

CLIMATOLOGICAL DATA FOR AUGUST, 1913.

DISTRICT NO. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

The dominating feature of the weather for August in the Great Basin was the large number of local storms, causing delayed train service in Nevada, and landslides and floods, which were attended by damage in both Utah and Nevada. The temperature for the district averaged slightly below normal, but nevertheless August was the warmest month of the summer season. Weather conditions as a rule were said to be favorable to crop growth and for all farming operations; but considerable local damage was sustained by floods carrying large amounts of gravel and sand over cultivated fields. Irrigation water in Utah was reported as sufficient for all needs.

The average number of clear days for the district was 15; partly cloudy days, 11; cloudy days, 5; and rainy days, 5.

TEMPERATURE.

The mean temperature for the district averaged 68.9°, which is 0.4° below normal, and varied from 53.2° at Park City, Utah, to 83.4° at Jean, Nev. The warmest weather occurred in the more level portions of the Utah area and in the central, western, and southern portions of the Nevada area; the Wyoming, Oregon, and mountainous portion of the Utah areas were the coolest. There were wide departures from the normal temperatures at the various stations. The greatest deficiency was 9.2° at Beowawe, Nev., whose mean for the month was 65.9°; and the greatest excess was 5.0° at McGill, Nev., whose mean was 69.6°.

The month began with nearly normal temperatures in all parts of the district, the afternoon temperatures being quite high, but the night temperatures falling to the forties, brought the average down to normal. The coolest weather of the month occurred from the 13th to the 20th, and freezing temperatures were recorded at many stations, most of which were at the higher elevations. The warmest portion of the month was from the 20th to the 22d, but a few stations reported their highest temperatures on the 28th or 29th.

The highest temperatures that occurred in the various areas of the several states in this district were as follows: 95° on the 28th at Cokeville, Wyo.; 102° on the 22d at Grace, Idaho; 102° on the 22d at Low, Utah; 106° on the 5th and 21st at Jean, Nev.; 94° on the 24th at Cliff and Silver Lake, Oreg.; and 86° on the 6th at Bridgeport, Cal. The lowest were 31° on the 16th at Cokeville, Wyo.; 40° on the 17th at Weston, and on the 15th, 18th, and 19th at Grace, both in Idaho; 26° on the 13th and 17th at Park City, Utah; 25° on the 26th and 30th at Geysers, Nev.; 20° on the 18th at Cliff, Oreg.; and 30° on the 17th at Bridgeport, Cal.

PRECIPITATION.

The average precipitation for the district was 0.99 inch, or 0.18 inch above normal. The smaller amounts occurred in the Idaho and Wyoming areas, and the larger in the eastern portion of the Utah and western portion of the Nevada areas. In the Nevada area the rainfall averaged 0.31 inch above normal, and twice that recorded in August last year. As the precipitation was mostly in the form of local showers, adjacent stations reported widely different amounts and on different dates. Also while certain stations reported amounts much in excess of their normals, it is quite probable that the amounts that fell on some of the elevated watersheds where no stations are maintained, were very heavy and exceeded their normals by a much greater amount than did the recorded amounts at the less elevated stations where records are kept. The evidence of this is the great number of cloudbursts reported.

The greatest local monthly amount was 4.49 inches at Park City, Utah. At Low, Utah, no rain fell, and at a few stations traces only were reported. The largest 24-hour amount was 1.70 inches at Shields Ranch, Nev., on the 29th; many other stations reported over an inch in 24 hours.

Excepting a period from the 13th to the 20th, generally showery conditions prevailed throughout the month over the greater portion of the district. The greater amount of rain for the month fell during the last decade.

LOCAL STORMS.

The observer at Moroni, Utah, Mr. B. F. Eliason, writes:

One of the worst storms ever known at this place occurred on the 4th; its area was 1½ miles wide and from 3 to 5 miles long. The rain gage caught 1.54 inches in 1 hour and 20 minutes. The storm was accompanied by high winds and by hail measuring one-half inch in diameter. I was in the center of the storm and feel convinced that 4.50 inches fell in 3 hours and 15 minutes. The rain gage was at the edge of the storm which accounts for the smaller amount recorded. Leaves were beaten from the garden truck, fruit was severely bruised, barley that was overripe was shattered from the stalks, corn was torn in shreds, and land lying fallow was badly washed.

On August 9 it was reported that every canyon west of Richfield had its flood. It was estimated that 1,000 cubic feet of water per second passed through the culvert and over the canal bridge from the Flat Canyon flood. To the north and south of Richfield considerable damage was done to crops, and it was reported that the second cutting of alfalfa in all parts of the country around Richfield was greatly damaged.

The observer at Manti, Mr. J. M. Anderson, reported that on August 19 a flood came down from the foothills

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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	85	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	82	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	.....	.....	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	63	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	52	87	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	81	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	84	43	81	49	91	62	82	49	80	43	83	42	75	60	98	60	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	61	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	86	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	89	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	43	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	63	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	60	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	84	40	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	80	55	82	46	111	71	101	83	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	91	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	84	49	98	73	107	73	105	69
14.....	96	57	77	45	87	48	83	52	106	82	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	53	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										

and swept the north side of the town of Mayfield, carrying away some grain and hay that lay in its path. Another flood of much greater severity swept the south side of the town on August 26. This flood brought down from the hills sand, gravel, and bowlders in large quantities, which in some cases covered the land so completely that it will cost more than the land is worth to clear it, and in addition cut large canals across some of the best fields. One farmer lost 8 acres in this way. Grain in the shock and some alfalfa hay that lay in the course of the flood were carried away. The damage amounted to about \$5,000.

On Sunday evening, August 24, what is locally known as the "annual August flood" visited Ephraim, Utah, and broke all previous records in the matter of damaging property. The writer, two days after the flood, saw the record that it left in the form of mud, gravel, bowlders, and débris. Many cellars in the residence district were filled with mud, and lawns were covered so deep as to destroy the grass and small plants. The great force of the flood was shown by the large number and size of the bowlders, one of which was estimated to contain 25 cubic feet.

At Levan, Utah, on the 29th of August, one of the heaviest rain storms known in years passed over the Levan Ridge. On the west side of the valley large streams of water swept down every canyon and low place in the valley, crossing the farms on the west bench and doing considerable damage.

On August 30 a very severe storm broke over Ogden, Utah, flooding cellars and otherwise damaging property.

A house was struck by lightning, trees were split in twain, and for a time the city had the aspect of Venice. Street cars were stalled, and some were derailed by the glut of sand and mud washed down from the hills. The damage amounted to thousands of dollars.

A landslide occurred at Thisbe, Nev., on August 5, delaying the westbound Southern Pacific train several hours. It was caused by a heavy downpour of rain which dislodged hundreds of tons of earth and rock, including bowlders weighing over 10 tons each. The track was covered at intervals for a distance of more than 1,000 feet.

Another landslide occurred on the Nevada-California-Oregon Railroad and on the Highland ditch of the Reno Light & Power Co., both near Reno, on August 29.

A cloud-burst near Derby, Nev., caused 21 serious landslides on August 4. A storm struck the canyon with terrific force between the Truckee Dam and Derby, where the canal is cut out of the hillside. Not less than 21 slides went into the canal, several of them as much as 50 feet long, and filling the canal to a depth of 7 feet.

A cloud-burst occurred at Ely, Nev., on the 26th, causing the loss of one life and the destruction of much property. Two days later a second flood occurred at the same place. The water on both occasions ran a foot deep as a rule in the streets and in places 3 feet deep. The light and power plant was stopped in its operation, and the city's supply of water cut off, as the ditch supplying the water was filled with mud and débris.

TABLE 1.—Climatological data for August, 1913. District No. 10, Great Basin.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.					Sky.			Prevailing direction of wind.	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, 0.1 inch or more.	Number of clear days.	Number of partly cloudy days.			Number of cloudy days.		
<i>Wyoming.</i>																						
Border	Lincoln	6,085	11															S. W. Condron.				
Cokeville	do	6,204	3	61.4		95	28	31	16	54	0.60							E. J. Tuckett.				
Evanston	Uinta	6,860	17	62.2	+ 1.2	89	22	35	19	47	0.95	± 0	0.40	0.0	3	29 ^a	1 ^a	0 ^a	Frank Tucker.			
<i>Idaho.</i>																						
Geneva	Bear Lake	6,171	4															F. W. Boehme.				
Grace	Bannock	5,400	6	69.2		102	22	40	15	54	0.35		0.24	0	3	24	7	0	E. W. Joy.			
Paris	Bear Lake	5,946	18										0.17	0	3	18	5	8	John Norton.			
Weston	Franklin	4,460	14	70.8	+ 4.0	99	22	40	17	52	0.23	- 0.83	0.11	0	3	23	7	1	Wm. T. Chatterton.			
<i>Utah.</i>																						
Alpine	Utah	4,900	14										0.25	- 1.00	0.25	0	1	26	4	1	T. F. Carlisle.	
Beaver	Beaver	6,000	9	64.2		93	19	34	16	55	2.79		0.60	0	16	6	25	0	Henry Baker.			
Black Rock	Millard	4,872	9	69.5		95	20	39	19	50	1.08		0.72	0	4	8	17	6	W. D. Livingston.			
Brigham City	Boxelder	4,305	1	74.8		94	21	52	10	31	0.30		0.16	0	2				M. Merrell Valentine.			
Burrville	Sevier	6,800	2	60.6		80	6	34	14	45	2.06		0.45	0	9				F. R. Curtis.			
Castle Rock	Summit	6,244	8										1.11		0.53	0	6	19	7	5	David Moore.	
Cedar City	Iron	5,750	8	71.4		90	7	52	2	32	1.58		0.38	0	10	8	10	13	sw.	Parley Dalley.		
Center	Tooele	4,250	2	70.6		94	22	42	15	44	1.27		0.33	0	7	14	15	2	s.	L. C. Peterson.		
Clarkston	Cache	5,930	1										0.73		0.30	0	3	15	9	7	W. J. Griffiths.	
Corinne	Boxelder	4,240	43	74.6	+ 0.2	97	16	45	17	51	T.	- 0.58	T.	0	0	21	6	4	s.	A. C. Murphy.		
Deseret	Millard	4,541	18	73.8	+ 2.6	98	20	45	15	46	0.65	+ 0.08	0.40	0	3	14	11	6	s.	S. W. Western.		
Elberta	Utah	4,650	11	78.4	- 0.3	95	1	48	15	43	0.49	- 0.18	0.21	0	8	14	16	1	s.	D. C. Walkey.		
Enterprise	Washington	5,750	7										1.87		0.75	0	6	6	21	4	Jas. E. Hall.	
Erekson	Tooele	4,850	1										1.15		0.54	0	7			N. W. Erekson.		
Farmington	Davis	4,267	12	72.0	+ 1.6	93	25	47	17	43	0.31	- 0.56	0.26	0	2	26	5	0	sw.	Chas. Boylin.		
Fillmore	Millard	5,100	21	74.0	- 0.4	97	19	49	3	37	1.50	+ 0.55	0.47	0	10				J. J. Starley.			
Garland	Boxelder	4,248	1	73.6		99	21	47	17	42	1.42		0.78	0	10	21	0	0	s.	Heber C. Cutler.		
Garrison	Millard	4,850	9	70.0		92	26	44	10	41	1.38		0.48	0	6	5	0	15k	s.	E. M. Smith.		
Government Creek	Tooele	5,277	12	72.6	+ 0.7	93	20	48	15	37	0.77	- 0.47	0.15	0	9	15	14	2	s.	Walter James.		
Granger	Salt Lake	4,560	1										0.67		0.27	0	7	12	18	1	sw.	Max Greene.
Grantsville	Tooele	4,220	6										1.65		1.36	0	7	15	11	5	s.	Monto Barrus.
Grouse Creek	Boxelder	5,148	3										1.00	- 0.04	0.30	0	6	19	11	1	s.	Philip Paskett.
Heber	Wasatch	5,593	20	65.0	+ 0.2	90	22	34	17	50	1.00	- 0.44	0.19	0	9	11	15	5	sw.	John Crook.		
Henefer	Summit	5,301	13	64.8	+ 0.6	93	22	33	17	54	0.76	- 0.44	0.19	0	9	11	15	5	sw.	Wm. Brewer.		
Hooper	Weber	4,436	2										1.93		1.71	0	2			T. M. Jones, jr.		
Howell	Boxelder												0.75		0.65	0	2			Jno. L. Baxter.		
Ibapah	Tooele	7,500	8	68.6		96	19	35	19	61	0.75		0.50	0	4	14 ^a	16 ^a	0 ^a	s.	W. M. Chastain.		
Ibex	Millard	5,250	2										1.43		1.43	0	6	20	11	0	n.	John J. Watson.
Junction	Tooele	4,356	2	75.4		100	22	50	1	42	0.25		0.20	0	2	8	7	16	n.	Geo. K. Hubbell.		
Kanosh	Piute	6,000	1										0.41		0.41	0	6	20	11	0	s.	Jos. Jensen.
Kelton	Millard	5,250	6										1.25		0.37	0	8			Geo. Crane.		
Lemay	Boxelder	4,230	33	66.4	- 7.8	95	22	35	18	53	0.20	± 0.00	0.20	0	1	9	20	2		F. W. Klock.		
Levan	do	4,221	2	80.0		94	22	64	15	25	0.62		0.62	0	1	19	8	4		E. J. Ineck.		
Logan	Juab	5,010	23	70.2	+ 0.3	90	1	47	10	40	1.64	+ 0.69	0.39	0	11	11	15	5	sw.	Wm. Brown.		
Low	Cache	4,507	22	71.6	+ 0.9	93	22	50	11	36	0.14	- 0.63	0.11	0	2				Experiment Station.			
Lucin	Tooele	4,602	2	78.8		102	22	55	16	39	0.90		0.00	0	0	26	5	0		Agent W. P. Co.		
Manti	Boxelder	4,504	6	72.0		95	22	48	16	43	0.29		0.20	0	3	24	7	0		E. C. Puryear.		
Maple Creek	Sanpete	5,575	18	67.8	- 0.5	87	19	46	10	38	0.98	+ 0.29	0.26	0	8	5	0	26		J. M. Anderson.		
Marion	Utah	4,890	2										0.79		0.24	0	5	18	11	2	L. W. Gillilan.	
Marysvale	Summit	6,400	8																	J. Woolstenhulme.		
Meadowville	Piute	6,180	13	65.3	+ 0.4	88	18	37	15	48	1.50	- 0.17	0.35	0	7					Lafe King.		
Midlake	Rich	6,200	12	65.6	+ 2.0	90	29	35	18	49	0.25	- 0.77	0.10	0	3	25	2	4		J. S. Moffat.		
Midvale	Boxelder	4,235	2	76.6		85	7	67	15	15	0.40		0.40	0	1	15	12	4		Mrs. S. M. Gibson.		
Midvale	Salt Lake	4,365	1	74.6		100	22	44	14	46	0.47		0.37	0	4	13	14	4	s.	C. McGhie.		
Millford	Beaver	4,962	5																	F. J. Bandreau.		
Mills	Juab	4,911	1	71.2		95	23	38	17	54	1.08		0.38	0	8					Geo. McCune.		
Millville	Cache	4,848	18										0.71	- 0.21	0.34	0	3	26	5	0	sw.	Fred Yeates.
Mt.nersville	Beaver	5,070	11										1.29	+ 0.09	0.34	0	9	5	24	2	sw.	Fred R. Pryor.
Modena	Iron	5,479	12	68.8	+ 0.2	89	21	41	17	42	1.07	- 0.76	0.38	0	8	8	16	7	sw.	U. S. Weather Bureau.		
Morgan	Morgan	5,068	8	68.5		94	22	40	18	49	0.35		0.22	0	2					E. O. Kingston.		
Moroni	Sanpete	6,000	5	69.5		90	21	52	16	32	2.36		1.58	0	5	8	14	5	sw.	B. F. Eliason.		
Mosida	Utah	4,510	1	76.8		92	13	60	29	30	0.44		0.22	0	2	27	0	4		L. B. Curtis.		
Nephi (near)	Juab	5,119	8	71.8		93	23	47	11	42	1.68		0.87	0	6	8	20	2	s.	Experiment Station.		
New Castle	Iron	5,150	1																	T. W. Jones.		
Oak City	Millard	4,900	6																	Peter Nielson.		
Ogden	Weber	4,310	42	71.6	- 5.1	97	21	43	15	47	1.75	+ 1.19	1.04	0	3	13	13	5	e.	A. Van De Graaff.		
Pangrutch	Garfield	6,560	1	62.4		82	7	35	15	46	2.12		0.70	0	9	15	13	3	s.	Harry L. Stremble.		
Park City	Summit	7,000	8	53.2		81	18	26	13	52	4.49		1.09	0	9	3	22	6		Gertrude Evans.		
Park Valley	Boxelder	5,200	2																	C. W. Goodlife.		
Parowan	Iron	5,970	22	68.0	- 1.3	89	19	44	15	37	3.83	+ 2.35	0.73	0	15	7	5	19		Alex Matheson.		
Payson	Utah	4,637	9										0.20		0.20	0	4	15	7	9	sw.	D. L. Coombs.
Pelican Point	do	4,900	1										0.66		0.31	0	3	24	6	1		B. M. Mendenhall.
Pineview	Summit	8,250	2	62.2		90	22	34	15	49	0.94		0.48	0	3					Granville Deming.		
Pinto	Washington	5,907	18																			

TABLE 1.—Climatological data for August, 1913. District No. 10—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.			
Utah—Continued.																					
Tooele	Tooele	4,900	17	72.2	- 0.4	91	22	50	15†	32	0.23	- 0.80	0.08	0	4	6	2	23	e.	E. A. Bonelli. W. A. Knight.	
Utah Lake pumping station	Utah	4,500	5																		
Vernon	Tooele	5,500	2								2.29		1.34	0	8	10	21	0	sw.	Glynn Bennion.	
Wendover	do.	4,237	1	74.0		99	21	42	16	43	0.35		0.31	0	2					J. S. Cooper.	
Whiskey Creek	Millard	4,850	2																	Geo. Stevens.	
Winder	Garfield	8,000	1								2.75		0.80	0	9					Rollo Adair.	
Woodruff	Rich	6,510	10																	A. L. Eastman.	
Nevada.																					
Austin	Lander	6,594	24	69.2	+ 0.9	91	6	43	13	37	2.70	+ 2.15	1.30	0	7	17	5	9	se.	F. O. Booe.	
Battle Mountain	do.	4,843	42	73.8	- 0.3	104	21	40	17	56	0.37	+ 0.23	0.20	0	4	25	2	4		Southern Pacific Co.	
Beowawe	Eureka	4,905	42	65.9	- 9.2	96	21	31	15†	58	1.06	+ 0.91	1.00	0	2	15	14	2		Do.	
Carlin	Elko	5,232	42	60.7	+ 0.9	100	23	36	15	52	0.00	- 0.18	0.00	0	0	20	9	2		Do.	
Cherry Creek	White Pine	6,450	5	68.4		92	21	45	12	41	1.33		0.51	0	9	16	4	11	w.	J. H. Leishman.	
Clover Valley	Elko	6,000	12	65.6	0	91	22	38	15	45	1.33	+ 0.73	0.94	0	5	12	18	1		I. F. Wiseman.	
Columbia	Esméralda	5,750	6	72.4		95	9	49	10	44	1.71		0.36	0	10	15	14	2	se.	A. Booth.	
Dry Farm	Elko	5,600	1																	Walfrid Sohlman.	
Elko	do.	5,432	42	69.9	+ 1.8	105	24	40	15	56	T.	- 0.30	T.	0	0	22	4	5	sw.	Western Pacific Co.	
Eureka	Eureka	6,500	15	67.8	+ 2.3	92	21	40	15	42	0.81	+ 0.02	0.22	0	8	7	14	10	s.	Clay Simms.	
Fallon	Churchill	3,965	19	71.8	- 0.2	96	24	42	17	48	0.94	+ 0.88	0.42	0	10	15	11	5	se.	Experiment station.	
Fernley	Lyon	4,200	40	72.0	- 3.2	98	6	43	13†	50	0.70	+ 0.53	0.28	0	6	15	15	1		Mrs. G. A. Steele.	
Gardnerville	Douglas	4,830	22	65.4	- 2.8	90	25	33	4	46	0.57	+ 0.37	0.57	0	1				w.	Forest Service.	
Gerlach	Washoe	3,931	0																	Western Pacific Co.	
Geyser	Lincoln	6,055	9	63.2		102	2	25	26†	67	0.28		0.14	0	3	9	17	5	s.	Mrs. J. F. Wambolt.	
Glenbrook	Douglas	6,420	4																	C. C. Henningsen.	
Golconda	Humboldt	4,697	34	74.3	+ 1.7	97	7	48	19	44	0.13	+ 0.04	0.05	0	4	13	7	11	w.	Southern Pacific Co.	
Halleck	Elko	5,631	20	66.8	+ 0.1	92	27	35	16	54	0.33	+ 0.14*	0.15	0	3	15	14	2	w.	Do.	
Jean	Clark	2,074	5	83.4		106	5†	56	1	42	0.52		0.26	0	4	16	14	1	sw.	Salt Lake Route.	
Lahontan	Churchill	4,200	1	75.6		97	6	53	13	38	1.18		0.24	0	8	15	14	2	w.	Reclamation Service.	
Lewers Ranch	Washoe	5,500	25	67.6	- 0.5	94	23	39	17	44	1.85	+ 1.51	0.75	0	4	7	20	4	s.	Ross Lewers.	
Lida	Esméralda	6,037	0	67.6		90	7	42	14	40	2.00		0.79	0	6	13	17	1	se.	L. F. Detwiler.	
Lovelock	Humboldt	3,977	19																	A. P. Tilford.	
McDermitt	do.	4,700	23	69.2	- 3.1	96	24	38	8	39	0.05	- 0.10	0.05	0	1	16	13	2	w.	F. M. Bullock.	
McGill	White Pine	6,338	22	69.6	+ 5.0	89	6†	47	15	40	1.07	- 0.19	0.20	0	12	13	9	9	s.	R. E. Middagh.	
Millett	Nye	6,002	5	67.2		91	5†	36	15	48	1.11		0.41	0	6	12	7	12	s.	Fred J. Jones.	
Mina	Mineral	4,600	6	73.4		97	6	49	22†	54	0.35		0.20	0	3	20	0	11		Southern Pacific Co.	
Oasis Ranch	Esméralda	5,106	0	69.4		93	5	43	15	44	1.55		1.24	0	6	19	8	4	s.	A. S. Patterson.	
Potts	Nye	6,990	20	64.5	- 3.3	89	6	35	15†	47	0.54	- 0.12	0.40	0	7	13	0	18	s.	Miss Mamie Potts.	
Quinn River Ranch	Humboldt	4,850	11	68.6	+ 1.1	101	24	35	15	55	0.72	+ 0.58	0.45	0	2	19	5	7	n.	F. M. Payne.	
Rebel Creek	do.		1																	E. J. Hyatt.	
Reno	Washoe	4,532	42	70.0	+ 3.0	93	24	44	17	42	1.08	+ 0.83	0.68	0	5	17	11	3	w.	Weather Bureau.	
Soda Lake	Churchill	4,534	6																	Reclamation Service.	
Tecoma	Elko	4,812	35	65.2	- 7.6	98	21†	29	15	61	0.19	- 0.04	0.15	0	3	10	20	1	sw.	Southern Pacific Co.	
Tomopah	Nye	6,000	8	69.8		89	8	50	17	29	1.16		0.37	0	3	12	16	3	se.	Weather Bureau.	
Wells	Elko	5,631	41	67.7	- 0.9	93	22†	38	13†	50	0.55	+ 0.35	0.35	0	3					Southern Pacific Co.	
Winnemucca	Humboldt	4,432	34	71.0	+ 0.2	96	21	40	15	49	0.80	+ 0.63	0.41	0	7	22	9	0	sw.	Weather Bureau.	
Oregon.																					
Burns	Harney	4,157	22																		J. C. Welcome, jr.
Cliff	Lake	4,300	6	61.5		94	24	20	18	61	0.65		0.16	0	6	16	13	2	nw.	John C. Green.	
Paisley	do.	4,500	10	65.8		91	23	35	18	44	0.79		0.38	0	4	23	6	2	n.	C. M. Sain.	
Silver Lake	do.	4,700	16	65.2	+ 4.3	94	24	28	18	53	1.10	+ 0.78	0.75	0	2	20	11	0	n.	G. W. Marvin.	
California.																					
Bridgeport	Mono	6,500	0	59.9		86	6	30	17	53	1.65		0.80	0	12	18	5	8	sw.	A. F. Scott.	
Cathedral Park	Eldorado	6,400	0	62.2		84	18	41	2	36	0.38		0.08	0	9	10	12	9	s.	Carl Fluegge.	
Tahoe	Placer	6,240	2	58.0		81	6†	32	14†	38	0.40		0.25	0	4	22	7	2	w.	R. M. Watson.	
Truckee	Nevada	5,819	41	62.9	- 0.4	85	28	40	16†	42	0.70	+ 0.59	0.40	0	3	25	1	5		Southern Pacific Co.	

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

TABLE 2.—Daily precipitation for August, 1913. District No. 10, Great Basin.

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>Wyoming.</i>																																					
Border.....	Bear.....																																				
Cokeville.....	do.....		T.	T.	.40						T.	T.	T.	T.																							0.60
Evanston.....	do.....		.03	.15	.05	.07																			.07		.19	.01									0.95
<i>Idaho.</i>																																					
Geneva.....	Bear.....											.02																					.09	.24	0.35		
Grace.....	do.....			T.		T.																						.10	.05					.17	0.32		
Paris.....	do.....																																				
Weston.....	do.....					.11							.09															.03								0.23	
<i>Utah.</i>																																					
Alpine.....	G. S. Lake.....				.25																															0.25	
Beaver.....	Sevier Lake.....	.50	.19	.12	.05					.03	.02	.12	T.									.09	.05	.17	.03	.02				.25	.19	.36	.60	2.79			
Black Rock.....	do.....	.08	.07							.72																										1.08	
Brigham City.....	G. S. Lake.....																																			0.30	
Burrville.....	Sevier Lake.....		.15	.04								.10									.20			.45					.40	.10	.21				2.06		
Castle Rock.....	G. S. Lake.....	T.	.53	.23									.05											.15	.05		.10								1.11		
Cedar City.....	Desert.....		.23	.07	.01				.27	.20	.38											.09	.20	.04											1.58		
Center.....	do.....		.03	.33	.08	.23																	.19										.28		1.27		
Clarkston.....	G. S. Lake.....												.28								.30												.15		0.73		
Corinne.....	do.....																																		T.		
Deseret.....	Sevier Lake.....	T.								.20		.40																						.05		0.65	
Elberta.....	G. S. Lake.....			T.	.04	.12				.21		.02	.04											.02		.02		.03	T.					.01		0.49	
Enterprise.....	Desert.....		.12							.75																.32	.12			.02		.24				1.57	
Erekson.....	do.....											.18											.02	.12	.10						.11	.54		.08		1.15	
Farmington.....	G. S. Lake.....			.05	T.	T.																														0.31	
Fillmore.....	Sevier Lake.....	.40	.02	T.	.01					.47			.06	.03								.02													1.50		
Garland.....	G. S. Lake.....											.21																								1.42	
Garrison.....	Desert.....	.10				.07	T.			.30	T.	.35										T.	T.	T.	T.								.48		1.38		
Government Creek.....	do.....	T.	.05	T.	T.					T.	T.	.03	.05									T.	T.	T.	T.	.03	.13								0.77		
Granter.....	G. S. Lake.....																																				
Grantsville.....	do.....	.01		.11				.19				.27																					.05	.02		0.67	
Grouse Creek.....	Desert.....					.09	.19					.03	T.	.02																						1.65	
Heber.....	G. S. Lake.....			.05	.30							.30	.02												.15	T.										1.00	
Henefer.....	do.....	T.	T.	.10	.10								.30																							0.76	
Hooper.....	do.....																																			1.93	
Howell.....	do.....			.65										.10																						0.75	
Ibapah.....	Desert.....	.02				T.						.03																								0.75	
Ibex.....	do.....																																				
Iosepa.....	do.....			.05									T.																							0.25	
Junction.....	Sevier Lake.....		.41		.13					.33		.22																								1.43	
Kanosh.....	do.....	.04	.10	.05						.37																										1.25	
Kelton.....	G. S. Lake.....												T.																							0.20	
Lemay.....	Desert.....																																			0.62	
Levan.....	Sevier Lake.....	.04	.02	.04	.01					.39		.02																								1.64	
Logan.....	G. S. Lake.....																																			0.14	
Low.....	Desert.....																																			0.00	
Lucin.....	do.....					T.						.08																								0.29	
Manti.....	Sevier Lake.....	.05					.16			.16	.26	T.																								0.98	
Maple Creek.....	G. S. Lake.....		.24							.11	.19																									0.24	
Marysvale.....	Sevier Lake.....	.21		.33	.16						.33																									2.79	
Meadowville.....	G. S. Lake.....			T.	T.	T.	.10																													1.50	
Midlake.....	do.....	.40																																		0.25	
Midvale.....	do.....			.37	T.	T.						.04																								0.40	
Milford.....	Sevier Lake.....																																			0.47	
Millville.....	G. S. Lake.....			T.	T.																															0.71	
Mills.....	Sevier Lake.....				.07	.03	T.					.30	.04	T.	.15																					1.08	
Minersville.....	do.....	.25	.02	.19	.12								.34																							1.29	
Modena.....	Desert.....	.02		.22	.03	.01			T.	T.	T.	T.																								1.07	
Morgan.....	G. S. Lake.....																																			0.35	
Moroni.....	Sevier Lake.....		T.	1.58						.24	.04	T.																								2.36	
Mosida.....	G. S. Lake.....		.22	.22																																0.44	
Nephi (near).....	do.....		T.	.24						.24		.12																								1.68	
New Castle.....	Desert.....																																				
Oak City.....	Sevier Lake.....																																			1.75	
Ogden.....	G. S. Lake.....																																			2.12	
Panguitch.....	Sevier Lake.....	.50		.30	.03					.70	T.	.01	T.																						4.49		
Park City.....	G. S. Lake.....		.02	1.09		.06	.04							.07	1.04																						
Park Valley.....	Desert.....																																				
Parowan.....	do.....	.46	.60	.09	.30	T.			.14	.18	.10	.20																									

TABLE 3.—Maximum and minimum temperatures for August, 1913. District No. 10, Great Basin.

Date.	Nevada.																									
	Cherry Creek.		Elko.		Eureka.		Fallon.		Geyser.		Jean.		McDermitt.		Millet.		Mina.		Reno.		Tecoma.		Tonopah.		Winnemucca.	
	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.....	83	59	94	43	84	60	81	61	100	40	98	56	85	64	75	42	94	55	80	58	90	46	74	57	84	53
2.....	83	50	93	46	84	51	90	52	102	40	99	58	83	51	85	60	95	58	82	52	90	45	82	58	86	48
3.....	83	56	96	48	84	52	93	56	98	41	97	57	88	56	86	57	96	59	88	52	90	42	87	63	91	56
4.....	85	52	92	42	84	49	94	54	94	43	102	62	87	59	89	48	95	60	88	55	90	41	87	61	92	60
5.....	83	54	93	48	88	55	93	52	90	38	106	65	87	54	91	49	95	60	91	52	90	42	88	64	92	56
6.....	86	52	92	48	88	49	95	54	90	35	103	64	88	57	91	48	97	60	93	53	88	37	82	63	93	55
7.....	85	55	96	48	87	50	95	57	90	38	100	65	83	50	89	48	94	54	92	57	87	39	89	66	91	58
8.....	84	50	90	44	85	47	92	56	90	30	99	65	85	50	89	47	94	53	90	56	88	34	83	64	88	50
9.....	75	58	92	43	79	53	89	55	95	32	99	66	80	50	83	57	91	52	87	56	90	40	79	58	85	55
10.....	79	55	91	48	80	51	87	53	89	34	101	65	85	55	82	55	93	55	82	55	87	32	80	54	86	53
11.....	80	50	92	42	79	45	87	49	90	30	100	66	84	56	85	46	91	54	85	49	87	37	79	52	86	56
12.....	79	45	90	45	84	45	89	50	91	36	98	62	83	50	86	47	92	53	81	50	85	36	81	58	86	49
13.....	84	48	90	44	81	49	89	49	90	30	99	63	81	46	80	46	90	51	76	47	90	32	78	63	84	46
14.....	79	47	88	48	80	46	73	47	92	38	98	65	71	41	81	49	91	52	76	45	85	36	78	54	75	48
15.....	81	46	90	40	82	40	82	46	92	35	91	64	77	41	82	36	93	54	78	44	84	29	73	52	80	40
16.....	80	52	94	46	82	47	83	47	92	38	93	65	79	40	83	40	94	50	80	45	88	36	77	53	83	40
17.....	84	47	90	44	83	45	83	42	83	38	95	65	78	45	84	39	93	51	82	44	86	32	79	50	82	50
18.....	86	50	94	43	85	49	86	48	84	38	98	66	77	38	83	38	95	54	84	49	88	33	80	55	84	43
19.....	88	47	94	44	87	45	91	47	89	35	98	67	86	56	88	40	95	55	88	50	90	31	84	57	90	50
20.....	88	56	98	42	86	54	94	48	92	38	99	67	90	53	91	45	96	54	93	51	95	34	86	60	94	45
21.....	92	58	102	49	92	53	94	56	95	40	106	68	93	60	87	55	92	50	90	55	98	37	87	59	96	60
22.....	88	62	99	52	89	53	91	57	98	40	103	69	91	62	83	52	92	49	90	57	95	44	83	53	92	64
23.....	88	58	99	54	88	57	95	60	95	34	103	70	91	55	87	59	94	51	92	60	97	45	84	59	95	59
24.....	86	60	105	49	87	57	96	63	89	36	105	68	96	63	86	56	93	52	93	61	95	42	82	59	96	60
25.....	84	59	89	50	85	58	92	63	92	30	101	69	85	62	83	55	95	54	89	60	98	45	81	61	88	65
26.....	83	56	89	50	83	53	94	64	90	25	103	72	88	57	85	54	93	55	90	59	95	47	81	60	90	58
27.....	83	55	94	45	85	58	81	61	90	30	102	76	86	57	78	57	94	54	80	60	96	45	72	55	88	60
28.....	84	52	93	43	89	52	92	58	90	30	102	76	90	58	89	49	91	49	90	58	95	42	80	61	92	59
29.....	85	56	100	45	89	61	89	58	95	28	100	78	88	60	84	51	92	50	91	58	95	45	82	59	91	57
30.....	75	59	86	50	80	54	88	62	89	25	102	79	87	55	80	58	91	49	86	59	94	50	76	55	86	61
31.....	78	55	89	53	78	52	88	58	85	30	98	72	85	54	81	54	92	50	84	58	92	44	73	55	87	58
Mns.....	83.3	53.5	93.5	46.3	84.4	51.3	89.4	54.3	91.6	34.7	99.9	66.9	85.1	53.4	84.7	49.6	93.3	53.5	86.2	53.7	90.9	39.4	81.3	58.2	88.2	53.9

Date.	Wyoming.						Utah.																			
	Border.		Evanston.		Weston, Idaho.		Black Rock.		Corinne.		Government Creek.		Marysvale.		Meadowville.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City.	
	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.....			82	39	91	45	87	51	88	50	88	53	83	43	81	42	80	58	88	56	81	59	90	47	93	61
2.....			80	48	89	56	85	48	90	58	85	56	82	48	85	51	79	50	87	54	77	52	90	54	85	66
3.....			79	49	88	57	88	52	89	55	86	64	81	55	80	53	83	53	90	57	80	53	90	55	85	65
4.....			75	48	91	55	91	53	91	55	87	59	82	47	80	49	85	58	90	54	83	53	86	56	84	64
5.....			77	45	92	55	90	52	90	59	90	59	80	47	81	49	87	55	85	55	84	54	87	56	88	64
6.....			75	43	87	48	93	48	92	56	87	54	85	47	79	45	88	57	80	51	84	53	85	50	85	62
7.....			75	48	86	48	92	46	89	55	85	54	84	46	85	60	88	54	79	49	86	52	86	47	84	62
8.....			74	39	86	44	93	43	86	50	86	52	84	46	82	54	88	53	84	50	85	52	86	45	84	62
9.....			75	41	83	46	79	54	85	56	80	61	75	60	79	44	77	55	84	51	76	57	86	53	78	65
10.....			78	42	85	41	85	46	88	58	85	54	80	65	81	42	81	51	87	50	77	47	85	47	85	58
11.....			77	43	89	46	87	51	89	60	87	56	70	60	80	45	79	52	87	50	81	53	86	52	87	63
12.....			75	45	86	54	87	56	87	48	86	56	85	44	81	53	84	50	88	56	85	52	87	53	88	65
13.....			78	46	88	67	88	44	90	58	88	55	84	43	84	45	84	47	88	61	82	52	88	52	88	68
14.....			77	43	86	52	88	43	85	67	86	57	85	45	80	50	82	52	85	64	81	52	87	41	83	62
15.....			77	34	84	42	87	42	88	69	85	48	85	37	80	37	80	44	86	43	81	44	86	43	85	58
16.....			78	37	88	42	88	40	97	46	85	52	85	37	82	39	81	43	87	50	82	49	88	44	88	62
17.....			79	41	88	40	87	43	96	45	85	52	86	37	83	38	81	41	89	52	82	44	87	42	88	64
18.....			79	39	89	41	89	40	95	58	87	52	88	37	84	35	85	43	89	46	84	46	90	41	88	64
19.....			82	35	91	56	90	39	89	46	88	56	88	40	86	40	84	46	92	45	89	49	90	43	88	60
20.....			83	52	97	46	95	49	92	56	93	64	84	48	85	54	87	58	95	57	87	60	91	57	92	70
21.....			86	42	98	46	90	54	95	58	91	65	83	56	86	44	89	64	97	56	80	64	91	58	92	66
22.....			89	48	99	49	92	55	95	58	93	65	84	52	86	55	83	62	96	56	87	60	94	57	94	70
23.....			86	52	94	58	92	56	91	64	90	68	85	50	86	54	86	59	94	68	76	59	89	62	88	69
24.....			85	46	96	65	92	56	92	63	91	74	83	52	85	51	87	59	93	56	86	57	88	54	89	66
25.....			87	48	98	51	92	55	95	69	91	65	83	50	85	50	86	63	96	57	85	57	91	54	95	68
26.....			82	49	90	65	93	56	93	65	90	61	87	48	88	54	84	58	93	60	87	52	91	57	88	69
27.....			80	46	88	62	91	52	95	68	84	57	87	46	80	51	85	56	89	59	83	53	88	57	84	