

U. S. DEPARTMENT OF AGRICULTURE
WEATHER BUREAU

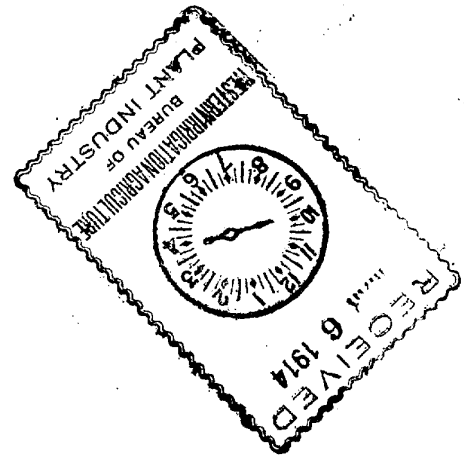
CLIMATOLOGICAL SERVICE

DISTRICT No. 9, COLORADO VALLEY

FREDERICK H. BRANDENBURG
DISTRICT EDITOR

REPORT FOR AUGUST, 1913

Prepared under direction of CHARLES F. MARVIN, Chief U. S. Weather Bureau



WASHINGTON
GOVERNMENT PRINTING OFFICE
1913

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:

<i>Watershed.</i>													
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.

DISTRICT NO. 9. CLIMATOLOGICAL SUMMARY.

AUGUST, 1913

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

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Total snowfall, Number of rainy days, Number of clear days, Number of partly cloudy days, Number of cloudy days), Sky, Prevailing wind direction, Observers. Rows are categorized by Wyoming, Colorado, and Utah.

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

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Total snowfall, Number of rainy days, Number of clear days, Number of partly cloudy days, Number of cloudy days), Sky, Prevailing wind direction, and Observers. Rows are categorized by region: Utah, New Mexico, and Arizona.

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				
<i>Arizona—Contd.</i>																																				
Naco	San Pedro	.21				.30	.20																											.25	1.75	
Natural Bridge	Verde	.12	.13			T.	T.					.28																						.25	2.52	
Nutriso	Little Colo.											.36																						.21	3.69	
Oracle	San Pedro	.85				.06						.05																						.05	3.17	
Osborn	do					T.	.26	T.				.56																						.33	2.13	
Paradise	Desert			.12								.43																							.178	1.78
Parker	Colorado											.02	.06																					.10	0.64	
Payson	Verde				.15			.28	T.	2.45	.24	.06																						.20	4.25	
Phoenix	Salt	.01	T.	.14	T.			.01	T.	.01	T.	.08	.02	T.																				.01	0.32	
Phoenix (1)	do	T.	T.	.45		T.	.03	T.	T.	.08	.02	T.																						T.	0.58	
Phoenix (2)	do	T.	T.	.07				T.	T.	.08	.04																							T.	0.28	
Pinal Ranch †	Gila					.04	.18			.50	.35	.25																						.21	2.86	
Pinedale	Little Colo.		.24							.22	.32																							.12	1.81	
Pinto	do					T.																												.15	0.65	
Prescott	Hassayampa	T.	T.	.23		T.	T.	T.	T.	.71	.16	.46	.27																					.08	2.50	
Prescott Dry Farm	Verde		.13							.28		.03	.20																					.09	1.95	
Quartzsite	Colorado		.50							.04																								.24	1.38	
Redrock	Santa Cruz		.27									.35																						.12	2.42	
Rice	Gila																																	.08	0.20	
Roosevelt	Salt																																	.20	0.73	
Sacaton	Gila																																	.18	1.75	
St. Johns	Little Colo- rado						.10							.30	.25																			.70	0.20	
St. Michaels	do	T.		T.		T.	T.	T.		.22	T.	.60	.50	.70																				.60	3.18	
Salome	Colorado																																		.14	0.35
San Simon	Gila						.15					.10																						T.	3.37	
Seligman	Verde	.55						T.				.40	.10	.10																				.02	1.03	
Sentinel	Gila																																		T.	2.73
Silverbell	Santa Cruz	.11	.14							.05			.21																					.40	1.28	
Snowflake	Little Colo- rado	T.								T.	.73	.06																						.15	2.88	
Springerville	do																																		.50	1.14
Supal	Colorado	.35	.16			.06					.05	.10		.05																					.23	0.83
Tempe	Salt	.03	T.	.07																															.08	2.48
Thatcher	Gila	.10								2.07	.08																								.02	1.84
Thomas	Verde	.89	.30	T.	T.	.08	.08			T.	.14	T.	T.	T.																				.02	2.88	
Tombsstone	San Pedro						.08	.02	.80	.04			.15	1.45																				.02	1.61	
Truxton	Colorado																																		.02	2.90
Tuba	Little Colo- rado		T.	T.		T.					.37	.01	T.																						.01	0.49
Tucson	Santa Cruz	T.					.06	.18				.75	T.																						.02	1.21
Tucson (1)	do	.03					.20	2.06				.22	.02																					.04	3.36	
Tucson (2)	do	.01					.03					.01	.15	.10	.50																			.03	1.37	
Vail	do						.20					.80																							.03	1.20
Walnut Grove	Hassayampa				.20		.06			.77	.33	.15																							.10	2.57
Wickenburg	do						.02																												.04	0.11
Willcox	Desert									1.00	.90																								.08	2.16
Williams	Colorado										.60	.40																							.18	2.90
Winslow	Little Colo- rado																																		.60	0.28
Yuma	Colorado																																		.11	0.58
Yuma (1)	do	T.					T.	T.																											.18	0.86
<i>Nevada.</i>																																				
Caliente	Colorado																																		.09	0.18
Las Vegas	do		.11																																.15	0.74
Logan	do										.07																								.17	0.86

* 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	88	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	34	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	38	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	43	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	98	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	58
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	45	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	44	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	60	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	50	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	40.2	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.	Max.
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	53	76	57	91	58	85	60	105	78	94	79	79	57	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	76	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	52	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	54	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	98	72	104	71	

