CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

In the Great Basin this month was the wettest June on record. It is certain that local amounts at many places exceeded that of any previous June since 1874. The cause was the presence of low pressure areas over the Great Basin, one from June 7th to June 10th, and another from June 23d to June 29th. The rainfall caused by the latter storm was the heavier, and, as usual in summer, some localities received much more moisture than others. The rains were slightly unfavorable in irrigated districts and resulted in some damage; but were favorable to dry-farming sections, and greatly improved the ranges. There was a large number of thunderstorms; some fatalities occurred due to lightning, and damage by hail was also sustained. Some stations in the mountains and a few in the agricultural districts reported snow which soon disappeared. The temperature for the district averaged below normal, and was lower than that of June last year.

TEMPERATURE.

The mean temperature for the district was 61.5°, or 1.9° below normal, and varied from 49.3° at Tahoe, Cal., to 79.4° at Jean, Nev. The highest means occurred in the more level portions of the Utah area and in the southern portion of the Nevada area; while the lowest means occurred in the Wyoming area and in the mountainous portions of the Utah area and in parts of the Oregon and Nevada areas. Excesses above the normal temperature occurred in the Wyoming area and at widely scattered stations in the portions of other States in this district, but for the most part they were small. The temperature was generally deficient in the Utah area south of Great Salt Lake, and in central and western Nevada. The greatest deficiency was 8.1° at Kelton, Utah, whose mean was 61.2°; the greatest excess was 2.9° at Burns, Oreg., whose mean was 60.4°.

During the first eight days of the month the weather was warm, especially the afternoons, and many stations reported their maximum temperatures during this period. Another warm wave occurred just prior the second general storm of the month, from the 20th to the 23d inclusive. The highest temperatures that occurred in the various areas of the several States in this district were as follows: 89° at Border, Wyo., on the 22d; 92° at Grace, Idaho, on the 1st; 110° at Midvale, Utah, on the 22d; 90° at Burns, Oreg., on the 1st; 80° at Bridgeport, Cal., on the 17th; and 106° at Jean, Nev., on the 30th.

From the 10th to the 12th was, in general, the coolest portion of the month, and most of the stations reported their lowest temperatures during this period, although a few stations reported their lowest from the 27th to the 30th. Killing frosts occurred on the morning of the 29th at Beaver and Panguitch, Utah, and light frosts were observed at a few other places in Utah but no damage was mentioned in the reports. The lowest temperatures were: 31° at Cokeville, Wyo., on the 30th; 29° at Paris, Idaho, on the 1st; 23° at Soldiers Summit on the 11th, and at Woodruff on the 14th and 30th, both in Utah; 28° at Tecoma, Nev., on the 13th; 23° at Cliff, Oreg., on the 20th, and 27° at Tahoe, Cal., on the 20th and other dates.

PRECIPITATION.

The precipitation for the district averaged 1.99 inches, or 1.39 inches above normal. This unusual rainfall was well distributed throughout the district, but the heavier amounts fell in the northern portion of the Utah and Nevada areas and in the Wyoming area. In the Utah and Wyoming areas the monthly amounts were 3 or 4 times the average of all past records, and greatly exceeded the greatest previous monthly averages for June. All present June records for many stations in the district were broken, but especially in the middle and northern counties of the Utah area and at Elko, Nev., at which place 7 times the normal amount was recorded.

The greatest local monthly amount was 5.02 inches at Park Valley, Utah; the least was a trace at Jean, Nev. The largest 24-hour amount was 2.30 inches at Marysvale, Utah, which is more than 7 times the normal June rainfall.

Excepting the California area, there were two generally rainy periods during the month. The first extended from the 5th to the 12th, and the second from the 22d to the 29th. In the California area rain fell from the 1st to the 10th, and in the eastern portion of the district there were many light showers on the 17th and 18th.

MISCELLANEOUS PHENOMENA.

The average number of clear days for the district was 11; partly cloudy days, 10; cloudy days, 9; and rainy days, 8.

Foggy mornings were occasionally reported during the rainy period at a few places in the mountains of Utah.

The observer at Ogden, Utah, reported that a boy of twelve was killed by lightning on the 23d, also two cows and a horse.

A cloudburst of nearly as great proportions as that of last summer, swept down the canyon at Seven Troughs and Mazuma, Nev., on the 2d of June. No damage was done as the homes are now erected on higher ground.

At Mill City, Nev., a storm, which from the reports must have been a tornado, occurred. It lifted a roof weighted with many tons of gravel from Peter Organ's store and carried it in fragments across the desert.

A dispatch from Elko, Nev., reports the killing of a teamster by lightning, and the four mules which he was driving. A man standing 100 feet from the scene of the accident was stunned as were two mules which were being led behind the wagon.

District #10

TABLE 3.—*Maximum and minimum temperatures for June, 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.		Vernal.		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....	76	34	86	50	82	44	88	52	75	37	82	35	.....	.....	77	40	95	56	96	49	95	45	97	38	89	53	84	50
2....	76	35	83	42	81	43	88	59	73	36	79	39	.....	.....	81	35	97	56	95	50	95	47	98	39	89	45	85	52
3....	73	34	86	46	81	43	90	56	74	38	81	36	.....	.....	80	36	94	56	95	48	94	46	96	37	89	40	84	51
4....	74	35	84	45	80	48	90	54	76	36	82	34	.....	.....	81	36	93	55	94	46	93	54	96	35	82	54	82	47
5....	69	34	80	41	76	46	86	57	79	38	79	34	.....	.....	80	39	93	59	94	49	92	57	94	36	87	46	80	48
6....	71	35	80	40	78	39	87	59	71	39	77	41	.....	.....	77	35	94	59	95	48	91	54	95	38	88	41	81	51
7....	73	33	82	46	74	48	85	64	74	40	74	31	.....	.....	80	37	92	60	93	54	91	54	92	40	74	53	79	49
8....	76	36	79	42	65	46	79	60	69	49	75	36	.....	.....	82	39	92	60	95	64	94	53	95	45	80	48	77	46
9....	77	38	80	49	73	39	82	58	65	41	77	39	.....	.....	80	37	91	57	90	63	83	63	82	46	81	48	77	51
10....	74	36	73	56	66	45	78	54	64	38	72	40	.....	.....	76	32	77	69	82	64	74	54	90	48	77	50	81	55
11....	61	33	62	36	67	37	65	47	66	34	64	33	.....	.....	70	30	75	55	67	42	79	52	97	47	77	37	79	44
12....	66	32	64	39	64	40	68	47	65	37	55	33	.....	.....	75	38	91	48	75	46	90	54	98	48	74	40	80	48
13....	79	37	80	38	79	38	80	47	70	29	72	39	.....	.....	79	37	91	55	86	45	96	54	97	50	82	37	85	50
14....	68	35	87	34	83	40	90	58	72	36	82	39	.....	.....	80	35	97	58	93	49	97	58	95	48	90	42	88	50
15....	74	36	88	44	84	44	90	58	70	36	82	36	.....	.....	81	40	97	56	97	48	95	58	93	42	91	43	88	54
16....	77	33	83	39	85	45	90	61	78	34	82	40	.....	.....	71	35	97	62	95	53	98	56	95	44	91	52	84	51
17....	68	36	81	39	77	47	86	62	73	33	82	40	.....	.....	80	47	96	60	88	65	90	66	94	43	87	57	84	54
18....	60	35	83	41	73	51	84	57	75	40	81	40	.....	.....	81	45	95	67	92	54	96	59	90	41	80	55	82	51
19....	77	36	85	44	81	46	90	58	75	40	74	42	.....	.....	82	46	99	68	97	52	97	62	93	42	89	56	84	53
20....	78	36	81	43	82	48	92	62	77	31	79	44	.....	.....	85	47	100	63	98	57	100	51	96	52	93	54	82	48
21....	77	39	88	40	82	48	92	62	75	42	80	39	.....	.....	86	48	99	68	98	62	101	47	95	53	90	62	82	54
22....	78	33	91	41	80	47	90	64	75	39	80	38	.....	.....	85	46	97	75	99	65	101	59	93	42	89	53	79	49
23....	69	40	81	51	80	47	88	69	78	32	84	41	.....	.....	82	41	98	76	93	67	96	69	94	43	89	51	82	49
24....	68	36	72	44	79	45	74	58	68	32	78	37	.....	.....	80	40	91	72	92	62	95	64	95	42	87	50	83	52
25....	64	42	65	42	79	45	82	61	75	46	72	50	.....	.....	82	45	93	75	87	62	91	70	90	44	90	49	85	53
26....	60	43	72	44	82	46	82	58	78	42	79	47	.....	.....	80	40	89	76	85	67	88	71	97	46	92	61	87	52
27....	63	42	75	46	83	43	91	54	78	36	84	35	.....	.....	81	45	92	70	90	59	87	61	98	43	93	47	88	55
28....	57	41	70	44	79	50	89	60	77	33	79	42	.....	.....	82	48	85	74	84	56	84	59	97	44	91	66	87	61
29....	58	39	66	35	78	39	78	47	76	32	70	41	.....	.....	80	47	89	56	84	43	90	49	96	45	85	38	87	55
30....	64	33	70	34	83	39	87	52	79	34	77	35	.....	.....	82	49	95	59	92	44	99	54	98	44	88	39	90	55
Mns..	70.2	6.1	78.7	43.2	77.9	44.2	84.7	57.2	73.3	37.2	77.2	38.5	.....	.....	79.9	40.5	92.5	63.2	90.7	54.6	92.4	56.7	94 5	43.5	86.3	48.9	83.2	51.3

Date.	Arizona.																				Logan, Nev.	
	Bisbee.		Flagstaff.		Fort Apache§§		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		Tucson.		Yuma.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	.....	.....	74	30	86	40	85	30	100	60	98	62	81	40	81	38	97	53	96	58	97	53
2.....	.....	.....	74	31	88	40	82	36	100	58	93	61	81	39	81	41	98	52	99	57	96	55
3.....	.....	.....	72	31	87	40	84	34	100	59	94	63	79	39	83	40	96	52	98	63	97	54
4.....	.....	.....	71	34	83	40	82	34	101	60	93	65	79	44	80	41	93	59	98	65	94	59
5.....	.....	.....	70	34	82	42	82	36	100	61	95	65	76	45	81	40	94	53	96	63	95	58
6.....	.....	.....	73	33	82	42	84	36	101	59	93	66	76	44	80	41	94	56	98	65	93	58
7.....	.....	.....	73	35	87	41	82	36	101	63	96	66	82	44	75	46	96	58	100	66	94	58
8.....	.....	.....	74	34	86	48	84	38	103	62	98	67	81	44	76	45	98	56	101	64	97	57
9.....	.....	.....	69	35	84	40	84	36	98	58	95	67	78	41	75	44	95	56	88	62	86	59
10.....	.....	.....	57	40	78	37	82	36	95	55	80	60	62	41	74	49	90	53	82	57	77	53
11.....	.....	.....	66	28	80	38	80	38	105	50	88	55	71	35	70	31	88	49	92	55	86	51
12.....	.....	.....	72	33	83	43	82	36	108	59	94	59	79	43	75	40	93	49	98	60	92	61
13.....	.....	.....	77	36	89	43	78	38	108	60	97	63	87	46	82	43	96	55	100	59	100	58
14.....	.....	.....	76	37	90	45	76	40	109	61	99	66	84	44	88	45	96	57	102	59	100	59
15.....	.....	.....	78	39	92	52	78	38	110	63	97	71	85	46	86	52	97	61	101	60	94	66
16.....	.....	.....	78	42	90	52	80	39	110	60	98	72	82	50	85	55	97	65	100	68	101	62
17.....	.....	.....	76	51	81	52	78	40	108	61	99	74	84	55	75	51	97	65	102	60	100	63
18.....	.....	.....	76	41	90	52	78	38	105	60	101	73	88	47	80	46	101	66	105	62	102	64
19.....	.....	.....	78	41	91	49	76	38	106	60	102	72	87	50	85	56	102	64	106	68	101	58
20.....	.....	.....	82	41	92	52	80	40	108	60	105	73	89	48	86	52	105	65	109	68	104	56
21.....	.....	.....	79	45	90	51	82	42	108	60	105	78	90	49	82	53	99	74	110	67	105	56
22.....	.....	.....	79	46	93	49	84	46	108	60	103	78	89	56	79	46	100	68	107	67	105	60
23.....	.....	.....	75	45	88	44	86	46	107	60	100	74	83	60	82	45	98	70	104	68	99	70
24.....	.....	.....	74	42	85	51	82	46	111	60	98	69	82	50	82	50	98	64	101	70	96	66
25.....	.....	.....	73	54	86	47	84	42	111	69	100	71	80	58	81	57	99	65	101	72	95	67
26.....	.....	.....	72	51	87	48	86	42	110	68	96	69	77	55	82	54	97	62	94	67	91	70
27.....	.....	.....	70	51	89	48	86	42	97	59	94	68	76	50	85	50	97	60	92	68	89	65
28.....	.....	.....	70	43	85	44	84	40	103	62	89	67	78	43	81	55	94	63	95	64	90	57
29.....	.....	.....	77	30	90	41	86	40	106	60	98	59	85	36	81	39	97	61	103	60	94	57
30.....	.....	.....	82	31	93	46	88	40	107	60	101	64	93	43	87	38	101	58	109	63	105	56
Means.....	.....	.....	73.8	38.8	86.9	45.2	82.2	38.8	104.8	60.2	96.6	67.2	81.2	46.2	80.7	46.1	96.8	59.6	99.6	63.5	95.8	59.5

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

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

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Lincoln	6,085	11	56.6	+ 1.2	89	22	34	11	51	4.97	+ 3.59	1.60	0.0	14	7	6	17	w.	S. W. Condron.
Cokeville	do	6,204	3	57.0		87	3	31	30	52	3.63		0.94	0.0	13	19	4	7	w.	E. J. Tuckett.
Evanston	Uinta	6,860	17	55.0	+ 0.7	79	22†	32	11†	43	3.37	+ 2.27	0.92	0.0	12	12	14	4	sw.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake	6,171	4								1.23		0.62	0	4	20	6	4		F. W. Boehme.
Grace	Bannock	5,400	6	62.4		92	1†	39	29	52			0.40	0		9	6	15	nw.	E. W. Joy.
Paris	Bear Lake	5,946	18	55.4	− 0.3	82	16†	29	1	49	3.42	+ 2.56	0.87	0	8	7	18	5	w.	John Norton.
Weston	Franklin	4,460	14	60.9	+ 0.3	88	22	39	30	46	2.95	+ 1.85	0.63	0	12	13	6	11	sw.	Wm. T. Chatterton.
Utah.																				
Alpine	Utah	4,900	14								1.71	+ 1.06	0.42	0	7	14	5	11		T. F. Carlisle.
Beaver	Beaver	6,000	9	59.9		102	21	26	29	62	1.30		0.60	0	7	10	10	10	sw.	Henry Baker.
Black Rock	Millard	4,872	9	59.5		92	21	25	8	53	0.55		0.31	0	3	17	5	8		W. D. Livingston.
Brigham City	Boxelder	4,315	2	67.4[a]		105	20	45	10	48	3.02		0.46	0	9					Nephi M. Valentine.
Burrville	Sevier	6,800	2	55.3		81	22	31	11	45	2.34		1.50	0	10					F. R. Curtis.
Castle Rock	Summit	6,244	8								3.21		1.00	0	12	14	8	8		David Moore.
Cedar City	Iron	5,750	8	65.2[e]		85	20†	39	29	36	0.70		0.22	0	6	14	9	7	sw.	Parley Dalley.
Center	Tooele	4,250	3	61.5		92	20†	34	12	52	1.49		0.47	0	7	10	11	9	s.	L. C. Peterson.
Clarkston	Cache	5,930	2								3.00		0.60	0	8	10	10	10		W. J. Griffiths.
Corinne	Boxelder	4,240	43	71.9	+ 1.4	92	19	43	13	38	1.46	+ 0.89	0.50	0	5	15	3	12		A. C. Murphy.
Deseret	Millard	4,541	18	64.8	− 0.3	92	21[x]	38	9†	50	0.97	+ 0.60	0.30	0	6	13	5	12	s.	S. W. Western.
Elberta	Utah	4,650	11	67.4	− 0.2	94	21†	41	11	44	1.12	+ 0.77	0.26	0	8	15	8	7	s.	D. C. Walkey.
Enterprise	Washington	5,750	7								0.14		0.08	0	2					Jas. E. Hall.
Erekson	Tooele	4,850	1								1.47		0.56	0	6					N. W. Erekson.
Farmington	Davis	4,267	12	66.5	+ 2.2	93	16	42	11	49	2.30	+ 1.44	0.60	0	8	17	5	8	sw.	Chas. Boylin.
Fillmore	Millard	5,100	21	67.4	− 0.3	97	21	42	12	49	0.75	+ 0.22	0.31	0	8					J. J. Starley.
Garland	Boxelder	4,248	1	64.8[1]		93[1]	1	45[1]	12	42[1]	2.35		0.74	0	10	1	24	5	s.	Heber C. Cutler.
Garrison	Millard	4,850	9	61.6[b]		89	22	36	25†	43	0.45		0.25	0	2	9[b]	9[b]	10[b]	s.	E. M. Smith.
Government Creek	Tooele	5,277	12	63.3	+ 0.2	90	22	38	11	42	1.85	+ 1.23	0.41	0	10	17	5	8	s.	Walter James.
Granger	Salt Lake	4,560	1	65.0[o]		90	22	46	12†	42	1.02			0	4					Geo. E. Greene.
Grantsville	Tooele	4,220	6								1.88		0.52	0	8	9	17	4	sw.	*Monto Barrus.*
Grouse Creek	Boxelder	5,148	3								4.52		1.15	0.4	14	2	13	15	sw.	Philip Paskett.
Heber	Wasatch	5,593	20	58.9	− 0.3	89	5†	28	11	59	2.24	+ 1.71	0.45	0	9	12	8	10	s.	John Crook.
Henefer	Summit	5,301	13	58.7	+ 0.4	86	2†	31	11	50	4.10	+ 3.41	1.05	0	12	9	9	12	w.	William Brewer.
Hooper	Weber	4,436	2								5.00		2.00	0	7					T. M. Jones, jr.
Ibapah	Tooele	7,500	8	60.0		89	21	36	21	53	1.30		0.55	0	10	8	17	5	s.	W. M. Chastain.
Ibex	Millard	5,250	2																	John J. Watson.
Iosepa	Tooele	4,356	2	66.9		94	22	40	12	47	1.07		0.25	0	6	3	9	18		Geo. K. Hubbell.
Joy	Juab	5,000	1																	Miss Gladys Mikesell.
Junction	Piute	6,000	1								0.26		0.14	0	6					Joseph Jensen.
Kanosh	Millard	5,250	6								0.85		0.31	0	8					Geo. Crane.
Kelton	Boxelder	4,230	33	61.2	− 8.1	90	3†	32	11	47	2.32	+ 1.95	0.90	0	6	0	19	11	sw.	F. W. Klock.
Lemay	do	4,221	2	71.8		90	18†	47	11	30	2.45		1.00	0	6	8	9	13	w.	Agent S. P. Co.
Levan	Juab	5,010	23	63.8	+ 1.0	90	21	39	11	43	1.18	+ 0.63	0.21	0	11	13	4	13	sw.	Wm. Brown.
Logan	Cache	4,507	22	64.0	+ 0.8	87	20	43	11	37	2.09	+ 1.30	0.53	0	10					Utah Exp. Station.
Low	Tooele	4,602	2	70.3		98	22	42	11	45	1.45		0.60	0	4	23	3	4		Agent W. P. Co.
Lucin	Boxelder	4,504	6	68.2		91	16†	40	11	43	3.23		0.86	0	7	13	10	7	n.	E. C. Puryear.
Manti	Sanpete	5,575	18	62.4	− 2.3	87	22	36	11	38	1.65	+ 1.28	0.61	0	9	4	7	19		J. M. Anderson.
Maple Creek	Utah	4,890	2								2.62		1.14	0	11	12	10	8		Lewis W. Gillilan.
Marion	Summit	6,400	8																	Jas. Woolstenhulme.
Marysvale	Piute	6,180	13	59.5	+ 0.0	87	21	31	29	49	4.70	+ 4.40	2.30	0	6					Lafe King.
Meadowville	Rich	6,200	12	59.0[a]	+ 3.0	84	23	36	11†	42	2.69	+ 1.83	0.75	0	10	12	3	15	s.	J. S. Moffat.
Midlake	Boxelder	4,235	2	68.6		82	19†	49	11	22	1.30		0.50	0	6	11	16	3		Mrs. S. M. Gibson.
Midvale	Salt Lake	4,365	1	70.6		110	22	41	10	57	2.35		0.84	0	10	5	16	9	s.	C. McGhie.
Milford	Beaver	4,962	5	56.3		88	30	30	10	48	0.32		0.10	0	5	15	0	15	sw.	F. J. Bandreau.
Mills	Juab	4,911	1								1.34		0.29	0	10					Geo. McCune.
Millville	Cache	4,848	18								2.24	+ 1.42	0.36	0	13	8	14	8	se.	Fred Yeates.
Minersville	Beaver	5,070	11								0.34		0.10	0	5	13	10	7	sw.	Fred R. Pryor.
Modena	Iron	5,479	12	61.8	− 1.4	87	21	39	1	46	0.44	+ 0.04	0.13	0.5	7	15	11	4	sw.	U. S. Weather Bureau.
Morgan	Morgan	5,068	8	61.2[c]		90	22	35	15	46	3.42		0.80	0	12					E. O. Kingston.
Moroni	Sanpete	5,519	5	61.0		84	22	35	11	36	1.85		0.53	0	8	9	8	13	sw.	B. F. Eliason.
Mosida	Utah	4,510	1																	L. B. Curtis.
Nephi (near)	Juab	5,119	8																	Exp. Station.
New Castle	Iron	5,150	1								0.04		0.04	0	1					T. W. Jones.
Oak City	Millard	4,900	6	66.4		92	22	42	12	41	1.28		0.39	0	9	8	13	9	sw.	Peter Nielson.
Ogden	Weber	4,310	42	64.7	− 6.7	88	16	40	11	40	3.62	+ 2.94	0.64	0	9	11	5	14	s.	A. Van de Graaff.
Panguitch	Garfield	6,560	1	55.6		85	21	26	13	52	0.35		0.25	0	2	18	9	3	s.	Harry L. Stremble.
Park City	Summit	7,000	8																	Gertrude Evans.
Park Valley	Boxelder	5,200	2								5.02		1.30	0	10	10	10	10	sw.	C. W. Goodliffe.
Parowan	Iron	5,970	22	63.4	− 0.7	87	21	39	29	42	0.22	+ 0.03	0.08	0	3	17	5	8		Alex. Matheson.
Payson	Utah	4,637	9								1.70		0.30	0	8	8	14	8	sw.	D. L. Coombs.
Pelican Point	do	4,600	1								1.35		0.70	0	4	20	7	3		B. M. Mendenhall.
Pine Cliff Ranch	Summit	8,250	2																	L. E. Leavitt.
Pinto	Washington	5,907	15	56.6	− 2.7	84	20†	30	29	51	0.34	+ 0.12	0.14	0	4	15	6	9	s.	J. H. Harrison.
Plentiful	Tooele	4,262	0								1.66		0.45	0	6					C. L. Drumm.
Promontory	Boxelder	4,913	38								1.77	+ 1.28	0.65	0	6					F. C. Houghton.
Provo	Utah	4,532	19																	A. J. Hughes.
Randolph	Rich	6,442	9																	Wm. Rex.
Revier	Salt Lake	5,066	2								2.53		0.75	0	11					E. L. Terry.
Richfield	Sevier	5,350	19	64.0[e]	+ 0.4	89	21†	38	11	47	0.96	+ 0.63	0.35	0	6					P. A. Westman.
Richmond	Cache	4,529	1								3.50		0.70	0	14	3	21	6		J. R. Thompson.
Sahara	Iron	5,209	0	63.1		92	21	38	1†	48	0.38		0.18	0	4	20	7	3	sw.	Earl Markwith.
Saltair	Salt Lake	4,220	9	67.8		87	16†	50	11	28	2.37		0.57	0	12					E. J. Bench.
Salt Lake City	do	4,360	39	67.4	− 0.8	90	22	47	12	32	3.37	+ 2.60	0.88	0	13	16	5	9	s.	U. S. Weather Bureau.
Scipio	Millard	5,260	18	62.4	− 0.9	89	21†	37	1	49	1.39	+ 1.02	0.30	0	11	8	9	13	sw.	Thomas Memmott.
Showell	Boxelder	4,650	1	61.8		87	1†	39	13	46	3.46		1.00	0	7	10	20	0		Richard Ilgner.
Silver City	Juab	6,127	3								1.43		0.48	0	8					J. L. Stark.
Smyths	Beaver	4,900	1								0.40		0.35	0	4					V. Waddoups.
Soldier Summit	Utah	7,454	12	52.3	− 1.9	81	21	23	11	49	1.72	+ 1.53	0.58	T.	5	9	12	9		Geo. A. Boyd.
Spanish Fork	do	4,585	4	63.2		92	22	31	1	56	1.72		0.39	0	13	9	11	10		Reclamation Service.
Springvale	Juab			63.2		91	22	36	1†	51	1.15		0.50	0	6	19	3	8		James Coleman.
Strawb'ry Tun'l (west)	Utah	7,500	5	55.8		81	1†	27	11	41	2.84		0.69	0	9	12	7	11		Reclamation Service.
Thistle	do	5,075	19																	John Thorgierson.

TABLE 1.—*Climatological data for June, 1913. District No. 10, Great Basin*—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	64.2	− 1.4	89	22	42	11†	35	3.34	+ 2.67	1.22	0	8	2	6	22	s.	E. A. Bonelli.
Utah Lake P. S	Utah	4,500	5																	W. A. Knight.
Vernon	Tooele	5,500	2								2.43		0.66	0	8	9	17	4	sw.	Glynn Bennion.
Wendover	do	4,237	1	72.7		93	2†	52	26	31	1.69		0.58	0	10					J. S. Cooper.
Whiskey Creek	Millard	4,850	2								0.95		0.50	0	1					George Stevens.
Winder	Garfield	8,000	0								0.39		0.17	0	3					Rollo Adair.
Woodruff	Rich	6,500	10	50.8[b]	− 7.7	83	23	23	14†	58	6.12	+ 5.64	1.15	0	14	7[b]	10[b]	11[b]	sw.	A. L. Eastman.
Nevada.																				
Austin	Lander	6,594	24	54.8	− 5.6	81	20	30	3	40	2.86	+ 2.23	0.75	0	8	17	0	13	se.	F. O. Booe.
Battle Mountain	do	4,843	42	62.0	− 4.8	90	3†	39	11	47	2.53	+ 2.06	0.64	0	9	16	5	9	se.	Southern Pacific Co.
Beowawe	Eureka	4,905	42	61.6	− 6.4	93	21	30	7	53	3.28	+ 2.87	0.85	0	9					Do.
Carlin	Elko	5,232	42	60.2[h]	− 2.6	92[h]	21	34[h]	19	53[h]	2.66	+ 2.25	0.80	0	5	10	9	11		Do.
Cherry Creek	White Pine	6,450	5	59.2		86	21	37	11	43	2.92		0.78	0	11	14	6	10	w.	J. H. Leishman.
Clover Valley	Elko	6,000	12																	I. F. Wiseman.
Columbia	Esmeralda	5,750	6	61.8		88	21	37	10	43	1.84		1.41	0	7	13	14	3	se.	A. Booth.
Dry Farm	Elko	5,600	1	57.8		81	21	36	5	41	2.76		1.01	0	7					Walfrid Sohlman.
Elko	do	5,432	42	55.2	− 7.9	87	21	29	20	56	3.98	+ 3.46	1.20	0	13	13	0	17		Western Pacific Co.
Eureka	Eureka	6,500	15	58.2	− 2.3	85	21	34	27†	41	3.79	+ 3.03	1.42	0	10	7	9	14	n.	Clay Simms.
Fallon	Churchill	3,965	19	63.6	− 1.0	88	21	39	20	43	0.99	+ 0.78	0.29	0	12	15	7	8	w.	U. S. Experiment Station
Fernley	Lyon	4,200	40	63.9	− 2.9	89	30	40	20	44	1.25	+ 1.06	0.40	0	9	9	14	7	w.	Mrs. G. A. Steele.
Gardnerville	Douglas	4,830	22	59.4	− 2.2	80	3†	34	20†	41	0.84	+ 0.62	0.41	0	4	14	5	11	sw.	Forest Service.
Gerlach	Washoe	3,931	0	59.8[f]		95	3	30[k]	29	59[k]	1.60		0.70	0	4				nw.	Western Pacific Co.
Geyser	Lincoln	6,055	9	60.4		90	3	28	2	60	0.50		0.38	0	2	10	11	9	s.	Mrs. J. F. Wambolt.
Glenbrook	Douglas	6,240	4																	C. C. Henningsen.
Golconda	Humboldt	4,697	34	64.7	− 2.6	89	5†	40	19†	43	2.82	+ 2.31	1.00	0	10	8	9	13	w.	Southern Pacific Co.
Halleck	Elko	5,631	20	58.6[e]	− 3.1	94[e]	17	33[e]	19	44[e]				0					s.	Do.
Jean	Clark	2,074	5	79.4		106	30	53	3	40	T.		T.	0	0	16	13	1	ne.	Salt Lake Route.
Lahontan	Churchill	4,200	1	66.2		89	3†	42	26	36	1.37		0.37	0	8	10	17	3	w.	U. S. Reclamation Service
Lewers Ranch	Washoe	5,500	25	57.7	− 2.4	80	20	33	27†	41	1.52	+ 1.11	0.85	0	4	6	16	8		Ross Lewers.
Lida	Esmeralda	6,037	0	59.6		81	21	34	10	30	2.58		1.60	T.	6	12	18	0	nw.	L. F. Detwiler.
Lovelock	Humboldt	3,977	19	62.4	− 5.4	87	3†	40	21†	47	1.36	+ 1.15	0.45	0	8	11	7	12	sw.	A. P. Tilford.
McDermit	do	4,700	23	58.8	− 7.8	84	1†	38	20	45	3.89	+ 3.21	1.33	0	9	8	8	14	sw.	Scott Sterling.
McGill	White Pine	6,338	22	60.0	− 0.3	86	21	35	29	40	1.48	+ 1.08	0.68	0	9	12	7	11	s.	R. E. Middagh.
Metropolis	Elko		0	58.0		87	4	35	20	46	3.32		0.76	0	10					O. W. Lloyd.
Millett	Nye	6,002	5	59.4		87	21	36	27	47	0.93		0.45	0	3	9	10	11	s.	Fred J. Jones.
Mina	Mineral	4,600	6	64.5		90	21	41	27	41	0.98		0.35	0	3	17	0	13		Southern Pacific Co.
Oasis Ranch	Esmeralda	5,106	0	63.2		92	22	37	28	47	0.76		0.48	0	7	13	11	6	nw.	A. S. Patterson.
Potts	Nye	6,990	20	54.4	−10.1	84	21	30	1	42	3.50	+ 3.24	2.00	0	5	4	2	24	s.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	11	60.6[c]	+ 2.2	86[c]	2	30[c]	20	50[c]	1.74	+ 1.30	0.51	0	10				sw.	F. M. Payne.
Rebel Creek	do		1	60.2		85	2†	38	20	42	3.09		0.83	0	13	9	10	11	sw	E. J. Hyatt.
Reno	Washoe	4,532	42	60.5	− 0.5	83	3	37	20	42	0.74	+ 0.50	0.56	0	7	11	12	7	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	6																	U. S. Reclamation Service.
Tecoma	Elko	4,812	35	59.8	− 4.0	90	4†	28	13	58	2.49	+ 1.95	0.77	0	9	6	13	11	se.	Southern Pacific Co.
Tonopah	Nye	6,090	8	61.0		84	21	34	9	32	0.79		0.55	0	7	11	17	2	w.	U. S. Weather Bureau
Wells	Elko	5,631	41	58.8	− 3.8	85	14†	32	17	51	2.75	+ 2.28	0.78	0	8	2	16	12		Southern Pacific Co.
Winnemucca	Humboldt	4,432	34	61.6	− 1.7	87	2	40	15	45	2.14	+ 1.50	1.15	0	13	10	11	9	sw.	U. S. Weather Bureau.
Oregon.																				
Burns	Harney	4,157	22	60.4	+ 2.9	90	1	31	19	48	2.93	+ 2.22	0.87	0	9	2	18	10	sw.	J. C. Welcome, jr.
Cliff	Lake	4,300	6	54.2		84	1	23	20	50	3.61		0.84	0	11	2	17	11	nw.	John C. Green.
Paisley	do	4,209	10	57.3	− 1.4	84	6	35	20	39	1.95		0.50	0	9	6	17	7	n&sw.	C. M. Sain.
Silver Lake	do	4,700	16	55.8	+ 0.2	87	1	27	20	48	1.69	+ 0.70	0.62	0	9	8	20	2	sw.	G. W. Marvin.
California.																				
Bridgeport	Mono	6,500	0	52.8		80	17	28	28	46	1.30		0.84	0	5	14	9	7	sw.	A. F. Scott.
Cathedral Park	Eldorado	6,400	0																	Carl Fluegge.
Tahoe	Placer	6,240	2	49.3		74	30	27	20†	43	0.99		0.40	0	6	11	7	12	w.	R. M. Watson.
Truckee	Nevada	5,918	41																	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 June, 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	
Wyoming.																														
Border	Bear					.46	T.	.20	.08	T.	.34	.14	.10					.60	.08					.19	T.	.15	.19	.80	1.60	.04		4.97
Cokeville	do					T.	.01	T.	T.		.43	.18	.11		T.			.24	.06	.02				.11	T.	.26	.47	.50	.94	.30	T.	3.63
Evanston	do					.37		.22				T.	.16					.02	.04	T.				.23	.04	.66	.92	.36	.32	.03		3.37
Idaho.																														
Geneva	Bear																										.62	.45	.10		.06	1.23
Grace	do						.20			.01	.20	.40	.20	.05				.05						.05	.25	.05		.30	.25	.25		
Paris	do									.10	.80	.15						.50								.20	.35	.45	.87			3.42
Westorn	do					.10					.20	.45	.63											.05	.08	.25	.22	.28	.40	.27	.02	2.95
Utah.																														
Alpine	G. S. Lake											.10							.25					.06		.42	.17	.36	.35			1.71
Beaver	Sevier Lake				.60		.04	.03			.13	.05	.25					.20										T.	T.			1.30
Black Rock	do										.07	.17	.31																		0.55
Brigham City	G. S. Lake										.34	.44	.16												.40	.30	.46	.42	.44	.06		3.02
Burrville	Sevier Lake	.01									.09	.06	1.50	.01			.05	.53							.02		.04	.03				2.34
Castle Rock	G. S. Lake						.04	.03				.05	.05					.07						.07	.06	.40	1.00	.40	1.00	.04		3.21
Cedar City	Desert										.05	.22	.03					.17										.11	.12			0.70
Center	do						T.				.11	.09					.05						T.	T.	T.	.25	.47	.10	.42			1.49
Clarkston	G. S. Lake								.20		.60	.50											.10		.40		.40	.50	.30			3.00
Corinne	do										.07													T.	.50		.31	.43	.15			1.46
Deseret	Sevier Lake									.12	.15	.10						.10										.20	.30			0.97
Elberta	G. S. Lake								T.		.12	.07					T.	.06	T.					T.	.11	.10	.23	.26	.17			1.12
Enterprise	Desert							.08																					.06			0.14
Erekson	do											.56						.07						.02			.46		.34	.02		1.47
Farmington	G. S. Lake												.05											.17	.13	.12	.43	.60	.45	.35			2.30
Fillmore	Sevier Lake						T.	T.			.02	.25						.02	T.					T.	.02	.09	.03	.01	.31				0.75
Garland	G. S. Lake										.60	.06	.12											.04	.20	.02	.74	.17	.22	.18			2.35
Garrison	Desert						T.	T.		T.	T.	.20	T.					T.					T.	T.	T.	T.		T.	.25			0.45
Government Creek	do					T.	.05	T.	T.		.11	.40	.02					T.						.03	T.	.41	.40	.10	.28	.05			1.85
Granger	G. S. Lake								T.				T.					T.						.17	.20	*	.65						1.02
Grantsville	do					.01						.45												.07	.25		.52	.11	.40	.07			1.88
Grouse Creek	Desert			T.	T.	.13	.04	.06			.20	1.15	T.	.20				T.	T.					.17	.34	.17	.78	.55	.62	.02	.09		4.52
Heber	G. S. Lake												.25					.40	.05					.20	.25	.40	.21		.45	.03			2.24
Henefer	do			.05			T.	T.	T.	T.	.05	.10	.15				T.	.28	T.					.32	.44	.64	.62	.27	1.05	.13			4.10
Hooper	do																.80							*	*	*	*	*	4.20			5.00
Ibapah	Desert						T.	.05	.02	.01		.18	.04					T.						.05	.14	.04	.55	T.	.22				1.30
Ibex	do																																
Iosepa	do					.15						.22							T.					.10		.20	.25	.15					1.07
Joy	do																																
Junction	Sevier Lake					T.	.02				.02	.03						.14						.01		.04							0.26
Kanosh	do						.03	.20					.31					.05						.02		.01	.04	.19					0.85
Kelton	G. S. Lake										T.	.10													.25	.15		.90	.60		.32	2.32
Lemay	Desert								T.	T.		.70		T.						.10				.08	T.		1.00	.45	.12				2.45
Levan	Sevier Lake					.03	.09				.15	.16						.21						.08	.12	.20	.04	.05	.05				1.18
Logan	G. S. Lake									.08	.53	.11	T.											.15	.23	.05	.31	.43	.17	.03	T.		2.09
Low	Desert																							.40		.25	.60	.20					1.45
Lucin	do			T.							.82							.10						.11	.23	T.	.85	.26	.86				3.23
Manti	Sevier Lake						T.				.10	.06	.34					.61	T.						.11	.12	.08	.04	.19	T.			1.65
Maple Creek	G. S. Lake				T.	T.	T.		T.	T.	.16	.03						.35	.26					.08	.09	.24	.19	.04	1.14	.04			2.62
Marion	do																																
Marysvale	Sevier Lake											.60	2.30					.90									.20	.60	.10				4.70
Meadowville	G. S. Lake				T.	T.		.15	T.		T.	.20	.15					.50	.20					.14	T.	.12	.15	.33	.75				2.69
Midlake	do						T.			T.	T.	.20	.10											.10	T.	T.	.50	.20	T.	.20			1.30
Midvale	do							.04	.01	T.	T.	.10						.05						.18	.33	.84	.34	.22	.18				2.35
Milford	Sevier Lake										.10	.02	.05												.10		.05						0.32
Millville	G. S. Lake						.08	.03	T.	.10	.14	.20	.15					T.						.14	.10	.20	.19	.36	.32	.23			2.24
Mills	Sevier Lake				T.	T.	T.		T.		.26	.29	.03				T.	.12	.08						.04	.12	.18	.04	.18				1.34
Minersville	do										.07	.10	.03					.09									.05						0.34
Modena	Desert						.02	.07			.07	.01					T.	.11						T.			.03		.13				0.44
Morgan	G. S. Lake					.12			.13			.09	.05					.08						.20	.19	.60	.80	.23	.73	.20			3.42
Moroni	Sevier Lake				T.	T.					.12	.23	.12				T.	.53						T.	T.	.23	.37	.07	.18				1.85
Mosida	G. S. Lake																																
Nephi (near)	do																																
New Castle	Desert																	.04															0.04
Oak City	Sevier Lake						.04				.25	.18						.05						.05		.10	.07	.09	.39				1.28
Ogden	G. S. Lake									T.	.31		.20					T.						.47	.64	.32	.22	.42	.45	.59			3.62
Panguitch	Sevier Lake																	.10									.25						0.35
Park City	G. S. Lake																																
Park Valley	Desert					.36					1.17								1.30				.30		.20	.33	.73	.19	.33		.11		5.02
Parowan	do					.06					.08							.08															0.22
Payson	G. S. Lake						T.	T.			.08	.30						.24						.30	.20	.18	.15	.25					1.70
Pelecan Point	do										.10								.25						.70			.30				1.35
Pine Cliff Ranch	do																																
Pinto	Desert										.01	.14					.11										.08						0.34
Plentiful	G. S. Lake										.16												.45	.08	.25	.40			.32			1.66
Promontory	do								.20													.32			.20		.65	.30	.10				1.77
Provo	do																																
Randolph	do																																
Revier	do					.06	.02					.09						.06	.02						.22	.32	.75	.34	.31				2.53
Richfield	Sevier Lake											.35					.10	.13							.05	.28	.05						0.96
Richmond	G. S. Lake					T.		.04	.02	.04	.70	.30	.28	T.				T.						.14	.19	.06	.65	.38	.56	.13	.01		3.50
Sahara	Desert					T.	T.				T.	.18						.06							.13		T.	.01	T.				0.38
Saltair	G. S. Lake							.02			.06	.01	.10					T.	.09					.22	.01	.57	.34	.32	.52	.11			2.37
Salt Lake City	do							.03	.08		.11	.23	.38				T.	.07						.15	.19	.83	.28	.47	.47	.08			3.37
Scipio	Desert				T.	T.	.03	T.	T.		.13	.10	.05				T.	.09	.17					T.	.07	.18	.21	.06	.30				1.39
Showell	do										.48	.58												.40	.10	.40	1.00	.50					3.46
Silver City	do																.02		.03					.12	.10	.07	.48	.33	.28				1.43
Smyths	do					.35		.01	T.			T.							.02			T.		.02	T.		T.	T.	T.				0.40
Soldier Summit	G. S. Lake											T.						.20							.34	.36	.58	.24					1.72
Spanish Fork	do						.01	T.			.04	.02					.05	.39	.30					.11	.10	.27	.18	.04	.18	.03			1.72
Springvale	Sevier Lake											.50	.10					.10						.10		.20			.15				1.15
Strawberry Tunnel	G. S. Lake								T.		T.	T.	.15					.27	.05						.16	.60	.69	.57	.30	.05			2.84
Thistle	do																																
Tooele	do						.03	T.	T.	T.	T.	.25												.33	T.	.85	.31	.20	1.22	.15			3.34
Utah Lake P. S.	do																																
Vernon	Desert					T.	T.	T.	T.	T.	.15	.21						.04	T.					.03	T.	.28	.66	.51	.55	T.			2.43
Wendover	do						T.	T.	.05	.02	.10	.32											.02	.30	T.	.03	.58	.11	.16				1.69
Whiskey Creek	do																T.	T.							.50				T.	.45			0.95
Winder	Sevier Lake										.15		.07					.17															0.39
Woodruff	G. S. Lake					.40	.15	T.	.15	T.	T.	.42	.10					.10	.10	T.				.35	.10	.95	.95	1.15	1.00	T.	.20		6.12

TABLE 2.—*Daily precipitation for June, 1913. District No. 10*—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	
Oregon.																																
Ana River	S. E. drainage		.42					.05		.28								T.	T.				T.	.05	.18	T.	.45	.71		T.		2.14
Bear Valley	do									.21				.04									1.12		.42	.27		.55	.43		.18	3.22
Burns	do					.04				.24				.04						.27			.49		.32	.03	.63	.87				2.93
Burns Mill	do							.07	.04											.20		.78				.27	.14	.55	1.21			3.26
Christmas Lake	do	.23	.08	T.				.20	.05	.77			T.		.01		T.		T.	.05			.37	.27	.16		.27	.81	.04	.04		3.35
Cliff	do		.49	.02			T.	.42		.18									.09				.58	.03	.15		.84	.75	.06	T.		3.61
Diamond	do									.38													.10	.36	.30	.10	.07	.48	.34		.04	2.17
Embody	do		.20						.10	.34									.02	.10			.28	T.	.19		.70	.62				2.55
Fort Rock	do	T.	.25	.06					.15	.30			T.		T.		T.		.10	T.		.25		.07	.16	.08	.26	.70	T.	.05		2.43
Paisley	do							.50		.20	.15		T.				T.		.12	T.			.05		.07		.15	.45	.26			1.95
Seneca	do		T.					T.		.33					T.			T.	T.	.13		T.	.03	.76	.43	.17	.11	1.02	.39		.31	3.68
Silver Lake	do		.03					.03	.08	.08													.25		.10	.02	.48	.62				1.69
Valley Falls	do						.28			.50											T.				.60		.50	.62				2.50
California.																																
Bijou	Truckee																															
Boca	do																															
Bridgeport	East Walker	T.	.84	.02			.02			T.																	.31	.11				1.30
Cathedral Park	Truckee																															
Deer Park	do																															
Hobart Mills	do	.06	.02		.04	.30	.53	.03	*	.11	.01													.03								1.13
Lundy	East Walker				T.																			.35				T.				0.35
McKinney	Truckee																															
Markleeville	East Carson	.20		.06	T.	.11	.04		T.	.14									T.								.08					0.63
Shields Ranch	East Walker	.10	T.		.03	.19	.02																				.09					0.43
Silver Creek	East Carson	.20	.18	T.	T.	.15	.02			.17									.02								.10					0.84
Tahoe	Truckee			.22		.40	.15		T.		.09								.05				T.		T.			.08	T.			0.99
Tallac	do	T.	T.	T.	.10	T.	.35			.10	T.												T.	T.			T.					0.55
Truckee	do																															
Woodfords	West Carson																															
Nevada.																																
Arthur	Humboldt										.50	.45	.30											.60	.20	.60	.25	.10	.30			3.30
Austin	Reese							.50		.10	.40	.15												.31	.02		.75	.63				2.86
Battle Mountain	Humboldt				.20	.30		.20		.19	.48												.64		.08	.32	.12					2.53
Beowawe	do						.20	.18	.26	.22	.46	T.												.42	T.	.85		.47	.22			3.28
Carlin	do									.75														.45		.80	.45		.21			2.66
Cherry Creek	do			.04	T.		.02	.06			.15	.78	.18					T.	T.					.10			.75	.06	.73	.05		2.92
Clover Valley	do																															
Columbia	Desert	.01	T.					.07	.03	T.	.12																.13	1.41	.07			1.84
Dry Farm	Humboldt									.10	.12	.89												.27	T.		.90	.07	.41			2.76
Elko	do		.10		.20		.10	.10	.10		1.20	.08							.10					.40		.40	.80	.20	.10			3.98
Eureka	do					.05	.03	.07	.03		.40	1.42												.04			.66	.67	.42			3.79
Fallon	Carson	.02			.01	.05	.10		.02	.29	.10												.01	.02			.29	.03	.05			0.99
Fernley	Truckee	.12	.18	T.	T.	.25	.15			.10	.10													.03		T.	.20	.12				1.25
Gardnerville	Carson	.36	.05	.02	T.	.41	T.			T.																	T.					0.84
Gerlach	Desert									.35				.10										.70		.45	T.					1.60
Geyser	Humboldt	T.			.12			T.											.38													0.50
Glenbrook	Truckee																															
Golconda	Humboldt				.40			.20		.45	.65												1.00	.02		.01	.01	.08				2.82
Halleck	do																															
Hylton	do									.28	*	.83												.05			.88					2.04
Jean	Desert				T.	T.																										T.
Lahontan	Carson	.11			.22	T.	.11		.06	.37	T.												.02	.12		T.	.36					1.37
Lewers Ranch	Truckee			.25		.85		.20		.22																						1.52
Lida	Desert	.06	T.	T.	T.	T.		.02	.03	.46																	1.60	.41				2.58
Lovelocks	Humboldt					.10			.15	.35	.06												.15			.05	.45	.05				1.36
McDermit	do					1.33	.31	T.	.34	.23														.35	.52	.10	.68	.03				3.89
McGill	do								.02		.02	*	.51											.07		*	.68		.05	.13		1.48
Metropolis	do										*	*	1.32											*	*	*	*	*	*	2.00		3.32
Mill City	do				.23	.35	.05	.01	*	.39	.41												*	.11		T.	.12	T.				1.67
Millett	Reese							.25																			.45		.23			0.93
Mina	Desert									.28	.35																.35					0.98
North Fork	Humboldt						.18	.12	.11	.06	.44	.07											T.	.39	.16	.28	.30	.15				2.26
Oasis Ranch	Desert	.04	.06	T.	.02		T.	.03		T.	.48												T.				.02	.11				0.76
Potts	Reese				T.	.02	T.		.03	T.		2.00													T.	1.00		.45	T.			3.50
Quinn River Ranch	Humboldt	.01		.06						.15	.45												.18	.09	.51	.11	.05	.13				1.74
Rebel Creek	do	.03	T.	T.	.05	T.	T.	.03	.05	.27	.17									T.			.13	.72	.83	.08	.53	.07	.13			3.09
Reno	Truckee	.01		.04	.16	.44	T.		T.	.04	T.													.01		T.	.04	T.				0.74
Rose Creek	Humboldt					.12	.15		.10	.45	.19												.25	1.10		.19	.22					2.77
Smith	West Walker	.17		T.			T.		T.	.15	.05																.21					0.58
Soda Lake	Carson																															
Spooners Ranch	Truckee	.14	.10	.05	T.	.50	.40	T.			T.	T.		T.													.05					1.24
Sweetwater	East Walker																															
Tecoma	Humboldt						.02				.70													.20	.08	.07	.70	.05	.65	.02		2.49
Tonopah	Desert	.01				.01	T.			.15	T.															.03	.28	.29	.02			0.79
Wabuska	Walker																															
Wells	Humboldt							.04		.21	.78	.52												.20		.50	.25	.25				2.75
Willow Point	L. Humboldt																															
Winnemucca	Humboldt			.01	.05	.04	.05		.01	.30	.01												.49	.66	.13	.20	.06	.13	T.			2.14

* 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 June, 1913. District No. 10, Great Basin.*

Date.	Burns, Oreg.		Nevada. Cherry Creek.		Elko.		Eureka.		Fallon.		Jean.		Lovelocks.		Millett.		Mina.		Quinn River Ranch.		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.	Max.	Min.
1....	90	42	74	41	68	32	73	40	75	47	97	60	76	45	73	40	68	43	83	42	72	45	82	31	70	49	79	43
2....	84	54	80	42	80	35	78	41	83	47	96	58	83	46	80	39	78	48	86	41	81	47	87	30	74	48	87	42
3....	87	50	71	50	70	37	75	43	85	51	93	53	87	52	80	40	79	50	85	50	83	52	85	30	75	52	87	50
4....	83	45	78	42	76	35	76	42	84	50	90	57	84	47	77	42	81	50	84	45	77	49	90	35	74	52	82	48
5....	85	49	80	45	72	37	75	46	82	54	92	57	84	49	76	45	81	49	80	52	76	54	81	41	71	52	80	49
6....	87	50	81	45	78	40	74	44	82	51	92	59	86	50	79	42	82	51	84	54	74	52	85	36	75	52	81	49
7....	86	40	72	43	67	34	72	48	84	54	93	58	84	48	70	45	82	52	83	52	76	47	86	34	72	52	81	51
8....	80	39	75	42	65	40	73	49	74	51	93	59	76	47	75	44	79	62	80	50	68	46	85	35	70	51	76	52
9....	76	42	63	50	72	41	66	48	61	46	94	59	65	43	70	45	76	42	64	40	58	45	82	40	63	34	60	44
10....	75	43	57	42	57	40	55	40	66	46	93	58	67	46	62	41	59	42	69	45	67	46	80	40	52	35	66	44
11....	77	40	50	37	44	33	51	38	76	49	95	59	77	46	72	44	72	44	78	44	78	49	75	39	66	44	75	51
12....	80	42	67	40	68	34	69	39	82	46	97	59	83	44	78	37	81	52	81	41	81	50	75	30	77	52	79	44
13....	75	42	79	45	74	38	78	52	85	49	97	59	84	46	85	45	79	51	79	52	74	54	80	28	80	58	80	50
14....	74	43	79	50	77	39	80	43	83	48	99	60	82	43	83	44	81	54	75	45	75	47	81	35	79	58	79	50
15....	76	42	82	46	72	34	80	50	84	46	99	60	83	45	82	42	89	54	79	33	76	44	88	40	77	57	81	40
16....	79	45	81	51	78	36	79	58	84	45	98	60	85	47	81	45	85	52	80	45	78	44	90	37	77	56	82	51
17....	80	44	78	50	77	40	80	52	87	50	99	59	85	49	83	50	81	49	.....	.....	78	47	85	34	77	56	84	53
18....	78	42	81	52	86	62	80	53	84	48	98	61	85	47	82	42	80	50	.....	.....	76	44	90	39	77	54	84	54
19....	74	31	82	49	83	40	79	53	80	52	99	61	79	46	80	47	82	49	.....	.....	66	48	89	40	78	54	75	49
20....	76	36	79	43	85	29	79	37	80	39	99	62	82	43	81	39	83	48	80	30	79	37	88	30	79	47	78	41
21....	80	40	86	47	87	32	85	44	88	45	100	63	87	40	87	40	90	49	81	34	79	48	90	36	84	57	83	42
22....	85	44	85	46	86	36	83	46	78	53	102	65	77	51	82	44	87	55	75	52	70	58	87	35	80	56	70	53
23....	80	44	71	52	74	39	70	45	75	53	102	65	72	52	76	50	87	56	68	48	71	57	90	40	75	53	67	50
24....	75	42	71	45	72	35	72	44	79	55	103	64	77	50	78	45	84	52	75	42	69	53	85	34	74	49	67	52
25....	74	39	70	52	75	40	68	42	74	46	101	63	71	50	75	44	77	49	74	44	66	46	85	34	67	47	66	45
26....	70	44	62	44	72	39	63	42	82	43	100	64	60	43	65	43	71	48	63	42	58	46	84	36	62	38	62	42
27....	67	44	58	42	67	37	60	34	67	41	100	67	66	40	58	36	59	41	65	44	64	41	82	35	51	38	64	45
28....	66	40	52	42	60	35	53	38	69	44	102	67	68	42	62	40	65	48	70	40	69	43	82	34	60	38	66	45
29....	68	43	68	38	67	32	67	34	78	43	104	69	84	43	73	38	68	49	76	37	79	43	80	36	72	47	74	44
30....	70	42	85	42	84	34	78	41	87	48	106	68	86	41	82	43	89	75	82	48	80	49	80	29	82	57	81	45
Mns..	77.9	42.8	73.2	45.2	73.1	37.2	72.3	44.2	79.3	48.0	97.7	61.1	78.8	46.0	76.2	42.7	78.5	50.5	77.0	44.1	73.3	47.7	84.5	35.1	72.3	49.8	75.9	47.3

Date.	Wyoming. Border.		Wyoming. Evanston.		Weston, Idaho.		Utah. Black Rock.		Corinne.		Government Creek.		Marysvale.		Meadowville.		Modena.		Ogden.		Parowan.		Spanish Fork.		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.....	81	36	79	43	85	41	79	38	89	55	82	42	83	34	79	40	79	39	80	46	81	44	87	31	87	64
2.....	79	36	78	35	86	42	77	30	87	58	84	50	82	35	79	42	79	41	87	47	82	45	88	35	85	58
3.....	79	38	77	38	86	42	79	38	87	51	81	45	82	34	74	42	78	42	85	46	82	47	86	36	83	61
4.....	80	36	76	35	83	42	76	35	82	51	82	47	82	34	79	43	78	45	84	48	80	49	87	35	82	59
5.....	78	36	72	37	80	42	78	32	84	50	82	50	79	37	.....	.....	77	46	83	45	80	48	83	37	79	59
6.....	74	38	70	36	78	43	82	32	87	65	80	47	80	38	82	40	76	46	85	47	81	45	79	34	81	59
7.....	76	38	74	40	86	42	76	30	86	52	83	47	80	39	75	40	76	45	83	46	80	46	82	34	83	58
8.....	75	41	72	42	81	46	75	25	82	54	82	50	81	39	78	43	79	44	83	50	81	48	82	39	82	62
9.....	77	39	71	44	83	46	65	31	84	57	80	53	75	53	78	40	71	50	76	55	76	49	83	45	81	63
10.....	72	47	65	47	69	45	62	30	72	51	70	42	64	42	73	45	56	43	78	50	65	43	73	34	68	49
11.....	61	34	55	32	64	43	84	32	80	50	54	38	59	40	63	36	64	42	68	40	62	40	63	34	62	47
12.....	63	37	56	37	64	42	70	32	68	48	62	39	61	36	62	42	75	44	70	45	69	42	69	44	66	47
13.....	75	35	70	32	75	40	86	37	80	43	82	40	81	37	76	39	80	43	81	42	80	42	85	45	82	50
14.....	78	40	74	43	80	48	86	46	85	49	86	54	83	37	82	41	81	47	84	50	82	48	87	53	84	66
15.....	81	38	76	40	85	44	87	42	88	62	86	56	84	37	82	43	82	50	87	48	82	45	90	54	87	62
16.....	83	38	77	42	81	52	87	42	88	51	85	51	84	37	85	49	83	46	88	59	81	49	88	57	87	65
17.....	78	41	71	48	83	44	80	54	87	64	79	55	68	50	79	53	78	54	76	63	76	52	77	56	76	59
18.....	76	40	72	36	87	46	86	40	82	49	84	48	80	43	71	43	81	47	84	64	82	52	79	50	84	55
19.....	83	40	76	40	81	51	89	38	92	70	87	51	84	39	83	42	83	45	86	58	84	48	89	53	89	64
20.....	79	40	75	40	86	40	87	38	89	55	82	49	84	37	82	46	85	43	82	59	85	50	84	52	77	57
21.....	83	37	79	38	84	40	92	39	90	48	89	49	87	39	82	46	87	45	81	54	87	49	91	54	87	59
22.....	89	38	79	43	88	44	91	41	88	52	90	58	86	39	83	44	86	47	83	48	85	51	92	53	90	65
23.....	80	39	76	44	74	52	83	58	89	51	85	54	81	57	84	42	81	61	78	49	82	66	83	56	74	54
24.....	65	35	60	40	71	40	81	48	79	50	77	45	70	51	69	42	80	50	77	46	80	51	73	52	71	54
25.....	64	45	61	42	66	49	78	46	75	45	70	52	75	55	65	45	73	56	69	47	77	56	74	54	71	53
26.....	62	45	62	43	62	49	78	50	70	48	66	50	74	51	66	46	72	53	64	50	79	55	75	53	66	51
27.....	63	47	63	46	69	47	77	47	68	45	72	48	71	54	67	50	71	50	70	50	76	49	72	54	71	55
28.....	58	45	61	43	63	50	70	46	72	49	63	44	70	51	63	43	64	46	66	53	71	46	70	50	62	49
29.....	60	42	58	37	61	47	77	32	75	46	69	44	72	31	64	42	75	39	75	57	78	39	71	47	68	49
30.....	70	35	65	35	74	39	88	35	77	45	80	45	81	36	72	36	87	41	79	47	85	43	81	46	80	51
Mean...	74.1	39.2	70.0	39.9	77.2	44.6	80.2	38.8	87.9	55.9	78.5	48.1	77.6	41.4	75.1	42.9	77.2	46.3	79.1	50.3	79.0	47.9	80.8	45.9	78.2	56.8

a, b, c, indicate respectively 1, 2, 3, etc., days missing from the record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

CLIMATOLOGICAL DATA FOR JUNE, 1913.

DISTRICT NO. 11, CALIFORNIA.

Prof. ALEXANDER G. McADIE, District Editor.

GENERAL SUMMARY.

June, 1913, was the coolest June since 1897. The precipitation was above the average. On the whole the month was favorable for agriculture, although a heavier rainfall would have been beneficial. There were comparatively few periods of strong north wind, which was advantageous, for owing to the generally dry character of the season and the small supply of water the existence of such winds would have resulted in considerable loss. The snow in the mountains disappeared early, nearly two weeks earlier than during the preceding year, which itself was one of early disappearance. The supply of water is not abundant and the outlook for the long, dry summer is not favorable. In the mountains the season opened early, and passes not usually accessible until the middle of June were open for travel before the beginning of the month.

The month began with pressure distribution favorable for fair weather. There were, however, sporadic thunderstorms in the San Joaquin Valley and the Sierra foothills. A somewhat unsettled condition continued for 5 days and while there were no rains of consequence, there was considerable cloudiness with passing showers. From June 4th to 9th thunderstorms were frequent in the Sierra and eastward over the Great Basin. From the 10th to the 17th conditions were normal. Beginning with the 18th a well marked change in pressure distribution over the western half of the country took place. Unsettled weather prevailed on the Pacific slope, and there were light rains in northern California. This condition lasted for about 10 days. Light rains were frequent and there were no high afternoon temperatures. The winds were mostly south and the temperatures much below normal.

The month was without any feature of special interest.

TEMPERATURE.

The temperature for the State was 3° below the normal. The following table gives the mean temperature for California for each June during the time records have been kept:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	°F.	°F.		°F.	°F.
1897	69.8	+0.8	1906	66.7	−2.3
1898	71.3	+2.3	1907	66.1	−2.9
1899	71.5	+2.5	1908	66.0	−3.0
1900	71.4	+2.4	1909	68.1	−0.9
1901	70.5	+1.5	1910	67.3	−1.7
1902	70.2	+1.2	1911	66.7	−2.3
1903	70.9	+1.9	1912	68.0	−1.0
1904	71.1	+2.1	1913	65.8	−3.2
1905	67.5	−1.5			

The highest temperature recorded was 119° at Greenland Ranch on the 22d, which was 1° lower than the highest temperature recorded during the previous year at the same station. Greenland Ranch is located in Death Valley, and temperatures may reasonably be expected to reach as high a degree here as at any point in the United States. The lowest temperature was 22° at Yosemite on the 10th.

PRECIPITATION.

The average precipitation for California for June with departures from the normal is as follows:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	Inches.	Inches.		Inches.	Inches.
1897	0.46	+0.15	1906	1.05	+0.74
1898	.25	−.06	1907	1.02	+.71
1899	.57	+.26	1908	.17	−.14
1900	.19	−.12	1909	.19	−.12
1901	.01	−.30	1910	.05	−.26
1902	.10	−.20	1911	.15	−.16
1903	.07	−.24	1912	.49	+.18
1904	.04	−.27	1913	.58	+.27
1905	.07	−.24			

The greatest monthly precipitation was 7.44 inches at Tamarack, which was 4.64 inches greater than the heaviest monthly rainfall reported during June, 1912, and more than 6 inches greater than the heaviest monthly rainfall reported during June, 1911. At 34 stations there was no rainfall.

SNOWFALL IN THE MOUNTAINS.

The snow was unusually light during the month. The ground was bare at an elevation of 7,000 feet two weeks earlier than during the preceding June. There is very little snow left at the higher elevations, and the outlook for water from this source is poor.

The following table gives the total hours of sunshine and percentages of possible:

Stations.	Hours.	Per cent of possible.	Stations.	Hours.	Per cent of possible.
Eureka	220	49	Sacramento	374	84
Fresno	390	89	San Diego	238	55
Los Angeles	245	57	San Francisco	279	63
Mount Tamalpais	368	83	San Jose	349	79
Red Bluff	323	72	San Luis Obispo	288	66

NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING THE MONTH OF JUNE, 1913.

By N. R. TAYLOR, Local Forecaster.

Sacramento watershed.—Rainfall along the immediate course of the Sacramento River and in parts of the Feather-Yuba watershed exceeded the normal for the month. It was relatively heavy during the second decade in some of the upper reaches of the Sacramento and resulted in a slight swell in this stream which was felt as far down as the mouth of the American.