CLIMATOLOGICAL DATA FOR JULY, 1913.

DISTRICT NO. 3, OHIO VALLEY.

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GENERAL SUMMARY.

The severe drought conditions and intense heat waves which prevailed over so large a portion of the district and during so great a part of the month were the principal features of weather conditions for July, 1913, in the Ohio Valley. Over the northeastern portion of the district, which includes central and eastern Ohio, West Virginia, and the western portions of Pennsylvania and New York, the rainfall was ample, while in the Muskingum Valley of Ohio and over a considerable area in West Virginia the rainfall was excessive. Also the temperature conditions over the northeastern portion of the district were not nearly so severe as over the rest of the district. Showers were quite frequent in much of the district where droughty conditions prevailed, but on account of the intense heat and excessive sunshine there was rapid evaporation of moisture, and the showers even where frequent and timely were insufficient in most cases for vegetation and nearly all growing crops suffered severely.

The average temperature of the month was decreased decidedly by reason of the two periods when minimum temperatures were unseasonably low. The extremes in temperature were unusually large, varying between 38° and 109°. Thunderstorms were frequent but not as numerous as usual in July. Quite a few of them were attended by destructive winds and lightning and a few by excessive rains, but there was very little hail, except in the storm which passed over east-central Ohio on the 13th and 14th, which appears the more remarkable as the atmospheric conditions prevailing at numerous times would seem to be favorable for the formation of hailstorms.

The month opened with a shallow low-pressure area in the Ohio Valley, which passed off to the northeast during the 1st and 2d, attended by scattered thunderstorms, and was succeeded by a weak "high" during the 3d and 4th. During the 5th–6th a shallow "low" passed to the northeast across the Lake region, with the western edge resting in the upper Ohio Valley on the 6th and attended by rains in the northeastern portion of the district. During the 9th–10th a shallow trough of low pressure swept across the district, and during the night of the 11th and day of the 12th a low area of marked strength formed across the north-central States, the center of disturbance being far to the north but with the southern edge in the Ohio Valley. These two disturbances caused rains that were more or less general over the whole district.

From the 13th to the 18th, inclusive, the pressure was high in the south and southeast and no disturbances passed. During the 20th an area of high pressure of marked energy moved in from the northwest and overspread practically the entire interior until the 22d. On the 23d and 24th a shallow trough of low pressure extended into the Ohio Valley, but on the 25th a high pressure area overspread the north-central sections and gave cool weather in the Ohio Valley. This area of high pressure finally settled over the southeastern States, continuing over those sections until the 31st and causing the heat wave of the last part of the month.

The following table summarizes the chief features of meteorological interest for the several sections of the district:

Portions of States included in the Ohio River Basin.	Temperature.				Precipitation.						
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest monthly.	Least monthly.	Greatest in 24 hours.	Average number of days.	Average snowfall.
New York	66.9	−0.4	94	38	3.55	−1.74	4.24	3.08	1.22	12	0
Pennsylvania	71.1	−0.2	99	40	4.81	−0.21	8.00	2.38	3.25	13	0
Maryland	67.7	+0.4	92	38	5.42	+0.65	6.80	4.54	1.10	13	0
West Virginia	74.4	+1.2	103	42	5.98	+1.27	10.07	2.14	4.48	12	0
Ohio	74.8	+1.1	103	40	5.55	+1.30	13.12	1.71	7.55	11	0
Indiana	78.4	+3.0	108	44	3.12	−0.68	8.83	0.82	2.61	8	0
Illinois	78.3	+2.7	108	41	2.12	−1.54	6.55	0.05	2.84	6	0
Kentucky	79.9	+3.3	109	48	2.54	−2.07	6.67	0.35	3.05	7	0
Tennessee	80.0	+2.3	104	45	3.45	−0.96	7.87	0.90	3.00	8	0
Alabama	80.5	+1.3	104	51	2.89	−1.98	4.29	1.58	1.85	8	0
Georgia	76.1	+1.1	100	50	3.38	−2.87	3.68	3.08	1.92	8	0
North Carolina	72.5	+1.7	99	40	4.18	−0.86	10.31	1.37	2.35	11	0
Virginia	72.1	+1.9	98	37	2.94	−1.71	5.38	0.86	2.49	10	0

TEMPERATURE.

The intense heat wave which prevailed so largely during the last half of June continued during the first five days of July. Relief came about the 6th when there was a change to cooler, and moderate temperatures obtained over most of the district from the 6th to the 13th, inclusive. On the 6th and 7th and again on the 10th and 11th, minimum temperatures were unseasonably low, registering in the 40's and 50's, while at one station, Deer Park, Md., the temperature fell to 38° on the morning of the 8th.

Another heat wave set in about the 14th and continued until the 19th, during which period some of the highest temperatures on record in the district were reached and comparable only to those registered in July, 1901. On the 17th and 18th maximum temperatures of 100° and over were registered generally in Illinois, Indiana, Kentucky, Tennessee, and northern Alabama, the highest reached being 109° at Greensburg, Ky., which is the highest ever reached in that State except in July, 1901, when it was 112°. Moderate summer temperatures obtained from the 20th to 25th, inclusive, and there were some days during that period when it was unseasonably cool, but another intense heat wave set in on the 27th and continued to the end of the month with maxima ranging between 105° and 108°, the hot wave this time extending into Ohio, Pennsylvania, and West Virginia, as well as covering sections visited by the preceding hot wave. The highest temperature registered during this period was 108° at several places in southern Indiana on the 30th. This was also the highest in Indiana except in July, 1901, when it was 112°. There were many prostrations and numerous deaths from the heat during both of these hot waves.

In western Pennsylvania the average temperature of the month was slightly below normal, and on the whole the month was pleasant, the only oppressive heat that caused marked suffering and prostrations on account of the high humidity attending it, occurring on the 1st and 2d. In West Virginia the temperature averaged 1.2°

above normal and there were great variations in extremes, which ranged from 42° to 103°. On account of the numerous rains in this State there was comparatively little suffering from heat. Over the rest of the district, however, it was not only next to the warmest July, but next to the warmest month experienced during the past 25 years or more. In Ohio it was one of the warmest and also one of the wettest Julys of record. In Tennessee the record month for heat was July, 1909, but with the exception of that year July just past was the hottest month since 1883.

A noteworthy feature of the hot wave which prevailed on the 18th and 19th was the remarkably high temperatures reached at the mountain stations in North Carolina, where high temperature records were broken at nearly every station. At Marshall, N. C., the temperature was 99° on the 18th, which is 2° above previous records. At Waynesville, N. C., elevation 2,792 feet, it was 97° on the 19th, 5° above previous records. At Asheville a maximum of 94° was reached on the 19th, 3° above previous records. At Highlands, elevation 3,850 feet, it was 87° on the 19th, 1° above previous records, while at Eagle's Nest, 5,050 feet, a maximum of 82° was reached on the 18th. At Banners Elk, N. C., a minimum temperature of 40° was reached on the 8th.

PRECIPITATION.

The rainfall for the month was excessive in portions of West Virginia and Ohio and ample over the rest of the northeastern portions of the district, as far west as central Ohio and the western borders of West Virginia, and over the upper basins of the Wabash and White Rivers; also over a small area in extreme southern Illinois and western Kentucky and over a few limited areas in the southern part of the district. A great deficiency occurred over eastern Illinois, the lower basins of the Wabash and White Rivers of Indiana, and in southern Illinois and north-central Kentucky, where the rainfall was generally less than 2 inches and in many places less than 1 inch. Also there were a few limited areas in Tennessee where the monthly amounts were less than 2 inches. Over the rest of the district the rainfall was generally about half of the normal amount.

Over the Muskingum River basin of Ohio excessive rains on the 13th–14th caused an aggregate for the month of from 10 to 13 inches. There were also between 8 and 10 inches over much of the watersheds of the Little Kanawha and Great Kanawha Rivers in West Virginia. Excessive rains which fell over sections of the watershed of the Little Kanawha and other west-central counties of West Virginia on the 10th caused freshets in the rivers and considerable damage to crops in river bottoms. During the night of the 13th remarkably heavy rain fell over the Muskingum watershed and other southeastern counties of Ohio. Within 12 hours a fall of over 7 inches occurred at Philo and Toboso, and over 6 inches at Zanesville. As a result of this rain the lower Muskingum River rose about 5 feet above flood stage and all the smaller streams in that section overflowed their banks and some of them were higher than ever known. A large amount of damage was done to railroads, highways, bridges, and crops. Another heavy rainfall occurred over much of the same section on the morning of the 17th, when 1.75 inches fell at Brilliant in one hour, 2 inches in two hours at Gratiot, and 2.48 inches in one hour and 45 minutes at Milligan. Several towns and villages were flooded and suffered considerable loss.

The rains for the month came mostly as local showers, and there were great discrepancies in the amounts in comparatively small areas. The only rains that were fairly general and moderate in amount occurred about the 2d–4th, 10th–12th, and the 24th–28th. Except in Pennsylvania, West Virginia, and much of Ohio, where rains were remarkably frequent, there were numerous days with no rainfall or only a few scattered showers over large areas, and at many stations the total rain for the month came in only one or two showers.

Over much of the western and central portions of the district precipitation has been deficient during the past two or three months, and the droughty conditions that prevailed during July were not only intense for the month, but were augmented in effect by the deficiency of the preceding two months. Crops suffered severely from the intense heat and dryness, and wells and springs in portions of Illinois, Indiana, and Kentucky went dry and people were hauling water for stock. The Saline River in Illinois was completely dry in places for the first time within the knowledge of the citizens of that section.

In Tennessee, for the State as a whole, the precipitation averaged only about 1 inch below normal for the month, yet the suffering by crops and vegetation generally was extensive and serious, and in many localities stock water became scarce. The rains that occurred were remarkably local in character. In Maury and Marshall Counties, Tenn., the rain of the 18th was the first since June 8 in those counties.

Drought conditions have prevailed largely in Kentucky since April 1. The total average rainfall over that State for the 4 months, April to July, inclusive, is the smallest during the past 25 years, the aggregate for the 4 months being 5 inches below the normal. The average total rainfall for Kentucky during July has been less in 4 past years, namely, 1894, 1901, 1902, and 1911, but in each of these years the aggregate rainfall for the 3 preceding months was greater than this year. In other words, the rainfall for the crop-growing season was the smallest since State-wide records were begun some 25 years ago. Crops growing and maturing during July were materially curtailed, and garden truck and early corn amounted to but little. Tobacco was seriously set back, and unless favorable conditions should follow soon after the close of July both tobacco and corn promise to be practically failures. Small streams had generally dried up in the portions of States more seriously affected, and stock water was scarce, and farmers were hauling water for domestic purposes.

MISCELLANEOUS.

The following notes on damage from severe storms, lightning, and wind are reported:

July 1.—A man and two horses were killed in Fayette County, Ohio, and a valuable barn containing much hay and machinery was burned in Delaware County, Ohio, by lightning.

July 4.—One man was killed and three severely injured by lightning in Coshocton County, Ohio.

July 8.—Three barns were destroyed and a valuable colt killed by lightning in Shelby County, Ohio; also thunderstorms and wind did great damage to buildings, trees, and crops, telephone wires and electric car service in Vermilion County, Ill. A barn at Chrisman and two barns at Paris, Edgar County, Ill., were struck by lightning and burned.

July 9.—A valuable barn with its contents was destroyed and several residences were damaged in Clinton County, Ohio, a young man was killed in Fayette County, Ohio, and a man was killed by the falling timbers of a barn which was blown over in Guernsey County, Ohio; also three barns were destroyed in Knox County, Ohio.

Serious damage was done by hail of large size in several counties in Ohio. In Harrison County some were picked up that measured 7 inches in circumference, and in Guernsey County they were as large as goose eggs. One of the most destructive hailstorms occurred in the south end of Columbus, Ohio, and the country just to the south of the city. In some parts of the area covered by the storm the hailstones ranged in size from hickory nuts to nearly 3 inches in diameter. One stone that struck and broke the arm of a man who was endeavoring to control his team of horses measured 2⅞ inches in diameter 15 minutes after it was picked up. At the city sewage disposal plant a stone was found that weighed 2.6 ounces. Garden truck in that vicinity was almost completely destroyed, and fruit and shade trees were badly damaged. There are a large number of greenhouses in that part of the city, and they suffered severely. About 80 per cent of the glass in the seven large greenhouses of the Columbus Floral Co. was broken and the tender flowering plants inside nearly destroyed, the loss of this company being estimated at $20,000. The total loss in that vicinity is placed at $150,000.

July 10.—At Albion, Ill., three barns were struck by lightning and burned. A destructive storm occurred in Ballard County, Ky. Many stock barns, outbuildings, and several residences were struck by lightning. Losses in stock, buildings, fences, and crops were heavy. Also a Mrs. Watson was killed by lightning. A severe electric storm caused considerable damage near Rockport, Ind., several barns being struck by lightning and destroyed. One of the barns contained a mule, 15 tons of hay, and a crop of unthrashed wheat, all of which were destroyed.

July 13, 14, 15.—Severe storms occurred in Ohio, attended by excessive rains, lightning, and hail. (See special article by J. M. Kirk, local forecaster, Columbus, Ohio, herein.)

July 17.—There were three deaths and two prostrations in Louisville, Ky., from heat, and much suffering in the congested districts.

July 18.—There were 13 deaths and 10 prostrations in Louisville, Ky., on account of heat, the temperature reaching 104°, the third highest on record.

July 19.—High winds and heavy rains caused considerable damage in many localities in West Virginia. Also there were severe storms in northern and eastern Kentucky. The wind reached a velocity of 60 miles per hour at Louisville, attended by heavy rain, hail, and unusual darkness. Trees were blown down and interurban service interrupted. A horse was killed and two negroes injured by lightning. Damage amounting to about $75,000 was done in and about Paris, Ky., and about $50,000 at Frankfort, Franklin County, Ky. In the latter section many farm houses, silos, outbuildings, and fences were wrecked. A tornadic funnel-shaped cloud was observed by several.

July 20.—A destructive hailstorm swept across Ashland and southeastern Wayne Counties, Ohio. The width of the hailstorm was about three-fourths of a mile. A large amount of damage was done to crops, in some instances farmers losing entire crops of corn and oats. Two persons were killed in a church by lightning near Highlands, N. C.

July 22.—A large barn near Fayetteville, Tenn., was struck by lightning and totally destroyed, together with three head of stock and a quantity of grain and hay.

July 27.—A large barn containing 20 tons of hay and a large amount of farming implements was destroyed by lightning in Trumbull County, Ohio.

July 29.—A man was killed and two other persons severely injured by lightning in Knox County, Ohio, and a barn and contents were destroyed in Trumbull County, Ohio.

July 30.—Lloyd Whaley was killed by lightning in Ritchie County, W. Va. Four deaths and five prostrations from heat occurred in Louisville, Ky.

July 31.—Several violent storms swept through central Indiana, and a large amount of damage was done to buildings and shade trees in Indianapolis. Plate-glass windows were blown out in the business section of the city and business houses were unroofed. Street-car service and telegraph and telephone communication were interrupted. At Red Hill, near Livingstone, Ky., lightning struck four men who were sitting on a porch. One was killed outright and two others were seriously injured. A wind storm passed over the fair grounds at Nashville, causing damage of at least $20,000 to buildings and grounds.

RIVERS.

Streams throughout Pennsylvania and West Virginia, the headwaters of the Ohio, were at normal stages during the month and the water supply was ample for all needs. There was a marked rise in the Little Kanawha in West Virginia, caused by the heavy rains of the 10th. Floods were caused by the excessive rains of the 13th–15th in the streams of southeastern Ohio, especially in the Muskingum drainage area. These rains and freshets caused a sharp rise in the Ohio River and good stages all the way down. In some of the reaches below the mouth of the Muskingum the Ohio overflowed the bottoms and damaged crops. The Cumberland River was too low for navigation, except where made navigable by artificial means. The Tennessee River in its entire length was at low stages all the month and navigation was suspended after the 9th.

DESTRUCTIVE STORMS OF JULY 13-14 IN OHIO.

[J. M. Kirk, Local Forecaster.]

During the afternoon and night of July 13 unusually severe storms passed across middle and eastern Ohio, which destroyed property to the extent of many thousands of dollars. A brisk to high wind had prevailed during the most of the day, and this, in some of the northern and middle-eastern counties, had already done considerable damage. During the afternoon light showers occurred in some localities, and in the late afternoon hail fell in about two-thirds of the northern and several of the middle-eastern counties. In parts of Ashland, Coshocton, Huron, Medina, Richland, Stark, and Wayne Counties the hailstones were unusually large and caused a great amount of damage to growing crops and, in some instances, to buildings. At Burbank, Wayne County, 32 panes of glass were broken in one house and 30 in another. At Lodi, Medina County, the stones were as large as hens' eggs, and a large greenhouse there lost every glass.

The lightning during the storm was unusually severe. Some observers reported the thunder and lightning to have been almost continuous throughout the night. A large number of buildings were struck and many barns destroyed, together with their contents, which in most cases included the season's crop of hay. In the 5 counties of Crawford, Hardin, Huron, Marion, and Wyandot 23 barns were reported to have been destroyed, while in Knox County alone 6 barns were destroyed and several other buildings damaged. The telephone and telegraph service was almost completely paralyzed for a short time in that part of the State.

The most noteworthy feature of this storm period was the almost unprecedented rainfall that occurred in some of the southeastern counties. The following table gives

TABLE 1.—*Climatological data for July, 1913. District No. 3, Ohio 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.		
New York.																				
Allegany	Cattaraugus	1,441	7	67.5	.....	94	1	41	22	41	4.24	.....	1.22	0	10	11	13	7	nw.	C. E. Whitney.
Bolivar	Allegany	1,800	19	66.4	− 0.4	94	1	38	22	44	3.08	− 1.74	0.75	0	13	10	13	8	nw.	C. F. Hoffman.
Olean	Cattaraugus	1,402	5	.....	.....	.....	.....	.....	.....	.....	3.33	.....	0.98	0	12	23	5	3	w.	John W. Alles.
Pennsylvania.																				
Aleppo	Green	1,135	12	71.8	− 0.2	96	1	44	7	37	4.32	− 0.77	1.53	0	9	15	13	3	sw.	J. S. Hinerman.
Baldwin	Butler	1,404	7	68.9[a]	− 0.6	91	1	45[a]	11	36[a]	4.88	+ 0.84	1.06	0	13	14[a]	12[a]	4[a]	w.	S. H. Templeton.
Beaver Dam	Beaver	674	19	.....	.....	.....	.....	.....	.....	.....	4.28	+ 0.26	1.22	0	12	13	3	15	sw.	U. S. Engineer.
Brookville	Jefferson	1,173	22	69.5	.....	95	30†	40	22	42	4.36	− 0.63	1.86	0	13	.....	.....	.....	w.	H. C. Bartholomew.
California	Washington	770	.....	73.8	.....	97	1	44	27	47	2.50	.....	0.75	0	12	13	10	8	w.	Prof. B. U. P. Cobaugh.
Clarion	Clarion	1,078	28	.....	.....	.....	.....	.....	.....	.....	4.54	− 1.03	2.50	0	8	17	2	12	w.	P. O. Miller.
Claysville	Washington	1,127	9	73.0	.....	99	1	45	7	37	8.00	.....	2.15	0	15	13	17	1	w.	E. T. Buchanan.
Confluence	Somerset	1,352	29	.....	.....	.....	.....	.....	.....	.....	4.24	− 0.97	1.10	0	10	10	6	15	.....	Grant Pyle.
Franklin	Venango	955	38	70.4	− 0.8	95	1	46	22	36	5.26	+ 0.60	1.85	0	15	20	4	7	w.	F. E. Dixon.
Freeport	Armstrong	772	40	.....	.....	.....	.....	.....	.....	.....	3.13	− 1.38	1.04	0	16	15	3	13	.....	Mrs. Anna R. Burtner.
Greensboro	Green	768	24	.....	.....	.....	.....	.....	.....	.....	6.68	+ 1.50	1.50	0	15	15	4	12	sw.	James G. Cramer.
Greensburg	Westmoreland	1,100	6	71.2	.....	92	1†	49	8†	32	6.22	.....	1.44	0	16	11	16	4	sw.	Westmoreland Water Co.
Greenville	Mercer	950	17	70.8	+ 0.3	97	1	42	22	42	3.65	− 1.49	0.67	0	14	18	12	1	nw.	A. M. Orr.
Indiana	Indiana	1,350	16	72.0	+ 1.1	96	31	44	8	41	4.52	+ 0.02	1.20	0	14	16	10	5	sw.	R. W. Wehrle.
Johnstown	Cambria	1,184	25	73.9	+ 0.6	97	1	47	8	34	3.80	− 0.87	0.86	0	14	12	16	3	s.	E. C. Lorentz.
Lock No. 4	Washington	718	27	.....	.....	.....	.....	.....	.....	.....	3.80	− 0.92	0.68	0	17	15	6	10	s.	R. T. McGowan.
Lycippus	Westmoreland	1,420	21	70.0	− 2.5	92	4	47	1	37	5.94	+ 0.86	2.11	0	11	.....	.....	.....	.....	Murray Forbes.
Mosgrove	Armstrong	775	2	.....	.....	.....	.....	.....	.....	.....	4.93	.....	1.73	0	14	15	0	16	sw.	C. J. Moore.
Pittsburgh	Allegheny	842	43	73.6	− 1.0	93	1	54	11	29	4.86	+ 0.44	1.14	0	12	14	10	7	sw.	U. S. Weather Bureau.
Ridgway	Elk	.....	0	68.7	.....	94	1	40	22	43	6.36	.....	3.25	0	11	.....	.....	.....	.....	F. J. Eagen.
Saegerstown	Crawford	1,116	22	67.7	− 1.3	92	1	42	22	38	5.64	+ 1.11	2.18	0	11	7	16	8	nw.	J. G. Apple.
Sharon	Mercer	940	2	71.0	.....	96	1	46	11†	36	3.95	.....	1.15	0	12	13	5	13	sw.	Norman S. Powell.
Somerset	Somerset	2,250	57	68.9	+ 0.3	95	1	41	8†	45	4.05	− 0.86	0.95	0	14	6	16	9	.....	W. M. Schrock.
Uniontown	Fayette	999	25	74.0	+ 0.9	95	1	50	7	30	6.55	+ 0.88	1.44	0	12	1	23	7	sw.	Wm. Hunt.
Warren	Warren	1,137	24	69.8	+ 0.4	97	1	41	23	43	3.83	− 1.56	1.50	0	10	20	0	11	sw.	Anna Simpson.
Maryland.																				
Deer Park	Garrett	2,457	20	66.4	− 0.4	91	1	38	8	40	6.80	+ 1.80	1.03	0	12	.....	.....	.....	.....	S. P. Specht.
Grantsville	.....do	2,351	20	68.6	+ 0.3	92	1	43	8	39	4.54	− 0.37	1.05	0	12	10	14	7	.....	J. S. Miller.
Oakland	.....do	2,461	14	68.0[e]	+ 1.4	90[b]	1†	40[e]	8	36[e]	4.92	+ 0.51	1.10	0	14	13[b]	13[b]	3[b]	w.	R. E. Weber.
West Virginia.																				
Bancroft	Putnam	574	10	.....	.....	.....	.....	54	8	.....	2.72	− 2.00	0.75	0	7	17	2	12	ne.	R. E. Dent.
Beckley	Raleigh	2,440	14	71.9[p]	+ 0.5	91	1†	.....	.....	31[p]	5.80	+ 1.95	1.50	0	8	17	6	8	w.	John A. Ewart.
Bens Run	Pleasants	622	12	75.2	0	95	1	53	8	30	7.10	+ 2.47	2.99	0	13	18	11	2	.....	J. D. Riggs.
Bluefield	Mercer	2,563	19	73.6	+ 1.9	91	1†	51	8	28	5.40	+ 1.10	1.10	0	13	14	12	5	.....	Norfolk & Western.
Buckhannon	Upshur	1,472	23	72.4	− 0.1	94	1	45	8	37	6.93	+ 1.51	1.55	0	12	21	9	1	.....	H. A. Darnall.
Cairo	Ritchie	667	11	74.8	+ 0.6	97	1	50	7	40	7.77	+ 3.48	2.15	0	15	3	22	6	nw.	Van A. Zevely.
Central Station	Doddridge	900	11	73.9	+ 0.9	96	1	49	7†	36	7.98	+ 3.68	2.71	0	15	8	21	2	w.	G. W. Sherwood.
Charleston	Kanawha	598	28	78.8	+ 2.6	95	1†	56	8	30	6.51	+ 2.54	1.95	0	11	14	13	4	w.	R. C. Hewes.
Creston	Wirt	612	12	74.7	+ 0.1	95	1	51	7†	34	3.85	+ 0.02	1.19	0	15	14	11	6	sw.	J. M. Reed.
Cuba	Jackson	544	13	75.6	+ 2.6	97	1	49	7	36	6.81	+ 2.66	2.38	0	10	6	25	0	w.	C. T. Perry.
Doane	Wayne	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. A. Smith.
Elkhorn	McDowell	1,933	21	73.2	+ 1.1	93	30	49	8	32	5.70	+ 0.27	1.55	0	14	19	8	4	sw.	J. J. Lincoln.
Elkins	Randolph	1,940	14	71.4	+ 0.9	94	1	46	8	36	8.67	+ 4.03	2.63	0	18	7	16	8	w.	U. S. Weather Bureau.
Fairmont	Marion	879	21	75.2	.....	100	1	50	7†	36	6.82	+ 1.96	1.55	0	16	27	0	4	w.	F. P. Hall.
Glenville	Gilmer	738	24	77.1	+ 2.3	100	1†	50	7	39	10.07	+ 4.67	4.48	0	10	24	7	0	w.	Joe N. Craddock.
Grafton	Taylor	985	21	75.0	+ 2.1	99	31	49	7†	39	8.25	+ 3.21	1.70	0	15	17	12	2	w.	Joseph Gerken.
Green Sulphur Springs	Summers	1,600	18	73.4	+ 0.9	95	1	45	8	40	3.64	+ 0.02	0.79	0	13	10	14	7	w.	Arthur George.
Hinton	.....do	1,400	24	76.4	+ 2.1	99	1	52	8	36	4.08	+ 0.52	1.28	0	15	8	4	19	sw.	J. B. Lavender, C. E.
Holcomb	Nicholas	.....	1	71.0[a]	.....	93[a]	1	43	8	36[a]	8.42	.....	2.04	0	10	17	4	10	.....	R. E. Ferguson.
Huntington	Cabell	510	18	78.8	+ 2.3	98	1†	53	8	36	2.80	− 1.73	0.74	0	10	23	3	5	w.	L. H. Hutchinson.
Lewisburg	Greenbrier	2,200	13	72.4	+ 1.0	93	30	46	8	33	6.47	+ 2.62	3.02	0	10	31	0	0	sw.	Geo. T. Argabrite.
Logan	Logan	665	11	80.0	+ 4.8	98	30	60	7†	30	3.87	− 2.36	1.30	0	11	22	9	0	w.	Dr. J. E. McDonald.
Lost Creek	Harrison	1,033	17	71.5	− 1.1	94	1	44	8	37	6.24	+ 1.34	2.42	0	12	20	6	5	w.	Allen Smith.
Madison	Boone	704	8	77.5[a]	.....	100	1†	53[a]	7†	39[a]	2.14	− 1.61	1.25	0	6	4	27	0	.....	S. E. Bradley.
Mannington	Marion	967	11	72.2	− 0.6	94	1	47	7	32	5.26	+ 0.36	2.05	0	12	20	8	3	w.	Jas. A. Morgan.
Marlinton	Pocahontas	2,169	17	69.2	− 0.2	90	1	42	8	34	4.70	− 0.35	1.10	0	9	12	18	1	.....	C. J. McCarty.
Morgantown	Monongalia	1,250	39	74.4[c]	+ 0.8	95[c]	1	52[b]	8†	33[c]	5.80	+ 0.47	1.68	0	13	16[b]	11[b]	2[b]	w.	Horace Atwood.
Moundsville	Marshall	640	11	75.6	+ 1.5	99	1†	50	7†	36	6.05	+ 1.36	1.72	0	11	16	11	4	w.	M. L. Brown.
New Cumberland	Hancock	987	14	73.0	− 0.2	91	1	47	11†	34	6.30	+ 1.77	1.30	0	11	12	6	13	s.	Frank S. Evans.
New Martinsville	Wetzel	634	20	75.2	− 0.4	97	1	51	7	33	6.72	+ 1.80	3.15	0	10	16	12	3	s.	Wm. Ankrom.
Nuttallburg[i]	Fayette	2,252	21	68.4	.....	91	31	46	8	29	5.86	+ 1.59	1.40	0	8	11[h]	11[h]	1[h]	.....	Miss Donna Tully.
Parkersburg	Wood	638	25	77.0	+ 1.4	99	1	57	22	29	4.64	− 0.02	1.95	0	12	19	8	4	s.	U. S. Weather Bureau.
Parsons	Tucker	1,662	14	70.8	+ 0.3	92	1†	45	8	33	9.95	+ 4.98	1.63	0	13	12	17	2	.....	J. W. Swisher.
Philippi	Barbour	1,192	21	74.1	+ 1.4	95	1†	46	8	36	7.03	+ 1.84	1.31	0	14	16	11	4	w.	J. D. Dadisman.
Pickens	Randolph	2,785	23	69.1[a]	+ 0.1	87[a]	1	46	9[a]	34[a]	7.08	+ 0.69	1.49	0	11	20[a]	6[a]	4[a]	w.	Dr. J. L. Cunningham.
Point Pleasant	Mason	553	23	78.6	+ 2.1	103	30	51	7†	43	2.66	− 1.52	1.04	0	9	15	10	6	se.	W. D. Holmes.
Powellton[b]	Fayette	904	16	75.8	+ 1.7	96	30	52	8	31	5.74	+ 1.17	1.56	0	11	10	10	1	.....	Morris Hansford.
Princeton	Mercer	2,469	13	68.7	+ 0.7	84	1	48	8	28	5.60	− 0.55	1.75	0	12	8	22	1	w.	H. Scott.
Robertsburg	Putnam	574	13	77.6	+ 1.8	99	30†	50	8	40	2.71	− 1.45	0.82	0	8	22	2	7	.....	E. P. Turley.
Ryan	Roane	639	10	76.4	+ 3.6	97	3†	48	8	36	9.06	+ 4.54	2.10	0	13	12	15	4	.....	Wm. E. Ryan.
Smithfield	Wetzel	919	9	73.9	.....	98	30	43	7	47	7.16	+ 1.69	2.07	0	14	20	2	9	w.	G. M. Whisler.
Spencer	Roane	710	15	74.3	.....	97	1†	50	8	36	6.70	+ 2.30	2.74	0	5	10	17	4	.....	A. M. McKown.
Sutton[a]	Braxton	839	10	78.8	.....	98	30	59	8	28	5.77	+ 1.04	1.87	0	7	14	10	6	.....	Ben Gillespie.
Terra Alta	Preston	3,207	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. B. Elliott.
Union	Monroe	.....	9	73.8[f]	+ 3.0	93	1†	54[f]	22†	32[f]	2.97	− 1.29	0.83	0	6	.....	.....	.....	.....	Shelton Clark.
Valley Fork	Clay	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Blanche Pierson.
Webster Springs	Webster	1,500	10	72.8	.....	95	1	46	8	36	5.69	.....	1.57	0	11	11	18	2	w.	D. H. Hamrick.
Wellsburg	Brooke	1,225	19	72.4[i]	+ 0.6	93[e]	1	52[i]	7†	26[i]	9.67	+ 5.15	2.04	0	13	7[e]	17[e]	2[e]	w.	C. P. Waugh.
Weston	Lewis	824	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss C. M. Davis.
Wheeling	Ohio	645	29	74.5	.....	96	30	51	7	35	5.99	+ 1.29	1.30	0	11	19	8	4	s.	Miss M. B. Forsyth.
Williamson	Mingo	660	12	76.6	+ 0.7	96	18	51	7	35	5.88	+ 1.43	1.68	0	14	15	13	3	w.	J. F. Keyser.

TABLE 1.—*Climatological data for July, 1913. District No. 3*—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.
Ohio.																				
Amesville	Athens	630	9	77.1[a]	.....	100[a]	1†	46[a]	7	42[a]	7.62	.....	1.95	0	11	15	15	1	.....	F. W. Gibson.
Ashland	Ashland	1,079	13	73.8	+ 1.6	97	1	44	11	41	5.27	+ 1.76	2.65	0	13	12	4	15	w.	S. W. Brandt.
Bangorville	Richland	1,380	26	73.6	+ 1.1	96	1	47	7	34	6.29	+ 2.35	1.82	0	13	8	23	0	sw.	S. M. Painter.
Bellefontaine	Logan	1,276	34	73.8	− 0.1	96	30	45	7	36	3.56	− 0.82	0.95	0	11	20	2	9	se.	Cory L. Lane.
Bladensburg	Knox	1,100	20	71.4[a]	− 0.1	92[a]	1	42[a]	7	41[a]	9.08	+ 4.90	3.35	0	9	2	29	0	w.	Miss Mary Elliott.
Brilliant	Jefferson	700	....	71.6	.....	96	31	42	7	39	9.07	.....	1.75	0	10	23	3	5	e.	Mrs. Mary K. Pennell.
Cadiz	Harrison	1,245	9	74.0	.....	98	1	47	7	32	6.55	.....	1.95	0	13	16	12	3	.....	Harry B. McConnell.
Cambridge	Guernsey	803	21	72.4	0	94	1	47	7	34	9.33	+ 4.75	4.46	0	13	10	21	0	.....	Samuel Mehaffey.
Camp Dennison	Hamilton	570	20	77.8	+ 1.5	102	30	51	7	38	3.53	− 0.20	1.25	0	11	18	13	0	sw.	Henry F. Pinkvoss.
Canal Dover	Tuscarawas	884	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Francis L. Bixler.
Canton	Stark	1,089	30	73.0	+ 0.8	97	1	44	11	38	3.08	− 1.72	0.79	0	12	18	6	7	sw.	Carl H. Meyer.
Cardington	Morrow	1,010	18	74.0[a]	+ 1.7	95[a]	1	48[a]	7	33[a]	4.65	+ 0.69	1.31	0	7	.....	.....	.....	.....	J. W. Shaw.
Chillicothe	Ross	630	10	.....	.....	.....	.....	.....	.....	.....	4.07	.....	2.37	0	6	.....	.....	.....	.....	Marion Mackey.
Cincinnati	Hamilton	628	42	80.0	+ 2.3	101	30	60	25	27	2.37	− 1.17	0.66	0	11	10	17	4	w.	U. S. Weather Bureau.
Circleville	Pickaway	694	25	77.4	+ 2.1	102	30	50	7†	42	3.27	− 0.77	1.09	0	13	20	6	5	s.	Dr. H. R. Clarke.
Clarington	Monroe	600	10	72.8	− 0.8	98	31	47	7	35	7.21	+ 2.25	3.50	0	11	16	11	4	sw.	Col. S. Tschappat.
Columbus	Franklin	918	35	76.5	+ 1.2	97	30	54	7	30	2.88	− 0.77	0.70	0	10	17	13	1	sw.	U. S. Weather Bureau.
Coshocton	Coshocton	770	4	.....	.....	.....	.....	.....	.....	.....	7.45	.....	3.15	0	12	.....	.....	.....	.....	Mrs. Ada Jeffries.
Dayton (1)	Montgomery	899	2	76.6	+ 0.6	99	30	55	25	29	2.90	− 0.38	1.00	0	11	16	13	2	sw.	U. S. Weather Bureau.
Dayton (2)	do	790	32	77.2	+ 1.2	103	30	49	7	36	3.72	+ 0.40	1.42	0	7	.....	.....	.....	.....	Mrs. Edith E. L. Boyer.
Delaware	Delaware	896	16	75.4	+ 1.6	98	1	47	7	40	5.75	+ 1.39	2.62	0	11	10	17	4	nw.	DeWitt H. Leas.
Demos	Belmont	1,325	25	73.1	+ 0.2	96	1	50	7	29	6.37	+ 1.78	1.83	0	16	19	10	2	s.	J. T. Dysart.
Dennison	Tuscarawas	846	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Water Supply Co.
Frankfort	Ross	745	21	76.8	+ 2.1	100	30	50	7	37	5.18	+ 2.11	1.50	0	9	21	8	2	s.	O. A. Cory.
Gallipolis	Gallia	580	1	.....	.....	.....	.....	.....	.....	.....	1.85	.....	0.65	0	10	.....	.....	.....	sw.	Samuel F. Neal.
Garrettsville	Portage	1,005	29	69.4	− 0.2	95	1†	40	11	41	3.26	− 0.66	0.73	0	15	12	17	2	nw.	S. M. Luther.
Granville	Licking	960	31	74.3	+ 1.0	96	1†	47	7	38	6.07	+ 2.22	2.50	0	10	22	0	9	.....	Dr. L. E. Davis.
Gratiot	do	1,000	24	73.6	+ 0.8	93	1	49	7	32	10.56	+ 5.80	3.98	0	10	16	13	2	w.	W. B. Longstreth.
Green	Adams	500	20	80.8[a]	+ 5.1	98[a]	17†	56[a]	8†	34	5.34	+ 0.69	1.90	0	6	19	10	2	w.	W. F. Kenyon.
Green Hill	Columbiana	1,135	20	69.9	− 0.5	95	1	41	11	38	5.90	+ 1.54	1.82	0	15	10	21	0	sw.	Jos. E. Bentley.
Greenville	Darke	1,060	27	75.4	+ 1.9	96	31	52	7	28	3.17	+ 0.43	0.91	0	9	20	5	6	n.	Geo. A. Katzenberger.
Hamilton	Butler	601	1	77.7	.....	103	30	51	7	39	4.13	.....	1.10	0	10	21	8	2	.....	Earl W. Stout.
Haydenville	Hocking	700	1	76.0[1]	.....	97[1]	30	50[1]	26	36[1]	3.73	.....	1.96	0	4	.....	.....	.....	.....	H. W. Stiers.
Hillsboro	Highland	1,063	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Carey H. Roush.
Ironton	Lawrence	575	30	79.2	+ 4.4	100	30	51	8	41	4.22	− 0.12	2.30	0	9	22	8	1	sw.	James Bull.
Kenton	Hardin	1,015	21	74.6	+ 1.2	95	1†	44	7	41	3.52	− 0.03	2.40	0	6	21	7	3	nw.	Frank B. Rarey.
Killbuck	Holmes	1,087	20	73.0	+ 0.4	95	1	48	7	34	7.42	+ 2.90	3.50	0	14	28	1	2	ne.	John A. Schonauer.
King's Mills	Warren	640	1	.....	.....	.....	.....	.....	.....	.....	3.67	.....	0.96	0	12	22	4	5	sw.	Frank M. See.
Lancaster	Fairfield	898	18	75.0	+ 1.8	97	1†	49	7	35	3.93	− 0.47	1.32	0	8	23	6	2	sw.	R. L. Renshaw.
McConnellsville	Morgan	710	29	74.3	+ 0.6	96	1	49	7	31	10.27	+ 5.92	3.24	0	14	12	12	7	sw.	C. H. Morris.
Marietta	Washington	627	93	76.2	+ 2.3	98	1	52	7	34	9.35	+ 4.72	4.31	0	15	10	15	6	n.	Prof. T. D. Biscoe.
Marion	Marion	980	35	75.0	+ 1.1	97	1†	47	7	40	4.94	+ 0.58	1.80	0	9	9	20	2	nw.	Dr. E. H. Raffensperger.
Millfordton	Knox	1,200	21	73.6	+ 1.3	98	31	45	7	37	8.20	+ 4.14	2.90	0	11	19	10	2	sw.	L. H. Burgess.
Milligan	Perry	875	20	73.8	0	100	1	44	7	42	10.25	+ 6.23	3.56	0	11	4	27	0	sw.	V. C. Eveland.
Millport	Columbiana	1,145	20	71.0	− 0.4	96	1	43	11	37	7.97	+ 3.69	2.59	0	14	7	23	1	sw.	G. F. Copeland.
Nellie	Coshocton	850	13	72.4	− 0.8	97	1†	46	7†	40	4.48	+ 0.54	1.47	0	10	17	14	0	w.	Ethel L. Gammertsfelder.
New Berlin	Stark	1,100	20	72.0	− 0.8	97	31	41	11	41	4.14	− 0.06	1.00	0	12	18	12	1	n.	Clayton Holl.
New Waterford	Columbiana	1,053	18	72.4	+ 0.8	98	3†	45	8†	44	5.17	+ 0.54	1.00	0	11	14	14	3	sw.	Sam C. Scott.
O. S. University	Franklin	757	30	76.3	+ 2.8	97	1†	49	7	34	3.05	− 0.21	0.63	0	10	7	13	11	s.	Prof. H. C. Lord.
Oregonia	Warren	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. H. Stephens.
Pataskala	Licking	1,015	21	74.6	+ 1.0	97	1	45	7	39	4.35	+ 0.29	1.47	0	12	9	22	0	w.	J. N. Ridenour.
Peebles	Adams	645	2	75.6	.....	100	30†	46	7	42	5.80	.....	1.97	0	11	19	9	3	nw.	Ora O. Smalley.
Philo	Muskingum	1,018	18	75.0	+ 0.4	97	1	52	7†	31	11.00	+ 6.36	6.48	0	13	11	18	2	sw.	L. C. Burckholter.
Piqua	Miami	847	3	.....	.....	.....	.....	.....	.....	.....	4.15	.....	1.03	0	9	19	5	7	sw.	Harry L. Roberts.
Plattsburg	Clark	1,130	20	74.8	+ 1.1	103	29	47	7	34	3.28	− 0.72	0.76	0	7	15	16	0	n.	F. E. Stewart.
Portsmouth	Scioto	527	82	78.9	+ 2.2	100	30	51	11	38	4.08	+ 0.05	0.87	0	14	7	2	22	sw.	Dr. H. A. Schirrmann.
Prospect	Marion	909	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Nell J. Gast.
Sidney	Shelby	985	30	75.6[a]	+ 0.6	100	31	50[a]	25	39[a]	3.90	+ 0.26	1.01	0	12	19	7	5	sw.	Hamline B. Blake.
Somerset	Perry	1,080	14	75.9	+ 0.9	99	30	52	7†	34	5.59	+ 1.50	2.30	0	13	23	4	4	n.	Miss M. W. C. Sheridan.
Springfield	Clark	980	19	.....	.....	.....	.....	.....	.....	.....	4.55	+ 0.03	1.01	0	12	10	20	1	s.	W. A. Webster.
Summerfield	Noble	1,187	7	73.3	.....	96	1	47	7	38	11.04	.....	4.51	0	14	8	21	2	sw.	H. R. McClintock.
Syracuse	Meigs	583	2	77.8	.....	102	30	50	7	43	7.33	.....	3.65	0	12	17	13	1	.....	Irving R. Karr.
Thurman	Gallia	696	20	77.7	+ 2.0	100	30	50	8†	39	1.71	− 2.03	0.60	0	4	9	18	4	.....	D. D. Thomas.
Toboso	Licking	.....	.....	74.8[a]	.....	98[a]	1	48	7	37[a]	11.46	.....	7.55	0	10	20	10	1	sw.	H. A. Albyn.
Urbana	Champaign	1,031	45	75.6	+ 2.2	101	30	48	7	38	3.62	− 0.79	0.91	0	11	14	17	0	nw.	Prof. J. H. Williams.
Warren	Trumbull	900	24	72.2	− 0.2	96	1	45	11	38	3.51	− 0.86	0.96	0	11	13	11	7	sw.	M. D. McCorkle.
Waverly	Pike	590	30	76.2	+ 0.6	100	30	51	7†	36	2.90	− 0.97	1.21	0	10	14	5	12	s.	Dr. Peru Hutt.
Waynesville	Warren	700	28	75.5	+ 1.6	99	30	52	7	30	2.86	+ 0.37	0.78	0	8	15	15	1	sw.	Charles Michener.
Wooster	Wayne	1,030	34	72.4	+ 0.9	95	1	42	11	40	4.07	− 0.43	0.84	0	16	19	11	1	sw.	Experiment Station.
Youngstown	Mahoning	846	20	.....	.....	.....	.....	.....	.....	.....	4.11	+ 0.50	1.08	0	12	22	2	7	sw.	J. M. Dickey.
Zanesville	Muskingum	700	26	.....	.....	.....	.....	.....	.....	.....	13.12	+ 8.97	6.70	0	13	21	1	9	s.	S. G. Sprague.
Indiana.																				
Anderson	Madison	892	18	75.4	+ 1.1	97	31	50	25	32	5.89	+ 2.34	2.61	0	10	21	9	1	sw.	W. H. Stanton.
Attica	Fountain	522	3	.....	.....	.....	.....	.....	.....	.....	2.58	.....	0.79	0	11	.....	.....	.....	.....	J. Frederic Connell.
Bloomington	Monroe	744	18	79.8	+ 3.5	108	30	52	25	38	3.13	− 0.72	1.07	0	9	18	9	4	sw.	Earl E. Ramsey.
Bluffton	Wells	835	18	76.4	+ 2.5	97	31	44	23	38	8.83	+ 5.29	1.80	0	10	17	8	6	sw.	George R. Rinehart.
Butlerville	Jennings	767	28	79.8	+ 3.9	103	30†	53	25	33	2.55	− 1.03	0.64	0	8	25	6	0	.....	C. F. Hole.
Cambridge City	Wayne	941	22	75.1	+ 1.5	101	30	48	25	38	6.71	+ 3.11	1.65	0	13	25	0	6	s.	Heze Barnett.
Columbus	Bartholomew	632	30	79.6	+ 4.2	106	30	50	25	39	1.65	− 1.42	0.88	0	7	22	5	4	sw.	John A. Perry.
Connersville	Fayette	769	31	78.5	+ 4.2	104	31	50	25	39	2.22	− 1.09	0.90	0	4	23	8	0	sw.	H. T. Swindler.
Crawfordsville	Montgomery	780	3	78.3	.....	104	30†	47	25	38	1.40	.....	0.36	0	6	16	15	0	w.	P. H. Burns.
Delphi	Carroll	668	28	77.0	+ 2.7	102	30	47	25	38	3.30	− 0.49	1.81	0	6	18	9	4	.....	L. A. Higginbotham.
Evansville	Vanderburg	386	37	81.4	+ 2.1	102	18	62	21	28	1.35	− 2.46	0.78	0	6	14	15	2	sw.	U. S. Weather Bureau.
Farmersburg	Sullivan	.....	15	79.1	+ 3.1	102	30	51	25	37	2.14	− 2.11	1.45	0	8	4	26	1	sw.	Miss Carrie Yeager.
Farmland	Randolph	1,101	31	75.2	+ 1.8	96	31	52	7	32	4.94	+ 1.53	1.21	0	12	15	5	11	sw.	Ralph E. Lyst.
Forest Reserve	Clark	478	....	79.7	.....	105	17†	55	7†	37	1.55	.....	0.46	0	5	20	10	1	.....	Ambrose Waltman.
French Lick	Orange	506	....	78.8	.....	101	18	52	11	41	1.04	.....	0.35	0	7	21	10	0	sw.	U. S. Weather Bureau.
Greenfield	Hancock	905	10	76.4	.....	98	30	50	26	38	6.14	.....	2.25	0	8	0	29	2	s.	Frank Larrabee.
Greensburg	Decatur	954	17	78.3	+ 2.7	101	30	56	25	32	3.97	− 0.39	1.20	0	10	14	13	4	sw.	C. C. Morrison, M. D.
Hickory Hill	Brown	.....	....	79.8	.....	102	31	56	25†	36	2.51	.....	1.79	0	6	25	6	0	.....	Benjamin W. Douglass.

TABLE 1.—*Climatological data for July, 1913. District No. 3*—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.		
***Indiana*—Continued.**																				
Huntingburg	Dubois	462	5	79.8	.....	104	28†	50	6	48	1.92	.....	0.86	0	5	....	....	....	.....	H. Dufendach.
Huntington	Huntington	741	20	75.8	+ 1.6	97	28†	52	25	35	6.73	+ 3.09	2.30	0	11	17	13	1	sw.	Chas. McGrew.
Indianapolis	Marion	822	41	77.9	+ 1.7	102	30	54	25	29	3.88	— 0.25	1.94	0	12	8	21	2	sw.	U. S. Weather Bureau.
Jeffersonville	Clark	455	31	81.3	+ 3.5	104	18	58	25	30	1.92	— 2.02	0.57	0	7	16	13	2	w.	John C. Loomis.
Judyville	Warren	450	6	77.2	.....	104	30	46	25	44	3.40	.....	1.23	0	8	15	16	0	sw.	W. A. Hill.
Kokomo	Howard	840	21	74.8	+ 0.2	99	30†	45	25	36	3.22	— 0.23	0.85	0	9	17	13	1	sw.	P. H. Robertson.
La Fayette	Tippecanoe	617	34	77.7	+ 3.2	102	30	52	25	33	2.20	— 1.59	0.56	0	9	26	3	2	sw.	Wm. J. Jones, jr.
Logansport	Cass	620	33	77.6	+ 2.2	100	30†	50	25	38	3.72	+ 0.43	1.24	0	7	23	1	7	e.	Chas. Massena.
Madison	Jefferson	460	21	81.2	+ 3.6	105	17	55	25	35	2.49	— 1.10	0.83	0	8	17	12	1	sw.	Miss F. Cooperider.
Marengo	Crawford	363	31	78.2	+ 2.0	104	18	52	21†	39	2.99	— 1.28	1.67	0	6	14	11	6	sw.	J. M. Johnson.
Marion	Grant	814	27	76.4	+ 2.3	100	31	51	25†	35	5.75	+ 2.70	1.53	0	11	18	4	9	s.	James F. Hood.
Mauzy	Rush	980	33	75.4	+ 1.9	99	30†	47	25	35	3.42	+ 0.18	0.83	0	12	8	21	2	sw.	Elwood Kirkwood.
Monticello	White	674	3	.....	.....	....	....	....	....	....	3.38	.....	1.23	0	7	25	5	1	w.	J. E. Loughry.
Moores Hill	Dearborn	980	12	78.7	+ 3.8	101	30†	52	25	34	3.14	+ 0.24	1.07	0	7	21	8	2	sw.	W. S. Bigney.
Mount Vernon	Posey	410	27	81.3	+ 2.7	103	17†	58	21†	35	2.77	— 1.54	1.05	0	5	20	7	4	sw.	Guy B. Green.
Nashville	Brown	.....	....	77.6[a]	.....	99[a]	17	49[a]	25	44[a]	2.14	.....	0.94	0	7	18[a]	7[a]	5[a]	sw.	W. C. Goble.
Paoli	Orange	611	16	78.6	+ 1.9	108	30	48	21	44	1.01	— 2.40	0.32	0	7	17	14	0	sw.	James A. Gillum.
Princeton	Gibson	481	31	81.0	+ 3.9	105	18	56	21†	36	1.53	— 1.86	0.60	0	5	22	8	1	sw.	Albert Mills.
Richmond	Wayne	972	28	74.8	+ 1.0	97	31	48	7	35	4.58	+ 0.91	1.15	0	13	11	14	6	.....	Walter Vossler.
Rochester	Fulton	775	8	74.0	.....	94	30	52	25	28	5.50	.....	2.16	0	8	19[a]	8[a]	3[a]	.....	G. P. Keith.
Rockville	Parke	722	27	79.5	+ 4.8	105	30	50	25	39	0.86	— 2.87	0.35	0	7	9	21	1	sw.	C. A. Lee.
Rome	Perry	370	10	82.5	+ 4.3	108	30	56	21†	42	1.62	— 3.08	1.20	0	5	25	5	1	sw.	Adam Anspach.
Salamonia	Jay	950	8	73.8	.....	98	31	44	7	38	7.12	.....	2.02	0	13	11	19	1	nw.	S. A. Armstrong.
Salem	Washington	717	20	79.1	+ 2.4	104	30	54	22†	39	2.12	— 1.25	0.70	0	10	9	22	0	sw.	Emmet S. Allen.
Scottsburg	Scott	570	19	80.8	+ 3.2	108	30	56	21†	38	1.06	— 2.69	0.35	0	7	17	13	1	sw.	Frank H. Park.
Seymour	Jackson	610	26	81.4	+ 5.3	107	30	52	25	38	1.14	— 2.50	0.51	0	7	15	15	1	sw.	J. Thomas Hays.
Shelbyville	Shelby	768	9	77.5	.....	103	30	46	25	34	4.19	.....	1.90	0	9	10	21	0	sw.	Edgar G. Hodson.
Shoals	Martin	523	6	80.2	.....	104	30†	55	21	37	2.53	.....	0.74	0	8	21	4	6	.....	Rev. G. Halleck Rowe.
Terre Haute	Vigo	498	23	79.8	+ 2.4	101	17	54	25	30	0.91	— 2.45	0.44	0	8	6	22	3	sw.	U. S. Weather Bureau.
Veedersburg	Fountain	612	14	78.0	+ 3.0	105	30	46	25	43	0.82	— 2.65	0.16	0	13	21[a]	8[a]	1[a]	sw.	L. A. Culver, jr.
Vevay	Switzerland	525	32	82.2	+ 5.0	102	30	59	25	28	3.75	— 0.36	1.45	0	7	3	22	6	sw.	Miss Frederica Boerner.
Vincennes	Knox	431	21	81.2	+ 3.1	105	30	58	25	36	3.25	— 1.10	1.00	0	7	22	1	8	sw.	Garrett V. List.
Washington	Daviess	484	17	81.6	+ 4.6	105	30	56	21	37	1.16	— 2.76	0.38	0	5	12	16	3	sw.	Charles C. Feagans.
Whitestown	Boone	529	5	77.2	.....	99	30	55	25	42	3.60	.....	2.25	0	10	2	29	0	sw.	Clyde O. Laughner.
Winona Lake	Kosciusko	865	6	74.8	.....	97	3	47	7	37	4.65	.....	0.88	0	12	4	27	0	sw.	Rev. Albert A. Young.
Worthington	Greene	526	31	81.2[b]	+ 6.0	103[a]	17	54[c]	24	35[c]	2.24	— 1.80	1.17	0	6	5[a]	25[a]	0[a]	sw.	D. W. Solliday.
Illinois.																				
Albion	Edwards	531	22	80.4	+ 2.1	102	18†	55	21	34	3.13	— 0.86	2.40	0	5	21	10	0	w.	B. F. Michels.
Casey	Clark	645	10	.....	.....	....	....	....	....	....	2.99	— 1.31	2.35	0	3	15	13	3	sw.	Wm. Chenoweth.
Charleston	Coles	720	28	79.9	+ 3.5	103	17†	49	25	39	0.75	— 3.13	0.24	0	10	8	22	1	n.	Jacob B. Daisy.
Danville	Vermilion	604	12	79.1	+ 2.5	105	30	50	25	37	1.08	— 1.88	0.35	0	9	24	4	3	sw.	J. J. Lemon.
Equality	Gallatin	421	15	82.7	+ 3.8	106	18	57	22	39	2.35	— 2.26	1.02	0	5	20	11	0	s.	Dr. L. W. Gordon.
Fairfield	Wayne	450	20	81.8	+ 3.9	107	18	54	22	40	1.41	— 2.37	0.40	0	7	11	20	0	s.	Geo. A. Tromly.
Flora	Clay	495	27	81.6	+ 4.8	106	18†	54	21†	43	1.77	— 2.74	0.51	0	7	16	15	0	sw.	W. L. Hanna.
Golconda	Pope	500	35	80.4	+ 1.8	103	18	55	22	40	3.69	— 0.07	1.50	0	6	12	15	4	sw.	Dr. D. Lawrence.
Hoopeston	Vermilion	715	11	77.2	+ 3.1	104	30	48	25	39	2.58	— 1.64	0.74	0	9	26	3	2	.....	S. F. Hoskinson.
McLeansboro	Hamilton	462	30	81.0	+ 3.2	104	30	56	22†	40	1.40	— 1.83	1.06	0	4	....	....	....	.....	T. W. Biggerstaff.
Metropolis	Massac	346	2	.....	.....	....	....	....	....	....	4.86	.....	2.65	0	8	17	8	6	s.	Henry H. Humma.
Montrose	Effingham	599	3	80.0	.....	107	30	51	21†	44	1.34	.....	0.65	0	7	19	12	0	sw.	J. C. Spitler.
Mount Carmel	Wabash	424	12	80.4	+ 3.3	102	18	58	21†	29	1.84	— 1.34	0.60	0	7	....	....	....	.....	Mrs. H. M. Phillips.
New Burnside	Johnson	613	18	79.4	+ 0.7	101	18	51	22	40	5.55	+ 1.06	1.80	0	9	20	2	9	sw.	Thos. H. McCabe.
Newton	Jasper	484	2	.....	.....	....	....	....	....	....	1.62	.....	0.59	0	6	23	8	0	.....	J. M. Hicks.
Olney	Richland	486	26	80.5	+ 2.6	106	18	52	21	43	2.18	— 1.53	0.92	0	5	18	13	0	sw	J. T. Ratcliff.
Palestine	Crawford	500	31	79.4	+ 2.9	102	17†	54	7†	35	3.44	— 0.47	1.39	0	7	18	13	0	sw.	Duane Shaw.
Paris	Edgar	600	20	79.8	+ 3.8	105	30	48	25	43	2.92	— 0.57	2.35	0	5	....	....	....	.....	H. P. Twyman.
Philo	Champaign	700	29	78.6	+ 3.8	105	30	47	25[a]	39[a]	0.38	— 3.33	0.38	0	1	23	7	1	sw.	H. A. Burr.
Rileyville	Saline	400	16	.....	.....	....	....	....	....	....	3.81	+ 0.54	1.29	0	6	7	16	8	s.	W. H. Thornberry.
Shawneetown	Gallatin	307	3	.....	.....	....	....	....	....	....	1.96	.....	0.72	0	7	....	....	....	.....	Mrs. Mary O. Spivey.
Tuscola	Douglas	644	20	.....	.....	....	....	....	....	....	0.73	— 2.92	0.43	0	6	13	17	1	sw.	Joseph O'Neal.
Urbana	Champaign	751	11	78.2	+ 4.1	103	30	51	25	36	1.52	— 2.05	0.76	0	8	9	22	0	sw.	University of Illinois.
Kentucky.																				
Alpha	Clinton	.....	19	78.4	+ 2.2	96	18	57	7	26	4.20	— 1.50	2.20	0	6	18	5	8	s.	W. W. Hicks.
Anchorage	Jefferson	700	12	79.3	+ 3.2	105	18	54	21	37	2.62	— 2.18	0.90	0	5	23	6	2	sw.	C. E. Barrett.
Bardstown	Nelson	637	16	81.9[b]	+ 3.7	106[c]	18†	58	21†	39	0.71	— 4.28	0.27	0	4	23	2	6	s.	T. S. Talbott.
Beattyville	Lee	650	9	78.9	+ 3.4	104	18	54	22	38	2.32	— 3.08	0.78	0	8	8	13	10	e.	G. W. Cann.
Beaver Dam	Ohio	441	10	81.0	+ 3.8	105	18	54	22	42	2.18	— 2.87	0.80	0	6	14	10	7	s.	W. T. Austin.
Berea	Madison	1,070	12	80.0	+ 3.8	104	30	54	21	37	3.76	— 0.79	2.20	0	8	22	9	0	sw.	C. F. Rumold.
Blandville	Ballard	445	32	79.1	+ 1.2	95	1†	61	22	26	6.67	+ 2.78	3.05	0	6	12	13	6	sw.	E. W. Horr.
Bowling Green	Warren	500	24	80.8	+ 1.8	103	18	58	22	37	3.62	— 0.72	1.55	0	5	25	6	0	s.	Mrs. L. G. Causey.
Burnside	Pulaski	773	22	.....	.....	....	....	....	....	....	2.72	— 2.21	1.60	0	5	....	....	....	.....	K. W. Massey.
Calhoun	McLean	397	10	80.8	+ 3.8	102	18†	57	22	33	3.63	— 1.79	1.23	0	4	10	21	0	sw.	W. A. Taylor.
Cattlettsburg	Boyd	544	24	.....	.....	....	....	....	....	....	3.36	— 0.74	0.60	0	13	....	....	....	.....	Mrs. Mertie M. Bruns.
Earlington	Hopkins	370	23	82.6	+ 4.7	105	16	54	22	46	3.45	— 0.85	2.08	0	5	21	6	4	s.	Brick Southworth.
Edmonton	Metcalfe	600	22	79.0	+ 3.3	101	18†	55[a]	22	37	2.10	— 2.89	0.87	0	6	17	12	2	.....	Miss Lee Ray.
Eubank	Pulaski	1,177	19	78.1	+ 3.4	101	18	54	21	33	2.22	— 2.41	0.80	0	5	13	10	8	s.	Mrs. Katie Payne.
Falmouth	Pendleton	530	24	.....	.....	....	....	....	....	....	2.85	— 1.06	0.61	0	11	15	12	4	w.	J. V. Oldham.
Farmers	Rowan	668	6	76.6	.....	101	30†	48	7	35	2.97	.....	0.95	0	8	24	5	2	w.	Lee Craycraft.
Frankfort	Franklin	560	22	80.6	+ 4.2	102	18	58	7†	31	1.77	— 2.20	0.54	0	7	17	8	6	s.	J. H. Roberts.
Franklin	Simpson	691	19	81.0	+ 3.5	99	18	60	22	32	2.78	— 1.33	1.67	0	4	1	30	0	sw.	J. E. Newman.
Greensburg	Green	581	21	81.8	+ 5.4	109	18	51	7	43	0.70	— 3.99	0.58	0	3	10	3	8	sw.	Mrs. Bettie K. H. Alcorn.
High Bridge	Jessamine	762	10	.....	.....	....	....	....	....	....	0.94	— 3.50	0.46	0	6	....	....	....	.....	Miss Lulu Wood.
Hopkinsville	Christian	524	17	81.8	+ 3.3	106	18	58	22	41	2.52	— 1.79	1.50	0	6	16	6	9	se.	W. F. Randle.
Irvington	Breckenridge	.....	15	80.6	+ 3.5	102	18†	58	21†	32	1.49	— 1.94	0.94	0	4	21	8	2	sw.	W. J. Piggott
Leitchfield	Grayson	635	17	80.1	+ 3.7	103	30	58	21†	35	1.07	— 3.45	0.45	0	5	20	11	0	sw.	J. E. Stone.
Lexington	Fayette	989	25	78.2	+ 1.6	99	30	58	21	27	2.43	— 2.01	1.09	0	10	12	16	3	sw.	U. S. Weather Bureau.
Loretto	Marion	681	16	.....	.....	....	....	53	22	....	1.53	— 2.63	1.00	0	5	24	5	2	.....	Loretto Academy.
Louisa	Lawrence	.....	0	.....	.....	....	....	....	....	....	3.93	.....	1.12	0	11	....	....	....	.....	Lucien S. Johnson.
Louisville (1)	Jefferson	525	41	81.2	+ 2.8	104	18	59	25	26	1.48	— 2.26	0.49	0	7	16	12	3	sw.	U. S. Weather Bureau.
Louisville (2)	do	.....	3	80.7	.....	102	17†	56	25	34	1.49	.....	0.53	0	9	15	14	2	s.	W. I. Hunt.

TABLE 1.—*Climatological data for July, 1913. District No. 3*—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.
***Kentucky*—Contd.**																				
Marion	Crittenden		18	80.4	+ 2.6	100	30	62	8†	32	2.24	− 1.69	0.91	0	4	18	10	3	w.	B. C. Paris.
Maysville	Mason	524	16	78.8	+ 1.8	104	30	53	7	40	3.20	− 1.31	0.79	0	14	16	12	3	se.	Mrs. Mary D. Marsh.
Middlesboro	Bell	1,128	18	77.5	+ 3.0	100	18	53	22	36	1.08	− 4.80	0.34	0	7	14	17	0		B. H. Perkins.
Mount Sterling	Montgomery	930	23	79.8	+ 4.2	102	18	58	7	32	2.89	− 2.12	0.58	0	10	21	9	1	s.	James O'Connell.
Owensboro	Daviess	479	16	81.8	+ 4.0	102	18	61	7†	31	1.12	− 3.01	0.55	0	3	14	12	5	s.	Henry S. Berry.
Paducah	McCracken	341	24								5.78	+ 1.84	2.30	0	7					S. A. Fowler.
Pikeville	Pike		5								5.10		1.50	0	13					I. M. Williams.
Richmond	Madison	926	21	80.6	+ 4.0	102	18	59	7†	32	3.07	− 0.80	1.63	0	9	20	5	6	e.	J. W. Crooke.
St. John	Hardin	777	17	80.0	+ 4.7	106	18	55	21	39	0.35	− 3.28	0.25	0	3	21	6	4		Bethlehem Academy.
Scott	Kenton		15	78.8	+ 2.1	102	30	55	7	38	2.62	− 0.99	0.75	0	9	13	17	1	sw.	E. B. Wilson.
Shelby City	Boyle	1,087	19	79.1	+ 4.1	103	30	52	7†	41	1.37	− 2.86	0.47	0	7	22	8	1	sw.	H. F. Ewing.
Shelbyville	Shelby	759	24								1.75	− 2.45	0.60	0	4	26	1	4	s.	C. R. Burnett.
Taylorsville	Spencer	489	11	80.0	+ 4.2	104	18	55	7	35	1.59	− 3.25	0.83	0	7	16	14	1	sw.	E. D. Bourne.
Williamsburg	Whitley	939	17	79.4	+ 2.6	105	18	54	7†	36	1.82	− 4.38	0.45	0	6	22	1	8	e.	N. C. Jones.
Williamstown	Grant	943	11	77.4	+ 2.3	100	30	55	7†	35	3.64	− 0.80	0.60	0	12	16	8	7		Miss Rose Carter.
Tennessee.																				
Ashwood	Maury	725	40	80.7	+ 2.6	100	1†	56	8	44	2.75	− 1.69	2.00	0	4	5	17	9	s.	Mrs. Joseph W. Fleming.
Benton	Polk	880	29	79.6	+ 2.6	102	18	52	8	42	3.42	− 1.24	0.98	0	8	7	17	7	sw.	George L. Williams.
Birds Bridge	Greene		7								3.76		1.48	0	10	21	3	7	w.	David B. George.
Bluff City	Sullivan		18								2.20	− 2.79	0.83	0	8	17	6	8	e.	Walter C. Masengill.
Byrdstown	Pickett	1,026	21	81.4	+ 5.5	100	18	59	8	35	2.93	− 2.62	0.95	0	7	3	20	8	s.	John Lacy.
Carthage	Smith	500	30	81.3	+ 3.9	103	18	60	7	34	2.58	− 1.81	1.38	0	5	18	2	11	se.	Earl C. Pickering.
Cedar Hill	Robertson	625	15	81.6	+ 2.7	103	18†	59	22	38	3.02	− 0.44	1.20	0	6	21	9	1	s.	J. Frank Ruffin.
Celina	Clay	494	10								1.43	− 3.50	0.57	0	6	22	1	8	s.	Charles M. Anderson.
Charleston	Bradley	709	29								2.24	− 3.10	0.60	0	12	20	0	11	s.	John T. Weeks.
Chattanooga	Hamilton	808	34	80.8	+ 3.0	98	18	65	12	26	4.40	+ 0.53	1.54	0	9	7	14	10	sw.	U. S. Weather Bureau.
Clarksville	Montgomery	500	53	81.8	+ 4.5	104	18†	56	22	40	2.43	− 1.52	1.22	0	5	18	3	10	sw.	Prof. James A. Lyon.
Clinton	Anderson	800	29								3.84	− 1.89	2.10	0	8	19	1	11	sw.	H. C. Slover.
Crossville	Cumberland	1,895	1	77.2		96	18	54	7†	37	2.16		0.60	0	10	15	14	2		J. E. Converse.
Dandridge	Jefferson		8								0.90		0.24	0	5	18	5	8	w	James E. Swann.
Decatur	Meigs	850	18	80.7	+ 3.1	104	18†	57	8	39	4.49	− 0.58	1.52	0	10	15	13	3	sw.	J. Worth Lillard.
Dickson	Dickson	800	20	78.7	+ 1.1	100	10	58	8	36	3.17	− 0.85	1.00	0	5	21	9	1	s.	Nathan R. Sugg.
Dover	Stewart	500	17	80.8	+ 2.4	103	18	56	22	38	1.35	− 1.97	0.68	0	3	16	13	2	s.	Asa M. Tippit.
Dunlap	Sequatchie	726	4	80.4		101	18†	56	8†	42	4.65		1.45	0	10	6	23	2		S. Bradford Boyd.
Elizabethton	Carter	1,575	22								7.87	+ 3.19	1.30	0	15					Charles Boyd.
Erasmus	Cumberland	1,850	16	74.0	+ 1.8	97	18	50	7†	41	4.63	− 1.24	1.55	0	8	15	15	1	se.	Mrs. Sarah E. Ashley.
Florence	Rutherford	560	31	80.3	+ 2.8	96	1†	61	8	33	1.87	− 2.40	1.24	0	5	17	12	2	s.	Erastus P. Bell.
Franklin	Williamson	648	25	79.4	+ 2.1	98	30	58	8†	34	2.70	− 1.07	0.80	0	5	16	3	12		Young M. Rizer.
Halls Hill	Rutherford		10								3.47	− 2.31	1.60	0	7	22	0	9	s.	Edward F. Wright.
Hohenwald	Lewis	983	30	79.4	+ 2.9	100	4†	56	8	43	6.69	+ 1.94	3.00	0	10	14	15	2	nw.	Mrs. Mary Lutzelman.
Iron City	Lawrence	600	18	79.2	+ 1.5	101	5	55	8	44	3.11	− 0.89	2.11	0	5	8	22	1	sw.	Capt. H. Paul Seavy.
Jefferson City	Jefferson		3								2.37		0.86		6					Calvin C. Maddox.
Johnson City	Washington	1,620	20	78.6	+ 4.1	99	2	54	8	36	2.46	+ 2.54	0.68	0	7	27	4	0	w.	Ward Crosby.
Johnsonville	Humphreys	364	29	80.1	+ 1.3	99	18	56	22	38	4.63	+ 0.50	1.20	0	11	10	17	4	s.	Miss Sallie B. Mathews.
Kingston	Roane		29								2.54	− 2.36	0.68	0	8	17	0	14	s.	Henry Crumbliss.
Knoxville	Knox	977	42	80.1	+ 3.9	100	18	62	8	25	3.77	− 0.44	1.07	0	12	5	19	7	sw.	U. S. Weather Bureau.
Lebanon	Wilson	522	4	81.1		101	18	59	7†	34	3.35		1.80	0	5	16	4	11	s.	H. Logan Fields.
Lewisburg	Marshall	727	19	80.7	+ 2.3	102	19	56	8	41	1.81	− 3.04	0.95	0	7	12	17	2	sw.	Dr. Robert D. Crutcher.
Liberty	Dekalb	672	16								3.89		1.29	0	5	23	0	8	s.	Bratten Evans.
Loudon	Loudon	816	22	80.6		103	18	57	8	33	1.90	− 3.76	1.02	0	6	16	4	11	w.	Robert W. Clark.
Lynnville	Giles	770	26	80.0	+ 2.7	98	18	59	8	36	3.81	− 1.45	1.15	0	6	7	24	0	s.	Col. James H. Burrow.
McGhee	Monroe		8								3.78		0.89	0	10	25	0	6	s.	Miss Alice L. Headrick.
McMinnville	Warren	1,011	32	79.8	+ 3.4	100	19	53	7	42	1.79	− 3.62	0.44	0	9	16	10	5	s.	Horace H. Stiles.
Maryville	Blount	1,050	20																	Mrs. Sam T. Broyles.
Mountain City	Johnson	2,486	16	72.0	+ 1.9	92	18	45	8	34	3.70	− 2.38	0.66	0	11	15	16	0		Edward E. Barry.
Nashville	Davidson	654	42	81.5	+ 2.1	98	18	63	22	30	4.09	− 0.26	2.49	0	6	11	8	12	w.	U. S. Weather Bureau.
Newport	Cocke	1,280	23	78.8	+ 2.3	102	19	57	8	29	1.80	− 2.93	0.68	0	7	9	11	11	sw.	Dr. Charles T. Burnett.
New River	Scott	1,215	5								2.14		0.46	0	7	25	2	4	sw.	Burl W. Buttram.
Palmetto	Bedford	770	23	81.1	+ 2.9	102	19	58	8	38	1.78	− 3.49	0.70	0	7	15	14	2	sw.	Mrs. Ross Woods.
Perryville	Decatur	387	17	80.4		101	18†	57	22	37	4.76	+ 1.01	1.93	0	8	11	14	6		Oliver C. Kirksey.
Pinewood	Hickman		7	80.4		102	29	55	8†	45	4.18		1.50	0	6	17	14	0	s.	Miss Carrie Cash.
Rogersville	Hawkins	1,150	29	78.4	+ 3.8	100	18	55	8	30	3.04	− 1.86	0.95	0	8	15	13	3	w.	Fred Beal.
Rugby	Morgan	1,410	24	77.8	+ 3.8	100	18	53	7	39	2.44	− 2.96	0.65	0	7	10	11	10	nw.	Samuel G. Wilson.
Savannah	Hardin	442	30	80.8	+ 1.9	99	18†	60	8	38	3.54	− 0.90	1.30	0	6	12	14	5	s.	W. H. Carrington.
Sevierville	Sevier		7	80.1		101	18	58	21	31	4.22		1.40	0	10	5	9	17	sw.	Herbert O. Eckel.
Sewanee	Franklin	2,000	19								5.16	+ 0.02	1.46	0	8	8	15	8	s.	University of the South.
Sparta	White	920	7	79.2		100	18	58	7†	35	4.69		1.75	0	8	7	16	8	w.	Ernest H. Hull.
Springville	Henry	377	11	79.4	+ 1.9	101	29	54	22	38	2.98	− 1.72	2.57	0	9	17	11	3	s.	Hudnall A. Boden.
Tazewell	Claiborne	1,350	16	77.6		103	18	51	7	40	1.76	− 2.99	0.37	0	6	17	4	10	sw.	J. Caloway Carr.
Tullahoma	Coffee	1,075	26	78.8	+ 2.5	98	18†	58	8	37	3.63	− 1.03	1.21	0	9	8	20	3	s.	Reuben T. Moore.
Walling	White	909	9								3.10		1.15	0	9	17	11	3	sw.	John K. Roberts.
Waynesboro	Wayne	753	28	79.0	+ 2.4	99	18	56	8	41	3.37	− 1.21	0.64	0	10	3	24	4	s.	Harry C. Boyd.
Wildersville	Henderson	400	17	80.0[b]	+ 2.4	99	19	61	22	31	2.18	− 1.99	0.70	0	6					William R. Wilson.
Worsham	Sumner	550	11								3.60	− 0.14	1.18	0	6	18	5	8	e.	James G. Elizer.
Yukon	Lincoln	850	17	80.0	+ 1.7	98	8†	62	8†	36	1.71	− 2.61	1.03	0	5	9	20	2	sw.	William P. Watson.
Alabama.																				
Bridgeport	Jackson	660	13								4.29	− 0.94	1.85	0	9					R. L. Moore.
Decatur	Morgan	573	31	81.1	+ 1.3	101	19	61	8	34	2.16	− 2.31	0.85	0	8					Earnest A. Carriger.
Florence	Lauderdale	563	29	79.4	+ 0.2	101	19	58	8	38	3.03	− 1.74	1.10	0	9	15	12	4	w.	Cyrus A. Ashcraft.
Guntersville	Marshall	580	8								3.88		0.90	0	11					L. S. Long.
Madison	Madison	573	19	81.8	+ 2.6	104	19	67	8†	36	2.25	− 2.11	1.42	0	3	12	17	2		Edward Humphrey.
Riverton	Colbert	360	16	79.5	+ 0.7	99	18†	51	8	47	2.24	− 2.22	0.65	0	9					James F. Long.
Scottsboro	Jackson	652	30	79.4	+ 1.3	98	5	59	21	35	3.72	− 1.55	1.72	0	9	8	9	14	sw.	H. A. Caldwell.
Tuscumbia	Colbert	488	31	81.8	+ 1.8	102	6	63	8	35	1.58	− 2.98	0.70	0	7					Samuel Moore.
Georgia.																				
Diamond	Gilmer	2,020	21	75.4	+ 1.1	100	19	52	8	37	3.68	− 2.87	1.92	0	8	14	11	6		R. A. Kimzey.
Mineral Bluff	Fannin	1,571		76.8		98	19	50	8	39	3.08		1.30	0	7					W. T. S. Deckey.

TABLE 1.—*Climatological data for July, 1913. District No. 3*—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.		
North Carolina.																				
Altapass	Mitchell	2,629	....	71.4	.....	90	16†	48	7	32	4.30	.....	1.50	0	6	21	5	5	w.	Altapass Inn.
Andrews	Cherokee	1,800	3	75.8	.....	98	18	49	8	40	6.35	.....	1.96	0	13	11	18	2	sw.	J. D. Link.
Asheville	Buncombe	2,255	34	74.0	+ 2.3	94	19	51	8	30	3.16	− 1.70	0.91	0	13	7	15	9	nw.	U. S. Weather Bureau.
Banners Elk	Avery	3,750	5	68.2	.....	89	19	40	8	34	4.37	.....	1.90	0	9	14	8	9	w.	T. L. Lowe.
Blantyre	Transylvania	1,900	1	.....	.....	....	....	....	....	....	4.85	.....	1.27	0	14	....	....	....	.....	R. W. Collett.
Blowing Rock	Watauga	4,090	4	.....	.....	....	....	....	....	....	5.59	.....	1.86	0	8	....	....	....	.....	E. G. Underdown.
Bryson City	Swain	2,000	25	.....	.....	....	....	....	....	....	4.28	− 1.14	1.60	0	11	....	....	....	.....	D. K. Collins.
Cane River	Yancey	2,700	....	.....	.....	....	....	....	....	....	2.68	.....	0.53	0	14	....	....	....	.....	Hiram A. Proffitt.
Cullowhee	Jackson	2,100	3	74.4	.....	96	19	46	8	38	3.40	.....	1.23	0	13	11	10	10	nw.	Frank H. Brown.
Eagles Nest	Haywood	5,050	....	67.8	.....	82	18	51	7	22	2.92	.....	0.60	0	14	22	4	5	sw.	S. C. Satterthwait.
Ellijay	Macon	2,500	....	.....	.....	....	....	....	....	....	4.12	.....	0.76	0	11	....	....	....	.....	Chas. G. Mincy.
Highlands	....do	3,850	23	68.0	+ 1.0	87	19	44	8	31	10.31	+ 3.60	2.35	0	14	7	22	2	nw.	T. G. Harbison.
Hot Springs	Madison	1,326	15	76.8	+ 1.8	97	18	52	8	37	1.37	.....	0.81	0	7	6	18	7	w.	P. A. Garner.
Jefferson	Ashe	2,900	6	72.7	.....	92	18†	45	8	35	2.93	.....	0.82	0	7	3	7	21	w.	Prof. E. J. Johnson.
Marshall	Madison	1,646	11	76.8[a]	+ 2.2	99	18	50	8	35	1.49	− 2.41	0.47	0	6	18	3	10	w.	M. L. Church.
Murphy	Cherokee	1,614	37	.....	.....	....	....	....	....	....	5.68	− 0.45	1.91	0	9	....	....	....	.....	Miss Victoria Mingus.
Rock House	Macon	3,100	21	70.7	− 0.2	90	18	54	8	21	6.85	− 1.71	1.35	0	17	12	14	5	sw.	Barry C. Hawkins.
Transon	Ashe	2,600	1	.....	.....	....	....	....	....	....	2.05	.....	0.75	0	6	....	....	....	.....	S. M. Transou.
Waynesville	Haywood	2,792	19	73.4	+ 3.0	97	19	46	8	37	2.67	− 2.20	0.52	0	13	13	12	6	sw.	Mrs. Chas. E. Quinlan.
Virginia.																				
Blacksburg	Montgomery	2,170	22	72.8	+ 1.9	94	31	47	8	33	5.38	+ 0.56	2.49	0	15	21	5	5	w.	Agricultural Exper. Station.
Burkes Garden	Tazewell	3,250	18	69.6	+ 2.4	87	18†	42	7	35	3.52	− 1.09	0.57	0	11	7	12	12	sw.	C. H. Greever.
Elk Knob	Lee	3,243	10	77.0	+ 4.3	98	18	58	7	27	2.27	− 2.95	0.67	0	12	13	16	2	sw.	Henry Nicoll.
Emory	Washington	2,094	1	74.4	.....	96	18	44	8	39	0.86	.....	0.65	0	6	20	1	10	.....	J. E. Weaver.
Ivanhoe	Wythe	2,028	9	72.0	.....	90	2†	52	8	30	4.09	.....	1.10	0	15	16	13	2	w.	Miss Alice G. Jewett.
Max Meadows	....do	2,028	17	73.0	+ 2.1	94	31	46	8	39	2.88	− 1.41	1.05	0	10	20	10	1	sw.	James M. Graham.
Mendota	Washington	1,350	4	.....	.....	....	....	....	....	....	1.37	.....	0.70	0	5	....	....	....	.....	Frank M. Barker.
Mountain Lake	Giles	4,348	3	64.4	.....	85	1†	37	8	36	5.16	.....	1.28	0	9	26	5	0	.....	H. E. Dorland.
Radford	Montgomery	1,773	4	.....	.....	....	....	....	....	....	2.16	.....	0.50	0	7	....	....	....	.....	Arthur Roberts.
Speers Ferry	Scott	1,221	17	.....	.....	....	....	....	....	....	2.01	− 3.45	1.26	0	7	....	....	....	.....	Miss L. E. Venable.
Wytheville	Wythe	2,293	20	73.6	+ 1.0	92	30	47	8	34	2.66	− 1.78	1.20	0	12	13	17	1	w.	U. S. Weather Bureau.

[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.
‖ Estimated by observer.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for July, 1913. District No. 3, Ohio Valley.*

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.
New York.																																	
Allegany	Allegany		.42			.23				.81			.22	.14				.31			.12			T.	.37			1.22	.40				4.24
Bolivar	do		.40		.10	.10	.12	.05		.75			.20	.12				.17			.15			.22	.33			.37					3.08
Olean ‖	do			.25		.35		.14	.09	.12	.40			.08	.12				.25			.45			.10				.98				3.33
Pennsylvania.																																	
Aleppo	Ohio		.35			.40	.30				.81		.20	1.53			.40								.23						.10		4.32
Baldwin	Allegheny	.30	.14			1.06				.52	.92		.07	.04		.04		.52				.02		T.	.85				.12	.28			4.88
Beaver Dam ‖	Ohio		.42			.44	1.22	.05		.08	.21			T.	.34	.34		.26	.59		T.			T.	.19	.14			T.				4.28
Beaver Falls ‖	do		1.04			1.93	1.00	T.		.02	.51				.20	.18		.70	.05		T.				.31	.06			.05	.73	.04		6.82
Brookville	Allegheny		.12			.30		.27		.19	1.86		.11	.13	.02			.06						.01	1.15	.02		.12					4.36
California	Monongahela	.04				.34	.02		.05	.36	.27		.75	.05		.45			.07					.08					.02	T.	T.		2.50
Cheat Haven	do		.03	T.		.13	.10			.56	.82		.18		1.34	1.80		.88	T.		T.				.24				.01			.18	6.27
Clarion ‖	Allegheny		.29			.25	.15				2.50				.20			.20							.70	.25							4.54
Claysville	Ohio		1.47			.26	.15			.07	.63		.04		1.02	.25		2.15		T.	.02				.70	.02			.25	.77	.20		8.00
Confluence ‖	You'ogh'ny		.10				.19	.27		.08	1.10				.75			T.	.70	T.		T.				.79				.14	.12		4.24
Coraopolis ‖	Ohio		1.27			.01	.50	.03		.03	.16			.14	.45	.56		.35	.52		T.			.03	.11	.60			T.	.87	.05		5.68
Davis Island Dam ‖	do		1.25			.20	1.12	.05		.02	.29			.14	.64	.40		.21	.42		T.			.01	.10	.42			T.	.22	.04		5.53
Derry Station	Allegheny		.09			.66		T.		.41	.70		.25		.15	.28		.52							.33				.12	.44	T.		3.95
Edinboro	do		.40		.40	1.57	.05			.58			.33	.79				.26			.17				.29				.07		T.		4.91
Ellwood City ‖	Ohio		.95			.28	1.66	.03			.68				.51	.23		.79	.07			T.			.93	.16			.04	.09	.11		6.53
Franklin ‖	Allegheny		.26	.07		1.45	.41	.02		.11	1.74			.11	.07			.32	.02		T.	.09			.51	.03			T.		.05		5.26
Freeport ‖	do		1.04			.05	.07	.04		.05	.03			.14	.02	.30		.12	.22					.02	.52	.47				.01	.03		3.13
Greensboro ‖	Monongahela		.22	.04		.08	.80	.04			1.50			.10	1.24	.82		.30	.60			.14			.04	.14						.31	6.68
Greensburg	You'ogh'ny	.02	.07			.90	.01	.02		.51	.27		.12			.55		1.21		T.	T.			.03	.35			1.44	.15	.30	.27	6.22
Greenville	Ohio	.02	.20		.06	.67	.11	.11		.62			.34	.09	.02			.28						T.	.46			.62		.05	T.		3.65
Grove City	do	.15	.20		.01	2.06		.09		.60	.92		.19		.22			.25			.08			.21	.58			.87	.48				6.91
Herrs Is. Dam ‖	Allegheny		.80			.07	.44	.02		.04	.43		T.	.35	.65	.50	T.	.16	.68		T.			.08	.18	.55			T.	.02	T.	T.	4.97
Indiana	do		.20			.19	.06	.09		.21			.15		.19	.03		1.20	.80					.20		.17		.30		.73			4.52
Irwin	Monongahela	.59	.11			.68	T.	.02	.19	.05	.30		.10		.42	.23		.95						.02	.54			.01		.03		.04	4.78
Johnstown	Allegheny		.17			.86	.01	.04		.65	.44			.17	.19	.04		.48				T.		.20	.39			.01	.15	T.	T.		3.80
Lock No. 4 ‖	Monongahela		.40				1.07	.13		.05	.32				.66	.10	.05	.08	.50						T.	.55					T.		3.91
Lycippus	Allegheny		T.			2.11	.10			.34		.13			.54	.55		.55	.21						.47				.84	T.	.10		5.94
Mosgrove	do		.24			.07	1.16	.09		.05	1.73			.03	.01	T.		.24	.50						.36	.26				.06	.13		4.93
Parkers Landing ‖	do		.15	.12		.26	.90	.10		.04	.60			.06	.08			.24	.20	.12					1.34	.24			.02	.04			4.51
Pittsburgh	Ohio	.77			.01	.36	.04			.34			.31	T.	.55	.43		1.14		T.	T.			.10	.74				.07	T.			4.86
Ridgway	Allegheny	.05	.04		.20	.85	.01			3.25			.05	.96							.05			.44	.46								6.36
Saegerstown	do				.50	2.18	T.			.76			.27	.28				.42			.16			.05	.32			.32	.18				5.64
Saltsburg ‖	do		.23	T.		T.	.24	.02		.12	.50		T.	.04	.10	.11	T.	T.	.50					.04	.04	.40					.04		2.38
Sharon ‖	Ohio		.27	T.		.19	.59	.05			1.15			.25	.18			.93			T.	T.			.14	.09			.06	.05	T.		3.95
Somerset	You'ogh'ny		.12			.22	T.	.25		.20	.17	.11				.95		.35			.16			T.	.51			.55	.15	.14	.17		4.05
Springdale ‖	Allegheny		1.13				.23	.02		.04	.68			.58	.21	.23		.23	.95					.05	.07	.45			.10		.15		5.12
Uniontown	Monongahela	T.				.82		.18		.20	1.09		.21		1.37	.02		.32			.06				1.44				.78	T.	.06	T.	6.55
Warren	Allegheny				.10	.74	.10			.54	.21		.10	1.50							.28			.20					.06				3.83
West Newton ‖	You'ogh'ny		.30			.02	1.27	.05		.15	.80			.15	.80	.35	.35	.07	.97			T.			T.	.51			.08		.04	.21	6.10
Maryland.																																	
Deer Park	You'ogh'ny				.85	.64	.09			.44	.75		.14	1.03	.46		1.69				.39				.22				.10				6.80
Grantsville	do		T.			.04				.46	.91		.10		1.05	.22		.35	.17		.05				.25			T.	.27	.67	T.		4.54
Oakland	do		.06	.03		.72	.04			.03	.70			.09	1.10	.97		.44			.16	.05			.46					.07			4.92
West Virginia.																																	
Bancroft ‖	G. Kanawha				.45	.43					.59					.15		.05			.75	.30											2.72
Beckley	do		.98	1.50						.32					.58		.70	.48	.32						.92								5.80
Bens Run	Ohio					1.40	.22			.02	.90		.16		2.99			.27		.19				.40	.18	.08			.12		.17		7.10
Bluefield	G. Kanawha			.48	.49						.30	1.10	.20	.06		.48		.41					.30		.10	.81		.15		.52			5.40
Brandonville ‖	Monongahela										2.50			.17	1.31				1.16													.31	5.45
Buckhannon	do			T.	T.	.20	.40			.70	1.55		.25		1.42	.35		.35		.28										.68	.12	.63	6.93
Cairo	L. Kanawha	.42		T.		.45			T.		2.15		.03		1.30	.27		.95	.23	.47		.05			.63	.45			.22	.05	.10		7.77
Central Station	M'dle Is. C'k		T.	.03	T.	.73	.68			.91	1.80		.05		1.85	.57		.35		.10	.07			.40	.29				.10	T.	.05		7.98
Charleston ‖	G. Kanawha		T.	T.	.28	T.	.30				1.05					.55	.02	.88		.45	1.50				.05	.98			.45				6.51
Cheat Bridge ‖	Monongahela	T.		.10	T.					T.	4.00		.10	.88	.40	.20	T.						.08	T.	.20	.34	T.					.30	6.60
Cortland ‖	do					.42	.57				1.68			.41	1.20	.25	.34	.72				.26					.76		.22				6.83
Creston ‖	L. Kanawha			.07	.04		.04				1.19			.40	.03	.82	.02	.41		.20	.04				.10	.21			.04		.24		3.85
Cuba	Sand Creek		T.	.80		T.				T.	2.38		.16		.41	.37		1.35		.06				T.	.10			1.01		.17			6.81
Davis ‖	Monongahela			.14		T.	1.78			T.	2.20		.20	.29	1.19	.34	.15	.05	1.10		.02	.11	.02	T.	.04	.87				.12			8.62
Elizabeth ‖	L. Kanawha		.36		.05						2.00		.09			.41	.10	.63		.12	.02					.20			.19				4.17
Elkhorn	Big Sandy		1.55	.15	.23						.78	.23	T.		.15	.08	.13	.45	.08	.63	.13	T.			.41				.20				5.70
Elkins	Monongahela		T.	.27	.45	.55	.03			2.21	.42		.32	.43	.95	.08		.87		.15	.01		T.	.01	.94	.06		.19	T.	T.	.73		8.67
Fairmont ‖	do			.16			.58	T.		.13	1.55		.05	.09	1.26	.48	.05	.16	1.05			.03			.39	.22				.60		.02	6.82
Glenville ‖	L. Kanawha		.22				1.42				4.48				.32	.42		.34		.82					1.65			.12				.28	10.07
Grafton	Monongahela		.30			1.10	.32			.12	1.37		.17		1.70	.26		1.07			.63	.05			.44	.03				.66	.03		8.25
Green Sulphur Spgs	G. Kanawha			.06	.61	.02	.04				.16	.05	.02			.60		.22		.79					.24	.22				.31	T.		3.64
Hinton ‖	do				1.22	.06	.04				.16	.12	.02	.06		.24		.38		.14	.38			.40		.66			.10		.10		4.08
Holcomb	do			1.00			2.00				1.35		.15		*	.50		.53		2.04					.72				.13				8.42
Huntington ‖	Ohio		.04	T.	.14		.12				.48		.02			.26	T.				.34				.38	.28			.74			T.	2.80
Lewisburg	G. Kanawha		T.	3.02	T.	T.	.49				.76	T.			.29	.12		.23		.90			.34		.09	.23							6.47
Logan	Guyandotte		.60		1.30	.10	.01				.12	.37	.03			.65		.04		.60				T.	.05								3.87
Lost Creek	Monongahela		T.			.45	.28			.95	1.47		.15		.98	.86		.36		T.	.10			T.	.40						.20	.04	6.24
Madison ‖	G. Kanawha						.13					.17	.12			.40	T.	T.			1.25	T.				.07			T.				2.14
Mannington	Monongahela		.29			.24	.35			.75	.57		.13	T.	2.05	.12		.35			.10				.30						.01		5.26
Marlinton	G. Kanawha			.50	.25	.40					.75		.60							1.10				.30	.20							.60	4.70
Morgantown	Monongahela		.15			.35	.13			.15	.57		.18		1.56	.45		1.68	*	.02	T.				.21						.35		5.80
Moundsville	Ohio	.13			T.	.86	.27			.22	.73		.32		1.72	.02		.23						T.	1.00					.55	T.		6.05
New Cumberland	do	1.00			.80	.30	.20			.30			T.		.30	.40		1.30		T.				.10	1.00			T.	.60	T.			6.30
New Martinsville	do		.10			.45	.40			1.25	.32		.30		3.15	.05								.45	.25								6.72
Nuttallburg	G. Kanawha				.40	.75					1.35		.21		.80	.20		.75		1.40													5.86
Parkersburg	Ohio	T.		.01		.35				1.95		.04	.23		.51	.15		.36	.01	T.	T.			.61	.18			.24		T.	T.		4.64
Parsons	Monongahela		.15			1.00				1.25	.92		.55		1.63	.58		1.45			.63				.96				.15		.30	.38	9.95
Philippi	do				.20	.19	.26			.18	1.13		.33	.09	1.22	.20		.95			.05				.77					.64	.82		7.03
Pickens	do			T.		.62	.86			.13			.68		.76	.32		.32		*	.43				1.47				T.			1.49	7.08
Point Pleasant ‖	Ohio		.02				.04				.66			.20		1.04					.10				.20	.12			.28				2.66
Powellton	G. Kanawha					.57					.51	.31	.14		.98	.03		1.01		1.56					.17	.16			.30				5.74
Princeton	do		.25	.25	1.25						.40	.50			.30	.10		.10		1.75					.15				.30	.25			5.60
Robertsburg ‖	do						.08				.40			.12		.23				.14	.12					.82			.80				2.71
Rowlesburg ‖	Monongahela				.52	1.00				.12	1.20		.02	.36	1.08	.30	.26	.02	1.20			.12			.24	.22				.36			7.02
Ryan	G. Kanawha		.04	.88	2.06	T.	1.31				1.01		.32		.03	.29		2.10	.01	.10	T.			T.	.16			.75	T.				9.06
Saint Marys ‖	Ohio		T.				1.02			T.	3.05			.27	2.00	.32		.47		.57	.08				.20	.15			.15			.05	8.33
Smithfield ‖	Fish'g Cr'k	.11	.07		.32		.89			.67	1.85	.04	.22	.36	2.07	.05									.05	.34						.12	7.16

TABLE 2.—*Daily precipitation for July, 1913. District No. 3*—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.
West Virginia—Con.																																	
Spencer ‖	L. Kanawha						2.74				1.65			T.		1.60		.65			.06												6.70
Sutton ‖	G. Kanawha				T.		.70				1.87				.33	.80		.43	T.	T.	T.					.80						.84	5.77
Terra Alta	Monongahela																																
Union	G. Kanawha					.47					.24	.37	T.				T.	.31			.83					.75							2.97
Valley Fork	do																																
Webster Springs	do			.90	T.	T.	1.57				1.50	.10			.25	.35		.12		.27	T.		.26	.15	.22							5.69
Wellsburg	Ohio	.14			.60	1.00	.17			1.25	.64		.27		.73	.40		2.04			.23					1.42			.78				9.67
Weston ‖	Monongahela																																
Wheeling ‖	Ohio		.97			T.	.80	T.			.35			T.	1.30	.35	T.	.35	.11		T.				.01	.87			T.	.77		.11	5.99
Williamson ‖	Big Sandy			.42	1.24	.18						.22	.04	T.		.16	.36	.02		.36	.28	.08		.40		.44			1.68				5.88
Ohio.																																	
Amesville	Ohio		.13	T.						1.95	.55		.45		.62	.32		1.60							.50	.40		.42		.68	T.		7.62
Ashland	Muskingum	T.	.47			.32	.49			.16			.16	2.00	.65	.06		.34			T.			.07	.08			.39	T.		.08		5.27
Bangorville	do	1.19	.18			.72	.46						.28		1.82	.36		.72		.05	.04				.10			T.	.32		.05		6.29
Bellefontaine ‖	Great Miami		.92			.03	.06			.18	.13		.18		.26	.95					.07				.07				.71				3.56
Bladensburg	Muskingum	.88				.66				1.68					3.35	.22		1.23		T.				T.	.89				.10	.07	T.		9.08
Brilliant	Ohio	.56				1.50	.20			1.35					.96	.75		1.75						1.20					.50	.30			9.07
Cadiz	do	1.24	.25		.02	.70	.18			.46			.12	.87	.23			.18	T.					.19	1.95			T.	.16				6.55
Cambridge	Muskingum	.15	.27			.39	.78			1.03			.04		4.46	.10		.22		.20					.92			.52		.25			9.33
Camp Dennison	Little Miami	.25					.08			.15	1.10	.07	.35		.14	.75	.08								.55			.01					3.53
Canal Dover	Muskingum																																
Canton ‖	do		.14			.20	.46	.04			.07		.13		.45	.50		.79			.13				.15				.02				3.08
Cardington	Scioto	.26								.65	.06			1.31		.34	*	1.19										*	.84				4.65
Chillicothe ‖	do			.17			.68				2.37						.60				.15											.10	4.07
Cincinnati	Ohio	.01		.01		.13				.34		.40	.15		.01	.65	.10								.55			.02					2.37
Circleville ‖	Scioto		.47	T.	.16	.09	.03			.03	.16		.07	.12	.22	1.09									.18	.31			.34				3.27
Clarington	Ohio	1.00	T.		T.	.30	.50			.75	.25		.22		3.50	.12		.12						T.	.35	.10				T.	T.	T.	7.21
Columbus	Scioto	.26				.03				.33		.01	.11		.45	.30				T.				.01	.68			.70		T.	T.		2.88
Coshocton ‖	Muskingum			.34			1.43			.45		.02			3.15	.18		.53		.50				.10		.54			.20			.01	7.45
Dayton (1)	Great Miami	1.00				.11			.07	.31		.14	.20		.23	.29	.39			T.				T.	.09			T.				.07	2.90
Dayton (2)	do	1.42					.12			.50		T.	.52		T.	.62	.37			T.					.17							T.	3.72
Delaware	Scioto	.31	.96			.30	.19			.02	.20		.17		2.62	.38	T.			T.					.39				T.	.21			5.75
Demos	Ohio	.25	.05		.46	.96	.02			.64			.03		1.83	.39		.02		.01				.01	1.43	.05		.08		T.	.14		6.37
Dennison	Muskingum																																
Frankfort	Scioto	.50					.85			.35	1.50		.38		.05	.45				T.					.80			.30			T.		5.18
Gallipolis ‖	Ohio		.07				.31				.65		.05	.22		.18	T.				.05				.02	.13			.17				1.85
Garrettsville	Mahoning	.11	.06		.18	.73	.22			.59			.39	.18	.12	.17		.18		T.				.20	.10			T.	.03	.02			3.28
Granville ‖	Muskingum		.45			T.	.35			.15	.46		.15	T.	2.50	.50		.52			T.				.02	.97			T.		T.		6.07
Gratiot	do	1.40				.02				1.12			.07		3.98	.19		2.00							1.73			.01	.04				10.56
Green	Ohio	.93					.60				.67					1.90				T.					.27		T.	.97					5.34
Green Hill	Muskingum	.50	T.		.22	1.82	.06			.45			.10	T.	.20	.43		.47		.23				.15	.11			.04	.11	1.01			5.90
Greenville ‖	Great Miami		.21							.55	.03		.29		.16	.91	T.	.82							.12					.08			3.17
Hamilton	do	.41					.15			.20	.53		1.10		.02	.79	.32								.45			.16					4.13
Haydenville	Ohio									1.07						1.96									.40						.30		3.73
Hillsboro	Scioto																																
Ironton	Ohio		.05		.05						2.30		.39			.76			.06	.10					.48						.03		4.22
Kenton	Scioto	.33	T.			.55				.15				.05	2.40		T.								.04				T.				3.52
Killbuck	Muskingum	.42	.10			.20	.35			.07					3.50	.03		.60		.70				.20	.70			.03	.04	.48			7.42
King's Mills ‖	Little Miami		T.			.03	.46		.01	.96	.08		.28	.14	.02	.60		.29							.63	.17				T.			3.67
Lancaster	Ohio	.43	T.			T.	.05			.30	.70	T.	.20		1.32	.30		T.							.63						T.	T.	3.93
McConnellsville	Muskingum	.43	.12			.59	.03			2.57	.04				3.24	.51	1.47			.10	T.			T.	.32			T.	.21	.03	.61		10.27
Marietta	Ohio		T.			.63	.21			2.31	2.00		.20	.03	1.48	.14		1.01		.43				.51	.22			.01	.15	.02			9.35
Marion	Scioto	.95				.40				.75			.14		1.80	.30		.20							.10			.30					4.94
Milfordton	Muskingum	.47	.08			.32	.25			1.78			.10		2.90	.41	T.	1.11		T.				.36	.42			T.					8.20
Milligan	do		.60			.14				2.04			.37		3.56	.14		2.48			T.				.56			.03		.30	.03		10.25
Millport	Ohio	.55	.02		1.27	1.32	.21			.42			T.	T.	.18	.40		.82		.08				.25	.18			T.	.69	1.58			7.97
Nellie	Muskingum	.42	.12			.50	.42								1.47		T.		.75	.20				.09	.43				.08		T.		4.48
New Berlin	do	1.00				.55	.18			.03			.72	.10	.25	.20		.37		.25				T.	.28		.21						4.14
New Waterford	Ohio	.42			1.00	.90				.42			T.		.28	.33		.57						.16	.31				.66	.12			5.17
Ohio State Univ	Scioto	.58	.08				.05			.07			.05		.63	.29									.56			.71			.03		3.05
Oregonia ‖	Little Miami																																
Pataskala	Muskingum	.10	.06			.15				.60		.01	.15		1.47	.28	T.	T.		.01					1.08			.25		.10			4.35
Peebles	Ohio	1.97	.06				.12				1.20	.03	.20			.53	.33			.05					.38		.93						5.80
Philo (1)	Muskingum	.05	.25			.18	.24			1.20			.08		6.48	.28		1.28		.02					.73			.02	.19				11.00
Piqua ‖	Great Miami		.10							.96	.06		.50	1.03		.77	.14	.14						.45									4.15
Plattsburg	Little Miami	.76					.54			T.	.36		T.		.57	.68	T.	T.							.26			T.		.11			3.28
Portsmouth ‖	Ohio		.32				.02				.87		.21	.22		.59	.13	.33		T.	.05				.21	.46		T.	.25		.12	.30	4.08
Prospect ‖	Scioto																																
Sidney	Great Miami	.08	.11			.18	1.01			.70			.19		.44	.62	.23				.02				.11			.21					3.90
Somerset ‖	Muskingum	T.	.55				.02			.08	.26		.03	.01	2.30	.86		.85			.04				.04	.53			.02				5.59
Springfield	Great Miami	.69	.06			.02	.86			.24	.35	T.	.22		1.01	.97	.04								.08			.01					4.55
Summerfield	Ohio		.28		T.	.78	1.04			1.71			.25		4.51	.05		.19		.08				T.	.92			.36	.03	.37	.47		11.04
Syracuse	do				3.65						.93	.74	.22		.63	.21			.02					.37	.12			.27	.11	.06			7.33
Thurman	do										.15	.50			T.	T.				T.			.46	.60						T.			1.71
Toboso	Muskingum		.50			.07	.45			.40	.55			.15	7.40	.19		.87								.88							11.46
Urbana	Great Miami	.67			.04	.91		.18		.34			.14		.30	.54	.04								.29			.17					3.62
Warren	Mahoning	.07	T.		.03	.96	.29			.10			.28	.72	.06		.78							T.	.11			T.		.11			3.51
Waverly ‖	Scioto		.48				.07				1.21		.05	.15		.33		.07							T.	.25		.04	.25				2.90
Waynesville	Little Miami	.33					.25			.07	.25	T.	.35		T.	.78	.20								.63			T.		T.			2.86
Wooster	Muskingum	.42	.03			.50	.30			.02			.30	.58	.39	.04		.05		.01	.20			.20	.07			.84			.12		4.07
Youngstown ‖	Mahoning		.13			.65	.59	.09			.11			.06	.22	.13		.57			T.	T.			.22	.26			1.08				4.11
Zanesville ‖	Muskingum		.83				.53			.54	.85		T.	.02	6.70	.50		1.86			.22				.04	.88			.13		.02		13.12
Indiana.																																	
Anderson	W. F., White	2.61				T.				.40		.20			.60	.63	.40							.05	.02			T.		.73		.25	5.89
Attica ‖	Wabash	.75				.79				.39	.04		T.		.07	.07	.17	.03		T.								.24	.02	.01	T.		2.58
Bluffton ‖	W. F., White	.59	.02				T.				T.		.30		.02		.74	T.			.11				1.07	.03		T.	T.			.25	3.13
Bloomington ‖	Wabash		.06			.21		.50		1.24		T.	.44		1.72	1.34	1.80	T.							.65				.87		T.		8.83
Butlerville	E. F., White						.19						.37			.64	.08			T.					.45		.58	.19				.05	2.55
Cambridge City ‖	Whitewater		1.65		.46	.02	.26			.72	.09		.90		.06	1.43		.77							.03				.15	.23			6.71
Columbus ‖	E. F., White	.12	.06										.15			.03									.88	.02				.39			1.65
Connersville	Whitewater												.82			.90	.30											.20					2.22
Crawfordsville	Wabash	.23				.20			.36						.31	.20	.10			T.				T.									1.40
Delphi ‖	do		.23			.10				1.07					.64	1.17	T.								T.				.09	T.			3.30
Evansville	Ohio	.12	T.							.05		T.	.35	T.						.05				.16	.62								1.35
Farmersburg	Wabash	.23								1.45		.03	.05							.26				.09	.01			.02				T.	2.14
Farmland ‖	W. F., White		.45		.04	.16	.19			.97	.03		.61		.24	1.21		.99							.03				T.	.02			4.94

TABLE 2.—*Daily precipitation for July, 1913. District No. 3*—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.
Indiana—Contd.																																	
Forest Reserve	Ohio											.28	.34			T.				.12					.46			.35		T.			1.55
French Lick ‖	E. F., White		.06	.11							.03		.35		T.						.25				.15	.09							1.04
Greenfield	do	.15		T.		T.				.30		.37				2.25	.09			T.				T.				1.10		.85		1.03	6.14
Greensburg	do	.85								.10		1.20			.05	1.10								.15	.12			.20	.10			.10	3.97
Hickory Hill	W. F., White									.06		.04	.16			1.79	.04								.42								2.51
Huntingburg	Wabash		.16											.61							.14				.86			.15					1.92
Huntington	do	T.			.03	.60				1.07			.05		1.35	.85	2.30							.27				.09	.03			.09	6.73
Indianapolis	W. F., White	.21		T.					.03	.12		.12	.05		1.02	.94	.02			T.				.12				.04	.10			1.11	3.88
Jeffersonville	Ohio	.07	.04							T.		.11	.33			T.				.44					.57		.36						1.92
Judyville	Wabash	.17	.03			.37				.50					.48		.19												1.23		.43		3.40
Kokomo	do	.09	T.			.09				.60				T.	.74	.85	T.							.04				.44	.04			.33	3.22
Lafayette ‖	do	.23	.01		T.	.02				.32			T.		.27	.24	.01			T.				T.				T.	.54			.56	2.20
Logansport ‖	do		.10			.04				1.24					.90	1.08	.10												.26				3.72
Madison	Ohio		.35										.83			.17	.02		.01	.13					.34			.64				T.	2.49
Marengo	do		.06							T.			.48			.03				.50					1.67			.25					2.99
Marion ‖	Wabash		.08			.09	.54			1.38					.50	1.53	.12	.96							.11				.36	.08			5.75
Mauzy	E. F., White	.64				.10				.16	.54	.19	.19		.01	.83	.26			T.				T.	.02			.43	T.		.05	T.	3.42
Monticello ‖	Wabash	.32				.02				.61					.79	1.23	.01												T.	.40			3.38
Moores Hill	Ohio						.21				T.	.68	.14			1.07	.11								.65			.28					3.14
Mount Vernon ‖	do		1.05							T.	.10		.50				T.								1.02	.10							2.77
Nashville	E. F., White	.20										.15				.49	T.			.04					.94			.12				.20	2.14
Paoli	do		.29	.01						.03		.03	.32							.07					.26								1.01
Princeton	Wabash	.16								.60		.53								.09					.15								1.53
Richmond	Whitewater	.17				.06			1.15	.06		.46	.03		.87	.17	.89			T.				.03	.06			.35	T.			.28	4.58
Rochester	Wabash	.13	T.			.95			1.01					T.	1.08	2.16			T.		.09			.01				T.	.07				5.50
Rockville	do	.22	T.	.07		T.				.08			T.		.01	T.	.12			T.				.35					T.	T.	.01		0.86
Rome	Ohio		.01									T.	1.20							.04					.12			.25					1.62
Salamonia	Wabash	.71			.01	.64			.09	1.06			.15	.11	2.02	1.03	1.12								.02			.05				.11	7.12
Salem	Ohio			.20			.17					.50	.26			.06	.02		T.	.16					.70			T.			.03	.02	2.12
Scottsburg	E. F., White			.22								.11	.16			.02	T.			.14					.35							.06	1.06
Seymour	do	T.				T.				T.		.28			T.	.04	T.		T.	.05					.51		T.	.02	.12		T.	.12	1.14
Shelbyville	do	.36		.07						.85		.06	.17			1.90	.72								.05			T.	.01				4.19
Shoals ‖	do	.74	.02	.36							.10		.55								.20				.41	.15							2.13
Terre Haute	Wabash	.22							.10	.28		T.	.06		T.	.06	T.			.03				.08	T.						.02		0.91
Veedersburg	do	.07	.05			.09				.08	.02	.01			.16	.03	.13	.02											.01		.14	.01	0.82
Vevay	Ohio	.10	.05										1.45			1.10									.60	.10		.35					3.75
Vincennes ‖	Wabash	.60	.50								1.00		.50			T.	T.				.15				.45	.05							3.25
Washington	W. F., White			.04						.23			.34							.17					.38								1.16
Whitestown ‖	do		.12		T.	T.	.29			.11			.10			2.25	.07	.02			T.				.25				.11	.28			3.60
Winona Lake	Wabash	.02				.40			.70	.65					.77	.62	.88			.02				.03	.02			.48	.06				4.65
Worthington	W. F., White									.16		.50	.11				.17			.13				1.17									2.24
Illinois.																																	
Albion	Wabash									T.	2.40	.07	.47			T.				.12					.07								3.13
Casey	do	2.35								T.		.31				T.				.33				T.									2.99
Charleston	do	.16			.04					.04		.03	.03		.02	.04				.10				.05				.24					0.75
Danville	do	.02	.05	.01	T.	.04				.32			T.		.15	.35	.13			T.								.01	T.	T.			1.08
Equality	Ohio	.10	T.	T.						.08	1.02	T.	.62												.53			T.			T.		2.35
Fairfield	Wabash	.40	T.							T.	.14		.38			.30				.07				T.	.05				.07				1.41
Flora	do	.44											.51			.09				.15				.07	.29		.22	T.					1.77
Golconda	Ohio		.04							.87		.33	1.50												.10					.85			3.69
Hoopeston	Wabash	.08	.01		.01	.22				.74					.36		.61			T.				.01				T.	.54				2.58
McLeansboro ‖	Ohio	.05	.10							.19	1.06																						1.40
Metropolis	do	.09								T.	2.65	.32	1.26								.12					.22		.15	.05		T.		4.86
Montrose	Wabash	.65										.03	.07			.13				.37				.08			.01						1.34
Mt. Carmel ‖	do		.56							.06	.32		.60				.02				.06				.22								1.84
New Burnside ‖	Ohio	.47	.20		T.					.15	.40		1.80												.51	.96			.03			1.03	5.55
Newton	Wabash	.35							T.	T.		.59	.18			.02				.29					.19		T.						1.62
Olney ‖	do	.30	.20										.60							T.	.16				.92				T.				2.18
Palestine	do																																
Paris ‖	do		2.35		T.	.05				.30			.12			T.				T.					.10								2.92
Philo	do	T.							.38																								0.38
Rileyville	Ohio	.03								.05	1.29	T.	1.23			T.				.06					1.15			T.			T.		3.81
Shawneetown ‖	do	.25	.06							.04	.21		.72												.60	.08							1.96
Tuscola	Wabash	.03				.43				.18			.02		T.	.06				.01													0.73
Urbana	do	T.	T.			.01				.76			.01		T.	.10				.01								.46	.02	T.	.15	T.	1.52
Kentucky.																																	
Alpha	Cumberland	.30	.20								T.	.25	.72							.53			T.		T.		2.20	T.	T.				4.20
Anchorage	Ohio		.57									.43	.26			T.	T.			.90					.46			T.					2.62
Bardstown ‖	Salt		.27										.24													.10				.10			0.71
Beattyville ‖	Kentucky			T.					T.				.56			.12		.28		.12	.78					.18		.08	.20				2.32
Beaver Dam ‖	Green	.25	.05	.02									.70													.36				.80			2.18
Berea	Kentucky		2.20	.35								.10	.25				.05			.06					T.		.03	.72					3.76
Blandville	Mississippi		.51							.27	2.78	.52	1.37												T.			T.			1.22		6.67
Bowling Green ‖	Green			1.55			T.						.88				1.06											.08				.05	3.62
Burnside ‖	Cumberland				.27		T.						.35			T.					T.			.25		T.		1.60	.25	T.		T.	2.72
Calhoun	Green		1.28	T.						T.	T.	T.	1.29												1.02	.04	T.						3.63
Catlettsburg ‖	Big Sandy		.10		.60		.16				.54		.04			.30	.08			.04	.46				.56	.34			.06			.08	3.36
Earlington ‖	Green		2.08	.02									.79													.45			.11			T.	3.45
Edmonton	do		.67	.18										.27	.87											.04				.07			2.10
Eubank ‖	Cumberland			.45									.56								.21							.20		.80			2.22
Falmouth ‖	Licking		.32	T.			.29				.14		.40			.61					.38				.02	.40		.18	.02			.09	2.85
Farmers	do				.25		.05						.27			.50				.95				.32	.53			.10					2.97
Frankfort ‖	Kentucky		.32		T.						.23		.19							.13	.54					.30		.06					1.77
Franklin	Green		.37								.25	1.67																.49					2.78
Greensburg ‖	do			.08									.58															.04					0.70
High Bridge ‖	Kentucky		.02										.15								.46					.11		.15	.05				0.94
Hopkinsville ‖	Cumberland	.05	.10	.20									1.50													.17				.50			2.52
Irvington	Ohio		.94										.27							.05					.23								1.49
Leitchfield	Green		.22										.45			.12									.23		.05						1.07
Lexington	Kentucky	.01		T.							.14	1.07	.02		T.	.11	.27		.29	.10					.05		.37	T.					2.43
Loretto	Salt		.10	.02								.03	.38												T.				1.00				1.53
Louisa ‖	Big Sandy		.30		.14		.07				.04					.33	1.12			.35	.83				.50				.20			.05	3.93
Louisville (1)	Ohio	.02	T.							T.		.02	.36		T.	.01	T.			.34					.49		.24	T.					1.48
Louisville (2)	do		.08								T.	.08	.31			.01	T.			.38					.53		.02	.01				.07	1.49
Marion	do	.91	T.							T.	.20	T.	.91												.22								2.24

TABLE 2.—*Daily precipitation for July, 1913. District No. 3*—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	31	
***Kentucky*—Contd.**																																	
Maysville ‖	Ohio		.30				.13			.03	.26		.23	.14		.79				.12	.13				T.	.50		.07	.04	.23		.23	3.20
Middlesboro	Cumberland											.25	.05		.02										.22	.05	.15	.34					1.08
Mt. Sterling ‖	Licking		.04	T.	T.		.22				.10		.58	.04		.47					.51	T.				.33		.15	.45				2.89
Owensboro ‖	Ohio		.32										.55												T.	.25			T.				1.12
Paducah ‖	do		1.70	T.						.10	2.30		1.50									T.				.04			.10			.04	5.78
Pikeville ‖	Big Sandy		.60	.20	.40	.06	.35							.12				.46		.50	.30			.16		1.50			.25	.20			5.10
Richmond	Kentucky			.12			T.		.01				.35			.03		.44		.01	.37							1.63	.11				3.07
St. John ‖	Salt	.06	.04								T.		.25													T.							0.35
Scott	Licking	T.	.04				.23			T.		.09	.39		T.	.75	.07			.01					.60		T.	.44					2.62
Shelby City	Kentucky	.40											.24							.05							.03	.09	.09			.47	1.37
Shelbyville ‖	Salt		.30										.40								.60					.45							2.75
Taylorsville	do	T.	.02	.01							.15	.01	.22		T.	T.				.83	T.				.35							T.	1.59
Williamsburg ‖	Cumberland		T.	.37	.04								.44								.20			.32		T.		.45					1.82
Williamstown ‖	Licking		.60	.05			.28				.01		.37	.01		.58				.03	.36				T.	.50		.30				.55	3.64
Tennessee.																																	
Ashwood	Tennessee							T.			2.00		.65											T.				T.			.05	.05	2.75
Benton	do			T.		.10					T.	.30	.76			.33							T.	.29	.48	.98	T.				.18	T.	3.42
Bird's Bridge ‖	do		.37		.82	.45							.11	.15		.13					.19					1.48	.02	.04	T.				3.76
Bluff City ‖	do		.83		.09	.13							.06	.02							.73					.09				.25			2.20
Byrdstown	Cumberland	.29										.95	.31										.10				.75	.50			.03		2.93
Carthage ‖	do			.60								.05	1.38											.13		.10		.32	T.				2.58
Cedar Hill	do	.30	.60							.03	.04	.85	1.20														T.	T.					3.02
Celina ‖	do			.10									.57							T.				.18		.03		.13	.42				1.43
Charleston ‖	Tennessee			.11	.06	.08						.60	.40	.40		.04								.08	.18		.07	.07	T.			.15	2.24
Chattanooga	do										.05	.94	.64				.01							.38	.86		1.20	.31				.01	4.40
Clarksville	Cumberland	T.	1.22							.01	.44	.06	.70														T.	T.					2.43
Clinton ‖	Tennessee			.11		.28						.21	2.10												T.	.70		.20			.15	.09	3.84
Crossville	do			.20							.57	.60	.15										.07		.13	T.	.03			.15	.05	.21	2.16
Dandridge ‖	do					.16							.14								.22					.14			.24				0.90
Decatur	do		.06									.66	1.12		.04		T.				T.			1.52	.13	.01	.13	.10			.72		4.49
Dickson	Cumberland	.47									1.00	.40	.85																			.45	3.17
Dover	do	T.	.45									.22	.68																T.	T.	T.		1.35
Dunlap	Tennessee		.30									.82	1.45			.05	.30							.35	.26	.26	.65				.21		4.65
Elizabethton ‖	do			.63		.21	.46	1.30	.60	.01				.45	.66		.13	.23	.07					T.			.14	1.05	.78		1.15		7.87
Erasmus	Cumberland		T.	.40			.09					.42	.67										1.15		.27		1.55	T.		.08	T.		4.63
Florence	do		.24								.24	.12	1.24										.03		T.		T.			T.			1.87
Franklin	do	.54	.56							.80	.20	.60																T.				T.	2.70
Hall's Hill ‖	do		T.									.30	.97	.03										1.60		.12	T.	.35		.10			3.47
Hohenwald	Tennessee	.07	.12								.16	.03	3.00											2.04			.80	.05		.26	.36		6.69
Iron City	do	T.									2.11	.10	.50											T.			.23	.17		T.			3.11
Jefferson City	do		.86		.26							.56	.11							.29								.29					2.37
Johnson City ‖	do		.30			.68							.52			.08	.53								T.		T.	.16				.19	2.46
Johnsonville	do	.78	.76	.04				T.		.05	.04	.52	1.20														.69	.45		.08	.02		4.63
Kingston ‖	do			.46								T.	.48	.03										.06	.05	.68		.61	.17	T.		T.	2.54
Knoxville	do	.82	.51	.01	.12						T.	.94	.07			T.								.10	.12	.07	.16	.47			.38		3.77
Lebanon	Cumberland		.20								1.80	.80	.08												T.		.47	T.		T.	T.		3.35
Lewisburg	Tennessee						T.	T.		T.	.17	.02	.95							T.			T.	T.	T.	.11	T.		.05		.41	.10	1.81
Liberty ‖	Cumberland			1.15									.85	.05										1.29				.35					3.89
Loudon ‖	Tennessee											.03	.59	.06										.06		T.		1.02	.07			.07	1.90
Lynnville	do		T.							T.	.20	T.	1.15											.05	T.					.66	1.15	.60	3.81
McGhee ‖	do	.12		.70		.11						.12	.89	.35			.11							.08		.72			.58			T.	3.78
McMinville	Cumberland	.18								.02		.07	.37	.03						.10			.33		.44		.20		.05				1.79
Maryville	Tennessee																																
Mountain City	do		.58	.66	.37							.07	.60		.02					.41								.45	.22	.03	.29		3.70
Nashville	Cumberland	.47	2.02							T.	.09	.10	1.38												T.	T.	.03	T.			T.	T.	4.09
Newport ‖	Tennessee			.68		.15							.05													.50	.20	.05	.17				1.80
New River ‖	Cumberland												.41					.15						.05		.37		.25	.46		.45		2.14
Palmetto	Tennessee						T.	T.		T.	.10	.20	.70							.12			.43	.06	T.	T.	.17	T.	T.	T.	T.	T.	1.78
Perryville	do	.13		1.93						.19			.64													.20	1.02	.15		.50			4.76
Pinewood	do	.50									1.50	.20	.75																		.77	.46	4.18
Rogersville ‖	do		.16	.50		.21							.73					T.			.26					.11		.95	.12				3.04
Rugby	Cumberland		T.	.36								.65	.10										T.	T.	.45		.15	.37		.36	T.	T.	2.44
Savannah	Tennessee							T.		.72			1.30											T.		.70	.37	T.		.20		.25	3.54
Sevierville	do	T.		.10	.37	.04						.15	.26												.21	.99	.05	.65			1.40		4.22
Sewanee	do										.11	.46	1.46											.27	.53	1.12		.19			1.02		5.16
Sparta	Cumberland			1.75			T.					.10	.90										.05	.20	.45		.72				.52		4.69
Springville	Tennessee	.05	T.	.02				T.		.09		.98	1.59														.05	.12			.04	.04	2.98
Tazewell ‖	do		T.		.37								.35	T.		T.					.23			T.		.28		.37	.16				1.76
Tullahoma	do	.01					.20				.07	.19	1.21										1.08	.21	.46			.20					3.63
Walling ‖	Cumberland	1.15		.09							.05		1.05	.01										.10		.15				.30		.20	3.10
Waynesboro	Tennessee									T.	.61	.10	.64			T.				.04			T.	.46	T.	.36	T.	.14		.30	.60	.12	3.37
Wildersville	do	T.	.06									.70	.66														.18	T.	.40		.18		2.18
Worsham ‖	Cumberland	.49	.97									.50	1.18														.03				.43		3.60
Yukon	Tennessee									T.	.15	.50	.53										T.	T.	.23	T.	.30		T.				1.71
Alabama.																																	
Bridgeport ‖	Tennessee											.12	1.85	.20		.10								.14		.34	.49	.51			.10	.44	4.29
Decatur ‖	do										.50	.15	.48	.05											.85	.05	.03				.05		2.16
Florence	do							T.		T.	.18	T.	.57	T.									.13	.09	.06	.60		1.10	.01	T.	T.	.29	3.03
Guntersville ‖	do	.90										.80	.71	.04							T.			.48	.02	.08	.06			.72	.05	.02	3.88
Madison	do													.60													.23				1.42		2.25
Riverton ‖	do		.11		.38						.03	.63	.02	.27												T.	.18	.24	.38		T.		2.24
Scottsboro ‖	do										.14	1.72	.64								.02		T.		.24	.07	.36		.38		.15		3.72
Tuscumbia ‖	do											.30	.50	.20											.25	.10			.15			.08	1 58
Georgia.																																	
Diamond	Tennessee				.02						T.	.90	.30			.05					.03				.11	T.	.35	T.			1.92		3.68
Mineral Bluff	do	.42											.40													1.30			.05	.40	.09	.42	3.08
North Carolina.																																	
Altapass	Tennessee			.90	.20					.70								.90						.10							1.50		4.30
Andrews	do			1.96	.02							1.17	.95		.03	.05								.06	.10	.68		.77		.40	.14	.02	6.35
Asheville	do		T.	.09	.67							.29	.02							T.	.20		.40	.07	.09	.15	.01	.09	T.	T.	.19	.89	3.16
Banners Elk	do	.37		.25	.37							.62					.10				.10				.20	1.90					.46		4.37
Blantyre	do		.15	.10	.10							.50	.23		.22	.10					1.27		.10	.20	.23	.65	.25	.75			T.		4.85

TABLE 2.—*Daily precipitation for July, 1913. District No. 3*—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	31	
North Carolina—Con.																																	
Blowing Rock	G. Kanawha		.02		1.08							1.86													.14	.44		.76		1.20	.09		5.59
Bryson City ‖	Tennessee	.35											.95	.65						.07					.25	.12	.13	.95	.70		.05	.06	4.28
Cane River	do	.04			.07							.05	.11							.21				.06	.37	.53	.17	.40	.15	.40	.11	.01	2.68
Cullowhee	do		.02	T.	.05							.53	.46			.03	.02							.05			.50	.73	.14	.06	.22	.59	3.40
Eagles Nest	do			.13	.09	.45					.03	.23	.52		.24	.05						.03			.11	.04	.60	.37			.03		2.92
Elijay	do				.10							.76	.44											T.	.21	.15	.04	.26	.70	.36	.43	.67	4.12
Highlands	do				.70							.80	.95			.40					2.35		.42	.25		.22	.23	.52	1.22	1.00	.70	.55	10.31
Hot Springs	do	.18	T.		T.						T.	.12	.07												.34	.47	.09			.10			1.37
Jefferson	G. Kanawha	T.		.46	.55						.82	T.	.10		T.		T.			.17			T.			.22	T.		.61	T.			2.93
Marshall ‖	Tennessee					.09							.47		.04							T.			T.	.37	.26			T.		.26	1.49
Murphy ‖	do					.25						.11	1.91	.32												.26	T.	1.22	.16		1.34	.11	5.68
Rock House	Savannah			.30	.59	.19					T.	.84	1.05			.05					1.35	.05	.20	.09	.35	.11	.06	.63	.26	.46	.27	T.	6.85
Transon	G. Kanawha				.75							.20	T.				T.							T.	.29			.27				.54	2.05
Waynesville ‖	Tennessee		T.	.05	T.	.20	.05					T.	.35	.44		.20	.05					.13			T.	.08	.21	.52	.14		T.	.25	2.67
Virginia.																																	
Blacksburg	Kanawha		.47	1.00	2.49						.31	.10	.11		.18	.02		.07		.14			.04		.35	.05	.01	.04					5.38
Burkes Garden	Tennessee		.20	T.	.15					.13	.20	.50	.44					.57		.42			.34		.20				.37				3.52
Elk Knob	do		.67		.08							.42	.04			T.	.05			.63					.18	.08	.02		.01	T.	.02	.07	2.27
Emory	do		.05										.65		.06	.03													.04	.03			0.86
Ivanhoe ‖	Kanawha			1.10	1.00	.30							.26	.06		.06	.02	.05	.05	.14	.14			.24	T.	.05			T.	.60	.02		4.09
Max Meadows	do		.21	.67	.19						T.	.18	.15		T.	.11	T.	T.		.12	.18		T.	T.		T.		.02	1.05	T.			2.88
Mendota ‖	Tennessee				.70								.35	.15							.12				.05								1.37
Mountain Lake	Kanawha		.65	1.25	1.28						.60					.18		.15		.55				.08				.42					5.16
Radford ‖	do		.20		.32	.26						.22	T.			.46		T.			T.					.50			.20				2.16
Speers Ferry ‖	Tennessee		.30			.06							.27												.04	.08			.16	1.10			2.01
Wytheville	Kanawha		T.	.22	.32						.12	.23	.06		.09		T.	.04		.26			T.			.01		.05	1.15	.11			2.66

* 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 July, 1913. District No. 3, Ohio Valley.*

Date.	Pennsylvania.				West Virginia.																Ohio.							
	Greenville.		Pittsburgh.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.§§		Morgantown.		Parkersburg.		Wheeling.§§		Canton§§.		Cincinnati.		Columbus.		Dayton.	
	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....	97	67	93	72	95	73	92	67	94	65	100	70	98	71	95	71	99	72	95	67	97	69	97	75	97	73	95	72
2....	85	64	84	72	95	73	88	66	87	67	93	74	90	71	94	68	89	73	88	65	85	67	87	75	88	71	89	71
3....	91	55	90	67	93	76	84	66	89	65	97	74	92	71	93	64	95	71	95	64	92	60	94	75	94	71	92	72
4....	93	61	92	74	94	71	82	65	90	62	92	65	93	70	.....	67	95	71	95	67	96	68	94	76	92	71	92	74
5....	91	69	86	68	92	70	84	63	88	64	90	63	94	74	88	69	94	68	90	72	91	71	95	72	94	72	93	73
6....	78	63	77	58	90	75	81	65	79	61	88	58	88	70	80	64	83	67	84	60	80	63	85	68	81	60	81	62
7....	75	46	72	54	83	60	77	50	70	50	80	50	83	59	75	55	78	59	82	51	77	46	82	60	78	54	80	56
8....	82	56	80	55	86	56	78	49	78	46	88	51	91	55	83	52	87	58	88	55	85	47	89	68	88	60	87	60
9....	66	53	81	65	90	65	82	58	81	52	90	53	94	66	83	64	90	68	87	53	80	66	93	68	89	65	90	64
10....	84	55	74	59	88	66	80	69	78	55	91	55	88	69	79	65	79	65	83	61	78	54	82	66	79	60	80	60
11....	79	44	83	54	87	66	75	63	83	53	93	54	86	63	85	52	85	58	87	53	81	44	89	62	84	56	85	58
12....	84	57	78	69	87	72	75	65	77	63	88	53	86	67	83	60	83	65	89	56	84	59	86	70	83	70	82	68
13....	87	57	85	68	93	70	83	58	85	60	90	56	94	69	85	66	90	70	80	66	89	62	91	71	90	68	89	66
14....	79	66	81	65	88	69	82	62	82	60	91	58	91	73	83	62	86	64	84	61	85	64	91	72	85	66	88	65
15....	81	51	80	59	86	69	82	63	76	62	88	56	88	68	82	72	86	70	86	65	83	57	92	69	88	66	88	66
16....	83	48	82	59	88	69	87	67	81	57	89	58	89	70	82	55	83	64	87	57	85	52	85	70	81	66	81	63
17....	83	62	85	64	93	66	89	63	86	57	93	64	98	71	86	60	93	67	88	60	90	64	97	77	93	70	91	74
18....	84	61	82	66	93	71	90	66	82	69	93	68	98	71	.....	.....	90	68	87	65	86	64	96	75	91	69	90	71
19....	83	57	80	62	90	68	88	63	85	65	95	65	85	70	84	63	87	69	81	65	82	60	86	72	84	68	83	66
20....	83	54	79	63	84	65	78	58	80	59	90	62	86	65	.....	.....	84	67	87	60	83	55	84	66	82	63	80	62
21....	79	50	77	58	82	67	81	56	75	54	84	64	86	59	79	54	78	61	83	55	80	52	81	61	80	58	80	58
22....	84	42	83	57	86	60	84	56	84	51	90	65	90	59	85	55	85	57	88	56	84	49	89	65	85	62	84	60
23....	89	50	85	68	88	70	83	61	84	59	88	62	88	62	86	66	89	64	89	57	90	54	91	70	89	65	88	69
24....	77	62	71	63	85	68	86	60	77	61	84	60	79	70	85	62	74	68	72	70	78	65	81	67	80	63	79	62
25....	86	58	75	56	79	67	83	60	77	55	91	65	83	64	83	61	76	60	78	56	78	47	79	60	77	57	79	55
26....	84	46	85	60	86	63	84	62	85	51	93	66	91	59	86	57	87	60	88	55	88	54	91	64	88	58	87	59
27....	89	56	88	69	90	69	86	64	86	60	97	68	88	65	89	67	88	69	92	57	92	60	91	72	91	62	90	70
28....	94	63	89	73	92	69	87	77	89	65	99	65	96	70	90	72	93	72	94	70	94	67	95	76	93	70	92	71
29....	93	64	91	71	92	73	90	65	90	64	99	66	95	72	91	68	94	73	94	68	94	68	97	77	94	74	96	72
30....	92	65	92	74	92	75	93	61	92	67	100	75	95	72	92	74	98	70	96	71	95	70	101	75	97	74	99	73
31....	94	56	90	71	94	74	92	66	91	63	98	74	97	70	92	67	93	72	94	68	95	60	100	75	96	67	98	69
Mns..	84.8	56.7	82.9	64.3	89.1	68.5	84.1	62.4	83.3	59.4	91.7	62.5	90.3	67.3	85.6[a]	63.2[b]	87.5	66.5	87.5	61.5	86.6	59.3	90.0	70.0	87.5	65.5	87.4	65.8

Date.	Ohio.				Indiana.												Philo, Ill.		Kentucky.									
	Marion.		Waverly.§§		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.				Beattyville.§§		Bowling Green.§§		Earlington.§§		Greensburg.§§		Lexington.	
	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....	97	72	96	69	97	67	96	74	92	74	90	72	95	72	88	71	90	74	95	68	98	72	99	72	98	72	93	73
2....	92	69	88	70	94	70	90	74	87	72	90	69	92	70	92	84	91	70	91	68	94	73	90	73	94	74	88	71
3....	90	63	92	70	95	67	90	73	92	72	92	67	93	71	93	81	93	71	94	69	92	68	93	71	96	69	90	70
4....	95	70	93	70	94	73	92	74	92	76	89	71	95	70	92	82	94	72	96	68	95	70	96	72	98	70	91	74
5....	92	70	94	72	98	75	96	77	94	75	91	73	97	75	96	86	95	73	97	67	97	70	98	74	100	68	92	73
6....	85	63	84	67	90	63	90	74	82	66	82	62	88	65	93	74	86	72	90	67	93	69	94	66	95	68	85	67
7....	79	47	81	51	88	57	87	68	79	60	82	51	89	59	86	.....	87	60	86	61	88	60	90	60	86	51	80	61
8....	90	52	87	51	94	66	94	69	90	66	91	55	95	63	92	.....	96	68	90	55	97	62	100	61	98	59	89	67
9....	88	60	93	59	97	69	92	72	91	66	82	63	95	64	94	.....	91	66	94	60	92	64	93	70	95	66	91	70
10....	81	55	83	62	87	64	85	70	79	61	78	55	85	56	83	.....	79	57	88	65	92	71	94	71	93	71	83	67
11....	89	49	85	55	91	62	85	70	87	62	85	52	93	56	88	61	92	53	89	65	89	67	96	70	92	67	85	67
12....	84	70	84	63	87	65	83	70	84	68	83	68	89	69	85	69	86	68	86	67	84	65	87	69	86	67	82	68
13....	91	62	90	63	92	67	90	69	90	67	91	63	98	63	90	70	98	60	91	59	92	65	93	67	93	63	88	68
14....	85	64	90	73	93	74	91	75	90	66	88	63	95	67	90	74	95	67	91	65	92	70	95	74	97	68	89	72
15....	88	67	88	67	94	67	91	77	91	67	94	66	98	70	94	77	96	74	95	66	94	71	96	74	95	70	90	66
16....	87	60	84	67	92	73	95	76	90	75	88	67	99	72	91	74	99	71	95	67	94	70	105	72	100	70	87	70
17....	90	69	95	71	103	74	101	76	93	75	87	74	100	73	103	75	100	73	98	67	100	71	103	74	104	69	98	73
18....	88	65	94	66	102	70	102	78	90	70	85	63	96	66	98	73	91	65	104	69	103	71	104	74	109	70	99	72
19....	86	65	89	69	88	64	87	68	83	66	83	61	89	61	90	72	86	65	91	67	93	73	92	76	96	70	82	62
20....	78	59	85	59	87	56	88	70	80	61	73	56	86	57	92	57	83	57	96	60	93	64	94	61	96	60	81	64
21....	82	54	83	54	85	54	83	62	79	58	81	52	85	53	88	61	81	53	86	57	89	60	89	57	92	58	80	58
22....	88	56	89	53	91	62	90	64	85	62	85	50	92	57	92	60	90	.....	92	54	95	58	100	54	97	54	88	62
23....	80	59	89	63	94	64	91	70	88	65	82	58	95	56	81	69	88	54	94	61	96	61	97	64	97	64	89	67
24....	80	65	76	68	87	67	78	69	79	60	78	63	84	67	82	54	82	62	94	64	89	61	88	72	94	68	78	68
25....	81	49	78	55	83	53	86	62	79	54	81	45	87	50	87	63	82	47	88	65	92	65	91	63	95	66	80	60
26....	91	52	88	52	90	63	88	70	88	63	89	55	95	61	.....	.....	93	60	95	59	93	68	95	67	94	65	88	64
27....	86	69	91	60	92	70	93	75	92	72	93	68	100	71	92	74	97	73	93	64	97	69	98	74	101	71	91	69
28....	94	67	95	68	93	71	94	75	94	73	93	71	99	69	92	70	96	75	98	67	98	70	99	73	101	69	90	72
29....	97	71	97	68	101	72	97	76	97	73	96	66	103	69	96	72	103	68	99	65	101	70	103	72	104	69	95	72
30....	97	70	100	68	103	70	101	76	102	77	99	69	105	70	97	73	105	70	103	67	101	72	103	74	104	72	99	75
31....	93	64	96	67	100	73	96	75	98	69	99	65	103	72	98	73	99	71	103	68	101	70	101	71	105	69	96	73
Mns..	87.9	62.2	88.9	63.5	93.0	66.5	91.0	71.9	88.3	67.5	87.1	62.4	94.0	65.0	91.2[a]	71.1[a]	91.7	65.6[a]	93.6	64.2	94.3	67.4	96.0	69.1	96.9	66.7	88.3	68.2

TABLE 3.—*Maximum and minimum temperatures at selected stations for July, 1913. District No. 3*—Continued.

Date.	Kentucky.						Tennessee.														Decatur, Ala.§§		Asheville, N. C.		Virginia.			
	Louisville.		Maysville.§§		Williamsburg.§§		Chattanooga.		Johnson City.§§		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.						Blacksburg.		Wytheville.	
	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	76	101	70	96	72	92	74	84	70	94	74	92	71	97	73	93	70	95	68	94	74	88	65	92	66	91	67
2....	90	74	92	70	95	68	91	74	99	71	94	72	92	72	93	72	91	71	93	68	89	73	90	66	92	68	89	68
3....	91	74	94	71	93	68	95	73	93	68	92	72	91	72	94	72	94	70	91	74	94	70	89	69	83	64	85	65
4....	93	76	98	69	95	64	97	73	94	69	93	72	93	74	96	70	93	71	97	68	95	70	87	66	83	64	85	66
5....	95	77	99	72	93	65	97	71	90	66	94	70	94	73	98	72	96	75	97	67	97	70	86	64	86	65	86	65
6....	87	73	89	66	89	60	94	78	90	71	92	74	92	77	99	75	90	70	96	69	99	75	85	65	82	64	83	70
7....	83	65	85	53	86	54	85	69	84	58	82	66	85	70	89	61	83	58	89	60	91	66	76	58	73	56	74	53
8....	93	67	92	59	94	58	91	65	90	54	87	62	94	64	96	58	93	58	97	56	95	61	81	51	80	47	81	47
9....	92	74	98	63	93	61	91	70	89	60	89	68	86	74	92	72	93	63	84	64	96	67	82	62	85	54	84	55
10....	88	71	88	66	93	68	83	73	91	67	89	72	92	70	92	69	91	67	93	65	82	70	82	61	81	61	85	66
11....	88	69	90	59	86	66	80	70	91	69	82	68	86	70	85	70	86	71	87	68	84	69	78	64	82	63	81	66
12....	85	70	87	62	83	69	81	65	80	68	80	71	80	67	83	68	81	69	80	68	83	72	76	64	79	64	78	64
13....	91	70	94	65	93	64	89	69	88	68	88	68	89	70	90	67	89	67	90	66	90	68	85	61	85	58	82	60
14....	91	75	95	71	92	68	91	70	88	66	89	71	91	76	92	70	91	70	93	69	92	70	86	63	85	62	84	66
15....	92	75	94	69	92	66	89	73	89	67	90	72	90	75	92	70	92	68	93	67	93	72	84	67	79	63	81	66
16....	93	78	88	69	97	67	93	71	88	69	94	71	92	74	96	70	94	68	94	67	95	70	87	65	86	55	86	62
17....	102	77	102	69	98	66	95	74	94	67	96	73	95	76	99	74	96	71	97	67	96	74	90	65	87	62	88	66
18....	104	80	100	70	105	75	98	78	98	71	100	76	98	77	101	71	100	70	99	66	99	72	93	68	89	66	90	70
19....	84	64	87	70	97	72	98	77	95	71	98	76	94	76	102	74	94	70	90	68	101	74	94	68	90	68	88	63
20....	88	67	88	61	92	68	91	74	89	64	89	71	91	69	93	66	90	70	90	62	93	72	82	65	83	58	82	59
21....	85	60	88	56	90	56	92	68	94	59	89	65	86	68	91	61	90	58	88	58	92	64	84	58	81	53	79	55
22....	90	65	91	56	88	54	85	70	95	60	88	65	88	63	86	60	89	59	91	58	91	67	77	63	79	52	79	52
23....	92	70	94	59	92	62	87	70	90	65	87	69	92	68	89	69	89	69	91	64	89	69	81	62	84	58	84	63
24....	78	66	77	60	87	72	84	68	86	67	84	68	84	70	83	68	82	66	88	68	83	66	83	62	84	60	82	66
25....	83	59	84	56	90	68	84	71	87	68	84	70	85	72	86	69	88	69	89	69	84	69	76	66	81	64	79	66
26....	90	67	95	55	90	61	85	70	89	65	83	69	89	72	89	71	83	69	87	68	91	71	75	67	80	59	83	60
27....	95	72	97	59	92	67	88	70	88	67	84	71	91	75	93	71	91	69	90	69	92	72	82	65	86	60	84	62
28....	96	74	99	69	94	70	90	71	92	69	90	69	95	75	93	69	92	70	93	67	95	70	86	65	87	64	87	65
29....	97	76	99	69	100	68	94	73	96	67	94	72	97	77	96	73	94	70	96	69	94	72	88	65	92	63	87	65
30....	101	76	104	69	101	68	91	73	97	68	96	73	98	76	99	71	88	70	95	67	95	71	88	67	92	64	92	69
31....	101	77	101	69	102	67	95	69	93	69	95	70	97	73	97	70	94	69	93	69	95	71	89	65	94	64	91	69
Mns..	91.4	71.4	93.2	64.5	93.2	65.5	90.2	71.4	90.7	66.4	89.9	70.3	90.9	72.1	93.0	69.2	90.6	67.9	91.8	66.2	92.2	70.0	84.2	63.9	84.7	61.0	84.4	62.9

a, b, c, etc., indicate, respectfully, 1, 2, 3, etc., days missing from the record.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.