CLIMATOLOGICAL DATA FOR AUGUST, 1912.

DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

GENERAL SUMMARY.

The salient features of the weather of August, 1912, in the upper Mississippi Valley were the prevailing coolness in the northern part and the heavy precipitation at single stations scattered throughout the district. Viewed as a whole the month over much of the district was cool and comparatively wet. In that part of the district nearest the western end of Lake Superior the month was probably the coolest August since 1871 or earlier. At Duluth, Minn., which lies just outside the eastern boundary of the district, the month was 3° cooler than any other August in the period referred to. The latter half of the month was warmer than the first half, the differences in the mean temperatures of the two periods ranging from 2° in the north to 6° in the extreme south.

Storm frequency was somewhat greater than usual and instances of damage by lightning were numerous. The local storm that occurred at Spooner, Wis., and its vicinity on August 27 was one of the most severe of the month. This storm is said to have been of tornadic character. No lives are known to have been lost, but considerable damage was done. An unusually heavy rain occurred at Dubuque, Iowa, on the night of the 18th–19th. A description of this storm follows in a separate article.

The somewhat more than usual number of rainy days hindered agricultural operations in places, but this unfavorable feature was partly offset by reason of the fact that the soil was put in excellent condition for fall plowing.

The following table presents in condensed form the leading features of climatological interest for the various parts of the district:

Parts of States within district No. 5.	Temperature.				Precipitation.				
	Mean.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Average number of days with precipitation.
North Dakota	62.2	−2.3	101	34	2.96	+0.41	5.83	1.56	11
Minnesota	64.2	−2.2	100	32	4.03	+0.71	7.29	1.45	11
South Dakota	65.0	−3.6	97	38	2.71	+0.26	3.09	2.33	13
Wisconsin	64.2	−3.0	96	26	5.93	+2.38	9.45	1.86	12
Iowa	70.6	−1.0	101	40	3.73	−0.17	7.90	0.89	9
Missouri	75.1	−0.3	100	41	6.03	+3.11	8.70	2.24	12
Indiana	68.7	−2.7	95	40	5.31	+1.47	6.46	3.73	11
Illinois	72.4	−1.2	100	39	3.79	+0.62	8.38	1.10	10

TEMPERATURE.

The mean temperature was lower than the normal in all parts of the district except over a small area in Illinois, where the average was practically normal. Throughout the southern third of the district, however, the departures were slight, averaging less than a degree. The lowest mean temperatures, both relatively and actually, prevailed in that part of the district just west of Lake Superior, where the average was about 5° less than the normal. The lowest monthly mean temperature was 56.3°, at Deerskin Dam, Wis., and the highest monthly mean was 77.2°, at Carbondale, Ill.

As has been stated, the latter half of the month was warmer than the first half. The prevailing coolness during the former period was of marked character, and by the 15th it seemed probable that all previous records for cool Augusts would be broken. However, a decided change to warmer took place soon after the 15th, and the remainder of the month was comparatively warm, especially in southern sections. In the far north there were but two or three days with the mean temperature above the normal. In practically all cases the monthly minimum temperatures at the various stations occurred within the first five-day period. One notable exception was at Deerskin Dam, Wis., where the lowest temperature of the month, 26°, was recorded on the 26th. This was the lowest temperature reported from any station. Six other stations reported a minimum temperature of 32° or lower; and killing frost occurred at points in Wisconsin on the 3d and 4th. The monthly maximum temperatures were more numerous on the 25th than on any other date, but the 11th, 12th, 18th, 28th, or 31st were the warmest days at many stations. The highest temperature reported was 101° at Wahpeton, N. Dak., and Albia, Iowa, on the 25th, and at Marshalltown, Iowa, on the 31st. A maximum temperature of 100° occurred at 4 stations. The lowest monthly maximum temperature was 80°, at Trout Lake, Wis.

PRECIPITATION.

The normal precipitation for the upper Mississippi Valley in August is about 3.50 inches. The average for the current August was 4.19 inches, or about 0.69 inch more than the normal. Except in the Iowa area, only a few stations reported less than the normal amount. The Missouri and Wisconsin areas received the greatest falls, the average for each being about 6 inches. Koepenick, Wis., reported the heaviest monthly amount, 9.45 inches. At 10 other stations in the Wisconsin area the monthly precipitation exceeded 8 inches, while in the Missouri and the Illinois areas there were two and three stations, respectively, with amounts upward of 8 inches. Only one station had less than an inch of precipitation, namely, Washington, Iowa, where the fall was only 0.89 inch. Instances of excessively heavy rainfall, at the rate of 2.50 inches or more within a 24-hour period, occurred at 23 stations, most of which are in Iowa and Illinois. Over most of the district the precipitation was well distributed

through the month, the most prominent exception being in parts of Iowa and Illinois, where the last decade was quite dry.

RIVERS.

Owing to the heavy rainfall in the upper Wisconsin River Valley from the 6th to the 10th, inclusive, a moderate flood resulted in the Wisconsin River from the 10th to the 20th, but no heavy losses were reported. This flood is described elsewhere. Good boating stages prevailed in the Mississippi throughout the month. The excessively heavy rains in northeastern Iowa on the 18th–19th caused a rapid rise in the Maquoketa River which flooded the pumping station in the city of Maquoketa and put the waterworks out of commission for almost a day. It is reported that there was no serious property loss and no one was drowned.

MISCELLANEOUS.

In most sections there was less sunshine than usual, the average deficiency being about 5 per cent. The average number of clear days was 12; partly cloudy, 10; cloudy, 9; with 0.01 inch or more precipitation, 10. Northwesterly winds predominated, but many stations reported the prevailing direction as southwesterly. The highest velocity for a 5-minute period was at the rate of 54 miles an hour, from the east, at Minneapolis, on the 19th. At La Crosse, Wis., the highest velocity for the month was but 14 miles an hour.

HEAVY RAINFALL AT DUBUQUE, IOWA.

By JAMES H. SPENCER, Local Forecaster, United States Weather Bureau.

The rainfall during the storm of Sunday night, August 18–19 was the heaviest in 12 hours ever recorded here by the Weather Bureau; 5.17 inches fell from 6.52 p. m. of the 18th to 6.15 a. m. of the 19th; 1.88 inches fell from 7 to 8 p. m. of the 18th, and of this amount one-half inch fell in five minutes; 1.15 inches fell from 9 to 10 p. m.

There was much damage to city streets, the loss being estimated at $10,000 or more. An immense amount of macadam, brick, stones, etc., was carried down West Eighth and Hill Streets and Julien Avenue. In the vicinity of the Wales Hotel the street was practically impassable to teams for several blocks. In some cases stones weighing 100 pounds or more were carried down from the side hills and deposited in the streets. Débris was carried down West Eighth Street to below Main. Besides the streets mentioned, Couler, Kauffman, and Eagle Point Avenues were among those most damaged. Kenety & Lee, contractors, were improving Kauffman Avenue, and they lost heavily from the storm.

The Union Electric Co. experienced heavy loss. Car service was suspended in many parts of the city during a large portion of the night of the storm, owing to the condition of the streets. In some cases the tracks were buried in macadam and other débris. There was much damage at Union Park. The creek that runs through this beautiful park became a raging torrent. The water quickly overflowed its banks and tore up beds of flowers and shrubs by the roots. Benches and other paraphernalia were carried downstream and in some cases destroyed. The water rushed through the theater and rose nearly to the stage. One track to the park was buried for a mile or more in débris from the side hills. The loss to the company in the city and at the park will be several thousand dollars.

The damage from lightning in the city and county was considerable. Several houses and barns were struck, and damage resulted estimated at about $5,000.

The Illinois Central Railroad and the Chicago Great Western Railroad were crippled for about 24 hours by washouts in this vicinity, and for a few hours freight and passenger service was nearly at a standstill.

Cellars were flooded in all sections of the city.

The Mississippi River rose about 2 feet at Dubuque during the storm and another foot on the day following. Government contractors supplying brush for river improvements lost quite heavily, as the islands upon which they were working were flooded.

The wind accompanying the storm was not severe and damage to crops was not heavy.

AUGUST, 1912, FLOOD OF THE WISCONSIN RIVER.

By JAMES H. SPENCER, Local Forecaster, United States Weather Bureau.

From 3 to 4 inches of rainfall in the upper Wisconsin Valley on August 9 and 10, 1912, following many weeks of excessive precipitation in that section, caused a moderate flood in the Wisconsin River from the 10th to the 20th of the month. The river at Wausau, Wis., rose from 5 feet on the morning of the 8th to 9.9 feet on the evening of the 11th.

Losses were not heavy, and those sustained were chiefly due to the closing down of some of the mills during the highest water, to washouts which interfered with railroad traffic and particularly to delays that resulted in repairing damage sustained during the July flood.

Postmaster F. W. Kubaska, of Merrill, Wis., states relative to the flood:

> The only actual damage in the immediate vicinity of Merrill was to the cofferdam at the Grandfather Falls Co., which was under course of construction, and to the railroad bridge, upon which repairs were being made. The damage was about $2,000.

Special forecasts of high water were issued to Wausau and Merrill on the morning of the 10th, and were of value.

Very little or no damage resulted from the flood between Schofield and the mouth of the river. The crest, however, reached the Mississippi River only a short time before the occurrence in northeastern Iowa of the exceptionally heavy rainstorm of the 18th–19th. The water from this storm and the flood from the Wisconsin River raised the Mississippi River at Dubuque about 3 feet in 48 hours, and caused a loss in materials of several thousand dollars to Government contractors in this vicinity.

TABLE 1.—*Climatological data for August, 1912. District No. 5, Upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
North Dakota.																				
Amenia	Cass	954	15	64.6	− 1.5	95	25	40	2	45	4.17	+ 0.95	1.23	0	9	12	5	14	nw.	C. E. Wood.
Bottineau	Bottineau	1,638	17	61.7	− 1.7	89	11	43	26	40	2.14	+ 0.58	0.62	0	12	9	9	13	se.	W. M. Mills.
Bowbells	Burke	1,958		60.6		85	10	41	26	36	3.51		1.50	0	9	16	1	14		G. H. Phelps.
Cando	Towner	1,488	11	61.2[e]	− 1.8	93[e]	11	40[e]	2	41[e]	3.14	+ 1.00	0.78	0	10					E. T. Judd.
Crosby	Divide		6	61.4		81	11†	39	26	33	2.96		1.62	0	9	18	6	7	nw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	7	61.6	− 3.5	84	23	42	2	33	2.99	+ 0.23	0.86	0	15	4	12	15	se.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	13	60.2	− 4.2	84	23	37	3	35	2.13	− 0.75	0.78	0	8	8	14	9	nw.	C. J. De Vore.
Dunseith	Rolette		15	61.0	− 2.6	86[b]	11	44[b]	2†	31[b]	2.30	0.00	0.38	0	13				nw.	C. E. Goodsell.
Edmore	Ramsey	1,524	7																	M. M. Van Osdel.
Fessenden	Wells	1,610		62.4		89	23	37	3	39	2.83		1.07	0	14	14	8	9	se.	G. T. Seymour.
Forman	Sargent	1,249	18	66.4	− 0.9	94	24	43	3	41	2.63	− 0.65	1.10	0	8	18	7	6	nw.	A. Maltby.
Grafton	Walsh	827	21	62.1	− 2.2	86	11	38	3	38	2.26	− 0.16	0.89	0	12	8	11	12	nw.	A. R. T. Wylie.
Granville	McHenry	1,504	6	59.4		86	23	36	30†	44	2.43		0.66	0	9	8	16	7	nw.	W. A. Christianson.
Hannah	Cavalier	1,568	7	58.6		84	1	36	2	41	2.40		0.57	0	7	5	13	13	se.	J. Moffatt.
Hansboro	Towner		4	60.4		87	11	34	2	46	2.43		0.60	0	10	17	5	9	se.	Geo. Dale.
Hillsboro	Traill	901	7	64.6		92	25	41	2	39	5.02		1.47	0	14	13	11	7	nw.	F. E. Mayall.
Lakota	Nelson	1,579	6																	C. R. Pettes.
Langdon	Cavalier	1,615	17	59.8		81	11	35	3	34	3.71		0.92	0	9	10	0	21	w.	J. Woolner.
Larimore	Grand Forks	1,134	17	61.8	− 2.2	86	11	38	2	38	3.41	+ 0.39	1.10	0	13	13	7	11	n.	J. M. Freeman.
Lisbon	Ransom	1,091	8	64.3	− 2.2	96	25	37	3	41	2.52	+ 0.83	1.22	0	8	12	6	13	nw.	W. S. Adams.
McKinney	Renville	1,640	18	61.6	− 2.0	86	11	36	3	39	2.80	+ 1.42	1.20	0	7	0	24	7	nw.	N. P. Swenson.
McLeod	Ransom										2.84		0.62	0	9	9	18	4	nw.	Martin Reinholt.
Manfred	Wells	1,605	11	62.4		87	23	34	3	38	3.86		1.15	0	12	10	11	10	nw.	P. B. Anderson.
Mayville	Traill	975	16	64.2	− 1.1	89	25	40	2	38	5.83	+ 2.77	1.40	0	13	17	0	14		W. C. Gould.
Milnor	Sargent	1,097									2.92		0.99	0	8	5	15	11	n.	Hj. Edman.
Minot	Ward	1,557	14	62.4	− 3.4	90	23	40	3	36	1.56	− 0.80	0.48	0	8	11	2	18	w.	W. J. Ellison.
Minto	Walsh	820	19	62.2	− 2.4	85	25	42	31	37	2.80	+ 0.26	0.65	0	13	7	9	15	nw.	S. S. Marsh.
Oriska	Barnes	1,270	7	62.2		90	25	38	2†	41	3.06		0.70	0	12	11	16	4	se.	J. J. Taylor.
Park River	Walsh	998	9	62.4		86	11	39	3	34	2.85		0.74	0	14	15	5	11	nw.	P. J. Prochaska.
Pembina	Pembina	789	14	61.8	− 2.0	83	11	38	2†	40	2.05	− 0.56	0.55	0	10	15	2	14	w.	C. W. Shumaker.
Power	Richland	1,020	20	62.6	− 4.3	93	24	35	3	43	3.70	+ 1.17	1.25	0	9	13	9	9	nw.	J. A. Power.
Pratt	McHenry		7																	W. B. Ahern.
Towner	do		4	61.2		86	11	40	3	35	2.58		0.65	0	9	3	21	7	se.	B. Bagley.
University	Grand Forks	830	20	62.2	− 2.7	87	25	39	2†	38	2.86	+ 0.34	0.61	0	17	4	16	11	n.	U. S. Weather Bureau.
Wahpeton	Richland	962	20	66.2	− 1.6	101	25	36	3	49	3.11	+ 0.06	1.30	0	8	15	2	14	nw.	Fred E. Smith.
Walhalla	Pembina	966	8	61.8		83[b]	11	36[b]	3	38[b]	3.05		0.74	0	12	6	18	7		Ivanhoe Lee.
Westhope	Bottineau		6	62.2		84	6	40	26	35	1.69		0.42	0	12	4	23	4	se.	W. A. Meddaugh.
Willow City	do	1,471	19	62.6[e]	− 1.5	89	11	43[e]	26	36[e]	2.48	+ 0.64	0.80	0	11	2	20	9	nw.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	21	68.8	− 0.5	95	25	46	3	31	2.95	− 1.02	0.80	0	7	8	19	4	sw.	Edward Carey.
Alexandria	Douglas	1,391	18																	P. O. Unumb.
Angus	Polk	870	10	61.4	− 2.9	87	25	37	2†	39	2.51		0.98	0	10	6	14	11	s.	John Nadvornik.
Bagley	Clearwater		6	59.2		87	25	32	2†	41	2.90		1.30	0	10	3	22	6	se.	Jens Nelson.
Baudette	Beltrami	1,084	2																	C. S. Dahlquist.
Beardsley	Bigstone	1,090	16	67.2	− 0.7	100	25	40	3	44	2.83	− 0.81	0.84	0	11	1	25	5	nw.	G. L. Fitzgerald.
Beaulieu	Mahnomen	1,200	9																	Dr. P. A. Slattery.
Bemidji	Beltrami	1,490	9								3.29		0.88	0	12					C. W. Warfield.
Bird Island	Renville	1,039	22	66.6	− 2.2	93	25	44	3†	33	3.97	+ 0.56	0.77	0	12	11	10	10	nw.	Dr. F. L. Puffer.
Brainerd	Crow Wing	1,215	5	62.8		89	25	41	2†	33	3.34		1.50	0	10	10	7	14	se.	Theodore Miller.
Caledonia	Houston	1,179	19	65.8	− 3.0	89	25	49	3†	27	4.33	+ 0.34	1.50	0	13	10	3	18	se.	W. D. Belden.
Campbell	Wilkin	984	6	63.6		96	25	38	3	45	3.57		1.65	0	12	12	4	15	se.	J. T. Neiseess.
Cass Lake	Cass	1,300	5								3.94		1.05	0	9					C. W. Burns.
Collegeville	Stearns	1,282	19	64.9	− 3.8	90	25	45	3	30	4.72	+ 1.84	1.50	0	15	13	6	12	se.	F. Tembreull.
Crookston	Polk	863	23	63.4	− 2.4	88	25	43	2	34	3.62	+ 0.28	0.84	0	13	13	4	14	s.	A. G. Andersen.
Detroit	Becker	1,364	16	62.6	− 2.1	92	25	35	3	40	5.05	+ 1.03	1.40	0	6	17	11	3	ne.	G. W. Peoples.
Ely	St. Louis		1	60.7		82	12	42	2	32	1.45		0.77	0	8	6	18	7	e.	Iver Wisted.
Fairmont (near)	Martin	1,240	25	68.9	− 0.3	92	25	43	3	30	6.81	+ 3.87	1.87	0	13	8	17	6	nw.	W. F. Wherland.
Faribault	Rice	1,003	14																	Alice Chambers.
Farmington	Dakota	902	24	67.6	− 1.0	94	25	45	4	31	7.04	+ 3.62	1.58	0	14	12	10	9	nw.	E. D. Akin.
Fergus Falls	Ottertail	1,210	20	65.7	− 1.9	92	25	47	3	32	4.15	+ 1.32	1.22	0	13	13	8	10	se.	C. E. Kissinger.
Fort Ripley	Crow Wing	1,136	4	62.4		90	25	35	4	38	3.18	− 0.02	1.90	0	6	12	0	19	ne.	J. J. Tucker.
Fosston	Polk	1,289	2	61.2		87	25	38	3	36	3.79		1.13	0	17	9	18	4	nw.	O. N. Hem.
Glencoe	McLeod	1,000	15	66.8	− 1.3	92	25	46	1	32	4.66	+ 1.51	1.50	0	6	17	11	3	n.	F. B. Reed.
Grand Meadow	Mower	1,338	24	66.4	− 2.0	93	25	41	4	32	3.73	− 0.09	0.95	0	12	12	11	8	se.	C. F. Greening.
Gull Lake Dam	Cass	1,215	1	62.4		88	25	40	4	32	3.65		1.93	0	11	10	12	9	se.	U. S. Engineer Corps.
Hallock	Kittson	815	13	61.2	− 2.9	84	25	38	2†	34	4.48	+ 1.14	1.00	0	14	9	4	18	n.	D. A. Robertson.
Halstad	Norman	870	6	63.2		93	25	36	3	40	3.61		1.15	0	12	12	5	14	ne.	A. G. Holstrom.
Hinckley	Pine	1,050	7	62.0		86	25	38	3	31	2.65		1.43	0	7	7	9	15	e.	W. R. Newman.
International Falls	Koochiching	1,112	9	60.4		84	25	37	15	39	3.96		0.85	0	13	4	9	18	e.	C. Ardles.
Itasca State Park	Clearwater	1,500	1	65.4[d]		90	25	38[g]	31	35	3.94		0.90	0	10	5	16	10	n.	J. A. Stillwell.
Lake Crystal	Blue Earth		4	67.2		90	27	50	23	32	3.47		1.12	0	9	19	6	6	nw.	W. P. Cobb.
Leech Lake Dam	Cass	1,301	24	60.6	− 2.7	85	25	37	3	34	3.91	+ 0.11	1.84	0	12	4	19	8	se.	U. S. Engineer Corps.
Littlefork	Koochiching		2	59.0		83	25	32	2	38	3.93		0.87	0	16	4	11	16		O. C. Olson.
Long Prairie	Todd	1,299	20																	A. L. Sheets.
Lynd	Lyon	1,175	19	66.5	− 1.5	95	25	36	3	38	4.24	+ 0.82	0.87	0	11	21	4	6	sw.	J. W. Rouse.
Mankato	Blue Earth	758	14								3.77	+ 0.07	0.76	0	11	20	4	7	sw.	Sadie H. Blake.
Milaca	Millelacs	1,072	13																	C. H. Foss.
Milan	Chippewa	955	18	65.4	− 3.1	95	25	41	3	38	3.37	+ 0.35	0.61	0	14	11	14	6	se.	O. K. Opjorden.
Minneapolis	Hennepin	918	21	66.8	− 2.8	91	25	47	2	26	5.56	+ 1.87	2.02	0	13	8	12	11	n.	U. S. Weather Bureau.
Montevideo	Chippewa	900	22	66.6	− 2.4	95	25	43	3	37	3.50	+ 0.96	1.24	0	10	11	10	10	se.	L. G. Moyer.
Moorhead	Clay	935	31	64.4	− 1.5	94	25	41	3	40	5.84	+ 2.74	2.34	0	14	14	8	9	se.	U. S. Weather Bureau.
Mora	Kanabec		7	62.7		87	25	38	4	37	5.81		1.67	0	11	8	16	7	nw.	Hans Peterson.
Morris	Stevens	1,170	27	65.1	− 2.4	89	25	47	2†	32	3.44	+ 0.43	1.27	0	10	14	14	3	nw.	D. T. Wheaton.
New London	Kandiyohi	1,215	18	67.4	− 1.4	90	25	47	2	32	7.29	+ 4.45	1.30	0	10	8	13	10	se.	Harold Swensen.
New Richland	Waseca	1,180	18	68.2	− 2.1	92	25	46	2	30	3.32	− 1.68	0.91	0	9	15	13	3	nw.	N. O. Tyrholm.
New Ulm	Brown	791	32	68.0	− 3.3	95	25	47	3†	38	4.37	+ 0.85	0.81	0	11	6	15	10	s.	A. L. Henle.
Osakis	Douglas	1,343	4	63.7		89	25	44	23	34	4.96		1.97	0	11	7	7	17	nw.	J. B. Johnson.
Park Rapids	Hubbard	1,426	22	62.1	− 2.0	91	25	41	2†	39	3.88	+ 0.05	0.88	0	14	11	5	15	nw.	Dr. P. A. Walling.
Pine River Dam	Crow Wing	1,251	25	61.0	− 4.6	87	25	36	2	32	4.18	+ 0.12	1.40	0	9	11	9	11	n.	U. S. Engineer Corps.
Pokegama Falls	Itasca	1,280	25	59.4	− 3.6	84	11†	32	2	38	2.30	− 1.44	0.65	0	12	9	11	11	se.	Do.
Redlake	Beltrami	1,152	4	61.4		85	25	38	3	34	3.65		2.00	0	7	6	14	11	e.	A. C. Goddard.
Red Wing	Goodhue	680	16								4.65	+ 0.61	1.45	0	10	8	4	19	se.	Louis Bach.
Redwood Falls	Redwood	1,050	5																	Hockett Bros.
Reeds Landing	Wabasha	681	16								4.34	+ 0.37	1.30	0	14	9	0	22	se.	John Deschneau

TABLE 1.—*Climatological data for August, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Minnesota*—Contd.**																				
Rochester	Olmstead	991	7	66.6	.....	93	25	42	4	36	4.30	.....	1.10	0	14	10	8	13	nw.	Mary P. Cram.
Roseau	Roseau	1,040	3	58.7	.....	81	25	32	3	42	2.45	.....	0.50	0	15	13	9	9	e.	M. J. Hegland.
St. Charles	Winona	850	21	67.2	− 1.3	96	25	39	4	33	4.76	+ 1.34	1.13	0	10	13	8	10	se.	S. W. Gleason.
St. Cloud	Sherburne	1,020	35	65.3	− 2.6	90	25	45	2†	31	4.79	+ 1.27	1.57	0	12	10	13	8	se.	J. H. Capser.
St. Paul	Ramsey	940	41	66.5	− 3.0	91	25	47	2	27	4.40	+ 0.94	1.79	0	13	9	15	7	n.	U. S. Weather Bureau.
St. Peter	Nicollet	825	17	68.4	− 1.4	93	18	44	3	35	4.67	+ 1.27	0.87	0	10	13	12	6	s.	State Hospital.
Sandy Lake Dam	Aitkin	1,234	19	60.5	− 4.1	84	25	41	2†	29	3.50	− 0.40	0.95	0	8	5	16	10	e.	U. S. Engineer Corps.
State Sanitorium	Cass	.....	4	62.0	.....	86	25†	42	2	34	5.12	.....	1.60	0	9	7	11	13	ne.	Dr. L. B. Ohlinger.
Stillwater	Washington	694	6	.....	.....	.....	.....	.....	.....	.....	5.27	.....	2.12	0	9	16	1	14	nw.	Oscar Ostrom.
Taylors Falls	Chisago	759	5	65.6	.....	87	26	42	2	30	6.21	.....	1.90	0	10	14	8	9	n.	Minneapolis Gen. Elec. Co.
Thief River Falls	Pennington	1,137	1	61.2	.....	86	25	38	3	38	1.60	.....	0.40	0	6	10	11	10	w.	E. W. Lown.
Tracy	Lyon	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. D. Davis.
Warren	Marshall	859	....	65.0	.....	95[b]	23†	41	3	51[b]	2.08	.....	0.50	0	8	4	15	12	.....	P. H. Holm.
Warroad	Roseau	1,069	2	59.0	.....	82	9†	35	4	39	3.27	.....	0.80	0	13	11	8	12	s.	G. A. Sawyer.
Winnebago	Faribault	1,100	14	68.1	− 2.1	95	25	44	3	44	3.61	− 0.34	0.75	0	11	8	16	7	se.	H. H. Haight.
Winnibigoshish	Itasca	1,300	24	62.6	− 1.8	86	25	42	2	32	4.99	+ 1.29	2.62	0	9	13	7	11	nw.	U. S. Engineer Corps.
Winona	Winona	700	16	69.1	− 0.8	97	25	46	4	28	3.05	− 0.84	1.12	0	12	9	10	12	nw.	P. C. Myers.
Worthington	Nobles	1,593	17	66.2	− 2.3	92	25	43	3	33	2.42	− 1.16	0.61	0	9	15	5	11	sw.	M. P. Mann.
Zumbrota	Goodhue	917	16	66.1	− 3.3	92	25	40	4	31	5.33	.....	1.60	0	9	13	13	5	nw.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	21	64.8	− 3.6	97	25	38	3	43	3.09	+ 0.26	0.55	0	15	16	3	12	nw.	I. T. Patridge.
Sisseton	Roberts	1,202	6	65.1	.....	93[a]	25	45	3†	33[a]	2.33	.....	0.67	0	11	13	0	18	n.	George Gray.
Wisconsin.																				
Antigo	Langlade	1,489	18	60.6	− 4.5	85	24	37	4	33	7.88	.....	1.94	0	11	8	6	17	e.	Elton C. Larzelere.
Barron	Barron	1,115	21	62.2	− 2.7	85	25	37	4	33	8.57	+ 5.12	2.22	0	10	14	12	5	n.	Wm. A. Kent.
Beloit	Rock	750	46	67.8	− 2.8	89	31	43	1	29	3.19	− 0.42	0.76	0	9	7	17	7	sw.	Smith Observatory.
Big St. Germain Dam	Vilas	1,590	2	59.8	.....	84	24†	36	4†	35	7.89	.....	2.29	0	14	8	13	10	n.	Fred Hessen.
Brodhead	Green	812	14	69.0	− 1.6	93	25	45	3	32	3.09	− 1.13	1.00	0	9	11	15	5	sw.	Hector D. Kirkpatrick.
Burnett	Dodge	880	8	66.0[a]	.....	89[a]	25	43[a]	4	27[a]	3.83	.....	0.80	0	15	3	15	13	nw.	Geo. W. Smith.
Cottage Grove	Dane	888	1	.....	.....	.....	.....	.....	.....	.....	1.86	.....	0.58	0	11	12	13	6	sw.	John E. Mellish.
Darlington	Lafayette	867	6	67.7	.....	96	25	39	4	38	3.70	.....	1.50	0	6	23	1	7	nw.	F. J. O'Neill.
Deerskin Dam	Forest	1,685	2	56.3	.....	84	24†	26	29	47	8.07	.....	1.60	0	13	4	14	13	w.	Wm. E. O'Neal.
Delavan	Walworth	920	21	67.3	− 2.5	92	31	41	2	32	2.22	− 1.17	0.64	0	10	5	11	15	sw.	Elwood S. Austin.
Dodgeville	Iowa	1,116	12	67.0[g]	− 2.6	91[g]	25	42[g]	4	41[g]	3.70	+ 0.64	1.50	0	5	15[g]	1[g]	8[g]	w.	Thomas Gibbon.
Downing	Dunn	983	10	60.8[d]	− 5.9	90[d]	25	36[d]	4	36[d]	7.75	+ 4.10	2.00	0	10	3[d]	0[d]	24[d]	se.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	21	66.0	− 3.2	89	25	42	4	29	8.83	+ 5.57	2.00	0	16	7	17	7	n.	Robert D. Whitford.
Grand Rapids	Wood	1,021	13	64.0	− 4.0	90	25	42	4	30	7.99	+ 5.38	2.04	0	12	11	6	14	ne.	Willis B. Raymond.
Grantsburg	Burnett	1,095	21	62.6	− 3.8	89	25	38	2†	35	7.26	+ 3.81	2.10	0	9	6	7	18	ne.	Theodore Olsen.
Hancock	Waushara	1,091	20	66.2	− 2.4	96	25	43	4	32	8.34	+ 5.30	2.03	0	11	10	7	14	sw.	Frederick B. Hamilton.
Hatfield	Jackson	973	18	63.6	− 4.1	90	25	35	4	36	6.66	+ 3.57	2.11	0	11	1	22	8	se.	Walter S. Woods.
Hayward	Sawyer	1,197	21	60.3[a]	− 5.4	86[a]	25	34[a]	4	41[a]	6.10	+ 2.63	1.65	0	11	7[a]	8[a]	15[a]	sw.	Wm. E. Swain.
Hillsboro	Vernon	1,000	21	64.9	− 2.5	91	25	37	4	36	4.52	+ 1.33	2.07	0	14	12	14	5	se.	Emil V. Wernick.
Koepenick	Langlade	1,683	21	59.6	− 4.7	83	25	35	4†	35	9.45	+ 6.04	2.23	0	14	....	....	....	nw.	Edward S. Koepenick.
Lac du Flambeau	Vilas	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. J. Lovett.
La Crosse	La Crosse	714	40	67.8	− 2.2	95	25	45	4	31	3.33	− 0.08	1.17	0	13	5	13	13	s.	U. S. Weather Bureau.
Lake Mills	Jefferson	897	21	67.5	− 1.7	91	25	47	3†	30	2.14	− 1.40	0.53	0	14	8	16	7	nw.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	21	67.6[b]	− 2.3	93[b]	25	43[b]	4	32[b]	4.22	+ 1.52	1.72	0	9	7[c]	14[c]	7[c]	sw.	Edward Pollock.
Long Lake	Oneida	1,592	4	58.6	.....	85	24	31	4†	42	6.69	.....	1.80	0	15	6	6	19	ne.	Louis Frank.
Madison	Dane	974	43	67.4	− 1.8	89	25	50	4	27	3.16	− 0.05	0.78	0	10	9	15	7	sw.	U. S. Weather Bureau.
Mather	Juneau	962	8	64.4	.....	89	25	37	4	34	6.57	.....	2.06	0	16	7	3	21	w.	Frank Evans.
Mauston	....do	882	16	66.0	− 1.8	88	25	41	4†	32	4.65	+ 1.31	1.60	0	12	12	10	9	nw.	Eugene L. Hitchcock.
Meadow Valley	....do	974	21	64.4	− 2.7	90	25	39	4	36	5.29	+ 2.08	1.90	0	12	2	20	9	nw.	Charles H. Johnson.
Medford	Taylor	1,420	23	62.0	− 5.3	89	25	38	3†	32	7.69	+ 4.17	1.30	0	11	17	7	7	s.	Wm. Zeit.
Merrill	Lincoln	1,267	6	63.4[b]	.....	91[b]	25	40[b]	4†	45[b]	8.38	.....	1.77	0	11	11[b]	6[b]	12[b]	nw.	J. M. Wilson.
Minocqua	Oneida	1,604	8	59.8	.....	86	25	39	4	31	7.92	.....	2.09	0	15	9	11	11	se.	Benjamin W. Applebee.
Mondovi	Buffalo	738	4	65.4	.....	91	25	39	4	30	5.93	.....	1.72	0	16	10	12	9	nw.	Dr. Charles Hebard.
Mount Horeb	Dane	1,226	8	66.8	.....	91	25	41	2	30	3.43	.....	1.00	0	10	12	5	14	nw.	W. M. Lewis.
Muscoda	Grant	666	3	68.4	.....	94	25	45	3†	37	2.85	.....	0.71	0	10	20	0	11	nw.	Wm. Hessler.
Neillsville	Clark	996	22	65.0	− 2.1	91	25	38	14	36	8.45	+ 5.17	2.75	0	9	....	....	....	nw.	Wm. Heaslett.
New Richmond	St. Croix	990	7	64.7	.....	91	25	41	4	33	7.85	.....	1.95	0	14	12	14	5	sw.	Franc A. R. Van Meter.
Osceola	Polk	806	21	65.4	− 1.6	90	25	44	4†	31[d]	5.66	+ 2.38	1.50	0	9	13	9	9	n.	Charles W. Staples.
Park Falls	Price	1,492	21	60.4[d]	.....	88[d]	25	34[d]	4	35[d]	6.70	.....	1.64	0	11	5[c]	9[c]	14[c]	n.	Flambeau Paper Co.
Portage	Columbia	809	23	68.2	− 0.5	91	25	48	4	28	6.79	+ 3.56	2.25	0	13	13	9	9	nw.	James H. Martin.
Port Edwards	Wood	969	2	65.0	.....	90	25	43	2†	39	6.49	.....	1.73	0	14	10	3	18	s.	Nekoosa-Edwards Paper Co.
Prairie du Chien	Crawford	690	21	68.5	− 2.6	94	25	45	4	39	6.52	+ 3.26	3.70	0	9	12	1	18	nw.	James A. Gillis.
Prairie du Sac	Sauk	750	4	68.1	.....	92	25	44	4	32	3.51	.....	0.82	0	13	2	19	10	nw.	Wis. Riv. Power Co.
Prentice	Price	1,551	14	60.4	− 4.1	88	25†	31	4†	39	7.20	+ 3.07	1.66	0	12	2	6	23	w.	Joseph G. Lash.
Rhinelander	Oneida	1,550	6	61.8	.....	88	24	35	5	35	8.32	.....	2.65	0	16	7	5	19	se.	Rhinelander Power Co.
Shullsburg	Lafayette	1,019	6	67.0	.....	90	25	41	4	37	3.85	.....	1.93	0	9	13	8	10	s.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	6	60.2	.....	86	26	33	4	41	4.60	.....	0.90	0	10	7	5	19	sw.	John M. Sayles.
Spooner	Washburn	1,104	18	61.7	− 5.2	85	25	39	3	35	7.22	+ 4.06	1.96	0	10	15	8	8	.....	Horace A. Bresee.
Stanley	Chippewa	1,082	8	62.8	.....	87	25	36	4	35	7.35	.....	1.35	0	12	12	9	10	se.	W. Humphrey Scott.
Stevens Point	Portage	1,113	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Culver.
Sugar Camp Dam	Oneida	1,582	2	.....	.....	.....	.....	.....	.....	.....	8.42	.....	1.74	0	14	8	14	9	se.	Lyman Haskins.
Trout Lake	Vilas	.....	0	58.6	.....	80	23	38	4	28	5.86	.....	1.54	0	12	3	10	18	nw.	F. B. Moody.
Twin Lakes Dam	....do	1,625	2	.....	.....	.....	.....	.....	.....	.....	8.29	.....	2.26	0	8	3	21	7	sw.	Albert D. Hansen.
Valley Junction	Monroe	930	20	64.6	− 2.5	89	25	39	4	32	6.52	+ 2.24	2.39	0	12	3	15	13	nw.	Frederick Muermann.
Viroqua	Vernon	1,412	22	67.6	− 1.1	90	25	46	2†	27	3.29	− 0.49	0.90	0	10	6	16	9	nw.	Henry E. Rogers.
Vudesare	Vilas	1,600	4	58.1	.....	82	24	34	5	37	6.26	.....	0.95	0	13	10	13	8	w.	Louis L. Thomas.
Watertown	Jefferson	824	21	65.9	− 2.5	87	25	46	5	29	2.53	− 0.20	0.45	0	11	7	21	3	w.	Charles J. Salick.
Waukesha	Waukesha	864	21	66.6	− 2.2	90	25	44	4†	30	3.11	− 0.02	0.85	0	12	8	22	1	sw.	Carroll College.
Wausau	Marathon	1,212	17	62.6	− 3.9	88	25	40	4	28	7.36	+ 3.78	2.05	0	13	15	4	12	e.	Geo. H. Halder.
Weyerhaeuser	Rusk	1,297	10	60.2	.....	87	25	31	4	38	8.27	.....	2.35	0	12	10	11	10	ne.	Miss Etta Stiles.
Whitehall	Trempealeau	675	21	65.0	− 3.3	88	25	39	4	33	6.70	+ 3.37	2.20	0	11	....	....	....	w.	Hans J. Haugh.
Iowa.																				
Albia	Monroe	959	14	72.4	− 1.0	101	25	45	4	41	2.77	− 1.38	1.10	0	11	16	10	5	e.	J. I. Chonoweth.
Algona	Kossuth	1,213	38	69.7	− 1.2	92	25	45	3	32	6.71	+ 2.79	2.10	0	11	22	3	6	se	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	21	69.5	− 1.0	93	25	48	3	33	6.13	+ 2.16	2.45	0	12	14	14	3	nw.	David E. Hadden.
Amana	Iowa	721	36	71.3	+ 0.4	96	31	44	3	31	1.77	− 1.84	0.76	0	7	15	11	5	s.	C. Schadt.
Ames	Story	926	36	72.1	− 0.1	97	31	46	3	38	4.14	+ 0.47	1.89	0	9	7	20	4	sw.	Iowa State College.
Baxter	Jasper	993	12	70.8	− 1.1	98	18†	44	4	38	3.20	− 1.35	1.47	0	11	13	15	3	se.	W. R. Vandike.
Belle Plaine	Benton	828	22	71.4	+ 0.6	98	31	44	2†	36	2.03	− 2.12	1.00	0	8	10	13	8	nw.	S. P. Van Dike.

TABLE 1.—*Climatological data for August, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Iowa*—Continued.**																				
Belmond	Wright		2	69.2		92	25†	43	3	33	5.03		1.20	0	10	2	24	5	s.	Geo. P. Hardwick.
Bloomfield	Davis		5	71.4[e]		98	31	46	4	30	1.73		0.74	0	6	15	0	16	sw.	Albert Power.
Bonaparte	Van Buren		21	73.2	− 1.1	97	25†	45	4	30	2.44	− 2.21	0.78	0	9					B. R. Vale.
Boone	Boone	1,134	7	69.7		94	31	49	2†	32	3.17		1.74	0	8	14	1	16		C. F. Henning.
Britt	Hancock	1,236	15	68.9	− 1.1	93	25	45	4	33	5.66	+ 1.61	1.31	0	13	20	8	3	s.	L. M. Goodman.
Buckingham	Tama		12								2.01	− 3.02	0.55	0	8	15	12	4	s.	J. S. Guynn.
Burlington	Des Moines	544	16	72.2	− 1.9	94	18†	49	4†	33	2.36	− 3.08	1.16	0	9	18	7	6	s.	Max E. Poppe, jr.
Carroll	Carroll	1,265	22	68.4	− 2.7	95	25	48	2†	37	4.76	+ 1.05	2.16	0	8	19	9	3	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	30	71.7	− 1.0	98	31	48	3	38	2.80	− 0.70	1.91	0	5				s.	R. S. Toogood.
Charles City	Floyd	1,015	21	68.2	− 2.5	92	31	44	3	32	4.33	+ 0.91	1.05	0	14	4	14	13	nw.	U. S. Weather Bureau.
Clear Lake	Cerro Gordo	1,241	14	70.4	− 1.3	93	12	46	5	23	5.49	+ 1.18	1.40	0	10	26	3	2	nw.	Oscar Stevens.
Clinton	Clinton	593	45	71.4	+ 0.1	97	18	43	2	31	4.24	+ 0.59	3.17	0	7	17	11	3	sw.	A. E. Reed.
Columbus Junction	Louisa	595	11	72.2	− 0.2	96	31	47	3	34	2.20	− 4.02	0.82	0	6	19	9	3	sw.	J. B. Johnson.
Davenport	Scott	580	41	72.8	− 0.2	95	31	48	4	27	2.77	− 0.87	2.10	0	7	11	11	9	sw.	U. S. Weather Bureau.
Decorah	Winnishiek	875	19	69.4	− 0.8	96	25	42	3†	34	4.94	+ 1.90	2.10	0	10					F. H. Baker.
Delaware	Delaware	1,083	21	69.2	− 0.4	93	25	44	3	30	6.79	+ 3.24	4.28	0	9	11	16	4	se.	William Ball.
Des Moines	Polk	861	34	72.7	− 0.3	97	25	52	4	33	3.52	− 0.09	1.34	0	12	12	9	10	sw.	U. S. Weather Bureau.
Dubuque	Dubuque	639	39	69.7	− 2.3	92	25	47	4	27	6.79	+ 3.75	5.23	0	10	9	10	12	s.	Do.
Earlham	Madison		10	70.8	+ 0.8	95	25	41	4	39	3.73	− 1.40	1.32	0	8	18	8	5	sw.	George Phillips.
Elkader	Clayton	727	33	68.5	− 2.5	91	31	40	4	36	5.41	+ 2.51	2.75	0	7	18	10	3	nw.	Chas. Reinecke.
Elma	Howard		2	67.2		90	25	41	3†	37	3.91		0.82	0	14	8	16	7	se.	H. A. Moore.
Estherville	Emmet	1,298	17	66.8	− 3.4	94	25	44	3	35	4.39	+ 0.79	1.10	0	11	18	11	2	s.	A. O. Peterson.
Fairfield	Jefferson		28	73.1	+ 1.8	95	25†	46	4	30	1.12	− 2.96	0.30	0	7	20	5	6	sw.	R. M. McKenzie.
Fayette	Fayette	1,003	22	67.6	− 1.5	91	31	40	3†	33	7.90	+ 4.63	3.88	0	10	16	12	3	nw.	R. Z. Latimer.
Forest City	Winnebago	1,226	18	68.4	− 1.9	91	25	45	3	31	4.84	+ 1.34	1.28	0	11	17	7	7	sw.	J. A. Peters.
Fort Dodge	Webster	1,126	12	70.1[g]	− 1.3	97[g]	31	46[g]	3	32[h]	2.42	− 3.22	0.80	0	7					J. F. Monk.
Fort Madison	Lee	516	63								3.27	− 0.52	1.70	0	6	5	12	14	sw.	Miss L. A. McCready.
Gilman	Marshall	1,052	13								2.78	− 1.00	0.96	0	7					J. L. Wylie.
Grand Meadow	Clayton	1,180	21	65.8	− 3.1	85	18†	44	4	23	5.26	+ 1.93	1.82	0	12	12	12	7	nw.	F. L. Williams.
Grinnell	Poweshiek	1,023	20	72.2	+ 0.6	99	25	46	3	35	3.00	− 1.62	0.90	0	9	14	13	4	w.	D. W. Rrainard.
Grundy Center	Grundy	976	21	71.3	+ 0.3	97	19†	43	3	38	4.42	+ 0.85	2.50	0	8	17	10	4	n.	J. B. Calderwood.
Guthrie Center	Guthrie	1,077	17	71.5	− 0.7	95	25	47	4	37	2.82	− 1.50	1.21	0	10	15	13	3	nw.	D. G. Beardsley.
Hampton	Franklin	1,155	22	70.0	− 0.6	95	25	45	3	32	5.42	+ 2.05	1.55	0	13	4	24	3	nw.	E. C. Grenelle.
Humbolt	Humbolt	1,095	24																	
Independence	Buchanan	921	48	69.6	− 0.5	93	31	44	3†	31	6.86	+ 3.67	4.62	0	11	17	10	4	nw.	R. E. Dudley.
Indianola	Warren	969	21	71.8[d]	− 1.0	93[g]	24	50	4	30[h]	2.18	− 2.50	0.55	0	7					Prof. J. L. Tilton.
Iowa City	Johnson	683	52	71.2	− 0.5	97	31	45	3	37	3.62	− 0.62	2.76	0	7	17	8	6	w.	Prof. A. H. Smith.
Iowa Falls	Hardin	1,170	19	67.8	− 2.1	92	31	42	3	35	2.91	− 0.47	0.93	0	11	20	3	8	n.	J. B. Parnelee.
Jefferson	Greene		13	71.1		96	25	47	4	39	4.25	+ 0.49	2.32	0	11	17	8	6	nw.	Ora M. Hall.
Keokuk	Leo	547	41	74.0	− 0.6	93	25	52	4	27	2.50	− 0.74	0.62	0	12	14	9	8	sw.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	20	72.6	− 1.9	97	31	41	2	39	3.02	− 0.80	0.85	0	11	5	20	6		J. H. Landes.
Knoxville	Marion	920	17	73.6		98	25	46	4	32	1.76		0.38	0	9	10	8	13		Casey and Bellville.
Lacona	Warren		13								2.44	− 2.38	1.00	0	10	12	17	2		J. B. Alter.
Lansing	Allamakee										3.39		1.29	0	12					Chas. R. Serene.
Le Claire	Scott	576	12								2.16	− 1.43	0.88	0	8					Miss M. T. Disney.
Marshalltown	Marshall	947	20	71.8	0.0	101	31	45	3	40	2.31	− 1.33	0.83	0	14	16	8	7	nw.	Jacob Eige.
Mason City	Cerro Gordo	1,132	15	67.9	− 2.1	90	25	42	3	31	6.96	+ 3.36	1.85	0	11	10	17	4	s.	J. S. Mills.
Monroe	Jasper			72.0		98	25	48	4	37	2.58		1.10	0	9	20	7	4	s.	J. A. Dibel.
Mount Pleasant	Henry	729	31	71.6	− 1.7	94	31	45	4	30	2.00	− 2.07	0.82	0	7	16	7	8	sw.	J. W. Edwards.
Muscatine	Muscatine		52								2.49	− 1.89	1.62	0	11					William Molis.
New Hampton	Chickasaw	1,169	15	68.6	− 0.9	90	25	45	4	29	5.04	+ 2.01	2.42	0	12	23	5	3	n.	A. F. Kemman.
Northwood	Worth	1,122	16	67.4	− 2.1	88	25	47	2†	30	4.28	+ 0.24	1.10	0	11	15	8	8	sw.	Chas. H. Dwelle.
Olin	Jones	760	14	70.1	− 0.6	94	18†	42	4	31	7.72	+ 3.01	5.50	0	6	12	14	5	nw.	Dr. F. W. Port.
Osage	Mitchell	1,184	25	68.4	+ 0.4	93	25	43	5	32	4.65	+ 1.62	1.10	0	8	18	7	6	nw.	Lester Coonradt.
Oskaloosa	Mahaska	843	36	71.8	− 0.1	96	31	45	4	30	2.79	− 0.43	1.29	0	7	16	2	13	sw.	Joseph Boyd.
Ottumwa	Wapello	649	17	75.0	0.0	100	25†	50	4	33	1.21	− 2.88	0.50	0	4	17	9	5	nw.	Chester Potter.
Pella	Marion	877	10	71.8	− 2.6	98	24	43	4	34	1.60	− 2.58	0.41	0	10	18	2	11	nw.	J. H. Ver Stoeg.
Perry	Dallas	975	11	71.4	− 1.1	95	31	48	4	37	4.49	− 0.93	2.36	0	10	11	17	3	sw.	S. J. Brumfield.
Pocahontas	Pocahontas	1,248	8	69.4		95	25	44	3	35	3.94		1.26	0	10	21	8	2	se.	F. E. Hronek.
Ridgeway	Winneshiek	1,215	14	69.2	− 2.8	95	25	45	4	32	3.14	− 0.58	0.72	0	15	12	15	4	s.	Arthur Betts.
Rockwell City	Calhoun		16	70.5	− 1.8	95	25	48	5†	32	4.40	+ 0.38	1.35	0	8	22	9	0		C. M. Randall.
Sac City	Sac	1,278	36	70.4	− 0.1	92	25	50	3	30	4.58	+ 1.01	1.75	0	12				sw.	E. N. Bailey.
St. Charles	Madison	1,070	11	72.8	− 0.4	98	25	51	4	30	3.07	− 1.26	1.10	0	9	16	9	6	s.	R. D. Minard.
Sigourney	Keokuk	877	16	72.4	− 1.4	96	31	49	2†	33	2.05	− 1.80	0.80	0	7	1	29	1	w.	J. T. Parker.
Stockport	Van Buren	745	10	72.2		97	31	42	4	36	1.53	− 3.53	0.52	0	8	16	9	6	sw.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	23	69.8	− 0.9	92	25	46	3	31	5.33	+ 2.01	2.25	0	8	21	6	4	w.	Prof. W. Ingold.
Tipton	Cedar	807	13	74.2	+ 1.6	97	18	52	3	30	3.75	− 0.91	3.27	0	4	13	12	6	nw.	F. K. Gregg.
Toledo	Tama	856	18	70.4	− 1.6	98	31	44	2†	34	2.51	− 1.19	0.70	0	9	22	5	4	nw.	I. F. Giger.
Wapello	Louisa	588	14	72.0	− 1.5	93	31	51	3†	26	1.79	− 3.21	0.61	0	6	17	11	3	se.	G. M. Schofield.
Washington	Washington	769	30	71.8	− 1.3	96	31	48	3	26	0.89	− 2.82	0.24	0	5	12	12	7	sw.	Wm. A. Cook.
Waterloo	Black Hawk	862	29	69.0	− 1.9	94	31	46	3	33	6.40	+ 2.79	4.00	0	10	17	2	12	e.	Ralph B. Slippy.
Waukee	Dallas	1,039	9	70.5		95	25†	45	4	36	3.12		1.31	0	11	16	12	3	sw.	Samuel F. Foft.
Waverly	Bremer	948	16	69.8	− 1.0	95	31	40	3	37	5.05	+ 2.09	2.15	0	7	23	5	3	w.	Earl C. Moore.
Webster City	Hamilton		7	71.0[c]		95	25	43	3	38	2.85		0.70	0	10				se.	C. D. Carpenter.
West Bend	Palo Alto	1,197	19	69.7	+ 0.1	92	25	43	3	34	4.69	+ 0.75	1.96	0	14	15	14	2	se.	Phil Dorweiler.
Whitten	Hardin	1,036	15	68.7	− 2.2	93	31	44	3	33	2.95	− 0.80	0.75	0	9				sw.	Dr. F. P. Butler.
Winterset	Madison	1,129	21	72.6	0.0	98	25	48	4	33	3.94	− 0.21	1.73	0	10	7	15	9	s.	Dr. R. S. Cooper.
Missouri.																				
Gorin	Scotland	700	27								2.24	− 0.57	0.50	0	10	6	10	15	se.	J. W. Pulliam.
Hannibal	Marion	534	21	74.4	− 0.6	95	28	50	5	29	5.71	+ 2.33	0.98	0	15	15	8	8	sw.	U. S. Weather Bureau.
Louisiana	Pike	500	35	74.3	− 0.3	98	28	41	5	39	8.70	+ 5.79	2.06	0	16	18	11	2	w.	J. T. Farrel.
Mexico	Audrain	797	35	75.3	+ 0.5	98	28	45	4	33	7.39	+ 4.66	1.62	0	13	15	3	13	sw.	J. F. Llewellyn.
Palmyra	Marion		1	74.6		95	28	45	4	33	7.43		2.08	0	13	15	10	6	se.	W. B. Markell.
Steffenville	Lewis	576	19	76.2	+ 0.2	100	29	46	4	42	8.32	+ 5.12	1.78	0	12	12	9	10	ne.	Frank Hall.
Sublett	Adair	1,000	33	74.2	− 0.2	98	31	42	4	37	7.01	+ 3.74	2.00	0	8	8	14	9	w.	Lewis Spriggs.
Vandalia	Audrain	776	2	75.4		98	19	50	4	32	4.37		1.10	0	9	20	2	9	s.	C. B. Ellis.
Warrenton	Warren	865	22	75.4	− 1.2	98	28	50	4	31	4.09	+ 1.35	0.79	0	12	14	3	14	s.	Prof. J. H. Frick.
Indiana.																				
Collegeville	Jasper		13	69.4	− 2.8	95	18†	40	5	31	3.73	− 0.29	1.48	0	7	8	13	10	sw.	Otto Miller.
Knox	Starke	716	7	69.2		90	31	42	5	28	5.88		2.37	0	10	13	13	5	s.	W. R. R. Tatman.
Laporte	Laporte	810	16	68.2	− 3.2	92	31	42	5	32	4.71	+ 1.49	1.20	0	14	9	14	8	sw.	Wm. M. Walton, jr.
Plymouth	Marshall	790	9	67.4		88	25†	42	5	26	5.77		2.62	0	12	10	17	4	sw.	J. W. Siders.
South Bend	St. Joseph	726	19	69.4	− 2.3	92	31	44	3	28	6.46	+ 3.20	2.35	0	12	8	16	7	sw.	Henry H. Swalm.

TABLE 1.—*Climatological data for August, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Illinois.																				
Aledo	Mercer	738	12	71.2	− 0.8	96	31	46	4	28	1.40	− 1.48	0.58	0	9	2	21	8	se.	William B. Frew.
Alexander	Morgan	670	19	73.0	− 2.0	92	28	45	4	31	8.38	+ 4.84	3.42	0	15	10	9	12	sw.	George H. Hall.
Antioch	Lake	861	11	68.4	− 1.2	95	31	44[a]	5	32[d]	2.34	− 1.54	0.80	0	6	5	16	10	s.	J. C. James.
Astoria	Fulton	650	13	72.0	− 0.3	93	31	42	4	31	3.28	+ 0.06	1.12	0	13	15	8	8	s.	Edward V. Bohl.
Aurora	Kane	678	33	68.6	− 2.3	90	18†	44	5	32	2.74	− 0.76	1.21	0	8	5	13	13	sw.	W. Holden.
Beardstown	Cass	448																		Mrs. L. M. Rice.
Bement	Piatt	700	5																	Rev. C. S. Adams.
Bloomington	McLean	840	21	72.4	− 1.5	95	31	43	4	32	5.01	+ 2.28	1.71	0	10	15	8	8	n.	Prof. H. N. Pearce.
Cairo	Alexander	359	40	76.4	− 0.6	93	28	54	4	25	2.28	− 0.65	0.64	0	11	14	9	8	sw.	U. S. Weather Bureau.
Carbondale	Jackson	412	7	77.2		100	28†	47	4†	38	4.68		1.94	0	10	19	9	3	sw.	State Normal University.
Carlinville	Macoupin	663	22	75.6	− 0.3	99	28	45	5	35	2.50	− 0.49	0.51	0	10	18	9	4	w.	Blackburn College.
Carlyle	Clinton	470	27								3.30	+ 0.38	1.01	0	6					Hervey O. Jones.
Chester	Randolph	380	20								8.13	+ 4.87	3.89	0	12					F. A. Gollon.
Clinton	Dewitt	727	2	72.3		93	28†	44	4	34	2.36		0.72	0	10	20	4	7	sw.	J. Frank Ziegler.
Coatsburg	Adams	763	20	74.4	− 0.6	95	25	47	4	32	1.91	− 1.29	0.69	0	9	14	10	7	s.	Dr. J. R. Lambert.
Cobden	Union	656	29	76.6	− 0.8	99	28†	48	5	36	3.18	− 0.54	0.70	0	8	12	10	9	s.	John Buck.
Dakota	Stephenson	929	7	68.2		93	25	40	3	33	4.78		2.25	0	10	2	26	3	sw.	Elmer Smith.
Decatur	Macon	685	21	73.2	− 1.4	95	28	45	4	36	4.12	+ 0.88	1.60	0	13	18	9	4	sw.	Prof. J. H. Coonradt.
Dixon	Lee	725	22	69.2	− 2.9	94	31	42	3	36	5.06	+ 1.78	2.90	0	9	17	11	3		H. U. Bardwell.
Du Quoin	Perry	459	24	76.0	− 1.7	98	29	50	4†	34	7.02	+ 4.20	1.58	0	10	13	15	3	sw.	G. H. Knetzger.
Dwight	Livingston	600	19	71.3	− 1.6	98	18	44	4	32	2.96	+ 0.23	0.89	0	10	9	7	15	sw.	Edward O. Welch.
East St. Louis	St. Clair	481	1								2.82		0.83	0	13					W. McK. Brown.
Edwardsville	Madison	554	13								5.18	+ 2.72	1.10	0	10					W. H. Morgan.
Elgin	Kane	716	5	69.9		93	31	46	3†	34	3.59		1.30	0	9	6	19	6	nw.	Elgin Observatory.
Ewing	Franklin	449	1																	Ewing College.
Fairview	Fulton	733	1								1.90		1.27	0	9					Abram Wilson.
Galva	Henry	842	20	71.0	− 1.6	96	31	43	3	36	1.72	− 1.57	0.79	0	9	14	8	9	sw.	Prof. F. U. White.
Grafton	Jersey	422	19								3.52	+ 0.73	0.96	0	12					R. C. Goodrich.
Greenville	Bond	635	34																	M. S. Oudyn.
Griggsville	Pike	650	27	73.8	− 1.3	93	28	50	4	31	3.43	+ 0.71	1.15	0	8	16	8	7	sw.	George F. Kneeland.
Havana	Mason	475	20	74.4	− 1.5	96	13†	45	4	38	1.87	− 1.07	0.60	0	8	13	5	13	nw.	L. L. Eutenener.
Henry	Marshall	500	24	71.6	− 0.8	97	31	44	4	29	2.24	− 0.74	0.66	0	7	15	9	7	se.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	18	75.2	− 0.8	98	28	48	4	35	2.60	− 1.39	0.55	0	7	19	5	7	s.	Ira L. Woodward.
Joliet	Will	609	21	71.2	− 0.5	100	31	41	5	37	1.70	− 1.68	0.65	0	6	9	12	10	sw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	24	69.0	− 1.8	92	18†	44	3	33	6.61	+ 2.97	2.85	0	13	13	12	6	sw.	George Stevens.
La Grange	Cook	657	20																	Prof. F. E. Sanford.
La Harpe	Hancock	698	33	72.2	− 2.1	95[d]	31	45	4	31[d]	2.55	− 1.22	1.02	0	8	21	9	1	sw.	George E. Campbell.
Lanark	Carroll	883	23	69.1	− 1.3	94	31	39	4	35	6.13	+ 2.20	2.46	0	11	19	6	6	sw.	M. N. Wertz.
La Salle	La Salle	536	7	71.1	− 0.9	95	31	46	4	28	4.35	+ 1.49	2.85	0	6	9	13	9	sw.	U. S. Weather Bureau.
Lincoln	Logan	575	24	73.0[e]	− 0.8	95	31	40[f]	4	36[f]	4.33	+ 1.31	1.31	0	9	16	9	6	ne.	Prof. C. S. Oglevee.
Loami	Sangamon	624	12								4.30	+ 0.64	2.00	0	10	9	5	17	sw.	H. C. Foster.
Macomb	McDonough	700	8								2.37		1.10	0	6					State Normal University.
Manteno	Kankakee	711	1								2.98		0.72	0	11	21	7	3	sw.	J. F. Schmeltzer.
Martinton	Iroquois	633	25	70.9	− 1.2	97	31	43	5	36	4.51	+ 0.93	1.97	0	12	12	10	9	sw.	Joseph H. Peltier.
Mascoutah	St. Clair	425	22	76.6	+ 0.4	99	28	47	4†	36	4.25	+ 1.40	1.30	0	8	19	8	4	se.	George Henrich.
Minonk	Woodford	745	19																	M. H. Pfaffle.
Monmouth	Warren	784	20	71.4	− 2.2	96	31	40	3	35	1.10	− 2.43	0.59	0	4	16	1	14	nw.	Dr. J. C. Hutchison.
Morris	Grundy	518	1	70.7		96	18†	45	3	33	2.59		1.12	0	9	13	7	11	sw.	E. G. Cryder.
Morrison	Whiteside	685	18	69.5	− 2.7	93	31	42	3	30	4.37	+ 0.43	2.95	0	9	15	11	5	sw.	S. A. Maxwell.
Morrisonville	Christian	638	13	74.1[b]	− 0.6	95[b]	25†	45[b]	4†	35[d]	2.56	− 0.43	0.61	0	13	16	12	3	sw.	J. D. Lowis.
Mount Vernon	Jefferson	511	18	74.8	− 2.0	94	19†	50	4†	31	4.68	+ 1.81	1.55	0	10	18	6	7	s.	Theodore P. Stelle.
Nashville	Washington	503	12								3.76	+ 0.89	0.76	0	12					H. M. Potter.
Oregon	Ogle	702	3	69.6[a]		94	31	43[b]	4	30[b]	5.96		2.50	0	7	8	11	12	sw.	Samuel Ray.
Ottawa	La Salle	500	26	71.1[b]	− 1.2	95	18	46[d]	4	32[d]	5.68	+ 2.36	2.25	0	9	8	0	23	sw.	Miss Maude M. Harris.
Pana	Christian	692	26																	A. H. Owens.
Pawpaw	Lee	930																		A. C. McBride.
Peoria	Peoria	609	56	72.4	− 0.1	95	31	44	4	29	1.67	− 1.26	0.49	0	10	8	16	7	s.	U. S. Weather Bureau.
Pontiac	Livingston	546	10	72.0	− 1.6	94	31	46	3†	31	4.32	+ 1.51	1.00	0	11	9	11	11	s.	George Butterworth.
Quincy	Adams	481	6	76.4		96	17†	54	4	31	3.97		1.11	0	12					Fred J. Brinkoetter.
Riley	McHenry	956	53	68.0	− 1.4	90	31	47	4	31	4.29	+ 0.78	1.36	0	10	5	14	12	sw.	John West James.
Roberts	Ford	774	1								3.50		1.46	0	11	16	10	5	sw.	R. E. Bradbury.
Rockford	Winnebago	763	20	67.9	− 3.4	91	31	46	4	38	5.56	+ 1.96	2.55	0	9	14	5	12		Hosmer C. Porter.
Rushville	Schuyler	670	21	73.9	− 0.2	94	31	49	4	26	2.04	− 1.06	0.50	0	11	8	14	9	s.	H. F. Dyson.
St. Charles	Kane	700	17	70.2	− 0.9	95	18	45	3†	35	4.21	+ 0.16	1.22	0	9	7	18	6	sw.	Dr. William H. Bishop.
St. Peter	Fayette	500	10	74.2	− 1.5	95	28	49	4	32	5.38	+ 1.84	1.55	0	12	5	22	4	sw.	M. L. Lansford.
Sparta	Randolph	538	26	75.5	− 0.3	98	28	49	4	34	4.50	+ 1.20	1.39	0	8	21	9	1	s.	James A. Caldwell.
Springfield	Sangamon	644	32	74.2	+ 0.2	94	28	51	4	30	2.87	+ 0.07	1.07	0	14	14	7	10	sw.	U. S. Weather Bureau.
Streator	La Salle	626	19	71.6	− 1.4	97	18†	45	4	34	1.88	− 1.33	0.59	0	8	18	6	7	sw.	Miss Lora Sweetser.
Sullivan	Moultrie	530	12	73.6	− 0.6	95	28†	46	4	42	4.57	+ 1.14	1.90	0	8	9	20	2	sw.	C. A. Corbin.
Sycamore	Dekalb	855	32	68.6	− 1.2	97	18	43	3†	37	4.26	+ 0.63	1.45	0	8	16	4	11	sw.	Miss Edna J. Davis.
Tiskilwa	Bureau	798	28								2.29	− 1.75	0.85	0	7					F. I. Smucker.
Walnut	do.	717	21	71.4	− 2.1	97	31	46	3†	29	4.63	+ 1.04	3.39	0	9	14	12	5	s.	O. C. Nussle.
Warsaw	Hancock	501	14								3.31	+ 0.43	0.87	0	8					W. R. Kirkbride.
Waterloo	Monroe	719	1								4.35		1.21	0	12					Prof. James E. Raibourn.
White Hall	Greene	573	4	73.4		95	28	45	5	37	4.58	+ 2.32	1.03	0	13	20	6	5	ne.	Frank Dillman.
Windsor	Shelby	681	13	73.8	− 0.3	95	31	46[a]	5	34[a]	5.08	+ 1.35	1.44	0	12	11	15	5	sw.	Herbert Rose.
Winnebago	Winnebago	900	25	69.0	− 1.8	93	18†	45	3†	33	8.11	+ 4.37	3.70	0	7	13	9	9	s.	Frank Osborn.
Yorkville	Kendall	584	25	69.2	− 1.4	95	31	43	4	36	3.47	+ 0.15	1.70	0	8	13	11	7	w.	Herman A. Grimwood.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1912. District No. 5, Upper Mississippi Valley.*

Stations.	Watershed.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota.																																		
Amenia	Red					1.23	.30	.40	.23	.28			T.	.28				.85					T.						.24		.36		4.17
Bottineau	Mouse					.21	T.						.40		.02	.12	.10	.25		.06	.62	.05							.20	.01	.10		2.14
Bowbells	do				.30	.09			.15				.02					.24		.78	1.50								.30	.10	.05		3.51
Cando	Sheyenne				.12		.78		.16				.02		.50			.48		.15	.30									.53		.10	3.14
Crosby	Mouse				.46			.12					.03				.13	.30	.17	*	1.62							T.		.13			2.96
Devils Lake	Sheyenne				.74	.14	.06	T.	.34			T.	.08		.05	.06	.46	.02	T.	.37	.07	T.		.18			T.	.06		.25	.11	T.	2.99
Donnybrook	Mouse				.46	.06	.17	.12					T.				.31	T.	T.		.78	T.						.15	.08				2.13
Dunseith	do				.28			.31				.01			.22		.20	.12		.20	.38		.01					.19	.01	.04	.33		2.30
Edmore	Sheyenne																																	
Fessenden	James					.18	.05	.30	.01	.01			.25			.03		.44		1.07	.13	.11	T.	T.	.01				T.	.02	.22		2.83
Forman	Sheyenne				.23	.05		.17		.10			.40				.56		T.		.02										1.10		2.63
Grafton	Red					.17	.05	.12					.04					.45	.02		.04	.03	.05						.39	.01	.89		2.26
Granville	Mouse				.39	.34		.05									.24			.46	.26							.01	.02	.66			2.43
Hannah	Pembina				T.		.19		.20			T.			T.			.21		.31	.36	T.		T.	T.			.57		.56		T.	2.40
Hansboro	Red				.12	.03	.60							.06				.34		.35	.37								.26	.30			2.43
Hillsboro	do				.19	1.21	.05	.10	.20				.40				.05	1.47					.12					.10	.45	.07	.28	.33	5.02
Lakota	Sheyenne																																	
Langdon	Pembina					.12		.81		T.			T.				.52	.03	.07	.92	.12								.61		.51		3.71
Larimore	Red					.60	.16	.18	.19	.01			.30	.05	.03			1.10	.02			.02							.55		.20		3.41
Lisbon	Sheyenne					.06	T.	.18		.12			.25	.09				1.22				.10		.03						T.	.47		2.52
McKinney	Mouse				.50	.33		.18									.26			1.20			T.					.23	.10				2.80
McLeod	Sheyenne				.05	.15		.22	.60				.41				.40	.32			.07								T.		.62		2.84
Manfred	do				.07	.70	.48	T.	T.			T.	.12			.15	.38	.02		1.15	.19	T.	.26					T.		.18	.16		3.86
Mayville	Red				.21		1.40	.60	.11	.69	.20			.30				.10	.70										.75	.13	.20	.44	5.83
Milnor	do				T.	.37	.19	.05	.30			T.	.27				.50	.22			.03			T.					T.	T.	.99		2.92
Minot	Mouse				.08	.48		.05					.23					.22		.20	.20								.10				1.56
Minto	Red						.28	.18					.21				.09	.57		.03	.08	.02		.02				.51	.02	.14	.65		2.80
Oriska	Sheyenne				.34	.39	.05	.10	.08				.53			.03	.70			.03									T.	.08	.34	.39	3.06
Park River	Red				T.	.25	.17	.20					.05				.07	.35	.01	.15	.12							.50	.07	.15	.74	.02	2.85
Pembina	do					.08	.28	.18		T.			.04			T.		.10	.08	T.	.20	.12			T.	T.		.42			.55		2.05
Power	Sheyenne					.40		.73					.50				1.25													.40		.42	3.70
Pratt	Mouse																																	
Towner	do				.31	.05		.04				T.	.08					.18		.51	.37							T.		.65	.39		2.58
University	Red				.10	.61	.01	.03	.37	.01			.30		.01		.06	.38		T.	T.	.02	.04		.04			.58	.12	.06	.08	.04	2.86
Wahpeton	do				.20		.02		1.02	.05			.15					.35					T.					T.			1.30	.02	3.11
Walhalla	Pembina					.24		.32	.03	.04			T.								.47		.02	.01	.23			.28	.74	.17	.50		3.05
Westhope	Mouse				.16	.03			.03						.42		.12	.02		.30	.37	.10						.08	.03	.03			1.69
Willow City	do				.28	T.	T.	.10				T.	T.		T.		.29	.05	T.	.23	.80	.15	.02					.05		.43	.08		2.48
Minnesota.																																		
Albert Lea	Mississippi					.20		T.	.20		T.						.10	.80	.50	.50			T.								.65	T.	2.95
Alexandria ‖	do																																	
Angus	Red					.28			.98				.23		T.			.49		.01	.14	.02						.04	.14		.18	T.	2.51
Bagley	do					.22			.10		.10					.03	1.30	.05				.08			.02			.60				.40	2.90
Baudette	Rainy																																	
Beardsley	Minnesota				.03	.46		T.	.08	.04			.62			T.	.18		.09	.44	T.		T.	.02					T.		.84	.03	2.83
Beaulieu ‖	Red																																	
Bemidji ‖	Mississippi					.16	.32		.64	.06					.01			.88		.02	.04					.02			.62		.27	.25	3.29
Bird Island	Minnesota				T.	.65	.12	.02	.11	.05	T.						.53	.42	.77	.71	.10			T.					T.		.41	.08	3.97
Brainerd	Mississippi					.19	.34	.08	.21	.30	.07			.41															.14		1.50	.10	3.34
Caledonia ‖	do						.20	1.50	.26	.15	.46			.14				.31	.05	.53	.03		.04			.05			T.		.61		4.33
Campbell ‖	Red					.60	.12	.03	.50	.06	.10		.12	.04				.25		.05		.05	T.						T.		1.65		3.57
Cass Lake ‖	Mississippi					.34	.50		1.05	.10								.70	.05	T.	T.	T.				.16		T.	.72	T.	.32	T.	3.94
Collegeville	do					.05	.18	.10	.01	.15	.01			.08			.55	.92	.14	.03		.07	T.						.46		1.50	.47	4.72
Crookston ‖	Red					.41	.19	.02	.10	.20			.13	.32				.84	.02	.02			.04						.63		.70		3.62
Detroit ‖	do					1.10	.70	.50	1.40	T.	T.			T.		T.		.65				T.							T.		.70		5.05
Ely	Rainy						.06			.04				.11				.22						.08	.13				.77		.04		1.45
Fairmont (near)	Minnesota					.50		.33	1.87	*	.24			.80			.15	.13	.43	1.15					.02		T.				1.15	.04	6.81
Faribault	Mississippi																																	
Farmington	do					.15	.30	.24	.54	.20	.14			.40			.25	.60	1.18	.42		.12							T.		1.58	.92	7.04
Fergus Falls	Red				.15	.62	.57	.75	.36	.03			.06				.20	.14					.03					.01	.01	T.	1.22		4.15
Fort Ripley ‖	Mississippi							.40	T.		.65			.03				.15					T.						T.	T.	1.90	.05	3.18
Fosston	Red					.38	.03	.11	.37				.20				.08	1.13	.03	.04	.03	.03				.10		.66	.04	.01	.53	.02	3.79
Glencoe	Mississippi				1.00			1.50									.50		.50	.16											1.00		4.66
Grand Meadow	do					T.	.17	T.	.56	T.	.18	T.	.21	.04			.08	.54	.22	.66	.06				.06				T.		.95	T.	3.73
Gull Lake Dam	do					.10	.44	T.	.25	.18	.21		T.	.07			T.	.21					.07					T.	.16		1.93	.03	3.65
Hallock	Red					.50	1.00	.05	.03				.05					.50		.25	.10	T.	T.	T.	.20	T.		.40	.25	.05	.90	.20	4.48
Halstad ‖	do					1.15	.10	.06	.10	.33				.37		.02		.84				.01	.02						.25		.36		3.61
Hinckley	St. Croix								.05	.15	.07						.05	.85	.05	T.												1.43	2.65
International Falls	Rainy					.85	.35	.15					.15	.09				.65		T.	.09	.10		.15	.09			*	.82		.47		3.96
Itasca State Park	Mississippi					.08		.65	.53									.90			.04	.26						.87	.08		.46	.07	3.94
Lake Crystal	Minnesota					.46		.24			.20		.03				.20		1.12	.26											.68	.28	3.47
Leech Lake Dam	Mississippi					.09	.27		1.84	.10			.03					.46	.06			.04				.07			.52		.40	.03	3.91
Littlefork	Rainy					.20	.64	.01		.01			.87					.60		.05	.11	.05	.04	.17	.05			.10	.70		.32	.01	3.93
Long Prairie	Mississippi																																	
Lynd	Minnesota					.41	.25	.04		T.		.30		T.			.87	.73	.46	.50			T.				.08				.40	.20	4.24
Mankato ‖	do					.55	.08	.42	.04		.25		.07					.18	.70	.76											.61	.11	3.77
Milaca	Mississippi																																	
Milan	Minnesota				.04	.61		.18	.02	.02			.40				.32	.02	.45	.18					.02				.43		.32	.36	3.37
Minneapolis	Mississippi					.11		.62	T.	.21	T.		.01				.65	.09	.97	.21	T.		T.					.50	.06	.26	1.76	.11	5.56
Montevideo ‖	Minnesota					.94	.08	.02	.17	T			.01	T.				1.24	.45	.38			.01							.20	T.		3.50
Moorhead ‖	Red				.64	1.31		.52	.10			.04	.19				2.33	.01		.01		.01						.01		.28	.08	.31	5.84
Mora	St. Croix					.85	.70		.34	.15							.21	1.00	.07				.01							.31	1.67	.50	5.81
Morris	Minnesota				.22	1.05			T.	.09			.35				.24		.14	.39	.05	T.							T.		.75	.16	3.44
New London	Mississippi					.95		1.30			.27		.41				1.22	.38		.40								.89			.82	.65	7.29
New Richland	Minnesota					.33		.25	T.	.09	.10		.23					.62	.15	.64	T.			T.	T.				T.		.91		3.32
New Ulm	do					.67	.10	T.	.76		.15		.03		T.			.65	.65	.43					T.		.02				.81	.10	4.37
Osakis	Mississippi					.26	1.12	.15	.88	.11	.03		T.				.04	.18		.04											1.97	.18	4.96
Park Rapids ‖	do					.07	.30	.18	.88	.05	.10			.33				.50	.02				.10							.67	.02	.64	.02	3.88
Pine River Dam	do					.15	.64		.18	T.	.08							.10		.20					.18				1.40		1.25		4.18
Pokegama Falls	do					.10	.18	T.	.65	.19			T.		.11	T.		.29			.03		.01			.04		.02	.35		.33		2.30
Red Lake	Red				.15		.55	T.					T.					2.00			.20	.05						T.	.50			.20	3.65
Red Wing ‖	Mississippi						.28	1.18	.10	.24	.08	T.		T.				.28	.62	.40	T.		T.								1.45	.02	4.65
Redwood Falls	Minnesota																																	
Reeds Landing ‖	Mississippi						.30	.02	.85	.10	.20	.10		.05				.46	.48	.20	.10		.04								1.30	.14	4.34
Rochester ‖	do						.60	.03	.73	.01	.25	.02	.02	.10				.50	.02	.76			.03								1.10	.13	4.30
Roseau	Red					.34	.09	.03	.18				.19				.05			.03		.01		.10	.05	.02		.50	.40	.03	.43		2.45
St. Charles	Mississippi					T.	.57	.12	1.02		.34						.09	.37	.08	1.02		.02									1.13		4.76
St. Cloud	do					.02	.28	.02	T.	.17	.04						.13	1.57	.17			.13							.35		1.39	.52	4.79

TABLE 2.—*Daily precipitation for August, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Minnesota—Contd.																																	
St. Paul	Mississippi					.13		.21	.03	.16			T.				.68	.12	.53	.24			T.					.33	.11	.13	1.66	.07	4.40
St. Peter	Minnesota					.58		.42	.47		.23						.18	.32	.87	.55											.70	.35	4.67
Sandy Lake Dam	Mississippi					.34	.33			.65				T.				.19			T.		.15						.95		.84	.05	3.50
State Sanatorium	do					T.	.25	.05	1.60	.46				.01					.45			.15						1.55			.60		5.12
Stillwater ‖	St. Croix						.02	.09	.06	T.	.21							.83	.49	.41		T.	T.						1.04		2.12	T.	5.27
Taylors Falls	do					T.	.78	.44	.40	.31	.32		T.				1.90		.17				T.					.30			1.40	.19	6.21
Thief River Falls ‖	Red						.15						.20						.25		.30								.40			.30	1.60
Tracy	Minnesota																																
Warren	Red						.01	.02							.50	.22		.32			.31							.50				.20	2.08
Warroad	Rainy					.40	.25	.15	.45				.08	.02				.22				.12		.18		.12		.80		.08	.40		3.27
Winnebago ‖	Minnesota					.60	.01	T.	.10		.25		.10	.30				.40	.30	.50			T.	T.	T.	T.		T.		T.	.75	.30	3.61
Winnibigoshish	Mississippi					.28	.08	2.62	.04						T.			1.05			.22					.12			.32		.26		4.99
Winona	do					T.	.21	.15	.22	T.	.66		T.	.01			.05	.23	.02	.30		.05	.03						T.		1.12		3.05
Worthington ‖	Des Moines					.12		.30			.03		.24					.17	.43	.30											.61	.22	2.42
Zumbrota	Mississippi					T.	.25	T.	1.30	.02	.03						.12	.32	.74	.95											1.60	T.	5.33
South Dakota.																																	
Milbank	Minnesota					.39	.21	.12	.02	.29	.04		.37	.02			.02	.09	.55	.38			.02						.05		.52	T.	3.09
Sisseton	do					.14	.04	.02		.02			.67	.10				.25		.31		.12	.01								.65		2.33
Wisconsin.																																	
Antigo	Wisconsin	.14					.22	.08	.33	1.69	1.94							.85	.03	T.						T.			1.20		.58	.82	7.88
Barron	Chippewa					T.	2.22	1.46	.22	.20	.63						T.	1.29	.07										.82		.96	.70	8.57
Beloit	Rock	.13					T.	.24	.45	T.	.66	.02		.03				.35		.55	.76						T.		T.		T.		3.19
Big St. Germain Dam.	Wisconsin	.04	.09				.90	.09	.15	1.80	1.13							2.29	.03		T.		.10		.20				.59		.42	.06	7.89
Brodhead	Rock	.11						T.	1.00		.70	.10		.07					.18	.77	T.		T.				.06		.10		T.		3.09
Burnett	do	.44	.03				.02		.45	.50	.51	.02	T.					.03	.80	.10	.01	T.	.06						.27	.01	.58	T.	3.83
Cottage Grove	do	.25		T.		T.	T.		.19	.11	.24	T.		.03				.02	.58	.26	.03		.06								.09		1.86
Darlington	do						.10		.70		.50			.10					.80	1.50													3.70
Deerskin Dam	Wisconsin	.08	.18				.89	.10	.45	1.60	1.08	.03						1.52	T.	T.	.50		T.	T.	.48		T.		.85		.31	T.	8.07
Delavan	Rock	.14				T.	T.	.21	.64	.16	*	.37							.18	.28	.14		.01						.09				2.22
Dodgeville	do								.75		.80			.25				T.	.40	1.50		T.											3.70
Downing	Chippewa						.45	.40	.50	.10	.20						T.	.90	.65										2.00		1.35	1.20	7.75
Eau Claire	do	.04				.04	.44	.81	.89	1.10	.60			.02			.05	.15	.42	.15	T.		.06						2.00		1.67	.39	8.83
Grand Rapids ‖	Wisconsin	.08					T.	1.18		2.04	.71	.16						.45	.31	.29		T.	.04						1.74		.74	.25	7.99
Grantsburg	St. Croix						1.85		.22	.40	.30						T.	2.10	.12	T.									.70		.90	.67	7.26
Hancock	Wisconsin	.05					.25		2.03	1.10	.90							.15	T.	.31	T.				.09				1.78		1.65	.03	8.34
Hatfield	Black						.72	.36	.87	.18	.57							.36	.59	.20									.45		2.11	.25	6.66
Hayward	St. Croix					.10		.02	.12	1.65	.43							1.60	.05	T.				.10				T.	.42		1.18	.43	6.10
Hillsboro	Wisconsin	.04				T.	.16	.26	.06	.21	.63	.10	.18	.15			T.	.10	.07	.39			.10		T.						2.07		4.52
Koepenick	do		.10				.50	.60	.50	1.82	2.23	.30						1.50	.20	.10			.10				.10		.80		.60		9.45
Lac du Flambeau	Chippewa																																
La Crosse	Mississippi					T.	.35	.04	.33		.49	T.	.08	.02			T.	.22	.07	.37	T.		.03		.10				T.		1.17	.06	3.33
Lake Mills	Rock	.53				T.	.02	T.	.52	.03	.36	.07	T.	.04				.03	.12	.16			.05						.07	.02	.12		2.14
Lancaster	Mississippi						.15	.11	.21		.58	T.	.10	.23				.07	1.05	1.72													4.22
Long Lake	Wisconsin	.07					1.17	.18	.05	1.17	.72							1.80	.04	T.	.01	T.	.01	.10	.24				.69		.29	.15	6.69
Madison	Rock	.78				T.	.02		.43	T.	.37	T.	T.	.03		T.	T.	.18	.54	.42			.02						T.		.37		3.16
Mather ‖	Wisconsin	.34					.20	.35		.11	.79	.18		.03				.21	.66	.56	.63		.07	.02		T.	T.		.10		2.06	.26	6.57
Mauston	do	.30					.45	.18	.05			.10	.75					.10	.70	.22									.05		1.60	.15	4.65
Meadow Valley	do					.07	.95	.13	.07	.10	.55						T.	.32	.64	.11			.06					.39			1.90		5.29
Medford	Black						.65	.85	.70	.16	1.25							.80	.10				.10						1.30		1.08	.70	7.69
Merrill	Wisconsin		.20				.38	.60	.40	1.10	1.77							1.00	.60									.90			.78	.65	8.38
Minocqua	do	.02					.78	.25	.19	1.75	1.17	.08						2.09	.02	.02	.05			.30					.58		.55	.07	7.92
Mondovi	Mississippi	.02				.13	.50	.21	.70	.06	.70	.02					.04	.47	.82	.33	T.		.04						.15		1.72	.02	5.93
Mount Horeb	Rock	.25				T.	.07		.34		.80			.07		T.		.17	1.00	.43			T.				.10				.20		3.43
Muscoda ‖	Wisconsin						.20		.04	.21	T.	.60		.43				.30	T.	.03	.71			T.		T.					.30	.03	2.85
Neillsville	Black						.78		1.12		.62							1.15	.63	.15									2.75		1.13	.12	8.45
New Richmond	St. Croix						.21	1.41	.41	.11	.18			.20			.21	.62	.53		.04		.02						1.83		1.95	.13	7.85
Osceola	do					.35		.40	1.10	.55			T.				.73											.20	.50		1.50	.33	5.66
Park Falls	Chippewa						.73	.19	.16	1.47	.88	T.						1.64		.03	T.	T.		T.	.52				.60		.40	.08	6.70
Portage	Wisconsin	.76				T.	.02		.32	1.33	.82	T.	.07	.10				.04	2.25	.21			.03						.11		.73		6.79
Port Edwards	do	.26	.03				.71	.16	.10	.32	.72							.75	.30	.16			.06						1.73		1.00	.19	6.49
Prairie du Chien ‖	Mississippi						.26			.26		.36		.70				.06	.10	3.70	.82										.26	T.	6.52
Prairie du Sac	Wisconsin	.21				T.	.01	.01	.19	.30	.82		.05	.28				.25	.20	.60			.05								.54		3.51
Prentice	Chippewa	.05					1.54	.16	.12	.58	1.12			.08				1.66	.21	T.		T.		T.		T.	T.		.74		.80	.14	7.20
Rhinelander	Wisconsin	.01					1.30	.30	.04	2.65	1.50			.01				1.11	.13	.02	.05				.01	.06			.55		.43	.15	8.32
Shullsburg	Mississippi					.03	.15		.68		.72		.11	.13				.02	.08	1.93													3.85
Solon Springs	St. Croix					.60		.30	.40	.60								.70		T.	T.		.10		T.			T.	.40	.10	.50	.90	4.60
Spooner	do					.03	1.75	T.		1.26	.19	.02						1.96	.06				T.						.55		1.03	.37	7.22
Stanley	Chippewa	.06				.04	.58	.79	1.00	.08	.87							.60	.40	T.			T.						1.35		1.28	.30	7.35
Stevens Point	Wisconsin																																
Sugar Camp Dam	do	.06				.86	.86	.30		1.70	1.60							1.74	.05		.10		.10		.25				.37		.30	.13	8.42
Trout Lake	do		.04				.67	.44	.02	1.54	.67							1.03			.17	T.	T.	.43			T.		.55		.28	.02	5.86
Twin Lakes Dam	do						1.00	.68	.09	2.26								1.40		T.					1.25				.75			.86	8.29
Valley Junction	do	.07				.03	.62		.79	.37	.71			.13			.04		.35	.80			.22		T.				T.		2.39	T.	6.52
Viroqua	Mississippi						.25	.02	.10		.58		.07	.50				.20		.56			.02		T.				T.	T.	.90		3.29
Vudesare	Wisconsin			.34	.34		.75	.30		.95	.60							.40	T.	.20	.02		T.	.20	.93				.63		.50	T.	6.26
Watertown ‖	Rock	.31	.30					T.	T.	.34	.08	.40		T.					.06	.35	.10			.04					.10	T.		.45	2.53
Waukesha	Fox	.15	.01	T.			.01	.28	.55	.13	.23		T.						.32	.88			.03						.05		.50		3.11
Wausau	Wisconsin	.04	T.				.21	.06	.63	.90	2.05	.05		.03				.79	.30										.94		.97	.39	7.36
Weyerhaeuser	Chippewa	.05				.05	1.98	.37	.12	.85	.47							1.24	.22										1.34		1.05	.53	8.27
Whitehall	Mississippi	.10				.10	1.00	.20	1.10		.70	T.						.20	.50	.50			T.								2.20	.10	6.70
Iowa.																																	
Albia ‖	Des Moines					T.	.10		.03	1.10	.01		.44		.59	.01	.10	.05			.01									.33			2.77
Algona	do					.28		.25	1.31	T.	.18		1.21	.22			.10	2.10	.28	.42					T.						.36		6.71
Alta ‖	Raccoon	.15				.50	.52	.46	.09		.04		1.07				T.	2.45	.03	.63		.02									.17		6.13
Amana	Iowa					T.	.01	T.	.76		T.		.25	T.				.03		.70	.01				.01				T.		T.		1.77
Ames	Skunk					.64			.11	.08	.04	.69	.28				.12	1.89	T.		T.				.29								4.14
Baxter	do					.50		T.	.25	.02	.01		.59	.09			.07	1.40		.21					.04				.02				3.20
Belle Plaine	Iowa					.09	.02		.48	.01	.05		.22					.16		1.00					T.			T.					2.03
Belmond	do					.37		T.	1.19	.05	.17		1.20				T.	.78	.02	.78				.30			T.	T.			.17	T.	5.03
Bloomfield	Mississippi					.10			.05				.50	.31			.74												.03				1.73
Bonaparte	Des Moines					.10	.12	.14	.14				.58	.25			.78				.05								.28				2.44
Boone ‖	do					.51	.15		.04		.02			.48				1.74	T.	T.					.21				.02				3.17
Britt	Iowa					.15		.98	.33	.08	.12		.94	.84			.05	1.31	.42	.26			T.		.03						.15	T.	5.66
Buckingham	Cedar					.21			.16	.03	.04		.45				T.	.55		.48					.09								2.01
Burlington ‖	Mississippi						.10	.16	.04	.28			.17	.12	.23		1.16	.10															2.36

TABLE 2.—*Daily precipitation for August, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Iowa—Continued.																																	
Carroll ‖ ‖	Raccoon	.21				.15	.10	.18	T.				.79	.97		.20	2.16												T.				4.76
Cedar Rapids ‖ ‖	Cedar						.08		T.	.61	T.	T.	.20	T.				T.	T.	.93	.98					T.				T.			2.80
Charles City	do					.07	.08		.28		.03		.93	.08			.05	.68	.18	.75					.05					.01	.28	.86	4.33
Clear Lake	do					.03	1.40	.44	.51				.75	.55				.11	.38	.92											.40		5.49
Clinton	Mississippi						.06	.07	.03	T.	.60		.12					T.		3.17	.19								T.				4.24
Columbus Junction	Iowa					.07		.18	.25	T.	T.		.28	.60				T.		.82									T.				2.20
Davenport	Mississippi					T.	.09	.36	.02	T.	.03		.13	.04				T.		2.10			T.						T.	T.			2.77
Decorah	do					T.	.42		.12		.21		.14	2.10			T.	.40	T.	.85					.08						.41	.21	4.94
Delaware	do					T.	.47		.12		.30		.25	.68				.15		4.28	.52				.02						T.		6.79
Des Moines	Des Moines					.35		T.	.28	.01	.02		.30	.13		T.	.61	.73		.74					.03		.03		T.			.29	3.52
Dubuque	Mississippi					T.	.20		.50	.01	.46		.15	.22				.01	3.55	1.68			T.		T.					T.	.01		6.79
Earlham	Raccoon	T.				.20			.27	T.			.41	.10		T.	1.17	.10		1.32									.16				3.73
Elkader	Mississippi					T.			.66		.30		.40	.75				.40		2.75			T.		T.						.15		5.41
Elma	Wapsipinicon.					.15	.08	.03	.20	T.	.08		.22	.55			.02	.47	.81	.82					.08						.25	.15	3.91
Estherville ‖ ‖	Des Moines					.25			1.10		.10		.85	.05				.45	.35	.30					.05						.54	.35	4.39
Fairfield	Skunk					.08			.08				.30	.25			.22			.08									.11				1.12
Fayette	Mississippi							T.	.21		.15		.57	1.10				.70	1.50	3.48			T.		.12					.02	.05		7.90
Forest City ‖ ‖	Cedar					.20	.05	.15	.30		.08		.64	.88				1.28		.98					.10						.18	T.	4.84
Fort Dodge ‖ ‖	Des Moines					.25	.22		.40		.08		.80	T.				.60		.07											T.		2.42
Fort Madison	Mississippi					T.		.40	.31		.10		.61	T.		T.	1.70			T.									.15				3.27
Gilman	Iowa					.24			.19				.45		T.			.96		.86					.05				.03				2.78
Grand Meadow	Mississippi					.02	.28		.12		.30		.25	.60				.51	1.03	1.82			.01		.05					T.	.27		5.26
Grinnell	Iowa					.31			.72		.04		.30	.20			.08	.40		.90			T.		.05				T.				3.00
Grundy Center	Cedar					.25			.24				.80	.05			.07	.46	2.50					.05							T.		4.42
Guthrie Center	Raccoon	T.				.20		T.	.01	T.			.54	.23		.01	1.21	.32		.08					T.		.13		.03				2.82
Hampton	Cedar				.18	.05		.35		.24	.03	1.55	.03				.10	.65	1.07						.12					.05	T.	1.00	5.42
Humboldt	Des Moines																																
Independence	Wapsipinicon.					.05			.41	.01	.08		.55	.60				.45		4.62	.03				.03						.03		6.86
Indianola	Des Moines	.05				.12	T.		.32				.30			T.	.55	.40											.45				2.18
Iowa City ‖ ‖	Iowa						.04		.17	.41		.02	.22		T.			T.		1.65	1.12					T.				T.			3.02
Iowa Falls ‖ ‖	do					.20	.10	T.	.52		.07	T.	.93	.02				.51	.10	.30		T.		T.	.07	T.		T.		T.	.03		2.91
Jefferson	Raccoon	.06				.40			.10	.10			.48	.38			.21	2.32					T.		.03		.09		.02		T.		4.25
Keokuk	Mississippi					.03	.08	.10	.29	.25	T.		.38	.20		.26	.26			.02	.33								.10				2.50
Keosauqua ‖ ‖	Des Moines						.09	.27	.02	.05			.60	.03	.49		.85	.35				.04								.23			3.02
Knoxville	do	T.				12			.38	T.	.03		.28	.32			.26	.04		.25	.08				T.		T.		T.				1.76
Lacona	do	.02							.08	.06			1.00	.50			.54	.10		.02			.10				.02						2.44
Lansing	Mississippi						.20		.04	.12	.09	.36		.47				.13		1.20	.09		.02								.60	.03	3.39
Le Claire ‖ ‖	do						.12	.10		.04	.14	.21	T.	.15	T.				T.	.88	.53			T.						T.			2.16
Marshalltown ‖ ‖	Iowa					.09	.07		.01	.20	.01	T.	.83	.03				.70	.01	.20	.04	.01		T.	.68	.03			T.				2.31
Mason City	Cedar					.18	1.85		.40				.72	.70			.02	.75	.42	1.55					.15						.22		6.96
Monroe	Skunk					.18			.24		.05		.29	.19			.26	.86		.48	.05				T.		T.						2.58
Mount Pleasant	do						T.	T.	.09				.46	.82			.30	T.		.08									.09				2.00
Muscatine ‖ ‖	Mississippi						.12	.38	.03	.06	.09	.05	.15	.02	.03					.82	.80												2.49
New Hampton	Wapsipinicon.					.06	.10		.33		.08		.48	.68			T.	.45	T.	2.42			.02		.10					T.	.10	.16	5.04
Northwood	Cedar					.17		.11	.20	T.	.09		.22	.60			.07	1.03	.09	1.10			T.		T.					T.	.60		4.28
Olin	Wapsipinicon.					T.	.50		1.25		.17		.30	T.				T.		4.75	.75										T.		7.72
Osage	Cedar					.20			.42				.25	1.10				.73	.84	.72					T.						.39		4.65
Oskaloosa	Des Moines					.09			1.29	T.	T.		.53	.22			.09			.49									.08				2.79
Ottumwa	do					T.			T.			.50		.30		T.	.20			T.					T.		T.		.21				1.21
Pella	do					.15			.30	.02	T.		.41	.13		.05	.12			.29	.01		T.		T.		T.		.06				1.60
Perry	Raccoon	.06				.58			.72	.05			.23	.22			.30	2.00		T.	T.				T.		.19		.07				4.49
Plover	Des Moines																																
Pocahontas	do					.55	T.	.05	.70				1.20	.02			.11	.75		.02						.03					.45	T.	3.94
Ridgeway	Mississippi					.04	.45	.03	.11		.25		.15	.57			.03	.33	.14	.52			.02		.05				T.	T.	.33	.11	3.14
Rockwell City	Raccoon					.65		.50		.10			.65	.45				1.35		.35								.35					4.40
Sac City	do	.06				.47		.96	T.	.07	T.		.57	.01			.25	1.75		.15					.04					T.	.10	.15	4.58
St. Charles	Des Moines	.37				.28		.01	.44				.32			.01	1.09			.44							T.		.10				3.07
Sigourney	Skunk					.12			.60				.30	.10		.10	T.			.80	.02				T.				T.				2.05
Stockport	do					.12			.03		T.		.41	.34		T.	.52			.01	.02								.08				1.53
Storm Lake	Raccoon					.90	T.	.57			.01		.98	T.			.24	2.25	T.	.22										T.	.16		5.33
Tipton	Cedar						.22		.25	T.			T.							2.85	.42												3.75
Toledo	Iowa					.07			.18	.37			.33	.06				.70		.65					.10				T.		.05		2.51
Wapello	do							.50	.10	T.			.21	.18		.19				.61													1.79
Washington	Skunk					.08			.22				.24	.17						.18													0.89
Waterloo ‖ ‖	Cedar					T.	.05		.66	.14	.34	.02	.50	.28				.38	.03	4.00					T.						T.		6.40
Waukee	Raccoon	.02				.32		T.	.31	.01			.18	.09		.01	.77	1.31		.05					T.		.05		T.				3.12
Waverly	Cedar					.05			.75	.03	.07	.70	1.30						2.15														5.05
Webster City	Des Moines					.38			.65	.10	.05		.70	.07			.15	.41		.15					.19								2.85
West Bend	do					.15	.17	.11	.34	.05			.74	.18			.14	1.82	.09	.06					.02				.02		.21		4.09
Whitten	Iowa					.38			.30	.13	.03		.48	.13			.75			.60					.15								2.95
Winterset	Des Moines	.07				.25	.01		.44				.44	.06		T.	1.73	.03		.71									.20				3.94
Missouri.																																	
Gorin	Mississippi					.05	.25		.26				.50	.11		.02	.28				.01						.40		.36				2.24
Hannibal	do	.09	.16			.02	.25	.51	.57	.01	.01		.87	.15	T.	.81					.80	.01				T.	.50		.95				5.71
Louisiana	do	.05					.10	.44	.66	.14		.03	.55	1.40	.23	.80					.10	.05	.08				2.06			2.01			8.70
Mexico ‖ ‖	do	T.		.04			T.	.73	.41	.42	.86		.02	1.62	.38		.64				.01	.43					.73			1.10			7.39
Palmyra	do	.12		.17			.49	.51	.09	.09			.89	.69		2.08					.30	.19				.50				1.31			7.43
Steffenville	do	.20	T.			.10	.20	.40	.80	T.	T.		.05	.72	T.	1.78	.70				1.75						.92		.70	T.			8.32
Sublett	Chariton					1.06			.25	T.		1.25		.10		.35	1.00			T.								2.00		1.00			7.01
Vandalia	Mississippi						.50		.32				1.10		.50	1.10				.20							.20		.45				4.37
Warrenton	do			.36				.45	.31	.28	.19			.39	.24	.04	.79					.28					.50			.26			4.09
Indiana.																																	
Collegeville	Iroquois						T.	.27		.72	.66	.24								.17	1.48		.19						T.				3.73
Knox	Kankakee						T.	.04	.33	1.19	.51	.11		.16					2.37	.08	.37	T.	.72			T.			T.				5.88
Laporte	do		.02					.09	.64	1.20	.44	.48		.12					1.02	.12	.24	.05	.12							.03	.14		4.71
Plymouth	do							.27	.31	.64	.17	.20		.57	.13				2.62	.13	.17	T.	.45						.11				5.77
South Bend	do							.07	.34	2.35	.80	.51		.04					1.66	.04	.16		.15						.25	T.	.09		6.46
Illinois.																																	
Aledo	Mississippi					.03	.02	.11	.11	.06	.05		.15	.29		T.				.58									T.				1.40
Alexander	Illinois					T.		.10	.21	.22	.16		.53	1.63	.04	.22	.14	.01			.04	T.	.16			.01	3.41		T.	1.50			8.38
Antioch	do							.32	.80	T.	.15	T.							.12	.80			T.								.15		2.34

TABLE 2.—*Daily precipitation for August, 1912. District No. 5*—Continued.

Station	Watershed	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Illinois—Continued.																																	
Astoria	Kankakee					T.	T.	.24	.01	T.	.06		1.12	.11	.02	.05	.70				.54		.04			.25			.10	.04			3.28
Aurora	do	.21						.12	.48	.16	.38	.18							T.	1.08	.13						T.						2.74
Beardstown ‖	do																																
Bement	Mississippi																																
Bloomington	Illinois					.02	T.	.11	1.71	.99	.46		T.	.10	.04		1.41				.05		.12										5.01
Cairo	Mississippi		T.	.13				.10	.24	.28			.64	T.		.03	.05	.21			.36	.03	.21										2.28
Carbondale	do		T.	.49					.79	1.15	.02		.99		.62		.04				.08	.44					.06	T.					4.68
Carlinville	Illinois			.10					.15		T.	T.	33	.22	.16	.26	.15				.30	T.					.32			.51			2.50
Carlyle	Mississippi			.28						.60			.68		1.01						.35						.38						3.30
Chester ‖	do			.80				.16	.02	.72	.06			.86	.42		.48					3.89	.52				.06	.02					8.13
Clinton	Illinois					T.	T.	.08	.44	.30	.15		.01	.17	.09	T.	.72				.27		.13							T.			2.36
Coatsburg	Mississippi					T.		.15	.01	.04	.12		.69	.34		.20	.31				T.						T.			.05			1.91
Cobden	do			.70					.31	.39			.64		.14						.21	.30	.49				T.						3.18
Dakota	do					.01	.04	.27	1.30	T.	.70	.02		.06				T.		2.25	.10							T.		.03			4.78
Decatur ‖	Illinois					T.		.04	.32	.28	.19	.17		.08	.70		.32	.07			1.60	.11		.20		T.			T.	.04			4.12
Dixon ‖	Mississippi	.12					.05	.27		.05	.15	.48	T.	.05						2.90	.99			T.									5.06
Du Quoin	do	T.		.60				T.	.06	1.58			.91		.65				T.		1.17	1.36		.19			.47		.03				7.02
Dwight	Illinois	.04					T.	.10	.24	.10	.37	.10		.02			T.			.89	.87		.23										2.96
East St. Louis ‖	Mississippi			.67				.07	.03	.02	.02			.55	.16	.01					.12	.29					.83	.03		.02			2.82
Edwardsville	do			.38						.27			.89	.77	.14						.74	.24				.51	1.10		.14				5.18
Elgin	Illinois	.18					T.	.26	1.30	.16	.36		T.						.01	.84	.33								.15				3.59
Ewing	Mississippi																																
Fairview	Illinois					.01	T.	.34	.01	T.	.04	.01	.19	.02		T.	1.27				.01		T.			T.			T.				1.90
Galva ‖	do						.02	.27	.22	.06	.04	.22	T.	.04	.06		T.			T.	.79												1.72
Grafton ‖	Mississippi		.04	.48				.22	.06		.36					.36	.08		.32		.22	.17					.96			.25			3.52
Greenville	do																																
Griggsville	Illinois			T.		T.	T.	.10	T.	T.	T.		.57	.29	.16	1.15	T.				.45	T.					.21			.50			3.43
Havana	do					T.	T.	.18	T.	T.	T.	T.	.21	.12		.03	.60				T.		.10			.60			.03				1.87
Henry	do						.07	.47	T.	.66	.44	.07	T.	.05						.48													2.24
Hillsboro ‖	Mississippi			.18				T.				.15		.55	.12		T.				.35					.35			.30				2.00
Joliet	Illinois	.05				T.	T.		.08	.62	.23			T.					T.	.65	.07										T.		1.70
Kishwaukee	Mississippi					.01	.01	.48	1.33	.02	.69	.06	.01	.01						2.85	1.11		.02						.01				6.61
La Grange	Illinois																																
La Harpe	do					T.	.03	.72	.03	.18	T.		.53	.04		.03	.99			T.	T.								T.				2.55
Lanark	Mississippi					.03	.08	.07	2.36	.02	.74	.02	.02	.04				T.		2.46	.29		T.						T.		T.		6.13
La Salle	Illinois	T.					T.	.33	.36	.10	.35		T.	.36		T.	T.			2.85	T.		T.						T.				4.35
Lincoln	do					T.		.05	1.22	.09	.44		.02	.62	.15	T.	.91	T.			.53		.30				T.		T.				4.33
Loami	do			T.		T.	T.	.08	.05	.10	T.		.29	.13		T.	.40	.03			T.	T.	.15			T.	2.00		T.	1.07			4.30
Macomb	do							.72	.01	T.	.04		.30	T.	T.		1.10				.20								T.				2.37
Manteno	do	.12	.04					.16	.09	.44	.18	.07		.26							.72	.38		.52			T.		T.				2.98
Martinton ‖	do		.06					.02	.05	.62	.05	.67		.09	.63		T.	.05		.21	1.76	T.		.30			T.						4.51
Mascoutah	Mississippi								.35	.06			.99		.93						.29	.33				.50	.80						4.25
Minonk	Illinois																																
Monmouth	Mississippi										.59		.35	.06			.10																1.10
Morris	Illinois	.09						.06	T.	.25	.22	.03	.02	.08						1.12	.72												2.59
Morrison	Mississippi						.10	.13	.03	.38	.56	.02	.16	T.						2.95	.04		T.										4.37
Morrisonville	Illinois			T.		T.		T.	.09	.02	.05		.14	.27	.34	T.	.04	.07			.32	.04	.24			T.	.37			.57			2.56
Mount Vernon ‖	Mississippi			.45						.08	1.55			.42	.40						.78	.72		.08			.05			.15			4.68
Nashville	do			.36				.01	.06	.25	.04		.62		.67	.03	T.				.36	.26			T.		.76			.34			3.76
Oregon	do							.22	.65	T.	.53	.20								1.80	2.50		T.						.06				5.96
Ottawa	Illinois							.30	.07	.26	.40	.05	.02	.15						2.18	2.25												5.68
Pana	Mississippi																																
Pawpaw	Illinois																																
Peoria	do					.02		.28	.05	.29	.13		.03	.14			.49			T.			.18			.06							1.67
Pontiac	do						T.	.15	.30	.30	.28	.30	.05	.38			.24			.76	1.00		.56				T.						4.32
Quincy ‖	Mississippi	.02		.01			T.	.35	.04	.06	T.		.19	.39	.55		.62					1.11					.19			.44			3.97
Riley	do	.92				T.		.23	.07	.29	.46	.04							.04	1.36	.87		.01				T.		T.				4.29
Roberts	Illinois					T.	T.	.05	.17	.09	.35	.19	.12	.43	.03		.24			T.	1.46		.37										3.50
Rockford ‖	Mississippi	.32	T.				.01	.09	.19	1.26		.50	T.	.03					T.	2.55	.61			T.						T.			5.56
Rushville	Illinois					T.		.25	.03	.08	.03		.40	.50		.13	.48				.03					.03			.08				2.04
St. Charles	do	.09	T.					.21	1.22	1.08	.28	.03		.02						1.00	.28		T.						T.				4.21
St. Peter	Mississippi			.50				T.	T.‖	1.55	.35	.35	.28	T.	.65	T.	.47		T.		.63	.10	.10			T.	.15			.25	T.		5.38
Sparta	do			.60				.02	.20	.55			.72		.68			T.			T.	1.39	.34			T.							4.50
Springfield	Illinois					T.	.01	.01	1.07	.17	.09		.12	.18		.14	.12				.19	.01	.14			.21			.41				2.87
Streator ‖	do							.05	.01	.59	.17	.43		T.	.03		T.	T.		.15	.45			T.									1.88
Sullivan	Mississippi									.27	T.		.33	1.31	.08		.05				1.90						.57		T.	.06			4.57
Sycamore ‖	do	.32	.17					.25	.20	.15	T.	.60								1.45	1.12												4.26
Tiskilwa	Illinois						.10	.60	.05	.20	.39			.10						.85													2.29
Walnut	Mississippi						.04	.13	.01	T.	.35	.01	.07	.59						3.39	.04												4.63
Warsaw ‖	do						.24		.31	.14			.65	.52			.87			.24										.34			3.31
Waterloo	do	T.		.83				.04	.49	.23	T.		.20		.60	T.	.02				T.	1.21	T.	.03		.35	.32			.03			4.35
White Hall	Illinois			.12		T.		.17	.10	.07	.08		.42	.54	.10	.93					.40	.03					.64			.98			4.58
Windsor	Mississippi					T.		T.	.22	.35			.05	.65	.19		.10	.10	T.		1.24	.02	.24			T.	1.44			.48			5.08
Winnebago	do					T.	T.	.77	2.29	T.	.71	T.		T.					.06	3.70	.56		.02										8.11
Yorkville	Illinois	.02					T.	.10	.30	1.40	.40								.25	.75	.25												3.47

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1912. District No. 5, Upper Mississippi Valley.*

Date.	North Dakota.										Minnesota.																	
	Bottineau.§§		Devils Lake.		Lisbon.§§		Minot.§§		Pembina.§§		Collegeville.		Crookston.§§		Grand Meadow.		Montevideo.§§		Moorhead.		New Ulm.§§		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	76	47	69	50	74	47	73	46	76	44	71	52	70	46	74	48	76	49	74	46	71	54	69	54	71	53	77	50
2....	70	45	67	42	73	43	68	45	78	38	70	48	67	43	71	44	74	46	71	42	73	50	66	36	68	47	67	42
3....	68	44	66	43	72	37	70	40	79	40	69	45	71	45	74	45	74	43	72	41	74	47	69	37	68	53	75	43
4....	63	48	65	45	70	47	70	46	81	46	72	50	76	47	73	41	74	48	71	46	78	47	69	46	71	50	76	46
5....	77	53	74	56	81	55	78	47	70	50	66	54	70	56	66	51	76	56	77	56	71	52	62	54	66	56	64	52
6....	79	51	75	51	79	53	75	50	76	50	80	61	73	58	82	54	83	57	76	56	83	57	69	56	80	57	69	56
7....	76	44	71	55	80	54	78	51	78	52	75	60	79	60	81	60	80	62	80	59	81	62	69	54	77	63	72	57
8....	77	49	69	55	71	52	75	53	72	49	71	56	71	59	73	58	76	67	71	56	76	59	67	55	69	62	70	56
9....	78	53	72	52	76	52	77	49	82	48	65	58	75	54	69	57	72	59	75	54	77	60	68	56	67	59	72	55
10....	80	50	76	50	83	49	80	48	81	48	76	57	76	53	67	58	78	56	78	54	72	61	76	55	76	60	80	54
11....	89	57	84	58	86	50	84	49	83	52	82	58	83	57	79	54	84	54	84	56	86	55	79	47	83	58	81	58
12....	73	57	73	57	82	55	80	48	82	54	83	63	78	60	81	57	87	63	80	59	87	64	80	57	82	61	78	60
13....	69	46	71	54	80	48	70	56	70	53	78	58	74	55	80	64	83	54	78	54	76	59	77	57	79	65	76	59
14....	73	52	69	52	75	50	71	55	77	50	72	57	69	54	76	55	79	53	72	54	79	54	70	56	77	58	71	52
15....	75	48	73	49	81	49	78	54	75	53	72	49	74	55	79	51	76	53	76	54	75	56	70	46	73	53	67	50
16....	71	50	71	56	69	55	70	55	78	53	72	53	77	56	68	52	67	55	71	57	69	56	73	45	72	56	73	55
17....	69	55	66	56	79	48	70	55	63	53	77	55	65	58	81	58	84	57	71	58	93	60	66	53	84	57	66	58
18....	65	57	65	54	76	58	68	55	84	55	70	57	70	59	81	67	86	62	74	59	89	65	63	55	76	62	64	57
19....	66	56	64	58	81	60	62	57	61	60	72	55	67	59	82	61	82	61	74	58	79	62	64	50	79	60	66	50
20....	74	55	70	57	75	57	75	55	76	52	74	58	70	58	75	56	79	56	71	57	79	59	74	54	77	61	71	58
21....	77	48	77	54	83	50	78	53	72	51	78	57	78	55	76	60	80	54	82	55	76	58	77	57	77	58	78	57
22....	76	48	70	50	76	56	76	53	68	48	70	59	68	53	74	59	62	57	72	54	77	61	73	54	72	59	65	55
23....	84	51	84	51	89	51	90	54	68	44	78	48	81	47	75	48	89	52	84	50	85	51	73	45	76	51	71	57
24....	80	51	80	53	93	55	82	54	72	45	85	65	77	50	87	65	90	57	84	56	90	53	80	52	87	68	72	58
25....	73	55	81	53	96	55	78	55	68	46	90	60	88	55	93	62	95	60	94	54	95	57	87	55	91	67	86	60
26....	73	43	70	49	78	48	71	48	70	44	85	59	70	55	79	60	78	55	71	54	76	59	81	56	78	60	82	55
27....	67	45	66	50	78	46	65	47	71	52	76	53	73	50	78	49	79	50	75	50	83	52	72	40	77	55	67	46
28....	68	53	67	53	68	55	71	53	77	52	73	52	70	55	81	61	67	56	70	57	70	56	65	53	68	58	68	53
29....	71	52	67	53	68	43	70	53	74	48	68	48	69	50	64	57	73	52	74	50	75	58	68	40	69	54	68	48
30....	68	44	67	50	73	55	71	48	71	50	71	58	69	56	81	60	70	58	72	50	72	61	69	55	75	59	65	55
31....	68	45	66	50	67	42	73	41	74	38	66	53	71	46	81	63	62	54	69	46	83	60	62	41	65	59	65	45
Mns..	73.3	50.1	71.1	52.1	77.8	50.8	74.1	50.7	74.4	49.3	74.4	55.4	73.2	53.7	76.8	56.0	77.9	55.4	75.5	53.3	79.0	56.9	71.2	50.7	75.0	58.0	71.7	53.5

Date.	Wisconsin.														Iowa.													
	Eau Claire.		Grantsburg.		Hancock.		La Crosse.		Madison.		Prentice.		Wausau.		Algona.		Cedar Rapids.§§		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	71	54	73	43	70	55	71	54	70	53	64	46	67	58	75	50	77	55	72	52	80	60	78	63	73	57	81	59
2....	69	48	72	38	66	48	69	50	65	53	63	41	66	46	76	47	74	51	72	46	75	53	74	54	70	52	76	55
3....	68	51	68	38	66	47	68	49	65	53	62	37	63	41	75	45	73	48	73	44	72	51	73	56	69	48	72	54
4....	71	42	75	41	73	43	71	45	69	50	64	31	68	40	75	50	75	49	73	44	73	48	74	52	70	47	74	52
5....	64	51	68	43	69	49	64	51	67	51	68	40	68	50	68	55	70	51	65	54	70	54	72	56	66	52	71	54
6....	77	56	78	50	75	56	79	56	74	55	68	53	65	55	84	57	82	57	82	57	80	58	80	63	76	58	84	58
7....	76	59	76	58	79	60	78	61	75	62	65	51	70	50	80	66	81	59	80	61	75	64	78	61	78	64	80	64
8....	72	59	70	56	72	59	71	60	73	60	67	55	70	60	76	59	74	65	73	58	78	64	72	64	72	63	73	65
9....	70	60	67	57	75	62	75	62	73	62	67	60	68	62	72	57	79	63	72	56	79	65	76	57	76	62	79	63
10....	65	60	70	49	69	60	66	62	64	59	64	58	72	59	76	61	73	60	71	60	70	61	79	62	66	61	76	60
11....	77	61	84	54	75	59	76	62	71	61	69	56	72	59	82	53	78	61	80	56	80	64	83	58	74	61	86	61
12....	77	57	81	60	75	56	76	58	74	59	74	59	75	53	84	62	88	62	84	59	86	64	87	65	81	59	87	66
13....	79	65	80	48	80	56	83	61	80	67	77	61	80	62	82	63	85	65	82	61	87	71	84	70	83	66	85	71
14....	77	55	75	40	84	56	79	56	77	62	77	52	75	53	81	55	86	61	80	56	87	63	84	62	82	60	87	68
15....	72	51	76	41	76	55	75	58	70	58	70	40	74	48	79	57	80	62	77	59	80	63	81	63	72	60	75	66
16....	73	50	75	45	71	48	74	53	71	52	68	47	70	48	70	58	76	57	72	56	74	60	72	60	74	55	72	60
17....	82	56	74	54	87	56	88	61	85	59	68	55	70	54	87	62	94	58	87	64	91	65	91	65	90	63	92	65
18....	78	62	76	54	86	62	81	69	85	66	67	56	70	58	87	69	96	69	87	70	93	74	91	73	92	67	92	74
19....	75	64	72	56	71	61	83	66	81	65	66	54	65	60	85	63	89	67	84	65	89	66	90	70	83	67	93	75
20....	78	60	78	57	82	62	85	65	81	68	74	58	80	59	83	60	85	66	82	62	87	67	83	68	84	66	82	69
21....	76	58	80	55	80	57	76	60	77	63	74	51	75	55	78	60	77	64	75	58	82	66	79	63	77	64	84	69
22....	73	60	73	54	80	60	74	59	71	58	71	53	72	59	77	61	78	64	74	56	78	64	81	63	73	61	84	63
23....	72	59	72	42	74	48	76	52	73	54	68	48	69	50	82	60	83	55	79	50	80	57	87	57	77	56	84	60
24....	87	62	88	59	86	62	88	65	86	62	85	56	85	60	89	67	94	56	88	65	91	70	91	74	88	69	91	71
25....	89	63	89	56	96	64	95	64	89	67	88	58	88	60	92	60	97	78	92	60	93	73	97	64	92	67	93	74
26....	85	64	80	58	89	68	76	58	77	60	88	54	72	63	82	64	85	69	77	56	91	67	85	66	83	64	91	68
27....	73	58	75	41	74	44	76	51	71	55	70	31	70	42	80	54	82	58	78	52	79	61	82	60	75	59	80	71
28....	69	59	76	56	70	55	88	61	86	59	66	53	70	44	84	69	91	53	84	62	88	68	87	69	89	66	93	61
29....	71	53	73	42	70	52	69	60	69	57	72	38	70	46	74	61	73	63	68	59	74	64	75	62	68	60	85	66
30....	77	55	73	53	71	54	79	59	85	58	72	50	70	52	86	65	95	62	88	63	92	65	92	68	89	63	90	68
31....	75	60	65	48	70	64	84	65	88	66	68	53	70	59	89	62	98	65	92	66	95	75	96	66	92	71	93	76
Mns..	74.8	57.2	75.2	49.9	76.2	56.1	77.1	58.5	75.5	59.2	70.5	50.2	71.6	53.7	80.3	59.1	82.8	60.6	78.8	57.6	82.2	63.4	82.4	63.0	78.5	60.9	83.4	64.7

TABLE 3.—*Maximum and minimum temperatures for August, 1912. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle.		Monmouth.		Mount Vernon.§§		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	81	63	71	46	87	67	.....	.....	76	56	81	64	84	59	80	58	82	60	76	54
2	77	61	69	53	86	68	.....	.....	74	52	77	49	79	61	76	56	77	58	70	50
3	74	52	66	43	70	59	.....	.....	70	47	74	40	73	55	71	48	72	54	70	45
4	76	50	68	47	71	54	.....	.....	72	46	75	44	74	50	73	44	74	51	72	45
5	73	50	68	42	76	57	.....	.....	72	50	68	48	78	50	71	52	73	54	71	46
6	86	58	78	51	84	61	.....	.....	79	57	83	54	82	54	81	57	83	58	77	53
7	81	64	74	59	82	68	.....	.....	72	64	75	58	83	63	76	64	79	65	76	62
8	75	66	82	62	79	69	.....	.....	82	61	77	62	79	66	80	65	82	66	77	58
9	81	61	73	65	75	63	.....	.....	77	63	80	60	78	66	77	63	81	61	76	63
10	77	59	74	58	82	59	.....	.....	69	60	69	58	83	57	72	59	74	59	66	58
11	87	61	74	61	87	70	.....	.....	75	61	82	59	88	63	80	62	85	64	72	60
12	86	66	81	56	83	68	.....	.....	82	60	85	61	83	68	81	63	81	66	84	54
13	91	69	87	66	89	67	.....	.....	84	69	80	67	88	66	85	69	90	69	86	66
14	83	68	79	60	86	69	.....	.....	85	65	86	63	84	67	85	65	83	68	83	56
15	74	66	76	56	87	70	.....	.....	82	60	82	62	86	68	83	63	78	68	71	58
16	77	65	75	54	85	70	.....	.....	73	58	71	52	89	68	73	56	74	61	74	47
17	91	68	88	58	88	73	.....	.....	90	64	90	57	90	68	89	66	90	66	91	58
18	91	73	85	66	91	75	.....	.....	94	70	92	57	92	72	92	71	92	73	93	71
19	93	76	80	65	91	77	.....	.....	86	66	91	65	94	73	89	70	92	75	81	65
20	79	70	85	65	91	69	.....	.....	85	65	84	68	87	70	86	70	83	72	83	65
21	83	65	80	64	80	71	.....	.....	83	67	86	64	83	70	84	64	87	68	79	63
22	85	61	78	60	85	68	.....	.....	78	61	80	60	85	63	84	60	84	63	74	60
23	86	59	70	54	84	69	.....	.....	77	57	82	59	82	60	80	56	82	63	75	52
24	90	70	87	65	86	66	.....	.....	90	65	92	67	90	62	93	64	91	65	90	61
25	94	74	88	68	88	72	.....	.....	91	71	93	71	87	71	92	70	93	70	92	67
26	91	65	86	63	85	71	.....	.....	89	63	93	69	93	67	92	66	91	70	86	66
27	80	65	70	60	85	68	.....	.....	75	58	82	57	80	65	79	59	77	61	76	55
28	95	66	84	52	93	68	.....	.....	89	61	86	64	93	62	93	64	94	64	88	58
29	87	68	71	57	92	76	.....	.....	71	65	82	65	93	69	80	66	87	68	78	60
30	89	72	83	60	89	74	.....	.....	90	65	92	63	93	70	92	66	90	68	90	60
31	92	75	92	70	91	74	.....	.....	95	73	96	73	94	71	95	73	93	75	93	70
Mean	84.0	64.7	78.1	58.3	84.8	68.1	.....	.....	80.9	61.3	82.8	59.9	85.4	64.3	82.7	62.2	83.7	64.6	79.7	58.3

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.