

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1913.

DISTRICT NO. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

September was, on the whole, a normal month. The temperatures were moderate, except in the latter portion, when frosts from light to killing occurred; but there was practically no damage, as harvesting of the principal crops was about over. Precipitation was also about normal. Snow occurred at a few points, 5 inches falling at Strawberry, West, Utah.

The average number of clear days for the district was 18, partly cloudy days 7, cloudy days 5, and rainy days 5.

TEMPERATURE.

The mean temperature for the Great Basin was 59.3°, or 0.3° below normal, and 5° warmer than September, 1912. The individual means varied from 49.8° at Seneca, Oreg., to 75.8° at Jean, Nev. The Nevada and the more level portion of the Utah areas were the warmest parts of the district, while the Oregon, Idaho, and Wyoming areas were the coldest. A study of the local temperatures discloses the fact that decided departures from the normal occurred at only a few places. The greatest deficiency in temperature was 7.6° at Kelton, Utah, the mean being 53.4°; while the greatest excess was 6.7° at McGill, Nev., the mean being 61.9°. At the greater number of stations the mean temperature for the month departed from the normal by less than 2°.

The warmest portion of the month was the first two decades, the temperatures nearly equaling the normal, and during this period the highest temperatures for the month were generally recorded. During the last decade the temperatures were generally below normal, especially from the 22d to the 27th, when the lowest for the month occurred at nearly every station.

The following were the highest temperatures that occurred in the various areas of the several States of this district: 86° on the 7th at Border, Wyo.; 91° on the 6th at Weston, Idaho; 100° on the 7th at Iosepa, Utah; 91° on 20th and 21st at Silver Lake, Oreg.; 88° on the 14th at Truckee, Cal.; and 103° on the 6th at Jean, Nev. These extremes are from 6° to 12° higher than were the extremes in September, 1912.

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The lowest temperatures were: 16° on the 24th at Border and on 25th at Cokeville, Wyo.; 17° on the 25th at Paris, Idaho; 12° on the 24th at Kelton, Utah; 8° on the 24th at Seneca, Oreg.; 16° on the 26th at Bridgeport, Cal.; and 10° on the 30th at Geysers, Nev.

The precipitation for the district averaged 0.82 inch, or 0.09 inch above normal. Nearly all of it fell in the form of rain. Thunderstorms were frequent during the first half of the month and from the 21st to the 23d.

The geographical distribution of moisture was normal, the heavier amounts having occurred as usual in the western slope of the Wasatch Mountains in Utah, and the lesser in the Nevada and western portion of the Utah areas.

Considering those stations having normals, it appears that the majority of stations in the Utah area reported amounts above normal, while in the other areas of the district the excesses more nearly equaled the deficiencies. The greatest plus departure from the normal was 2.20 inches at Soldier Summit, Utah, whose total for the month was 2.89 inches; the greatest minus departure was 0.90 inch at Pinto, Utah, whose total for the month was 0.62 inch.

The greatest local monthly amount was 4.14 inches at Strawberry, West, Utah, while 11 stations reported no rain and 6 only traces.

Rain fell quite generally over the district on the first three days of the month; other rainy periods were 6th-9th, 13th-14th, 21st-24th, and 29th-30th.

LOCAL STORMS.

It was reported that near Ibapah, Utah, the harvesting of the second crop of alfalfa was almost impossible, due to the unusually heavy rains; also that the mails were delayed in parts of Tooele County on account of floods.

Goldfield, Nev., was visited by a cloudburst on September 13, 1913. The gulches west of the town were roaring torrents, and houses were washed from their foundations and carried away. In the business section the water reached the level of the first floors. This storm caused a loss of two lives and \$100,000 worth of property.

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

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, unmelting), Sky (Number of rainy days, Number of clear days, Number of partly cloudy days, Number of cloudy days), Prevailing wind direction, Observers.

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

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.				Sky.				Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.		Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.
Utah—Continued.																				
Utah Lake Pump'g Sta.	Utah	4,500	5															W. A. Knight. Glynn Bennion. J. S. Cooper. Geo. Stevens. Rollo Adair.		
Vernon	Tooele	5,500	2																	
Wendover	do	4,237	1	63.3		93	2	28	25	45	1.41		0.50	0	8	7	17		6	sw.
Whiskey Creek	Millard	4,050	2								0.79		0.55	0	4					
Winder	Garfield	7,000	0								0.10		0.10	0	1					
Woodruff	Rich	6,500	10																	
Oregon.																				
Burns	Harney	4,157	21	57.8	+ 3.9	89	1	26	24	54	0.15	- 0.66	0.15	0	1	23	4	3		J. C. Welcome, jr. John C. Green. C. M. Sain. E. J. Southworth. G. W. Marvin.
Cliff	Lake	4,300	6	51.0		89	7	13	23	61	0.36		0.36	0	1	18	9	3	n.	
Paisley	do	4,500	10	57.6		88	17	27	22	45	0.42		0.42	0	1	29	1	0	n.	
Seneca	Grant	4,800	3	49.8		85	7	8	24	68	T.		T.	0	0	24	5	1	nw.	
Silver Lake	Lake	4,700	16	56.8	+ 3.2	91	20	20	26	57	0.07	- 0.56	0.07	0	1	26	4	0	n.	
California.																				
Bridgeport	Mono	6,500	0	52.8		84	18	16	26	54	0.13		0.10	0	3	25	5	0	sw.	A. F. Scott. Carl Fingegge. R. M. Watson. Southern Pacific Co.
Cathedral Park	Eldorado	6,400	0	59.6		86	18	31	23	40	0.01		0.01	0	1	24	2	4	s.	
Tahoe	Placer	6,240	2	53.8		80	18	25	24	39	0.10		0.10	0	1	28	1	1	w.	
Truckee	Nevada	5,819	41	59.8	+ 3.9	88	14	35	24	45	0.00	- 0.30	0.00	0	0	30	0	0		
Nevada.																				
Austin	Lander	6,594	24	61.8	+ 2.8	88	20	25	24	39	0.48	- 0.03	0.33	0	2	27	0	3	nw.	F. O. Booe. Southern Pacific Co.
Battle Mountain	do	4,843	42	62.9	+ 0.4	95	2	22	24	58	0.67	+ 0.38	0.47	0	2	23	1	6		
Beowawe	Eureka	4,905	42	57.8	- 5.4	92	6	21	26	56	0.50	+ 0.22	0.30	0	2	17	10	3		
Carlin	Elko	5,232	42	59.1	+ 1.5	95	18	17	21	61	1.00	+ 0.78	1.00	0	1	6	23	1		
Cherry Creek	White Pine	6,450	5	58.4		84	6	27	25	40	0.52		0.20	T.	6	30	4	6	w.	
Clover Valley	Elko	6,000	12																	
Columbia	Esmeralda	5,750	6	64.0		89	12	31	25	40	2.20		1.72	0	2	25	5	0	se.	
Dry Farm	Elko	5,600	1	60.1		86	29	21	25	44	0.44		0.22	0	4	27	3	0		
East Rochester	Humboldt	7,500	0	61.5		82	6	31	23	26	T.		T.	T.	0	2	3	0	w.	
Elko	Elko	5,432	42	61.5	+ 4.7	97	7	30	26	60	0.89	+ 0.63	0.69	0	4	27	2	7	sw.	
Eureka	Eureka	6,500	15	59.5	- 3.2	88	20	22	25	40	0.57	- 0.04	0.25	0	6	17	8	5	s.	
Fallon	Churchill	3,965	19	64.5		85	18	27	26	48	0.03	- 0.15	0.03	0	1	23	6	1	sw.	
Fernley	Lyon	4,200	40	64.8	+ 1.8	85	18	28	24	51	0.00	- 0.15	0.00	0	0	24	6	0		
Gardnerville	Douglas	4,850	22	59.8	- 1.5	89	17	28	24	46	0.00	- 0.22	0.00	0	0	0	0	0	w.	
Gerlach	Washoe	3,931	0	62.4		85	1	34	24	37	0.00		0.00	0	0	24	0	6	nw.	
Geyser	Lincoln	6,055	9	52.8		85	4	10	30	67	0.40		0.40	0	1	15	14	1	s.	
Gleason	Douglas	6,240	4																	
Goleconda	Humboldt	4,697	34	62.6	+ 1.0	92	1	29	23	50	0.11	- 0.20	0.10	0	2	15	8	7		
Halleck	Elko	5,631	30	56.4	+ 0.4	89	7	25	30	50	0.19	- 0.06	0.11	0	2	22	6	2	w.	
Jean	Clark	2,674	5	75.8		103	6	35	25	38	0.23		0.23	0	2	20	9	1	sw.	
Lahontan	Churchill	4,200	1	68.0		95	18	36	23	43	0.05		0.05	0	1	26	3	1	w.	
Lewers Ranch	Washoe	5,500	25	61.2	+ 0.9	90	17	29	24	45	0.00	- 0.66	0	0	0	14	14	2		
Lida	Esmeralda	6,037	0	60.8		86	19	33	23	35	0.36		0.36	0	1	27	3	0	se.	
Lovelock	Humboldt	3,977	19																	
McDermitt	do	4,700	23	61.0		88	12	25	24	42	0.75	+ 0.45	0.72	0	2	22	7	1	w.	
McGill	White Pine	6,338	22	61.9	+ 6.7	87	5	25	26	45	0.20	- 0.52	0.20	0	1	19	8	3	n.	
Millet	Nye	6,002	5	60.4		89	1	22	25	50	0.52		0.36	0	2	20	5	5		
Mina	Mineral	4,600	6	66.8		94	18	28	26	40	0.95		0.30	0	4	22	2	6	s.	
Oasis Ranch	Esmeralda	5,106	0	61.0		86	12	31	26	40	0.30		0.28	0	2	27	3	0	s.	
Potts	Nye	6,990	20	52.6	- 3.1	82	4	16	25	43	0.05	- 0.23	0.03	0	2	15	5	10	n.	
Quinn River Ranch	Humboldt	4,850	11																	
Rebel Creek	do		1																	
Reno	Washoe	4,532	42	63.6	+ 3.9	91	18	32	24	41	0.08	- 0.19	0.08	0	1	28	2	0	w.	
Soda Lake	Churchill	4,534	6																	
Tecoma	Elko	4,812	35	56.2	- 4.2	90	1	20	25	60	0.13	- 0.24	0.05	0	4	20	4	6		
Tonopah	Nye	6,090	8	63.8		85	20	31	30	31	0.62		0.53	0	3	22	7	1	se.	
Wells	Elko	5,631	41																	
Winnemucca	Humboldt	4,432	34	61.8	+ 1.3	91	7	25	24	49	0.51	+ 0.17	0.37	0	3	23	5	2	ne.	

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 September, 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			T.									.06	.14															.04	T.	0.24		
Cokeville	do	.18	T.				.06	.36	.08					.27								.33	T.	T.					T.	T.	1.28		
Evanston	do	.43	T.	.06			.18	.06						T.	.16								.28	T.	T.							1.17	
Idaho.																																	
Geneva	Bear							.35														.28	.04	.03					.04		0.74		
Grace	do																																
Paris	do																			.20			.10							.15	.05	0.50	
Weston	do			.60				.51	.04					.10								.14	.05							.04		1.48	
Utah.																																	
Alpine	G. S. Lake							.45														.50										0.95	
Beaver	Sevier Lake	.40	.97	.20		.16	.17	.03					T.									.15	.06							.16		2.53	
Black Rock	do	.10		.63			.07						T.																			0.80	
Brigham City	G. S. Lake	.20	.16	.12				.16						.82								.07	.17	.02								1.72	
Burrville	Sevier Lake	.46				.09	.13		.10				.20										.20	.10	.01							1.28	
Castle Rock	G. S. Lake	.85		.10		.50	.12	.05					.02	.05								.20	.15	.30								2.34	
Cedar City	Desert						.15					.08										.55									.03	0.81	
Center	do	T.	.30										T.									.20	.04									0.54	
Clarkston	G. S. Lake		.35	.55			.45	.10						.18																		1.63	
Corinne	do	1.10						.30						.20								.10										1.70	
Deseret	Sevier Lake						.07						.25									.04	T.								.03	0.39	
Elberta	G. S. Lake	.01	.07	.03			.12	.01					.01	.04	.25								.01	.46	.04	.03						1.07	
Enterprise	Desert	.07				.12																.43		.03								0.66	
Ereksom	do	.03	.01			.05	.10				.04		.10									.25		.08					.07		0.64		
Farmlington	G. S. Lake		.43	.25		.05	.05	.25	T.				T.									.03	.02	.25	T.	.07	.05				1.40		
Fillmore	Sevier Lake	.44	T.	.12									.35	.05									T.	.10						.01	1.14		
Garland	G. S. Lake	.10	.44				.75	.19														.50										1.98	
Garrison	Desert	T.											T.									T.							T.			T.	
Government Creek	do	T.	.12	T.		T.	.03	.06					.12									T.	.32	.05								0.70	
Granger	G. S. Lake							.09						.02									.12	.57							.02	1.40	
Grantville	do	.33	.25					.13														T.	.07	T.					T.			0.60	
Grouse Creek	Desert	T.		.40				.05	.06					.20									.30	.05								0.86	
Heber	G. S. Lake	.40	.32	.10		.37	.05	.14	.08					T.	.05								.35	T.					T.			1.84	
Hensfer	do			.30																		.50										0.80	
Hooper	do	.20	.60	.04										.16									T.	.02	.02	.09					.03	1.16	
Ibex	do																																
Josepa	do	.50	.16	.07								T.										T.	.50										1.23
Junction	Sevier Lake			.08	.14	T.		.30	.11	.06			.23									.12										1.04	
Kanosh	do							.20					.08									.11	.15								.16	0.70	
Kelton	G. S. Lake	.30	.22	.35				.42	.17					T.																		1.46	
Lemay	Desert	1.05	.02					.06														.10											1.23
Levan	Sevier Lake	.30	.06	.34		.05	.23	.04					.31	.13								.04	T.	.13	.03					.05		1.41	
Logan	G. S. Lake	.25	.20				.09						.50									.43										1.47	
Low	Desert																															0.00	
Lucin	do		.38	T.			T.																									0.38	
Manti	Sevier Lake	.03		.24		.23	.48	.12	.02	T.			.09	.10								.21	T.							.12	1.64		
Maple Creek	G. S. Lake	.09	T.	.41		.07	.01	.08					T.	.44								.61	.31	.09	T.				T.	.04	2.06		
Marysville	Sevier Lake	.26		.20		.34	.20	.14		.02			.23										.11	.02								1.52	
Mendowville	G. S. Lake	.10	T.				.30		.25					.67								T.	T.	*	.60							1.92	
Midlake	do	.50	.15				T.	T.														T.	T.	*	.60							0.65	
Midvale	do	.30					.01							.37	.10	.02						.37	T.	.10	.02					.21	1.01		
Millford	Sevier Lake			.01										.05																		0.13	
Millville	G. S. Lake		.11	.11		.04	.13	.16					.61									.32	.06							T.		1.54	
Mills	Sevier Lake	T.		.22		.04	.12	T.	.18	T.	T.		T.	.23	T.							.10	.03	T.	.05	T.					0.69		
Minersville	do	.05	.01	.04		.01			.18	T.			T.	.10	.10							.10	.10						.09			0.57	
Modena	Desert	.03	.01			.52		.02					T.	.01	T.							.39										0.98	
Morgan	G. S. Lake	.50	.20	.18										.50																		0.88	
Moroni	Sevier Lake	.16	.40	.49		T.	T.	.28	.26				.14	.41									.18						T.		2.32		
Mosida	G. S. Lake	T.	.40											.08									.20	.30								0.58	
Nephi (near)	do	.02	.21	T.			.16	T.					*	.34								.25	T.	.10	.04					T.	1.12		
Newcastle	Desert																																
Oak City	Sevier Lake																																
Ogden	G. S. Lake	.36	.10	.03				.09					.19										.35	.05						.02		1.19	
Panguitch	Sevier Lake	.42	T.	.30			T.	.58	.10		.04			.16								.17	T.								1.77		
Park City	G. S. Lake																																
Park Valley	Desert																																
Parowan	do	.07		.08	T.		.12		.07	T.												.30								.03		0.67	
Payson	G. S. Lake	.10					.15	.10						.30									.55	.25	.05							1.50	
Pelican Point	do																																
Pineview	do			.20				.30						.40									.60	T.								1.30	
Pinto	Desert	.02																					.60	T.								0.62	
Plentiful	G. S. Lake																																
Promontory	do	.20					T.	.06																								0.30	
Provo	do	1.08	.02	.04			T.	.08	.05					.21									.40	.11	.02							1.99	
Randolph	do	.16	.14	.23			.08	.40						.90									.08	T.	.17				.03	.07		2.26	

TABLE 2.—Daily precipitation for September, 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							
<i>Oregon.</i>																																						
Ana River	S. E. drainage																																		.23	0.23		
Bear Valley	do																																T.	.08	0.08			
Burns	do																																.15		0.15			
Burns Mill	do																																					
Christmas Lake	do																																					
Cliff	do																																	T.	.38	0.38		
Diamond	do																																					
Embury	do				T.	.08																	T.	.06										.13	0.27			
Fort Rock	do																						T.	.06										.08	0.08			
Paisley	do																						T.	.06											.42	0.42		
Seneca	do																																T.	.07	T.			
Silver Lake	do																																					
Valley Falls	do																																	.30	0.30			
<i>California.</i>																																						
Bijou	Truckee																																				0.00	
Boca	do																																				0.13	
Bridgeport	East Walker												.02	.01																				.10	0.01			
Cathedral Park	Truckee																																			0.00		
Deer Park	do																																			0.20		
Hobart Mills	do																																	.20	1.25			
Lundy	East Walker							.45					.35										.45					T.										
McKinney	Truckee																																			T.		
Markleeville	East Carson							T.																												0.00		
Shields Ranch	East Walker																																			0.17		
Silver Creek	East Carson			.06				.11																												0.10		
Tahoe	Truckee																																	.10	T.			
Tallac	do							T.																												T.		
Truckee	do																																				0.00	
Woodfords	West Carson																																					
<i>Nevada.</i>																																						
Arthur	Humboldt								.60																											0.86		
Austin	Reese							.33						.15																						0.48		
Battle Mountain	Humboldt		.20					T.						.47																						0.67		
Beowawe	do			.20					.30																											0.50		
Carlin	do		1.00																																	1.00		
Cherry Creek	do			.04				.03	.03					.04																						0.52		
Clover Valley	do																																					
Columbia	Desert													1.72	.48																					2.20		
Dry Farm	Humboldt		.02		.22				.18																											0.44		
East Rochester	do																																			T.		
Elko	do		T.	.69				.18	.01					.01																						0.89		
Eureka	do		.04					.03	.01					.08	.25								T.													0.03		
Fallon	Carson													.03																						0.00		
Fernley	Truckee																																			0.00		
Gardnerville	Carson																																			0.00		
Gardner	Desert																																			0.00		
Gerlach	Humboldt		T.																																	0.40		
Geyser	Truckee																																					
Glenbrook	Truckee																																					
Golconda	Humboldt								.01																											.10	0.11	
Halleck	do			.11					.08																												0.19	
Hylton	do																																			0.00		
Jean	Desert							T.						*	.23																				0.23			
Lahontan	Carson							.05																												0.05		
Lahontan	Truckee																																			0.00		
Lewers Ranch	Truckee																																			0.36		
Lida	Desert																																					
Lovelock	Humboldt																																					
McDermitt	do								T.	T.																										0.75		
McGill	do														.20																					0.20		
Metropolis	do		T.	.12				.18																												0.30		
Mill City	do																																			0.30		
Mill City	do																																			0.30		
Mill City	do																																			0.30		
Millet	Reese		.36											.16																						0.52		
Mina	Desert		.25	.25	.30									.15																						0.95		
North Fork	Humboldt			.03																																		
North Fork	Humboldt																																					
Oasis Ranch	Desert		.02																																			
Oasis Ranch	Reese								.02																													
Oasis Ranch	Reese								.02																													
Oasis Ranch	Reese								.02																													
Oasis Ranch	Reese								.02																													
Oasis Ranch	Reese																																					

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

Table with columns for Date, Wyoming (Border, Evanston, Weston, Idaho), Utah (Black Rock, Corinne, Government Creek, Marysvale, Meadowville, Modena, Ogden, Parowan, Spanish Fork, Salt Lake City), and temperature data (Max., Min.).

Table with columns for Date, Nevada (Burns, Oreg., Cherry Creek, East Rochester, Elko, Eureka, Fallon, Jean, McDermitt, Millet, Mina, Reno, Tecoma, Tonopah, Winnemucca), and temperature data (Max., Min.).

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.