

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

NEVADA SECTION.

HENRY F. ALPS, Meteorologist.

VOL. XXXII. RENO, NEVADA, JULY, 1917. No. 7.

GENERAL SUMMARY.

This was one of the warmest Julys in Nevada since State wide records have been kept. There have been only two Julys in the past 29 years with higher average temperatures. The temperatures were uniformly high during the entire month, the daily averages being above normal with the exception of a day or two on or near the 28th when they were normal or slightly lower. An unusually warm spell occurred from about the 10th to the 15th when very high maximum temperatures were recorded. The highest temperature on record at Reno, 101°, was recorded on the 11th and 13th. Temperatures of 100° or higher were recorded at 20 stations, and all stations recorded temperatures in the nineties with the exception of a few which are located at high elevations in the mountains. The monthly maximum temperature ranged from 79° at Gold Creek in the north-central portion of Elko County, to 111° at Logan in the Muddy River Valley. It was a dry month over most of the western half of the State where a number of stations received no moisture, and unusually wet over the greater part of the eastern half where several stations recorded more than an inch of rainfall.

The warm, dry weather was generally favorable for the agricultural interests, except on dry land where the drought was detrimental to crops. All grains, hay, potatoes, sugar-beets, fruit, and garden truck developed rapidly in the irrigated sections, and were reported in excellent condition at the close of the month. The harvesting of wheat and cutting of the second crop of alfalfa had started in the lower valleys, and the third crop of alfalfa was cut in the extreme south portion. Range feed continued plentiful, and stock was in prime condition. The high temperatures caused rapid melting of the deep snow drifts in the higher mountains, and streams were carrying more than the normal amount of water for July.

TEMPERATURE.

The monthly mean for the State, as shown by the records of 38 stations, was 74.5°. The mean for the 23 stations having ten or more years' record was 2.8° above normal. The highest recorded was 111°, at Logan on the 12th, 14th, 15th, and 20th; the lowest was 22°, at Gold Creek on the 8th and 21st. The greatest daily range was 57°, at Potts on the 2d, and at Tecoma on the 12th. The highest monthly mean was 88.4°, at Logan; the lowest was 59.9°, at Gold Creek.

PRECIPITATION.

The average for 46 stations reporting was 0.46 inch. For the 26 stations having ten or more years' record, the mean was 0.16 inch above the normal. The average amount at 4 stations in the Columbia Basin was 0.64 inch; at 16 stations in the Humboldt Basin, 0.45 inch; at 4 stations in the Truckee Basin, 0.60 inch; at 4 stations in the Carson Basin, 0.32 inch; at 4 stations in the Walker Basin, 0.65 inch; at 3 stations in the Colorado Basin, 1.68 inches; at 16 stations in the minor basins, 0.28 inch. The greatest monthly fall was 2.15 inches, at Pioche; there was none at 9 stations. The average number of days with precipitation was 2.

PRESSURE, HUMIDITY, AND WIND DATA.

Stations.	Barometric pressure (sea level).			Mean relative humidity.		Wind.			
	Mean.	Highest.	Lowest.	Average hourly velocity.		Max. velocity.			Date.
				5 a. m.	5 p. m.	Miles per hour.	Dirac.	Date.	
Reno.....	29.89	30.16	29.62	56	20	7.1	33	s.	15
Winnemucca.....	29.89	30.19	29.64	47	17	5.8	46	s.	15
Tonopah.....	29.88	30.13	29.69	45	25	7.4	28	se.	14

SUNSHINE AND CLOUDINESS.

At Reno, 90 per cent of the possible sunshine was recorded; at Winnemucca, 92 per cent; at Tonopah, 88 per cent. For the State, the average number of clear days was 21; partly cloudy, 7; cloudy, 3.

MISCELLANEOUS PHENOMENA.

(Dates of.)

Brisk winds.—8, 9, 13, 14, 15, 22, 23, 25, 26.

Thunderstorms.—5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28.

COMPARATIVE DATA FOR JULY.

Year.	Temperature.			Average precipitation.	Average snowfall.	Number of days.				Prevailing wind.
	Mean.	Highest.	Lowest.			With precipitation.	Clear.	Partly cloudy.	Cloudy.	
1889.....	76.1	119	36	0.17	1	29	1	1	s.
1890.....	74.0	118	28	0.15	0	1	22	2	2	s. w.
1891.....	70.4	102	26	0.53	0	3	17	5	6	s. w.
1892.....	70.6	115	30	0.67	0	1	23	5	3	w.
1893.....	70.3	110	24	0.40	0	0	26	4	1	sw.
1894.....	71.7	108	32	0.75	0	5	17	4	5	s. w.
1895.....	70.2	112	25	0.75	0	2	25	4	2	w. w.
1896.....	72.7	112	33	0.79	0	2	14	9	4	sw.
1897.....	69.4	116	23	0.28	0	1	20	7	4	w. w.
1898.....	73.5	114	30	0.12	0	1	23	6	2	w. w.
1899.....	72.6	106	34	0.14	0	2	22	5	4	w. w.
1900.....	70.9	113	33	0.37	0	1	23	4	4	w.
1901.....	70.8	109	31	0.31	0	2	21	6	4	sw.
1902.....	67.9	116	25	0.44	0.5	2	21	5	5	sw.
1903.....	65.4	111	26	0.01	0	1	27	3	1	sw.
1904.....	68.7	110	30	0.51	0	3	19	8	4	sw.
1905.....	72.1	109	31	0.03	0	1	24	5	2	sw.
1906.....	74.7	114	32	0.68	0	4	17	9	5	w.
1907.....	69.2	113	27	0.06	0	1	22	6	3	s.
1908.....	74.3	116	32	0.42	0	3	18	10	3	w.
1909.....	69.5	112	23	0.14	0	2	23	6	2	s. w.
1910.....	72.9	110	28	0.65	0	3	18	8	5	w.
1911.....	70.9	109	30	0.31	0	3	17	10	4	w.
1912.....	68.6	113	25	0.67	0	4	17	7	7	w. w.
1913.....	69.1	113	18	1.30	0	6	16	9	6	w. w.
1914.....	72.4	118	32	0.52	0	3	16	10	5	w.
1915.....	70.8	110	31	0.38	0	2	19	8	4	w.
1916.....	71.0	113	30	0.31	0	2	25	4	2	sw.
1917.....	74.5	111	22	0.46	0	2	21	7	3	sw.
Entire period.....	71.2	119	18	0.40	T.	2	21	6	4	w.

LATE REPORTS.

June, 1917.—Battle Mountain, mean temperature, 64.1°, highest, 96°, on the 19th; lowest, 32° on the 11th; no precipitation; number of clear days, 27, partly cloudy, 0; cloudy, 3.

CORRECTIONS.

May, 1917.—Page 37, Tahoe, evaporation on the 7th should be .190, on the 17th, .050, and on the 24th, .082; total for the month, 2.542.

Climatological data for July, 1917.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				Number of days.				Prevailing direction of the wind.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Length of record, years.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation (0.01 inch or more).	Clear.			Partly cloudy.	Cloudy.	
<i>Columbia Basin.</i>																						
Gold Creek (near)	Elko	6,600	4	59.1		79	12	22	+8	+2	4	T.		T.	0	0	24	4	3	nw.	U. S. Forest Service.	
Mahoney Ran. Sta.**	do	6,200	2		+4.4									0.37	0	3	7	2		Do.		
Owyhee	do	5,400	6	71.4		96	12	42	+1	+8	4	6	1.08	0.60	0	4	26	4	1	s.	E. A. Schwab.	
San Jacinto	do	5,200	12	68.5	+3.1	95	8	31		1	54	12	0.71	+0.22	0.45	0	3	19	10	2	n.	Utah Construction Co.
<i>Humboldt Basin.</i>																						
Arthur	Elko	6,500									7	1.34	+0.55	1.12	0	2	22	7	2		Isaac Woodhouse.	
Austin	Lander	6,594	28	73.2 ^b		98 ^b	12	50 ^b		29	42 ^b	28	0.86	+0.41	0.50	0	3	17 ^c	10 ^c	1 ^c		Forest Service.
Battle Mountain	do	4,513	46	74.4	-0.5	105	14	45	1	53	48	0.00	-0.18	0.00	0	0	0	0	0		Southern Pacific Co.	
Beowawe	Eureka	4,695	46	73.8	-1.7	99	14	40	4	54	48	0.00	-0.25	0.00	0	0	16	15	0		Do.	
Clover Valley**	Elko	6,000	16								24										L. F. Wiseman.	
Elko	do	5,083	46	73.6	+3.4	105	16	44	1	56	47	1.05	+0.47	1.05	0	1	20	4	7		Western Pacific Co.	
Eureka	Eureka	6,837	19								21										Clay Simms.	
Golconda	Humboldt	4,392	38	77.1	+2.6	100	12	50	1	42	40	0.00	-0.20	0.00	0	0	26	5	0		Southern Pacific Co.	
Hylton**	Elko	7,081									7	0.71	0.43	0.43	0	3	28	3	0		Chas. Toyne, sr.	
Inlay §	Humboldt	4,209	4	75.2 ^c	-0.6	104	18	47 ^a	7	46 ^a	4	T.	-0.16	T.	0	0	14	9	8	nw.	Southern Pacific Co.	
Lamoille	Elko	6,100	2	71.6 ^d		92 ^d	+12	47	1	37 ^d	2	0.96	+0.44	0.75	0	4	15	14	2	se.	Elko-Lamoille Power Co.	
Lovelock	Humboldt	3,977	23	74.6	-0.3	104	+11	41	28	55	21	0.00	-0.21	0.00	0	0	20	6	2	s.	John R. Montgomery.	
Metropolis §	Elko	5,661	4	69.6 ^d		93 ^d	+18	37 ^d	1	47 ^d	8	1.10	+0.85	0.90	0	2	23	6	5	w.	L. F. Hatch.	
North Fork	do	6,500									8	0.36	0.24	0.24	0	2	16	11	4	w.	Chas. Pratt.	
Paradise Valley	Humboldt	4,500	4	68.5		96	12	40	+10	53	8	0.06	0.06	0.06	0	1	18	13	0	sw.	R. M. Taylor.	
Potts	Nye	6,002	24	66.8	-2.8	98	+14	34	+1	57	26	0.11	-0.54	0.05	0	3	11	9	11	s.	Miss Irene Potts.	
Tecoma	Elko	4,812	39	75.0	+2.7	105	9	43	1	57	41	0.61	+0.42	0.54	0	3	13	18	0	n.	Southern Pacific Co.	
Winnemucca	Humboldt	4,344	40	75.9	+4.3	102	12	48	10	48	48	0.06	-0.11	0.03	0	3	23	7	1	sw.	U. S. Weather Bureau.	
<i>Truckee Basin.</i>																						
Franktown §	Washoe	5,054	2								2										Agent V. & T. Ry.	
Marlette Lake**	do	7,900	2	62.1		84	+12	42	+4	33	4	0.17	0.12	0.12	0	4	24	6	1	sw.	V. & G. H. Water Co.	
Reno	do	4,532	30	74.0	+6.5	101	11	47	28	44	30	0.04	-0.10	0.04	0	1	25	4	2	w.	U. S. Weather Bureau.	
Bijou, Cal.	do	6,230	2								8	1.61	1.24	1.24	0	4	27	4	0	w.	Chas. Young.	
McKinney, Cal.**	do	6,225	2								8	1.61	1.24	1.24	0	4	27	4	0	w.	Henry Sall.	
Tahoe, Cal.	do	6,230	9	62.7		92	11	35	4	48	9	0.57	0.54	0.54	0	2	18	6	7	w.	Mrs. Emma C. Smith.	
<i>Cverson Basin.</i>																						
Fallon	Churchill	3,965	23	77.2	+3.7	105	12	46	28	48	23	0.09	-0.09	0.06	0	2	26	4	1	sw.	U. S. Experiment Station.	
Gardnerville	Douglas	4,830	26	67.7 ^d	+0.1	92 ^d	+11	39 ^d	2	48 ^d	27	0.41	+0.08	0.38	0	2	15 ^c	4 ^c	5 ^c	w.	Forest Service.	
Lahontan**	Churchill	4,200	5	80.2		101	12	57	28	38	7	0.06	0.06	0.06	0	1	25	5	1	w.	U. S. Reclam't'n Service.	
Markleville, Cal.	do	5,525									8	0.70	0.38	0.38	0	3	22	8	1	s.	Mrs. Mary Thornburg.	
Woodfords, Cal.**	do	5,634									8										Grant P. Merrill.	
<i>Walker Basin.</i>																						
Mina §	Mineral	4,350	10	80.4 ^a	+2.8	106 ^a	12	56 ^a	+27	44 ^a	21	0.00	-0.31	0.00	0	0	31	0	0		Southern Pacific Co.	
Smith	Lyon	4,800									9	0.90	0.55	0.55	0	4	12	11	8	sw.	C. M. Carter.	
Thorne §	Mineral	4,200	4								4										Southern Pacific Co.	
Yerington §	Lyon	4,375	8								8										S. L. Netherton.	
Bridgeport, Cal.	do	6,500	4	58.4		85	11	34	1	46	6	0.49	0.43	0.43	0	3	12	10	9	w.	Edward L. Brandon.	
Shields Ranch, Cal.**	do	5,300									8	1.21	0.60	0.60	0	6	22	9	0		Bruce H. Chichester.	
<i>Colorado Basin.</i>																						
Indian Springs §**	Clark	3,136	4								4										Ira McFarland.	
Las Vegas	do	2,033	15	87.8	+6.1	110	+17	62	+1	45	15	1.54	+1.17	0.65	0	4	25	1	5	s.	C. P. Squires.	
Logan §	do	1,355	10	88.4	+1.3	111	+12	60	1	48	18	1.36	+1.08	0.58	0	5	9	11	11	s.	Experiment Farm.	
Mt. Charleston**	do	9,000									2										E. W. Griffith.	
Pioche	Lincoln	6,100	19	74.4	+1.8	96	+12	55	+8	38	19	2.15	+1.57	1.35	0	4	23	2	6	s.	L. H. Beason.	
<i>Minor Basins.</i>																						
Cherry Creek	White Pine	6,450	9	65.2		94	14	33	1	55	9	0.84	0.35	0.35	0	4	12	14	5	w.	L. F. Howard.	
Duck Flat**	Washoe	4,725									3	0.00	0.00	0.00	0	0	29	2	0	nw.	C. T. Smith.	
Francis (near)	do	5,350									3	0.35	0.35	0.35	0	1	29	2	0	w.	Geo. W. Barnard.	
Gerlach	do	3,931	5	78.1		105	12	47	+9	51	5	0.00	0.00	0.00	0	0	22	8	1	w.	Western Pacific Co.	
Goldfield	Esmeralda	5,700	10	78.0	+4.8	102	14	54	1	44	12	0.89	+0.13	0.81	0	4	18	8	5	s.	R. W. Robinson.	
Jungo††	Humboldt	4,165									4	T.	T.	T.	0	0	23	7	1	sw.	Western Pacific Co.	
Lida §	Esmeralda	6,037	5								5										L. F. Detwiler.	
McBerritt	Humboldt	4,700	6	72.0	-1.7	96	12	42	29	48	30	0.00	-0.30	0.00	0	0	31	0	0	sw.	U. S. Indian Service.	
McGill §	White Pine	6,338	7	76.8	+8.6	99	12	51	1	43	7	0.32	-0.30	0.16	0	3	14	8	9	n.	R. E. Middagh.	
Millett	Nye	5,040	9	71.0		97	11	42	1	50	10	0.76	0.47	0.47	0	5	14	6	11		Fred J. Jones.	
Oak Springs**	do	5,900									1										Mrs. R. E. Bower.	
Oasis Ranch §**	Esmeralda	5,106	5	77.2	+8.8	102	+3	43	1	53	5	0.05	-0.41	0.03	0	2	14	7	10		Arthur L. Stewart.	
Paluramp	Nye	2,008	4								4										F. M. Buol.	
Quinn Riv. Ranch**	Humboldt	4,850	15	75.8 ^a	+7.0	104 ^a	+11	43 ^a	25	55 ^a	16	0.00	-0.18	0.00	0	0	19 ^b	3 ^b	5 ^b	sw.	F. M. Payne.	
Rebel Creek	do	4,300	5	74.2		99	12	46	1	44	6	0.07	0.07	0.07	0	1	17	14	0	sw.	Fred Whitaker.	
Sand Pass**	Washoe	3,198	4	80.4		105	12	51	23	40	4	0.15	0.15	0.15	0	1	27	3	1	w.	R. R. Mott.	
Searchlight	Clark	3,445	4	86.6		106	14	66	+26	29	4	0.50	0.26	0.26	0	4	9	17	5	s.	C. L. Aug. Muhn.	
Sharp	Nye	6,200	4								4										F. A. Sears.	
Sulphur	Humboldt	4,044	4	80.0 ^d		102 ^d	13	50	10	45 ^d	4	T.	T.	T.	0	0	26	4	1	sw.	Western Pacific Co.	
Tonopah	Nye	6,090	12	76.8		96	12	56	29	30	12	0.31	0.22	0.22	0	4	17	13	1	se.	U. S. Weather Bureau.	
Vya	Washoe	5,500									4	0.25	0.25	0.25	0	1	28	2	1	sw.	L. A. Marlette.	
For the State				74.5	+2.8	111	+12	22	+8	57		0.46	+0.16	1.35	0	2	21	7	3	sw.		

Daily precipitation for July, 1917.

Stations.	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>Columbia Basin.</i>																																												
Gold Creek (near)						T.									T.				T.																	T.	T.							
Mahoney Ranger Station																			.37	.12		T.																	.30	0.79				
Owyhee																			.25	.12	.11	.60																		.24	1.08			
San Jacinto						T.													.02	T.	.45																					0.71		
<i>Humboldt Basin.</i>																																												
Arthur																																										1.34		
Anstin														T.	T.	.50	.20					T.																					0.86	
Battle Mountain																																											0.00	
Beowawe																																											0.00	
Clover Valley																																											1.05	
Elko																						1.05																					0.60	
Eureka																																												0.71
Golconda																																												T.
Hylton																						.08	.20																					0.96
Inlay																																												0.00
Lamoille																																												1.10
Lovelock																																												0.36
Metropolis																																												0.06
North Fork																																												0.11
Paradise Valley																																												0.06
Potts																																												0.61
Tecoma																																												0.06
Winnemucca																																												0.06
<i>Truckee Basin.</i>																																												
Franktown																																												0.17
Marlette Lake																																												0.04
Reno																																												1.61
Bijou, Cal.																																												0.57
McKinney, Cal.																																												0.09
Tahoe, Cal.																																												0.41
<i>Croson Basin.</i>																																												
Fallon																																											0.06	
Gardnerville																																											0.03	
Lahontan																																											0.06	
Markleville, Cal.																																											0.70	
Woodfords, Cal.																																											0.00	
<i>Walker Basin.</i>																																												
Mina																																											0.90	
Smith																																											0.49	
Thorne																																											1.21	
Yerington																																											0.00	
Bridgeport, Cal.																																											0.99	
Shields Ranch, Cal.																																											1.21	
<i>Colorado Basin.</i>																																												
Indian Springs																																										1.54		
Las Vegas																																										1.36		
Logan																																										2.15		
Mt. Charleston																																										0.84		
Pioche																																										0.70		
<i>Minor Basins.</i>																																												
Cherry Creek																																										0.60		
Duck Flat																																										0.35		
Francis (near)																																										0.00		
Gerlach																																										0.89		
Goldfield																																										T.		
Jungo																																										T.		
Lida																																										0.00		
McDermitt																																										0.32		
McGill																																										0.76		
Millett																																										0.05		
Oak Springs																																										0.06		
Oasis Ranch																																										0.07		
Pahrump																																										0.15		
Quinn River Ranch																																										0.50		
Rebel Creek																																										T.		
Sand Pass																																												

Daily temperatures for July, 1917.

Table with columns for Stations, days 1-31, and Mean. Rows are grouped by basin: Columbia Basin (Gold Creek, Owyhee, San Jacinto), Humboldt Basin (Austin, Battle Mountain, Elko, Eureka, Inlay, Lamolle, Paradise Valley, Potts, Tecoma, Winnemucca), Truckee Basin (Franktown, Marlette Lake, Reno, Tahoe, Cal.), Carson Basin (Fallon, Gardnerville, Lahontan), Walker Basin (Mina, Yerington, Bridgeport, Cal.), Colorado Basin (Indian Springs, Las Vegas, Logan, Pioche), and Minor Basins (Cherry Creek, Gerlach, Goldfield, McDermitt, McGill, Millett, Oasis Ranch, Rebel Creek, Sand Pass, Searchlight, Sharp, Sulphur, Tonopah).

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.