less than 1 inch. There was a general deficiency which ranged from about 0.50 inch over the headwaters to more than 3 inches in northern Louisiana, the average departure being about 1.5 inches.

Louisiana coastal plain.—Over the greater portion of this area the precipitation was light and the amounts ranged from none at Reserve, St. John Baptist Parish, to 4.18 inches at Jennings, Calcasieu Parish. The amounts from 24 stations averaged 1.77 inches. Two stations reported 4 inches, or more, and 5 less than 1 inch. The precipitation was below the normal, except at 2 stations, the average deficiency being 1.6 inch.

SNOWFALL.

Over the mountainous portions of Colorado and New Mexico areas, the snowfall was heavier than is usual for November, averaging 21.9 inches for the Colorado area and 9.9 inches for the New Mexico area. There was a severe snowstorm, for the time of the year, over the northwestern counties of Texas on the 28th and 29th, the amounts being slightly over 6 inches in the northern portion of the Panhandle; the heaviest fall reported was 6.4 inches at Dalhart. Light snows occurred in many localities in Kansas, the average fall being 0.5 inch. In Oklahoma snow occurred at but 2 stations, Supply reporting a trace and Kingfisher 7.0. This occurred during the storm of the 12th to 16th.

RIVERS.

All streams in that portion of the Arkansas basin that lie in Kansas and Oklahoma were bank full at the close of the month, and freshets occurred in some places as a result of the excessive precipitation over those areas. At Little Rock the stage was slightly above or below 1 foot until the 18th when a rapid rise commenced and a stage of 10.8 feet was recorded on the 22d. From the 23d to the close of the month the river fell slightly and the stage was 4.8 feet on the 30th.

No decided change occurred in the stages of the Red River. The extreme stages, in feet, were as follows: Dennison, −0.5 on the 14th to 2.9 on the 20th; Arthur City, 4.8 on the 1st to 8.9 on the 22d; Lewis Ferry, 3.8 on the 1st to 7.0 on the 25th; Fulton, 4.9 on the 9th to 9.0 on the 26th; Shreveport, −4.3 on the 1st to −0.6 on the 30th; Alexandria, −0.6 on the 3d to 1.7 on the 30th.

There was a slight rise in the Ouachita at Camden from the 15th to the 22d, when a stage of 8.8 feet was recorded; otherwise changes in the stages of this stream were slight.

The lower Mississippi rose during the greater part of the month. The rises in feet occurred as follows: Memphis, from 6.2 on the 3d to 14.7 on the 25th; Helena, 6.3 on the 6th to 16.9 on the 26th; Arkansas City, 6.8 on the 6th to 20.2 on the 28th; Natchez, 4.6 on the 8th to 16.5 on the 30th; Baton Rouge, 4.5 on the 18th to 9.9 on the 30th; and New Orleans, 3.8 on the 8th to 5.5 on the 30th. Small streams in some portions of Mississippi were very low.

NOTES.

The rise in the Arkansas River during the second decade enabled navigation to be resumed, it having been suspended for many weeks on account of the low water.

Snowstorms in northwestern Oklahoma from the 12–16th and in the Texas Panhandle during the 28th and 29th caused some injury to stock interests.

RELATIONS BETWEEN PRECIPITATION, RUN-OFF, AND DISCHARGES IN THE TALLAHATCHIE DRAINAGE DISTRICT.

By A. L. DABNEY, Assistant Chief Engineer, Tallahatchie Drainage Commission.

This district comprises about 1,900 square miles in the north end of what is commonly known as the "Yazoo Delta" in Mississippi. It exists under a special law passed by the Mississippi Legislature and approved by the Governor, March 2, 1908. The territory embraced is all of Tunica, Quitman, and Coahoma counties and parts of De Soto, Tate, Panola, and Tallahatchie counties. It is bounded on the north by the Mississippi and Tennessee State line, on the east by the base of the hills bordering the Mississippi River Valley, on the west by the Mississippi River, on the south by the south lines of Coahoma and Tallahatchie counties.

There is a natural divide which runs approximately north and south through the district. The area west of the divide, about 270,000 acres, is made tributary to Sunflower River, while the remainder of the district, about 900,000 acres, is tributary to Coldwater and Tallahatchie rivers, the latter joining with Yalobusha River a short distance below this district to form the Yazoo, which, after being joined by the Sunflower much lower down, discharges into the Mississippi through the Yazoo Canal in front of Vicksburg.

The hill area drained by Coldwater and Tallahatchie rivers and minor streams entering the district is about 3,800 square miles, which, added to the 1,400 square miles within the district and east of the main divide, gives a total of 5,200 square miles tributary to Tallahatchie River above Philipp.

Drainage commissioners.—There are 11 commissioners, the larger counties having 2 each and the counties with a small area in the district having 1 each. The commissioners are appointed by the governor, and hold office 4 years.

Funds for the work.—The law creating the district provides for an annual "flat" acreage tax not to exceed 7 cents, to pay for preliminary surveys and administration, and to be reduced in the judgment of the drainage commission. There are to be 2 betterment assessments—1 for the main drains and 1 for the laterals. Construction work will be paid for by a tax levied on the betterment, not to exceed 10 per cent per year. Bonds may be floated, to be refunded from these taxes.

Surveys.—The surveys of the Mississippi River Commission and the levee district afforded a line of control levels along the west side of the district. A line of precise levels was run the length of the district near the east side, and numerous cross lines were run connecting these two main lines, giving a comprehensive system of control levels.

By a cooperative agreement, the U. S. Geological Survey began a topographical survey of this district, and about half the territory has been covered thus far with this system. The other half has been covered with a system of transverse lines with levels, about every 2 miles, and transverses of all important streams. It is proposed to extend the detail topographic survey over this area also.

A number of cross sections of the more important streams have been taken, the location of each section being shown on the map by its number.

Data for drainage plans—Before attempting to solve the drainage problems presented, it was evident that as much data on rainfall and run-off as possible should be available. For the rainfall, recourse was had to the records of the U. S. Weather Bureau. For the run-off, to the water supply papers of the U. S. Geological Survey, Reports of the U. S. Department of Agriculture Drainage Investigations, and to actual gagings in cooperation with the U. S. Geological Survey, Hydrographic Department.

Rainfall.—Daily records of the rainfall were procured from the local offices, U. S. Weather Bureau for Memphis and Vicksburg since 1871, for Helena, Arkansas City, Austin, Clarksdale, Swan Lake, and Greenwood since 1897, and for about 15 cooperative stations on the watersheds of Coldwater, Tallahatchie, and Yalobusha rivers since January, 1907.

From the older records summaries were made giving, for each station and each month, the following data:

Heaviest precipitation in 24 hours, 48 hours, and and 72 hours.

Number of days with more than 1 inch, 2 inches, up to 6 inches.

Total for the month.

For the later and current records, a graphic daily record was made and is being continued for each station. Also, this district has established 14 additional stations on the watersheds mentioned, from which a card report is received for each day that precipitation is recorded. The daily records from these stations are sent monthly to the U. S. Weather Bureau.

Stream discharge (run-off).—As soon as the system of control levels was sufficiently advanced, a party was organized to establish river gages. Thirteen gages were set from which, together with 3 gages formerly established by the U. S. Geological Survey, weekly card reports are received giving daily gage readings. About 20 additional gages were set from which only high water readings were received. All of the gages are marked to true elevation by the datum used (zero mean Gulf level), so that every gage reading is a record of the water at that station above mean Gulf level, and the ascertaining of river slopes and relation between the elevation of a river at any time and locality and elevations of lands in the surrounding country is much simplified.

Continuous hydrographs are kept for all of the daily gages, being curves with number of days for abscissas and heights on the gages for ordinates.

Frequent observations on discharge have been made by the district engineers and the U. S. Geological Survey Engineers, and fairly good station rating curves constructed. Special efforts were made to get a discharge observation at each station at the highest stage reached during 1909, with success for most stations, so that a very satisfactory comparison may be made of the precipitation during such a storm as occurred in the winter of 1909 and the maximum run-off produced.

The comparison is shown in the following table:

Precipitation and run-off for maximum stages, February and March, 1909.

Place.	River.	Rainfall on catchment (in inches). February, 1909.						Drainage area.	Maximum discharge.	Maximum run-off.
		12	13	14	15	16	Total			
								Sq. m.	*Cu. ft. per. sec.*	*Ins.*
Pratts Bridge*.	Coldwater.	.....	.....	.....	.....	.....	.....	1,000	12,500	0.465
	Hernando.	.....	1.15	.90	1.25	.....	3.30			
	Holly Spgs	.....	1.29	1.04	1.32	.....	3.65			
Batesville*.....	Tallahatchie	.....	.....	.....	.....	.....	.....	1,620	13,000	0.30
	Ripley.....	.45	.50	1.50	.20	2.65				
	Pontotoc..	.....	.....	1.70	.22	.....	1.92			
	Batesville.	.....	.40	.27	1.97	.20	2.84			
Murphrees Bge.	Yocona.....	.....	.....	.....	.....	.....	.....	720	4,000†	0.21
	Oxford....	.11	.95	1.57	.47	.....	3.10			
	Water Val.	.....	.....	2.48	.10	.....	2.58			
Charleston	Tillatoba....	.....	.....	.....	.....	.....	.....	170	4,300	0.94
Mouth of Coldwater.....	Tallahatchie	.....	.....	.....	.....	.....	.....	4,255	23,000	0.20
Philipp.....	Tallahatchie	.....	.....	.....	.....	.....	.....	5,200	23,000	0.17
Grenada.....	Yalobusha..	.....	.....	.....	.....	.....	.....	1,525	8,100	0.20
Greenwood.....	Yazoo.....	.....	.....	.....	.....	.....	.....	7,200	28,600	0.15

*Near where river leaves hills. †Probably not the maximum.

Discharge measurements were made with the small Price current meter, subdividing the cross sections into 10-foot widths and measuring velocity at six-tenths of depth below surface of water in each such width.

Part of the maximum flood discharge in 1909 was overflow water which was measured, at several of the stations, as it passed through railroad trestles, and at stations not on railroads by other special arrangements. It is believed that these discharge measurements are all approximately correct, though those for overflow water are not thought to be correct within a smaller limit than 20 per cent for several of the stations. This would make a possible error of 10 per cent for some of the results given in the table.

Careful inquiry among the residents led to the conclusion that the water of November and December, 1906, was the largest flood on record in the streams coming from the hills, except when augmented by Mississippi River overflows which occurred before the perfection of the levee system. Reliable high-water marks for the 1906 flood were found at or near a number of gaging stations, the gages on the Tallahatchie River giving very valuable records. The Yazoo and Mississippi Valley Railroad also supplied records which checked closely with those from other sources. This flood gave stages from $1\frac{1}{2}$ to 3 feet (5 feet at 1 station, Pratts Bridge) above that of 1909. By an extension of the rating curve for each station, up to the 1906 stage, an estimate was made of the discharge in the channel for the flood of that year, to which was added the estimated overflow. The overflow item, in most cases, can only be regarded as an "intelligent guess," yet one which is believed to be well on the safe side.

The following table shows the result obtained as the run-off from the maximum flood of past experience (of which there is any record), together with the precipitation which produced it:

Precipitation and run-off for maximum stages, November and December, 1909.

Place.	River.	Rainfall on catchment (in inches). November, 1906.						Discharge area.	Maximum discharge.	Maximum run-off.
		17	18	19	20	21	Total			
								Sq. m.	*Cu. ft. per. sec.*	*Ins.*
Pratts Bridge*.	Coldwater...	.....	.....	.....	.....	.....	.....	1,000	20,000	0.75
	Hernando.	1.65	3.70	.40	.80	2.00	8.55			
	Holly Spgs	1.45	2.44	.46	.15	3.45	7.95			
Batesville*.....	Tallahatchie	.....	.....	.....	.....	.....	.....	1,620	23,000	0.53†
	Ripley.....	.....	3.80	.90	1.30	1.80	7.80			
	Pontotoc..	1.35	.95	1.10	.....	.....	3.40			
	Batesville.	.13	3.04	.18	.31	5.78	9.44			
Murphrees Bge.	Yocona.....	.....	.....	.....	.....	.....	.....	720	10,000	0.53
	Oxford....	.....	4.20	.41	1.09	3.40	9.10			
	Water Val.	2.50	.15	.40	2.70	.....	5.75			
Charleston.....	Tillatoba....	.....	.....	.....	.....	.....	.....	170	9,000‡	2.00
Mouth of Coldwater.....	Tallahatchie	.....	.....	.....	.....	.....	.....	4,255	30,000	0.26
Philipp.....	Tallahatchie	.....	.....	.....	.....	.....	.....	5,200	30,000	0.22
Grenada.....	Yalobusha..	.....	.....	.....	.....	.....	.....	1,525	20,000§	0.50
Greenwood.....	Yazoo.....	.....	.....	.....	.....	.....	.....	7,200	35,000	0.18

*Near where the river leaves hills. †Assumed by analogy to Tallahatchie River. ‡Assume 2 inch run-off. §Assume one-half inch run-off.

The problem.—The problem of drainage in this district is, for the western portion, comparatively simple. The Sunflower River has ample capacity for any reasonable run-off, and there is a good fall to this stream for all of the territory tributary.

In the eastern part of the district the problem is much more complicated because of the water rushing out of the hills after every considerable storm and inundating a large portion of the lands in the district. As will be noticed from the table, the discharge at stations near the lower end of the district is much less than the sum of the increments, this reduction of flow being accounted for by storage of water either in lakes and swamps or in a very slowly moving volume spread over a wide expanse of level land.

This problem has only been under consideration for a few months and has not yet been finally solved. A tentative plan for enlarging the channels and shortening them by bypasses for high-water flow was worked out, with the idea of confining the flow for an average high water within the channels, anticipating that an extension of the plan would be made by adding levees, artificial storage reservoirs, or both. Mr. A. E. Morgan, Supervising Drainage Engineer, U. S. Department of Agriculture, was called in to scrutinize this plan and, after an examination of the hill watershed, was convinced that future drainage developments in the valleys will make the occurrence of such floods as that of 1906 more frequent than the engineers of this district had considered at all probable, therefore that a plan which provides for the average water only will prove inadequate more frequently than was expected. He proposed levees as a primary rather than a secondary feature, and studies are now being made along this line. The plan proposed is to convey the flood waters from the hills through the district in "floodways" between parallel lines of levee. In this plan, also, artificial storage must be resorted to.

Needs for drainage.—The Tallahatchie Drainage District is protected from the Mississippi overflow by levees which have been constructed at great cost. As a result, about one-third of the land has been brought into cultivation. The other two-thirds are generally too low to cultivate without drainage, which, in the nature of the case, can only be accomplished by treating the problem comprehensively, and not by small local districts, as is done in some other localities. The two-thirds of this district which can not be cultivated for lack of drainage have been paying levee taxes for 25 years, the same as has the one-third which is favored with fairly good drainage facilities.

TABLE 1.—*Climatological data for November, 1909. District No. 7, Lower Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .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.		
Colorado.																				
Blaine	Baca	3,935	17			79	4	16	16	44	1.40	+ 0.93	0.90	2.0	3	14	6	10	w.	M. M. Meyers.
Buena Vista	Chaffee	7,955	9																	M. D. Bowen.
Calhan	El Paso	6,700	2																	H. B. Rice.
Canon City	Fremont	5,329	21	46.6	+ 4.5	78	2†	14	16	37	1.48	+ 1.09	0.43	20.5	4	15	8	7	w.	Thomas J. Tynan.
Colorado Springs	El Paso	6,098	30	40.2	+ 2.8	70	6	6	17	40	2.30	+ 2.02	0.94	21.8	5	12	8	10		Colorado College.
Cripple Creek	Teller	9,396	9								1.18	+ 0.86	0.55	20.7	6					F. G. Willis.
Cuchara Camps	Huerfano	8,200									2.76		0.67	33.2	7	19	6	5	sw.	George A. Mayes.
Eads	Kiowa	4,209	2	40.2		76	3†	10	30	49	0.36		0.36	0.0	1				se.	W. H. Lauck.
Fairview	Custer	9,500									4.18		1.00	45.5	7	17	4	9	e.	Elizabeth L. Gray.
Florence	Fremont	5,185		51.2		79	3†	20	15†	37	1.74		0.68	11.5	4	15	0	15	e.	W. G. Fish.
Garfield	Chaffee	9,510									2.49		0.65	37.0	8	18	6	6		Lloyd N. Felton.
Glen Eyrie	El Paso	6,500	17	39.3	+ 1.3	74	3	4	17	47	2.63	+ 2.30	0.99	28.5	5	16	6	8		C. Nickell.
Hamps	Elbert	5,400	16	36.3	+ 0.3	74	6	− 1	17	50	1.15	+ 0.96	0.70	13.0	3	16	4	10	s.	W. Hamp.
Hermit Lake	Custer	10,000																		Jno. E. Graham.
Hoehne (near)	Las Animas	5,700	17	46.8	+ 6.5	83	10	15	16	53	2.10	+ 1.50	1.40	18.5	4	17	4	9	sw.	S. W. DeBusk.
Holly	Prowers	3,380	14	43.9		81	5	11	16	52	1.72	+ 1.12	0.90	1.5	5	20	3	7	se.	R. I. Arneson.
Lake Moraine	El Paso	10,265	15	27.8	− 1.7	59	2	− 9	13	41	2.85	+ 2.11	0.77	43.8	8	7	17	6	sw.	Joseph Strong.
Lamar	Prowers	3,592	19	44.4	+ 2.3	80	3†	9	16	55	1.45	+ 1.02	0.80	4.0	4	19	3	8	sw.	J. T. Lawless.
Las Animas	Bent	3,899	41	43.3	+ 5.1	80	3	5	16	50	2.00	+ 1.73	0.42	18.0	8	14	4	12	e.	F. M. Tague.
La Veta Pass	Costilla	9,000									2.43		0.70	31.9	5	17	8	5	w.	Norvin B. Lively.
Leadville	Lake	10,248	13	29.2		58	3	− 3	16	38	1.50		0.50	27.8	11				n.	U. S. Weather Bureau.
Limon (near)	Elbert	5,360	2	41.6		74	6	11	17	37	0.70		0.27	5.5	3	21	0	9	sw.	John Lesher.
Marshall Pass	Saguache	10,846	6								1.77		0.42	36.0	6	14	13	3	w.	W. D. Lillard.
North Lake	Las Animas	8,700									3.22		1.15	29.5	4	15	8	7		Guy H. Crane.
Pueblo	Pueblo	4,734	21	43.2	+ 3.9	78	6	10	16	47	1.53	+ 1.20	0.54	9.8	6	11	11	8	nw.	U. S. Weather Bureau.
Rockyford (near)	Otero	4,177	20	41.4		78	3†	− 1	16	51	1.07		0.40		6	22	1	7	n.	P. K. Blinn.
St. Elmo	Chaffee	9,500									2.42		0.68	35.7	10	17	8	5	w.	Daniel Clark.
Salida	do	7,035	11	37.8	+ 0.3	74	3	− 2	17	52	3.13	+ 2.56	1.60	31.8	6	20	4	6	w.	M. D. L. Buell.
Santa Clara	Huerfano	8,250	14																	Lincoln Morris.
Sheridan Lake	Kiowa	4,065	8	40.0		77	3	1	16	45	1.51		0.86	5.0	4				nw.	Howard Gamble.
Stonewall	Las Animas	8,000	3								1.89		0.60	28.0	6	14	11	5		J. W. Shouse.
Trinidad	do	5,994	14								1.21	+ 0.32	0.38	19.0	5	16	5	9		Mrs. Maggie Butler.
Victor (near)	Teller	10,100	5	38.0		63	3	11	16	27	1.26		0.49	19.5	7	18	5	7	e.	Fred Jones.
Vilas	Baca	3,935	19								1.12	+ 0.61	0.75	0.0	2	12	13	5	sw.	Carrie Konkel.
Westcliffe	Custer	7,864	15	35.2	+ 3.1	71	3	− 7	16	48	2.26	+ 1.45	0.80	34.0	5	11	11	8	nw.	Zack Jordan.
Winfield	Chaffee	9,765									1.07		0.32	17.8	11	10	9	11	w.	John G. Payne.
Wortman	Lake	11,250	9								1.63		0.55	29.6	5	9	5	16	nw.	George C. Wortman.
New Mexico.																				
Abbott	Mora	5,771				84	19	15	16		1.28		0.72	12.0	4	23	5	2	w.	Agt. E. P. & S. W. Ry.
Albert	Union	4,700	19	49.8	+ 2.9	78	3†	20	29	38	2.21	+ 0.45	0.63	13.0	5	18	5	7	s.	Andrew Knell.
Arch (near)	Roosevelt			51.0[b]		80[b]	4†	25[b]	28	50[b]	1.5[illegible]		1.15		2	20	0	10	sw.	Wm. A. Elliott.
Aurora	Colfax	8,849									1.3[illegible]		0.66	16.0	3	12	10	8	nw.	Miss Juanita Lucero.
Bell Ranch	San Miguel	4,500	5	48.6		80	5†	18	30	52	0.5[illegible]	− 0.65	0.24	4.0	5	17	7	6	sw.	C. M. O'Donel.
Black Lake	Colfax	8,348									0.7[illegible]		0.27	8.6	3	14	12	4	w.	Ralph T. Martines.
Cabezа	San Miguel	5,406									1.05		0.45	7.2	6	17	5	8	ne.	Agt. E. P. & S. W. Ry.
Campana	do	4,493									1.64		0.60	12.0	6	15	3	12	w.	Do.
Chacon	Mora	9,000									1.08		0.39	13.7	4	14	11	5	w.	Alfred Lucero.
Cimarron (near)	Colfax	6,395	4	44.1		77	2	14	17	49	1.01		0.77	9.0	4	17	2	11	w.	Wm. French.
Clayton	Union	5,178	5	46.2		75	6	22	29	41	2.04		0.96	6.0	7	22	3	5	w.	Dr. W. W. Chilton.
Cuervo	Guadalupe	4,849		52.2		78	4†	26	17†	38	0.30		0.27	1.2	4	21	4	5	w.	Agt. E. P. & S. W. Ry.
Dawson	Colfax	6,396									1.20		0.50	9.0	4	17	7	6		Do.
Dorsey (near)	do	6,000	8																	Geo T. Lambert.
Elizabethtown	do	8,465	3	32.4		66	2†	− 4	16	54	1.95		1.20	18.5	4	15	9	6	w.	Miss Mabel Carrington.
Fort Union	Mora	6,835	40	43.7	+ 3.4	72	1	10	30	41	0.42	− 0.27	0.20	3.0	3	19	3	8	w.	M. C. Needham.
Hayden	Union	4,444																		George L. Cook.
Lake Alice	Colfax	7,160									1.93		1.17	14.5	5					Raton Water Co.
Logan	Quay	3,851	3	51.2		82	6	11	30	49	1.83		0.81	7.5	3	22	3	5	s.	John B. Reneau.
Los Alamos	San Miguel	6,789	5								0.18		0.18	3.0	2					Wm. Frank, sr.
Maxwell (near)	Colfax	5,894	3								0.50		0.50	7.0	2					D. N. Jackson.
Melrose	Curry	4,400	1	50.4		81	4†	10	30	48	1.10		0.72	4.0	3	25	1	4	s.	Miss Lois E. Porter.
Miami Ranch	Colfax	6,000	2	44.2[a]		76[a]	2	8[a]	29	48[a]	0.99		0.76	10.5	3	14	12	4	s.	Farmers' Devel. Co.
Montoya	Quay	4,335									0.40		0.30	4.0	2	24	2	4	sw.	Agt. E. P. & S. W. Ry.
Nara Visa	do	4,225	4	49.8		79	6	20	30	37	1.65		0.50	9.0	5	21	0	9	s.	Willard Belknap.
Raton	Colfax	6,660	12	44.6	+ 2.9	73	2†	19	16	41	1.27	+ 0.98	0.81	9.0	4	23	3	4	w.	Prof. R. C. Crum.
Rociado	San Miguel	8,200	6																	Chas. F. Rudolph.
Roy	Mora	5,884									1.96		0.90	14.0	5	19	5	6	n.	Agt. E. P. & S. W. Ry.
San Jon	Quay	4,200	3	51.8		81	5†	19	30	44	1.13		0.45	4.0	4	19	4	7	sw.	Jesse T. White.
Salano (1)	Mora	5,622		45.6		75	3†	12	29†	39	2.33		0.93	17.0	5	23	1	6	s.	F. M. Hughes.
Salano (2)	do	5,622																		Agt. E. P. & S. W. Ry.
Springer	Colfax	5,857	14	41.4	+ 0.9	75	4	9	29	50	1.13	+ 0.54	0.63	12.0	4	26	2	2	w.	Agt. A. T. & S. F. Ry.
Taylor	do	5,661									1.30		0.80	16.0	4	19	6	5	sw.	Agt. E. P. & S. W. Ry.
Trementina	San Miguel		2								0.35		0.35	2.0	1	16	12	2	e.	Miss Alice Blake.
Tucumcari (1)	Quay	4,194	5	53.0		85	4	17	30	43	1.59		0.87	13.0	3	24	3	3	sw.	John F. Seaman.
Tucumcari (2)	do	4,194									2.47		1.02	21.5	6	23	2	5	sw.	Agt. E. P. & S. W. Ry.
Vermejo Park	Colfax	7,600	6	39.8		70	2	11	16	43	1.42		0.45	16.0	4	16	4	10	w.	H. W. Adams.
Wagon Mound (near)	Mora	6,300	1	42.9		74	4	9	29	52	1.09		0.96	6.0	2	17	5	8	sw.	Guy L. Barnes.
Texas.																				
Amarillo	Potter	3,676	17	50.4	+ 6.6	85	6	26	16	45	3.25	+ 2.09	1.55	6.2	6	16	7	7	s.	U. S. Weather Bureau.
Arthur	Lamar	590	17								2.46	− 0.53	0.70	0.0	6	9	5	16		J. B. Hodnett.
Bonham	Fannin	566	6	60.3[a]		85[a]	2†	24[a]	18	46[a]	2.07		0.73	0.0	5	12	5	13	se.	B. S. Lovelace.
Canadian	Hemphill	2,339	2								6.07		2.56	0.0	7					C. M. Vance.
Channing	Hartley		4	57.2[c]		94[d]	2	22	16	57[d]									n.	C. F. Land Inv. Co.
Childress	Childress	1,869	16								2.45	+ 1.26	2.00	0.0	2					W. E. Davis.
Chillicothe	Hardeman	1,406	1								4.57		1.54	0.0	7					A. B. Conner.
Clarkesville	Red River	442	4	61.2		92	2	32	17†	47	2.75		0.93	0.0	5	14	8	8		J. B. McClelland.
Clarendon	Donley	2,719	4	54.8		84	1†	25	17	40	6.63		4.00	0.0	6	18	7	5	se.	J. W. O'Neill.
Claude	Armstrong	3,397	4								4.22		1.75	0.0	3					Agt. F. W. & D. C. Ry.
Dalhart	Dallam	3,998	4	45.4[a]		80[a]	6	14	30	47[a]	1.21		0.50	6.4	5	14	6	10	n.	F. L. Kennard.
Denison	Grayson		1								1.54		0.70	0.0	7	9	2	19	s.	Wm. S. Faires.
Henrietta	Clay	915	14																	C. K. Brown.
Hereford	Deaf Smith	3,750	4																	A. C. Elliott.
Higgins	Lipscomb	2,760	1																	L. D. Shaw.
McLean	Gray		2																	W. R. Patterson.
Memphis	Hall	2,067	4	53.8		83	6	27	19	37	4.36		2.35	0.0	5	21	1	8		Agt. Ft. W. & D. C. Ry.
Miami	Roberts	2,743	3	51.4		84	4	24	17	42	4.58		2.02	0.0	7	23	0	7	s.	Jerome Harris.
Mobeetie	Wheeler										5.20		2.30	0.0	3	17	4	9	ne.	R. A. Choate.
Nazareth	Castro		3	52.6[e]		83[e]	6	25[e]	30	46[e]	2.92[e]		1.50[e]	1.5[e]	4[e]	22[a]	2[a]	5[a]	sw.	P. A. Kalein.

TABLE 1.—*Climatological data for November, 1909. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	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, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Texas—Cont'd.																				
Ochiltree	Ochiltree		1								3.62		1.50	0.0	4					S. T. Allen.
Pampa	Gray	3,226																		B. E. Finley.
Paris	Lamar	592	20	60.4[a]	+ 5.9	84[a]	3†	29	19	42[a]	2.78	− 0.10	0.96	0.0	6	13	1	16	s.	N. O. Enloe.
Plemons	Hutchinson		2	48.4		84	6	20	17	51	3.21		1.05	3.0	6	18	5	7	s.	C. S. Solomon.
Quanah	Hardeman	1,563	4	53.8		91[a]	1	22	16	49[a]	4.30		1.40	0.0	6	19	2	9	s.	E. E. Miller.
Sherman	Grayson	745	16	59.6	+ 4.2	82[a]	3†	32	18	30[a]	1.87	− 0.53	1.13	0.0	4	9	2	19	s.	R. A. Gibbs.
Sulphur Springs	Hopkins	530	17	62.0	+ 6.6	83	3†	32	18	35	1.53	− 1.70	0.75	0.0	3	14	7	9		W. B. Baxter.
Texline	Dallam	4,694	4																	Agt. Ft. W. & D. C. Ry
Tulia	Swisher	3,501	11	53.9		87	5	25	17	49	4.39		1.90	0.0	5	6	18	6	sw.	Lou Mulhall.
Wichita Falls	Wichita	958	4								3.28	+ 1.12	2.00	0.0	3					J. B. Nicholson.
Kansas.																				
Anthony	Harper	1,329	12	51.7		87	3	24	16	39	6.17	+ 5.19	2.75	0.0	7	11	10	9	s.	R. H. Beebe.
Ashland	Clark	1,951	2	49.4	+ 6.1	81	26	23	16	45	11.69	+10.88	3.90	T.	12	18	5	7	s.	C. W. Carson.
Burlington	Coffey	1,010	16	50.2[b]	+ 5.9	85	4	21[c]	18	44[c]	4.18	+ 2.87	1.63	0.0	6	11	4	15	s.	A. W. Maxwell.
Chanute	Neosho	940	5	54.4		84	4	25	16	42	5.79		1.33	0.0	9	9	16	5	s.	Chase W. Brown.
Cimarron	Gray	2,700	3	46.4[c]		84[c]	3	18[c]	16	47[c]	5.46		2.01	1.0	5	13	4	8	ne.	Fred Mallonee.
Coldwater	Comanche	2,090	11	49.6		85	3	21	16	44	7.74	+ 7.01	2.80	0.0	7	18	3	9	s.	J. L. Stanley.
Columbus	Cherokee	898	19	54.6	+ 9.1	81	4	23	17†	38	7.69	+ 5.36	2.28	0.0	11	8	16	6	sw.	O. E. Skinner.
Coolidge	Hamilton	3,346	13	44.2	+ 4.1	85	6	10	16	57	1.16	+ 0.62	0.96	1.5	5	20	3	7	se.	W. R. Padley.
Cottonwood Falls	Chase	1,234	5	50.1		85	3†	19	18	47	7.45		4.00	0.0	13	13	3	14	sw.	E. B. Greene.
Council Grove	Morris	1,191		52.2		81	6	20	17	39	7.18		5.00	0.0	4	16	2	2	s.	Geo. W. Cleek, jr.
Cunningham	Kingman	1,680	21	50.2[a]	+ 6.3	94[a]	3	21[a]	16	52[a]	6.75	+ 5.92	0.85	0.0	7	13	6	11	n.	W. H. Morton.
Dodge City	Ford	2,513	35	47.0	+ 6.5	82	3	19	16	43	5.81	+ 5.26	2.14	2.2	8	13	7	10	s.	U. S. Weather Bureau
El Dorado	Butler	1,291	7	51.6		85	4	22	17	45	7.47		3.90	0.0	11	14	6	10	s.	W. Y. Miller.
Ellinwood	Barton	1,788	15	48.9	+ 6.5	84	4	19	16	45	6.84	+ 5.99	2.20	1.0	10	8	13	9	nw.	Martin Musil.
Emporia	Lyon	1,138	25	50.6	+ 6.9	82	3	18	22	37	5.62	+ 4.33	3.10	0.0	8	8	12	10	s.	W. H. Boyles.
Eureka	Greenwood	1,093	11	51.6		85	3	21	18	42	4.79	+ 2.99	2.50	0.0	8	15	6	9	s.	T. C. Peffer.
Fall River	do	925	13	52.8		85	3†	20	18	47	4.73	+ 2.94	1.40	0.0	7	11	10	9	s.	J. McDaniel.
Fargo	Seward										4.27		1.77	2.2	6	18	5	7	se.	Frank Swink.
Fredonia	Wilson	864	6	53.6		84	3	21	17	38	4.82		1.20	0.0	10	10	6	14	s.	B. W. Holmes.
Garden City	Finney	2,836	15	45.8	+ 2.8	83	3	17	15†	46	3.77	+ 3.13	0.92	4.0	7	20	3	7	s.	B. F. Stocks.
Great Bend	Barton	1,850																		J. A. Pritchard.
Greensburg	Kiowa	2,235	2	48.2		85	3	19	16	44	7.80		2.20	0.5	8	17	3	10	s.	C. C. Raymond.
Grenola	Elk	1,116	22	50.8	+ 5.8	83	4	19	18	41	5.06	+ 3.31	3.02	0.0	10	9	6	15	s.	R. M. Lawyer.
Howard	do	1,112	2								5.07		2.00	0.0	7	13	2	15	sw.	J. W. Eby.
Hugoton	Stevens		5	48.2		79	4†	18	17	46	3.16		0.95	T.	7	16	9	5	s.	J. A. Firmin.
Hutchinson	Reno	1,535	19	49.4	+ 4.5	84	3†	21	16	45	6.52	+ 5.80	2.20	0.0	10	16	4	10	sw.	E. S. Webster.
Independence	Montgomery	816	37	54.8	+ 8.8	83	3†	24	17	41†	4.42	+ 2.48	1.35	0.0	11	8	4	18	s.	J. M. Altaffer.
Iola	Allen	984	3	51.9	+ 8.9	82	4	22	18	38	3.68	+ 2.30	1.04	0.0	9	11	4	15	s.	U. S. Weather Bureau
Jetmore	Hodgeman	2,268	8	47.9		83	4	16	16	44	6.49		1.47	2.0	7	10	11	9	sw.	James Aikin.
Kingman	Kingman	1,504	1	50.4		96	4	22	16	55	7.11		2.99	0.0	8	14	4	12	sw.	B. B. Anawalt.
La Crosse	Rush	2,061	7	50.4[b]		83[b]	3†	25[b]	22	45[b]	4.63		1.31	3.0	7	12	3	9	se.	Rodney Torrey.
Lakin	Kearney	2,993	19	44.1	+ 1.8	78	3	11	16	47	3.01	+ 2.49	1.62	1.0	5	16	8	6	sw.	C. H. Longstreth.
Larned	Pawnee	2,090	5	48.3		84	4	16	16	44	5.75	+ 4.79	2.00	2.0	8	13	7	10	se.	H. H. Wolcott.
Lebo	Coffey	1,138	23	50.1	+ 7.2	84	4	21	17†	40	6.51	+ 4.88	3.84	0.0	10	10	5	15	s.	J. J. Bowman.
Le Roy	do	990									2.93		1.12		7	9	3	18	s.	F. W. Schmitt.
Liberal	Seward	2,843	2	49.4		85	3	20	16	45	4.49		2.20	3.0	6	17	4	9	se.	R. T. Nichols.
Macksville	Stafford	2,032	16	49.4	+ 5.8	85	3	19	16	44	5.08	+ 4.19	1.90	0.5	6	9	9	12	se.	Mrs. Nella Poling.
McPherson	McPherson	1,495	19	49.6	+ 6.4	85	4	20	16	43	6.35	+ 5.33	2.17	0.0	8	15	3	12	se.	Ed. F. Haberlein.
Madison	Greenwood	1,074	8	49.4[b]		88[b]	3	17[b]	18	49[b]	6.12		3.91	0.0	7	8	13	7	se.	C. A. David.
Marion	Marion	1,310	15	49.7	+ 5.7	86	4	20	16†	47	7.23	+ 6.17	3.25	0.0	10	9	8	13		D. D. McIntosh.
Medicine Lodge	Barber	1,475	16	49.8	+ 4.8	88	3	21	16	52	7.06	+ 6.10	2.53	0.0	7	15	5	10	s.	S. P. Garrison.
Medora	Reno	1,480																		M. L. Rickenbrode.
Mt. Hope	Sedgwick	1,410	12								7.16	+ 6.56	3.00	0.0	8	15	3	12	s.	H. N. Renfrew.
Neosho Rapids	Lyon	1,092	4								6.02		2.90		7	12	0	18	s.	J. E. McLeod.
Ness City	Ness	2,260	12								4.43	+ 3.71	1.03		6					J. K. Barnd.
Newton	Harvey	1,454	12	51.4	+ 6.1	87	3	21	16	45	7.32	+ 6.29	3.05		8	13	7	10	sw.	C. F. Walden.
Norwich	Kingman	1,496	13	51.6	+ 5.4	86	3	23	16	38	8.49	+ 7.32	4.10	0.0	9	12	8	10	se.	N. I. Farris.
Oswego	Labette	899	18	56.0	+ 8.7	84	4	23	17†	41	4.62	+ 2.55	0.97	0.0	9	9	8	13	sw.	Jas. M. Currigan.
Pratt	Pratt	1,950	14	48.4[c]	+ 3.7	80[c]	4	20[c]	16	38[c]	6.42	+ 5.54	2.40	T.	5	15	8	7		E. H. Ellsworth.
Rome	Sumner	1,218	12	52.2	+ 7.2	82	3†	25	16†	44	7.11	+ 5.89	4.31	0.0	10	3	13	14	s.	D. M. Adams.
Sedan	Chautauqua	834	24	54.4	+ 8.4	84	4	21	17	43	3.98	+ 2.39	1.00	0.0	10	13	8	9	s.	A. Y. Buckles.
Toronto	Woodson	1,040	12	52.2	+ 6.8	86	5	19	18	47	4.10	+ 2.66	2.35	0.0	5	17	0	13	sw.	M. A. Webb.
Ulysses	Grant	3,027	15																	T. W. Marshall.
Walnut	Crawford	940	7			83[f]	4	22[f]	17†	39[f]	4.34		0.95	0.0	8	10	8	6	se.	R. C. Harlan.
Wichita	Sedgwick	1,377	22	50.8	+ 7.0	83	3	22	16	36	6.69	+ 5.51	4.74	0.0	9	7	10	13	s.	U. S. Weather Bureau.
Winfield	Cowley	1,124	12	51.8	+ 5.7	80	4	22	18	40	6.55	+ 4.84	4.00	0.0	7	12	2	16	s.	M. B. Light.
Yates Center	Woodson	1,068	16	52.9	+ 7.5	93	3	20	18	45	3.96	+ 2.23	2.04	0.0	6	8	8	14	s.	J. W. Tipton.
Oklahoma.																				
Ada	Pontotoc	1,001	3																	Dr. J. P. McKinley.
Apache	Caddo		1	57.2		87	3	29	17	46	5.56		2.00	0.0	7	14	7	9	sw.	G. D. Teeter.
Arapaho	Custer	1,575	16	55.0	+ 7.0	87	3	27	17	40	8.76	+ 7.30	2.40	0.0	8	17	5	8	s.	Geo E. Marsh.
Ardmore	Carter	872	8	59.5		85	4	28	18	44	5.96		2.95	0.0	5	12	4	14	s.	H. T. Nisbett.
Bartlesville	Washington		3	57.5		86	4	25	18	44	5.01		1.26	0.0	5	12	10	8	se.	Dr. A. P. Owens.
Beaver	Beaver	2,500	13	50.6	+ 6.6	87	1†	21	17	45	6.11	+ 5.64	2.20	T.	6	21	1	8	sw.	W. C. Frazer.
Blackburn	Pawnee	800	5	56.8		89	3†	24	18	48	4.97		1.38	0.0	9	13	4	13	sw.	J. Landis.
Buffalo	Harper		3																	L. M. Brink.
Cache	Comanche	1,350	4	54.3		84	5	23	18	43	7.85		4.00	0.0	4	19	0	11	s.	U. S. Forest Service.
Calvin	Hughes	713	5								3.17		0.94	0.0	8	11	0	19	s.	Thomas Purcell.
Chandler	Lincoln	865	6	57.8[k]		86[k]	3†	18[k]	16	50[k]	3.00		1.20	0.0	5	7	2	10	s.	Chas. L. Tuttle.
Chattanooga	Comanche	1,150	4	56.8		90	9	24	17	58	5.58		3.00	0.0	6	17	2	11	s.	Squire Humble.
Chickasha	Grady	1,091	9	58.8		88	2	28	18	40	4.56		2.26	0.0	5	22	3	5	s.	J. C. Good.
Cloud Chief	Washita	1,400	9	55.0		86	3†	25	19	45	7.32		3.17	0.0	7	14	7	9	s.	J. P. Stutzman.
Dacoma	Woods	1,337	12	52.9	+ 2.8	85	3	25	16	42	7.51	+ 6.27	3.60	0.0	7	13	5	12	sw.	N. A. Andress.
Durant	Bryan	643	9	58.8		86	3	28	18	42	2.65		0.65	0.0	6	9	9	12	s.	Nelson Houk.
Eldorado	Jackson	1,456	3	60.2		87	5†	39	23†	37	5.09		2.00	0.0	5	10	14	6	s.	R. D. Barnes.
Enid	Garfield	1,269	10	52.4		86	4	21	27	40	5.80		2.25	0.0	8	18	5	7	s.	Uri B. Worcester.
Erick	Beckham	2,058	6			85[e]	3†				7.79		3.80	0.0	6	9	11	5	s.	Dr. J. D. Warford.
Fairland	Ottawa	839	10	59.0	+ 8.9	86	4	25	17†	41	7.63	+ 4.67	3.12	0.0	9	13	9	8	s.	C. W. Prier.
Fort Gibson	Muskogee	556	5								5.06		1.66	0.0	8	12	6	12	e.	John T. Welsh.
Frederick	Gillman	1,293	6	56.6		86	3	27	17	44	6.66		1.95	0.0	7	14	8	8	se.	B. B. Bradley.
Gage	Ellis	2,136	7	49.2		88	3	25	16	51	11.43		4.05	0.0	7	20	6	4	s.	C. H. Holmes.
Guthrie	Logan	1,000	7	56.2	+ 5.9	87	5†	27	17	40	6.00	+ 3.90	2.35	0.0	6	11	5	14	n.	G. W. Derrick.
Guymon	Texas		1								4.14		2.11	0.0	4	19	1	10	n.	A. L. Mordt.
Harrington	Roger Mills		8	50.7		86	3	24	16	40	8.72		4.33	0.0	6	15	4	11	s.	J. G. Harrington.
Hartshorne	Pittsburg	700	11	62.0[c]	+ 7.2	86[c]	4	25[c]	18	43[c]	2.35	− 1.58	1.80	0.0	5	7	13	10	s.	Edward Glendenning.
Healdton	Carter	900	16	58.3	+ 4.6	88	4	21	18	52	5.52	+ 3.18	2.55	0.0	7	15	12	3	s.	A. C. Heald.

TABLE 1.—*Climatological data for November, 1909. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	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 rainy days, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Oklahoma—Cont'd.																				
Hennessey	Kingfisher	1,166	15	54.6[a]	+ 4.6	88[a]	3	27[a]	17	40[a]	4.86	+ 3.41	1.80	0.0	10	12	12	6	s.	W. W. Parks.
Hobart	Kiowa	1,396	6	54.2	.....	87	3	29	16	42	7.18	.....	2.20	0.0	7	11	9	10	s.	Roy Benedict.
Holdenville	Hughes	900	9	58.2	.....	85	3†	27	18	42	3.53	.....	1.50	0.0	5	17	9	4	s.	Miss M. Rutherford.
Hooker	Texas	2,999	4	47.3	.....	79	6	20	16	45	3.41	.....	1.64	0.0	6	13	2	15	s.	J. N. Kelly.
Hurley	Cimarron	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Myers.
Idabel	McCurtain	474	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. W. B. McCaskill.
Jefferson	Grant	1,062	16	52.5	+ 5.9	81	4	25	17	40	7.71	+ 6.86	3.38	0.0	8	14	6	10	s.	J. M. Maddy.
Kenton	Cimarron	4,000	10	46.8	+ 2.2	78	6	19	17	42	1.52	+ 0.90	0.62	7.0	5	18	8	4	s.	L. A. Wikoff.
Kingfisher	Kingfisher	1,046	12	56.4	+ 6.4	88	3†	25	17	47	6.12	+ 4.45	3.18	0.0	7	14	8	8	s.	J. C. Cross.
McAlester[1]	Pittsburg	698	17	62.3	.....	87	3†	27	18	40	4.80	+ 2.30	1.46	0.0	7	21	3	6	s.	Wm. Noble.
McComb	Pottawatomie	1,200	15	60.0	+ 9.3	85	2	26	17†	34	6.10	+ 4.58	2.45	0.0	4	8	16	6	s.	Jas. E. McNair.
Mangum	Greer	1,535	17	52.2	+ 1.5	81	5	29	16†	41	6.03	+ 4.59	2.23	0.0	6	16	0	14	s.	Wade N. Johnson.
Marlow	Stephens	1,292	9	57.7	+ 5.8	86	3	30	23	42	4.20	+ 1.38	1.87	0.0	5	13	2	15	se.	W. B. Anthony.
Meeker	Lincoln	1,030	16	57.4	+ 6.7	85	5†	24	18	41	5.02	+ 3.11	1.90	0.0	7	17	1	12	s.	Dr. John H. Baugh.
Muskogee	Muscogee	614	11	60.0	+ 8.8	87	4	27	17†	39	5.24	+ 2.81	1.48	0.0	6	13	2	15	s.	Prof. E. N. Collette.
Mutual	Woodward	.....	3	52.0	.....	88	3	25	16	48	9.35	.....	3.75	0.0	6	17	4	9	s.	Thos. Martin.
Neola	Caddo	1,500	4	55.6	.....	85	4†	28	17	39	6.36	.....	4.53	0.0	3	14	8	8	s.	R. M. Schooling.
Newkirk	Kay	1,149	13	54.2	+ 6.3	84	3	25	16†	39	5.38	+ 4.07	3.00	0.0	8	9	15	6	s.	P. H. Allright & Co.
Norman	Cleveland	1,171	16	56.8[b]	+ 6.6	85[b]	2†	20[b]	22	44[b]	3.76	+ 1.34	1.47	0.0	7	8	10	4	s.	Walter H. Meier.
Okeene	Blaine	1,194	6	54.0[b]	.....	85[b]	4	27[b]	16†	36	6.22	.....	2.73	0.0	8	17	4	9	s.	Dr. L. H. Murdock.
Oklahoma	Oklahoma	1,247	20	56.1	+ 8.2	84	6	29	16	32	5.29	+ 3.04	3.22	0.0	9	11	7	12	s.	U. S. Weather Bureau.
Okmulgee	Okmulgee	752	7	59.0	.....	88	3	22	18	52	2.63	.....	1.25	0.0	5	14	8	8	s.	J. L. Maynard.
Pauls Valley	Garvin	880	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. M. Foss.
Pawhuska	Osage	918	11	57.0	+10.5	87	4	24	18	47	3.62	+ 1.61	1.00	0.0	9	10	12	8	n.	R. C. Block.
Perry	Noble	1,060	12	56.2	+ 6.9	86	4†	25	17	43	6.28	+ 4.67	2.00	0.0	10	13	3	14	s.	J. A. Douglas.
Ravia	Johnson	796	8	60.2	.....	86	3	26	19	44	5.02	.....	1.97	0.0	8	15	2	13	s.	R. G. Guptill.
Sac and Fox Agency	Canadian	900	17	57.4[a]	+ 8.6	85[a]	3	26[a]	18	41	4.32	+ 2.26	1.62	0.0	5	20	0	9	s.	D. J. Henderson.
Shawnee	Pottawatomie	1,041	9	56.7[b]	.....	83[b]	2†	27[b]	17†	38[b]	3.88[a]	.....	1.90[a]	0.0	7	14	3	11	s.	Neal R. Clark.
Snyder	Kiowa	1,356	3	56.6	.....	86	4	28	17	43	6.99	.....	2.92	0.0	7	16	8	6	se.	Dr. W. G. Woodard.
Stillwater	Payne	880	17	54.6	+ 5.9	86	4	26	18	41	6.07	+ 4.32	2.50	0.0	8	14	8	8	s.	John M. Speidel.
Supply	Woodward	.....	2	47.8	.....	76	3†	24	17	44	11.18	.....	3.80	T.	8	19	5	6	s.	A. H. Trimbo.
Temple	Comanche	925	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. F. Fitch.
Tulsa (1)	Tulsa	700	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	William Hall.
Tulsa (2)	....do	702	5	56.2	.....	89	2	27	17	41	4.36	+ 2.45	1.72	0.0	5	10	9	11	s.	Miss Pearl E. Towers.
Vinita	Craig	698	6	57.9[a]	.....	85[a]	3†	23[a]	17†	43[a]	7.90	.....	4.00	0.0	8	13	4	12	s.	Lyman Bros.
Wagoner	Wagoner	588	13	59.0[a]	+ 9.2	86[a]	3	24[a]	18	41	3.57	+ 1.75	0.95	0.0	7	11	4	15	s.	S. L. Hatfield.
Waukomis	Garfield	1,258	13	54.1	+ 4.3	85	5	27	15†	39	5.35	+ 4.01	3.23	0.0	9	15	2	13	sw.	R. C. Shades.
Weatherford	Custer	1,639	8	54.2	.....	87	3	27	16	39	7.44	.....	2.20	0.0	8	13	7	10	s.	M. D. Reed.
Webbers Falls	Muskogee	479	11	58.6	+ 9.6	87	4†	24	18	48	2.37	− 0.39	0.95	0.0	6	8	17	5	s.	B. D. Boulineau.
Whiteagle	Kay	945	4	55.4	.....	87	4	27	16†	41	4.72	.....	2.30	0.0	10	13	6	11	s.	J. M. Dankwardt.
Woodward	Woodward	.....	1	51.6	.....	84	4	22	17	44	9.54	.....	3.42	0.0	10	19	5	6	s.	R. A. Boyle.
Missouri.																				
Belle	Maries	.....	17	56.8[d]	+11.3	81[d]	7	16[d]	18	35[d]	4.70[d]	+ 2.25	1.90[d]	0.0[d]	5[d]	11[d]	9[d]	6[d]	s.	A. J. Wofford.
Birchtree	Shannon	1,200	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	V. H. Kirkendall.
Cape Girardeau	Cape Girardeau	346	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	D. L. Albert.
Caruthersville	Pemiscot	.....	18	58.9	+10.5	87	3	28	18	47	4.08	− 0.64	1.15	0.0	8	23	0	7	se.	H. E. Averill.
Dean	McDonald	.....	10	57.8[b]	+ 8.6	86[b]	4	19[b]	18	47[b]	6.47[b]	+ 3.49	2.82[b]	0.0[b]	9[b]	19[b]	0[b]	9[b]	.....	H.E. Dean.
Doniphan	Ripley	440	5	55.6	.....	82	3	22	18	45	4.39	.....	1.03	0.0	7	14	2	14	s.	W. W. Martin.
Farmington	St. Francois	889	2	57.1[h]	.....	82[h]	3	28[f]	23	47[h]	3.38[f]	.....	0.88[f]	0.0	7[f]	16[f]	1[f]	7[f]	.....	Miss Helen Montgomery.
Gano	Dent	.....	5	56.8	.....	83	3†	25	17	37	6.03	.....	2.30	0.0	7	13	10	7	s.	A. C. Leech.
Goodland	Iron	900	4	54.2	.....	83	3	18	18	51	3.91	.....	1.43	0.0	5	16	7	7	s.	F. M. Adams.
Greenville	Wayne	.....	14	57.8	+11.4	86	3†	22	18	51	4.67	+ 1.42	1.25	0.0	5	14	14	2	s.	A. G. Templeton.
Ironton	Iron	925	31	54.7	+11.5	82	3	20	18	50	4.64	+ 0.69	0.90	0.0	9	4	11	15	s.	W. H. Delano.
Jackson	Cape Girardeau	458	18	57.7	+12.2	85	3	23	18	46	3.65	.....	1.03	0.0	5	11	10	9	s.	L. M. Bean.
Joplin	Jasper	979	30	57.9	.....	82	4	25	17†	34	5.72	+ 3.28	2.20	0.0	7	18	4	8	sw.	Miss Elizabeth Russum.
Koshkonong	Oregon	911	9	57.0	.....	84	3	22	18	34	3.90	+ 0.68	0.91	0.0	10	12	9	9	s.	J. W. Hitt.
Lamar	Barton	964	28	54.3	+ 8.8	84	5	22	18	41	6.00	+ 3.93	1.90	0.0	8	9	6	15	se.	E. H. Adams.
Marble Hill	Bollinger	420	16	55.4	+10.1	84	3	20	18	49	4.65	+ 1.26	1.05	0.0	5	10	12	8	nw.	A. F. Hendricks.
Marshfield	Webster	1,492	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	O. P. Keeler.
Mt. Vernon	Lawrence	1,480	33	56.4	+ 9.7	84	4	20	18	40	8.49	+ 5.73	5.50	0.0	9	12	15	3	se.	Dr. O. H. Brown.
Neosho	Newton	1,023	25	57.6	+11.2	85	4	20	18	44	12.52	+ 9.75	6.18	0.0	10	12	8	10	s.	H. D. Dean.
Oakfield	Franklin	793	17	55.2	+ 9.8	82	5†	19	18	35	4.90	+ 2.18	2.42	0.0	9	6	13	11	s.	E. E. Steiner.
Olden	Howell	1,246	19	56.0	+ 9.2	82	4	18	18	33	2.65	− 0.60	0.73	0.0	6	14	3	13	se.	J. D. Evans.
Perryville	Perry	582	1	55.5	.....	84	3	16	18	46	1.77	.....	1.00	0.0	6	16	0	14	s.	S. L. Cayton.
Poplar Bluff	Butler	343	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. C. Thomes.
Sikeston	Scott	328	14	57.6	+ 9.6	83	5	24	18	42	5.00	+ 1.16	1.40	0.0	7	17	6	7	sw.	A. A. Harrison.
Springfield	Greene	1,350	22	55.4	+11.0	79	4	23	17	31	5.67	+ 3.03	2.83	0.0	10	8	12	10	se.	U. S. Weather Bureau.
Steelville	Crawford	1,746	12	54.4[e]	.....	84[e]	3	13[e]	18	50[e]	3.00[e]	+ 0.09	1.00[e]	0.0[e]	5[e]	15[e]	3[e]	7[e]	w.	Edwin Pumphrey.
Willow Springs	Howell	1,300	16	55.6	+10.1	82	7	21	18	43	1.20	− 2.34	0.70	0.0	4	28	0	2	se.	John Lovewell.
Kentucky.																				
Blandville	Ballard	445	29	57.1	+13.0	84	4	25	18	37	3.74	− 0.62	0.97	0.0	8	11	9	10	se.	E. W. Horr.
Lynnville	Graves	.....	8	56.2	.....	81	7†	25	18	42	3.32	.....	2.04	0.0	4	16	4	10	s.	Wm. Scherffius.
Tennessee.																				
Arlington	Shelby	.....	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. T. B. Etheridge.
Bolivar	Hardeman	450	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss M. A. Smith.
Brownsville	Haywood	361	27	58.4	+10.1	80	29	27	18	43	5.38	+ 0.81	1.18	0.0	7	14	8	8	s.	Miss Hattie N. Moss.
Covington	Tipton	311	27	57.7	+ 8.6	76	3	29	18	45	7.09	+ 2.62	2.25	0.0	9	20	0	10	s.	J. S. Ruffin.
Dyersburg	Dyer	310	27	58.4	+10.2	83	6	26	19	40	5.65	+ 0.66	2.00	0.0	7	20	0	10	se.	M. A. Sinclair.
Jackson	Madison	450	16	60.2	+10.6	88	4	28	18†	47	1.92	− 2.37	0.71	0.0	7	14	9	7	s.	T. H. Hartmus.
Kenton	Obion	.....	8	58.8	+ 9.5	84	4	26	18	44	5.91	+ 0.89	3.19	0.0	8	19	1	10	s.	G. S. Martin.
Memphis	Shelby	409	39	60.6	+ 9.2	82	4	32	18	29	4.87	+ 0.28	2.68	0.0	6	17	8	5	s.	U. S. Weather Bureau.
Milan	Gibson	440	27	58.0	+10.4	81	5	27	18	38	4.68	− 0.63	1.13	0.0	9	10	10	10	s.	O. F. Cantwell.
Trenton	....do	345	28	57.4	+ 9.8	84	4	25	18	47	4.99	+ 0.15	2.12	0.0	8	22	1	7	sw.	Prof. F. L. Dennison.
Union City	Obion	360	14	58.4	+ 8.8	84	4	26	18	44	4.71	− 0.73	2.00	0.0	8	13	12	5	se.	Earl A. Kinsey.
Arkansas.																				
Alicia	Lawrence	.....	5	58.4	.....	84	3	31	17	47	5.30	.....	2.10	0.0	5	17	11	2	s.	McCullough & Guelck.
Amity	Clark	250	17	59.8	+ 8.3	85	4	25	18	43	3.19	− 0.89	1.10	0.0	5	14	7	9	sw.	Prof. S. M. Samson.
Arkadelphia (near)	....do	250	2	61.1	.....	81	3†	29	18	36	3.90	.....	1.97	0.0	7	12	9	9	sw.	J. A. Ross.
Arkansas City	Desha	145	26	.....	.....	.....	.....	.....	.....	.....	2.46	− 1.30	0.84	0.0	5	.....	.....	.....	.....	W. C. Blundell.
Batesville (1)	Independence	271	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Q. Wolf.
Batesville (2)	....do	271	5	.....	.....	.....	.....	.....	.....	.....	3.55	.....	0.68	0.0	10	.....	.....	.....	.....	Miss Lelia I. Feter.
Bee Branch	Van Buren	.....	17	58.2	+ 7.1	85	4	25	18	41	3.95	+ 0.63	1.20	0.0	7	14	3	13	.....	J. E. Scanlan.
Benton	Saline	283	2	60.9[b]	.....	86[d]	4	29	18	42[d]	2.77	.....	1.35	0.0	4	11	14	5	s.	J. E. Evans.
Bentonville	Benton	1,303	4	57.8	+11.1	83	4	24	18	37	2.43	− 0.56	0.65	0.0	10	9	7	14	s.	U. S. Weather Bureau.
Bergman	Boone	1,324	13	54.9[b]	+ 6.8	82	4	16[e]	18	38[e]	4.05	+ 1.31	1.78	0.0	7	16	6	8	sw.	John T. Maxey.
Black Rock	Lawrence	.....	5	.....	.....	.....	.....	.....	.....	.....	5.63	.....	1.52	0.0	9	.....	.....	.....	.....	S. J. Howe.
Brinkley	Monroe	226	23	59.2	+ 8.4	87	4	28	18†	46	3.29	− 1.61	0.92	0.0	7	13	9	8	s.	H. L. D. Whitson.

TABLE 1.—*Climatological data for November, 1909. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	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, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Arkansas—Cont'd.																				
Calico Rock	Izard	361	5								5.12		2.24	0.0	7					W. H. Stoner.
Camden	Ouachita	158	24	61.4	+ 9.1	84	4	27	19	41	4.14	− 0.11	1.72	0.0	8	13	6	11	sw.	R. H. Quarterman.
Centerpoint	Howard		9	62.0		84	2	28	18	43	2.37		1.06	0.0	5	10	10	10	se.	J. M. Huddleston.
Clarendon	Monroe	171	5								2.24		0.67	0.0	6					Mrs. B. E. Bishop.
Conway	Faulkner	309	26	58.4	+ 8.5	83	3	27	18	43	3.96	− 0.31	1.39	0.0	8	10	14	6	se.	G. H. Burr.
Corning	Clay	293	17	58.8	+12.1	85	3	25	18	46	5.43	+ 2.20	1.82	0.0	7	12	8	10	s.	Jacob Brobst.
Dardanelle	Yell	330	23	58.4		88	6	27	19	42	5.58	+ 2.06	1.90	0.0	7	12	4	14	s.	A. Bernard.
Dodd City	Marion	1,175	28	56.5	+ 8.9	83	3	20	17	41	4.49	+ 1.20	2.50	0.0	5	12	11	7	s.	Neal Dodd.
Dutton	Madison		8	56.2[e]		82[e]	4	19[e]	18	43[e]	2.16		1.20	0.0	4				s.	T. S. Williamson.
Earl	Crittenden		3	59.8		87	4	27	18	43	5.94		1.82	0.0	6	19	6	5		W. J. Moss.
Eldorado	Union	265	5	61.6		84	3†	29	18	41	2.87		1.54	0.0	7	10	7	13	e.	Fred A. Babb.
England	Lonoke		3	59.8[a]		83[a]	3	29[a]	17	37[a]	5.23		1.58	0.0	8				s.	J. C. Chenault.
Eureka Springs	Carroll		8	58.0		81	4	21	18	38	5.18		3.12	0.0	5	5	18	7	sw.	Jas. T. Pomeroy.
Fayetteville	Washington	1,451	20	61.4	+13.0	90	4	24	17†	47	2.04	− 1.15	1.15	0.0	5	15	8	7	sw.	University of Arkansas.
Fort Smith	Sebastian	481	27	59.7	+ 9.8	85	4	29	18	36	3.15	− 0.13	1.43	0.0	8	10	11	9	e.	U. S. Weather Bureau.
Fulton	Hempstead	264	5								3.64		2.20	0.0	4					B. C. Logan.
Hardy	Sharp	643	11	58.0	+ 8.3	85	3	24	18	42	5.41	+ 2.47	1.58	0.0	8	9	11	10	sw.	C. A. Caywood.
Helena (1)	Phillipi	182	24																	Robert Kyle.
Helena (2)	...do	182	8	60.1	+ 8.1	88	4	30	18†	43	5.06	+ 0.33	1.74	0.0	7	19	1	10	s.	B. F. Modisett.
Hot Springs	Garland	600	3	57.6		83	4	24	18	44	3.14		1.25	0.0	6	20	7	3	e.	Hot Springs Water Co.
Huttig	Union	85	2	61.6[e]		84[e]	5	28[e]	19	41[e]	3.21		1.48	0.0	6					C. A. Berry.
Jonesboro	Craighead	345	14	57.9		83	4	25	18	45	4.20	+ 0.71	1.20	0.0	8	20	7	3	s.	Benedictine Sisters.
Junction	Union		16			84	5				1.62	− 2.42	0.64	0.0	4	19	3	8	sw.	J. A. Lowderback.
Lacrosse	Izard		15																	R. E. Kennard.
Lake Farm	Jefferson	195	2	58.9[b]		85	4†	25[c]	18	46[c]	5.04		1.52	0.0	7	17	7	6	s.	R. H. Gillespie.
Lewisville	Lafayette	262	6	62.5		84	2†	29	18	42	3.00		1.33	0.0	7	13	6	11		F. W. Youmans.
Little Rock	Pulaski	357	30	60.3	+ 8.8	84	4	32	18	33	3.00	− 1.59	0.98	0.0	6	12	8	10	s.	U. S. Weather Bureau.
Lutherville	Johnson	775	12	57.1	+ 6.6	81	4	24	18	39	3.83	− 0.06	1.20	0.0	5	14	9	7	sw.	Herman Hentschel.
McNeil	Columbia	321	2	61.4		89	1	29	18	40	3.14		1.26	0.0	6	10	11	9	s.	L. A. Smith.
Malvern	Hot Spring	277	22	58.0	+ 6.1	85	4	28	18†	42	3.42	− 1.37	1.00	0.0	6	10	5	15	ne.	Miss L. C. Smith.
Mammoth Spring	Fulton		5	58.0[d]		84[d]	3	29[e]	24	48[e]	5.89		2.26	0.0	6					F. Wallick.
Marked Tree	Poinsett		5								3.73		1.55	0.0	8					L. Smith.
Mena	Polk	1,100	23	59.7	+ 8.1	80	4	27	18	36	3.29	− 0.31	1.66	0.0	6	14	10	6	s.	D. H. Hopkins.
Mossville	Newton		16	55.1	+ 7.6	80	4†	24	17	34	4.78	+ 1.12	2.21	0.0	5	13	5	12	s.	Theo. Ober.
Mount Nebo	Yell	1,750	19																	T. G. Church.
Newport (1)	Jackson	231	25	58.2	+ 7.9	83	3	30	18	38	7.98	+ 3.11	1.83	0.0	10	12	2	16	nw.	Mrs. A. B. Hillhouse.
Newport (2)	...do	231																		A. V. Hughes
Ozark	Franklin	377	18	60.7	+ 8.8	86	4	27	17	40	2.25	− 0.87	1.02	0.0	6	14	10	6	e.	R. M. Adams.
Pine Bluff	Jefferson	215	21	60.8	+ 8.0	86	3†	30	24	52	3.88	− 0.21	0.96	0.0	7	17	7	6	sw.	J. H. Hudson.
Pocahontas	Randolph		17	59.6	+11.5	88	3†	24	18	48	4.91	+ 1.27	1.42	0.0	6	14	6	10		Benedictine Sisters.
Pond	Benton	1,250	12	58.0	+ 9.8	84	4	19	18	44	2.92	+ 0.12	0.99	0.0	8	5	14	11	sw.	A. F. Stevens.
Portland	Ashley	122		61.0		86	4	27	19†	45	2.65		1.06	0.0	6	16	6	8	s.	T. A. Corson.
Prescott	Nevada	327	21	61.5	+ 8.6	88	12	28	18	42	2.38	−0.70	0.63	0.0	7	16	5	9	sw.	A. M. Fillsworth.
Princeton	Dallas	237	8																	Capt. D. R. Feaster.
Rogers	Benton	1,335	18	58.3	+10.3	84	4	21	18	39	3.19	+ 0.27	1.57	0.0	7	13	7	10	s.	Carl A. Stark.
Russellville	Pope	348	24																	J. F. Hodgins.
Spielerville	Logan	1,050	12	60.0	+ 8.1	85	6	27	18	40	2.09	− 0.97	0.64	0.0	6	13	6	11	sw.	New Subiaco Abbey.
Springbank	Miller	182	2								1.38		0.58	0.0	6					G. Field.
Stuttgart	Arkansas	495	22	60.8	+10.0	84	3†	26	18	46	3.44	− 1.11	1.34	0.0	7	16	10	4	s.	H. A. Buerkle.
Texarkana	Miller	332	25	61.0	+ 6.1	84	21	31	18	35	2.70	− 0.50	1.07	0.0	8	13	4	13	n.	W. B. Weeks.
Warren	Bradley	304	14	60.5	+ 7.1	83	3	29	18	40	4.02	+ 0.23	1.78	0.0	6	9	11	10	s.	W. J. Savage.
Whitecliffs	Little River	206	5								3.65		1.75	0.0	5					John E. Payton.
Wiggs	Garland		16	58.9	+ 6.6	84	3†	23	18	47	2.98	− 0.93	1.14	0.0	6	12	13	5	sw.	S. D. Jester.
Wynne	Cross		1	59.2		88	6	26	18	42	4.93		2.41	0.0	8	16	1	13	s.	R. R. Poole.
Mississippi.																				
Anguilla	Sharkey		1	61.3		81	7	27	19	38	2.91		1.90	0.0	3	19	7	4	se.	E. W. Cook.
Austin	Tunica	200	13	60.4	+ 8.1	86	4	27	19	43	4.24	− 1.14	1.00	0.0	6	22	2	6	s.	H. J. Irvine.
Batesville	Panola	230	22	60.6	+ 9.2	88	4	27	18†	45	2.99	− 0.72	1.30	0.0	4	23	3	4	s.	J. M. Cox.
Byhalia	Marshall	390									2.13		0.60	0.0	7	10	16	4	sw.	Tallahatchie Dng. Com.
Canton	Madison	228	19	62.5	+ 6.9	85	1†	24	19	42	0.88	− 2.21	0.40	0.0	5	15	13	2	se.	Dr. G. W. Smith-Vanis.
Clarksdale	Coahoma	177	2	62.0		87	5†	29	19	43	2.92		0.93	0.0	5	24	3	3	se.	J. F. Durham.
Coffeeville	Yalobusha										2.25		1.05	0.0	3	20	8	2	se.	Tallahatchie Dng. Com.
Corinth	Alcorn	430	21	59.0	+ 8.5	83	1	28	18	39	1.84	− 2.19	0.68	0.0	6	18	1	11	s.	Milton A. Chandler.
Crenshaw	Panola	187									3.38		0.86	0.0	8	18	9	3	se.	Tallahatchie Dng. Com.
Denmark	Lafayette										2.54		0.95	0.0	5					Do.
Duck Hill	Montgomery		10	60.5[f]		87[f]	4	25[f]	19	49[f]	1.59		0.91	0.0	4	19	0	5	n.	W. H. Eskridge.
Edwards	Hinds	222	22	63.0	+ 6.4	84	1†	25	19	44	1.26	− 1.99	0.45	0.0	6	15	13	2	se.	C. R. Knox.
Enid	Tallahatchie													0.0		24	4	2		Tallahatchie Dng. Com.
Fayette	Jefferson	282	8	63.7	+ 7.6	85	1†	28	19	44	1.96	− 2.41	0.60	0.0	5	21	8	1	sw.	T. L. Darden.
Greenville	Washington	126	22	62.0	+ 7.7	84	3†	27	19	41	1.85	− 1.84	0.75	0.0	6	20	4	6	se.	F. L. Harbison.
Greenwood	Le Flore	140	9	60.2	+ 6.3	86	4	27	19	46	1.06	− 2.43	0.82	0.0	3	19	9	2	se.	J. H. Stephen.
Grenada	Grenada										1.08		0.73	0.0	3	22	6	2	nw.	Tallahatchie Dng. Com.
Hernando	De Soto	391	21	61.4	+ 9.6	86	4	28	18	36	6.48		3.00	0.0	7	19	2	9	s.	Miss Josephine G. Jones.
Hickory Flat	Benton	435									1.82		0.67	0.0	3	18	10	2	e.	Tallahatchie Dng. Com.
Holly Springs	Marshall	600	22	58.9	+ 8.7	82	4	27	18	35	1.84	− 1.95	0.77	0.0	6	16	5	9	se.	L. B. Mosby.
Kosciusko	Attala	430	19	58.8	+ 4.9	84	4	25	19†	45	2.52	− 0.45	1.52	0.0	5	24	3	3	se.	E. L. Lucas.
Lake Cormorant	De Soto	206									5.05		1.70	0.0	7	7	18	5	se.	Tallahatchie Dng. Com.
Lula	Coahoma	182									6.16		2.39	0.0	5	20	3	7		Do.
Malone	Marshall										1.50		1.10	0.0	2	12	18	0	se.	Do.
Marks	Quitman	163									2.79		1.05	0.0	5					Do.
Natchez	Adams	206	21	65.6	+ 7.1	86	1†	35	19	40	3.33	− 0.79	1.26	0.0	5	10	10	10	n.	J. C. Weir.
New Albany	Union	398									1.58		0.55	0.0	5	16	10	4	s.	Tallahatchie Dng. Com.
Pontotoc	Pontotoc	475	20	60.2	+ 7.7	84	4	28	17†	34	1.81	− 1.63	1.80	0.0	4	18	12	0	se.	Dr. C. W. Bolton.
Port Gibson	Claiborne	116	21	61.0	+ 5.1	84	1†	27	19†	45	2.12	− 1.44	1.05	0.0	5	14	5	11	e.	H. H. Crisler.
Ripley	Tippah		10																	S. W. Pegram.
Rosedale	Bolivar	143	1	59.8		85	4	28	19	41	3.88		1.40	0.0	6	15	4	11	sw.	W. A. Shelby.
Senatobia	Tate										2.15		0.71	0.0	7	22	4	4	s.	Tallahatchie Dng. Com.
Shoccoe	Madison		6	61.6		85	4	25	19	44	0.97		0.40	0.0	4	21	6	3	sw.	J. C. Pitchford.
Suffolk	Franklin		8	63.9		86	1	28	19	42	2.35		0.97	0.0	6	18	8	4	s.	Prof. Geo. H. Kent.
Swan Lake	Tallahatchie	148	8								2.98		1.28	0.0	4					B. F. Saunders.
Tuchula	Holmes	130	4	61.2		85	1†	26	19	45	1.70		0.80	0.0	4	15	9	6	w.	Dr. M. P. Winkler.
University	La Fayette	502	17																	Prof. J. W. Johnson.
Utica	Hinds	287	5	62.6[f]		85[f]	7†	26[f]	19	42[f]				0.0		17[f]	5[f]	2[f]	s.	Dr. J. B. Dudley.
Vicksburg	Warren	247	38	63.8	+ 7.9	81	7	35	19	30	1.75	− 2.44	0.81	0.0	5	13	12	5	se.	U. S. Weather Bureau.
Water Valley	Yalobusha	300	20	61.4	+ 8.5	86	4†	28	19	41	2.07	− 1.52	0.75	0.0	4	18	11	1	s.	Miss Lula Erikson.
Woodville	Wilkinson	560	16	65.0	+ 7.0	85	1†	33	19	36	2.02	− 1.74	0.75	0.0	5	22	7	1	se.	James E. Lee.
Yazoo City	Yazoo	116	15	62.2	+ 7.2	85	4	29	19	42	1.80	− 1.18	0.88	0.0	4	19	6	5	se.	H. S. Orr.

TABLE 1.—*Climatological data for November, 1909. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	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, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Louisiana.																				
Abbeville	Vermilion	18	22	63.8[a]	+ 3.0	84[a]	6	32	18	48[a]	1.59	− 2.00	0.58	0.0	5	16	11	3	se.	Hon. C. J. Edwards.
Alexandria	Rapides	77	21	63.4[a]	+ 6.1	86[a]	4†	27	19	44[a]	2.32	− 2.08	0.72	0.0	5	10	9	11	s.	Miss Nellie Graham.
Amite	Tangipahoa	130	21	61.6	+ 3.0	85	4†	28	19	44	1.38	− 2.19	0.80	0.0	4	11	19	0	n..	Miss Lula M. Wentz.
Baton Rouge	E. Baton Rouge	35	20	65.0	+ 5.8	86	1†	33	19	34	4.00	+ 0.71	3.00	0.0	6	18	0	12	ne.	Elmo M. Bott.
Burnside§	Ascension	20	9	63.8[g]	+ 3.5	83	13	33[a]	19	41	1.70	− 0.64	0.70	0.0	4	19	9	2	e.	C. S. McFarland.
Burrwood	Plaquemines	1	19	69.9	+ 4.1	86	6	46	18	27	0.08	− 2.68	0.05	0.0	2	17	13	0	ne.	Graham Myers.
Calhoun	Ouachita	180	17	62.0[b]	+ 7.2	85	3†	26[d]	19	42[d]	0.95	− 3.78	0.54	0.0	6	12	9	9	s.	N. L. Exp. Station.
Cameron	Cameron	6	14	69.8	+ 8.5	81	1†	41	18†	30	.....	.....	.....	0.0	....	5	25	0	se.	State Biologic Station.
Cheneyville	Rapides	67	22	63.6	+ 6.3	86	1†	27	19	46	1.35	− 2.81	0.47	0.0	4	21	5	4	e.	Walter I. Tanner.
Clinton	East Feliciana	113	20	64.5	+ 5.8	85	7	30	19	39	1.19	− 1.81	0.40	0.0	5	10	5	15	n.	John A. White, jr.
Collinston	Morehouse	65	7	62.1[d]	.....	86[c]	6	26[d]	18	46[d]	.....	.....	.....	0.0	.....	.....	.....	.....	.....	W. A. Page.
Covington	St. Tammany	39	17	63.0	+ 3.5	85	1	29	19	48	0.53	− 2.36	0.25	0.0	4	14	5	11	n.	C. Champagne.
Dodson	Winn	.....	1	63.8	.....	85	1†	29	18†	43	1.60	.....	0.72	0.0	5	19	7	4	s.	J. P. Lucas.
Donaldsonville	Ascension	33	19	66.3	+ 4.8	84	5	36	19	38	3.15	− 0.38	1.75	0.0	3	25	4	1	e.	John F. Park.
Farmerville	Union	177	19	61.2[c]	+ 6.7	85[c]	3	27[c]	18	50[c]	1.86	− 2.75	1.22	0.0	4	11	8	11	s.	W. P. Chandler.
Ferriday	Concordia	.....	3	62.8	.....	84	1	26	19	43	2.29	.....	0.93	0.0	5	22	0	8	s.	R. Z. Slater.
Franklin	St. Mary	10	17	65.8	+ 5.2	86	4†	34	19	45	1.53	− 2.17	0.56	0.0	7	16	5	9	n.	Miss Josephine M. Bonney
Grand Cane	De Soto	302	3	63.4[a]	.....	87[a]	5	29	19	54[a]	3.16	.....	1.15	0.0	6	11	6	13	s.	J J. Paxton.
Grand Coteau	St. Landry	93	17	66.4	+ 6.8	85	1†	32	19	42	0.94	− 2.80	0.35	0.0	6	20	10	0	se.	St. Charles College.
Hammond	Tangipahoa	44	10	64.3	+ 6.4	89	30	29	19	51	1.32	− 2.15	0.75	0.0	3	26	3	1	se.	C. C. Carr.
Houma	Terrebonne	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. Haggerty.
Jennings	Calcasieu	30	11	65.6	+ 5.8	86	1	34	19	40	4.18	+ 0.93	2.04	0.0	6	11	17	2	se.	J. F. Buch.
Lafayette	Lafayette	36	22	64.6	+ 4.8	86	8	30	19	41	0.95	− 2.57	0.28	0.0	7	17	7	6	e.	J. J. Davidson.
Lake Charles	Calcasieu	22	21	63.0	+ 3.5	86	3	31	19	44	2.10	− 2.54	1.16	0.0	4	16	6	8	n.	A. O. Boudreaux.
Lakeside	Cameron	.....	8	67.2	.....	85	6†	37	18	35	1.85	.....	1.25	0.0	2	28	0	2	ne.	L. J. Nunemacher.
Lawrence	Plaquemines	6	19	64.0	+ 2.8	85	2†	44	25†	33	2.20	− 0.35	1.56	0.0	4	27	0	3	s.	H. C. Warmoth.
Liberty Hill	Bienville	.....	22	65.1	+ 8.5	90	3†	26	19	48	0.96	− 3.70	0.46	0.0	4	16	8	6	s.	Dr. E. A. Crawford.
Logansport	De Soto	192	4	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.40	0.0	5	12	5	13	s.	Mrs. Bettie M. Dennis.
Melville	St. Landry	45	22	62.9	+ 4.1	86	3†	28	19	47	1.67	− 1.96	0.76	0.0	6	15	8	7	e.	Chas. B. McNeill.
Minden	Webster	194	21	62.0	+ 6.6	88	4	27	19	48	1.74	− 2.34	0.75	0.0	6	10	12	8	s.	Miss Ethel Fort.
Monroe	Ouachita	82	22	63.6	+ 7.2	87	1†	30	19	41	0.86	− 3.24	0.48	0.0	4	21	0	9	s.	Eugene Stannard.
Morgan City	St. Mary	14	4	.....	.....	.....	.....	.....	.....	.....	2.80	.....	2.32	0.0	5	22	3	5	e.	Virgil E. Kinsey.
Newellton	Tensas	.....	2	61.1	.....	82	8†	28	19	39	1.85	.....	0.75	0.0	5	11	16	3	s.	John D. Fultz.
New Iberia	Iberia	15	19	.....	.....	.....	.....	37	18	.....	2.30	− 0.52	1.10	0.0	6	12	17	1	sw.	Mrs. Jno. A. Gebert.
New Orleans (1)	Orleans	15	35	67.4	+ 6.8	83	1	45	24	22	1.18	− 2.61	0.53	0.0	6	21	6	3	e.	U. S. Weather Bureau.
New Orleans (2)	....do	18	22	66.8	+ 6.4	88	1	36	19	37	1.59	− 1.44	0.45	0.0	5	20	5	5	s.	Sugar Exp. Station.
New Orleans (3)	....do	.....	....	.....	.....	.....	.....	.....	.....	.....	1.24	.....	0.55	0.0	4	.....	.....	.....	.....	Sewerage and Water Board, New Orleans Drainage Commission.
New Orleans (4)	....do	.....	....	.....	.....	.....	.....	.....	.....	.....	1.38	.....	0.69	0.0	5	.....	.....	.....	.....	
New Orleans (5)	....do	.....	....	.....	.....	.....	.....	.....	.....	.....	1.52	.....	0.63	0.0	4	.....	.....	.....	.....	
New Orleans (6)	....do	.....	....	.....	.....	.....	.....	.....	.....	.....	1.21	.....	0.56	0.0	4	.....	.....	.....	.....	
New Orleans (7)	....do	.....	....	.....	.....	.....	.....	.....	.....	.....	1.31	.....	0.46	0.0	6	.....	.....	.....	.....	
New Orleans (8)	....do	.....	....	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.65	0.0	4	.....	.....	.....	.....	
Opelousas	St. Landry	83	18	65.6	+ 6.8	90	8	28	19	48	1.37	− 2.24	0.41	0.0	7	14	6	10	e.	Andrew Moresi.
Pearl River	St. Tammany	.....	3	.....	.....	.....	.....	.....	.....	.....	1.42	.....	0.62	0.0	5	21	3	6	w.	George F. Bancks.
Plain Dealing	Bossier	268	17	62.3	+ 7.2	86	3	27	19	46	1.42	− 2.19	0.52	0.0	5	16	6	8	se.	Leon Sanders.
Rayne	Acadia	44	18	65.2	+ 4.8	86	6	32	19	40	2.54	− 1.45	1.15	0.0	4	20	2	8	n.	A. P. McNeil.
Reserve	St. John Baptist	.....	8	59.0	.....	84	6	28	19	46	0.00	.....	0.00	0.0	0	8	22	0	se.	Leon Godchaux Co.
Robeline	Natchitoches	147	14	61.2[a]	+ 4.1	87[a]	1	25	18	47	0.63	− 3.40	0.28	0.0	3	12	10	8	s.	Miss Ruby McCook.
Ruston	Lincoln	312	13	63.0[o]	+ 6.1	86[o]	22	34[o]	24	45[o]	.....	.....	.....	.....	.....	.....	.....	.....	n.	J. C. H. McKinney.
Schriever	Terrebonne	17	18	67.8	+ 7.3	91	7	32	25	54	0.33	− 2.65	0.18	0.0	2	21	3	6	e.	Charles V. Moore.
Shreveport	Caddo	249	37	62.8	+ 7.5	82	6	34	18	39	0.77	− 3.31	0.25	0.0	8	14	7	9	se.	U. S. Weather Bureau.
Simmesport	Avoyelles	.....	4	.....	.....	.....	.....	.....	.....	.....	1.64	.....	0.70	0.0	5	10	6	14	s.	W. P. Denny.
Southern Univ. Farm	Jefferson	.....	14	.....	.....	.....	.....	.....	.....	.....	1.52	− 1.10	1.00	0.0	5	18	8	4	se.	F. L. St. Martin.
St. Francisville	West Feliciana	115	5	58.4	.....	84	8	33	24	48	1.31	.....	0.73	0.0	4	22	2	6	n.	L. P. Kilbourne.
Sugartown	Calcasieu	.....	17	62.0[n]	+ 3.3	80[n]	21	35[n]	19	32[n]	2.20	− 1.90	1.60	0.0	2	.....	.....	.....	.....	G. W. Richardson.
Tallulah	Madison	91	1	63.0	.....	86	3	24	18	47	2.19	.....	1.11	0.0	4	13	17	0	.....	G. P. Blair.

* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
§ 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.
‖ Estimated by observer.
‖‖ 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.
[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2—*Daily precipitation for November, 1909. District No. 7, Lower Mississippi Valley.*

Stations.	River basins.	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.
Colorado.																																	
Blaine	Cimarron												*	*	*	.90													.20		.30		1.40
Buena Vista	Arkansas																																
Calhan	Big Sandy																																
Canon City	Arkansas												.35			.40														.43	.30		1.48
Colorado Springs	Fountain												.90	T.	.05	.94						T.						.03	T.	.38	T.		.230
Cripple Creek	Oil Creek										.06		.24		T.	.55							.05							.06	.20		1.18
Cuchara Camps	Cucharas											*	.65	.30	.02							.02						*	.48	.67	.62		2.76
Eads	Big Sandy																													.36			0.36
Fairview	St. Charles												.20	.05	.67	1.00													.34	.97	.95		4.18
Florence	Arkansas												.45		.29															.68	.32		1.74
Garfield	Little Arkansas										.12	.06	.63			.34						.47							.10	.65	.12		2.49
Glen Eyrie	Fountain											*	.99		*	.83												.10	.53	.19			2.63
Hamps	Big Sandy												.32			.70													*	.13	T.		1.15
Hermit Lake	Grape Creek																																
Hoehne (near)	Purgatoire												.20	.20		.30													*	*	1.40		2.10
Holly	Arkansas												.90			.01	.09													.32	.40		1.72
Lake Moraine	Fountain										.01		.70		.05	.77	.05											.17		.57	.53		2.85
Lamar	Arkansas												.80			.18														.26	.21		1.45
Las Animas	...do												.37	.22	.32	.27						T.						.16	.13	.11	.42		2.00
La Veta Pass	Cucharas												.43		T.	.35												.55	T.	.50	.70		2.43
Leadville	Arkansas										.04	T.	.20	.04	.01	.16	T.				T.	.21	.50					.02	.06	.24	.02		1.50
Limon (near)	Big Sandy												.18			.27														.25			0.70
Marshall Pass	Arkansas										T.	.25	.30	T.		.42						.30							.10		.40		1.77
North Lake	Purgatoire												.92			1.15												.30		.85			3.22
Pueblo	Arkansas												.54	T.	.20	.16						T.						T.	.28	.12	.23		1.53
Rockyford (near)	...do												.40	.13		.14	.13	T.											T.	.20	.07		1.07
Saint Elmo	Chalk Creek										.15	.05	.46	.10	.15	.11						.28							.19	.68	.25		2.42
Salida	Arkansas												1.60		.30	.40						T.							.12	.53	.18		3.13
Santa Clara	Cucharas																																
Sheridan Lake	Arkansas														.86	.05						T.								.20	.40		1.51
Stonewall	Purgatoire										T.		.60		T.	.30						T.						.02	.26	.53	.18		1.89
Trinidad	...do												.20			.05												.33	.26		.38		1.21
Victor	Oil Creek										.07	T.	.30		T.	.49	.05											T.	.10	.15	.10		1.26
Vilas	Cimarron												.75																	.37			1.12
Westcliffe	Grape Creek												.80		*	.62												.07		.27	.50		2.26
Winfield	Clear Creek										.03	T.	.32	.02	.06	.04					T.	.16	.03				T.	.02	.02	.24	.13		1.07
Wortman	Arkansas									T.	T.	0.19	T.	.21							T.	.43					T.	.25	T.	T.	.55		1.63
New Mexico.																																	
Abbott	Canadian												.14	.06															.72	.36			1.28
Albert	...do												.43	.20														T.	.63		.48		2.21
Arch	Red													.40																1.15			1.55
Aurora	Canadian												.27		T.	.66													.42				1.35
Bell Ranch	...do												.07	.11		.03												T.	.24	.06			0.51
Black Lake	...do												.20			.25													.27				0.72
Cabeza	...do										.01	.03	.01			.10												T.	.45	T.	.45		1.05
Campana	...do												.04	.12	T.	.34												.04	.60	.50			1.64
Chacon	...do													.21	.36													.39	.12		T.		1.08
Cimarron	...do											T.	.10	T.	T.	.10													.77		.04		1.01
Clayton	...do												.06	.96	.08	.24													.56	.04	.10		2.04
Cuervo	...do												.61	T.		T.													.27	.01	.01		0.30
Dawson	...do											.06				.29													.50	.35			1.20
Dorsey	...do																																
Elizabethtown	...do										T.		.48			.27													*	1.20			1.95
Fort Union	...do												.10	T.		.12													.20				0.42
Hayden	...do																																
Lake Alice	...do											.31			*	1.17													.23		.22		1.93
Logan	...do													.62															.81		.40		1.83
Los Alamos	...do																											*	.18				0.18
Maxwell City	...do																												*	.50	T.		0.50
Melrose	Red													.72																.30	.08		1.10
Miami Ranch	Canadian												.20			.03													.76				0.99
Montoya	...do																												.30	.10			0.40
Nara Visa	...do												.25	.50		.10													.50	.30			1.65
Raton	...do												.16			.81														.15	.15		1.27
Rociada	...do																																
Roy	...do											.50	.02			.30													.90	.24			1.91
San Jon	...do													.45		T.												*	.45	T.	.23		1.13
Solano (1)	...do												.37	.12		.27												T.	.93		.64		2.33
Solano (2)	...do												.42	.12		.25													.56		.33		1.68
Springer	...do													.10															.63	.08	.32		1.13
Taylor	...do												.04	T.		T.													.80	.40	.06		1.30
Trementina	...do											T.			T.														.35	T.			0.35
Tucumcari (1)	...do												T.	.33														T.	.87	.39			1.59
Tucumcari (2)	...do												*	.51		.04												*	.90	1.02			2.47
Vermejo Park	...do										T.		.36			.25													.45	.36			1.42
Wagon Mound	...do												T.			T.													.96		.13		1.09
Texas.																																	
Amarillo	Canadian												.99	.12	T.	.24												.57	.98	.35			3.25
Arthur	Red								.70				.50		.70	.30	.20	T.					.06										2.46
Bonham	...do								.08				.31	.73			.47													T.	.48		2.07
Canadian	Canadian													2.10		.09	.03	.02											2.56	.83	.44		6.07
Channing	...do																																
Childress	Red							.45																						2.00	T.		2.45
Chillicothe	...do							.13						1.07		.36	.11											1.54	1.10	.26			4.57
Clarendon	...do													1.40		.05	.05												4.00	1.03	.10		6.63
Clarkesville	...do								.27			T.			.35	.50	.93						T.								.70		2.75
Claude	...do													1.46		T.													1.75	1.01	T.		4.22
Dalhart‖‖	Canadian												.33	.17		.07													.14	.50			1.21
Denison	Red	.20							.06	T.			T.	.08	.70	.08	.34												T.		.08		1.54
Henrietta‖‖	...do																																
Hereford	...do																																
Higgins	Canadian																																
McLean	Red																																
Memphis	...do							.20						1.60		.01													2.35	.20			4.36
Miami	Canadian												.39	1.41	.01		.03												2.02	.52	.20		4.58
Mobeetie‖‖	Red											2.30																2.10		.80			5.20
Nazareth	...do												1.23			.04													1.50	.15			2.92
Ochiltree	Canadian													1.00	.12															1.50	1.00		3.62
Pampa	...do																																
Paris‖‖	Red	.52							.58				.38		.74	.22	.34																2.78
Plemons	Canadian												.08	1.00		.12						T.							1.05	.75	.21		3.21
Quanah	Red							.50						.50		.40													.80	1.40	.70		4.30
Sherman‖‖	...do	.54							.05				T.	T.	1.13	.15															T.		1.87
Sulphur Springs	...do											T.			.75		.60						T.								.18		1.53

TABLE 2.—*Daily precipitation for November, 1909. District No. 7*—Continued.

Stations.	River basins.	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.
Texas—Cont'd.																																	
Texline	Canadian																																
Tulia	Red						T.						1.56	.08	T.	T.												1.90	.16	.69	T.		4.39
Wichita Falls	...do													.28															1.00	2.00			3.28
Kansas.																																	
Anthony	Arkansas												.40	2.75	.17	.84										T.		T.	.61	.66	.74		6.17
Ashland	Cimarron	.05											1.40	2.40	.04	.08				.06	T.	.03	.04					.04	3.90	1.65	2.00		11.69
Burlington	Neosho							.07					.96	1.63		.78							.07								.67		4.18
Chanute	...do					.41		T.	1.33	T.		.15	.82	.10	1.10	.41	.55														.92		5.79
Cimarron	Cimarron												1.60	.50		.15														2.01	1.20		5.46
Coldwater	...do	T.			T.								1.17	1.75	.13	.07	T.					T	T.					T.	2.80	.97	.85		7.74
Columbus	Neosho					.22		T.	.48	.01		2.28	1.80	.10	.92	.66	1.01						.06								.15		7.69
Coolidge	Arkansas											.96	.04			.06													*	.90			1.96
Cottonwood Falls	Neosho	.14						T.	.01				.14	4.00	1.34	.34	.46				.01		.05			.01			.65	.01	.29		7.45
Council Grove	...do												5.00	2.05	.08														.05				7.18
Cunningham	Arkansas												*	*	4.00	.50										T.		T.	.80	.85	.60		6.75
Dodge City	...do												1.10	.38		.11						.03					T.	.26	2.08	1.13	.72		5.81
Eldorado	...do	.04						.02					.03	3.90	1.20	.22	.87						.04						.63	.02	.50		7.47
Ellinwood	...do	.18											2.00	2.20	.28	.15	.09					T.	.08					T.	.75	.60	.51		6.84
Emporia	Neosho	T.						T.	T.				.14	3.10	1.02	.75	.20						.08						.13	T.	.20		5.62
Eureka	Verdigris					.05						.04	.15	2.50	1.20	.12	.31												T.		.42		4.79
Fall River	...do					.03	T.	T.	.10				.65	.90	1.40	.65													T.	T.	1.00		4.73
Fargo	Cimarron												.78	.30		.03						T.							1.77	.12	1.27		4.27
Fredonia	Verdigris					.36		T.	1.20			.36	.66	.09	1.03	.25	.45					.06								T.	.36		4.82
Garden City	Arkansas												.90	.10		.15						T.	T.					.25	.65	.80	.92		3.77
Great Bend	...do																																
Greensburg	...do	.12											1.67	1.85	.14	.12						T.						T.	2.20	1.00	.70		7.80
Grenola	Verdigris					.10	.16					T.	.41	3.02	.06	.48	.06						.04			T.			.05		.68		5.06
Howard	...do				.16			.10				.47	1.00	2.00		.52							T.						T.		.82		5.07
Hugoton	Cimarron												.70	.20		.05						.01							.95	.90	.35		3.16
Hutchinson	Arkansas	.20								T.			1.21	2.20	.31	.62	.08						.06						.88	.63	.33		6.52
Independence	Verdigris					.23		.01	.25			.08	.58	.11	1.35	.36	.52					T.	.07				T.			T.		.86		4.42
Iola	Neosho					.09		.48	T.			.17	.41	1.04		.82	.03						.10				T.				.54		3.68
Jetmore	Arkansas	.36											1.38	.70		.12	T.					T.					T.	T.	1.47	1.05	1.41		6.49
Kingman	...do												.49	2.99	.27	.52	.03											T.	1.11	.96	.74		7.11
La Crosse	...do											.03	1.31	1.06		.19													1.21	.62	.21		4.63
Lakin	...do												.73	.11		.10													.45	1.62			3.01
Larned	...do	.10											2.00	1.30	.10	.10	T.						T.						1.43	.50	.22		5.75
Lebo	Neosho	.08						T.	.16				.15	3.84	.65	.75	.26					T.	.08						.02	T.	.52		6.51
Le Roy	...do	.37				T.		.12	T.			.35	.20	1.12		.68						.09											2.93
Liberal	Cimarron												.74	.26		.29						T.							2.20	.50	.50		4.49
Macksville‖‖	Arkansas												1.00	1.90	.14	T.	T.					T.	T.					T.	1.15	.50	.39		5.08
McPherson‖‖	...do	.22											.92	2.17	.90	.64													.94	.46	.10		6.35
Madison	Verdigris	.45						T.			T.	.09	T.	3.91		.22	1.02					T.	.15			T.			T.		.28		6.12
Marion	Neosho	.05											.38	3.25	1.18	.72	.26					T.	T.			.05	T.	T.	1.08	.10	.16		7.23
Medicine Lodge	Arkansas												2.53	.97		.62												1.20	.60	.99	.15		7.06
Medora	...do																																
Mt. Hope	...do							T.					.91	3.00	.72	.45	.21									T.			1.36	.25	.26		7.16
Neosho Rapids	Neosho	.06	T.					.25						2.90	1.54		1.18			T.		.06						.03	T.				6.02
Ness City	Arkansas												.96	.74		.10													.95	.65	1.03		4.43
Newton	...do												.61	3.05	1.00	.70	.22												1.45	.24	.05		7.32
Norwich	...do												.70	4.10	.30	.70	.16						.02			T.	.T	T.	1.34	.42	.75		8.49
Oswego	Neosho					.14		.02	.25			*	1.62	.67		.97							.10								.85		4.62
Pratt	Arkansas												.62	2.40	.40	T.													2.00	1.00			6.42
Rome	...do					.04		.05					.20	4.31		.10	.96							.10					.55	.10	.70		7.11
Sedan‖‖	Verdigris					.25		.11				.03	.70	.52	1.00	.26	.18						.08						T.	T.	.75		3.98
Toronto‖‖	...do												.50	1.60	.75	.55															.70		4.10
Ulysses	Cimarron												1.04	*	*	.10												*	*	1.44			2.58
Walnut	Neosho					.11		T.	.62	T.		.87	.73		.65	.25	.95					T.	.16										4.34
Wichita	Arkansas	.01											2.92	2.19		.62						.01	.03			T.		T.	.55	.08	.28		6.69
Winfield	...do							.60					.22	4.00		.48							.25						.40		.60		6.55
Yates Center	Verdigris					.09		T.	T.	T.		T.	.44	.44	1.60	.20	.62														.57		3.96
Oklahoma.																																	
Ada	Canadian																																
Alva	Arkansas												.28	3.60	.21	.59													1.25	1.25	.52		7.70
Apache	Canadian							T.					T.	1.79	.01	.06	.41	T.								T.	T.		.08	2.00	1.21		5.56
Arapaho	Washita							.03					.03	2.22		.90						T.				.05	T.	T.	2.40	2.08	1.05		8.76
Ardmore‖‖	Red	T.							2.95					.03	1.30		.58													T.	1.10		5.96
Bartlesville	Arkansas							T.				.50	1.00	1.15		1.10							T.								1.26		5.01
Beaver	Canadian												1.80	.80	.20	T.						T.					T.	T.	2.20	.35	.76		6.11
Blackburn	Arkansas	.19				.07		T.				.26	.95	.47	1.38	.19	.50														.96		4.97
Buffalo	Cimarron																																
Cache	Red							.10						1.75													T.			4.00	2.00		7.85
Calvin	Canadian	.43							.73				.03	.12	.94	.03	.86														.03		3.17
Chandler‖‖	...do	.43											.15	T.	1.20		1.07														.15		3.00
Chattanooga	Red								.03					.80		.05													.30	3.00	1.40		5.58
Chickasha	Washita							T.					T.	2.26		.05	.44													.93	.88		4.56
Cloud Chief	...do							.13					.52	1.10		.40													.80	3.17	1.20		7.32
Dacoma	Cimarron					.30						.34		3.60		.46														2.85			7.51
Durant‖‖	Red	.59							.55				T.	.35	.65	.11	.40						T.								T.		2.65
Eldorado	...do							T.						1.52		.32												.60	2.00	.65			5.09
Enid‖‖	Cimarron					.51		.10						2.25	1.25		.35												.20	.25	.89		5.80
Erick	Red												.10	2.50		.13	T.												3.80	.35	.91		7.79
Fairland	Arkansas	.02				.73			1.15	.04		.07	3.12		.63	.74	1.13														T.		7.63
Fort Gibson	...do	1.64							.63	.03	.03		.02	.39	.66		1.66						T.								T.		5.06
Frederick	Red							.01					T.	.56		.31	.22												1.76	1.85	1.95		6.66
Gage	Canadian				.23									3.28		.02	.08					T.							4.05	1.45	2.32		11.43
Guthrie	Cimarron					.10		T.					1.78	2.35	.82	.10															.85		6.00
Guymon	Canadian											.56						.46				T.							2.11	1.01			4.14
Harrington	Red												.08	4.33		.40													2.88	.35	.68		8.72
Hartshorne	Canadian								.50	.01			.01				1.80														.03		2.35
Healdton	Red							.05	.94			T.	T.	2.55		.18	.33											T.		.32	1.15		5.52
Hennessey	Cimarron					.10		.06				.20	1.80	1.10	.17	.10						.02						T.	T.	.60	.71		4.86
Hobart	Red				T.			T.					.09	1.51		.30	.23												1.46	2.20	1.39		7.18
Holdenville‖‖	Canadian	.40							.50					.18	1.50		.95																3.53
Hooker	...do												.40	.29		.09													1.64	.63	.36		3.41
Hurley‖‖	...do																																
Idabel	Red																																
Jefferson	Arkansas					.40		.90					.17	3.38		.76						T.							.44	.63	1.03		7.71
Kenton	Cimarron												.62	.10	T.	.20						T.						T.	.40	.20	T.		1.52
Kingfisher	...do				.12		T.	T.					1.30	3.18		.24										.02			.13		1.13		6.12
McAlester	Canadian								1.46				.01	.08	.88	.39	.94					T.									1.04		4.80
McComb	...do								.55						2.40		.70						T.								2.45		6.10
Mangum‖‖	Red							T.				T.	.75	.74	T.	.31									T.	T.	T.		1.34	.66	2.23		6.03
Marlow	Washita								T.				T.	.12	1.87		.53													.57	1.11		4.20

TABLE 2.—*Daily precipitation for November, 1909. District No. 7*—Continued.

Stations.	River basins.	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	
Oklahoma—Cont'd.																																	
Meeker	Canadian								.15			.12	.15		1.90	.33	.72														1.65		5.02
Muskogee	Arkansas								.75				.89		1.48	.96	.92														.24		5.24
Mutual	Canadian				.34								.10	3.75	.36														3.60	1.20			9.35
Neola	Washita				T.			T.					T.		1.59		.24											T.			4.53		6.36
Newkirk	Arkansas				.12		.09						.31	3.00	.90	.07														.17	.72		5.38
Norman	Canadian				.01			.02						1.47		.55				.49										.10	1.12		3.76
Okeene	Cimarron					.09		.03					T.	2.73		.80	.08					T.	T.			T.		T.		.16	1.72	.61	6.22
Oklahoma	Canadian							.01				.65	.07	3.22		.45	.01													.01	.15	.72	5.29
Okmulgee	....do					T.		T.						.05	.86	.30	.17														1.25		2.63
Pauls Valley	....do																																
Pawhuska	Arkansas					.10		.34				.14	.20	.40	.74	.24	.46														1.00		3.62
Perry	....do					.14		.10	.01			.50	.41	2.00	1.55	.08	.13									T.				T.	1.36		6.28
Ravia	Washita								1.35			.01		.66	.26	.22	.52											.03			1.97		5.02
Sac & Fox Agy	Canadian												.38		.20	1.50	.62														1.62		4.32
Shawnee‖	....do	.36							.40				.01	.14	1.90		.52										T.		T.		.55		3.88
Snyder	Red							.06						.64		.17	.26												1.12	2.92	1.82		6.99
Stillwater‖	Cimarron	.17				.01			.70				1.56	.34	2.50		.21														.58		6.07
Supply	Canadian				.37								.40	3.13		.10	.01												3.80	1.82	1.55		11.18
Tulsa (1)	Arkansas												1.60	.09	1.72		.88														.07		4.36
Tulsa (2)‖	....do																																
Vinita	....do					.40			1.00	T.		.10	4.00		.70	.60	.80														.30		7.90
Wagoner	....do								.07	T.	T.		.52	T.	.62	.65	.75						.01								.95		3.57
Waukomis	Cimarron					.22		T.					.30	3.23	.10	.05	.15					T.				T.		T.	.10	.40	.80		5.35
Weatherford‖	Canadian												.09	1.62	1.08	.06	.74												.30	2.20	1.35		7.44
Webbers Falls	Arkansas								.23				.02	.95		.12	.43														.64		2.39
Whiteagle	....do					.17		.03				.04	.44	2.30	.41	.24	.04									.03					1.02		4.72
Woodward	Canadian					.15	.03						.20	2.48	.02	.28	.02					T.							3.42	1.63	1.31		9.54
Missouri.																																	
Belle	Meramec								1.10				1.90		.10		1.55						.05										4.70
Birchtree	Black																																
Cape Girardeau	Mississippi																																
Caruthersville	....do	.36					.15		.20	.22					.91	1.15	.57						.52										4.08
Dean	Neosho					.81			2.82	.03			.66		.60	.76	.73		.01				.05										6.47
Doniphan	Black	.58					.43		.05	T.		T.			1.02	.43	1.03						.85								T.		4.39
Farmington	Mississippi								.88					.20	.50	.30							.70							.50	.30		3.38
Gano	Meramec	.35						T.	1.94	.13			2.30		.31		.71						.29										6.03
Goodland	Black							.43	1.43						1.20	*	.50						.35										3.91
Greenville	Mississippi	1.25					T.		.30						.90	T.	1.10						1.12										4.67
Ironton‖	....do	.87						T.	.90	.10	T.			.20	.73	.43	.74	.02				*	T.	.65						T.	T.		4.64
Jackson	....do								.51						.63	.46	1.02						1.03										3.65
Joplin	Neosho								.62	.10				2.20	.75	.85	1.10						.10										5.72
Koshkonong	Black	.70					.53	.03	.32	.02		.01			.57	.30	.91						.51								T.		3.90
Lamar	Neosho	.85				T.		*	.35	.06		*	1.65	.69	.44		1.90					.06									T.		6.00
Marble Hill	Mississippi								1.00						.95	.65	1.00						1.05										4.65
Mt. Vernon	Neosho					.08	.10		1.75	.04			5.50		.15	.45	.40						.02										8.49
Neosho	....do	.01				.63			2.68	T.		.30	5.88		.40	1.28	1.20						.07								.07		12.52
Oakfield	Meramec	.21						.03	1.07				2.42		.26	.43	.24					.13	.11		T.						T.		4.90
Olden	White						.20		.68						.73		.46						.53								.05		2.65
Sikeston	Mississippi	.20					T.	T.	.64	.24					.92	.65	.95					1.40											5.00
Springfield	White					.01		T.	1.61			.09	2.74	.08	.19	.39	.32						.04									.20	5.67
Steelville	Meramec								.85				1.00	.25		.49							.41							T.	T.		3.00
Willow Springs	White											.20			.10		.70					.20											1.20
Kentucky.																																	
Blandville	Mississippi	.20					.03		.39	.30					.82	.97	.41					.01	.61										3.74
Lynnville	....do	.33					T.			.63					.32		2.04																3.32
Tennessee.																																	
Arlington‖	Mississippi																																
Bolivar‖	....do																																
Brownsville‖	....do	T.					.20	.90		.85					T.	1.18	.90	1.04						.31							T.		5.38
Covington‖	....do	.20					1.10	.50		.75					.20	2.25	1.10	.74						.25									7.09
Dyersburg‖	....do						.45	.20		.70					T.	2.00	1.20	.70						.40									5.65
Jackson	....do	.10					.23		T.	.25					.07	.28	.71						.28										1.92
Kenton	....do	.22					.38		.35	.32					.40	3.19	.60						.45										5.91
Memphis	....do	.04					T.		1.26					T.	1.36	1.57	.32						.32										4.87
Milan‖	....do	.08					.01	.34		1.13					.05	.70	.75	.55						1.07									4.68
Trenton	....do	.14					.61		.46	.06					.33	2.12	.93						.34										4.99
Union City	....do	.21					.05		.26	.31					.41	2.00	.50						.97										4.71
Arkansas.																																	
Alicia	White	.25							.20						2.10	1.75														1.00			5.30
Amity	Ouachita	.47					T.		T.	T.	T.				.89	.44	1.10						.29								T.		3.19
Arkadelphia (near)	....do	.69							.10			.03		T.	.20	1.97	.83						.08										3.90
Arkansas City‖	Mississippi	.80								.16					.46	.84		.20															2.46
Batesville (1)	White																																
Batesville (2)‖	....do	.52					.64		.20	.12					.62	.12	.68	.28						.36							.01		3.55
Bee Branch	Arkansas	.60	.20					.45					T.		.90	.20	1.20						.40										3.95
Benton	Ouachita														.42	.85	.90						.60										2.77
Bentonville	Arkansas					.51		.01	.64			.11		.28	.01	.10	.31						.01								.45		2.43
Bergman	White	.40				.67	1.11		.68						.46	T.	.59						.14										4.05
Black Rock‖	....do	.57					.25	.05		.32					1.52	.32	.88	.90					T.	.82							T.		5.63
Brinkley‖	....do	.92								.18					.55	.50	.18	.30						.66									3.29
Calico Rock‖	....do	2.24					.50			.12	.20				.48		1.10	T.						.48									5.12
Camden‖	Ouachita	1.72								1.00	.02				.24	.54	.12	.40						.10							*		4.14
Centerpoint	Red								.35					.60		*	1.10					T.	.32								T.		2.37
Clarendon‖	White	.30								.27					.22	.67	.14							.64							T.		2.24
Conway	Arkansas	.03					.58		.05	T.	T.		.13		.66	.48	1.39						.64								T.		3.96
Corning	White	.46					.29		.54			T.			1.82	.73	.85						.74										5.43
Dardanelle‖	Arkansas	1.90					.20		.90	.10					.40		1.84								.24								5.58
Dodd City	White						2.50		.65						.43	.65							.26										4.49
Dutton	....do					.18									.76		1.20						.02										2.16
Earl	St. Francis	1.58							.26						.92	1.82	.98						.38										5.94
Eldorado‖	Ouachita	.27								1.54					.47	.30	.04	.13						.12									2.87
England‖	Arkansas	1.58							.08	T.				.60	1.10	.75	.55						.25								.32		5.23
Eureka Springs	White					*	3.12	1.10	T.	T.				.61		T.															.35		5.18
Fayetteville	....do						.02		.48					.31		.08	1.15																2.04
Fort Smith	Arkansas						.01	.17	1.26					.34		.15	.33						.01								.88		3.15
Fulton‖	Red	2.20								.30						.70	.44																3.64
Hardy	White	1.58					1.03		.60			T.			.49	.16	.88					T.	.65								.02		5.41
Helena (1) ‖	Mississippi																																
Helena (2) ‖	....do	.66								.66	.10				.80	1.74		.76						.34							T.		5.06
Hot Springs	Ouachita	.14							.01					.78		.32	1.25						.64										3.14
Huttig	....do	1.48								.27					.19	1.03	.22						.02										3.21
Jonesboro	White	.51				*	.35		.15	.04					.55	1.20	.90						.50										4.20
Junction	Ouachita								.60						.64	.17						.21											1.62
Lacrosse	White																																

TABLE 2.—*Daily precipitation for November, 1909. District No. 7*—Continued.

Stations.	River basins.	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.
Arkansas—Cont'd.																																	
Lake Farm	Arkansas	.40						.20	.60						1.20	1.52	.80						.32										5.04
Lewisville	Red	1.33							.15	.27					.25	.42	.35						.23								T.		3.00
Little Rock	Arkansas								.29	.01	T.			T.	.79	.97	.36						.58								T.		3.00
Lutherville	...do					T.	1.20		1.16			T.			.90	.12	.45																3.83
McNeil	Ouachita								.84	1.26					.33	.09	.54						.08										3.14
Malvern‖	Ouachita	.70													.73	.20	1.00	.32						.47									3.42
Mammoth Spring	White	1.86					.52		.25							*	2.26						1.00										5.89
Marked Tree‖	St Francis							.25		.43					.25	1.55	.33	.65						.16	.11								3.73
Mena	Ouachita	.41							.55			T.			.42	.25	1.41						.25								T.		3.29
Mossville	White					.18			2.21				T.		.67	T.	1.31					.41											4.78
Mount Nebo	Arkansas																																
Newport (1)‖	White	.80					.86			.73				.20	1.83	.88	1.63	.92						.10							.03		7.98
Newport (2)‖	...do																																
Ozark	Arkansas					.05	.20		.60						.38	.40	.62						T.								T.		2.25
Pine Bluff‖	...do	.30								.60					.90	.96	.10	.50						.52							*		3.88
Pocahontas	White	.60					.43		.15						1.40		1.42						.91										4.91
Pond	Arkansas	.02				.03			.67			T.	.16		.53	.49	.99						.03										2.92
Portland‖	Ouachita	.48								.13					.47	.40		.11						1.06									2.65
Prescott‖	...do	.67							.03	.10					.27	.57	.63						T.	.11									2.38
Princeton	...do																																
Rogers	Arkansas					.43	.10		1.57				T.		.38	.06	.63						T.								.02		3.19
Russellville‖	...do																																
Spielerville	...do					.07			.64						.50	.25	.37						.26								T.		2.09
Springbank‖	Red	.20								.34					.19	.07	.43	.15															1.38
Stuggart	Arkansas	.50							.16	.04					1.34	.43	.70						.27										3.44
Texarkana‖	Red	1.07							.20	.20					.50	.26	.30	.10						.07									2.70
Warren‖	Ouachita	1.78								.48					.56	.44	.20							.56									4.02
Whitecliffs‖	Red	1.75							.35	T.			T.			.70	.65							.20									3.65
Wiggs	Ouachita	.24							.13						.84	.37	1.14				T.	T.	.26										2.98
Wynne‖	St. Francis	.98					.04			.19					.04	2.41	.30	.64						.33									4.93
Mississippi.																																	
Anguilla	Yazoo									T.				1.90			.21						.80										2.91
Austin	...do	.73							.90						1.00	.72	.55						.34										4.24
Batesville‖	...do	1.30													.14		.65							.90									2.99
Byhalia	...do	.23							.15	.12					.07	.47	.60						.49										2.13
Canton	Big Black	.40								.11				.10					.20					.07									0.88
Clarksdale	Yazoo	.93								.40					.67	.47		.45															2.92
Coffeeville	...do	.30								T.				T.			1.05						.90										2.25
Corinth‖	Mississippi	.35								.14	.01				.20			.46						.68									1.84
Crenshaw	Yazoo	.53							.32	.03					.27	.86	.70						.66	.01							T.		3.38
Denmark	...do	.40								.17					.20		.82						.95										2.54
Duck Hill	...do									.45					.12		.91						.11										1.59
Edwards	Big Black	.21								.08				.04	.30		T.	.18					T.	.45									1.26
Enid	Yazoo																																
Fayette	Mississippi	.30								.08				T.	.50		.60						.48										1.96
Greenville‖	Yazoo	.75								.12					.55	.08		.18						.17									1.85
Greenwood‖	...do										T.				.20	T.		.82						.04									1.06
Grenada	...do				T.							T.					.73	.12									23						1.08
Hernando‖	...do	.30								.63					.15	3.00	.10	.70						1.60									6.48
Hickory Flat	...do														.67		.65						.50										1.82
Holly Springs‖	...do	.18								.02					.08	.04		.77						.75									1.84
Kosciusko‖	Big Black	.27								.01	.10				.09			1.52						.53									2.52
Lake Comorant	Yazoo	.53							.48	.02					1.06	1.70	.54						.72								T.		5.05
Lula	...do	.59							.20						2.00	2.39							.98										6.16
Malone	...do																1.10						.40										1.50
Marks	...do	1.05													.33	.44	.50						.47										2.79
Natchez‖	Mississippi	.22									T.				.15	.65		1.26						1.05									3.33
New Albany	Yazoo	.33								.04					.16		.55						.50										1.58
Pontotoc	...do	.35							T.	T.					.16	.80							.50										1.81
Port Gibson‖	Mississippi	.28								T.					1.05	.07		.37						.35									2.12
Ripley	Yazoo																																
Rosedale	...do	1.40								.60					.58	.60		.60						.10									3.88
Senatobia	...do	.39							.19	.02					.15	.32	.71							.37									2.15
Shoccoe	Big Black	.26								.40				T.	.01		T.	.30						T.									0.97
Suffolk	Mississippi	.05							.01	T.				.48	.97		.37						.47										2.35
Swan Lake‖	Yazoo	1.28													.40			.60						.70									2.98
Tchula	...do									.20				T.	.10	T.	.80						.60										1.70
University	...do																																
Utica	Mississippi																																
Vicksburg	...do	.19								T.				.23	.58	T.	.22						.53										1.75
Water Valley	Yazoo	.75								T.					.20		.67						.45										2.07
Woodville	...do									.13			.10	.69		.75							.35										2.02
Yazoo City‖	...do	.18													T.	.40	T.	.34						.88									1.88
Lousiana.																																	
Abbeville	Coast	.33								T.				.10	.18		.58						.40										1.59
Alexandria‖	Red	.15								.72					.50			.65						.30									2.32
Amite‖	Coast															.80	.23						.05	.30									1.38
Baton Rouge‖	...do									.10			.20		2.00	1.00		.20						.50									4.00
Burnside	...do							T.						.25	.70			.70						.05									1.70
Burrwood	...do									T.				.03	T.			T.				.05	T.	T.									0.08
Calhoun	Ouachita								.08	.09				.05	.08		.54						.11										0.95
Cameron	Coast																																
Cheneyville‖	Red	.43								.40					.05		.47																1.35
Clinton‖	Coast		.17												.40	.06		.32						.24									1.19
Collinston	Ouachita																																
Covington‖	Coast												T.		.12	T.	.10	.06						.25									0.53
Dodson	Red									.32					.72	.04	.10						.42										1.60
Donaldsonville‖	Coast														.85	1.75		.55					T.										3.15
Farmerville‖	Ouachita								.23						1.22		.26						.15										1.86
Ferriday	...do	.53								.08					.14		.93						.61										2.29
Franklin‖	Coast		.16							.01	.03		T.		.56	.16		.46					T.	.15									1.53
Grand Cane‖	Red								.25					.75								.28	1.15					.70	.03				3.16
Grand Coteau	Coast	.22						.15	T.					.02	.05	.15								.35									0.94
Hammond	...do													.75			.32						.25										1.32
Houma‖	...do																																
Jennings‖	...do		2.04							.48					.30		.13	1.19						.04									4.18
Lafayette‖	...do		.16							.04			.03		.28	.05		.15						.24									0.95
Lake Charles‖	...do	1.16								.56					.12			.26															2.10
Lakeside	...do	1.25															.60																1.85
Lawrence‖	...do														.13		.43	1.56						.08									2.20
Liberty Hill	Red								.06					.31	.13		.46																0.96
Logansport‖	Sabine									.40					.38	.04	.13	.07															1.02
Melville‖	Red		.03						.76				.13			.21	T.	.30						.24									1.67
Minden‖	...do	.35								.38					.49	.26	.12	.14					T.		T.						T.		1.74

TABLE 2.—*Daily precipitation for November, 1909. District No. 7*—Continued.

Stations.	River basins.	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	
Louisiana—Cont'd.																																	
Monroe‖	Ouachita	T.													.12	.04		.22						.48									0.86
Morgan City‖	Coast		.16													2.20	.12	.18						.14									2.80
Newellton	Mississippi	.25												T.	.50	.75	.15						.20										1.85
New Iberia	Coast	.10							1.10			.40		.35	T.		T.	.15						.20									2.30
New Orleans (1)	....do	T.	.01							.01				.53	T.		.35	.16					.12										1.18
New Orleans (2)	....do													.35	.45		.40	.27						.12									1.59
New Orleans (3)	Coast													.55			.29	.25					.15										1.24
New Orleans (4)	....do													.69	.01		.37	.20					.11										1.38
New Orleans (5)	....do													.63			.38	.29					.22										1.52
New Orleans (6)	....do													.56			.38	.16					.11										1.21
New Orleans (7)	....do										.04			.26	.01		.46	.28					.26										1.31
New Orleans (8)	....do													.19			.65	.09					.05										0.98
Opelousas‖	....do		.35						.10	.05			T.		.14	.05	T.	.27						.41									1.37
Plain Dealing	Ouachita	.06							.30						.44		.52						.10										1.42
Rayne‖	Coast		1.00											T.			.08	1.15						.31									2.54
Reserve‖	....do																																0.00
Robeline‖	Red	.25											.10			.28																	0.63
Ruston	Ouachita																																
Schriever‖	Coast														.15		T.	.18															0.33
Shreveport	Red								.17	.01	.01		T.	.01	.24	.16	.04						T.								.13		0.77
Simmesport‖	Red	.04							.14						.70			.60						.16									1.64
Southern Univ. Farm.	Coast													1.00	.10	T.	.15	.22						.05									1.52
St. Francisville‖	Mississippi													.73	.18		.25							.15									1.31
Sugartown	Red	1.60																.60															2.20
Tallulah	Mississippi													1.11	.22	.31							.55										2.19

TABLE 3.—*Maximum and minimum temperatures at selected stations, November, 1909. District No. 7, Lower Mississippi Valley.*

Date.	Colorado.						New Mexico.				Texas.			
	Lamar.		Leadville.		Pueblo.		Albert.		Cimarron.		Amarillo.		Paris.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	71	30	42	13	71	27	71	34	72	19	69	37	82	51
2...	76	30	50	20	76	29	75	39	77	29	77	41	83	45
3...	86	36	58	26	75	33	78	40	72	40	81	47	84	47
4...	72	30	54	26	78	33	75	45	76	30	81	50	84	46
5...	78	23	55	22	74	32	77	47	74	35	79	46	74	49
6...	80	32	56	24	78	36	78	42	73	26	83	45	84	56
7...	66	40	50	20	62	33	68	43	60	30	62	44	82	58
8...	68	20	53	15	48	25	59	32	60	25	59	31	68	57
9...	72	27	52	21	69	26	65	37	67	20	70	40	73	58
10...	72	45	39	20	62	36	70	47	65	47	78	54	76	48
11...	62	29	32	11	50	24	64	35	52	27	69	44	78	61
12...	51	30	27	18	43	30	53	36	44	32	70	38	74	61
13...	45	30	29	0	34	29	50	32	46	29	38	32	76	63
14...	34	26	27	2	31	23	50	32	44	18	40	30	67	48
15...	34	22	30	8	31	19	50	36	44	32	53	35	70	48
16...	35	9	28	− 3	42	10	51	29	52	22	50	26	54	52
17...	46	12	40	9	35	13	48	28	50	14	52	27	56	30
18...	51	22	45	14	53	18	61	29	67	18	60	31	61	30
19...	62	28	39	20	65	46	68	35	66	29	76	31	68	29
20...	69	32	44	30	70	40	74	39	62	42	76	38	76	34
21...	56	31	35	25	46	31	64	45	65	32	62	34	83	48
22...	49	29	34	20	56	28	59	36	64	28	54	34	57	54
23...	67	34	42	29	70	46	71	42	70	35	70	39	61	32
24...	70	36	51	25	69	36	73	45	72	29	71	42	68	33
25...	71	33	53	22	67	35	73	41	69	32	76	42	71	40
26...	76	33	44	25	70	37	68	45	65	30	71	48	79	42
27...	71	35	41	24	63	31	63	38	59	28	71	33	73	52
28...	35	27	32	− 1	36	30	50	29	47	23	33	30	75	58
29...	36	30	32	14	34	29	36	20	40	19	33	29	77	56
30...	36	29	33	8	41	29	39	28	36	17	34	26	.....	54
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	59.7	29.0	41.6	16.9	56.6	29.8	62.7	36.9	60.3	27.9	63.3	37.5	72.9[a]	48.0

Date.	Kansas.												Oklahoma			
	Dodge City.		Ellinwood.		Iola.		Liberal.		Wichita.		Ardmore.§§		Bartlesville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Mid.	Max.	Min.	Max.	Min.	Max.	Min.
1...	72	37	71	38	68	44	71	37	68	46	74	47	73	50
2...	77	39	78	36	74	36	78	36	77	41	82	46	81	39
3...	82	41	83	40	81	47	85	40	83	49	84	49	85	42
4...	80	44	84	39	82	43	81	37	81	50	85	48	86	42
5...	79	43	80	43	72	51	81	40	73	54	84	55	79	57
6...	76	51	77	41	72	47	84	40	75	48	84	61	85	49
7...	62	40	71	50	72	50	74	34	71	52	78	62	85	68
8...	57	27	59	32	51	46	61	27	53	39	60	54	74	50
9...	68	35	64	37	58	46	71	33	59	45	67	43	63	48
10...	80	57	76	55	71	54	80	45	72	56	74	54	74	52
11...	61	38	71	41	72	50	75	35	67	50	77	65	74	64
12...	45	35	56	37	65	46	51	33	66	45	75	64	74	51
13...	35	29	39	35	71	47	38	30	49	37	71	66	71	65
14...	32	27	38	26	48	32	37	25	44	31	55	41	65	41
15...	32	22	33	25	48	30	37	27	36	29	68	43	55	34
16...	38	19	34	19	39	26	43	20	34	22	47	39	43	30
17...	48	22	40	23	42	23	51	24	41	25	53	30	50	26
18...	58	30	56	28	52	22	60	29	55	28	58	28	63	25
19...	72	31	66	38	61	37	73	30	59	36	65	35	67	44
20...	73	37	71	36	67	49	75	37	65	43	75	53	73	51
21...	51	29	59	32	58	43	57	31	53	36	79	60	65	57
22...	38	25	38	25	43	32	59	30	39	28	49	40	57	32
23...	73	30	64	29	50	31	73	30	51	30	57	30	60	32
24...	73	38	75	41	62	40	73	40	64	40	68	38	66	41
25...	67	35	61	35	62	41	77	35	59	45	70	50	63	43
26...	71	50	71	52	68	58	72	48	73	59	71	54	71	57
27...	65	32	66	59	65	59	71	50	68	57	72	61	67	61
28...	32	30	63	32	64	41	62	30	57	34	72	61	61	48
29...	38	32	42	33	55	41	48	33	58	39	72	60	76	45
30...	49	32	51	41	60	48	50	30	55	46	55	52	55	52
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	59.5	34.6	61.2	36.6	61.8	42.0	64.9	33.9	60.2	41.3	69.4	49.6	68.5	46.5

Date.	Oklahoma.														Missouri.													
	Enid.§§		McAlister.		Mangum.§§		Muskogee.		Oklahoma.		Weatherford.§§		Woodward.		Caruthersville.		Ironton.§§		Lamar.§§		Olden.		Springfield.		Lynnville, Ky.		Jackson, Tenn.	
	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...	74	47	75	49	79	45	75	48	73	49	76	43	74	41	75	59	64	55	69	43	65	50	61	50	72	52	77	61
2...	84	47	85	45	79	47	80	42	81	50	85	47	81	40	80	41	72	44	76	38	73	42	69	45	70	46	78	43
3...	83	48	87	52	80	46	86	47	84	52	87	54	82	42	87	40	82	32	81	40	81	48	78	50	80	38	84	37
4...	86	46	87	53	80	45	87	51	83	53	85	52	84	43	82	44	80	38	84	45	82	51	79	54	80	43	88	48
5...	72	47	79	61	81	50	79	59	78	54	80	47	78	46	84	49	79	38	71	48	80	55	74	57	81	53	85	47
6...	80	48	85	65	80	52	81	62	84	56	85	48	81	41	73	54	71	41	80	49	75	55	72	55	70	49	77	52
7...	72	50	79	64	80	50	83	63	69	54	73	62	75	54	84	56	80	56	76	53	77	58	76	60	81	56	82	51
8...	65	44	75	55	79	47	71	51	54	49	58	47	61	35	85	59	63	57	56	50	70	57	63	53	64	56	80	61
9...	62	43	68	51	80	49	60	50	65	42	70	44	68	35	65	55	61	49	68	50	61	53	64	53	61	55	68	59
10...	74	48	75	56	60	49	74	55	74	58	76	61	75	58	78	52	74	53	74	54	74	54	71	53	76	52	79	50
11...	76	60	77	66	60	40	78	64	77	57	82	51	70	45	79	59	74	62	69	55	70	60	71	59	74	58	76	58
12...	75	63	75	64	55	40	77	60	74	60	74	56	69	47	81	58	66	60	68	50	71	65	69	53	76	55	79	54
13...	60	43	71	65	58	40	74	64	67	40	46	44	50	35	82	55	75	54	76	50	74	54	71	58	78	56	80	51
14...	49	40	70	44	58	38	71	43	50	33	54	31	49	28	72	62	71	60	50	47	69	54	61	39	75	62	78	63
15...	44	31	64	41	50	35	61	40	61	38	44	36	40	32	62	49	60	37	61	32	55	40	54	34	65	52	76	61
16...	44	26	67	37	50	29	65	35	43	29	47	27	45	24	68	47	61	44	40	33	60	36	58	28	67	42	71	59
17...	50	26	53	29	70	29	43	27	47	29	54	33	52	22	52	30	43	28	44	23	50	25	39	23	47	31	60	33
18...	59	28	61	27	53	32	56	27	55	31	57	30	60	28	51	28	48	20	54	22	49	18	50	23	45	25	48	28
19...	62	30	69	41	51	30	67	35	62	38	65	35	69	33	63	30	64	32	66	25	64	35	64	40	58	32	61	28
20...	70	36	75	56	67	29	73	50	72	53	69	42	75	31	69	47	66	42	69	43	65	43	66	46	67	43	70	44
21...	45	41	81	65	68	33	81	62	59	41	45	44	55	37	76	47	72	48	69	44	70	54	70	55	72	58	76	61
22...	46	34	77	39	45	33	73	36	43	33	48	34	43	31	72	45	66	56	37	37	65	37	64	33	70	40	76	57
23...	60	28	61	31	56	31	56	31	57	32	60	31	67	28	51	37	43	31	53	33	46	30	48	33	45	33	58	39
24...	69	30	69	40	68	32	64	37	65	41	67	37	77	35	69	32	54	27	65	35	53	31	58	37	52	28	60	29
25...	64	36	71	46	68	44	68	43	67	49	67	51	65	38	70	33	68	36	67	41	67	35	66	41	62	31	68	30
26...	59	43	73	58	78	44	71	58	73	59	64	51	72	56	72	38	69	38	75	42	71	46	69	53	67	37	72	34
27...	50	21	72	60	54	45	74	53	71	62	69	49	72	60	76	42	71	41	75	54	70	45	70	53	72	45	76	42
28...	74	38	76	61	55	35	78	57	66	45	58	41	63	33	75	40	75	41	76	57	74	43	71	53	74	47	80	39
29...	67	39	78	57	49	35	75	53	65	55	55	40	43	34	60	41	51	44	63	46	63	43	66	44	63	41	75	39
30...	54	50	69	55	50	35	66	53	61	44	49	45	55	38	65	47	51	45	63	46	50	47	51	46	58	38	69	48
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	64.3	40.4	73.5	51.1	64.7	39.6	71.6	48.5	66.0	46.2	65.0	43.5	65.0	38.3	71.9	45.9	65.8	43.6	65.8	42.8	66.5	45.5	64.8	46.0	67.4	45.1	73.6	46.9

TABLE 3.—*Maximum and minimum temperatures at selected stations, November, 1909. District No. 7*—Continued.

Date.	Tennessee.				Arkansas.																		Mississippi.					
	Memphis.		Union City.		Bentonville.		Corning.		Dardanelle. §§		Eldorado. §§		Fort Smith.		Little Rock.		Pine Bluff. §§		Texarkana. §§		Wynne. §§		Clarksdale. §§		Corinth. §§		Greenville. §§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	71	60	72	59	66	49	74	53	70	55	78	57	70	53	73	54	76	54	72	52	71	60	77	63	83	58	80	64
2...	74	51	75	47	76	39	76	41	80	40	80	43	77	43	76	53	80	41	79	46	74	42	78	44	74	45	78	46
3...	80	52	83	39	78	49	85	39	81	40	84	43	83	47	83	50	86	40	80	46	82	42	82	42	81	44	84	43
4...	82	57	84	44	83	52	83	44	84	42	84	46	85	51	84	54	86	52	79	47	84	42	85	42	84	44	84	46
5...	78	58	82	45	74	58	82	49	81	41	84	47	77	56	78	55	81	46	79	49	78	49	87	46	81	48	80	47
6...	78	62	72	51	74	60	75	59	88	52	83	54	80	62	76	65	81	58	79	57	88	54	86	49	76	49	82	50
7...	79	63	81	58	74	61	79	58	82	55	83	55	77	60	78	64	85	59	79	59	81	58	83	54	81	56	84	55
8...	68	59	74	58	66	52	73	58	71	58	72	51	66	55	68	60	68	57	69	61	69	61	80	66	82	55	82	61
9...	68	59	79	54	67	53	63	55	65	59	76	59	68	54	66	57	69	56	68	59	69	59	78	54	76	58	78	56
10...	77	59	77	53	72	55	77	55	79	54	79	57	75	56	72	56	80	52	75	59	78	57	80	55	78	52	79	56
11...	76	60	75	59	70	63	75	64	75	56	80	59	76	65	72	65	80	60	77	59	87	60	78	57	75	58	81	57
12...	76	60	77	56	73	62	78	62	78	57	79	63	75	61	72	64	80	59	75	65	76	59	81	55	76	51	81	57
13...	79	59	79	55	72	60	78	55	74	56	78	53	73	62	77	57	81	54	75	61	79	58	85	59	78	54	83	54
14...	72	64	76	60	61	38	73	62	68	46	75	60	62	43	70	56	66	54	64	55	64	60	87	55	74	62	79	57
15...	69	59	70	52	64	37	65	47	68	45	74	61	58	42	59	51	70	50	70	55	68	54	84	65	78	60	80	66
16...	70	42	69	54	64	30	65	49	55	50	71	62	67	37	67	43	70	58	68	59	69	55	73	65	73	60	75	64
17...	49	34	54	32	44	24	51	30	54	33	56	34	52	31	51	35	55	33	54	34	49	31	61	35	50	34	57	34
18...	48	32	47	26	55	24	50	25	54	28	55	29	56	29	53	32	50	31	55	31	51	26	59	30	48	28	54	34
19...	59	37	59	33	62	39	62	36	67	27	66	30	66	34	64	35	66	32	66	33	60	28	70	29	58	30	64	27
20...	68	46	69	42	68	53	67	49	66	35	69	37	70	51	66	51	70	40	71	36	67	42	79	42	68	32	75	35
21...	76	63	74	59	75	57	71	62	79	52	79	52	79	58	75	64	80	58	84	55	77	51	76	55	75	45	81	45
22...	72	43	71	44	68	34	70	46	69	65	79	66	71	39	70	43	74	64	71	67	71	63	69	47	74	61	80	63
23...	49	40	49	35	55	34	71	37	55	45	58	41	54	37	51	40	68	39	55	34	50	39	55	38	47	38	54	42
24...	54	37	52	31	62	38	57	32	60	37	65	33	62	39	57	38	74	30	67	35	56	31	68	39	56	31	64	32
25...	64	43	62	37	70	42	69	33	70	40	74	35	68	42	71	43	76	34	71	40	67	32	70	38	66	32	73	34
26...	71	50	68	41	72	55	75	39	75	40	75	47	75	57	72	50	74	40	75	48	72	41	75	40	71	34	74	42
27...	73	55	74	41	70	55	73	44	75	43	78	48	74	54	74	51	79	42	75	54	73	43	78	37	73	38	80	41
28...	72	55	76	40	73	54	74	40	77	44	77	50	74	57	73	52	78	44	76	56	74	48	79	42	76	42	78	43
29...	71	52	63	43	71	46	67	45	73	38	75	46	74	54	72	52	76	41	72	53	73	43	78	41	73	41	77	44
30...	55	50	65	43	64	48	57	48	60	42	73	43	59	51	60	50	67	47	61	52	55	50	.....	43	.....	41	73	44
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	69.3	52.0	70.3	46.4	68.1	47.4	70.5	47.2	71.1	45.8	74.6	48.7	70.1	49.3	69.3	51.3	74.2	47.5	71.4	50.6	70.4	47.9	76.6[a]	47.4	72.1[a]	46.0	75.8	48.1

Date.	Mississippi.						Louisiana.																					
	Kosciusko. §§		Natchez. §§		Vicksburg.		Alexandria. §§		Baton Rouge. §§		Covington. §§		Lafayette. §§		Lake Charles. §§		Monroe. §§		New Orleans.		Robelline. §§		Schriever. §§		Shreveport.	
	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.....	81	64	86	65	81	64	84	64	86	64	85	56	84	67	81	60	87	55	83	67	87	59	87	57	77	57
2.....	77	45	79	53	79	54	80	45	82	63	84	66	78	56	82	54	84	47	79	66	86	45	86	57	79	51
3.....	81	33	85	47	79	51	85	41	85	51	83	43	84	44	86	49	86	45	78	61	85	42	89	56	82	50
4.....	84	39	85	47	81	57	86	42	86	52	84	43	85	45	85	45	85	46	79	60	85	41	87	57	82	52
5.....	81	42	82	53	77	55	82	43	83	50	82	45	82	48	83	45	85	47	76	62	84	42	84	58	80	53
5.....	79	42	85	55	78	59	85	47	85	57	84	46	84	50	84	45	87	47	81	64	86	44	87	54	82	60
7.....	81	48	85	59	81	60	84	57	86	54	84	53	83	55	85	50	83	55	82	66	84	47	91	55	79	59
8.....	81	52	86	63	80	62	86	62	83	61	82	54	86	58	83	50	82	62	81	66	85	41	88	59	76	61
9.....	66	54	84	62	76	61	81	56	85	55	84	54	83	56	79	50	80	60	78	63	80	49	90	60	69	58
10.....	78	53	83	61	78	57	82	55	82	60	82	55	82	55	82	50	82	59	80	64	79	50	86	59	76	57
11.....	76	53	85	60	79	59	82	56	85	56	81	56	83	58	84	50	83	58	79	65	85	48	85	57	79	62
12.....	76	53	84	61	79	58	80	62	79	63	82	54	81	62	82	50	85	60	78	63	81	49	87	58	76	62
13.....	78	54	85	59	80	57	80	60	75	60	80	54	80	61	83	50	81	52	78	65	82	48	88	61	78	60
14.....	75	54	81	62	77	65	84	60	69	64	75	56	79	63	84	50	78	58	77	69	79	51	89	59	62	58
15.....	79	60	82	67	78	66	80	66	70	60	82	62	82	65	80	53	83	65	80	66	80	47	86	57	76	62
16.....	77	61	80	65	76	53	80	63	75	62	76	64	85	65	79	50	75	66	75	64	77	50	81	54	75	43
17.....	53	38	57	41	55	40	60	41	60	47	62	51	59	46	69	43	63	38	69	51	58	37	75	50	55	37
18.....	50	32	57	36	55	36	60	32	55	36	62	32	61	34	63	37	60	33	58	46	72	25	72	38	56	34
19.....	62	25	69	35	63	35	69	27	64	33	68	29	68	30	71	31	71	30	64	45	76	33	81	34	66	36
20.....	73	25	76	36	72	46	72	28	70	40	78	30	77	36	76	32	72	31	77	55	79	38	83	49	72	48
21.....	78	46	83	50	79	64	82	42	82	52	81	45	82	52	80	45	83	43	81	61	82	37	87	50	81	64
22.....	78	65	81	64	78	48	80	63	80	62	84	53	83	60	79	49	81	66	81	63	80	35	83	52	79	40
23.....	50	41	59	44	56	43	61	38	61	49	70	47	63	40	70	40	61	44	64	51	76	39	86	51	59	35
24.....	61	30	67	39	63	40	67	37	68	44	69	36	71	38	76	40	73	35	62	45	80	37	82	51	64	39
25.....	68	32	78	40	71	47	76	37	78	47	76	36	78	38	78	41	75	37	71	52	68	41	86	32	74	48
26.....	71	38	75	44	73	52	77	37	71	48	72	37	74	42	79	45	68	36	72	53	78	32	84	35	75	54
27.....	75	39	82	51	77	53	81	46	80	53	82	42	81	46	81	45	84	45	77	55	78	38	85	35	78	54
28.....	73	41	82	55	76	53	81	50	79	59	79	45	80	52	82	50	82	46	76	60	80	50	87	36	78	57
29.....	73	38	81	52	76	54	80	52	72	53	79	46	79	52	81	50	81	48	72	54	79	46	89	36	74	55
30.....	70	39	81	48	75	52	.....	39	79	48	79	39	79	43	79	50	80	42	76	55	.....	36	88	40	71	51
31.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means.....	72.8	44.7	78.8	52.5	74.2	53.4	78.6[a]	48.3	76.5	53.4	78.4	47.6	78.5	50.6	79.5	46.6	78.7	48.5	75.5	59.2	79.7[a]	42.8	85.3	50.2	73.7	51.9