	26	13	10	8	4.9	
Topeka	...	85	89	...	...	...	75.8	− 0.2	96	4	86	57	20	66	26	...	...	...	7.76	+ 3.5	10	5,788	se.	51	nw.	26	15	14	2	3.4	
Lincoln	1,189	11	84	28.73	29.97	+ .02	73.2	− 1.1	96	3	84	50	20	63	31	65	62	72	2.84	− 0.9	11	6,259	s.	34	se.	26	13	12	6	4.8	
Omaha	1,105	115	121	28.83	29.98	+ .02	73.2	− 1.2	96	3	82	54	20	64	27	65	61	70	2.20	− 1.4	12	5,082	s.	38	n.	21	8	13	10	5.4	
Valentine	2,598	47	54	27.31	29.99	+ .05	68.6	− 2.7	100	2	82	43	28	56	45	59	54	66	1.97	− 0.8	13	7,114	s.	52	s.	5	13	16	2	3.8	
Sioux City	1,135	96	164	28.80	29.99	+ .04	69.8	− 2.8	96	3	80	45	20	59	35	...	...	...	4.28	+ 1.3	9	7,355	se.	40	nw.	15	13	10	8	4.5	
Pierre	1,572	70	75	28.33	29.97	+ .03	71.0	− 2.1	102	1	83	48	28	59	39	59	51	57	2.32	+ 0.3	4	7,141	se.	37	nw.	26	14	11	6	4.3	
Huron	1,306	56	67	28.62	30.00	+ .05	67.0	− 2.1	97	2	80	40	22	54	40	59	55	72	1.38	− 1.3	9	7,098	se.	38	s.	30	15	9	7	4.1	
Yankton	1,233	49	57	28.68	29.98	+ .03	69.0	− 3.8	94	2	80	47	20	58	35	...	...	...	3.84	+ 0.2	7	4,713	ne.	31	s.	30	12	9	10	5.4	
Northern Slope.							64.3	− 2.4										60	1.45	+ 0.2										3.9	
Havre	2,505	11	44	27.36	29.95	+ .04	65.3	− 1.6	106	1	79	42	15	51	44	55	48	60	0.85	− 0.4	9	5,839	nw.	38	sw.	26	19	11	1	3.4	
Miles City	2,371	26	48	27.48	29.99	+ .06	68.4	− 3.1	108	1	83	44	26	54	48	57	49	56	0.63	− 0.4	6	3,826	ne.	40	nw.	25	16	12	3	3.5	
Helena	4,110	8	56	25.85	29.99	+ .05	63.0	− 3.1	98	1	76	39	26	50	38	51	42	55	0.90	+ 0.2	2	4,972	sw.	30	w.	25	18	8	5	3.6	
Kalispell	2,962	8	34	26.94	29.95	+ .02	61.9	− 1.0	92	1	76	36	27	47	41	50	42	57	0.88	0.0	6	3,805	w.	21	s.	1	19	8	4	3.4	
Rapid City	3,234	46	50	26.64	29.99	+ .06	67.0	− 1.8	96	1	80	45	23	54	46	55	46	54	0.87	− 1.2	5	5,018	w.	36	nw.	25	20	4	7	3.2	
Cheyenne	6,088	56	64	24.12	29.98	+ .06	63.2	− 2.6	89	3	76	41	31	50	35	53	47	64	2.45	+ 1.0	15	5,568	s.	40	nw.	30	13	12	6	4.7	
Lander	5,872	26	36	24.72	29.98	+ .06	62.8	− 2.9	93	9	78	29	31	48	44	51	43	58	1.52	+ 1.0	9	2,565	sw.	28	sw.	15	17	9	5	3.7	
Sheridan	3,790	9	47	26.14	29.99	.....	63.6	.....	100	1	79	37	30	48	49	53	46	63	0.95	.....	8	4,141	se.	48	nw.	25	15	9	7	4.2	
Yellowstone Park	6,200	11	48	23.99	30.02	+ .09	57.0	− 3.9	86	1	70	31	26	44	40	46	38	62	3.42	+ 2.4	15	4,486	sw.	44	nw.	9	11	6	14	5.2	T.
North Platte	2,821	11	51	27.11	29.99	+ .05	70.2	− 2.0	98	5	83	44	20	57	39	61	56	68	1.57	− 0.9	13	5,462	se.	42	n.	9	15	12	4	4.1	
Middle Slope.							74.5	− 0.8										66	3.85	+ 1.4										4.6	
Denver	5,291	129	136	24.81	29.97	+ .05	68.8	− 1.6	92	5	81	49	31	57	34	57	50	62	3.19	+ 1.8	15	4,656	s.	34	w.	13	9	15	7	5.2	
Leadville	10,248	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pueblo	4,685	80	86	25.35	29.95	+ .04	71.4	− 0.7	96	5	84	54	21	58	38	57	49	56	1.67	+ 0.1	9	4,139	se.	36	n.	6	11	15	5	4.4	
Concordia	1,398	42	50	28.54	29.98	+ .03	74.4	− 2.1	98	4	85	53	20	64	35	67	64	75	8.56	+ 5.8	17	4,399	s.	36	sw.	28	6	25	0	5.1	
Dodge	2,509	44	54	27.39	29.93	.00	76.0	− 0.5	98	10	88	54	8	64	36	65	60	66	1.51	− 1.1	7	6,761	se.	33	se.	30	12	13	6	4.5	
Wichita	1,358	90	120	28.58	29.98	+ .03	77.1	− 0.4	99	11	88	58	8	66	32	67	63	68	6.57	+ 3.5	9	6,897	s.	33	sw.	27	14	13	4	4.3	
Oklahoma	1,214	10	47	28.70	29.95	+ .01	79.2	+ 0.7	97	17	90	58	9	68	31	69	66	72	1.59	− 1.6	7	8,551	s.	42	s.	11	13	15	3	4.0	
Southern Slope.							78.0	− 1.0										69	2.60	+ 0.4										4.0	
Abilene	1,738	45	54	28.18	29.94	+ .02	80.8	− 0.4	96	10	91	61	9	70	31	69	63	62	1.23	− 0.7	4	5,069	s.	24	s.	11	11	19	1	4.6	
Amarillo	3,676	10	49	26.31	29.96	+ .04	74.4	− 0.2	97	10	86	58	8	63	33	64	60	70	2.75	− 0.1	6	7,891	s.	36	s.	26	22	9	0	3.5	
Del Rio	944	8	57	28.95	29.91	+ .01	82.0	− 2.0	101	2	92	64	17	72	29	...	...	...	3.54	+ 0.8	7	3,142	se.	34	ne.	9	20	8	3	3.4	
Roswell	3,578	9	57	26.39	29.95	+ .07	75.2	− 1.4	95	11	87	60	10	63	35	66	62	74	2.87	+ 1.4	9	3,086	se.	27	nw.	19	11	17	3	4.5	
Southern Plateau.							76.6	− 0.8										55	1.92	+ 0.3										3.6	
El Paso	3,762	110	133	26.19	29.86	+ .02	77.6	− 1.0	96	12	89	61	15	67	28	64	58	59	2.55	+ 0.8	11	6,872	e.	47	ne.	13	13	17	1	4.1	
Santa Fe	7,013	33	39	23.36	29.90	+ .01	66.0	− 1.0	86	6	77	50	21	55	29	55	50	65	2.74	+ 0.4	15	4,737	se.	34	sw.	10	12	16	3	4.2	
Flagstaff	6,907	8	57	23.46	29.89	+ .05	62.3	− 0.2	84	7	75	44	19	50	34	54	51	75	4.69	+ 1.4	16	4,843	sw.	34	nw.	21	7	15	9	5.7	
Phoenix	1,108	50	56	28.69	29.80	+ .01	87.9	− 1.1	106	6	100	70	16	76	30	69	60	45	0.81	− 0.2	5	3,129	e.	36	nw.	2	11	19	1	4.0	
Yuma	141	9	58	29.64	29.78	+ .02	91.0	+ 0.9	110	1	104	65	28	78	41	74	66	51	0.30	0.0	3	5,105	s.	36	s.	8	28	2	1	1.0	
Independence	3,910	11	42	25.97	29.88	+ .07	74.2	− 2.2	98	8	90	48	31	58	38	56	41	35	0.46	+ 0.5	3	4,519	nw.	26	nw.	30	22	6	3	2.9	
Middle Plateau.							69.3	− 0.6										46	1.36	+ 0.7										5.4	
Reno	4,532	56	63	25.48	29.90	+ .06	68.9	+ 1.9	100	7	86	37	30	52	46	50	35	37	0.20	0.0	3	4,049	w.	27	s.	2	25	5	1	1.5	
Tonopah	6,089	12	20	24.13	29.93	.....	70.9	+ 5.2	94	2	83	39	30	59	32	51	33	31	0.30	− 0.1	3	5,883	se.	37	se.	20	18	11	2	2.9	
Winnemucca	4,344	18	56	25.62	29.94	+ .06	68.4	− 2.4	100	8	87	36	30	50	48	51	39	41	0.04	− 0.1	1	3,394	ne.	28	sw.	27	20	7	4	2.6	
Modena	5,479	10	43	24.66	29.91	+ .05	67.4	− 1.2	92	4	82	41	31	53	39	56	50	60	2.76	+ 2.4	7	8,105	sw.	48	sw.	29	13	14	4	3.9	
Salt Lake City	4,366	105	110	25.63	29.92	+ .01	71.0	− 4.5	95	8	83	44	31	59	32	56	45	44	1.39	+ 0.6	9	4,509	se.	39	nw.	14	17	10	4	3.4	
Durango	6,546	18	56	23.76	29.93	+ .03	64.8	− 1.5	89	7	78	43	29	51	38	53	48	65	3.99	+ 2.2	17	3,622	nw.	24	ne.	7	1	22	8	5.9	
Grand Junction	4,608	43	51	25.40	29.92	+ .02	74.0	− 2.1	98	4	87	48	31	61	33	57	45	44	0.86	− 0.3	9	4,111	e.	33	nw.	11	20	8	3	3.3	
Northern Plateau.							69.7	− 0.7										44	0.59	+ 0.2										3.2	
Baker City	3,471	48	58	26.46	29.99	+ .04	65.0	+ 0.1	90	8	80	34	30	50	39	52	44	51	0.42	0.0	7	4,682	nw.	24	nw.	27	18	10	3	2.9	
Boise	2,739	78	86	27.14	29.94	+ .01	70.5	− 1.3	102	1	85	39	30	56	39	53	38	36	0.21	0.0	3	3,944	nw.	23	nw.	18	19	10	2	2.7	
Lewiston	757	10	51	29.14	29.94	− .01	73.5	0.0	102	17	88	46	31	58	43	...	...	...	1.03	+ 0.7	6	4,326	e.	48	w.	24	17	9	5	3.5	
Pocatello	4,477	46	54	25.52	29.96	+ .04	67.4	− 3.1	96	8	81	36	31	53	41	52	40	44	1.08	+ 0.5	8	5,868	se.	31	se.	13	17	13	1	3.0	
Spokane	1,929	101	110	27.94	29.95	.00	68.1	+ 0.2	96	19	82	42	31	54	42	52	39	43	0.57	+ 0.1	5	4,352	sw.	36	nw.	20	16	5	10	4.2	
Walla Walla	1,000	71	79	28.90	29.95	− .01	73.9	+ 0.1	100	17	86	48	26	62	35	59	48	47	0.22	− 0.2	4	4,102	s.	22	sw.	24	23	4	4	2.7	
N. Pac. Coast Reg.							59.9	− 1.2										75	1.11	+ 0.3										5.2	
Blaine	57	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
North Head	211	11	56	29.86	30.08	+ .05	54.6	− 3.3	78	17	58	48	2	52	25	53	51	89	2.02	+ 1.5	6	9,985	nw.	48	se.	27	7	6	18	6.9	
Port Crescent	259	12	29	29.81	30.10	+ .08	54.2	− 2.0	86	17	60	42	2	48	35	...	...	...	1.24	+ 0.5	9	3,102	nw.	17	sw.	21	10	18	8	5.2	
Seattle	123	185	224	29.94	30.07	+ .07	62.2	− 0.9	88	18	71	46	31	54	28	56	52	73	0.82	+ 0.3	5	4,928	s.	30	s.	27	12	10	9	5.3	
Tacoma	213	113	120	29.81	30.03	+ .01	62.0	− 1.0	90	18	72	44	31	52	31	56	51	72	0.95	+ 0.2	4	3,378	n.	20	sw.	27	13	11	7	5.0	

TABLE I.—*Climatological data for U. S. Weather Bureau stations, August, 1908*—Continued.

Stations.	Elevation of instruments.			Pressure, in inches.			Temperature of the air, in degrees Fahrenheit.												Precipitation, in inches.			Wind.									
	Barometer above sea level, feet.	Thermometers above ground.	Anemometer above ground.	Actual, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hrs.	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 .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 during daylight, tenths.	Total snowfall.
N. P. Coast Reg—Cont.																															
Tatoosh Island	86	7	57	29.97	30.06	+ .07	53.1	— 2.2	65	17	57	46	10	50	16	52	50	89	1.10	— 1.0	7	9,070	sw.	35	ne.	17	3	6	22	7.8	
Portland, Oreg.	153	68	106	29.87	30.03	+ .02	66.0	+ 0.1	94	17	76	46	30	56	31	58	54	68	1.34	+ 0.7	6	4,361	nw.	21	nw.	8	16	10	5	3.7	
Roseburg	510	9	57	29.48	30.02	+ .02	67.8	+ 1.1	102	17	84	39	26	50	47	56	48	60	0.29	0.0	4	2,533	nw.	18	nw.	5	22	7	2	2.8	
Mid. Pac. Coast Reg.							65.8	— 1.0										60	0.02	0.0										3.7	
Eureka	62	62	80	29.97	30.04	+ .04	53.7	— 2.1	66	27	58	45	27	49	21	51	50	91	0.16	+ 0.1	5	4,338	nw.	33	n.	29	4	11	16	6.5	
Mount Tamalpais	2,375	11	18	27.51	29.94	+ .01	70.2	.....	96	1	78	43	22	63	31	53	35	34	0.00	0.0	0	12,058	nw.	66	nw.	27	29	2	0	0.5	
Point Reyes Light	490	7	18	29.41	29.93	.....	53.0	.....	71	31	56	48	11	50	20	.....	.....	.....	0.00	.....	0	16,305	nw.	76	nw.	28	8	2	21	7.3	
Red Bluff	332	50	56	29.50	29.84	— .02	81.1	+ 0.1	114	7	96	55	23	66	38	61	46	36	0.00	0.0	0	3,613	se.	22	n.	29	28	3	0	0.5	
Sacramento	69	106	117	29.80	29.87	+ .02	71.4	— 0.7	103	7	87	50	24	56	41	59	51	55	0.00	0.0	0	6,923	s.	33	sw.	9	31	0	0	0.3	
San Francisco	155	200	204	29.78	29.95	+ .03	57.4	— 0.6	80	30	63	50	11	52	24	53	50	85	0.01	0.0	1	8,261	w.	33	sw.	9	11	10	10	5.0	
San Jose	141	78	88	29.80	29.94	.....	65.2	— 1.5	92	1	78	43	25	52	45	.....	.....	.....	0.00	0.0	0	4,193	nw.	36	sw.	9	29	2	0	1.9	
Southeast Farallon	30	9	17	29.94	29.97	.....	53.3	.....	63	31	56	48	16	51	12	.....	.....	.....	0.00	0.0	0	11,105	nw.	50	n.	29	6	3	22	7.6	
S. Pac. Coast Reg.							70.9	+ 0.4										66	0.18	+ 0.2										2.1	
Fresno	330	67	70	29.50	29.85	+ .03	81.5	+ 0.3	113	8	100	52	30	64	42	60	42	34	0.00	0.0	0	4,115	nw.	20	w.	13	29	2	0	0.5	
Los Angeles	338	159	191	29.55	29.91	+ .03	70.2	+ 1.6	91	1	80	55	28	61	25	62	59	76	0.08	+ 0.1	1	4,039	sw.	20	sw.	19	24	6	1	2.7	
San Diego	87	94	102	29.82	29.91	+ .02	68.0	— 0.7	79	10	72	60	28	64	12	64	61	80	0.64	+ 0.6	1	4,456	w.	19	w.	19	25	4	2	2.6	
San Luis Obispo	201	47	54	29.74	29.96	+ .02	64.0	+ 0.5	96	1	76	45	25	52	42	56	53	75	0.00	0.0	0	3,242	nw.	17	nw.	28	25	6	0	2.5	
West Indies.																															
Grand Turk	11	6	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Juan	82	48	90	29.91	30.00	+ .03	81.7	.....	91	20	87	72	14	76	14	76	74	78	4.89	— 0.1	17	7,648	e.	32	se.	8	19	6	6	3.6	
Panama.																															
Christobal	74	.....	.....	29.85	29.87	.....	78.8	.....	87	4	83	72	15	74	15	76	75	90	16.89	.....	26	5,182	s.	30	s.	7	4	17	10	6.4	
Bas Obispo	40	.....	.....	29.69	29.87	.....	78.6	.....	89	7	85	68	4	72	19	74	74	94	10.23	.....	26	2,865	nw.	20	se.	3	0	11	20	7.6	
Ancon	.....	.....	.....	29.77	29.85	.....	80.2	.....	93	20	88	69	4	73	20	75	74	88	11.48	.....	21	4,728	nw.	27	se.	3	2	14	15	6.9	
Alhajuela	.....	.....	.....	.....	.....	.....	78.7	.....	89	7	86	68	25	72	19	.....	.....	.....	16.64	.....	27	972	ne.	12	sw.	2	.....	.....	.....	.....	.....
Bohio	.....	.....	.....	.....	.....	.....	78.9	.....	91	17	86	69	4	72	21	.....	.....	.....	20.50	.....	28	1,350	e.	19	s.	7	.....	.....	.....	.....	.....
Gatun	.....	.....	.....	.....	.....	.....	78.5	.....	89	4	85	69	4	72	19	.....	.....	.....	16.22	.....	27	2,638	s.	18	n.	22	.....	.....	.....	.....	.....

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for storms in which the rate of fall equaled or exceeded 0.25 in any 5 minutes, or 0.80 inch in 1 hour, during August, 1908, 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 began.	Depths of precipitation (in inches) during periods of time indicated. 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.
Asheville, N. C.	23	2:10 p. m.	D. N. p. m.	2.09	2:33 p. m.	3:18 p. m.	0.01	0.23	0.42	0.77	0.89	1.10	1.29	1.42	1.53	1.61	.....	.....	.....	.....	.....
Atlanta, Ga.	23	6:35 p. m.	10:55 p. m.	2.36	8:40 p. m.	9:25 p. m.	0.21	0.13	0.37	0.63	0.80	1.06	1.38	1.57	1.78	1.91	.....	.....	.....	.....	.....
Baltimore, Md	5	2:10 p. m.	4:35 p. m.	1.27	2:25 p. m.	2:48 p. m.	0.01	0.31	0.72	0.94	1.08	1.13	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bismarck, N. Dak	10	5:48 p. m.	6:40 p. m.	1.03	5:49 p. m.	6:20 p. m.	T.	0.27	0.49	0.60	0.70	0.84	0.96	.....	.....	.....	.....	.....	.....	.....	.....
Block Island, R. I.	22	12:30 p. m.	5:51 p. m.	2.01	2:45 p. m.	3:52 p. m.	0.41	0.11	0.20	0.29	0.40	0.47	0.57	0.69	0.86	0.94	1.00	1.24	1.44	.....	.....
Boston, Mass.	7	1:38 p. m.	4:45 p. m.	1.73	1:48 p. m.	2:33 p. m.	T.	0.07	0.11	0.23	0.57	1.13	1.30	1.52	1.54	1.62	.....	.....	.....	.....	.....
Cairo, Ill.	7	2:50 p. m.	5:00 p. m.	1.33	3:01 p. m.	3:29 p. m.	0.01	0.22	0.41	3.74	0.91	1.00	1.04	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte, N. C.	16	3:50 p. m.	5:35 p. m.	1.23	4:16 p. m.	5:06 p. m.	0.16	0.31	0.45	0.51	0.56	0.62	0.66	0.76	0.82	0.92	1.03	.....	.....	.....	.....
Do	23	3:25 p. m.	9:15 p. m.	2.48	4:38 p. m. 5:43 p. m.	5:03 p. m. 6:21 p. m.	0.19 1.29	0.23 0.13	0.44 0.29	0.63 0.51	0.80 0.61	0.91 0.65	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chattanooga, Tenn.	4	3:41 p. m.	10:54 p. m.	1.62	5:34 p. m.	6:09 p. m.	0.17	0.17	0.17	0.18	0.31	0.56	0.72	0.81	.....	.....	.....	.....	.....	.....	.....
Do	5	9:10 a. m.	4:43 p. m.	1.44	11:03 a. m. 2:35 p. m.	11:18 a. m. 2:55 p. m.	0.20 0.83	0.10 0.11	0.25 0.22	0.47 0.37	0.51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	5-6	5:20 p. m.	1:45 a. m.	1.86	7:17 p. m.	8:02 p. m.	0.21	0.07	0.18	1.23	0.25	0.35	0.47	0.61	0.75	0.83	.....	.....	.....	.....	.....
Chicago, Ill	11-12	8:40 p. m.	3:55 a. m.	3.30	9:39 p. m. 11:51 p. m.	11:05 p. m. 12:13 a. m.	0.05 2.06	0.30 0.07	0.57 0.27	0.74 0.48	0.94 0.53	1.03 0.58	1.04	1.05	1.06	1.06	1.08	1.39	1.70	1.98	.....
Columbia, Mo.	6	5:31 a. m.	7:45 a. m.	1.24	6:36 a. m.	7:16 a. m.	0.01	0.14	0.25	0.30	0.44	0.62	0.85	1.11	1.22	.....	.....	.....	.....	.....	.....
Do	28	5:36 p. m.	8:45 p. m.	2.03	5:46 p. m.	7:31 p. m.	0.04	0.13	0.20	0.24	0.26	0.39	0.75	1.04	1.11	1.27	1.34	1.41	1.58	1.82	1.98
Columbia, S. C.	19	5:00 p. m.	11:45 p. m.	2.46	6:18 p. m. 7:35 p. m.	6:46 p. m. 7:54 p. m.	0.03 1.37	0.27 0.14	0.52 0.29	0.64 0.43	0.92 0.53	1.14	1.27	.....	.....	.....	.....	.....	.....	.....	.....
Concord, N. H	5	6:12 p. m.	10:24 p. m.	1.76	7:44 p. m.	8:39 p. m.	0.21	0.07	0.12	0.15	0.30	0.50	0.83	0.95	0.99	1.00	1.06	1.35	.....	.....	.....
Concordia, Kans.	6-7	10:55 p. m.	8:50 a. m.	2.91	2:26 a. m.	3:25 a. m.	1.40	0.14	0.31	0.37	0.48	0.52	0.57	0.60	0.64	0.72	0.78	0.95	.....	.....	.....
Do	26	3:32 p. m.	5:30 p. m.	2.54	3:38 p. m.	4:24 p. m.	0.01	0.10	0.41	0.83	1.36	1.78	2.09	2.23	2.35	2.43	.....	.....	.....	.....	.....
Davenport, Iowa	11-12	4:30 p. m.	11:20 a. m.	3.52	5:54 p. m. 11:08 p. m.	6:24 p. m. 11:38 p. m.	0.05 2.27	0.08 0.16	2.27 0.30	0.58 0.41	0.83 0.52	1.20 0.58	1.33 0.66	.....	.....	.....	.....	.....	.....	.....	.....
Del Rio, Tex.	20	3:50 p. m.	10:20 p. m.	1.37	4:34 p. m.	5:04 p. m.	0.25	0.20	0.39	0.53	0.63	0.82	0.88	.....	.....	.....	.....	.....	.....	.....	.....
Des Moines, Iowa	14-15	7:45 p. m.	6:35 a. m.	4.31	8:51 p. m.	10:15 p. m.	0.26	0.23	0.30	0.34	0.43	0.54	0.84	0.92	1.02	1.19	1.40	2.10	3.05	3.16	.....
Evansville, Ind	10	4:10 p. m.	11:00 p. m.	3.76	5:33 p. m.	6:28 p. m.	0.58	0.12	0.30	0.50	0.71	1.05	1.53	1.86	2.01	2.25	2.45	2.50	.....	.....	.....
Flagstaff, Ariz.	2	12:20 p. m.	4:50 p. m.	1.44	3:01 p. m.	3:30 p. m.	0.14	0.11	0.41	0.75	0.96	1.06	1.15	.....	.....	.....	.....	.....	.....	.....	.....
Fort Smith, Ark.	13	7:24 a. m.	12:44 p. m.	1.88	7:34 a. m.	9:28 a. m.	0.01	0.21	0.34	0.40	0.50	0.57	0.62	0.66	0.70	0.80	0.83	0.88	1.08	1.42	1.57
Do	19-20	9:00 p. m.	D. N. a. m.	2.98	11:02 p. m.	12:40 a. m.	0.03	0.23	0.60	0.92	1.24	1.52	1.73	1.79	1.92	2.01	2.03	2.06	2.31	2.70	.....
Fort Worth, Tex.	23	2:40 a. m.	6:50 a. m.	1.33	4:06 a. m.	4:38 a. m.	0.26	0.12	0.32	0.48	0.62	0.70	0.77	0.80	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.	17-18	9:00 p. m.	11:00 a. m.	2.09	12:16 a. m.	12:41 a. m.	0.80	0.18	0.29	0.47	0.66	0.75	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven, Mich.	3-4	8:04 p. m.	D. N. a. m.	3.23	8:43 p. m. 3:07 a. m.	9:16 p. m. 3:16 a. m.	0.09 2.88	0.07 0.14	0.31 0.35	0.47	0.61	0.74	0.86	0.94	.....	.....	.....	.....	.....	.....	.....
Do	15-16	8:25 p. m.	7:20 a. m.	1.82	4:33 a. m.	5:32 a. m.	0.53*	0.17*	0.26*	0.39*	0.46*	0.62*	0.68*	0.76*	0.89*	1.01*	1.08*	1.27*	.....	.....	.....
Grand Rapids, Mich.	15-16	4:28 p. m.	7:50 a. m.	2.63	9:47 p. m. 12:09 a. m. 5:49 a. m.	10:34 p. m. 12:38 a. m. 6:12 a. m.	0.13 1.02 1.78	0.05 0.08 0.10	0.18 0.17 0.33	0.25 0.21 0.45	0.36 0.33 0.56	0.50 0.51 0.63	0.55 0.60	0.56	0.58	0.71	0.77	.....	.....	.....	.....
Harrisburg, Pa.	7	12 noon.	2:45 p. m.	1.17	12:22 p. m.	12:52 p. m.	0.03	0.35	0.71	0.89	0.93	0.96	1.03	.....	.....	.....	.....	.....	.....	.....	.....
Hatteras, N. C.	26	10:15 a. m.	1:45 p. m.	3.08	10:17 a. m.	12:07 p. m.	T.	0.10	0.30	0.48	0.70	1.03	1.36	1.41	1.57	1.66	1.68	1.95	2.61	2.88	3.06
Iola, Kans.	31	5:25 p. m.	6:48 p. m.	1.03	5:29 p. m.	5:44 p. m.	0.01	0.47	0.80	0.99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jupiter, Fla.	29	11:10 a. m.	1:35 p. m.	2.05	11:21 a. m.	11:56 a. m.	0.03	0.22	0.46	0.58	0.87	1.16	1.39	1.48	.....	.....	.....	.....	.....	.....	.....
Key West, Fla.	5	4:10 a. m.	5:00 a. m.	1.00	4:15 a. m.	4:45 a. m.	T.	0.07	0.27	0.53	0.78	0.86	0.93	.....	.....	.....	.....	.....	.....	.....	.....
Do	26-27	9:10 p. m.	D. N. a. m.	1.44	9:13 p. m.	9:38 p. m.	T.	0.35	0.77	1.03	1.23	1.37	.....	.....	.....	.....	.....	.....	.....	.....	.....
La Salle, Ill.	15	5:49 p. m.	6:42 p. m.	1.02	5:49 p. m.	6:19 p. m.	0.00	0.23	0.66	0.75	0.78	0.92	1.00	.....	.....	.....	.....	.....	.....	.....	.....
Macon, Ga.	24-25	6:35 p. m.	5:25 p. m.	2.84	1:05 p. m.	2:00 p. m.	0.77	0.21	0.44	0.52	0.63	0.84	0.96	1.17	1.46	1.67	1.86	1.93	.....	.....	.....
Memphis, Tenn	4	12:45 p. m.	1:35 p. m.	0.50	1:19 p. m.	1:28 p. m.	0.01	0.24	0.49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	4	4:14 p. m.	8:45 p. m.	1.24	6:24 p. m.	7:04 p. m.	0.07	0.13	0.26	0.34	0.41	0.51	0.60	0.68	0.77	.....	.....	.....	.....	.....	.....
Meridian, Miss.	2	D. N. a. m.	3:00 p. m.	1.85	10:25 a. m.	11:25 a. m.	0.59	0.05	0.15	0.20	0.23	0.28	0.40	0.48	0.56	0.80	0.86	1.00	.....	.....	.....
Montgomery, Ala.	7	3:20 p. m.	4:35 p. m.	1.26	3:28 p. m.	4:07 p. m.	0.01	0.30	0.59	0.85	0.98	1.02	1.12	1.18	1.24	.....	.....	.....	.....	.....	.....
Moorhead, Minn	29	8:04 a. m.	9:40 a. m.	2.00	8:04 a. m.	9:11 a. m.	0.00	0.34	1.02	1.24	1.28	1.33	1.34	1.35	1.38	1.40	1.40	1.72	1.98	.....	.....
New Haven, Conn.	22	5:25 a. m.	4:05 p. m.	2.93	11:02 a. m.	11:42 a. m.	0.82	0.08	0.27	0.50	0.67	0.87	1.00	1.19	1.24	.....	.....	.....	.....	.....	.....
New Orleans, La	6	10:45 a. m.	12:05 p. m.	1.43	11:02 a. m.	11:49 a. m.	0.10	0.34	0.66	0.92	1.02	1.06	1.09	1.15	1.21	1.29	.....	.....	.....	.....	.....

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, etc.*—Continued.

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive 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.
Norfolk, Va	23	10:15 a. m.	12:40 p. m.	1.87	10:23 a. m.	12: noon.	0.03	0.22	0.27	0.28	0.30	0.44	0.68	0.86	1.06	1.10	1.17	1.46	1.57	1.81	.....
Do	23-24	9:55 p. m.	D. N. a. m.	1.45	12:42 a. m.	1:15 a. m.	0.14	0.08	0.17	0.28	0.39	0.48	0.66	0.72	.....	.....	.....	.....	.....	.....	.....
Pensacola, Fla	24	2:05 p. m.	4:25 p. m.	1.25	2:15 p. m.	3:22 p. m.	0.01	0.05	0.15	0.26	0.43	0.63	0.72	0.72	0.72	0.73	0.75	0.93	1.18	.....	.....
Port Huron, Mich	12	D. N. a. m.	8:15 a. m.	1.69	5:18 a. m.	5:43 a. m.	0.13	0.13	0.33	0.41	0.64	0.69	.....	.....	.....	.....	.....	.....	.....	.....	.....
					6:12 p. m.	6:37 a. m.	0.91	0.11	0.21	0.34	0.45	0.62	.....	.....	.....	.....	.....	.....	.....	.....	.....
Raleigh, N. C	23-24	9:00 p. m.	10:50 a. m.	2.42	5:46 p. m.	6:47 a. m.	0.26	0.15	0.38	0.59	0.66	0.70	0.89	1.00	1.12	1.20	1.25	1.35	1.47	.....	.....
Do	24-25	1:30 p. m.	7:50 a. m.	3.74	2:56 p. m.	3:27 p. m.	0.10	0.06	0.23	0.37	0.41	0.50	0.76	0.79	.....	.....	.....	.....	.....	.....	.....
					4:57 p. m.	5:54 p. m.	0.98	0.08	0.19	0.23	0.37	0.45	0.49	0.49	0.50	0.61	0.71	0.88	.....	.....	.....
					11:20 p. m.	11:30 p. m.	2.63	0.18	0.36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	25-26	9:35 p. m.	7:45 a. m.	1.70	9:41 p. m.	10:20 p. m.	0.01	0.11	0.15	0.27	0.36	0.48	0.51	0.61	0.65	.....	.....	.....	.....	.....	.....
Richmond, Va	19	9:10 p. m.	10:25 p. m.	2.97	9:14 p. m.	10:00 p. m.	0.01	0.40	0.86	1.14	1.57	2.27	2.60	2.69	2.75	2.85	2.91	.....	.....	.....	.....
San Antonio, Tex	19	1:00 p. m.	3:28 p. m.	1.18	1:03 p. m.	1:57 p. m.	0.01	0.11	0.22	0.29	0.33	0.37	0.50	0.66	0.86	0.99	1.07	1.14	.....	.....	.....
Do	20	2:05 p. m.	4:00 p. m.	1.19	2:37 p. m.	3:02 p. m.	0.04	0.12	0.31	0.73	0.98	1.11	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sandusky, Ohio	5	D. N. a. m.	D. N. a. m.	1.00	1:57 a. m.	2:35 a. m.	0.01	0.19	0.24	0.35	0.46	0.67	0.80	0.90	0.92	.....	.....	.....	.....	.....	.....
Sault Sainte Marie, Mich	3	3:40 a. m.	6:25 a. m.	1.18	5:40 a. m.	6:04 a. m.	0.42	0.15	0.36	0.51	0.63	0.74	.....	.....	.....	.....	.....	.....	.....	.....	.....
Savannah, Ga	24-25	D. N. p. m.	D. N. a. m.	0.82	11:55 p. m.	12:20 a. m.	0.02	0.29	0.58	0.64	0.73	0.79	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sioux City, Iowa	15	5:50 p. m.	7:30 p. m.	1.19	6:30 p. m.	6:47 p. m.	0.02	0.18	0.60	0.86	0.93	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Springfield, Ill	29	5:43 a. m.	8:40 a. m.	1.36	6:19 a. m.	7:10 a. m.	0.10	0.25	0.31	0.33	0.40	0.46	0.57	0.73	0.77	0.85	1.03	.....	.....	.....	.....
Tampa, Fla	27	3:20 p. m.	5:00 p. m.	1.77	3:56 p. m.	4:30 p. m.	0.23	0.05	0.38	0.62	0.81	1.17	1.44	1.54	.....	.....	.....	.....	.....	.....	.....
Do	30	3:03 p. m.	5:30 p. m.	1.89	3:10 p. m.	3:58 p. m.	T.	0.11	0.18	0.26	0.56	1.01	1.39	1.60	1.72	1.80	1.84	.....	.....	.....	.....
Taylor, Tex	19	11:30 a. m.	12:05 p. m.	1.05	11:32 a. m.	12 noon.	T.	0.22	0.43	0.62	0.85	1.00	1.05	.....	.....	.....	.....	.....	.....	.....	.....
Toledo, Ohio	5	12:02 a. m.	1:45 a. m.	1.80	12:47 a. m.	1:30 a. m.	0.17	0.23	0.35	0.43	0.49	0.71	1.09	1.35	1.49	1.61	.....	.....	.....	.....	.....
Topeka, Kans	6	4:18 p. m.	10:35 p. m.	1.30	7:50 p. m.	8:07 p. m.	0.48	0.19	0.42	0.56	0.61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	7	12:15 a. m.	10:05 a. m.	2.63	5:52 a. m.	6:32 a. m.	1.48	0.06	0.10	0.21	0.30	0.39	0.51	0.55	0.64	.....	.....	.....	.....	.....	.....
Do	19	3:59 a. m.	8:25 a. m.	1.10	4:36 a. m.	4:59 a. m.	0.08	0.24	0.42	0.58	0.71	0.77	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	26	5:35 p. m.	8:45 p. m.	1.00	6:20 p. m.	6:37 p. m.	0.04	0.08	0.30	0.50	0.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wichita, Kans	26-27	10:25 p. m.	D. N. a. m.	3.57	11:57 p. m.	12:24 a. m.	0.07	0.05	0.11	0.28	0.70	1.00	1.02	.....	.....	.....	.....	.....	.....	.....	.....
					1:53 a. m.	2:45 a. m.	1.15	0.17	0.41	0.57	0.83	0.98	1.22	1.54	1.87	2.17	2.36	2.40	.....	.....	.....
Wilmington, N. C	7	4:00 p. m.	4:50 p. m.	0.96	4:13 p. m.	4:41 p. m.	0.03	0.12	0.28	0.57	0.81	0.88	0.93	.....	.....	.....	.....	.....	.....	.....	.....
Do	9	3:35 p. m.	6:55 p. m.	2.37	3:52 p. m.	3:58 p. m.	0.01	0.22	0.36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
					4:29 p. m.	5:46 p. m.	0.38	0.07	0.13	0.16	0.24	0.41	0.47	0.58	0.69	0.72	0.80	1.38	1.92	.....	.....
Yankton, S. Dak	14	D. N. a. m.	8:55 a. m.	0.93	6:48 a. m.	7:40 a. m.	0.08	0.11	0.22	0.32	0.34	0.34	0.35	0.38	0.46	0.62	0.71	0.84	.....	.....	.....

*Partly estimated.

TABLE III.—*Data furnished by the Canadian Meteorological Service, August, 1908.*

Stations.	Pressure. Actual, reduced to mean of 24 hours.	Pressure. Sea level, reduced to mean of 24 hours.	Pressure. Departure from normal.	Temperature. Mean.	Temperature. Departure from normal.	Temperature. Mean maximum.	Temperature. Mean minimum.	Precipitation. Total.	Precipitation. Departure from normal.	Precipitation. Total snowfall.
	Ins.	Ins.	Ins.	°	°	°	°	Ins.	Ins.	Ins.
St. Johns, N. F	29.86	29.99	+.03	60.3	+ 0.5	67.4	53.2	2.01	—2.07	.....
Sydney, C. B. I	29.98	30.02	+.07	62.9	— 0.4	72.1	53.7	2.26	—1.36	.....
Halifax, N. S	29.92	30.02	+.06	62.6	— 1.0	71.6	53.6	10.66	+6.31	.....
Grand Manan, N. B	29.94	29.99	+.04	61.8	+ 0.3	69.3	54.3	4.98	+1.32	.....
Yarmouth, N. S	29.96	30.03	+.06	59.6	— 0.6	66.9	52.2	4.21	+0.20	.....
Charlottetown, P. E. I	29.94	29.98	+.04	64.2	— 0.1	71.6	56.9	5.53	+1.79	.....
Chatham, N. B	29.94	29.96	+.03	64.9	+ 1.7	75.9	53.9	4.15	+0.11	.....
Father Point, Que	29.91	29.93	+.02	56.0	+ 0.4	64.2	47.9	3.86	+0.81	.....
Quebec, Que	29.65	29.97	+.04	63.5	+ 0.4	72.5	54.4	5.72	+1.89	.....
Montreal, Que	29.76	29.96	+.01	66.6	+ 0.2	74.2	59.1	2.83	—0.74	.....
Rockliffe, Ont.	29.37	29.97	+.01	60.1	— 3.1	71.0	49.2	1.42	—1.53	.....
Ottawa, Ont	29.73	.....	.....	66.7	+ 1.9	77.9	55.5	1.43	—1.60	.....
Kingston, Ont	29.70	30.01	+.03	65.5	— 1.5	73.6	57.4	2.77	+0.39	.....
Toronto, Ont	29.66	30.02	+.03	67.0	+ 1.0	77.8	56.1	2.83	+0.07	.....
White River, Ont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Stanley, Ont	29.39	30.02	+.02	65.9	.0.0	75.9	55.9	4.33	+1.91	.....
Southampton, Ont	29.32	.....	.....	65.2	+ 1.4	73.7	56.7	2.14	—0.11	.....
Parry Sound, Ont	29.33	30.01	+.03	65.7	+ 2.2	76.8	54.5	3.74	+1.02	....
Port Arthur, Ont	29.26	29.97	+.01	60.6	+ 1.1	71.8	49.4	3.71	+0.96	....
Winnipeg, Man	29.12	29.94	.00	62.2	— 1.2	74.3	50.0	2.44	—0.23	....
Minnedosa, Man	28.13	29.92	—.02	58.4	— 1.0	70.9	46.0	2.83	+0.73	....
Qu' Appelle, Assin.	27.70	29.93	.00	58.0	— 3.5	69.4	46.6	1.91	+0.27	....
Medicine Hat, Alberta.	27.70	29.94	+.02	64.8	— 0.9	78.5	51.2	1.84	—0.33	....
Swift Current, Sask.	27.43	29.96	+.03	61.5	— 2.5	74.8	48.1	1.12	—0.79	....
Calgary, Alberta	26.46	29.94	+.03	57.8	— 1.6	71.3	44.4	1.52	—0.62	....
Banff, Alberta	25.44	29.97	+.06	55.7	— 0.6	70.4	40.9	1.74	—0.79	....
Edmonton, Alberta	27.67	29.93	+.01	58.5	— 0.3	70.6	46.4	1.71	—0.42	....
Prince Albert, Sask	.....	.....	.....	.....	.....	.....	.....	.....	.....	....
Battleford, Sask	28.21	29.94	+.03	57.4	— 5.2	70.2	44.7	1.58	—0.78	....
Kamloops, B. C.	28.65	29.84	—.07	68.8	+ 0.2	65.9	41.4	1.46	+0.37	....
Victoria, B. C.	29.93	30.02	+.01	61.0	+ 2.3	70.5	51.4	0.67	+0.07	....
Barkerville, B. C.	25.75	30.03	+.13	53.7	— 2.6	81.4	56.2	3.72	+0.62	....
Hamilton, Bermuda	29.97	30.13	+.03	80.8	+ 1.2	86.5	75.2	1.82	—4.26	....
Dawson, Yukon	.....	.....	.....	.....	.....	.....	.....	.....	.....	....

TABLE IV.—*Heights of rivers referred to zeros of gages, August, 1908.*

Stations.	Distance to mouth of river.	Flood stage on gage.	Highest water. Height.	Highest water. Date.	Lowest water. Height.	Lowest water. Date.	Mean stage.	Monthly range.
	Miles.	Feet.	Feet.		Feet.		Feet.	Feet.
Republican River.								
Clay Center, Kans	42	18	13.8	21	6.7	31	8.9	7.1
Smoky Hill-Kansas River.								
Abilene, Kans	254	22	8.2	29	2.6	8,19	4.4	5.6
Manhattan, Kans	160	18	11.5	22	4.3	18	6.5	7.2
Topeka, Kans	87	21	13.7	23	7.8	6,19	9.9	5.9
Missouri River.								
Townsend, Mont.	2,504	11	4.9	1	4.3	12,13, 15-17	4.5	0.6
Fort Benton, Mont.	2,285	12	3.5	1	1.0	23,24, 27-31	1.9	2.5
Wolfpoint, Mont.	1,952	17	0.9	1	— 1.2	19-27	—0.7	2.1
Bismarck, N. Dak.	1,309	14	6.0	1	3.3	21,22	4.2	2.7
Pierre, S. Dak.	1,114	14	5.6	1	2.5	22,26-28	3.4	3.1
Sioux City, Iowa	784	17	9.6	3,4	6.3	29,31	7.8	3.3
Blair, Nebr.	705	15	9.4	1	6.0	30,31	7.8	3.4
Omaha, Nebr.	669	18	12.6	4,5	9.7	31	11.3	2.9
St. Joseph, Mo.	481	10	7.4	1	3.6	31	5.4	3.8
Kansas City, Mo.	388	21	14.0	1	11.1	16,17, 19,31	12.1	2.9
Glasgow, Mo.	231	21	14.6	1	11.3	29	12.5	3.3
Boonville, Mo.	199	20	14.5	1	11.6	18,19	12.5	2.9
Hermann, Mo.	103	24	13.0	1	9.8	20,22	10.9	3.2
Minnesota River.								
Mankato, Minn	127	18	7.7	1	3.5	27	4.9	4.2
St. Croix River.								
Stillwater, Minn.	23	11	7.5	1,2	3.0	28	4.9	4.5
Illinois River.								
La Salle, Ill.	197	18	13.3	14	11.8	30,31	12.4	1.5
Peoria, Ill.	135	14	9.5	20,21	8.5	31	9.0	1.0
Conemaugh River.								
Johnstown, Pa	64	7	1.0	6-8,18, 22,23	0.5	17,30,31	0.8	0.5
Allegheny River.								
Warren, Pa.	177	14	1.0	19,20	— 0.3	31	0.5	1.3
Parker, Pa.	73	20	1.3	6-8	0.2	30,31	0.8	1.1
Freeport, Pa.	29	20	2.8	9,10	0.7	30,31	1.7	2.1
Springdale, Pa	17	—	7.2	1,9	5.6	31	6.5	1.6
Youghiogheny River.								
Confluence, Pa.	59	10	0.4	7,24	0.1	12-17, 27-31	0.2	0.3
West Newton, Pa.	15	23	1.0	7,20	0.1	17,18	0.5	0.9
Monongahela River.								
Fairmont, W. Va.	119	25	14.8	7	13.9	29-31	14.2	0.9
Greensboro, Pa.	81	18	7.2	1	6.3	27,28	6.7	0.9
Lock No. 4, Pa.	40	28	8.9	31	6.9	20,21, 23,24	7.4	2.0
Muskingum River.								
Zanesville, Ohio	70	25	8.9	7,8	7.8	23-31	8.1	1.1
Little Kanawha River.								
Creston, W. Va.	38	20	2.3	1,6,7	0.7	31	1.7	1.6
New-Great Kanawha River.								
Hinton, W. Va.	153	14	5.0	27	1.4	23,24	2.4	3.6
Charleston, W. Va.	58	30	8.8	28	4.6	1	6.9	4.2
Scioto River.								
Columbus, Ohio	110	17	3.2	6	1.8	3,4,31	2.5	1.4
Licking River.								
Falmouth, Ky.	30	25	2.0	9	0.5	29-31	0.8	1.5
Kentucky River.								
Beattyville, Ky	254	30	2.3	9,11	0.0	25-31	0.6	2.3
Frankfort, Ky.	65	31	6.8	11,12	5.0	29-31	5.7	1.8
Wabash River.								
Mount Carmel, Ill.	75	15	3.2	18	0.9	31	2.0	2.3
Cumberland River.								
Burnside, Ky.	518	50	2.2	10	— 0.1	21,22	0.6	2.3
Celina, Tenn.	383	45	3.3	13	1.3	21,22	1.9	2.0
Carthage, Tenn.	308	40	2.3	14,15	1.2	31	1.7	1.1
Nashville, Tenn	193	40	8.3	1	7.4	8,9	7.7	0.9
Clarksville, Tenn.	126	43	4.2	20	2.0	30,31	3.2	2.2
Clinch River.								
Speers Ferry, Va.	156	20	1.4	10	0.0	31	0.5	1.4
Clinton, Tenn	52	25	7.0	25	3.0	6	4.2	4.0
South Fork Holston River.								
Bluff City, Tenn.	35	12	1.4	10	0.5	3,5,8, 14-18,21	0.7	0.9
Holston River.								
Rogersville, Tenn.	103	14	3.4	27	1.7	19	2.2	1.7
French Broad River.								
Asheville, N. C.	144	4	4.9	26	— 0.2	2,3	0.8	5.1
Dandridge, Tenn.	46	12	5.8	27	0.9	17	1.9	4.9
Tennessee River.								
Knoxville, Tenn.	635	12	7.4	27	0.6	17	2.4	6.8
Loudon, Tenn	590	25	5.2	28	1.2	17-19	2.4	4.0
Kingston, Tenn.	556	25	5.3	28	1.8	19-20	2.9	3.5
Chattanooga, Tenn.	452	33	7.7	25	2.8	5	4.4	4.9
Bridgeport, Ala	402	24	5.0	25	0.9	20	2.6	4.1
Guntersville, Ala.	349	31	8.1	26	2.9	21,22	4.7	5.2
Florence, Ala.	255	16	4.2	27	0.7	2	1.9	3.5
Riverton, Ala.	225	26	7.4	27	2.6	3,21	4.1	4.8
Johnsonville, Tenn.	95	21	6.0	29	2.5	5	3.7	3.5
Ohio River.								
Pittsburg, Pa.	966	22	6.0	9	4.8	13	5.4	1.2
Coraopolis, Pa.	956	25	9.9	10,22	6.7	2	9.1	3.2
Beaver Dam, Pa.	937	27	5.0	1	1.7	31	3.3	3.3
Wheeling, W. Va.	875	36	4.4	7	1.4	30	2.8	3.0
Parkersburg, W. Va.	785	36	7.2	1	1.6	31	3.6	5.6
Point Pleasant, W. Va.	703	39	7.7	1	1.9	25	3.5	5.8
Huntington, W. Va	660	50	11.8	1	4.4	26	6.7	7.4
Catlettsburg, Ky.	651	50	11.5	1	3.2	26	5.2	8.3
Portsmouth, Ohio	612	50	12.4	1	3.6	27	6.4	8.8
Maysville, Ky.	559	50	13.2	1	4.2	28	7.0	9.0
Cincinnati, Ohio	499	50	15.3	1	5.4	29	8.6	9.9
Madison, Ind	413	46	12.5	2	4.6	25	7.6	7.9
Louisville, Ky.	367	28	6.8	2	2.7	23-31	4.2	4.1
Evansville, Ind	184	35	10.0	5	4.1	31	6.9	5.9
Mount Vernon, Ind.	148	35	9.7	5	4.3	31	6.8	5.4
Paducah, Ky.	47	40	8.4	1	4.2	27	6.3	4.2
Cairo, Ill.	1	45	22.0	1	13.9	28	17.2	8.1
Neosho River.								
Iola, Kans	262	10	2.0	23	— 0.4	18	0.3	2.4
Oswego, Kans.	184	20	2.8	24	0.4	17-23	0.9	2.4
Fort Gibson, Okla	3	22	10.5	3	9.0	31	9.8	1.5
Canadian River.								
Calvin, Okla.	99	10	4.4	28	2.7	8,9	3.3	1.7
Black River.								
Blackrock, Ark.	67	12	5.7	9	3.0	31	3.9	2.7
White River.								
Calicorock, Ark	272	18	2.6	15	0.3	7	1.3	2.3
Batesville, Ark.	217	18	4.2	16	2.4	4-7	3.1	1.8
Clarendon, Ark.	75	30	12.0	25,26	10.5	11	11.2	1.5
Arkansas River.								
Wichita, Kans	882	10	— 0.8	24	— 2.1	18	—1.6	1.3
Tulsa, Okla.	551	16	4.1	31	2.4	13-19,24	3.0	1.7
Webbers Falls, Okla.	465	23	7.0	27,28	5.4	15-19	6.1	1.6
Fort Smith, Ark.	403	22	7.4	20	5.2	27	5.8	2.2
Dardanelle, Ark.	256	21	6.6	3	5.1	13,19,20	5.8	1.5
Little Rock, Ark	176	23	6.5	1,5,16	4.9	14	5.7	1.6
Pine Bluff, Ark.	121	25	10.2	1	8.4	15	9.2	1.8
Yazoo River.								
Greenwood, Miss	175	38	5.6	14	3.5	31	4.7	2.1
Yazoo City, Miss.	80	25	5.4	5	1.8	31	3.3	3.6
Ouachita River.								
Camden, Ark.	304	39	6.8	11	4.0	20,31	5.1	2.8
Monroe, La.	122	40	20.1	5	4.0	31	13.2	16.1
Red River								
Arthur City, Tex.	688	27	10.8	2	6.6	21,24	7.8	4.2
Fulton, Ark.	515	28	17.4	1	9.5	25,28,29	12.1	7.9

TABLE IV.—*Heights of rivers referred to zeros of gages*—Continued.

Stations.	Distance to mouth of river.	Flood stage on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.
			Height.	Date.	Height.	Date.		
Red River—Cont'd.	*Miles.*	*Feet.*	*Feet.*		*Feet.*		*Feet.*	*Feet.*
Shreveport, La.	327	29	9.9	1	0.7	31	4.5	9.2
Alexandria, La.	118	36	23.8	1	7.5	31	14.5	16.3
Mississippi River.								
Fort Ripley, Minn	2,082	10	5.5	1-4	4.2	17	4.9	1.3
St. Paul, Minn.	1,954	14	7.3	1	3.8	31	5.0	3.5
Red Wing, Minn.	1,914	14	5.0	1,2	1.8	28-31	3.2	3.2
Reeds Landing, Minn.	1,884	12	5.0	1	1.6	29-31	3.1	3.4
La Crosse, Wis.	1,819	12	6.3	1	2.8	31	4.5	3.5
Prairie du Chien, Wis.	1,759	18	7.4	1	3.0	31	4.9	4.4
Dubuque, Iowa.	1,699	18	8.2	1	3.4	31	5.5	4.8
Clinton, Iowa	1,629	16	8.0	1	3.3	31	5.4	4.7
Leclaire, Iowa	1,609	10	4.5	1	1.6	28-31	2.8	2.9
Davenport, Iowa	1,593	15	7.0	1	3.1	31	4.9	3.9
Muscatine, Iowa	1,562	16	8.3	1	4.0	28,30,31	5.9	4.3
Galland, Iowa.	1,472	8	4.4	1	1.8	28,29	2.9	2.6
Keokuk, Iowa.	1,463	15	8.3	1	3.6	29,30	5.6	4.7
Warsaw, Ill	1,458	18	11.4	1	6.8	29	8.8	4.6
Hannibal, Mo	1,402	13	10.0	1	4.6	30	7.0	5.4
Grafton, Ill	1,306	23	12.7	1	6.8	31	9.1	5.5
St. Louis, Mo	1,264	30	19.3	1	10.3	31	13.6	9.0
Chester, Ill	1,189	30	17.0	1	10.0	31	12.4	7.0
New Madrid, Mo.	1,003	34	18.9	1	11.8	29	14.7	7.1
Memphis, Tenn	843	33	17.3	1	10.9	30,31	13.7	6.4
Helena, Ark.	767	42	22.0	1	13.0	31	17.2	9.0
Arkansas City, Ark.	635	42	25.4	1	15.2	31	20.0	10.2
Greenville, Miss.	595	42	20.9	1	12.3	31	16.2	8.6
Vicksburg, Miss.	474	45	25.0	1	13.5	31	18.8	11.5
Natchez, Miss.	373	46	30.1	2	16.1	31	22.4	14.0
Baton Rouge, La.	240	35	25.0	1	10.4	31	17.4	14.6
Donaldsonville, La	188	28	18.8	1	7.7	31	13.0	11.1
New Orleans, La.	108	13	12.5	1	5.7	30	8.9	6.8
Atchafalaya River.								
Simmesport, La.	127	41	31.0	1	14.1	31	22.7	16.9
Melville, La.	103	37	31.0	1	18.5	31	25.4	12.5
Morgan City, La.	19	8	5.2	2	3.7	26	4.3	1.5
Hudson River.								
Troy, N. Y.	154	14	4.2	1,14,15	2.7	4,29	3.4	1.5
Albany, N. Y.	147	12	4.6	29	1.3	7	3.1	3.3
Delaware River.								
Hancock (E. Branch), N. Y.	287	12	2.8	1	2.4	21,26, 30,31	2.6	0.4
Hancock (W. Branch), N. Y.	287	10	2.8	1	2.3	21,22, 27-31	2.5	0.5
Port Jervis, N. Y.	215	14	— 0.3	1-3	— 0.9	18	—0.6	0.6
Phillipsburg, N. J.	146	26	0.6	1	0.0	21,22,31	0.3	0.6
Trenton, N. J.	92	18	1.8	7	0.4	18-22	0.7	1.4
North Branch Susquehanna.								
Binghamton, N. Y.	183	14	1.9	1,2	1.6	16,23,30	1.7	0.3
Wilkes-Barre, Pa.	60	17	3.0	1	2.3	28-31	2.6	0.7
West Branch Susquehanna.								
Williamsport, Pa.	39	20	1.4	8	0.5	3,4,29-31	0.8	0.9
Susquehanna River.								
Harrisburg, Pa.	69	17	1.6	1	0.7	31	1.1	0.9
Shenandoah River.								
Riverton, Va.	58	22	4.7	27	— 0.8	4-8,12-17	—0.2	5.5
Potomac River.								
Cumberland, Md.	290	8	3.7	1	2.0	6-27	2.3	1.7
Harpers Ferry, W. Va.	172	18	3.0	27,28	— 0.2	13-17	0.8	3.2
James River.								
Lynchburg, Va.	260	20	5.0	26	0.7	17,18	1.3	4.3
Columbia, Va.	167	18	19.1	26	3.2	23-25	5.3	15.9
Richmond, Va.	111	10	11.7	27	0.0	23-25	1.5	11.7
Dan River.								
Danville, Va	55	8	9.5	26	— 0.1	18,19	0.9	9.6
Roanoke River.								
Clarksville, Va	196	12	13.6	26	— 0.1	20	2.2	13.7
Weldon, N. C.	129	30	45.4	28	10.1	19	16.7	35.3
Tar River.								
Greenville, N. C.	21	22	18.1	31	4.1	18	9.4	14.0
Deep River.								
Moncure, N. C.	171	25	34.3	26	7.1	6	11.8	27.2
Cape Fear River.								
Fayetteville, N. C	112	38	67.5	29	3.7	15	19.5	63.8
Pedee River.								
Cheraw, S. C.	149	27	44.3	27	2.0	18	11.1	42.3
Smiths Mills, S. C.	51	16	19.4	31	3.0	19	7.2	16.4
Lynch Creek.								
Effingham, S. C.	35	12	20.0	30	3.7	12	6.8	16.3
Black River.								
Kingstree, S. C.	45	12	6.9	30,31	0.4	17,18	2.2	6.5
Catawba-Wateree River.	*Miles.*	*Feet.*	*Feet.*		*Feet.*		*Feet.*	*Feet.*
Mount Holly, N. C.	143	15	14.2	26	1.8	2,4-7, 17-18	3.4	12.4
Catawba, S. C	107	11	28.4	25	2.5	19	7.0	25.9
Camden, S. C.	37	24	39.7	26	4.8	16	13.5	34.9
Congaree River.								
Columbia, S. C	52	15	35.8	27	0.4	16	6.5	35.4
Santee River.								
Ferguson, S. C.	82	12	23.7	31	6.5	6	11.1	17.2
Savannah River.								
Calhoun Falls, S. C.	347	15	23.8	25	2.2	5,6	4.5	21.6
Augusta, Ga.	266	32	38.8	27	6.9	18	12.5	31.9
Oconee River.								
Dublin, Ga	79	30	23.2	30	0.1	4,5	4.9	23.1
Ocmulgee River.								
Macon, Ga.	134	18	17.5	25	2.0	18	5.0	15.5
Abbeville, Ga.	51	11	9.7	31	1.7	20	3.8	8.0
Flint River.								
Montezuma, Ga.	152	20	12.0	30	1.9	21	4.8	10.1
Albany, Ga.	99	20	7.8	31	1.0	22	2.7	6.8
Bainbridge, Ga.	22	22	10.9	31	5.0	21	6.9	5.9
Chattahoochee River.								
West Point, Ga	174	20	8.9	26	1.9	17	3.3	7.0
Eufaula, Ala	90	40	17.0	27	1.3	17,18	4.5	15.7
Alaga, Ala.	30	25	16.9	28	3.1	18,19	6.1	13.8
Coosa River.								
Rome, Ga.	266	30	4.2	26	0.9	19	1.7	3.3
Gadsden, Ala.	162	22	4.1	25,26	0.9	18,19	2.2	3.2
Lock No. 4, Ala.	113	17	3.6	25	0.6	6,18-20	1.6	3.0
Wetumpka, Ala	12	45	6.8	27	2.1	18	4.0	4.7
Alabama River.								
Montgomery, Ala.	323	35	4.2	28	1.2	18-20	2.3	3.0
Selma, Ala	246	35	4.8	29	0.6	20	2.5	4.2
Black Warrior River.								
Tuscaloosa, Ala.	90	43	7.0	3	5.0	16,18,19	5.8	2.0
Tombigbee River.								
Columbus, Miss	316	33	2.8	9	— 2.2	31	—0.2	5.0
Demopolis, Ala.	168	35	12.7	6	1.5	31	4.9	11.2
Pascagoula River.								
Merrill, Miss.	78	20	10.5	8	2.5	19	5.3	8.0
Pearl River.								
Columbia, Miss.	110	18	12.6	5	5.0	31	8.2	7.6
Sabine River.								
Logansport, La.	315	25	9.5	29	1.6	19	3.9	7.9
Neches River.								
Beaumont, Tex.	18	10	1.4	9,21,23,31	0.5	1	1.1	0.9
Trinity River.								
Dallas, Tex.	320	25	13.5	26	5.2	19,20	6.8	8.3
Long Lake, Tex.	211	35	27.0	31	6.0	23	14.3	21.0
Liberty, Tex	20	25	14.4	8	5.8	30	9.3	8.6
Brazos River.								
Waco, Tex.	285	22	7.8	28	2.4	16	3.3	5.4
Hempstead, Tex	140	40	6.4	6	1.4	31	3.7	5.0
Booth, Tex	61	39	6.4	1,2	4.5	31	5.3	1.9
Colorado River.								
Austin, Tex.	214	18	5.2	10	1.4	4	2.4	3.8
Columbus, Tex.	98	24	12.3	12	6.7	27,28	8.0	5.6
Red River of the North.								
Moorhead, Minn	284	26	10.0	1	8.4	26-28	9.1	1.6
Rio Grande.								
San Marcial, N. Mex.	1,233	11	12.5	p. m., 9	8.9	a. m., 9	10.3	3.6
El Paso, Tex.	1,030	14	12.4	19,27	10.0	3,4,12	11.1	2.4
Snake River.								
Lewiston, Idaho	144	24	2.0	1	0.7	14,15, 19,20	1.1	1.3
Riparia, Wash.	67	30	3.1	1	1.4	30,31	1.9	1.7
Columbia River.								
Wenatchee, Wash	473	40	28.0	1	14.0	31	20.3	14.0
Umatilla, Oreg	270	25	12.5	1	6.8	31	8.6	5.7
The Dalles, Oreg.	166	40	19.7	1	9.3	26-29	12.5	10.4
Willamette River.								
Albany, Oreg.	118	20	1.5	1-7	1.0	18-29	1.2	0.5
Portland, Oreg.	12	15	10.7	1	4.5	31	6.7	6.2
Sacramento River.								
Red Bluff, Cal.	265	23	0.8	1-8	0.5	29-31	0.7	0.3
Colusa, Cal.	156	28	2.6	1,2	2.0	31	2.3	0.6
Knights Landing, Cal.	99	18	1.3	1,2	0.5	28-31	0.8	0.8
Sacramento, Cal.	64	25	6.4	1,2	5.6	29	6.0	0.8
San Joaquin River.								
Pollasky, Cal.	203	10	1.3	7	0.0	14-31	0.2	1.3
Firebaugh, Cal	148	14	0.8	7	— 1.3	30,31	0.5	2.1
Lathrop, Cal.	49	14	1.0	1,2,24	0.0	30,31	0.7	1.0

Honolulu, T. H., latitude 21° 18′ north, longitude 157° 51′ west; barometer above sea, 33 feet; gravity correction, —0.057 inch, applied. August, 1908.

Day.	Pressure, in inches.*		Air temperature, degrees Fahrenheit.				Moisture.				Wind, in miles per hour.				Precipitation, inches.		Clouds.					
							8 a. m.		8 p. m.		8 a. m.		8 p. m.				8 a. m.			8 p. m.		
	8 a. m.	8 p. m.	8 a. m.	8 p. m.	Maximum.	Minimum.	Wet.	Relative humidity.	Wet.	Relative humidity.	Direction.	Velocity.	Direction.	Velocity.	8 a. m.	8 p. m.	Amount.	Kind.	Direction, from.	Amount.	Kind.	Direction, from.
							°	%	°	%												
1	30.07	30.04	77.0	75.0	82	73	66.8	58	67.0	66	e.	12	ne.	10	T.	0.00	2	Cu.	e.	1	Cu.	ne.
2	30.07	30.03	76.2	75.5	82	70	68.0	65	68.5	70	e.	6	e.	10	0.05	0.00	8	S.-cu.	ne.	1	Cu.	ne.
3	30.03	30.04	78.4	75.0	81	71	67.2	56	69.0	74	ne.	12	e.	12	0.00	0.02	Few Few	Cu. Cu.-n.	e. 0	3 1	A.-s. Cu.	w. ne.
4	30.05	30.04	78.0	75.5	82	71	69.0	63	68.0	68	ne.	12	e.	6	0.00	0.00	Few	Cu.	0	Few	Cu.	ne.
5	30.04	30.01	79.0	76.0	82	75	69.5	62	68.5	68	ne.	14	se.	10	0.00	0.00	Few	Cu.	0	4 4	Ci.-s. Cu.	s. ne.
6	30.01	29.98	78.0	75.5	82	74	69.2	64	69.0	72	ne.	7	e.	5	0.00	T.	6 2	Ci. Cu.	w. e.	1 8	A.-s. Cu.	sw. ne.
7	30.03	29.99	76.2	75.3	81	73	70.0	73	67.0	65	e.	4	ne.	15	0.00	T.	8	S.-cu.	e.	6 1	Ci.-s. Cu.	nw. sw.
8	30.07	30.04	79.0	75.5	82	73	69.0	60	70.0	76	e.	13	e.	5	0.00	T.	6 2	A.-cu. S.-cu.	nw. e.	2 7	Ci.-cu. Cu.	s. e.
9	30.04	29.99	77.5	76.0	82	72	70.0	69	69.0	70	e.	7	ne.	2	T.	0.00	6	S.-cu.	ne.	10	Cu.	ne.
10	30.00	30.00	77.6	74.5	82	72	68.0	61	67.0	68	e.	10	e.	4	0.00	0.00	4	Cu.	e.	Few Few	S.-cu. Cu.	ne. ne.
11	30.05	30.02	76.0	75.0	82	71	67.0	62	67.0	66	ne.	2	ne.	9	0.00	0.00	8	S.-cu.	e.	Few 1	S.-cu. Cu.	e. ne.
12	30.06	29.99	75.6	75.5	82	72	70.0	75	72.0	84	e.	2	e.	3	0.01	0.05	8	S.-cu.	ne.	10	N.	ne.
13	30.04	30.02	75.2	74.5	82	72	72.3	87	72.0	89	ne.	4	e.	2	0.48	0.03	9	S.-cu.	e.	10	N.	ne.
14	30.04	30.01	77.8	75.5	82	73	70.0	68	69.0	72	ne.	5	e.	7	T.	0.00	6 2	A.-cu. S.-cu.	e. e.	2	S.-cu.	ne.
15	30.03	30.02	78.2	75.5	82	72	70.2	67	69.0	72	e.	5	ne.	8	0.00	0.00	Few 4	Ci.-s. Cu.	0 e.	9	S.	e.
16	30.01	30.00	77.6	75.0	82	72	68.1	62	69.0	74	ne.	4	e.	4	0.00	0.00	4	Cu.	ne.	4 3	A.-s. Cu.	sw. ne.
17	30.02	30.01	79.0	75.5	84	72	69.0	60	69.0	72	e.	4	e.	10	0.00	0.00	Few	Cu.	0	0	0	0
18	30.06	30.03	78.4	75.0	83	71	71.2	70	68.0	70	ne.	2	ne.	8	0.00	0.00	3	Cu.	e.	0	0	0
19	30.04	30.00	78.0	75.5	83	72	68.0	60	68.0	68	e.	5	ne.	5	0.00	0.00	4	Cu.	ne.	0	0	0
20	30.02	30.00	73.0	75.5	81	70	68.0	78	67.5	66	n.	2	ne.	7	T.	0.01	7	N.	ne.	3	S.	e.
21	30.01	29.99	76.0	74.0	82	71	68.0	66	68.0	74	ne.	4	ne.	4	0.00	0.00	3	Cu.	e.	0	0	0
22	30.01	29.97	77.0	75.0	82	72	68.0	63	67.0	66	se.	2	ne.	2	0.00	0.00	7	Cu.	e.	0	0	0
23	29.99	29.99	76.2	76.0	83	73	68.0	65	68.0	66	e.	5	ne.	5	T.	0.00	5	Cu.	e.	2 1	A.-s. Cu.	0 ? e.
24	30.01	30.00	77.0	77.0	82	72	70.0	71	69.0	67	e.	12	e.	9	0.01	T.	5	Cu.	e.	2 7	A.-s. S.	sw. ne.
25	30.04	30.01	78.3	75.0	82	71	68.0	59	70.0	78	se.	8	e.	4	T.	0.02	1 6	Ci. S.-cu.	0 e.	9	N.	e.
26	30.04	30.05	79.3	77.0	82	73	70.2	64	68.0	63	e.	12	ne.	10	0.05	0.00	5	Cu.	e.	2	S.	e.
27	30.08	30.06	78.0	76.0	83	75	69.2	64	67.0	62	e.	9	e.	10	0.00	0.00	5	Cu.	e.	Few	Cu.	ne.
28	30.07	30.03	78.0	75.0	82	73	67.0	56	69.0	74	e.	5	ne.	14	0.00	0.00	2	Cu.	ne.	0	0	0
29	30.01	29.98	76.0	77.0	80	71	71.0	78	72.0	79	w.	4	e.	2	0.00	0.00	7	S.-cu.	e.	3	S.	ne.
30	30.00	29.98	79.0	76.0	83	74	71.0	68	72.0	82	e.	8	ne.	3	0.00	T.	9	S.-cu.	e.	4	A.-s.	sw.
31	30.01	29.99	78.2	75.5	83	72	71.9	70	73.0	89	ne.	12	ne.	8	0.02	0.04	4 5	S.-cu. N.	e. e.	10	N.	e.
Mean	30.034	30.010	77.4	75.5	82.1	72.2	69.1	65.9	68.9	71.9	e.	6.9	ne. e.	6.9	0.62	0.17	5.3	Cu.	e.	4.2	Cu.	ne.

Observations are made at 8 a.m. and 8 p. m., local standard time, which is that of 157° 30′ west, and is 5h and 30m slower than 75th meridian time. *Pressure values are reduced to sea level and standard gravity.

RAINFALL IN JAMAICA.

Thru the kindness of Mr. Maxwell Hall, meteorologist to the government of Jamaica and now in charge of the meteorological service of that island, we have received the following data:

Comparative table of rainfall.

[Based upon the average stations only.]

AUGUST, 1908.

Divisions.	Relative area.	Number of stations.	Rainfall.	
			1908.	Average.
	Per cent.		*Inches.*	*Inches.*
Northeastern division	25	21	6.63	7.62
Northern division	22	49	5.40	4.35
West-central division	26	19	10.65	9.27
Southern division	27	30	5.34	5.20
Means	100	.....	7.00	6.63

The rainfall over the island for August, 1908, was the average; the forecast was therefore verified. The greatest rainfall recorded was 21.31 inches, at Troy, in the west-central division; the lowest rainfall recorded was 0.57 inch, at Buff Bay, in the southern division.

At Georgetown, Grand Cayman, the total rainfall for August, 1908, was 1.96 inches, on 9 days; the greatest daily fall was 0.54 inch, on August 29.

Correction.—The mean rainfall for the island for July, 1908, as given in the MONTHLY WEATHER REVIEW for July, 1908, should be 5.52 inches, not 0.52 inch, as there printed.

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