

# CLIMATOLOGICAL DATA.

WBO, Reno, 8-23-33-820.

## 22 NEVADA SECTION

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### GENERAL SUMMARY

The month rates as the second warmest in Nevada during 45 years of record, the mean temperature recorded having been exceeded only in 1931. All stations in the State, except Beowawe, had temperatures above normal. Departures from the monthly means ranged from  $-0.4^{\circ}$  at Beowawe to  $+8.8^{\circ}$  at Owyhee. The highest temperature in 31 years was recorded at Lovelock. At most stations all daily temperatures except two to four during the first decade ranged well above normal.

Rainfall averaged not far from normal. Lincoln, northern Nye and northeastern Elko counties had unusually heavy rainfall for July. All other portions of the State were deficient. Showers were well-distributed over the State from the 5th to 8th and were numerous in the south portion from the 15th to 18th and 26th to 29th. An unusual number of thunderstorms was reported.

The deficiency in snowfall during the past winter caused a shortage of water for irrigation during the month. This deficiency and the lack of helpful showers, except in favored localities, caused serious deterioration in the ranges, and shortage of water for cattle on some of the ranges. Cattle and sheep, however, remained in good condition at the end of the month. A fairly good first crop of alfalfa was harvested. Harvesting of wild hay was begun with a light crop in prospect.

### TEMPERATURE

The average monthly temperature for the State based on the records of 42 stations was  $76.6^{\circ}$ , which is  $4.3^{\circ}$  above the mean for the past 45 years.

The highest recorded was  $118^{\circ}$  at Logandale on the 26th.

The lowest was  $32^{\circ}$  at Zorra Vista Ranch on the 10th.

The greatest daily range was  $61^{\circ}$  at Owyhee on the 20th.

The highest monthly mean was  $92.6^{\circ}$  at Boulder City.

The lowest monthly mean was  $62.2^{\circ}$  at Marlette Lake.

### PRECIPITATION

The average monthly precipitation for the State based on the records of 51 stations was 0.34 inch; which is 0.03 inch below the mean for the past 45 years.

The average amount at 5 stations in the Columbia basin was 0.57 inch; at 14 stations in the Humboldt basin 0.22 inch; at 5 stations in the Truckee basin 0.11 inch; at 5 stations in Carson basin 0.12 inch; at 7 stations in the Walker basin 0.04 inch; at 3 stations in the Colorado basin 0.49 inch; at 16 stations in the minor basins 0.54 inch.

The greatest monthly fall was 3.26 inches at Sharp.

There was no precipitation at 4 stations.

The average number of days with precipitation was 2.

### MISCELLANEOUS PHENOMENA

(Dates of)

Thunderstorms—Alamo, 5, 6, 7, 13, 17, 18, 19, 20, 24, 26, 27, 28, 29, 30; Caliente, 6, 7, 16, 17; Elko, 7, 16, 25, 31; Goldfield, 14, 15, 16, 18, 19, 20, 27; Hylton, 25, 29, 30; Minden, 6, 7, 14, 25, 26, 31; North Fork, 25; Orovada, 7, 8, 26, 31; Reno, 7, 31; Searchlight, 15, 16, 17, 18, 25, 29; Sheldon, 7; Winnemucca, 7, 26, 31; Zorra Vista Ranch, 26, 31.

### PRESSURE, WIND, HUMIDITY AND SUNSHINE

Stations	Atmospheric pressure (reduced to sea level)					Wind			Relative humidity			Percentage of sunshine	
	Mean	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	5 a. m.	12 noon		5 p. m.
Reno .....	29.84	30.04	25	29.65	8	8.1	27	sw.	2	46	15	16	93
Winnemucca	29.87	30.06	4	29.65	31	7.3	21	se.	26	40	17	15	91
Tonopah ....	29.83	30.00	25	29.64	21	.....	.....	.....	.....	35	.....	18	.....

### COMPARATIVE DATA FOR JULY

Year	Temperature				Precipitation				Number of days				
	Mean	Departure	Highest	Lowest	Average	Departure	Greatest monthly	Least monthly	Average snowfall	Precip. .01 inch or more	Clear	Partly cloudy	Cloudy
1889.....	76.1	+3.8	119	36	0.17	-0.20	0.79	0	0	1	29	1	1
1890.....	74.0	+1.7	118	28	0.15	-0.22	1.15	0	0	0	27	1	2
1891.....	70.4	-1.9	102	26	0.53	+0.16	1.52	0	0	0	22	5	1
1892.....	70.6	-1.7	115	30	0.67	-0.30	0.67	0	0	0	23	4	3
1893.....	70.3	-2.0	110	24	0.40	+0.03	1.33	0	0	0	25	5	2
1894.....	71.7	-0.6	108	32	0.75	+0.38	3.10	0	0	0	29	4	5
1895.....	70.2	-2.1	112	28	0.05	-0.32	0.46	0	0	0	1	25	2
1896.....	72.7	+0.4	112	33	0.79	+0.42	2.87	0	0	0	2	20	8
1897.....	69.4	+2.9	116	25	0.28	-0.09	1.41	0	0	0	1	14	4
1898.....	73.5	+1.2	114	30	0.12	-0.25	0.96	0	0	0	1	23	2
1899.....	72.6	+0.3	106	34	0.14	-0.23	0.61	T.	0	0	2	22	4
1900.....	70.9	-1.4	113	33	0.37	0	2.35	0	0	0	1	23	4
1901.....	70.8	-1.5	109	31	0.31	-0.06	1.19	0	0	0	2	21	4
1902.....	67.9	-4.4	116	25	0.44	+0.07	2.00	0	0.5	1	2	21	5
1903.....	65.4	-6.9	111	26	0.01	-0.36	0.30	0	0	0	1	27	1
1904.....	68.7	-3.6	110	30	0.51	+0.14	3.82	0	0	0	5	19	4
1905.....	72.1	-0.2	109	31	0.03	-0.34	0.40	0	0	0	1	24	4
1906.....	74.7	+2.4	114	32	0.68	+0.31	4.53	0	0	0	4	17	5
1907.....	69.2	-3.1	113	27	0.06	-0.31	0.60	0	0	0	1	22	6
1908.....	74.3	+2.0	116	32	0.42	+0.05	1.78	0	0	0	2	18	10
1909.....	69.5	-2.8	112	23	0.14	-0.23	0.93	0	0	0	2	23	3
1910.....	72.9	+0.6	112	28	0.65	+0.28	2.82	0	0	0	3	18	8
1911.....	70.9	-1.4	109	30	0.31	-0.06	1.53	0	0	0	4	17	10
1912.....	65.6	-3.7	113	25	0.67	+0.30	2.60	0	0	0	3	17	7
1913.....	69.1	-3.2	113	18	1.30	+0.93	4.51	T.	0	0	6	16	9
1914.....	72.4	+0.1	118	32	0.52	+0.15	1.70	0	0	0	3	16	10
1915.....	70.8	-1.5	110	31	0.88	+0.07	3.50	0	0	0	2	15	8
1916.....	71.0	-1.3	113	30	0.31	-0.06	1.23	0	0	0	2	25	4
1917.....	74.5	+2.2	111	31	0.46	+0.09	2.15	0	0	0	2	21	7
1918.....	72.9	+0.6	112	21	0.33	-0.04	2.50	0	0	0	2	21	7
1919.....	75.2	+2.9	113	35	0.28	-0.09	4.01	0	0	0	1	23	7
1920.....	72.7	+0.6	113	33	0.14	-0.23	1.25	0	0	0	1	24	5
1921.....	74.2	+1.9	114	27	0.19	-0.18	1.92	0	0	0	1	24	4
1922.....	74.1	+1.8	116	33	0.54	+0.17	1.80	0	0	0	3	20	7
1923.....	73.9	+1.6	116	24	0.42	+0.05	2.62	0	0	0	2	22	6
1924.....	73.0	+0.7	117	31	0.16	-0.21	0.91	0	0	0	1	22	7
1925.....	74.6	+2.3	117	40	0.97	+0.60	2.45	T.	0	0	4	13	5
1926.....	74.1	+1.8	116	33	0.43	+0.06	1.33	0	0	0	3	20	7
1927.....	74.5	+2.2	118	27	0.26	-0.11	1.84	0	0	0	2	21	3
1928.....	73.6	+1.3	114	32	0.16	-0.21	1.19	0	0	0	1	23	6
1929.....	74.1	+1.8	115	30	0.14	-0.23	0.88	0	0	0	1	23	6
1930.....	73.1	+0.8	115	30	0.16	-0.21	0.86	0	0	0	1	21	6
1931.....	78.2	+6.9	119	33	0.14	-0.23	1.23	0	0	0	1	23	2
1932.....	72.7	+0.4	116	30	0.43	+0.06	1.56	0	0	0	2	23	7
1933.....	76.6	+4.3	118	32	0.34	-0.03	3.26	0	0	0	2	21	7
Period...	72.3	.....	119	18	0.37	.....	4.58	0	T.	2	22	6	3

Climatological Data for July, 1933

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
<b>Columbia Basin</b>																					
Gold Creek (near)**	Elko	6,600								17	0.59	+0.22	0.29	0	4	25	4	2	U. S. Forest Service.		
Mahoney Ran. Sta.**	do	6,200								13	0.48	-0.14	0.19	0	5	16	5	10	Do.		
Owyhee	do	5,400	12	76.4	+8.8	106	25	38	1	61	12	T.	-0.68	T.	0	0	23	7	1	U. S. Indian Agency.	
San Jacinto	do	5,200	28	67.4	+1.5	100	25	36	1	56	29	1.54	+1.01	1.00	0	3	26	5	0	Utah Construction Co.	
Tuscarora (near)	do									23	0.24	-0.07	0.12	0	3	21	7	3		D. B. Williams.	
<b>Humboldt Basin</b>																					
Arthur	Elko	6,500								28	0.49	-0.18	0.49	0	1	27	4	0		Isaac Woodhouse.	
Austin	Lander	6,594	41	70.8	+1.2	98	23	47	1†	42	41	0.15	-0.33	0.15	0	1	21	10	0	ne.	
Battle Mountain	do	4,513	54	77.4	+2.0	107	25	41	5	54	63	0.20	+0.05	0.20	0	1	22	6	3	s.	
Beowawe	Eureka	4,695	55	73.9	-0.4	100	15†	43	1	54	63	0	-0.25	0	0	0	30	0	1	Do.	
Clover Valley **	Elko	5,800	28							34										Mrs. S. J. Weeks.	
Elko	Elko	5,077	55	72.8	+2.3	101	24	38	1	55	63	0.19	-0.14	0.17	0	2	17	12	2	sw.	
Golconda	Humboldt	4,392	41	78.6	+3.8	103	24	45	1	45	55	0.05	-0.12	0.05	0	1	21	7	3	Do.	
Hylton **	Elko	7,081								23	0.21	-0.41	0.15	0	2	21	9	1	1	sw.	
Imlay	Pershing	4,209	51	77.7	+3.5	102	15†	48	21	49	62	T.	-0.10	T.	0	0	29	1	1	w.	
Lamoille (near)	Elko	6,100	21	72.8	+5.6	98	11†	43	1	54	28	0.44	-0.20	0.42	0	2	21	7	3	n.	
Lovelock	Pershing	3,977	35	77.3	+3.5	110	25	42	1	55	39	0	-0.17	0	0	0	23	1	2	w.	
Montello	Elko	4,877	44	76.4	+4.2	107	24	40	1	55	55	1.03	+0.76	0.70	0	3	14	6	11	w.	
North Fork	do	6,500								23	0.15	-0.29	0.14	0	2	14	8	9	1	sw.	
Paradise Valley	Humboldt	4,650								24	0.05	-0.19	0.05	0	1					U. S. Forest Service.	
Winnemucca	do	4,344	54	76.2	+5.6	103	24	49	1	46	64	0.06	-0.15	0.06	0	2	28	2	1	sw.	
<b>Truckee Basin</b>																					
Lewers Ranch	Washoe	5,200								30	0.20	-0.01	0.20	0	1					Katherine Lewers	
Marlette Lake	Washoe	8,000	9	62.2		80	14†	41	1	35	12	0.08	+0.02	0.03	0	3	25	2	1	sw.	
Nixon	do	3,910	6	74.7		104	23	44	10	53	6	T.		T.	0	0	20	8	3	w.	
Reno	do	4,582	46	75.8	+5.7	101	23	48	10	44	46	0.25	0	0.18	0	2	23	1	2	w.	
Tahoe, Calif.	Placer	6,230	23	63.9	+3.6	90	25	35	3	45	23	T.	-0.28	T.	0	0	29	0	2	w.	
<b>Carson Basin</b>																					
Carson City	Ormsby	4,675	36	71.4	+2.4	103	23	39	1†	59	39	0.17	+0.01	0.11	0	2	29	0	2	w.	
Fallon	Churchill	3,965	37	75.8	+2.3	100	14†	46	3	46	37	0.01	-0.12	0.01	0	1	23	1	2	n.	
Lahontan**	do	4,200	24	81.8	+3.6	104	24	54	3	41	26	0.12	-0.07	0.12	0	1	17	13	1	e.	
Minden	Douglas	4,730	41	74.2	+5.8	100	14†	42	10	52	41	0.21	-0.06	0.15	0	2	26	4	1	w.	
Markleville, Calif.	Alpine	5,525	3	63.8		95	10†	30	2	61	20	0.07	-0.46	0.07	0	1	20	6	5	w.	
<b>Walker Basin</b>																					
Mina	Mineral	4,350	38	81.2	+3.0	110	16	50	2†	48	38	0	-0.29	0	0	0	11	14	6	sw.	
Schurz	do	4,124	13	75.7	+2.8	103	24†	43	11	56	13	0.12	-0.10	0.12	0	1	25	4	2	w.	
Smith	Lyon	4,800								24	0.06	-0.56	0.05	0	2	15	6	10	3	sw.	
Thorne	Mineral	4,200	38	81.2	+4.4	105	24	54	1†	42	41	0.10	-0.06	0.10	0	1	25	6	0	nw.	
Yerington	Lyon	4,375	32	73.7	+2.6	103	24	41	9	53	33	T.	-0.13	T.	0	0	24	4	3	sw.	
Bridgeport, Calif.	Mono	6,440	2	69.1		94	14†	39	2	48	11	T.	-0.52	T.	0	0	19	11	1	sw.	
Shields Ranch, Calif.**	Mono	5,300								19	T.	-0.56	T.	0	0	29	1	1		Bruce H. Chichester.	
<b>Colorado Basin</b>																					
Boulder City	Clark	2,525	2	92.6		112	13†	66	6†	32	2	0.48		0.27	0	3	13	17	1	s.	
Caliente	Lincoln	4,407	3	78.8		105	13	41	1	50	10	0.75	+0.22	0.26	0	7	26	5	0	s.	
Las Vegas	Clark	2,033	22							28										U. S. Reclamation Ser.	
Logandale	do	1,400	32	92.5 <sup>b</sup>	+5.3	118 <sup>b</sup>	26	54 <sup>b</sup>	4	58 <sup>b</sup>	31	0.24	-0.21	0.13	0	4	26	3	2		E. C. D. Marriage
<b>Minor Basins</b>																					
Alamo**	Lincoln	4,130	12	84.2	+7.5	110	12†	50	2	51	12	1.86 <sup>c</sup>	+1.31	0.36	0	10	11	20	0	sw.	
Beatty	Nye	3,310	18	81.2	+1.2	111	27	45	3	47	18	0.02	-0.19	0.02	0	1	13	15	3	s.	
Clay City**	Nye	2,185	6	91.0		116	13	56	3	49	5	0.03		0.03	0	0	27	0	4	sw.	
Gerlach (near)	Washoe	3,980	19	78.6	+3.9	103	24†	46	10	43	19	0	-0.11	0	0	0	27	0	4	s.	
Goldfield	Esmeralda	5,700	27	76.4	+3.2	102	14	47	2	43	27	0.10	-0.43	0.05	0	3	20	11	0	sg.	
Kimberly	White Pine	7,250	6	72.2		96	13†	42	1	44	6	0.46		0.16	0	6	8	10	13	sw.	
McGill	do	6,340	42	76.2	+0.4	99	24	52	3	39	42	0.33	-0.30	0.16	0	5	13	17	1	sw.	
Millett**	Nye	5,040	24	72.9	+4.2	101	14	40	10	55	26	1.44	+0.89	0.60	0	5				W. J. Farrington.	
Orovada	Humboldt	4,300	20	72.2	+1.5	102	24	38	1	50	21	0.07	-0.21	0.07	0	1	27	4	0	w.	
Sand Pass** (near)	Washoe	4,198	19	77.4	+1.9	104	24†	49	9	47	19	0.03	-0.12	0.02	0	2	29	0	2	w.	
Searchlight	Clark	3,445	19	87.2	+3.6	109	26	59	1	35	19	0.51	-0.43	0.26	0	3	17	13	1	se.	
Sharp	Nye	6,250	17	72.1	+1.4	98	13†	44	1	44	17	3.26	+2.36	1.95	0	7	14	16	1	sw.	
Sheldon	Washoe	6,500	1	63.6		94	24	35	1†	50	1	0.25		0.15	0	2	29	2	0	sw.	
Sulphur	Humboldt	4,044	18	76.1	+1.6	103	24	43	1†	51	18	T.	-0.10	T.	0	0	20	9	2	sw.	
Tonopah	Nye	6,090	26	77.3	+4.1	97	14	56	7	28	26	0.30	-0.08	0.28	0	2				U. S. Weather Bureau.	
Zorra Vista Ranch**§	Washoe	4,725	11	67.4	+1.8	99	14†	32	10	58	17	T.	-0.19	T.	0	0	30	0	1	sw.	
For the State				76.6	+4.3	118	26	32	10	61		0.34	-0.03	1.95	0	2	21	7	3	sw.	

\*Station normals are based on records to 1930 inclusive; State normals on records to 1933 inclusive  
 The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or division means.  
 \*\*Post office addresses of these stations are as follows: Of Alamo, Hiko; of Clay City, Death Valley, Calif.; of Clover Valley, Wells; of Hylton Jiggs; of Lahontan, Fallon; of Mahoney Ranger Station, Jarbridge; of Zorra Vista Ranch, Eagleville, Calif.; of Sand Pass, Flanigan; of Shields Ranch, Coleville, Calif.; of Gold Creek, North Fork; of Millett, Round Mountain; of Sheldon, Cedarville, Calif.  
 Reference letters, a, b, c, appearing in the table indicate number of days missing, for example, b represents two days missing, etc.  
 † Also on other dates. †† Received too late to be included in the means and summaries. § Formerly Rye Patch.  
 T. Precipitation less than 0.01 inch rain or melted snow.

Daily Precipitation for July, 1933

Table with columns for Stations, Day of month (1-31), and Total precipitation. Rows are categorized by basins: Columbia Basin, Humboldt Basin, Truckee Basin, Carson Basin, Walker Basin, Colorado Basin, and Minor Basins.

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observation. \*\* Regular Weather Bureau stations: precipitation is for the 24-hour period, midnight to midnight. T, Trace, or less than 0.01 inch. ||| Precipitation measured in the morning; amount then recorded is for the preceding 24 hours. \* Precipitation included in next following measurement. † Separate dates of falls not recorded. Interpolated data in bold face type.

Daily Evaporation (inches) and Wind Movement (miles) for July, 1933 (See temperature and precipitation data in climatological tables, pages 26 to 28)

Table with columns for Stations, Data (Evaporation/Wind movement), Day of month (1-31), and Monthly totals. Stations include Clay City, Lahontan, and Tahoe, Calif.

\* Observations taken at 7 a. m.; \*\* at 8 a. m.; \*\*\* at 4 p. m. † Included in next following entry: § Wind movement by 4-cup anemometer.

Daily Temperatures for July, 1933

Table with columns for Stations, days 1-31, and Mean. Rows are grouped by basin: Columbia Basin, Humboldt Basin, Truckee Basin, Carson Basin, Walker Basin, Colorado Basin, and Minor Basins. Each station entry includes maximum and minimum temperature values for each day.

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