CLIMATOLOGICAL DATA FOR SEPTEMBER, 1913.

DISTRICT NO. 5, UPPER MISSISSIPPI VALLEY.

GEO. M. CHAPPEL, District Editor.

GENERAL SUMMARY.

The principal feature of the weather for September was a six to eight day period of remarkably high temperature, occurring at the beginning of the month. Over much of the central part of the district it was the warmest period of like length on record in September, as well as the warmest of the entire summer of 1913. Moreover, this period can be compared with the hot spells of any month in the past. Over extensive areas the temperature rose to 95° or higher daily, and in many cases all previous records for high temperature in September were equaled or surpassed. The hot period was practically rainless in the corn-growing sections, and as a result that crop suffered much additional deterioration. Permanent relief from the trying conditions of the summer set in on the 8th. The change to cooler was most welcome, and brought to a close over the southern part of the district one of the hottest seasons in the history of the Weather Bureau. At Springfield, Ill., there were 62 days during the summer with a temperature of 90° or higher, while at Mount Vernon, in the southern part of that State, there were 78 such days. Most of the remainder of September after the passing of the hot spell was cooler than usual, with timely precipitation in most sections. The deficiency in temperature was sufficient to almost counterbalance the large excess accumulated during the hot spell; thus the month as a whole was only slightly warmer than usual. The occurrence of early killing frosts was another feature of the month. These were recorded early in the third decade as far south as Missouri and northern Illinois. At Des Moines, Iowa, it was, with one exception, the earliest occurrence of this phenomenon in the last 36 years. Considerable damage resulted to garden truck and other vegetation in some localities, but the staple crops of the district had generally passed the stage of susceptibility to injury.

The month was unusually free from severe storms; one of note, however, occurring at Albia, Iowa, on the 5th, which press dispatches refer to as a "small tornado." The wind tore down a circus tent, one person being killed and several injured.

An effect of the drought of the past summer was reported from the vicinity of Burlington, Iowa. Many small lakes and sloughs dried up, leaving thousands of fish stranded. The rains of the month improved pastures and put the ground in good condition for fall plowing and seeding.

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 5.	Temperature.				Precipitation.					
	Mean.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Average snowfall.	Average number of days with precipitation.
North Dakota	57.0	+1.0	102	15	1.91	+0.19	4.98	0.64	0.4	6
Minnesota	58.9	+0.5	102	12	3.37	+0.63	6.35	1.26	T.	8
South Dakota	59.0	−1.4	100	19	1.92	+0.06	1.92	1.92	0	8
Wisconsin	59.3	−0.4	100	19	3.60	−0.03	6.57	1.26	0.1	8
Iowa	64.2	+0.7	106	21	3.33	−0.02	7.15	1.15	0	9
Missouri	69.2	+1.0	109	27	4.06	−0.17	6.03	1.26	0	8
Indiana	64.1	−0.3	103	30	2.16	−0.87	2.82	1.56	0	9
Illinois	66.7	0.0	106	29	2.84	−0.72	7.22	0.81	0	8

TEMPERATURE.

The mean temperature for the district as a whole was practically normal, the average being 58.5°, or an excess of 0.3°. Only in extreme northwestern North Dakota and northern Wisconsin was there a deficiency in temperature, but this was slight. On the other hand at no station did the excess of mean temperature exceed 2°. The remarkable hot spell covering the first six to eight days of the month gave an average daily excess of temperature of more than 15° over large areas, but the prevailing coolness of the remainder of the month served to almost compensate the accumulated excess, and the month as a whole goes on record as almost a normal one for mean temperature. In every instance the highest monthly temperature at the individual stations was recorded at the time of this hot spell. Temperatures of 100° or higher were reached in each of the States of the district. The highest temperature was 109°, on the 4th, at Steffenville, Mo. In a great majority of cases the lowest monthly temperatures occurred on the 22d or 23d; only a few stations reporting other dates. The lowest temperature reported was 12°, on the 22d, at Roseau, Minn.; this is the lowest temperature on record for that State in September.

PRECIPITATION.

The average precipitation for the district was almost the normal amount, being 3.14 inches, or a deficiency of 0.07 inch. The usual marked differences in geographical distribution occurred, but in general the amounts were greatest in Missouri and least in the Dakotas. In the

latter States, as well as in Minnesota, somewhat more than the usual precipitation occurred, while elsewhere there was a deficiency, but this was slight save in Indiana and Illinois, where it averaged about three-fourths of an inch. The greatest monthly amount was 7.22 inches, at Hillsboro, Ill., and the least was 0.64 inch, at Cando, N. Dak. In the north the precipitation of the month was timely, but over much of the south the great bulk of it occurred after the 15th. The average number of rainy days was eight.

Snowfall.—The first snow of the season fell in parts of North Dakota, Minnesota, and Wisconsin between the 20th and 25th. At most stations the amount did not exceed a trace, but over an isolated area in North Dakota where there are no stations an official measurement of 6 inches was made.

RIVERS.

Nothing of note occurred in connection with river conditions during the month. The stages in most of the rivers and streams were either low for the season or about normal. The rains of the month had but little effect on stages, indicating that the water was taken up by the soil.

MISCELLANEOUS.

Southeasterly winds prevailed, but in the Dakotas the winds were northwesterly. The movement was about that usually experienced. The highest velocity was 48 miles an hour from the north, at St. Paul, Minn., on the 20th. As a rule there was a slight excess of sunshine; the average number of clear days was 15; partly cloudy, 7; cloudy, 8.

ERRATA.

Report for June, 1913: All precipitation data on page 12 of the District No. 5, separate, and page 873 of the complete review are incorrect as to dates of occurrence, being published one day late; thus the data on the 2d should be for the 1st, etc.

Report for July, 1913; Dunseith, N. Dak.; days with 0.01 or more precipitation published, 7, should be 8. Forman, N. Dak.; lowest monthly temperature published, 46, should be 45, on 13th.

Report for August, 1913: Delavan, Wis.; total precipitation published, 1.69, should be 1.76. Belmond, Iowa; number of partly cloudy days published, 4, should be 17; number of cloudy days published, 17, should be 4.

TABLE 1.—*Climatological data for September, 1913. District No. 5, Upper Mississippi Valley.*

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.		
North Dakota.																				
Amenia	Cass	954	17	58.1	+ 0.8	94[a]	1	23[a]	22	42[a]	2.30	+ 0.25	1.52	0	3				w.	C. E. Wood.
Bottineau	Bottineau	1,638	21	55.1	− 0.6	91	4	27	21†	44	1.02	− 0.77	0.32	T.	11	12	9	9	nw.	H. F. Steinmeier.
Bowbells	Burke	1,958	1	54.3		92	4†	21	26	49	1.03		0.30	T.	6	24	3	3		G. H. Phelps.
Cando	Towner	1,488	12	57.2	+ 1.8	89[b]	6	20[b]	21	47[b]	0.64	− 0.86	0.21	0	5					E. T. Judd.
Crosby	Divide		6	55.0		91	5	25	22	42	1.27		0.52	1.0	3	25	1	4	nw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	8	56.4	+ 0.8	88	5	25	22	35	2.17	+ 0.78	1.11	0	9	15	9	6	se.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	14	55.3	+ 0.5	94[a]	4	23[a]	21	46[b]	1.32	− 0.70	0.67	T.	3	24	1	5	nw.	C. J. DeVore.
Dunseith	Rolette		17	55.7	+ 0.9	87[a]	4	25	21	43[a]	1.41	− 0.24	0.50	T.	7	12	10	8	nw.	C. E. Goodsell.
Eckman (near)	McHenry		7			98	4				0.81		0.30	1.0	7	15	8	7	nw.	Geo. Yenny.
Fessenden	Wells	1,610	1	57.4		97	4	23	22	52	1.41		0.53	0	4	19	4	7	nw.	G. T. Seymour.
Forman	Sargent	1,249	21	61.1	+ 2.0	101	5	22	22	46	1.58	− 0.24	0.50	0	7	11	9	10	nw.	A. Maltby.
Grafton	Walsh	827	21	57.0	+ 1.1	92	6	20	22	47	1.91	0.00	1.75	0	5	20	6	4	se.	A. R. T. Wylie.
Granville	McHenry	1,504	6																	W. A. Christianson.
Hannah	Cavalier	1,568	8	53.2		85	4†	15	22	44	1.04		0.54	4.0	6					J. Moffatt.
Hansboro	Towner		5	55.6		89	4	22	22	43	1.67		0.62	3.5	7	24	2	4	nw.	Geo. Dale.
Hillsboro	Traill	961	7	59.2		90	6	22	22	42	4.25		3.13	0	8	18	8	4	se.	F. E. Mayall.
Lakota	Nelson	1,579	12	55.7	+ 0.7	90	6	24	22	43	2.46	+ 1.39	2.02	0	5	11	15	4	sw.	C. R. Pettes.
Langdon	Cavalier	1,615	17																	J. Woolner.
Larimore	Grand Forks	1,134	18	57.6	+ 2.7	96	6	23	22	49	2.50	+ 0.85	1.32	0	6	19	8	3	nw.	J. M. Freeman.
Lisbon	Ransom	1,091	9	58.6	+ 1.0	95	1	21	22	44	2.21	+ 0.13	0.83	0	8	18	4	8	nw.	W. S. Adams.
McKinney	Renville	1,640	19	55.4	+ 0.7	92	5	25	21	52	1.37	− 0.25	0.90	0	5	6	16	8	nw.	N. P. Swenson.
McLeod	Ransom	1,075	1	58.4		94	1	22	22	44	2.62		1.45	0	8	12	7	11	se.	Martin Reinholt.
Manfred	Wells	1,605	10	57.8	+ 2.2	94	5	25	22	42	1.49	+ 0.06	0.58	0	7	16	6	8	nw.	P. B. Anderson.
Mayville	Traill	975	17	59.6	+ 3.1	94	6	21	22	42	2.02	− 0.54	1.55	0	5	18	5	7	nw.	W. C. Gould.
Milnor	Sargent	1,097	1								2.34		1.10	0	5	11	9	10	s.	Hj. Edman.
Minot	Ward	1,557	17	56.3	− 0.7	94	4	26	21	45	1.58	− 0.08	0.47	2.5	7	21	3	6	e.	Louise Bates
Minto	Walsh	820	20	58.4	+ 2.0	93	6	31	21†	46	3.31	+ 1.20	2.80	0	6	17	7	6		S. S. Marsh.
Oriska	Barnes	1,270	8	57.5		92	5	19	22†	40	2.31		1.10	0	5	11	15	4	nw.	J. J. Taylor.
Park River	Walsh	998	9	58.4		90	5	17	22	40	1.16		1.01	0	4	19	6	5	se.	F. J. Prochaska.
Pembina	Pembina	789	39																	C. W. Shumaker.
Power	Richland	1,020	21	57.2	− 1.1	95	5	23	22	43	2.34	+ 0.45	1.15	0	7	16	5	9	se.	J. A. Power.
Towner	McHenry	1,482	11	56.8	+ 2.3	92	4	25	21	44	1.42	− 0.62	0.75	0.1	7	13	13	4	se.	B. Bagley.
University	Grand Forks	830	21	58.2	+ 2.2	91	6	22	22	45	2.87	+ 0.87	1.98	0	7	17	7	6	se.	U. S. Weather Bureau.
Wahpeton	Richland	962	19	57.6	− 1.1	102[a]	1	24	22	45[a]	4.98	+ 2.90	2.15	0	8	14	9	7	se.	Fred E. Smith.
Walhalla	Pembina	966	6																	Ivanhoe Lee.
Westhope	Bottineau		7	57.4		92	4	25	21	43	0.84		0.61	T.	5	13	15	2	nw.	W. A. Meddaugh.
Willow City	do	1,471	21	55.0	+ 0.6	89	4	23	21	48	1.25	− 0.51	0.40	0	6	10	15	5	w.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	22	62.6	− 0.4	100	5	27	22	37	3.65	+ 0.33	1.70	0	5	11	15	4	sw.	Edward Carey.
Alexandria	Douglas	1,391	19																	P. O. Unumb.
Angus	Polk	870	11	56.8	+ 1.3	91	6	21	22	52	3.39	+ 1.12	1.54	0	7	19	4	7	n.	John Nadvornik.
Bagley	Clearwater		7	54.0		91	1	14	22	43	3.41		1.80	0	7	9	18	3	se.	Jens Nelson.
Baudette	Beltrami	1,084	3	56.1		92	6	24	22	38	3.61		1.44	0	9	18	10	2	nw.	J. A. Gjelhaug.
Beardsley	Bigstone	1,090	17	61.8	+ 2.5	101	1	23	22	43	2.44	+ 0.44	1.20	0	5	8	12	10	se.	G. L. Fitzgerald.
Bemidji	Beltrami	1,400	9								3.83		1.04	0	11					C. W. Warfield.
Bird Island	Renville	1,039	23	61.8	+ 1.1	97	1†	25	22	38	3.68	+ 0.76	1.08	0	8	15	5	10	se.	Dr. F. L. Puffer.
Brainerd	Crow Wing	1,215	7	58.2		95	1	22	22	38	3.12		1.29	0	6	17	6	7	e.	Theodore Miller.
Caledonia	Houston	1,179	20	60.2	− 0.4	92	1	33	23	31	3.06	− 0.98	1.24	0	9	15	2	13	se.	W. D. Belden.
Campbell	Wilkin	975	7	56.6		98	1	22	22†	45	2.21		1.27	0	7	15	3	12	se.	J. T. Neiseess.
Cass Lake	Cass	1,300	6								2.94		0.98	0	8					C. W. Burns.
Collegeville	Stearns	1,242	20	58.2	− 2.2	93	1	25	22	34	5.38	+ 2.87	3.42	0	9	17	4	9	s.	F. Tembreull.
Crookston	Polk	863	24	57.4	+ 1.0	89	6	20	21	37	2.86	+ 0.67	1.52	0	5	17	6	7	s.	A. G. Andersen.
Detroit	Becker	1,364	17	55.4	− 0.9	93	1	20	22	41	5.88	+ 3.09	3.30	0	8	23	1	6	se.	G. W. Peoples.
Fairmont (near)	Martin	1,240	26	61.1	+ 0.3	97	5	23	22	32	4.97	+ 1.89	2.04	0	9	17	7	6	s.	W. F. Wherland.
Faribault	Rice	1,003	15	60.9	+ 0.1	95	1†	26	22	34	4.11	+ 0.45	1.11	0	10	17	6	7	se.	Dr. A. B. Moulton'
Farmington	Dakota	902	25	61.3	+ 0.9	95	5	26	22	35	6.29	+ 2.89	3.50	0	9	12	2	16	se.	E. D. Akin.
Fergus Falls	Ottertail	1,210	21	59.0	+ 0.2	96	1	28	22	32	4.30	+ 1.93	3.28	0	11	13	9	8	se.	C. E. Kissinger.
Fort Ripley	Crow Wing	1,136	5	56.4		97	1	16	22	44	2.54	+ 0.24	1.90	0	5	15	0	15	s.	J. J. Tucker.
Fosston	Polk	1,289	3	54.7		90	1	21	22	32	2.59		1.89	0	9	18	8	4	nw.	O. N. Hem.
Glencoe	McLeod	1,000	16	61.2	+ 1.4	95	1	26	22	42	3.75	+ 0.28	1.75	0	5	17	12	1	s.	L. V. Koos.
Grand Meadow	Mower	1,338	25	62.0	+ 2.1	100	1	24	22	36	4.51	+ 1.17	1.42	0	7	13	9	8	se.	C. F. Greening.
Gull Lake Dam	Cass	1,215	2	57.8		94	1	26	22	38	3.42		1.78	T.	7	18	3	9	nw.	U. S. Engineer Corps.
Hallock	Kittson	815	14	57.3	+ 2.3	90	6	24	22	49	2.65	− 0.29	2.25	0	7	17	4	9	s.	D. A. Robertson.
Halstad	Norman	870	7	57.2		91	6	22	22	43	3.74		2.10	0	8	18	4	8	nw.	A. G. Holstrom.
Hinckley	Pine	1,050	8																	W. R. Newman.
International Falls	Koochiching	1,112	10	56.2	+ 1.2	93	6	28	23	37	1.86	− 0.17	0.49	T.	12	20	1	9	se.	J. T. Jaeger.
Itasca State Park	Clearwater	1,500	2	55.2		92	1	17	22	42	2.05		1.72	0	3	20	4	6	s.	J. A. Stillwell.
Lake Crystal	Blue Earth	990	5																	W. P. Cobb.
Leech Lake Dam	Cass	1,301	25	56.0	+ 0.7	93	1	19	22	38	3.17	+ 0.30	1.36	0	10	16	7	7	nw.	U. S. Engineer Corps.
Little Falls	Morrison	1,115	4	57.4		96	7	23	21	39	2.93		1.00	0	8	15	4	11	e.	Wm. Batters.
Littlefork	Koochiching		3																	O. C. Olson.
Long Prairie	Todd	1,299	21	58.0	− 0.5	95	1	16	22	39	2.25	− 0.35	1.48	0	5	14	7	9	s.	A. L. Sheets.
Lynd	Lyon	1,175	20	60.0	− 0.1	96	6	19	22	40	1.85	− 0.65	0.52	0	8	20	4	6	sw.	J. W. Rouse.
Mankato	Blue Earth	758	15								3.27	+ 0.37	1.03	0	11	19	1	9	sw.	C. G. Staley.
Milaca	Mille Lacs	1,072	14																	C. H. Foss.
Milan	Chippewa	955	19	60.1	+ 0.4	97	6	20	22	37	2.93	+ 0.80	1.40	0	7	11	13	6	nw.	O. K. Opjorden.
Minneapolis	Hennepin	918	22	61.4	− 0.7	97	5	31	22	30	4.12	+ 0.46	2.52	0	10	11	4	15	s.	U. S. Weather Bureau.
Montevideo	Chippewa	900	23	61.4	+ 0.3	99	1	26	23	40	2.67	+ 0.52	1.49	0	7	15	8	7	se.	L. G. Moyer.
Moorhead	Clay	935	32	58.8	+ 2.2	96	1	24	22	39	2.27	− 0.03	1.34	0	8	18	8	4	s.	U. S. Weather Bureau.
Mora	Kanabec	1,001	8	57.2		94	1	22	22	48	3.53		0.84	0	11	16	5	9	e.	Hans Peterson.
Morris	Stevens	1,170	28	58.8	− 0.2	94	1	25	22	32	1.43	− 0.82	0.55	0	5	17	5	8	s.	D. T. Wheaton.
New London	Kandiyohi	1,215	19	61.6	+ 1.3	95	1	28	22	28	2.82	+ 0.52	1.10	0	7	10	14	6	ne.	Harold Swenson.
New Richland	Waseca	1,180	19	61.4	− 0.5	97	5	26	22	36	3.91	+ 0.94	0.91	0	6	16	9	5	s.	N. O. Tyrholm.
New Ulm	Brown	791	33	62.4	+ 0.6	99	1†	26	22	38	3.20	+ 0.12	0.82	0	10	6	4	20	s.	A. L. Henle.
Osakis	Douglas	1,343	5	59.1		94	1†	27	22	33	2.93		1.26	0	7	17	3	10	se.	J. B. Johnson.
Park Rapids	Hubbard	1,426	23	55.8	+ 0.2	96	1	21	22	43	3.72	+ 1.40	2.00	0	9	11	7	12	s.	Dr. P. A. Walling.
Pierz	Morrison			57.4		93	1	21	22	34	4.11		2.75	0	7	19	1	10	e.	E. H. Kerkhoff.
Pine River Dam	Crow Wing	1,251	26	57.7	+ 0.7	96	1	20	22	43	6.35	+ 3.61	2.60	T.	6	15	4	11	e.	U. S. Engineer Corps.
Pokegama Falls	Itasca	1,280	26	54.4	+ 0.3	90	1	18	22	40	3.66	+ 0.61	1.49	0	7	17	2	11	s.	Do.
Redlake	Beltrami	1,152	5	56.7		91	1	22	22	36	3.17		1.32	0	5	8	18	4	s.	A. C. Goddard.
Red Lake Falls	Red Lake	1,001						15	22					0		27	1	2	sw.	E. G. Buse.
Red Wing	Goodhue	680	17								4.38	− 0.02	1.48	0	10	11	5	14	se.	Louis Back.
Reeds Landing	Wabasha	681	17								4.94	+ 1.02	1.50	0	8	15	0	15	se.	John Deschneau.

TABLE 7.—*Climatological data for September, 1913. District No. 5*—Continued.

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.
***Minnesota*—Continued.**																				
Rochester	Olmstead	991	8	61.0	.....	100	5	30	22	42	4.29	.....	1.44	0	6	12	4	14	se.	Mary P. Leslie.
Roseau	Roseau	1,040	3	54.1	.....	91	6	12	22	44	1.75	.....	1.41	0	6	23	5	2	nw.	M. J. Hegland.
St. Charles	Winona	850	22	62.0	+ 1.0	98	1	31	22	34	4.46	+ 0.89	1.05	0	7	16	4	10	nw.	S. W. Gleason.
St. Cloud	Sherburne	1,020	36	59.8	+ 0.5	92	1†	26	22	34	4.12	+ 0.87	1.76	0	10	17	4	9	se.	State Reformatory.
St. Paul	Ramsey	940	42	60.8	+ 0.5	96	1	32	23	30	3.34	− 0.08	1.64	0	11	11	8	11	se.	U. S. Weather Bureau.
St. Peter	Nicollet	825	18	62.2	+ 0.2	98	1†	24	22	49	3.60	− 0.03	1.65	0	7	20	5	5	nw.	State Hospital.
Sandy Lake Dam	Aitkin	1,234	20	55.6	− 0.9	91	1	23	22	36	4.12	+ 1.45	1.40	0	7	10	13	7	se.	U. S. Engineer Corps.
State Sanatorium	Cass	1,336	5	56.4	.....	93	1	25	24	37	2.51	.....	1.00	0	6	13	8	9	n.	Dr. G. W. Beach.
Stillwater	Washington	694	7	.....	.....	.....	.....	.....	.....	.....	3.10	.....	1.30	0	8	15	0	15	se.	Oscar Ostrom.
Taylors Falls	Chicago	759	6	61.4	.....	98	1	32	22	35	3.90	.....	1.45	0	7	15	5	10	nw.	Minneapolis Gen. Elec. Co.
Thief River Falls	Pennington	1,137	2	56.0	.....	94	6	20	22	41	2.65	.....	1.65	0	3	20	3	7	n.	E. W. Lown.
Tracy	Lyon	.....	.....	63.6	.....	102	5	22	22	41	2.55	.....	1.08	0	6	15	13	2	nw.	A. H. Rowland.
Warren	Marshall	859	1	59.1	.....	100	6	23	22	46	3.30	.....	2.65	0	2	12	15	3	.....	P. H. Holm.
Warroad	Roseau	1,069	3	55.5	.....	86	6	20	21	45	1.26	.....	0.90	0	5	22	4	4	w.	G. A. Sawyer.
Windom	Cottonwood	1,336	5	62.7	.....	99	5	18	22	40	2.11	.....	0.80	0	6	16	8	6	se.	W. A. Peterson
Winnebago	Faribault	1,100	15	62.6	+ 0.8	99	5	26	22	36	3.23	+ 0.09	0.80	0	8	9	12	9	se.	H. H. Haight.
Winnibigoshish	Itasca	1,300	25	56.9	+ 0.6	92	1	22	22†	39	2.86	− 0.30	1.20	0	7	17	3	10	s.	U. S. Engineer Corps.
Winona	Winona	700	17	64.2	+ 2.0	101	1	33	23	39	2.88	− 0.79	0.70	0	11	18	3	9	e.	P. C. Myers.
Worthington	Nobles	1,593	18	59.2	− 1.3	92	4†	22	22	32	2.84	− 0.44	0.95	0	10	17	2	11	s.	M. P. Mann.
Zumbrota	Goodhue	917	17	61.3	+ 0.8	98	1	25	22	37	4.93	.....	2.03	0	7	15	9	6	se.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	22	59.0	− 1.4	100	1†	19	22	46	1.92	+ 0.06	0.64	0	8	15	7	8	nw.	Miss Mary Patridge.
Sisseton	Roberts	1,202	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George Gray.
Wisconsin.																				
Antigo	Langlade	1,489	19	59.5[e]	+ 1.7	92[c]	1	32[c]	21	42[c]	3.24	.....	1.18	0	6	19[c]	1[c]	7[c]	sw.	Elton C. Larzelere.
Barron	Barron	1,115	22	56.8	− 1.5	92	1	29	23	35	2.95	− 0.33	1.05	0	4	17	5	8	sw.	Wm. A. Kent.
Beloit	Rock	750	47	63.1	− 0.4	98	2	32	23	35	3.72	+ 0.26	1.12	0	7	16	6	8	s.	Smith Observatory.
Big St. Germain Dam	Vilas	1,590	3	55.8	.....	90	1	25	23	46	4.78	.....	1.68	0	11	17	6	7	nw.	Fred Hessen.
Brodhead	Green	812	15	63.8	+ 0.3	100	2	31	23	38	3.71	− 0.03	1.20	0	7	18	4	8	sw.	Hector D. Kirkpatrick.
Burnett	Dodge	880	9	59.9	.....	93	2	26	23	33	4.31	.....	1.24	T.	8	11	9	10	se.	George W. Smith.
Cottage Grove	Dane	888	2	.....	.....	.....	.....	.....	.....	.....	4.23	.....	1.46	0.1	7	15	9	6	sw.	John E. Mellish.
Darlington	Lafayette	867	7	62.0	.....	98	2	28	22	40	4.81	.....	1.90	0	6	15	7	8	se.	Sever P. Nelson.
Deerskin Dam	Forest	1,685	3	55.6	.....	91	6	28	23	45	3.14	.....	0.95	T.	9	18	6	6	sw.	Wm. E. O'Neal.
Delavan	Walworth	920	22	62.0	− 0.7	99	2	30	23	39	2.34	− 1.32	1.06	0	6	15	6	9	se.	Elwood S. Austin.
Dodgeville	Iowa	1,220	13	61.0	− 2.3	96	1†	29	22	44	2.40	− 0.27	0.80	0	5	17	0	13	sw.	Chas. H. Berryman.
Downing	Dunn	983	11	56.9[b]	+ 1.2	92[b]	5	24[b]	23	40[b]	1.20	− 2.57	.....	0	....	6[b]	3[b]	19[b]	se.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	22	60.4	− 0.6	95	1	29	23	37	4.43	+ 0.51	1.43	0	8	11	10	9	se.	Robert D. Whitford.
Glen Flora	Rusk	1,475	1	56.8	.....	92	1	27	23	41	2.23	.....	1.12	T.	6	20	2	8	se.	G. A. Durgin.
Grand Rapids	Wood	980	14	60.6	0.0	100	2	26	23	40	3.85	+ 0.60	1.05	0	14	11	9	10	se.	Geo. T. Nixon.
Grantsburg	Burnett	1,095	22	58.1	− 0.7	97	1	27	23	47	2.14	− 1.88	0.90	0	6	22	0	8	ne.	Chester Ahlstrom.
Hancock	Waushara	1,091	21	62.2[e]	+ 1.2	97[c]	2	28[c]	23	36[c]	4.68	+ 1.42	1.30	0	11	12	10	8	sw.	Frederick B. Hamilton.
Hatfield	Jackson	973	19	59.4	− 1.1	97	1	26	23	43	4.58	+ 0.92	2.18	0	6	15	5	10	se.	Wis. Ry., Light & Power Co.
Hayward	Sawyer	1,107	22	57.4	0.0	95	1	25	23	55	1.26	− 2.61	1.08	T.	5	18	4	8	s.	G. H. McElroy.
Hillsboro	Vernon	1,000	22	58.6	− 1.6	94	2	23	23	40	6.57	+ 3.20	1.80	0	9	13	10	7	w.	Emil V. Wernick.
Koepenick	Langlade	1,683	22	57.4	− 1.1	90	2	28	23	40	3.40	− 0.85	1.00	2.0	8	.....	.....	.....	se.	Edward S. Koepenick.
La Crosse	La Crosse	714	41	62.2	+ 0.5	98	1	32	23	33	3.16	− 0.96	1.13	0	9	10	8	12	se.	U. S. Weather Bureau.
Lake Mills	Jefferson	897	22	60.9	− 1.4	95	2	30	23	30	3.61	+ 0.29	1.12	0	8	15	8	7	se.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	22	62.4[a]	+ 0.4	99[a]	1	29[a]	22	40[a]	3.95	+ 0.54	2.35	0	3	11	9	10	.....	Edward Pollock.
Long Lake	Oneida	1,592	5	55.8	.....	92	1	25	23	49	4.32	.....	1.31	T.	11	17	7	6	se.	Louis Frank.
Madison	Dane	974	44	61.2	+ 0.1	94	2	34	22	25	4.32	+ 1.14	2.10	0	9	14	7	9	s.	U. S. Weather Bureau.
Marshfield	Wood	1,276	0	58.0	.....	91	1†	25	23	36	3.13	.....	0.99	0	7	8	7	15	nw.	Agricultural Expr. Station.
Mather	Juneau	962	9	57.8	.....	94	6	19	23	43	2.78	.....	0.96	0	9	12	5	13	e.	Frank Evans.
Mauston	.....do	882	17	59.8	− 0.8	90	2†	28	21†	31	4.98	+ 1.41	1.50	0	8	14	9	7	s.	Eugene L. Hitchcock.
Meadow Valley	.....do	974	22	60.2	+ 0.1	100	2	23	23	47	2.91	− 0.90	1.20	0	8	9	15	6	se.	Charles H. Johnson.
Medford	Taylor	1,420	24	58.4	− 1.0	93	1	29	22†	37	3.80	− 0.33	1.35	T.	9	14	10	6	s.	Wm. Zeit.
Merrill	Lincoln	1,267	7	59.1	.....	95	2	30	23	43	3.06	.....	1.07	0.6	8	10[a]	4[a]	15[a]	se.	O. F. Lueck.
Minocqua	Oneida	1,604	9	57.6	.....	90	1	27	23	45	4.12	.....	1.66	T.	11	11	12	7	se.	Benjamin W. Applebee.
Mondovi	Buffalo	738	5	60.2	.....	96	1	29	23	41	4.62	.....	1.53	0	14	12	11	7	nw.	Dr. Chas. Hebard.
Mount Horeb	Dane	1,226	9	60.8	.....	95	2	30	22†	34	3.92	.....	1.70	0	7	19	4	7	nw.	W. M. Lewis.
Muscoda	Grant	666	4	62.6	.....	100	1	33	23	43	4.29	.....	1.50	0	8	20	0	10	nw.	Wm. Hessler.
Neillsville	Clark	996	23	60.7	+ 1.2	96	1	25	23	43	2.99	− 0.89	1.50	0	4	.....	.....	.....	nw.	Wm. Heaslett.
New Richmond	St. Croix	990	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Franc A. R. Van Meter.
Osceola	Polk	806	22	59.0	− 0.8	98	1	28	22	45	4.24	+ 0.25	1.88	0	7	13	15	2	n.	Charles W. Staples.
Park Falls	Price	1,492	22	55.8	.....	93	1	27	23	43	3.90	.....	1.17	T.	11	15	2	13	ne.	Flambeau Paper Co.
Portage	Columbia	809	24	62.6	+ 1.2	96	2	30	23	39	3.31	+ 0.22	1.79	0	8	18	2	10	s.	James H. Martin.
Port Edwards	Wood	969	3	60.3[j]	.....	97[j]	2	27[j]	23	41[j]	4.01	.....	1.00	T.	9	7[j]	4[j]	9[j]	nw.	Nekoosa Edwards Paper Co.
Prairie du Chien	Crawford	628	22	63.4	− 0.2	100	1†	36	27	43	3.58	+ 0.12	1.10	0	8	15	0	15	nw.	James A. Gillis.
Prairie du Sac	Sauk	750	5	62.8	.....	97	6	31	23	35	3.82	.....	1.41	0	7	16	4	10	se.	Wis. River Power Co.
Prentice	Price	1,551	15	56.8	+ 0.3	89	1†	28	23	40	4.61	+ 0.82	1.80	T.	8	14	2	14	s.	Joseph G. Lash.
Rest Lake	Vilas	1,600	0	55.5	.....	91	1	25	23†	41	4.12	.....	2.03	T.	6	17	4	9	s.	A. F. Miller.
Rhinelander	Oneida	1,550	7	56.9	.....	91	1	26	23	46	5.17	.....	1.42	0.5	10	19	2	9	se.	Rhinelander Power Co.
Shullsburg	Lafayette	1,019	7	61.8	.....	94	1†	30	23	36	4.63	.....	1.57	0	7	17	3	10	s.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	7	55.0	.....	95	1	20	23	42	2.67	.....	0.60	1.5	8	17	1	12	nw.	John M. Sayles.
Spooner	Washburn	1,104	19	57.4	− 1.9	92	1	27	23	32	3.46	+ 0.34	1.13	0	10	16	4	10	.....	Horace A. Bresee.
Stanley	Chippewa	1,082	9	57.5	.....	93	1	29	22	37	1.61	.....	0.68	0	4	14	10	6	se.	W. Humphrey Scott.
Stevens Point	Portage	1,113	20	61.3	+ 1.1	97	1†	28	23	39	4.89	+ 1.38	1.20	T.	8	13	4	13	sw.	Postmaster.
Sugar Camp Dam	Oneida	1,582	3	.....	.....	.....	.....	.....	.....	.....	4.22	.....	0.97	T.	8	22	3	5	sw.	C. W. Cheever.
Tomahawk	.....do	1,451	0	58.6	.....	93	1	29	23	45	2.43	.....	0.90	T.	5	20[a]	1[a]	8[a]	s.	Victor Extrom.
Trout Lake	Vilas	1,400	1	56.0[a]	.....	85[a]	1	26[a]	23	31[a]	3.06	.....	1.45	T.	7	9[c]	11[c]	7[c]	nw.	F. B. Moody.
Twin Lakes Dam	.....do	1,625	3	.....	.....	.....	.....	.....	.....	.....	2.95	.....	1.94	0	3	12	7	11	sw.	Albert D. Hansen.
Valley Junction	Monroe	930	21	60.4	+ 0.5	99	2	25	23	42	2.80	− 1.23	0.80	0	5	19	2	9	w.	J. J. Donahue.
Viroqua	Vernon	1,412	23	60.4	− 0.8	95	1†	28	23	35	2.62	− 1.30	0.90	0	9	10	12	8	se.	Henry E. Rogers.
Vudesare	Vilas	1,700	5	53.8	.....	90	1	23	22†	41	2.20	.....	0.90	2.0	5	22	4	4	sw.	Louis L. Thomas.
Watertown	Jefferson	824	22	59.6	− 1.7	90	2	34	22†	35	1.55	− 1.80	0.58	0	8	16	7	7	se.	Charles J. Salick.
Waukesha	Waukesha	864	22	60.6	− 1.7	95	2	27	23	33	2.49	− 0.70	0.95	0	8	11	13	6	se.	Carroll College.
Wausau	Marathon	1,212	18	57.2	− 1.9	92	1†	31	22†	35	4.15	+ 0.20	1.44	0	8	13	5	12	se.	A. A. Babcock, jr.
Weyerhaeuser	Rusk	1,297	11	55.4	− 2.0	92	1	26	23	39	3.30	.....	1.57	T.	11	14	5	11	ne.	Miss Etta Stiles.
Whitehall	Trempealeau	675	22	60.2	− 1.1	94	1	27	23	41	4.10	+ 0.36	1.70	0	8	13	7	10	s.	Hans J. Haugh.

TABLE 1.—*Climatological data for September, 1913. District No. 5*—Continued.

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.
Iowa.																				
Albia	Monroe	959	15	66.4	+ 1.6	103	3†	27	22	41	2.46	− 0.24	1.30	0	10	11	10	9	se.	J. I. Chenoweth.
Algona	Kossuth	1,213	39	63.2	+ 1.3	97	1	25	22	34	3.54	+ 0.40	1.20	0	6	20	4	6	se.	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	22	63.3	+ 0.4	101	5	26	22	45	3.03	− 0.15	0.88	0	10	14	10	6	s.	David E. Hadden.
Amana	Iowa	721	37	64.2	+ 1.7	99	1	28	22	33	3.11	− 0.14	0.98	0	9	15	10	5	se.	C. Schadt.
Ames	Story	926	37	65.3	+ 1.8	102	4	25	22	40	1.82	− 1.57	0.92	0	5	10	10	10	se.	Iowa State College.
Baxter	Jasper	998	13	64.0	+ 1.0	106	4	28	22	39	3.69	+ 0.27	1.38	0	10	17	8	5	se.	W. R. Vandike.
Belle Plaine	Benton	886	23	64.3	+ 0.7	100	1†	25	22	37	3.27	+ 0.31	0.92	0	8	13	8	9	s.	O. C. Burrows.
Belmond	Wright	1,184	3	63.6	.....	100	5	24	22	35	3.83	.....	1.67	0	8	9	15	6	se.	Geo. P. Hardwick.
Bloomfield	Davis	881	6	66.8	.....	104	3	26	23	53	2.69	.....	0.89	0	8	.....	.....	.....	se.	Albert Power.
Bonaparte	Van Buren	.....	22	66.6	− 0.8	102	1	29	22	36	4.03	− 0.01	1.37	0	7	.....	.....	.....	.....	B. R. Vale.
Boone	Boone	1,134	8	63.6	.....	103	5	25	22	39	3.15	.....	.....	0	8	.....	.....	.....	.....	C. F. Henning.
Britt	Hancock	1,236	16	62.5	+ 0.8	98	5	24	22	38	4.09	+ 0.35	1.20	0	10	14	7	9	s.	L. M. Goodman.
Burlington	Des Moines	544	17	66.6	+ 0.4	103	1	32	22	47	1.54	− 1.58	0.65	0	8	24	0	6	s.	Max. E. Poppe, jr.
Carroll	Carroll	1,265	23	62.4	− 0.6	98	5	26	22†	51	4.50	+ 1.61	1.00	0	10	17	6	7	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	31	64.0	0.0	102	1	33	22	40	4.48	+ 1.66	1.68	0	8	16	1	13	e.	R. S. Toogood.
Charles City	Floyd	1,015	22	62.1	+ 0.4	98	5	27	22	34	3.48	+ 0.68	0.93	0	11	7	9	14	se.	U. S. Weather Bureau.
Clinton	Clinton	593	46	65.6	+ 2.3	103	1†	32	22	38	3.09	− 0.22	1.47	0	7	15	8	7	se.	A. E. Reid.
Columbus Junction	Louisa	595	12	66.7	+ 1.2	100	1	30	22	34	2.56	− 0.59	0.63	0	6	21	3	6	ne.	J. B. Johnston.
Davenport	Scott	580	42	66.0	+ 1.3	99	1	38	22	32	1.80	+ 1.34	0.76	0	9	12	7	11	e.	U. S. Weather Bureau.
Decorah	Winneshiek	875	20	65.0	+ 2.9	100	1	35	22	40	3.50	− 0.23	1.30	0	7	.....	.....	.....	.....	F. H. Baker.
Delaware	Delaware	1,083	22	63.4	+ 1.6	100	1	30	22	34	4.67	+ 1.40	1.78	0	7	12	14	4	se.	Nettie E. Ball.
Des Moines	Polk	861	35	65.9	+ 0.9	99	4	32	22	31	2.65	− 0.42	1.10	0	11	11	11	8	se.	U. S. Weather Bureau.
Dubuque	Dubuque	639	40	63.6	0.0	97	1	36	22	32	3.59	0.00	1.01	0	11	13	5	12	s.	Do.
Earlham	Madison	.....	11	65.1	+ 3.0	100	4†	21	22	44	2.47	− 1.32	0.81	0	9	17	3	10	se.	George Phillips.
Elkader	Clayton	727	34	61.7	− 0.8	99	1	30	22	37	4.42	+ 0.58	1.30	0	6	16	10	4	se.	Chas. Reinecke.
Elma	Howard	1,182	3	60.6	.....	96	5	24	22	52	3.00	.....	0.90	0	10	10	15	5	se.	H. A. Moore.
Estherville	Emmet	1,298	18	60.2	− 0.5	96	1†	23	22	43	3.38	+ 0.15	0.97	0	9	14	11	5	s.	A. O. Peterson.
Fairfield	Jefferson	780	29	65.6	+ 1.6	99	1	32	22	32	2.17	− 1.30	0.59	0	9	.....	.....	.....	se.	R. M. McKenzie.
Fayette	Fayette	1,003	23	62.9	+ 0.6	100	1	30	22	38	4.74	+ 1.51	1.25	0	7	18	6	6	sw.	R. Z. Latimer.
Forest City	Winnebago	1,226	19	61.4	− 0.6	99	5	28	22	39	4.52	+ 0.90	1.95	0	7	14	8	8	s.	J. A. Peters.
Fort Dodge	Webster	1,126	13	63.6	+ 1.0	100	5	26	22	46	5.78	+ 1.21	1.50	0	9	12	5	13	s.	J. F. Monk.
Fort Madison	Lee	516	64	.....	.....	.....	.....	.....	.....	.....	1.78	− 2.03	0.85	0	5	11	7	12	sw.	Miss L. A. McCready.
Gilman	Marshall	1,052	14	.....	.....	.....	.....	.....	.....	.....	3.28	+ 0.38	1.42	0	7	.....	.....	.....	.....	J. L. Wylie.
Grand Meadow	Clayton	1,180	22	62.1	+ 0.2	95	1	32	22	29	4.59	+ 0.91	1.49	0	8	8	13	9	sw.	F. L. Williams.
Grinnell	Poweshiek	1,023	21	65.8	+ 2.0	100	1†	30	22	34	2.83	+ 0.48	0.77	0	6	15	7	8	s.	D. W. Brainard.
Grundy Center	Grundy	976	22	64.8	+ 1.7	100	1†	27	22	33	3.77	+ 0.52	1.01	0	9	15	11	4	se.	J. B. Calderwood.
Guthrie Center	Guthrie	1,077	18	64.6	+ 0.7	99	1	24	22	37	3.19	+ 0.10	0.94	0	10	17	4	9	sw.	D. G. Beardsley.
Hampton	Franklin	1,155	23	64.7	+ 1.8	102	5	28	22	35	5.21	+ 1.65	1.70	0	8	9	15	6	se.	E. C. Grenelle.
Humboldt	Humboldt	1,095	25	62.8	+ 0.3	100	5	21	22	36	4.04	+ 0.87	1.27	0	7	13	14	3	n.	J. P. Peterson.
Independence	Buchanan	921	49	63.6	+ 1.9	100	1	29	22	35	4.58	+ 0.63	1.25	0	11	13	9	8	se.	R. E. Dudley.
Indianola	Warren	969	22	65.9	+ 0.4	99	4†	30	22	33	1.89	− 1.21	0.66	0	11	11	8	11	se.	Prof. J. L. Tilton.
Iowa City	Johnson	683	53	63.6	0.0	100	1	32	22	43	3.19	− 0.56	1.18	0	11	17	6	7	se.	Prof. A. G. Smith.
Iowa Falls	Hardin	1,170	20	61.8	+ 0.2	96	5	26	22	40	6.01	+ 3.04	1.85	0	11	14	8	8	sw.	J. B. Parmelee.
Jefferson	Greene	1,052	14	64.0	.....	102	5	23	22	38	5.02	+ 1.55	2.11	0	9	14	5	11	se.	Ora M. Hall.
Keokuk	Lee	614	42	67.8	+ 1.4	101	3	33	22	33	1.42	− 2.55	0.80	0	10	15	7	8	e.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	21	65.8	− 1.1	102	1†	26	22	46	3.83	− 0.57	1.17	0	9	10	11	9	.....	J. H. Landes.
Knoxville	Marion	920	18	66.0	− 0.2	98	1†	30	22	33	1.48	− 2.04	0.66	0	5	14	2	14	nw.	Casey and Belville.
Lacona	Warren	.....	14	.....	.....	.....	.....	.....	.....	.....	1.15	− 2.68	0.32	0	8	8	18	4	.....	J. B. Alter.
Lansing	Allamakee	632	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. R. Serene.
Le Claire	Scott	576	13	.....	.....	.....	.....	.....	.....	.....	2.10	− 1.68	1.32	0	10	.....	.....	.....	.....	Miss M. T. Disney.
Marshalltown	Marshall	947	21	64.8	+ 0.7	102	1†	28	22	42	3.44	+ 0.49	1.45	0	12	14	4	12	se.	Jacob Eige.
Mason City	Cerro Gordo	1,132	16	61.6	− 1.4	100	5	25	22	37	3.69	+ 1.33	1.23	0	7	13	14	3	e.	Dr. Roy Desart.
Monroe	Jasper	922	1	65.6	.....	101	3	29	22	34	3.22	.....	0.97	0	9	14	7	9	s.	J. A. Dibel.
Mount Pleasant	Henry	729	32	65.8	+ 0.8	98	1	31	22	32	2.02	− 1.66	0.41	0	7	20	3	7	se.	J. W. Edwards.
Muscatine	Muscatine	554	53	.....	.....	.....	.....	.....	.....	.....	2.63	− 1.09	0.70	0	10	.....	.....	.....	.....	William Molis.
New Hampton	Chickasaw	1,169	16	.....	.....	.....	.....	27	22	.....	3.45	− 0.06	0.68	0	8	13	5	12	s.	A. F. Kemman.
Nora Springs	Floyd	1,064	.....	64.9	.....	100	5	25	22	40	5.60	.....	1.85	0	11	17	7	6	s.	Arthur Betts.
Northwood	Worth	1,122	17	61.4	+ 0.6	95	1†	26	22	42	3.32	− 0.03	1.35	0	8	16	7	7	sw.	Chas. H. Dwelle.
Olin	Jones	760	15	64.4	+ 1.3	99	2	33	21†	40	3.40	+ 0.17	1.30	0	6	14	14	2	nw.	Dr. F. W. Port.
Osage	Mitchell	1,184	26	63.0	+ 3.0	101	5	27	22	35	4.05	+ 0.49	1.43	0	5	13	11	6	s.	Lester Coonradt.
Oskaloosa	Mahaska	843	37	65.4	+ 0.9	99	1†	28	22	34	2.67	− 0.36	0.85	0	8	16	3	11	se.	Joseph Boyd.
Ottumwa	Wapello	649	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chester Potter.
Pella	Marion	877	11	65.6	− 0.8	101	1†	26	22	42	2.72	+ 0.22	0.71	0	8	23	3	4	nw.	J. H. Ver Steeg.
Perry	Dallas	975	12	65.2	+ 0.8	103	5	24	22	40	1.70	− 1.00	0.63	0	13	14	10	6	se.	S. J. Brumfield.
Pocahontas	Pocahontas	1,248	9	62.6	.....	97	5	24	22	36	3.93	.....	0.96	0	9	18	5	7	s.	F. E. Hronek.
Rockwell City	Calhoun	.....	17	62.4	− 1.4	98	7	26	22	33	7.15	+ 3.97	1.65	0	9	.....	.....	.....	.....	O. M. Randall.
Sac City	Sac	1,278	37	62.6	+ 1.1	99	5	27	22	32	4.29	+ 1.01	1.05	0	10	.....	.....	.....	se.	E. N. Daily.
St. Charles	Madison	1,070	12	66.0	+ 0.6	103	4	29	22	38	2.81	− 0.83	0.98	0	11	13	12	5	nw.	R. D. Minard.
Sigourney	Keokuk	877	17	64.8	− 0.8	99	1	26	22	37	2.58	− 0.44	0.93	0	.....	5	24	1	se.	J. T. Parker.
Stockport	Van Buren	745	11	66.1	.....	101	1†	27	22	39	2.66	− 1.58	0.96	0	6	18	5	7	s.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	24	64.0	+ 1.3	101	5	28	22	38	3.83	+ 0.74	1.00	0	11	16	9	5	s.	Geo. H. Fracker.
Tipton	Cedar	807	14	66.6	+ 0.8	98	1†	37	22	30	3.46	+ 0.47	1.20	0	10	15	9	6	se.	F. K. Gregg.
Toledo	Tama	856	19	65.0	+ 0.9	99	1	28	22	36	2.78	− 0.19	0.77	0	9	18	5	7	se.	I. F. Giger.
Washington	Washington	769	31	65.6	+ 1.0	99	1	30	22	33	2.79	+ 0.11	0.94	0	7	12	13	5	se.	Wm. A. Cook.
Waterloo	Black Hawk	862	30	62.9	+ 0.1	100	1	29	22	40	3.90	+ 0.02	0.85	0	11	17	3	10	se.	Ralph B. Slippy.
Waukee	Dallas	1,089	10	65.1	− 1.0	100	5	25	22	34	2.67	+ 0.04	0.79	0	10	17	7	6	sw.	Samuel F. Foft.
Waverly	Bremer	948	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Earl C. Moore.
Webster City	Hamilton	.....	8	64.2	.....	103	5	21	22	38	2.71	.....	1.24	0	7	12	10	8	se.	C. D. Carpenter.
West Bend	Palo Alto	1,197	20	62.0	+ 0.9	95	1	24	22	38	3.52	+ 0.09	1.00	0	9	13	8	9	s.	Phil Dorweiler.
Whitten	Hardin	1,036	16	63.9	+ 1.1	98	1†	25	22	32	4.06	+ 0.77	1.30	0	7	15	11	4	se.	Dr. F. P. Butler.
Winterset	Madison	1,129	22	65.6	0.0	100	5	27	22	35	2.69	− 0.67	1.03	0	9	14	3	13	se.	Dr. R. S. Cooper.
Missouri.																				
Gorin	Scotland	700	27	.....	.....	.....	.....	.....	.....	.....	1.26	− 2.96	0.57	0	8	10	10	10	se.	J. W. Pulliam.
Hannibal	Marion	534	22	68.8	+ 0.9	101	1	33	22	31	3.91	+ 0.35	1.44	0	10	16	6	8	e.	U. S. Weather Bureau.
Louisiana	Pike	500	36	67.6	− 0.2	101	1†	27	22	38	4.63	+ 1.30	1.35	0	9	14	5	11	e.	J. T. Farrel.
Macon	Macon	881	1	69.7	.....	107	4	35	22	46	3.58	.....	1.33	0	10	14	6	10	ne.	John A. Cook.
Mexico	Audrain	797	36	69.2	+ 0.5	106	1†	34	22	47	5.80	+ 1.84	1.19	0	10	14	3	13	se.	J. F. Llewellyn.
Palmyra	Marion	652	2	69.4	.....	105	2	33	22	35	6.03	.....	2.85	0	6	15	10	5	se.	W. B. Markell.
Steffenville	Lewis	576	20	71.2	+ 2.9	109	4	30	22	41	2.09	− 2.36	1.08	0	6	10	12	8	ne.	Frank Hall.
Sublett	Adair	1,000	34	68.4	+ 1.5	104	4†	29	22	38	3.45	− 0.66	2.00	0	3	6	12	12	sw.	Lewis Spriggs.
Vandalia	Audrain	776	3	69.1	.....	105	1	40	27	40	4.71	.....	1.32	0	6	14	6	10	n.	C. B. Ellis.
Warrenton	Warren	865	24	69.0	+ 0.3	105	1†	35	22	42	5.12	+ 1.27	2.07	0	8	11	5	14	s.	Prof. J. H. Frick.

TABLE 1.—*Climatological data for September, 1913. District No. 5*—Continued.

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.
Indiana.																				
Collegeville	Jasper	.....	14	65.7	+ 0.6	103	2	34	27	47	1.56	− 1.46	0.88	0	4	12	9	9	w.	John Zeller.
Knox	Starke	716	8	63.5	.....	93	2†	31	23	35	2.42	.....	0.74	0	10	14	9	7	s.	W. R. R. Tatman.
Laporte	Laporte	810	17	64.0[b]	− 0.3	96[f]	2	30[f]	23	38[f]	2.23	− 0.94	0.50	0	10	14[f]	3[f]	7[b]	n.	Wm. M. Walton, jr.
Plymouth	Marshall	790	10	62.7	.....	94	3	30	23	37	1.76	.....	0.53	0	10	14	9	7	nw.	J. W. Siders.
South Bend	St. Joseph	726	20	64.4	− 1.2	99	2	35	23	32	2.82	− 0.21	0.52	0	13	12	11	7	se.	Henry H. Swaim.
Illinois.																				
Aledo	Mercer	738	13	66.4	+ 0.9	100	1	35	22	32	2.19	− 1.82	0.80	0	8	13	8	9	se.	William B. Frew.
Alexander	Morgan	670	20	68.7	+ 0.7	103	1†	32	22	37	3.04	− 0.74	0.92	0	11	12	11	7	e.	George H. Hall.
Antioch	Lake	861	12	62.6	− 0.8	98	1†	29	23	37	3.10	− 1.00	1.30	0	4	14	7	9	sw.	J. C. James.
Astoria	Fulton	650	14	66.4	+ 0.9	102	1	31	22	36	2.12	− 2.14	1.12	T.	8	18	3	9	nw.	Edward V. Bohl.
Aurora	Kane	678	34	62.6	− 1.1	93	1†	31	22	40	1.68	− 1.91	0.53	0	9	22	0	8	e.	Miss Alice M. Holder.
Beardstown	Cass	448	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. L. M. Rice.
Bement	Piatt	685	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. W. B. Stewart.
Bloomington	McLean	840	22	67.0	− 0.9	102	3	36	22†	39	2.27	− 1.42	1.12	0	6	16	6	8	ne.	Prof. H. N. Pearce.
Cairo	Alexander	359	41	70.9	+ 0.7	98	3	43	22	27	2.22	− 0.25	0.78	0	8	10	7	13	s.	U. S. Weather Bureau.
Camp Point	Adams	732	0	.....	.....	.....	.....	.....	.....	.....	1.64	.....	0.82	.....	7	12	10	8	se.	Capt. D. M. Morris.
Carbondale	Jackson	412	8	70.8	.....	104	3	39	22	41	2.74	.....	0.74	0	13	14	7	9	se.	State Normal University.
Carlinville	Macoupin	663	23	69.0	− 0.4	105	1†	32[a]	22	38[a]	3.80	+ 0.25	0.80	0	10	17	5	8	ne.	Dr. J. D. Conley.
Carlyle	Clinton	470	28	.....	.....	.....	.....	.....	.....	.....	4.57	+ 0.97	1.50	0	11	.....	.....	.....	.....	Hervey O. Jones.
Chester	Randolph	380	21	.....	.....	.....	.....	.....	.....	.....	5.41	+ 1.50	2.72	0	14	.....	.....	.....	.....	Charles S. Gollon.
Clinton	Dewitt	727	3	67.0	.....	101	3	37	22	38	3.62	.....	1.10	0	9	15	8	7	se.	J. Frank Ziegler.
Cobden	Union	656	30	71.5	+ 0.8	104	2†	45	21	43	4.81	+ 1.33	3.45	0	7	12	6	12	sw.	John Buck Co.
Dakota	Stephenson	929	8	63.2	.....	97	2	29	22	39	2.80	.....	1.12	0	7	11	12	7	se.	Elmer G. Smith.
Decatur	Macon	685	22	67.2	− 0.8	103	3	33	22	41	3.74	+ 0.12	1.20	0	9	18	7	5	ne.	Prof. J. H. Coonradt.
Dixon	Lee	725	23	63.4	− 1.2	98	2	34	22	36	2.57	− 0.92	1.10	0	8	20	4	6	.....	H. U. Bardwell.
Duquoin	Perry	459	25	71.0	− 0.3	104	3†	36	22	36	4.99	+ 2.03	1.78	0	8	15	7	8	sw.	G. H. Knetzger.
Dwight	Livingston	600	20	65.6	+ 0.7	101	2	34	22†	42	0.88	− 2.03	0.41	0	7	13	6	11	se.	Edward O. Welch.
East St. Louis	St. Clair	481	2	.....	.....	.....	.....	.....	.....	.....	4.96	.....	2.15	0	10	.....	.....	.....	.....	W. Mc. K. Brown.
Edwardsville	Madison	554	14	.....	.....	.....	.....	.....	.....	.....	4.56	+ 1.95	1.17	0	10	.....	.....	.....	.....	W. H. Morgan.
Elgin	Kane	716	6	64.3	.....	97	2	31	23	39	2.13	.....	0.81	0	9	12	10	8	ne.	Elgin Observatory.
Ewing	Franklin	449	1	.....	.....	.....	.....	.....	.....	.....	3.88	.....	1.00	0	8	.....	.....	.....	.....	U. of I. Exp. Station.
Fairview	Fulton	733	2	.....	.....	.....	.....	.....	.....	.....	1.43	.....	0.71	0	5	.....	.....	.....	.....	Abram Wilson.
Galva	Henry	842	21	64.9	− 0.6	100	1†	34	22	40	1.85	− 1.72	0.72	0	9	17	3	10	nw.	Prof. F. U. White.
Grafton	Jersey	422	20	.....	.....	.....	.....	.....	.....	.....	5.04	+ 1.46	1.90	0	10	.....	.....	.....	.....	R. C. Goodrich.
Greenville	Bond	635	35	70.0	+ 0.9	106	3	34	22	41	3.52	− 0.10	1.03	0	13	17	5	8	s.	H. W. Reidemann.
Griggsville	Pike	650	28	69.6	+ 1.5	103	1†	34	22	36	3.10	− 1.13	1.10	0	10	10	16	4	se.	George F. Kneeland.
Havana	Mason	475	21	68.4	− 0.7	102	3	33	22	39	1.59	− 2.61	0.90	0	7	18	5	7	s.	L. L. Eutenener.
Henry	Marshall	500	25	67.0[b]	+ 1.4	100[b]	1†	36[a]	27	38[b]	2.21	− 1.13	1.04	0	7	16	6	8	se.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	19	69.3	− 0.1	104	1†	34	22	44	7.22	+ 3.43	3.50	0	6	.....	.....	.....	s.	Mrs. Effie A. Woodward.
Joliet	Will	609	22	63.9	− 0.8	100	2	31	23†	43	1.37	− 2.41	0.51	0	8	19	2	9	ne.	F. M. Muhlig.
Kishwaukee	Winnebago	730	25	63.5	− 0.1	98[a]	3	31	23	41[a]	3.58	+ 0.43	1.15	0	9	16	7	7	sw.	George Stevens.
La Grange	Cook	657	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. F. E. Sanford.
La Harpe	Hancock	698	34	67.4	+ 1.1	103	1	30	22	36	1.96	− 2.20	1.23	0	8	20	5	5	se.	George E. Campbell.
Lanark	Carroll	883	24	62.8	+ 0.1	97	2	30[a]	22	40[a]	2.86	+ 0.56	1.16	0	8	20	3	7	se.	M. N. Wertz.
La Salle	La Salle	536	8	64.9	+ 1.0	99	2	36	22	38	1.92	− 1.28	0.97	0	8	11	8	11	e.	U. S. Weather Bureau.
Lincoln	Logan	575	25	66.8	− 0.5	101	3	32	22	40	2.58	− 1.17	0.66	T.	8	15	5	10	ne.	Prof. C. S. Oglevee.
Macomb	McDonough	700	9	.....	.....	.....	.....	.....	.....	.....	1.89	.....	1.17	0	4	.....	.....	.....	.....	State Normal University.
Manteno	Kankakee	711	2	.....	.....	.....	.....	.....	.....	.....	1.35	.....	0.81	0	5	19	4	7	sw.	C. B. Schmeltzer.
Martinton	Iroquois	633	26	64.9	− 0.1	101[a]	2	32	23	44[a]	2.22	− 1.30	0.78	0	6	16	5	9	se.	Joseph H. Peltier.
Mascoutah	St. Clair	425	23	69.6	− 0.6	102	1†	34	22	40	2.97	− 0.73	1.25	0	10	17	5	8	s.	Dr. Robert F. Lischer.
Minonk	Woodford	745	20	66.8	+ 0.4	104	3	36	23†	42	1.32	− 2.51	0.58	0	7	16	5	9	ne.	John C. Danforth.
Monmouth	Warren	784	21	66.9	+ 0.7	103	3	31	22	39	1.89	− 2.81	1.15	0	4	16	1	13	s.	Dr. J. C. Hutchison.
Morris	Grundy	518	2	64.6	.....	100	2	32	22†	41	0.81	.....	0.33	0	7	17	5	8	s.	E. G. Cryder.
Morrison	Whiteside	685	19	64.8	+ 0.3	102	1†	31	22	42	2.59	− 0.95	1.21	0	9	18	3	9	e.	S. A. Maxwell.
Morrisonville	Christian	626	14	67.6	− 0.5	101	1†	34	22	37	3.66	+ 0.34	0.76	0	8	18	7	5	s.	J. D. Lowis.
Mount Vernon	Jefferson	511	19	70.4[b]	0.0	103[a]	2†	37[c]	22	39[d]	4.20	+ 0.47	1.31	0	10	11	7	12	e.	Theodore P. Stelle.
Nashville	Washington	503	13	.....	.....	.....	.....	.....	.....	.....	2.87	− 0.26	1.12	0	10	.....	.....	.....	.....	Harry E. Gewe.
Oregon	Ogle	702	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Fred A. Free.
Ottawa	La Salle	500	27	65.8	+ 0.4	100	2	35	22†	42	2.10	− 1.42	0.87	0	6	18	1	11	se.	Miss Maude M. Harris.
Pana	Christain	692	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Julius Keefer.
Paw Paw	Lee	930	1	.....	.....	.....	.....	.....	.....	.....	2.65	.....	1.31	0	9	.....	.....	.....	.....	A. C. McBride.
Peoria	Peoria	609	57	66.8	+ 2.5	101	1	37	27	35	2.58	− 0.54	1.66	0	8	12	9	9	e.	U. S. Weather Bureau.
Pontiac	Livingston	546	11	66.5	− 0.9	101	2	36	23†	41	1.81	− 2.22	0.47	0	11	12	9	9	sw.	George Butterworth.
Quincy	Adams	481	7	69.8	.....	105	3	35	22†	44	1.85	.....	0.85	0	7	.....	.....	.....	.....	Fred J. Brinkoetter.
Riley	McHenry	956	54	62.8	+ 1.1	96	2	31	22	33	3.09	− 0.62	0.70	0	9	12	7	11	nw.	John West James.
Roberts	Ford	774	2	.....	.....	.....	.....	.....	.....	.....	1.79	.....	0.65	0	7	17	6	7	ne.	R. E. Bradbury.
Rockford	Winnebago	763	21	63.7	+ 0.3	100	2	32	22	41	3.67	+ 0.63	1.45	0	8	16	4	10	.....	Dr. John R. Porter.
Rushville	Schuyler	670	22	68.4	+ 1.5	103	1	33	22	36	2.22	− 2.08	0.83	0	8	10	10	10	s.	H. F. Dyson.
St. Charles	Kane	700	18	64.0	− 0.2	100	2	31	23	42	2.72	− 1.83	1.10	0	6	14	13	3	s.	Dr. William H. Bishop.
St. Peter	Fayette	500	11	68.6	− 0.9	102	3	34	22	36	2.88	− 0.56	0.91	0	9	14	5	11	sw.	M. L. Lansford.
Sparta	Randolph	538	27	70.6	+ 0.7	103	3	36	22	37	4.21	+ 0.75	1.65	0	10	19	4	7	se.	James A. Caldwell.
Springfield	Sangamon	644	33	67.8	+ 1.4	99	1	36	22	36	3.41	+ 0.04	0.93	0	10	13	3	14	e.	U. S. Weather Bureau.
Streator	La Salle	626	20	65.4	− 1.0	102	2	34	27	41	1.21	− 2.25	0.35	0	8	17	7	6	sw.	Miss Lora Sweetser.
Sullivan	Moultrie	530	13	68.7	+ 0.3	104	3	34	22	40	3.82	+ 0.18	0.89	0	8	17	7	6	se.	C. A. Corbin.
Sycamore	Dekalb	855	33	62.4	− 0.3	99	2	29	22	47	3.23	− 0.22	0.76	0	8	.....	.....	.....	.....	George E. Valentine.
Tiskilwa	Bureau	798	29	.....	.....	.....	.....	.....	.....	.....	1.60	− 2.73	1.06	0	7	.....	.....	.....	.....	F. I. Smucker.
Walnut	....do	717	22	65.7	− 0.9	101	2	31	22	37	2.02	− 2.01	1.26	0	8	17	6	7	e.	O. C. Nussle.
Warsaw	Hancock	501	15	.....	.....	.....	.....	.....	.....	.....	1.58	− 1.62	0.81	0	4	.....	.....	.....	.....	W. R. Kirkbride.
Waterloo	Monroe	719	2	.....	.....	.....	.....	.....	.....	.....	5.12	.....	1.35	0	12	.....	.....	.....	.....	Prof. James E. Raifbourne.
White Hall	Greene	573	5	69.0	.....	104[a]	3	30	22	38	3.87	.....	1.48	0	11	21	4	5	.....	Frank Dillman.
Windsor	Shelby	681	14	69.0[a]	+ 1.1	104[a]	1	34[a]	22	43	3.20	− 0.68	1.20	0	8	15	9	6	nw.	Herbert Rose.
Winnebago	Winnebago	900	26	.....	.....	98[h]	2	31[d]	22	.....	2.76	− 0.82	1.30	0	5	.....	.....	.....	.....	Frank Osborne.
Yorkville	Kendall	584	26	63.0	− 0.3	96	2	31	22†	43	1.18	− 2.55	0.61	0	8	19	3	8	n.	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 September, 1913. 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	
North Dakota.																																
Amenia ‖	Red				.35		.43			1.52						T.									T.	T.						2.30
Bottineau ‖	Mouse			.17	.01		.03	.01			.10					.07				.01	.20			.05	.32	.05						1.02
Bowbells ‖	do			.08	.30															.05			.07	.23	.30						1.03
Cando	Sheyenne						.15	.05		.21	.08															.15						0.64
Crosby	Mouse			.52															T.	T.				.40	.35							1.27
Devils Lake	Sheyenne	.05		T.		.82				1.10	.01				.01				T.	.02				.03	.10	.03						2.17
Donnybrook	Mouse			.67											T.					T.					*	.65						1.32
Dunseith	do			.17		.27	T.			.50	.01				.05				T.	.06				.35	T.							1.41
Eckman (near)	do		.30	T.		.19	T.								T.									.14						.18		0.81
Fessenden ‖	James					T.	.53	T.		T.	.49					T.					T.			T.	.21	.18						1.41
Forman	Sheyenne			.17			.13	.18			.35					.20	.05							.50								1.58
Grafton ‖	Red						.01	.06			1.75					.07									.02							1.91
Granville	Mouse																															
Hannah	Pembina			T.			.04			.54					.04					.02				*	.40							1.04
Hansboro	Red					.25	.05			.62					.13					.07				.48		.07						1.67
Hillsboro	do	T.			.15		.51	.26			3.13									.05	T.			.04	.07	.04						4.25
Lakota	Sheyenne		T.	.03		T.		.28		.06	2.02					T.				.07				T.	T.	T.						2.46
Langdon ‖	Pembina																															
Larimore ‖	Red						.01	1.32			1.08					.03									.03	.03						2.50
Lisbon ‖	Sheyenne				.83	T.	.10	.07			.68	.25						T.						.05	.18		.05					2.21
McKinney	Mouse			.17					T.	T.					.20									*	.90	.10						1.37
McLeod	Sheyenne						.21	.14			1.45					.24	.33							.23	.01	.01						2.62
Manfred	do					.28				.58	.15				T.	.04				T.				.23	.11	.10						1.49
Mayville	Red						.16	.19			1.55														.11	.01						2.02
Milnor	do			T.	.73	.04					1.10					.17	T.							.30								2.34
Minot ‖	Mouse				.17		.34	T.								.06					.06			.05	.43	.47						1.58
Minto	Red				.01		.42			*	2.80				.05								.03									3.31
Oriska	Sheyenne				.30		.61				1.10													*	.30							2.31
Park River	Red						T.	.04			1.01					.05									.06							1.16
Pembina ‖	do																															
Power	Sheyenne			.60		.15	.15				1.15					.07								*	.22	T.						2.34
Towner	Mouse			T.		.09	.08			.75					.11									.01	.20	.18						1.42
University	Red	T.		T.		T.	.02	.75			1.98					.02				T.	T.			.02	.05	.03						2.87
Wahpeton ‖	do		.11		2.15			.25			.35	1.62				.31	.05								.14							4.98
Walhalla	Pembina																															
Westhope	Mouse				.06										.02					.09					.61	.06						0.84
Willow City	do			.33		.19		T.		.19					.07				T.	T.				T.	.40	.07						1.25
Minnesota.																																
Albert Lea	Mississippi										.20	.80					T.			.70					1.70					T.	.25	3.65
Alexandria ‖	do																															
Angus	Red			.02			.90	.85			1.54					.02				.01					.05							3.39
Bagley	do	.20		.66		.13		.16			1.80					.37								.09								3.41
Baudette	Rainy	T.			.25		.25	.31			1.44					.13				.04	.04			.09	.06	T.						2.61
Beardsley	Minnesota		.08	.44				T.			1.20					.30								.42						T.		2.44
Bemidji ‖	Mississippi		.64		.99		.03	.16			1.04	.45				.27	.04			.07					.04	.10						3.83
Bird Island	Minnesota		1.08	.86	T.						.67	.06								.28				.13	.40	T.			T.	.20	T.	3.68
Brainerd	Mississippi			T.	1.06			.09		T.	1.29								T.	.28			T.	.11	.29							3.12
Caledonia ‖	do	T.		.15	.01				.17			.60					T.	.27			1.24				T.	.49	.03			.10		3.06
Campbell ‖	Red		T.		.10						.30	1.27				.22	.06							.06	.20		T.					2.21
Cass Lake ‖	Mississippi				.98	T.		.14			.54	.46				.18	.13			.20				T.		T.	.31					2.94
Collegeville	do		.31	.74	.17			.03			3.42									.30				.20	.17	.04						5.38
Crookston ‖	Red		T.		T.		.40	.86			1.52	.04				T.				T.	T.				.04	T.						2.86
Detroit ‖	do		T.		3.30		.12	.04			.40	1.50				.34	.10				T.				.08	T.	T.					5.88
Fairmont (near)	Minnesota			.39						.25	2.04						.07			.97				.03	.46	.31			.45			4.97
Faribault ‖	Mississippi		T.	1.11				T.			.45	1.11					.03			.97				.01	.30	.06				.04	.03	4.11
Farmington	do	.35	3.50							T.	1.50						.02			.33	T.			.05	.37	.15				.02		6.29
Fergus Falls	Red	.07	.03	.04	.35		.02	.06			3.28					.22				.02				.19		.02						4.30
Fort Ripley ‖	Mississippi				.07				T.			1.90								T.	.10				.20	.27						2.54
Fosston	Red				.20		.17	.14			1.89						.02				.03				.05	.04	.05					2.59
Glencoe	Mississippi		1.75	.50							.75									.50					.25							3.75
Grand Meadow	do			.50				T.	T.			.70					T.			.82	.07			T.	1.42	.18				T.	.82	4.51
Gull Lake Dam	do		.01		1.78			.18			1.17									.11		T.		.06	.11							3.42
Hallock	Red	.01		.10							2.25					.10				T.	.07			.05	.07							2.65
Halstad ‖	do				.62		.39	.14			2.10	.10								.15					.14	.10						3.74
Hinckley	St. Croix																															
International Falls	Rainy				.34		.07	.24			.49	.01				.30				.09	.03	.02		.05	.11	.11						1.86
Itasca State Park	Mississippi										1.72						.29								.04							2.05
Lake Crystal	Minnesota																															
Leech Lake Dam	Mississippi				1.36			.08			1.01					.11	.02			.38		.02		.04	.12	.03						3.17
Little Falls	do	.10		.15							.16	1.00	.50							.65				.15	.22							2.93
Littlefork	Rainy																															
Long Prairie	Mississippi		.10	.10							1.48													.15	.42							2.25
Lynd	Minnesota		.52	.47							.15									.08				.33	.10	.05				.15		1.85
Mankato ‖	do			.58	.11						.20	1.03						.02		.18	.48			.03	.38	.24				.02		3.27
Milaca	Mississippi																															
Milan	Minnesota		.51	1.40							.42									.08				.32	.07				.13	T.		2.93
Minneapolis	Mississippi		.13	.36	.03			T.			1.93	.59					T.			.59				.11	.26	.09				.03		4.12
Montevideo ‖	Minnesota		.25	1.49	.09			T.				.21								.01					.47					.15		2.67
Moorhead	Red			.51	.04	.18	.01	.03			1.34					.04								.12		T.						2.27
Mora	St. Croix		.71	.09	.24			.08			.53	.37								.84	.01			.08	.36	.22						3.53
Morris	Minnesota	T.	.03	.45							.55					T.								.30	.10							1.43
New London	Mississippi		.32	.64	.08						1.10									.48				.12	.08							2.82
New Richland	Minnesota			.53							.66	.91					T.		.84				T.	.77							.20	3.91
New Ulm ‖	do			.82	.15						.17	.48						T.		.04	.40			.05	.66	.23	T.			.20		3.20
Osakis	Mississippi		.25	.20				T.			1.26			.80						.08				.24	.10							2.93
Park Rapids ‖	do				2.00	.02	.03					1.25				.06	.18			.01					.05	.12						3.72
Pierz	do		.31	.03				.14			2.75									.40				.35	.13							4.11
Pine River Dam	do				1.80			1.10			2.60									.20		T.		.30	.35	T.						6.35
Pokegama Falls	do				1.49			.08			1.45									.24				.04	.23	.13						3.66
Redlake	Red						.61	.82			1.32					.31								T.	.11							3.17
Red Lake Falls ‖	do																															
Red Wing ‖	Mississippi			1.16	.40							1.48					.04	.02			.64				.08	.50				.04	.02	4.38
Reeds Landing ‖	do			.80	.20							.95									1.50				.26	1.10				.05	.08	4.94
Rochester ‖	do			.08	.55							.55						T.			1.44				.40	1.27						4.29
Roseau	Red						.06	.03			1.41					.10					.02				.13							1.75
St. Charles	Mississippi			.55								.83								1.05	.16				.85	.12					.90	4.46
St. Cloud	do		.56	.44	.18			.08			1.76	.18								.27				.18	.36	.11						4.12
St. Paul	do		.05	.50	.01			.02			1.61	.03					T.			.56	T.			.08	.29	.15				.04		3.34
St. Peter	Minnesota			.75							.25	1.65								.45				.10	.30	.10						3.60

TABLE 2.—*Daily precipitation for September, 1913. 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	Total.
Minnesota—Contd.																																
Sandy Lake Dam	Mississippi				1.40			.71			1.10									.31				.05	.20	.35						4.12
State Sanatorium	do				.70					.10	1.00					.15				.40					.16	T.						2.51
Stillwater ‖	St. Croix		.38	.31	.14							1.30						.05			.53				.20	.19						3.10
Taylors Falls	do		1.45					.13			1.30									.44				.18	.25	.15						3.90
Thief River Falls ‖	Red					.85		.15			1.65																					2.65
Tracy	Minnesota		.64	1.08							T.									.11				.09	.36					.27		2.55
Warren	Red			T.				.65			2.65														T.							3.30
Warroad	Rainy			T.			.10				.90									.10				.14	.02							1.26
Windom	Des Moines			.23							.80									.28					.52	.09			T.	.19		2.11
Winnebago ‖	Minnesota	T.		.15	.33						.37	.80					T.	T.			.70			T.	.58	.28	T.			.02		3.23
Winnibigoshish	Mississippi				.95		.12				1.20					.12				.32				.05	.10	T.						2.86
Winona	do	T.	.01	.22				.03				.53					.06			.70	.41				.54	.10				.02	.26	2.88
Worthington ‖	Des Moines			.67	.01							.95								.22	.01			.05	.39	.13				.38	.03	2.84
Zumbrota	Mississippi		.10	.90								2.03					T.			.88				T.	.75	.07				T.	.20	4.93
South Dakota.																																
Milbank ‖	Minnesota		.13	.64	.14						.11	.44					.03							.20	.23					T.		1.92
Sisseton ‖	do																															
Wisconsin.																																
Antigo ‖	Wisconsin			.48			.62										T.	.28			.31	1.18				.37						3.24
Barron	Chippewa		1.05	T.	T.						.65						T.			.80					.45							2.95
Beloit	Rock								.14			.33					.65	.40			1.02				T.	.06				T.	1.12	3.72
Big St. Germain Dam	Wisconsin	T.	.94	.25	.09							.11					.14	.05			1.68	.48	.14	T.	.86	.04						4.78
Brodhead	Rock								.30			.42					.94	.06			1.30					.11					.68	3.71
Burnett	do	.35		T.				.25				.18					.73	.30			1.24	.06	T.	T.		T.				T.	1.20	4.31
Cottage Grove	do	T.							.24			.66					.46	.80			1.46	.12									.49	4.23
Darlington	do											1.00					.50	.05			1.90					.01					1.35	4.81
Deerskin Dam	Wisconsin	T.	.95	.11	.20							T.					T.	.30			.30	.18	.12		.79	.19						3.14
Delavan	Rock								.03		.29							.62				1.06			T.	.06					.28	2.34
Dodgeville ‖	do													.70				.10	.50		.80	.30										2.40
Downing	Chippewa																															1.20
Eau Claire	do		.23	.86								.55					.15			1.43	.19			T.	.97	.05					T.	4.43
Glen Flora	do		.81	.17	.04															.03	1.12	T.				.06						2.23
Grand Rapids ‖	Wisconsin			1.05	.15				.06			.15					.05	.53	.03		.59	.42	.02		.05	.65	.06				.04	3.85
Grantsburg	St. Croix		.01		.25			.26			.90									.27					.45							2.14
Hancock	Wisconsin	.05		.18								.33					1.00	.25			1.30	.32	T.		.08	.65				.03	.49	4.68
Hatfield	Black		2.18									.22					.28				1.40					.40					.10	4.58
Hayward	St. Croix		.08		.04																1.08	T.		.02	.04							1.26
Hillsboro	Wisconsin	.06		T.				.46				.51					1.09				1.80			T.	1.20	.12				.12	1.21	6.57
Koepenick	do			.60			.10					.10					.40				.60	1.00	.20		.40							3.40
La Crosse	Mississippi			.58				T.				.35					.50			1.09	.04				.39	.08				.03	.10	3.16
Lake Mills	Rock	T.							T.			.64					.31	.33			1.10	.03	T.		.02	.06	T.			T.	1.12	3.61
Lancaster	Mississippi								.08								2.35			1.52												3.95
Long Lake	Wisconsin	T.	.03	1.23	.07							.09					.19	.05			1.31	.54	.05		.71	.05						4.32
Madison	Rock							.05				.57				.02	1.19			.36	1.74			T.	.02	.09			T.	.04	.24	4.32
Marshfield	Wisconsin		T.	.67				T.				.14					*	.67			.99	.11			.53	.02						3.13
Mather ‖	do	T.		.49					.10			.32					T.	.48			.96	.10			T.	.27	.03				.03	2.78
Mauston	do	.15									.60						1.25				1.50				.30	.35				.08	.75	4.98
Meadow Valley	do			.42				.03				.21					.60				1.20				.21	.07				T.	.17	2.91
Medford ‖	Black		.05	.53								.11					.02	.32			1.35	.28				1.03	.11					3.80
Merrill ‖	Wisconsin			.42								.12						.25			.63	1.07	.17		.07	.33						3.06
Minocqua	do		.60	.20	.20							.09					.03	.04			1.66	.40	.05		.77	.08						4.12
Mondovi	Mississippi		.14	1.53								.60					.09	.04	.02	1.04	.16	.03	.01		.78	.13	.01			.04		4.62
Mount Horeb	Rock								.04			1.08					.70	.08			1.70				T.					.12	.20	3.92
Muscoda ‖	Wisconsin											.34	.47				.60	.57			1.50	.37			T.	.37	.07			T.		4.29
Neillsville	Black			.90								.21									1.50				.38							2.99
New Richmond	St. Croix																															
Osceola	do		1.88	.05	.07							1.00								.56				.23		.45						4.24
Park Falls ‖	Chippewa		.06	1.17	.03	.01		.07				.20						T.			1.08	.20	.19		T.	.86	.03					3.90
Portage ‖	Wisconsin			T.				T.	.35			T.	.21				.24	.48			1.04	.75			.08	.16				T.	T.	3.31
Port Edwards	do			1.00				.06									.50	.10			.79	.63	T.		.14	.57				T.	.22	4.01
Prairie du Chien ‖	Mississippi								.18			.32	.54				.28	.52			1.10	.06			T.	.58	T.				T.	3.58
Prairie du Sac	Wisconsin								T.			.54					.52	.10			1.41					.25	T.			.02	.98	3.82
Prentice ‖	Chippewa		.22	.95	.11	T.						.04						.11			1.80	.27	T.			1.11	T.					4.61
Rest Lake	do		T.		.50	.10						.19					T.				2.03	.45			.85	T.						4.12
Rhinelander	Wisconsin	.13		1.42	.01							.15					*	.21		.02	.77	1.37				1.09						5.17
Shullsburg	Mississippi								.21			.72					.64				1.57					.11				.14	1.24	4.63
Solon Springs	St. Croix			.45	.30			.20			.02	.60									T.	.50	T.	.30	.30							2.67
Spooner	do		1.10	.18	.12		.04	T.			.08	1.13					T.			.40	.02			T.	.35	.04						3.46
Stanley	Chippewa	T.		.68	T.			T.				.23						T.							.50	.20						1.61
Stevens Point	Wisconsin			1.03					.17			T.					.55	.37			1.20	.70	T.		.20	.67					T.	4.89
Sugar Camp Dam	do		.67	.37	T.						.14						.12	T.		.97	.63	.52	T.		.80	T.						4.22
Tomahawk	do		.90	T.														.40			.13	.90	T.		.10							2.43
Trout Lake	do		.88		.06							.12									1.45	.30	.10			.15						3.06
Twin Lakes Dam	do												.04									1.94			.97							2.95
Valley Junction	do											.80					.30				.60				.30						.80	2.80
Viroqua	Mississippi			.07					.08			.65					.60	.03		.09					.90	.10			.10			2.62
Vudesare	Wisconsin			.30	.20												T.				.90	.40	T.	.40	T.							2.20
Watertown ‖	Rock	.05							.20							T.	.28	.58			.29		T.		.04		.07			.04		1.55
Waukesha	Fox	.06										.25					.30	.28			.95	.30			.02	T.					.33	2.49
Wausau ‖	Wisconsin			1.44					T.			.09						.25			.58	1.23	.04		.08	.44						4.15
Weyerhaeuser	Chippewa		.70	.02	.02		T.					.35					.06			1.18	.39	.02	T.	.02	.49	.05						3.30
Whitehall	Mississippi			.90				.10			.30									1.70					.50	.10				.10	.40	4.10
Iowa.																																
Albia ‖	Des Moines						.02			.03		1.10	.20				.04	.22			.70						.08			.03	.04	2.46
Algona	do			.42					T.		T.	.40					T.			1.20				T.	1.00	.14			T.		.38	3.54
Alta ‖	Raccoon			.19							.32						.03			.03	.85			.08	.35	.70				.20	.28	3.03
Amana	Iowa								.27			.68				T.	.98			.23	.30				.01	.15			.01		.48	3.11
Ames	Skunk								T.			.92				T.	.14			.20				.13					T.	.43	T.	1.82
Baxter	do								.31			.43					.38	.02		1.37	.01				.06	.13				.02	.96	3.69
Belle Plaine	Iowa								.72			.48					.92	T.		.38	.14			T.	T.	.22			T.	.03	.38	3.27
Belmond	do								.09			1.43					T.							.04	1.67	.24			.06	.02	.28	3.83
Bloomfield	Mississippi											.89					.16	.10		.27	.62					.08			.07		.50	2.69
Bonaparte	Des Moines											1.25					.14	.02			1.16					.07			.02		1.37	4.03
Boone ‖	do						T.			T.		1.16	.08				.20	T.			.28				.15	.83				.05	.40	3.15
Britt	Iowa			.20					T.		.32	.82					.03			.79				.03	1.20	.21				.07	.42	4.09
Burlington ‖	Mississippi											T.	.10				.11	.47	.02		.65						.07			.07	.05	1.54

TABLE 2.—*Daily precipitation for September, 1913. District No. 5*—Continued.

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	
Iowa—Continued.																																
Carroll ‖	Raccoon			.37						.05	.76						.16	.08		.42				1.00	.95				.17	.54		4.58
Cedar Rapids	Cedar									1.26		.35	.34				1.40	.28			.70				T.	T.	T.			.06	.09	4.40
Charles City	do	.17		T.					.52		.10	.20					.01	.01		.82				T.	.92	.07			.06		.61	3.49
Clinton	Mississippi											.15					1.33	.01			1.47					.09				.03	.01	3.09
Columbus Junction	Iowa											.55				T.	.55	.33			.63					.15			T.	T.	.35	2.56
Davenport	Mississippi								.04			.04				T.	.51	.05		.53	.23					.06			.05	T.	.29	1.80
Decorah	do											.50					.20			.62	.46				.22	.20					1.30	3.50
Delaware	do								.13			1.78					1.12				1.22					.10				.02	.30	4.67
Des Moines	Des Moines								.17		.11	.99				.02	.02			.53				T.	.17	.13			.06	.44	.01	2.65
Dubuque	Mississippi							.42	.14			.86				.01	.91	T.		.54	.47				.01	.05			.02	T.	.16	3.59
Earlham	Raccoon								.06	T.	.30	.15					.21			.23					.26				.45	.52	.29	2.47
Elkader	Mississippi								.18			1.00					.90			1.30					.41						.63	4.42
Elma	Wapsipinicon	.32							.15			.35				T.	.05			.55	.06			T.	.90	.10				.02	.50	3.00
Estherville ‖	Des Moines			.20	.05						.18	.97						T.			.90				.40	.38				.20	.10	3.38
Fairfield	Skunk											.59					.15		.02	.28	.55					.10			.03	.02	.43	2.17
Fayette	Mississippi							T.	.31			1.25					.63			.89					.75	.18				T.	.73	4.74
Forest City ‖	Cedar			.20							.15	1.80					T.			.75					.70	.02			T.		.30	4.52
Fort Dodge ‖	Des Moines			.35							.11	1.50									.66			.11	.95	1.10			T.	.10	.90	5.78
Fort Madison	Mississippi								T.			.35					.45				.85					.11			T.	.02		1.78
Gilman	Iowa								.18			.60				.16	.20			1.42					.62	.10						3.28
Grand Meadow	Mississippi							.02				.80					.28			*	1.05				.65	.28			.02	T.	1.49	4.59
Grinnell	Iowa								.45			.53					.40			.77					T.	.16			T.		.52	2.83
Grundy Center	Cedar								.18			.93				.57				1.01	.20				.12	.20			T.	.04	.52	3.77
Guthrie Center	Raccoon								.02	T.	.48	.07					.11			.18				.01	.94	.44			.16	.78		3.19
Hampton	Cedar								1.70		.85						.25			1.40				.27	.65				.04	.05		5.21
Humboldt	Des Moines			.16											1.27					.70				.05	1.05	.18					.63	4.04
Independence	Wapsipinicon								.46			1.25					.60	.03	.01	.13	.48			T.	.16	.56				.07	.83	4.58
Indianola	Des Moines					T.			.38		T.	.66				.03	.01	.01		.41				T.	.05	.23			.09	.01	.01	1.89
Iowa City ‖	Iowa								T.	.04		.12	.26				.90	.28	.03		.96				.01		.10			.12	.37	3.19
Iowa Falls ‖	do	.08							1.85	.13		1.10	T.				.10	.33			1.15				.14	1.03				.02	.08	4.01
Jefferson	Raccoon			T.							.47	.15			T.		T.			.42				.04	2.11	.37			.23	1.20	.03	5.02
Keokuk	Mississippi											.05				.09	.27	.04		.79	.01					.02			.13	.01	.01	1.42
Keosauqua ‖	Des Moines									T.		.42	.92				.05	.07	.02		1.17						.14			.02	1.02	3.83
Knoxville	do								.12	T.							.30	T.		.66	T.			T.	.20	.20			T.	T.		1.48
Lacona	do								.01	T.		.32					.18	.01	.28						.14	.20			.01			1.15
Lansing	Mississippi																															
Le Claire	do	T.							T.	.08			.01				.08	.20	.04		1.32	.25				.05			.06	.01		2.10
Marshalltown ‖	Iowa									.65		.29	.06				.51	.09	.01		1.45				.02	.20	.02			.04	.10	3.44
Mason City	Cedar			.11		.13						1.01								.88					1.23					.03	.30	3.69
Monroe	Skunk								.49			.45					.64	.06		.97	.05				.29	.12			T.	.15	T.	3.22
Mount Pleasant	do							T.		T.		.41					.23	.39	T.		.32					.24			T.	.04	.39	2.02
Muscatine ‖	Mississippi									T.		.07	.12				.27	.60	.22		.50	.04					.07			.04	.70	2.63
New Hampton	Wapsipinicon	.40										.56					.27			.66	.22				.56	.10					.68	3.45
Nora Springs	Cedar		.08			T.			.20		1.33	.20					.02			1.33				.04	1.85	.02			.05		.48	5.60
Northwood	do			.40							T.	.52					.02	.02		.75					1.35	.23					.03	3.32
Olin	Wapsipinicon								.25		.25						1.00			1.30					.15					T.	.45	3.40
Osage	Cedar											1.43								.93					1.20	.21					.28	4.05
Oskaloosa	Des Moines								T.			.76					.29	.06		.85				.02	.35	.14				.20		2.67
Ottumwa	do																															
Pella	do								.45			.71				T.	.28	.17		.60				T.	.20	.07			T.		.24	2.72
Perry	Raccoon			.03		.04	.13										.05	.04		.18	.03			.02	.63	.26			.07	.11	.11	1.70
Pocahontas	do										.53	.45					.37			.45				.05	.96	.17			.10	.85		3.93
Rockwell City	do				.65						.85	1.00				.20				1.10			.50	1.65					.10	1.10		7.15
Sac City	do			.35							.31	.26					.35			.84					1.05	.15			.12	.50	.36	4.29
St. Charles	Des Moines					.13				T.	.05	.93				.06	.14	T.		.52				T.	.08	.21			.07	.60	.02	2.81
Sigourney	Skunk								T.			.93											1.20		.03	.08			T.		.34	2.58
Stockport	Storm Lake									T.		.76					.14	.18			.96					.15			T.	T.	.47	2.66
Storm Lake	Raccoon		T.	.13							1.00	.17					.07			.67				.17	.81	.08			.21	.02	.50	3.83
Tipton	Cedar								.53			.22					.80	.03			1.20				.02	.15			.04	.39	.08	3.46
Toledo	Iowa								.36			.35					.77	T.		.65	.10				.02	.20				.08	.25	2.78
Washington	Skunk											.58					.46	.44			.94					.10			.01		.26	2.79
Waterloo ‖	Cedar								.50	T.		.50	.08				.85	.15			.65				.02	.45	.08			.02	.60	3.90
Waukee	Raccoon								T.	T.	.20	.79				.02	.06	T.	T.	.25					.15	.32			.06	.77	.05	2.67
Waverly	Cedar																															
Webster City	Des Moines								.18		T.	.26					T.			.63	.06		T.	1.24	.24			T.			.10	2.71
West Bend	do			.47					T.		.34	.34					.19			1.00				.03	1.00				T.	.05	.10	3.52
Whitten	Iowa								.60	T.		1.30					.59	T.		.85					.22	.25			T.		.25	4.06
Winterset	Des Moines									T.	.10	1.03				T.	.10			.33	T.				.18	.30			.13	.38	.14	2.69
Missouri.																																
Gorin	Mississippi											.34				.01	.14				.57					.05			.07	.01	.07	1.22
Hannibal	do								.04			1.39				.12	.12	.04	T.	1.41	.03			T.		.03			.72	.01		3.91
Louisiana	do								1.35			.40	.45			.13	.20		.08		.70					.10			1.22			4.65
Macon	do					.17			.41			1.33	.09			.02	.18	.06			.85					.04			.43			3.59
Mexico ‖	do									.63			1.18	.01			1.19	.01	1.10		.77						.09		.32	.50		5.80
Palmyra	do								.63			2.85				.76	.03		1.18										.58			6.03
Steffenville	do											.05				.07	.56	T.			1.08					.03			.30			2.06
Sublett	do											2.00				T.	T.					1.25							.20		T.	3.48
Vandalia	do								.57				1.32			.70	T.	.15		.82									1.15			4.73
Warrenton ‖	do							T.		.30			2.07				.56		.49		.51						.17		.34	.68		5.11
Indiana.																																
Collegeville	Iroquois					T.		T.		T.			.25			T.	.88	T.			T.		T.				.20			.23	T.	1.56
Knox	Kankakee							T.					.21			.05	.69	.02			.31	.01	.01				.39		T.	.18	.55	2.42
Laporte	do							.33				.02	.04			.04	.45	.50					.20				.25			.10	.30	2.23
Plymouth	do							T.	.06			T.	.03			.04	.53	.06			.31		.04				.25		T.	.19	.25	1.76
South Bend	do					T.		.34	.52				.07			.02	.40	.06	.01		.34	.05	.40				.15			.03	.43	2.82
Illinois.																																
Aledo	Mississippi								T.			.04				T.	.68	.20			.80					.07			.03	.04	.33	2.19
Alexander	Illinois							.21	T.	.29		T.	.84			.12	.15	.05			.36					.01	.09		.85	.07		3.04
Antioch	do											.27					1.30				1.25										.28	3.10
Astoria	do								T.			.05	.03			T.	.45	T.	.02		1.12					T.	.05		.35	.05		2.12
Aurora	do								.10			.10					.53		.05		.36	.02				T.	T.		.04	.32	.16	1.68
Beardstown ‖	do																															
Bement	Mississippi																															
Bloomington	Illinois	T.						T.	T.			.16				.12	1.12				.40					T.	.13		.34			2.27
Cairo	Mississippi							T.	.17		.14		.24		.10	.40	T.	.61	.17		.02						T.	T.	.37	T.		2.22

TABLE 2.—*Daily precipitation for September, 1913. 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	Total.
Illinois—Continued.																																
Camp Point	Mississippi											.05				T.	.20	T.	.01		.82					.05			.36	.15		1.64
Carbondale	do							.01	.23				.65	T.	.01	.53	.14		.74	.01	.15	.02					.02		.17	.06		2.74
Carlinville	Illinois						T.		.58				.44			.39	.45	.03	.02		.80						.36		.65	.08		3.80
Carlyle	Mississippi							T.	1.10	.40		.04	1.27			1.06	.22	.05	.08	.04							.20		.11	T.		4.57
Chester ‖	do								.01	.12			2.72	.78		.42	.26	.02	.38	.12	.18						.28	.02	.06	.04		5.41
Clinton	Illinois							.10				T.	.25			.40	1.10	.37			.50					T.	.21		.58	.11		3.62
Cobden	Mississippi							T.	T.				3.45		T.	.29	.27		.45	.25	.07								.03			4.81
Dakota	do											.25					.94	.08			1.12					.06				.03	.32	2.80
Decatur ‖	Illinois							T.	.27	.35			.65			T.	1.20	.17	.10		.46	T.					.22		T.	.32		3.74
Dixon ‖	Mississippi	T.					T.		.10	.30			.25				.07	.70	T.		.60	.50			T.		T.			.05		2.57
Du Quoin	do							T.	1.34				1.78		T.	.90	.17	T.	.53		.12								.12		.03	4.99
Dwight	Illinois											.13				T.	.35	.06			.18	T.					.02		.04	.10		.88
East St. Louis ‖	Mississippi										T.		2.15	.13	T.	.48	.24	.13	.87	.03	.36	T.					.43	T.	T.	.14		4.96
Edwardsville	do									.12		.30	.98			.66	.32	.05	1.17		.33					.45			.18			4.56
Elgin	Illinois					.02			.02			.18	.18				.23	.06			.81									.05	.58	2.13
Ewing	Mississippi								.65				1.00				.95		.89		.31						.02	.04	.02			3.88
Fairview	Illinois							T.	T.		T.	T.				T.	.40	T.	.05		.71					T.	T.		.13	.14		1.43
Galva ‖	do								.02	.13			.06				.21	.52	T.		.57	.15					.03			.16	T.	1.85
Grafton ‖	Mississippi									.08			1.90			.04	.41	.08	1.04		.41						.32		.08	.68		5.04
Greenville	do								.10	.02		.91	.45			1.03	.38	.01	.05		.18					.05	.17		.10	.07		3.52
Griggsville	Illinois											.05	.40			.03	.24	.18			.91					.09	.02		1.10	.08		3.10
Havana	do								T.			.02				.03	.30				.90					.01			.28	.05		1.59
Henry	do								.18			.07				T.	.74				1.04						.03		.07	.08		2.21
Hillsboro ‖	Mississippi									3.50			1.35	T.		T.	1.15	.58			.30						.34					7.22
Joliet	Illinois							T.	.10			.18				.19	.51				.22	T.				.02			.10	.05		1.37
Kishwaukee	Mississippi								T.			.31					1.15	.70			1.00	.03			.01	.04				.01	.33	3.58
La Grange	Illinois																															
La Harpe	do									T.		.14					.36	.04	T.		1.23					.02			.05	.02	.10	1.96
Lanark	Mississippi								.48			.13				T.	.60	.02			1.16	.03				.07					.37	2.86
La Salle	Illinois				T.		T.		T.			.19				.09	.49	.01			.97				T.	.01			.07	.09	T.	1.92
Lincoln	do							T.	T.			T.	.09			.08	.54	.53			.54					T.	.14		.57	.09		2.58
Macomb	do																.33	T.		T.	1.17					T.			.24	.15		1.89
Manteno	do							T.	T.			.13				T.	.81				.24	.04					T.			.13		1.35
Martinton ‖	do									.30		T.					.78	.09			.50						.25			.30		2.22
Mascoutah	Mississippi								.02	.02			1.25			.75	.27	.05	.20		.30					T.	.10		.01			2.97
Minonk	Illinois							.01				.02				T.	.58				.50						.03		.08	.10		1.32
Monmouth	Mississippi																.65	T.			1.15					T.			.05	.04		1.89
Morris	Illinois											.07				T.	.33				.20	.09					.01		.01	.10		.81
Morrison	Mississippi								.50			.26					.42	.05	T.		1.21	.02				.08	T.			.02	.03	2.59
Morrisonville	Illinois											T.	.41			.53	.56	.76			.57					T.	.29		.38	.16		3.66
Mount Vernon ‖	Mississippi								.03	.01			1.31	.18		.82	.52		.06		1.10						.05			.12		4.20
Nashville	do							T.		.07		T.	1.12			.88	.22	.03	.04	T.	.33	T.					.11	.03	.04			2.87
Oregon	do																															
Ottawa	Illinois											.45					.44	.04			.87	.02								.28		2.10
Pana	Mississippi																															
Paw Paw	Illinois					T.			T.			.23					.64	.26	.02		1.31	.03			T.	T.			.03	.10	.01	2.65
Peoria	do						T.	T.				T.				.29	.39	.01		.23	1.43				T.	.03			.17	.03		2.58
Pontiac	do							.47	.25			.01	.01			T.	.47	.01	.05		.33	T.					.03		.10	.08		1.81
Quincy ‖	Mississippi									T.			.36				.31	.02	T.		.83	.02					.02			.29		1.85
Riley	do								.70			.35					.31	.43			.62	.02			.01				T.	.03	.62	3.09
Roberts	Illinois			T.				T.	T.			T.				.21	.65	.10			.25	T.				T.	.20		.18	.20		1.79
Rockford ‖	Mississippi	T.							.45				.29				.22	1.23			.40	.45					.05		T.		.58	3.67
Rushville	Illinois									.02			.03				.46	.25			.83					.06			.45	.12		2.22
St. Charles	do					T.			1.10			.12				T.	.35	T.			.70	T.			T.	T.	T.		T.	.10	.35	2.72
St. Peter	Mississippi								.22			.48	.55			.91	.34	.12	.08		.13						.05		T.			2.88
Sparta	do							T.	.79	.20			1.65		T.	.69	.15	T.	.17		.38						.08	T.	.09	.01		4.21
Springfield	Illinois								.02			.66	.11			.28	.28	.14		.18	.75					.11			.88	T.		3.41
Streator ‖	do	.01											.06				.35	.20	.01		.34	.03								.21		1.21
Sullivan	Mississippi							.19					.72			.60	.89	.80			.30						.20		.12			3.82
Sycamore ‖	do					T.			.26				.25				.23	.76			.60	.33								.12	.68	3.23
Tiskilwa	Illinois								.10		.07					T.	.16	.05			1.06			T.		T.			.05	.11	T.	1.60
Walnut	Mississippi					T.						.20					.35	.05	.03		1.26				T.	.03			.04	.06		2.02
Warsaw ‖	do											.26					.50	.01		.81												1.5
Waterloo	do							.02	1.22	.02		.03	1.32			.65	.43	.08	.90		.25						.11		.09			5.12
White Hall	Illinois								.50	T.		T.	.81			.02	.18	.13	.23		.33					.02	.12		1.48	.05		3.87
Windsor	Mississippi								T.				.37			1.20	.85	.28	.04		.43								.01	.02		3.20
Winnebago	do											.25					1.30				.78					.03					.40	2.76
Yorkville	Illinois								.02			.12					.07	T.	.04	.01	.61								.01	.30		1.18

* 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 September, 1913. 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....	71	57	79	56	95	51	77	57	.....	.....	93	61	84	64	100	65	99	62	96	62	99	61	96	56	96	66	92	58
2....	74	40	71	43	76	52	70	41	.....	.....	84	62	75	51	93	70	74	65	75	54	85	74	91	60	84	66	85	60
3....	72	49	72	53	78	52	72	45	.....	.....	72	57	77	53	85	67	82	63	75	52	84	68	70	52	72	63	74	49
4....	91	54	85	60	86	58	94	57	.....	.....	80	57	83	58	91	60	98	65	83	62	96	67	67	52	89	62	65	48
5....	87	62	88	62	92	62	88	65	.....	.....	92	58	87	61	97	69	97	67	92	62	99	71	85	62	95	70	78	58
6....	87	54	87	59	86	62	85	59	.....	.....	91	73	89	64	94	70	98	69	88	69	98	74	88	68	93	73	88	53
7....	73	47	70	49	75	52	74	46	.....	.....	83	64	72	64	94	67	84	69	74	54	91	72	82	61	83	65	78	65
8....	73	45	71	41	78	42	74	42	.....	.....	71	50	73	45	79	61	78	50	74	45	80	56	72	47	75	56	72	45
9....	81	47	85	59	87	50	90	46	.....	.....	72	49	77	50	77	49	82	55	80	58	78	57	70	46	73	51	74	48
10....	70	50	71	48	75	58	72	50	.....	.....	68	56	72	60	84	56	81	62	70	54	79	58	70	54	76	59	70	52
11....	72	30	68	40	75	38	72	36	.....	.....	69	51	70	44	74	56	75	49	73	43	72	57	72	50	72	56	70	50
12....	75	36	74	40	78	34	79	34	.....	.....	69	45	70	40	68	40	76	41	74	39	77	43	70	46	68	48	72	47
13....	73	44	70	42	75	38	78	37	.....	.....	71	45	73	45	76	44	83	44	74	42	81	45	67	39	76	48	66	44
14....	70	45	78	50	87	44	68	40	.....	.....	72	57	78	45	76	49	80	50	79	53	75	52	74	48	74	53	73	41
15....	69	34	68	44	71	53	70	37	.....	.....	74	53	71	55	74	43	79	48	71	56	78	48	69	48	74	52	62	46
16....	75	35	65	41	68	50	72	40	.....	.....	68	46	70	48	62	57	77	47	72	51	73	51	70	54	63	55	63	55
17....	74	32	71	39	75	35	75	38	.....	.....	74	50	73	45	73	50	77	49	75	42	74	51	68	46	68	51	73	45
18....	80	40	80	49	81	40	81	42	.....	.....	71	48	77	48	72	42	78	47	78	52	77	48	73	39	71	47	70	44
19....	48	40	61	38	65	52	55	43	.....	.....	62	47	58	54	68	53	56	50	64	46	66	52	74	42	60	47	71	45
20....	58	31	53	32	61	35	62	32	.....	.....	50	38	51	37	53	40	54	39	53	38	52	42	75	39	51	40	60	43
21....	53	27	47	25	58	29	56	26	.....	.....	44	33	47	20	48	34	52	33	48	28	51	34	55	34	47	36	50	33
22....	56	27	52	25	58	21	59	28	.....	.....	49	25	50	24	52	24	56	31	54	24	57	26	49	20	49	32	48	22
23....	45	28	42	34	58	35	40	34	.....	.....	42	32	45	31	65	31	48	26	42	38	60	30	46	29	52	35	48	22
24....	40	32	40	33	49	38	38	32	.....	.....	48	41	45	35	68	49	51	37	45	40	48	40	49	38	52	47	45	38
25....	56	32	49	38	53	35	59	32	.....	.....	45	38	50	40	51	41	48	39	50	40	49	41	53	42	48	43	48	44
26....	67	33	66	34	74	32	71	35	.....	.....	63	34	65	32	65	32	72	32	68	32	68	31	66	33	63	35	64	33
27....	70	34	74	43	78	35	77	38	.....	.....	69	42	72	35	71	35	75	39	75	36	69	32	74	31	71	41	72	40
28....	80	36	78	43	80	38	82	45	.....	.....	67	44	76	41	72	38	68	46	78	40	65	42	73	41	69	45	72	47
29....	80	47	76	41	73	38	81	36	.....	.....	61	48	73	41	69	55	61	53	76	39	65	50	72	38	65	55	78	39
30....	73	43	78	50	75	40	77	38	.....	.....	69	44	72	41	68	50	72	44	73	47	67	53	73	36	69	51	74	44
Mns..	69.8	40.4	69.0	43.7	74.0	43.3	71.6	41.0	.....	.....	68.1	48.3	69.2	45.7	74.0	49.9	73.7	49.0	70.9	46.6	73.8	50.9	70.4	45.0	69.9	51.6	68.5	45.3

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....	95	63	97	50	93	61	98	65	92	68	89	49	92	62	97	67	102	69	96	69	99	75	99	76	97	71	100	80
2....	88	70	89	65	97	74	95	71	94	73	89	61	92	67	92	.....	101	71	93	69	97	77	98	74	97	73	98	79
3....	75	64	72	55	91	64	79	66	81	62	75	57	77	63	90	.....	96	70	89	71	98	72	97	72	89	68	101	78
4....	82	59	77	54	83	56	85	63	82	61	76	52	75	53	94	.....	94	65	94	62	89	66	99	71	86	64	97	69
5....	91	63	92	60	91	60	92	67	87	62	88	56	82	56	96	.....	96	66	98	68	93	66	99	72	91	67	96	70
6....	90	68	91	69	95	66	94	70	91	66	89	68	90	59	93	69	96	69	94	67	93	69	95	72	93	39	92	70
7....	86	67	80	67	94	70	91	70	89	69	89	67	86	63	94	66	95	69	94	67	94	74	93	72	92	68	95	72
8....	80	54	73	46	79	61	78	58	72	55	79	41	74	55	80	60	74	72	95	61	78	61	78	66	73	57	88	68
9....	75	45	74	47	73	44	76	50	71	49	71	38	70	43	76	67	77	57	72	54	79	59	78	59	75	54	83	63
10....	77	54	71	59	80	53	81	58	77	53	74	52	76	50	81	60	83	57	83	59	84	55	85	64	80	57	87	59
11....	74	62	70	56	77	60	73	54	65	58	74	58	69	55	73	59	69	57	73	52	72	63	71	59	66	58	75	64
12....	68	42	67	41	72	41	67	46	65	51	66	30	63	38	69	57	70	51	68	46	73	53	72	52	68	50	73	57
13....	74	42	70	39	75	39	76	44	70	48	70	32	67	39	75	44	76	45	74	40	75	47	75	44	75	46	73	50
14....	76	45	75	45	76	48	76	48	72	49	70	41	74	41	74	48	74	45	74	46	76	50	74	49	74	49	76	51
15....	73	46	75	54	71	48	74	50	71	50	73	43	70	45	76	45	74	48	74	47	74	49	72	52	73	49	69	55
16....	65	55	65	46	67	56	64	58	65	58	73	48	58	52	68	56	69	49	65	60	70	60	66	61	65	60	70	61
17....	68	54	71	45	67	53	67	53	61	55	66	50	64	52	73	55	68	60	72	50	67	56	73	61	67	55	70	61
18....	64	42	70	36	66	45	67	50	64	50	66	33	65	39	71	51	70	50	70	46	70	52	70	54	69	50	74	58
19....	69	47	60	53	70	46	73	50	70	48	68	45	69	41	61	53	74	46	69	50	75	53	73	52	72	51	76	54
20....	59	42	56	40	60	40	53	42	59	39	68	38	45	45	55	43	51	48	50	42	59	46	57	46	56	44	60	48
21....	45	38	46	35	45	41	45	40	44	39	39	34	41	35	45	35	52	41	51	34	50	42	58	40	48	41	56	40
22....	47	33	49	28	44	32	48	33	45	34	39	30	43	31	59	25	53	33	51	27	53	38	57	32	50	36	57	33
23....	55	29	46	27	56	28	61	32	60	36	50	28	50	31	70	40	73	33	69	38	74	42	77	47	67	38	79	46
24....	66	49	50	41	75	.....	74	50	77	56	60	44	67	35	63	48	82	44	71	50	82	64	77	52	71	62	81	64
25....	54	46	51	42	72	.....	54	44	66	45	60	43	51	49	52	40	54	54	52	36	67	47	58	40	63	44	69	48
26....	62	38	63	35	59	.....	62	38	57	37	56	31	56	37	64	33	62	37	62	32	62	39	67	36	60	38	62	40
27....	71	34	72	40	70	45	71	38	66	45	66	29	68	33	69	38	69	37	70	38	69	41	69	41	71	39	68	40
28....	69	39	72	44	70	47	69	41	68	44	71	36	69	38	65	40	67	41	68	41	65	46	58	49	68	44	62	52
29....	65	49	70	40	65	51	66	55	64	55	73	34	73	39	65	50	65	45	62	52	71	58	67	57	70	57	72	58
30....	70	55	69	46	65	53	65	55	60	51	73	44	70	43	65	53	68	57	66	52	71	57	69	52	65	56	70	56
Mns..	71.1	49.8	69.4	46.8	73.3	51.2	72.5	51.9	70.2	52.2	70.0	43.7	68.2	46.3	73.5	50.1	75.1	52.9	73.3	50.9	76.0	55.9	76.0	55.8	73.3	53.8	77.6	58.1

TABLE 3.—*Maximum and minimum temperatures for September, 1913. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		DuQuoin.		Greenville.		La Salle.		Monmouth.		Peoria.		Rockford.§§		Springfield.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	101	78	93	64	95	70	100	64	105	64	98	72	102	66	101	72	98	68	99	70
2	99	78	96	62	95	72	102	68	104	69	99	75	102	68	100	74	100	71	98	72
3	99	74	91	65	98	74	104	69	106	71	97	66	103	69	99	68	94	67	99	72
4	99	72	84	61	98	76	104	68	104	70	87	65	97	64	93	66	89	63	94	67
5	95	71	85	60	89	70	95	67	98	64	90	63	98	63	94	64	94	63	92	65
6	91	72	91	57	89	71	96	70	97	67	93	66	96	66	95	67	95	65	91	69
7	94	70	87	65	87	74	94	70	96	71	94	72	98	66	96	68	93	68	95	72
8	88	70	78	62	90	70	99	68	97	71	78	58	85	69	84	64	78	61	89	63
9	86	66	74	52	86	69	85	62	88	64	78	55	84	60	82	61	78	54	83	60
10	88	63	79	45	91	64	91	59	93	55	82	51	88	62	86	55	83	50	86	56
11	80	64	81	48	86	67	91	65	94	64	73	54	84	61	81	59	73	53	86	64
12	72	60	69	54	73	61	83	61	70	62	72	51	76	57	73	54	75	48	71	58
13	72	52	68	40	69	57	73	52	74	50	74	44	78	42	75	42	78	40	70	49
14	75	53	71	41	65	58	75	53	78	48	74	47	79	44	78	48	77	46	74	50
15	63	59	71	45	72	60	67	55	65	54	70	47	71	48	69	51	76	45	64	55
16	72	63	.....	.....	76	65	79	65	74	61	73	60	73	60	75	62	68	49	75	66
17	75	64	.....	.....	79	63	83	67	83	66	68	59	68	60	71	60	64	58	77	63
18	75	61	.....	.....	76	62	72	64	70	60	69	53	73	54	74	55	70	49	73	60
19	76	56	.....	.....	76	60	80	60	80	60	76	48	76	51	77	53	76	48	76	56
20	57	48	.....	.....	69	53	65	51	70	52	66	43	74	46	63	48	52	51	65	50
21	59	42	.....	.....	61	48	60	41	58	42	51	43	55	41	51	38	47	41	54	42
22	60	33	75	37	70	43	67	36	62	34	52	36	56	31	56	38	54	32	56	36
23	80	49	64	30	78	52	80	46	80	44	75	37	78	39	77	42	70	33	78	42
24	84	63	79	57	79	56	82	54	81	52	81	61	82	60	82	60	82	41	80	57
25	68	49	78	48	78	57	81	55	79	53	71	51	69	45	73	51	66	56	76	51
26	63	43	71	48	68	52	76	52	67	49	61	43	68	38	63	41	64	37	59	48
27	69	39	59	31	69	52	72	47	72	42	63	38	73	37	69	37	72	35	66	43
28	62	52	70	38	68	60	70	54	68	54	62	42	67	37	65	50	71	39	63	52
29	75	58	71	48	78	66	82	64	81	62	71	60	72	58	75	56	69	56	73	60
30	72	56	73	56	81	64	81	60	79	57	73	58	72	55	76	55	71	58	75	57
Means	78.3	59.3	77.4[f]	50.6[f]	79.6	62.2	83.0	58.9	82.4	57.7	75.9	53.9	79.9	53.9	78.4	55.3	75.9	51.5	77.9	57.6

[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.