

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

WBO. Reno. 8-20-31-820.

22

## NEVADA SECTION

GEO. V. SAGER, Meteorologist

VOL. XLVI

RENO, NEVADA, JULY, 1931

No. 7

### GENERAL SUMMARY

July, 1931, was the warmest month of record in Nevada. The average temperature, 78.2°, was 6.0° above the State average for 43 years and 2.1° above the previous high record, 76.1° in 1889, the first year of records covering the State. Mean monthly temperatures were above normal at all stations, the greatest departures being +9.9° at Reno and +9.2° at McGill. Records of individual high temperatures were broken at nearly all stations. The highest recorded, 119°, at Logandale, was 2° above the previous record at that station.

The month was drier than normal. All except four scattered stations showed negative departures and the average precipitation for the State was less than two-fifths of the normal.

An unusual feature of the weather of the month was a small tornado which occurred at Leonard Creek Ranch in Humboldt County on the 24th. This storm apparently originated about 500 yards west of the ranch buildings, moving at first in an irregular path which became northeasterly. A lambing shed, substantially constructed of heavy timber, stood in the path of the tornado. This was destroyed and debris scattered along the next 100 yards of the path. Not much other damage was done. The total loss is estimated at \$1500.

Drought conditions continue severe. In a few places a second crop of alfalfa was harvested, but on many projects the water on hand did not serve to mature a second crop. Much grain was cut for fodder. Gardens and the potato crop were largely destroyed. Streams and springs failed and ranges deteriorated. Near the close of the month many ranchers were buying feed for their stock or preparing to ship them to pastures out of the State.

### TEMPERATURE

The monthly mean for the State, as shown by the records of 40 stations, was 78.2°. The mean for the 35 stations having ten or more years' record was 4.8° above normal. The highest recorded was 119°, at Logandale on the 25th; the lowest was 33° at San Jacinto on the 8th and at Zorra Vista Ranch on the 5th and 16th. The greatest daily range was 61° at Zorra Vista Ranch on the 18th. The highest monthly mean was 93.0° at Las Vegas; the lowest was 63.6° at Marlette Lake.

### PRECIPITATION

The average for 49 stations reporting was 0.14 inch. For the 45 stations having ten or more years' record, the mean was 0.21 inch below the normal. The average amount at 4 stations in the Columbia Basin was 0.12 inch; at 15 stations in the Humboldt Basin, 0.12 inch; at 5 stations in the Truckee Basin, 0.02 inch; at 5 stations in the Carson Basin, 0.06 inch; at 6 stations in the Walker Basin, 0.25 inch; at 3 stations in the Colorado Basin, 0.06 inch; at 15 stations in the minor basins, 0.20 inch. The greatest monthly fall was 1.23 inches at Sharp; there was no precipitation at 8 stations. The average number of days with precipitation was 1.

### PRESSURE, HUMIDITY, AND WIND DATA

Stations	Barometric pressure (sea level)			Mean relative humidity		Wind			
	Mean	Highest	Lowest	5 a. m.	5 p. m.	Average hourly velocity	Max. velocity		
							Miles per hour	Dir.	Date
Reno*	29.82	30.14	29.62	42	15	6.2	30	w.	15
Winnemucca*	29.85	30.30	29.58	36	13	5.8	31	s.	24
Tonopah	29.79	30.04	29.57	34	16				

\* 3-cup anemometer used.

### SUNSHINE AND CLOUDINESS

At Reno, 92 per cent of the possible sunshine was recorded; at Winnemucca, 89 per cent. For the State, the average number of clear days was 22; partly cloudy, 7; cloudy, 2.

### MISCELLANEOUS PHENOMENA

(Dates of)

*Thunderstorms*—Reno 20, 24; Winnemucca 22, 24; Orvada 24, 25; Montello 30, 31; Elko 22, 24, 29; Caliente 18, 23, 27, 29, 30, 31; Lamoille 22, 29; Tahoe 23, 24; Hylton 22, 27, 30; Minden 20, 23; Kimberly 3; Clover Valley 24, 27; Alamo 20, 30; Mahoney Ranger Station 24, 29; North Fork 29; San Jacinto 29.

### COMPARATIVE DATA FOR JULY

Year	Temperature			Average precipi- tation	Average snowfall	Number of days			Prevailing wind
	Mean	Highest	Lowest			With precipi- tation	Clear	Partly cloudy	
1889	76.1	119	36	0.17	0	1	29	1	s.
1890	74.0	118	28	0.15	0	1	22	7	2 s.w.
1891	70.4	102	26	0.53	0	3	17	8	6 s.
1892	70.6	115	30	0.67	0	1	23	5	3 w.
1898	70.3	110	24	0.40	0	2	26	4	1 s.w.
1894	71.7	108	32	0.75	0	5	17	9	5 s.
1895	70.2	112	28	0.05	0	1	25	4	2 w.
1896	72.7	112	33	0.79	0	2	14	9	8 w.
1897	69.4	116	25	0.28	0	1	20	7	4 s.w.
1898	73.5	114	30	0.12	0	1	23	6	2 w.
1899	72.6	106	34	0.14	0	2	22	5	4 w.
1900	70.9	113	33	0.37	0	1	23	4	4 w.
1901	70.8	119	31	0.31	0	2	21	6	4 w.
1902	67.9	116	25	0.44	0.5	2	21	5	5 s.w.
1903	65.4	111	26	0.01	0	1	27	3	1 s.w.
1904	68.7	110	30	0.51	0	3	19	8	4 s.w.
1905	72.1	109	31	0.03	0	1	24	5	2 s.w.
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.
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.
1913	69.1	113	18	1.30	0	6	16	9	6 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 s.w.
1917	74.5	111	31	0.46	0	2	21	7	3 s.w.
1918	72.9	112	31	0.53	0	2	21	7	3 s.w.
1919	75.2	113	35	0.28	0	1	23	7	1 s.w.
1920	72.7	113	33	0.14	0	1	24	5	2 s.w.
1921	74.2	114	27	0.19	0	1	24	4	3 w.
1922	74.1	116	33	0.54	0	3	20	7	4 w.
1923	78.9	116	24	0.42	0	2	22	6	3 s.
1924	73.0	117	31	0.16	0	1	22	7	2 w.
1925	74.6	117	40	0.97	0	4	19	7	5 s.w.
1926	74.1	116	33	0.43	0	3	20	7	4 s.w.
1927	74.5	118	27	0.26	0	2	21	7	3 s.w.
1928	73.6	114	32	-0.16	0	1	23	6	2 s.w.
1929	74.1	115	30	0.14	0	1	23	5	3 s.w.
1930	73.1	115	30	0.16	0	1	21	6	4 s.w.
1931	78.2	119	33	0.14	0	1	22	7	2 s.w.
Entire period	72.2	119	18	0.37	T.	2	22	6	3 s.w.

Climatological Data for July, 1931

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
<i>Columbia Basin</i>																			
Gold Creek (near)**	Elko	6,800								16	0.21	-0.16	0.15	0	2	21	9	1	U. S. Forest Service.
Mahoney Ran. Sta.**	do	6,200	12							12	0.06	-0.56	0.06	0	1	17	5	9	Do.
Gwynhee	do	5,400								13									U. S. Indian Agency.
San Jacinto	do	6,200	26	66.0 <sup>b</sup>	+0.1	101 <sup>b</sup>	21	33 <sup>b</sup>	8	55 <sup>b</sup>	0.20	-0.33	0.15	0	2	23	3	5	Utah Construction Co.
Boscawne (near)	do									21	0.01	-0.30	0.01	0	1	23	8	0	D. B. Williams.
<i>Humboldt Basin</i>																			
Arthur	Elko	6,500								26	0.27	-0.40	0.27	0	1	15	16	0	Isaac Woodhouse.
Austin	Lander	6,594	39	76.2	+6.6	105	20	48	4	42	0.59	+0.11	0.41	0	3	20	11	0	U. S. Forest Service
Battle Mountain	do	4,513	52	79.2	+3.8	108	20	43	10 <sup>†</sup>	56	0.00	-0.15	0.00	0	0	23	1	7	Southern Pacific Co.
Beowawe	Eureka	4,695	58	79.6	+5.3	107	23	44	3	53	T.	-0.25	T.	0	0	22	0	9	Do.
Clover Valley**	Elko	6,000	26	71.9	+4.7	98	18 <sup>†</sup>	44	1	41	0.06	-0.46	T.	0	0	20	6	5	Mrs. S. J. Weeks.
Elko	Elko	5,063	53	78.6	+2.1	104	20	34	4	59	0.06	-0.27	0.06	0	1	16	13	2	U. S. Weather Bureau
Eureka	Eureka	6,500	30							30									Stanley Fine
Goleconda	Humboldt	4,392	39	79.7	+4.9	105	20	48	3 <sup>†</sup>	50	0.05	-0.12	0.04	0	2	19	7	5	Southern Pacific Co.
Hylton**	Elko	7,081								21	0.32	-0.30	0.30	0	0	23	8	0	Thomas Toyn
Inlay	Pershing	4,209	49	78.4	+4.2	108	21	44	2	50	T.	-0.10	T.	0	0	20	7	4	Southern Pacific Co.
Lamoille (near)	Elko	6,100	19	74.6	+7.4	100	17	41	4	47	0.20	-0.44	0.07	0	3	22	4	5	Elko-Lamoille Power Co.
Lovelock	Pershing	3,977	33	76.3	+2.0	103	19	42	5	55	0.00	-0.17	0.00	0	0	22	0	9	Joe Bush.
Montello	Elko	4,877	42	76.4	+4.2	109	24	39	6	58	0.01	-0.26	0.01	0	1	24	6	1	Southern Pacific Co.
North Fork	do	6,500								21	T.	-0.44	T.	0	0	16	13	2	R. C. Bellinger
Paradise Valley	Humboldt	4,650								22	0.21	-0.03	0.21	0	1	1			U. S. Forest Service.
Winnemucca	do	4,344	52	77.2	+6.5	108	20	42	1	53	0.12	-0.09	0.12	0	1	23	8	0	U. S. Weather Bureau.
<i>Truckee Basin</i>																			
Lewers Ranch	Washoe	5,200								28	0.00	-0.21	0.00	0	0				Katherine Lewers
Marlette Lake	Washoe	3,000	7	63.6		86	19	42	11	35	0.10	-0.06	T.	0	0	27	4	0	W. H. Dust
Nixon	do	3,910	4	76.8		106	20	46	4	50	T.		0.10	0	1	19	11	1	Louis McCloud.
Reno	do	4,532	44	77.4	+9.9	106	20	50	1	43	T.	-0.25	T.	0	0	26	5	0	U. S. Weather Bureau.
Tahoe, Calif.	Placer	6,230	21	66.0	+5.7	93	20	36	11	48	T.	-0.20	T.	0	0	31	0	0	Wm. A. Simmonds.
<i>Carson Basin</i>																			
Carson City	Ormsby	4,675	34	73.4	+4.4	107	19	36	11	57	0.05	-0.11	0.05	0	1	23	8	0	N. C. Brown.
Fallon	Churchill	3,965	35	76.4	+2.9	106	20	47	1 <sup>†</sup>	50	0.19	+0.06	0.19	0	1	30	1	0	U. S. Experiment Station
Lahontan**	do	4,200								24	0.00	-0.19	0.00	0	0	18	13	0	Truckee-Carson Irrig. Dist.
Minden	Douglas	4,730	39	74.6	+6.2	105	20	44	16	55	0.00	-0.27	T.	0	0	23	7	1	U. S. Forest Service.
Markleeville, Calif.	do	5,525	1	66.2		102	19	26	11	60	0.06	-0.47	0.06	0	1	14	16	1	Horace Barrett
<i>Walker Basin</i>																			
Mina	Mineral	4,350	36	82.4	+4.2	107	20 <sup>†</sup>	54	6 <sup>†</sup>	42	0.73	-0.29	T.	0	0	20	11	0	Southern Pacific Co.
Schurz	do	4,124	11	78.0	+5.1	109	20	42	1	54	T.	+0.51	0.65	0	2	20	11	0	Susan R. Kronquist.
Smith	Lyon	4,800								22									C. M. Carter.
Thorne	Mineral	4,200	36	81.8	+5.2	106	27	56	1	45	0.10	-0.06	0.10	0	1	25	6	0	Southern Pacific Co.
Yerington	Lyon	4,375	30	73.4	+2.3	104	20	40	2 <sup>†</sup>	50	0.00	-0.13	0.00	0	0	24	6	1	Mrs. W. H. Churchyard.
Bridgeport, Calif.	Mono	6,440								9	0.21		0.21	0	1	16	10	5	I. T. Whistler
Shields Ranch, Calif.**	do	5,300								17	0.45	-0.11	0.32	0	2	27	4	0	Bruce H. Chichester.
<i>Colorado Basin</i>																			
Caliente	Lincoln	4,407		80.0		106	24	49	2	52	0.16		0.04	0	9	29	2	0	E. C. D. Marriage
Las Vegas	Clark	2,083	20	93.0	+7.5	118	26	64	5	49	0.02	-0.54	0.01	0	2	25	6	0	C. F. Squires.
Bogardale	do	1,400	30	91.2	+4.0	119	25	59	5	52	T.	-0.45	T.	0	0	29	2	0	Bert Mills.
<i>Minor Basins</i>																			
Alamo**	Lincoln	4,130	10	84.6	+7.9	109	19 <sup>†</sup>	55	2	52	0.46	-0.09	0.42	0	2	21	8	2	G. W. Thiriot.
Beatty	Nye	3,310	16	84.8	+4.8	110	3	56	1	44	T.	-0.21	T.	0	0	14	13	4	Mrs. M. E. Biddlecom
Clay City	Nye	2,185	4	92.8		116	27	61	1	45	0.00		0.00	0	0				General Clay Co.
Gerlach (near)	Washoe	3,980	17	77.4	+2.7	105	21 <sup>†</sup>	51	4	43	0.00	-0.11	0.00	0	0	24	1	6	Pac. Portland C'm't. Co.
Goldfield	Esmeralda	5,700	25	78.0	+4.8	103	19	51	4	44	0.01	-0.52	0.01	0	1	21	8	2	Nevada-Calif. Power Co.
Kimberly	White Pine	7,250	4	74.0		99	9	45	4	46	0.47		0.21	0	4	24	4	3	Cons. Copper Mines Co.
McGill	do	6,340	40	76.0	+9.2	100	20	43	5	50	0.30	-0.33	0.11	0	4	9	17	4	W. E. Sands.
Millett	Nye	5,040	23			103	21 <sup>†</sup>	40	31	24	0.06	-0.49	0.04	0	2				W. J. Farrington.
Orovada	Humboldt	4,300	18	77.0	+6.3	108	20	45	6	52	0.19	-0.28	T.	0	0	24	6	1	I. J. Studebaker.
Sand Pass** (near)	Washoe	4,198	17	79.4	+3.9	107	19	48	16	46	0.10	-0.05	0.10	0	1	27	4	0	R. R. Mott.
Searchlight	Clark	3,445	17	87.9	+4.3	107	10 <sup>†</sup>	63	30	31	0.25	-0.69	0.25	0	1	22	6	3	e. Light Wheatley.
Sharp	Nye	6,200	15	75.1	+4.4	99	22	41	4	51	1.23	+0.33	0.78	0	4	22	9	0	Pauline F. Youngs.
Shilphur	Humboldt	4,044	16	79.5	+5.0	110	20	50	1	49	0.00	-0.10	0.00	0	0	20	9	2	Western Pacific Co.
Tonopah	Nye	6,090	24	78.6	+4.9	98	19	52	4	38	0.10	-0.28	0.10	0	1				U. S. Weather Bureau.
Zorra Vista Ranch**	Washoe	4,725	9	67.7	+2.1	103	20	33	6 <sup>†</sup>	61	0.05	-0.14	0.05	0	1	26	4	1	Max McCarthy.
For the State				78.2	+4.8	119	25	38	5 <sup>†</sup>	61	0.14	-0.21	0.78	0	1	22	7	2	sw.

\*Normals are based on records to 1930 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, Hazen; of Mahoney Ranger Station, Jarbridge; of Zorra Vista Ranch, via Gerlach; of Sand Pass, Flanigan; of Shields Ranch, Coleville, Calif.; of Gold Creek, North Fork.

Reference letters, \* , b , s , appearing in the table indicate number of days missing, for example, s 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. Interpolated data in bold face type.



