

CLIMATOLOGICAL DATA FOR AUGUST, 1913.

DISTRICT NO. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The month in the Colorado Basin was showery, but the amount of rainfall was much less than the average for August. There was an excess of cloudy weather, and, considering the large number of thunderstorms, many unaccompanied by precipitation, there was a general absence of squalls. In Arizona and western New Mexico temperatures were somewhat below the normal, while an excess was general in the remainder of the district. The ranges were generally in fair condition as regards feed and water. The section director for Arizona reports that the summer showers have not been heavy enough at any time to supply water for the Salt River Valley irrigated lands, and the Roosevelt reservoir has been heavily drawn upon; that the water in the dam is below the 130-foot mark; and that the amount of stored water is less than one-half the supply a year ago.

TEMPERATURE.

The monthly mean for the stations reporting was 72.1°, or 0.1° above the normal. The mean for August, 1912, was 70.8°. The highest monthly mean was 91.7°, at Parker, Ariz., and the lowest, 53.5°, at Fraser, Colo. In general, the first 18 days were cooler than the normal, especially in central and northwestern Arizona. During the remainder of the month temperatures, except for a day or two here and there, were somewhat higher than the normal. As the result of the absence of marked warm spells the highest temperature at the different stations occurred somewhere on every date but the 3d. The lowest temperatures also occurred on a number of dates, principally about the middle of the month. Freezing temperatures were reached in western Wyoming, western Colorado, and eastern Utah, and light frosts occurred in parts of eastern Utah and in northern Arizona. The highest temperature, 118°, occurred at Parker, Ariz., on the 18th, and the lowest, 27°, at Dillon, Colo., on the 8th, and at Strawberry Tunnel (east) and Scofield, Utah, on the 17th and 18th, respectively.

Details of temperature are summarized in the following table:

States or parts of States in District No. 9.	Temperature.					
	Mean.	Departure from normal.	Highest.	Station.	Lowest.	Station.
Western Wyoming.....	62.9	+3.4	95	Green River ..	29	Pinedale.
Western Colorado.....	65.4	+1.9	102	Delta	27	Dillon.
Eastern Utah.....	70.5	+0.8	104	At 2 stations..	27	At 2 stations.
Western New Mexico.....	70.7	-1.3	103	Cliff	35	Luna.
Arizona.....	78.6	-0.9	118	Parker.....	36	At 2 stations.
Southeastern Nevada.....	79.6	+6.2	109	Logan	40	Callente.

PRECIPITATION.

The average for the stations reporting was 1.54 inches, or 0.63 inch below the normal. The average for August, 1912, was 1.88 inches. Showers occurred somewhere in the district every day. In Wyoming the weather was dry from the 10th to 26th; in the remainder of the district showers were least common from the 14th to 17th, inclusive. Rainfalls of an inch or more in 24 hours occurred 4 times in western Colorado, 2 in eastern Utah, 4 in western New Mexico, and 22 times in Arizona. The greatest monthly amount was 6.04 inches at Dos Cabezos, Ariz., and the least, a trace, at Fort Duchesne, Utah. No snowfall was reported.

The average number of days with 0.01 inch or more precipitation was 4 in western Wyoming, 8 in western Colorado, 6 in eastern Utah, 8 in western New Mexico, 7 in Arizona, and 4 in southeastern Nevada. For the district as a whole the average was 7 days.

The average precipitation and departures from the normal on the different watersheds are given in the following table:

Watershed.

Green.		Grand.		San Juan.		Little Colorado.		Gila.		Mimbres.		Colorado proper.	
Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.
0.77	-0.46	1.25	-0.62	1.93	-0.75	1.99	-0.72	1.82	-0.77	1.94	-0.53	1.22	-0.36

MISCELLANEOUS.

The average amount of sunshine in percentages, with departures from the normal, was: Grand Junction, 77, +5; Durango, 68, -10; Phoenix, 82, ±0; Yuma, 85, -5.

The relative humidity reported was: Grand Junction, 40, -1 per cent; Durango, 57, -3; Phoenix, 44, +1; and Yuma, 51, +3.

RIVERS.

Stages much lower than common prevailed in the Colorado and tributaries throughout the month.

TABLE 1.—Climatological data for August, 1913. District No. 9, Colorado Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.			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, unmelting.	Number of rainy days, 0.01 inch or more.			Number of clear days.	Number of partly cloudy days.
Wyoming.																			
Battle Mountain	Carbon	7,300	1														U. S. Forest Service. Ira Dodge.		
Big Piney	Lincoln	6,800															J. M. Van Dervort.		
Daniel	do	6,740	14	58.12	+ 3.4	86	24†	30	10	50	1.05	+ 0.01	0.74	0	5	21	8	2	nw.
Eden	Sweetwater	5,577	4	62.7		85	25	34	10†	51	0.36		0.26	0	4	16	14	0	sw.
Green River	do	5,083	12	68.0		88	25†	41	15†	51	0.79		0.36	0	2	4	13	4	n.
Pinedale	Fremont	7,167	1	59.7		86	25†	29	12	52	0.83		0.09	0	2	10†	15†	0	sw.
Wamsutter	Sweetwater	5,702	7	66.0		92	26	36	14†	54	0.73		0.48	0	5	18	7	6	sw.
Willow Creek Cabin	Fremont	7,500	4																U. S. Forest Service.
Colorado.																			
Ashcroft	Pitkin	9,483	11	56.2	+ 1.9	83	25	33	16	45	1.91	- 0.39	0.37	0	18				
Blue Valley Ranch	Grand	7,525				84	22†				0.90		0.52	0	3	15	14	2	
Cascade	San Juan	8,900	6								2.97		0.08	0	13	12	13	6	
Cedaredge	Delta	6,175	15										0.50	0	14	3	8	22	w.
Cochetopa	Saguache	9,088	4										0.30	0	6	13	16	2	sw.
Collbran	Mesa	6,000	20	68.5	+ 1.0	87	4†	47	10	36	2.63	- 0.84	0.30	0	6	22	9	0	sw.
Columbine	Routt	8,708	3								0.72		0.21	0	6	20	8	3	s.
Columbine Ranch	Delta	6,925	3								1.02		0.50	0	4	30 ^a	0 ^a	0 ^a	
Cortez	Montezuma	6,100		68.8		92 ^a	3	42 ^a	1	47 ^a	1.36		0.30	0	10	16	15	0	
Crawford (near)	Montrose	6,600	3	68.2		87	4	47	10	34	2.06		1.30	0	11	12	6	13	
Crested Butte	Gunnison	8,867	3	55.7		78	25†	32	15	44	1.84		0.32	0	11	12	6	13	
Dillon	Delta	4,965	23	73.2	+ 1.1	102	4†	39	4	63	0.46	- 0.41	0.29	0	9	21	7	3	
Durango	Summit	8,300	18	53.6		79	4†	27	8	50	1.42		0.44	0	9	9	16	6	w.
Eureka	La Plata	6,534	18	67.9	+ 1.6	89	27	43	16	44	2.34	- 0.72	0.44	0	10	6	22	3	nw.
Fraser	San Juan	10,000	4								2.24		0.47	0	12	7	14	10	s.
Fruita	Grand	8,560	4	53.5		80	16	28	8	50	0.33		0.07	0	6	0	9	22	w.
Gladstone	Mesa	4,510	14	74.5	+ 1.3	98	4†	44	16	51	0.69	- 0.96	0.26	0	6	14	17	0	sw.
Glenwood Spgs. (near)	San Juan	7,000	6								3.60		1.06	0	19	2	19	10	ne.
Grand Junction	Garfield	5,823	15	65.1	- 1.0	92	31	38	16	47	1.02	- 0.21	0.40	0	5	25	6	0	w.
Grand Valley	Mesa	4,602	23	77.4	+ 1.3	96	4	57	10	34	0.22	- 0.82	0.10	0	3	10	12	3	se.
Hayden	Grand	8,153	5								1.86		0.72	0	7	10	15	6	w.
Hesperus (near)	Garfield	5,085	21	74.0	+ 2.7	101	21	40	16	52	0.19	- 0.82	0.11	0	4	8	18	5	
Horseshoe	Gunnison	7,670	20	66.5	+ 7.1	82	3†	38	5†	43	1.14	- 0.18	0.40	0	7	11	20	0	sw.
Ironton	Routt	6,337	1	67.8		91	27	40	1†	50	0.94		0.11	0	6	10	17	4	sw.
Lake City	La Plata	7,610	1								0.64		0.36	0	9	6	16	9	
Lay	Montrose	8,700	3								2.61		0.55	0	9	9	15	7	se.
Mancos	Ourray	6,030	3	60.2		81	8	40	3†	40	3.35		0.51	0	16	2	20	9	s.
Marble	Hinsdale	8,688	8								1.16		0.73	0	6	15	9	7	sw.
Marshall Pass	Moffat	6,190	19	66.8	+ 1.3	91	22†	38	15	48	1.86	+ 0.25	0.25	0	5	6	15	10	sw.
Meeker (near)	Montezuma	6,960	14	67.6	+ 3.2	90	3†	43	16	44	0.73	- 1.72	0.25	0	5	6	15	10	sw.
Montrose	Gunnison	7,951	4	60.0		84	25†	35	16	46	2.8		0.45	0	9	20	11	0	w.
Nast	Saguache	10,846	10								1.28		0.25	0	7	15	8	8	
Paposa Springs	Rio Blanco	6,182	21	63.2	- 0.6	80	17	38	1†	46	0.68	- 0.95	0.43	0	4	21	9	1	sw.
Palladas	Rio Blanco	5,811	24	71.2	+ 3.8	93	4†	45	16	46	0.38	- 0.96	0.16	0	6	24	7	0	sw.
Paonia	Montrose	7,953	3	58.4		83	23†	33	1	45	0.13		0.13	0	1	20	10	1	w.
Pitkin	Pitkin	7,108	6	63.0		89	5	32	16	55	1.77		0.68	0	11	9	22	0	sw.
Redcliff	Archuleta	4,739	2	76.8		100	4	50	15	45	0.96		0.15	0	1	14	17	0	sw.
Redvale	Mesa	5,094	18	72.1	+ 1.5	96	4	49	16	42	0.96	- 0.27	0.43	0	8	8	23	0	sw.
Rico	Delta	9,500	4								1.27		0.25	0	8	14	8	7	
River Portal	Gunnison	6,300	20	67.6		90	27	42	16	45	1.12	+ 0.11	0.34	0	4	9	20	2	s.
Sapinero (near)	Montrose	8,824	2	72.2		96	4	48	16	43	0.15	+ 0.29	0.64	0	13	13	8	10	s.
Shoshone	Dolores	6,110	7	70.8		94	17	48	16	42	1.49		0.10	0	3	17	12	2	sw.
Silverton (near)	Garfield	8,125	3	59.4	+ 1.0	81	4	34	16	43	3.03	- 1.49	0.59	0	7	14	16	1	sw.
Spruce Lodge	Gunnison	9,400	10								2.07		0.34	0	13	15	14	2	w.
Steamboat Springs	Routt	6,883	10	62.3	+ 2.7	91†	27	31†	16	56 ^b	1.70	- 0.75	0.17	0	4	23 ^a	7 ^a	0 ^a	
Tacoma	La Plata	7,900	6								0.26		0.74	0	10	1	14	0 ^a	n.
Telluride	San Miguel	8,756	1	67.4		85	3†	30	18†	53	3.37		0.50	0	18	21	8	2	e.
Terminal Dam	La Plata	8,300	6								2.48		0.71	0	11	12	13	6	sw.
Yampa (near)	Routt	8,000	4								0.83		0.42	0	7	18	13	0	sw.
Utah.																			
Bluff	San Juan	4,200	1								0.59		0.66	0	2	15	16	0	sw.
Boneta	Wasatch	6,750	1								1.27		0.42	0	10				Herbert H. Redd. Oscar Wilkins.
Canaan	Washington	5,500	14	66.3	- 1.5	93	21	38	2	50	0.75	- 0.35	0.30	0	4	27	4	0	sw.
Castle Dale	Emery	4,447	13	72.5		95	26	48	11†	38	0.51		0.13	0	6	26	0	5	s.
Cisco	Grand	6,000	3	68.5		92	21	40	15	46	0.66		0.23	0	8	9	13	4	
Dragon	Uinta	5,500	6								0.36		0.10	0	6	11	20	0	
Duchesne	Wasatch	6,657	3	68.6	+ 2.7	86	10	46	8	34	0.70	- 0.87	0.70	0	1	0	0	31	s.
Elkhorn	Emery	6,200	12	67.6	- 0.6	87	5	40	15	43	0.55	- 1.57	0.12	0	7	8 ^b	0 ^b	21 ^b	
Emery	Garfield	5,700	10	70.0†	+ 0.5	95	25†	42	7	49	T	- 0.79	0.70	0	0	15†	5†	1†	sw.
Escalante	Wasatch	4,941	25	70.0†	+ 0.5	95	25†	42	7	49	T	- 0.79	0.70	0	0	15†	5†	1†	sw.
Fort Duchesne	Wasatch	7,625	3			101	4				1.39		0.35	0	5	11†	13†	3†	
Fruitland	San Juan	6,000	6								0.14		0.07	0	3	12	19	0	sw.
Grayson	Emery	4,080	13	78.4	+ 1.5	103	28	46	16	50	0.14	- 0.65	0.51	0	9	14	16	1	sw.
Green River	Wayne	4,200	2	74.2		100	13	42	18	51	1.36		0.30	0	2	14	17	0	
Hanksville	Garfield	3,500	13	84.4	+ 1.8	104	4†	59	18	40	0.50	- 0.22	0.30	0	2	14	17	0	
Hite	Wasatch	3,800	1								1.75		0.90	0	5	6	12	13	
Hurricane	Washington	4,925	5	72.6															

TABLE 1.—Climatological data for August, 1913. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelting.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.		Number of cloudy days.	Prevailing wind direction.
<i>Utah—Continued.</i>																				
San Rafael	Emery	4,250	1															Jos. J. Nougner.		
St. George	Washington	2,880	26	79.8	- 1.0	104	28	49	18	49	0.88	+ 0.09	0.48	0	6	10	18	3	Wm. Goodspeed.	
Scofield	Carbon	7,625	4	58.4		86	23	27	18	53	2.49		0.52	0	13	19	0	12	B. Newren.	
Springdale	Washington	3,500	5	80.2		103	17	55	4	43	1.15		0.50	0	4	10	4	17	Hattie F. Wood.	
Strawberry (east)	Wasatch	7,650	1	56.3		81	27	27	17	48	1.13		0.44	0	8				Reclamation Service.	
Teasdale	Wayne	7,000	4	64.6		103	21	34	6	50	1.90		0.94	0	3	13	16	2	Henry Cullum.	
Thompsons	Grand	5,150	2																Mrs. A. M. Starmont.	
Tropic	Garfield	7,000	16	65.4	+ 0.8	88	6	41	16	40	1.38	- 0.39	0.37	0	6	4	18	9	E. P. Bolton.	
Trout Creek Ranger	Uinta	9,200	2																Forest Service.	
Vernal	do	5,050	16																H. E. Dillman.	
Victor	Emery	5,250	1																F. F. Noyes.	
White Rocks	Uinta	6,200	1																E. C. Sims.	
Woodside	Emery	4,645	2																D. P. Adams.	
<i>New Mexico.</i>																				
Alma	Socorro	4,800	15	72.0	- 1.2	94	4	50	29	42	3.46	+ 0.87	1.20	0	14	0	29	2	sw.	Max A. Balke.
Aragon	do	6	6	66.4		88	5	48	9	38	2.19		0.47	0	11	6	21	4	sw.	John R. Milligan.
Aztec	San Juan	5,580	13																	Dr. T. J. West.
Berger's ranch	McKinley	8,000	1	61.0		84	5	37	16	46	1.54		0.46	0	10	7	13	11	e.	Herman Berger.
Blackrock	do	6,500	4																	P. Des Georges.
Bloomfield	San Juan	5,500	19	71.3	- 1.6	92	4	43	16	43	0.82	- 0.42	0.26	0	8	2	29	0	se.	Fred Le Clerc.
Cambray	Luna	4,215	14																	Agent, Southern Pacific R.R.
Chft.	Grant	4,470	13	75.0	- 1.8	103	3	50	10	49	1.72	- 0.72	0.60	0	5	15	16	0	sw.	W. C. Belden.
Columbus	Luna	4,054	4																	Agent, E. P. & S. W. R. R.
Crystal	San Juan	7,400	3																	J. A. Molohan.
Deming	Luna	4,333	36	78.7		98	14	58	27	35	1.46	- 0.46	0.85	0	6	22	3	6	w.	Agent, Southern Pacific R.R.
Dulce	Rio Arriba	6,767	16	65.6	+ 1.8	90	4	40	16	48	1.49	- 0.57	0.77	0	5	12	18	1	w.	E. O. Green.
Farmington	do	5,400	1																	Orville Ricketts.
Fort Bayard	Grant	6,152	44	70.0	- 1.2	87	3	51	29	31	3.28	- 0.03	1.07	0	15	15	9	7	e.	U. S. General Hospital.
Fruitland	San Juan	4,800	19	73.6	- 0.8	95	1	46	16	46	0.51	- 0.11	0.30	0	4	8	23	0	sw.	Cyril J. Collyer.
Gage	Luna	4,480	13	81.0		99	16	63	9	34	0.60	- 0.93	0.35	0	2	0	31	0	w.	Agent, Southern Pacific R.R.
Gila Planting Station	Grant	6,475	2	69.0		86	10	53	14	29	3.98		2.39	0	12	16	14	1	sw.	U. S. Forest Service.
G. O. S. Ranch	do	8,000	1																	Victor Culberson.
Hachita	do	4,504	4																	Agent, E. P. & S. W. R. R.
Haynes	Rio Arriba	6,600	2	68.0		89	5	40	11	42	2.70		2.07	0	6	6	19	6	se.	Mrs. O. E. Wingate.
Hermanes	Luna	4,451	4																	Agent, E. P. & S. W. R. R.
Lordsburg	Grant	4,245	31	75.4	- 4.4	93	14	54	29	34	0.38	- 1.23	0.25	0	2	0	31	0	sw.	J. H. McClure.
Luna	Socorro	7,300	12	63.0		87	16	35	30	49	1.69	- 1.19	0.65	0	8	0	31	0	s.	C. B. Martin.
Mimbres	Grant	5,007	8																	Charles Dennis.
Pinos Altos (near)	do	7,253	2																	O. L. Scott.
Pratt	do	4,415	4																	Agent, E. P. & S. W. R. R.
Putnam	San Juan	6,200	1																	C. F. Spader.
Redrock	Grant	4,150	8																	Robt. H. Woods.
Rodeo	do	4,118	4																	Agent, E. P. & S. W. R. R.
Silver City	do	5,937	2	70.9		89	21	54	26	33	1.76		0.51	0	14	18	13	0	se.	E. A. Brumback.
<i>Arizona.</i>																				
Allaire Ranch	Cochise	4,184	17																	Thomas Allaire.
Alpine	Apache	8,500	4	58.4		80	4	36	3	42	4.32		1.25	0	17	5	11	15	w.	U. S. Forest Service.
Ashfork	Yavapai	5,229	2																	Do.
Aztec	Yuma	492	15																	Agent, Southern Pacific Ry.
Benson	Cochise	3,523	32	77.2	- 4.2	99	3	55	30	38	2.05	+ 0.41	1.13	0	5	10	3	18	w.	Do.
Bernardino	do	1	1																	Operator, E. P. & S. W. R. R.
Bisbee	do	5,350	23																	Agent, E. P. & S. W. R. R.
Blue	Greenlee	6,500	6																	Mary A. Jones.
Bonita	Graham	4,916	39																	A. H. Jelley.
Bowie	Cochise	3,756	37	80.4	+ 1.8	103	7	60	4	38	1.03	- 1.75	0.40	0	5	6	19	6	w.	Agent, Southern Pacific Ry.
Buckeye	Maricopa	980	21	88.2	+ 0.7	110	4	60	15	45	0.69	- 0.16	0.30	0	5	28	2	1	w.	H. E. Kell.
Canille	Santa Cruz	5,225	4																	Robert A. Rodgers.
Casa Grande	Pinal	1,396	32																	Agent, Southern Pacific Ry.
Casa Grande Ruins	do	1,422	5	87.8		109	22	60	15	44	1.36		0.66	0	8	7	13	11	w.	Frank Pinkley.
Cavecreek (near)	Maricopa	1,452	6	88.8		106	2	64	16	40	0.63		0.15	0	10	14	15	2	sw.	John B. Lammers.
Chandler	do	1,213	18	90.3	+ 33	112	20	69	11	36	0.58	- 0.89	0.20	0	4	18	7	6	nw.	F. V. N. Dana.
Chin Lee	Apache	6,090	5	65.6		85	27	45	16	35	0.51		0.16	0	6	1	8	22	sw.	Rev. L. Osterman, O. F. M.
Chlarsons Mill	Graham	8,000	6	64.0		78	5	42	1	32	2.86		1.14	0	15	1	30	0	sw.	Hiram R. Chlarsan.
Clifton	Greenlee	3,584	22	83.2		101	4	65	10	32	3.57	- 1.24	1.23	0	8	15	15	1	sw.	L. C. Kyhl.
Cochise	Cochise	4,219	15	77.1	- 2.4	98	21	59	15	36	1.68	- 0.43	1.08	0	5	11	6	14	sw.	Agent, Southern Pacific Ry.
Columbia	Yavapai	1,900	13	88.0	+ 1.6	105	12	68	14	36	2.88	+ 0.85	1.25	0	9	17	11	3	e.	M. J. Nolan.
Cornville	do	3,300	1																	N. F. Gldrner.
Courtland	Cochise	4,543	4																	Agent, E. P. & S. W. R. R.
Don Luis	do	5,025	1																	Do.
Dos Cabezos	do	5,250	5	71.8		92	4	50	16	40	6.04		3.18	0	11	9	22	0	sw.	Neil Erickson.
Douglas	do	3,930	10	74.6	- 3.5	98	17	49	30	44	3.25	- 1.00	0.47	0	13	6	18	7	e.	Dr. F. T. Wright.
Dudleyville	Pinal	2,204	22	77.3	- 4.6	96	4	56	16	35	0.99	- 1.53	0.29	0	12	1	25	5	s.	George F. Cook.
Elgin	Santa Cruz	4,706	1																	George Heebe.
Fairbank	Cochise	3,822	4																	Agent, E. P. & S. W. R. R.
Flagstaff	Cocconino	6,907	21	63.4	+ 0.6	82	26	38	16	39	2.20	- 1.10	0.85	0	14	5	22	4	nw.	George T. Herrington.
Flagstaff (1)	do	7,500	5	60.1		80	19	36	16	47	4.21		1.05	0	21	7	17	7	sw.	U. S. Forest Service.
Florence	Pinal	1,504	14	87.2	-															

TABLE 1.—Climatological data for August, 1913. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				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 rainy days, 0.01 inch or more.	Number of clear days.			Number of partly cloudy days.	Number of cloudy days.	
Arizona—Continued.																					
Keams Canyon.....	Navajo	6,600	9	70.3		89	5†	48	15†	39	1.37		0.64	0	0	0	0	s.	Fred A. Bartram.		
Kingman.....	Mohave	3,322	10	83.0	+ 2.1	103	9	54	17	39	1.10	- 0.75	1.00	0	0	0	14	0	17	s.	Agent, A. T. & S. F. Ry.
Lakeside.....	Navajo	6,500	15	83.6		96	29	42	16	49	1.63	- 0.67	0.80	0	0	0	6	7	18	sw.	Jesse H. Rogers.
Lewis Springs.....	Cochise	4,029	4								3.57		1.10	0	0	0	1	21	9		Agent, E. P. & S. W. R. R.
Lowell Observatory.....	Coconino	7,180	2								2.72		0.69	0	0	17					Vesto M. Slipper.
McNeal.....	Cochise	4,150	3								2.72		0.54	0	0	9	7	16	8	se.	George J. Jones.
Maricopa.....	Pinal	1,186	37	90.2	- 1.6	112	21†	67	15	37	0.52	- 0.51	0.20	0	0	5	11	18	2	w.	Agent, Southern Pacific Ry.
Marinette.....	Maricopa	1,150	1	88.4		109	4†	60	16	44†	1.42		0.90	0	0	5	6	3	23	w.	Theo. Katzenstein.
Mocasin.....	Mohave	4,500	1											0	0	0					J. G. Maxwell.
Mohawk Summit.....	Yuma	538	13	90.8	- 3.2	114	23	63	30	45	0.25	- 0.52	0.25	0	1	9	8	14	n.	Agent, Southern Pacific Ry.	
Naco.....	Cochise	4,579	4								1.76		0.43	0	0	7	1	23	7	se.	Agent, E. P. & S. W. R. R.
Natural Bridge.....	Gila	4,990	24								2.52	- 0.84	1.53	0	0	7	6	24	1	sw.	Agent, E. P. & S. W. R. R.
Nutriso.....	Apache	8,000	3								3.69		0.80	0	0	14	5	10	16	sw.	D. G. Goodfellow.
Oracle.....	Pinal	4,502	19	76.0	- 1.6	92	22	60	1†	27	3.17	- 2.06	1.32	0	0	9	1	4	26		U. S. Forest Service.
Osborn.....	Cochise	4,676	4								2.13		0.56	0	0	8	0	24	7	w.	J. W. Lawson.
Paradise.....	Pinal	5,436	7	68.4		89	17	46	31	37	1.78		0.43	0	0	8	0	31	0	nw.	Agent, E. P. & S. W. R. R.
Parker.....	Yuma	345	17	91.7	+ 0.5	118	19†	61	16	55	0.64	- 0.24	0.26	0	0	5	22	9	0	sw.	J. C. Hancock.
Payson.....	Gila	5,550	5	70.5		90	5	45	14†	36	4.25		2.45	0	0	8	5	0	26		M. A. Israel, M. D.
Phoenix.....	Maricopa	1,108	19	86.7	- 2.3	105	23	68	16	31	0.32	- 0.64	0.14	0	0	11	12	10	9	e.	U. S. Weather Bureau.
Phoenix (1).....	do.	1,092	23	85.2	- 2.5	108	23			44†	0.58	- 0.46	0.45	0	4	12	10	9			David Aeppli.
Phoenix (2).....	do.	1,189	5	85.8		102	4†	64	16†	34	0.28		0.08	0	0	5	16	10	5	sw.	Salt River Valley Nurseries.
Pinal Ranch.....	Pinal	4,520	19								2.86	- 0.55	0.52	0	0	10					Irion & Craig.
Pinedale.....	Navajo	6,500	1								1.81		0.32	0	0	11	1	26	4	sw.	E. Thomas, Jr.
Pinto.....	Apache	5,660	9								0.65		0.55	0	2	16	15	0	0	sw.	Cecla F. Henning.
Prescott.....	Yavapai	5,320	46	69.0	- 2.0	89	21	43	16	39	2.50	- 0.59	0.71	0	0	10	7	16	8		Dr. J. W. Flinn.
Prescott Dry Farm.....	do.	5,008	1	73.2		91	5†	52	17	36	1.95		0.70	0	7	5	26	0	0		L. L. Bates.
Quartzsite.....	Yuma	800	6	91.0		113	23	68	17†	40	1.38		0.50	0	0	7	6	24	1	w.	W. E. Scott.
Redrock.....	Pinal	1,864	4								2.42			0	0	5	13	2	16	nw.	Agent, Southern Pacific Ry.
Rice.....	Gila	2,540	30											0	0						Arthur Pritchard.
Roosevelt.....	do.	2,175	9	80.2		103	21	68	15	31	0.20		0.20	0	1	0	30	1	0	e.	U. S. Reclamation Service.
Sacaton.....	Pinal	1,280	6	88.8		110	4†	61	17	42	0.73		0.39	0	3						E. W. Hudson.
St. Johns.....	Apache	5,650	9	71.8†		92	5†	47	17	40	1.75		0.70	0	0	7	2	6	23		Alexander Shreeve.
St. Michaels.....	do.	6,950	26	69.0	+ 1.7	89	3†	47	31	40	3.18	- 0.64	0.70	0	0	9	11	18	2	sw.	Rev. Anselm Weber, O. F. M.
Salome.....	Yuma	1,875	6											0	0						August Nord.
San Simon.....	Cochise	3,609	27	78.2	- 4.2	101	6	47	6	54	0.35	- 1.27	0.15	0	3	8	20	3	se.	Agent, Southern Pacific Ry.	
Seligman.....	Yavapai	5,219	8	70.4		92	18	42	15†	47	3.37		0.85	0	0	9	7	0	24	sw.	Librarian, A. T. & S. F. Ry.
Sentinel.....	Maricopa	685	15	90.5	- 2.2	110	4	67	31	33	1.03	+ 0.47	1.01	0	0	2	7	24	0	w.	Agent, Southern Pacific Ry.
Silverbell.....	Pima	2,664	8			104	22				2.73		0.57	0	0	12	22	5	4	s.	Imperial Copper Co.
Snowflake.....	Navajo	5,644	6	68.1		91	6	41	15†	41	1.28		0.73	0	0	5	6	0	25	sw.	William J. Flake.
Springerville.....	Apache	6,862	3	64.4		86	10	45	19	36	2.14		0.82	0	5	23	2	6	sw.	U. S. Forest Service.	
Supai.....	Coconino	3,200	7	81.8		101	21†	62	17†	38	1.14		0.35	0	0	9	6	12	13		Laura B. Symons.
Tempe.....	Maricopa	1,165	9	86.8		108	4	61	15†	42	0.83		0.49	0	0	17	15	15	1	nw.	F. H. Simmons.
Thatcher.....	Graham	2,800	10	82.6	- 2.1	105	6	60	15†	41	2.48	+ 0.48	2.07	0	0	6					J. H. Larson.
Thomas.....	Coconino	5,200	1								1.84		0.89	0	0	13	4	25	2	sw.	L. H. Thomas.
Tombstone.....	Cochise	4,550	18	77.6	+ 1.6	95	21†	60	31	33	2.88	- 0.83	1.45	0	0	7	2	29	0		F. N. Walcott.
Truxton.....	Mohave	3,997	3											0	0						Truxton Canyon Indian School.
Tuba.....	Coconino	4,500	13	77.0	+ 2.0	99	16	50	16	49	0.49	- 0.27	0.37	0	7	5	25	1	sw.	Ira Bell.	
Tucson.....	Pima	2,390	33	83.5	- 1.7	103	4†	63	15	35	1.21	- 1.17	0.75	0	6	12	7	12	e.	University of Arizona.	
Tucson (1).....	do.	2,380	5	77.5		103	22	45	15	53†	3.36		2.06	0	0	11	8	22	1	sw.	Rev. James F. Record.
Tucson (2).....	do.	2,526	4	82.7		102	4†	61	16	35	1.37		0.50	0	0	13	11	11	9	w.	U. S. Coast and Geodetic Survey.
Vail.....	do.	3,421	14	77.0		100	4†	52	31	44	1.20	- 0.11	0.80	0	3	3	28	0			Agent, Southern Pacific Ry.
Walnut Grove.....	Yavapai	3,649	20								2.57	+ 0.45	0.77	0	0	11					J. O. Carter.
Wickenburg.....	Maricopa	2,072	15	86.0	+ 1.3	110	2	54	17	47	0.11	- 1.72	0.04	0	0	5	9	0	22		Agent, S. F. P. & P. Ry.
Willcox.....	Cochise	4,164	32	74.9	- 3.1	98	2†	48	5	48	2.16	- 0.30	1.00	0	0	4				sw.	Agent, Southern Pacific Ry.
Williams.....	Coconino	6,750	13	88.3	+ 1.8	99	19	40	18	47	2.90	+ 0.21	0.80	0	0	6	7	24	0		E. J. Nordyke.
Winslow.....	Navajo	4,855	9											0	0						Winslow High School.
Yuma.....	Yuma	141	33	90.1	0.0	112	4	68	15	38	0.28	- 0.07	0.16	0	3	24	6	1	sw.	U. S. Weather Bureau.	
Yuma (1).....	do.	150	6	85.2		108	4	57	16	41	0.58		0.30	0	4	17	14	0	0	sw.	C. J. Wood.
Nevada.																					
Caliente.....	Lincoln	4,407	3	67.1		86	11†	40	19	45	0.18		0.09	0	3					ne.	Salt Lake Route.
Las Vegas.....	Clark	2,083	11	84.8	+ 6.2	107	5†	55	18	45	0.86	+ 0.19	0.50	0	4	14	13	4	s.		C. P. Squires.
Logan.....	do.	1,365	6	86.0		109	5	54	15	46	0.74		0.45	0	4	22	8	1	s.		Orin W. Jarvis.

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

TABLE 2.—Daily precipitation for August, 1913. District No. 9—Continued.

Stations.	Watershed.	Day of month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31		
Arizona—Contd.																																			
Naco	San Pedro	.21				.30	.20																										.25	1.75	
Natural Bridge	Verde	.12	.13			T.	T.					.23																					2.52		
Nutriso	Little Colo.					.06		.36			.38	.80	.54								.32												3.69		
Oracle	San Pedro	.85				.06		.05				.10	.22								T.	.27	.25	.04	.51	.03	.25	.06		.02	.11	.18	3.17		
Osborn	do					T.	.26	T.				.56		.09		.28					T.	.08	.05										2.13		
Paradise	Desert		.12				.43	T.				.05									T.	.27											1.78		
Parker	Colorado						.02	.08				.24	.06																					0.64	
Payson	Verde						.01	T.			.01	.02	.04																					4.25	
Phoenix	Salt	.01	T.	.14	T.		.38	T.			.08	.02	T.																				0.32		
Phoenix (1)	do		T.	.45		T.	.03	T.			.08	.02	T.																					0.58	
Phoenix (2)	do		T.	.07			T.				.50	.35	.25																					0.28	
Pinal Ranch	Gila					.04	.15				.35	.25																						2.86	
Pinedale	Little Colo.		.24					.22			.32	.17		.02																				1.81	
Pinto	do					T.					T.																							0.65	
Prescott	Hassayampa	T.	T.	.23		T.	T.	T.			.71	.16	.46	.27																				2.50	
Prescott Dry Farm	Verde		.13								.28	.08	.20																					1.95	
Quartzsite	Colorado		.50								.04																								1.38
Redrock	Santa Cruz		.27									.35																							2.42
Rice	Gila																																		0.20
Roosevelt	Salt																																		0.73
Sacaton	Gila																																		1.75
St. Johns	Little Colo.						.10						.30	.25																					3.18
St. Michaels	do	T.		T.		T.	T.	T.			.22	T.	.60	.50	.70																			0.35	
Salome	Colorado											.10																							3.37
San Simon	Gila						.15					.40	.10	.10																					1.03
Salkman	Verde	.55																																	2.73
San Inel	Gila																																		1.28
Silverbell	Santa Cruz	.11	.14					.05				.21																							2.14
Snowflake	Little Colo.		T.					T.	.73			.06																							1.14
Springerville	do																																		0.88
Stipa	Colorado	.35	.16			.06					.05	.10																							2.48
Tempe	Salt	.03	T.	.07																															1.64
Thatcher	Gila	.10																																	2.88
Thomas	Verde	.89	.30	T.	T.		.08	.02	.80	.04																									0.49
Tombstone	San Pedro																																		1.21
Truxton	Colorado																																		3.36
Tuba	Little Colo.		T.	T.							.37	.01	T.																						1.37
Tucson	Santa Cruz	T.					.06	.18				.75	T.																						1.20
Tucson (1)	do	.03					.20	.06				.22	.02																						2.67
Tucson (2)	do	.01					.03					.01	.15	.10	.50																				0.11
Vail	do					.20	.03					.80																							2.16
Walnut Grove	Hassayampa			.20		.16	.08		.77	.33	.15																								2.90
Wickenburg	do					.02																													0.28
Willcox	Desert																																		0.58
Williams	Colorado																																		0.18
Winslow	Little Colo.																																		0.98
Yuma	Colorado																																		1.20
Yuma (1)	do	T.					T.	T.																											0.06
Nevada.																																			
Caliente	Colorado																																		0.10
Las Vegas	do	.11																																	0.86
Logan	do										.07																								0.45

* Precipitation included in that of the next measurement.
 ‡ Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.
 T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures for August, 1913. District No. 9, Colorado Valley.

Date.	Wyoming.				Colorado.								Utah.								New Mexico.							
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Hite.		Moab.		St. George.		Duchesne.		Bloomfield.		Fort Bayard.	
	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	34	92	41	84	50	92	58	78	41	82	38	83	33	80	58	100	73	98	62	92	59	89	47	89	57	83	61
2....	82	44	88	45	83	57	92	71	79	40	82	47	83	38	81	55	99	71	101	62	82	54	88	50	90	61	83	59
3....	77	42	89	54	88	52	93	63	82	49	83	45	84	43	77	53	100	73	101	56	91	55	83	52	90	53	87	56
4....	78	45	86	46	88	51	96	65	81	41	78	48	83	43	80	57	104	68	100	61	99	69	85	51	92	55	86	56
5....	74	44	82	46	88	51	91	64	81	38	80	48	79	42	85	59	100	72	99	59	101	60	85	51	91	52	85	55
6....	71	40	84	44	85	56	92	64	77	38	82	47	80	34	81	52	104	76	100	60	98	61	86	48	88	65	87	60
7....	71	35	84	41	87	49	90	62	77	39	82	43	80	30	80	55	103	68	98	54	101	62	87	54	85	58	82	57
8....	72	35	84	43	87	47	93	62	81	39	83	42	84	33	79	46	100	66	98	54	96	66	85	65	84	53	83	55
9....	72	37	78	56	79	55	80	62	74	38	71	45	76	35	81	47	96	74	92	69	97	66	77	54	80	52	84	58
10....	74	30	84	45	86	51	87	57	80	47	79	43	79	40	85	51	97	60	94	54	92	63	81	45	85	53	87	63
11....	76	37	75	49	80	59	76	65	81	44	76	45	78	36	82	56	87	70	88	62	93	66	77	52	80	63	83	58
12....	74	42	85	43	82	56	87	64	77	45	77	48	85	71	79	58	98	66	95	56	98	65	81	48	81	59	79	56
13....	76	35	87	46	81	49	91	62	82	49	80	43	83	42	75	60	98	70	98	59	98	62	83	47	85	58	77	57
14....	75	36	86	50	85	51	94	67	80	47	84	44	85	40	73	67	100	71	98	62	96	59	88	44	87	57	80	53
15....	76	32	89	41	85	44	91	61	81	49	83	42	87	33	80	60	97	67	96	51	94	57	86	40	84	50	83	56
16....	79	32	89	43	87	43	92	62	80	50	85	39	87	31	83	58	94	60	99	48	96	54	87	43	86	43	85	57
17....	79	31	90	43	84	52	92	60	79	51	86	40	87	40	77	56	98	62	96	52	94	56	89	46	87	51	84	58
18....	80	31	89	42	85	49	91	59	82	49	84	38	87	40	79	58	99	59	99	54	98	49	90	49	88	63	84	62
19....	82	32	92	42	86	54	92	66	79	43	85	44	87	40	80	53	102	72	102	59	93	54	88	49	88	63	80	57
20....	82	37	89	52	83	56	94	68	77	43	84	46	90	39	82	53	102	72	100	65	100	65	86	56	87	60	82	59
21....	84	35	91	53	82	51	96	66	76	44	85	53	86	40	81	55	102	77	101	61	101	71	92	55	86	55	84	59
22....	85	37	95	57	79	56	91	63	72	47	84	44	88	40	80	50	97	76	98	65	99	70	90	49	83	64	83	58
23....	79	44	94	60	85	51	93	66	77	48	85	43	89	36	82	60	103	75	100	64	95	74	91	57	85	62	81	61
24....	86	40	92	50	81	58	90	68	69	51	81	50	86	41	81	61	97	68	96	65	99	67	86	50	86	62	83	57
25....	86	41	94	45	86	52	95	64	82	41	84	46	89	37	80	60	102	69	101	60	100	69	90	54	88	54	81	59
26....	83	45	95	52	86	50	92	67	81	41	85	46	89	40	81	62	98	73	99	63	100	70	90	58	87	52	81	54
27....	80	50	88	51	89	53	95	68	80	48	85	48	91	46	80	60	102	68	103	59	100	66	90	55	87	56	84	56
28....	79	44	90	60	84	54	92	66	79	43	83	46	84	48	83	63	100	76	101	64	104	64	89	51	89	55	79	57
29....	82	40	91	50	81	54	90	65	81	46	81	45	86	37	82	61	96	69	95	64	99	67	88	47	83	59	81	51
30....	71	43	91	55	83	47	89	63	78	49	80	46	84	40	81	63	100	69	98	63	99	64	84	54	86	57	81	57
31....	73	40	79	51	76	47	89	64	75	42	75	45	75	42	80	61	95	71	96	59	91	66	77	54	82	51	77	58
Mns..	78.0	38.4	87.8	48.3	84.0	51.8	90.9	63.9	78.6	44.4	81.8	44.7	84.4 ^b	40.2 ^b	80.3	57.0	99.0	69.7	98.1	59.5	96.7	62.9	86.2	50.8	86.1	56.5	82.5	57.4

Date.	Arizona.																		Nevada.			
	Douglas.		Flagstaff.		Fort Apache. §§		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		Tucson.		Yuma.		Logan.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	89	67	72	54	87	56	80	44	106	72	100	72	84	58	82	51	95	69	106	72	97	69
2....	93	65	75	50	90	52	82	48	111	73	102	82	85	59	86	52	99	71	110	78	102	66
3....	93	53	77	48	90	55	82	46	111	71	101	73	83	57	89	54	101	72	111	78	102	70
4....	97	53	79	51	91	57	84	52	114	79	104	76	86	57	86	50	103	70	112	80	107	73
5....	96	59	80	49	91	58	84	54	116	77	102	79	87	56	88	52	101	74	101	83	109	75
6....	97	53	76	52	90	55	86	56	106	76	97	76	76	61	89	56	99	72	102	76	105	67
7....	92	63	78	57	91	58	85	60	105	78	94	79	79	67	83	57	96	69	95	80	106	73
8....	94	54	71	57	81	52	82	60	102	76	96	74	77	58	82	58	91	70	106	78	99	75
9....	93	57	72	54	84	55	83	58	108	74	98	73	78	56	77	53	95	68	105	77	102	67
10....	94	53	76	48	89	56	82	56	103	76	87	72	80	56	84	50	95	68	102	77	101	69
11....	92	55	72	54	85	53	82	54	109	75	95	70	79	58	80	55	94	67	104	76	104	73
12....	94	56	78	49	86	53	84	56	110	75	102	75	83	59	80	52	97	71	107	76	104	67
13....	93	55	78	48	89	53	84	54	110	65	102	72	83	53	81	49	98	73	107	73	105	60
14....	96	57	77	45	87	48	83	52	106	62	100	75	83	50	84	53	100	71	106	75	102	56
15....	94	53	78	40	87	48	82	52	112	62	99	68	82	47	89	49	98	63	106	68	97	54
16....	92	55	77	38	89	57	80	52	116	61	99	68	82	43	85	48	96	64	105	69	100	55
17....	98	59	79	44	90	58	82	50	116	71	98	69	83	44	87	55	97	68	104	76	99	55
18....	92	55	80	46	90	65	81	51	116	71	99	74	86	52	88	51	99	73	104	71	103	58
19....	93	62	80	55	90	69	84	48	118	75	102	79	85	59	87	58	98	73	104	79	103	65
20....	94	54	77	50	91	69	83	46	109	74	102	78	83	59	84	55	98	72	104	81	106	70
21....	98	56	80	45	91	62	86	48	112	74	98	75	89	54	86	55	99	70	101	77	107	76
22....	93	62	79	53	91	69	88	52	112	74	104	76	83	58	82	56	103	69	109	76	106	79
23....	95	60	80	57	90	64	86	54	118	75	105	81	86	58	87	54	100	77	110	83	108	80
24....	98	55	81	51	90	61	86	58	115	76	98	75	85	58	86	52	97	72	95	76	107	79
25....	96	55	82	52	91	64	84	56	117	74	99	78	81	58	82	59	98	71	102	79	105	74
26....	91	55	74	51	88	53	84	56	106	77	94	72	83	59	84	49	95	67	104	74	98	79
27....	95	51	79	48	91	53	84	54	110	77	103	73	87	54	89	52	99	65				