

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
In Cooperation with the UNM Bureau of Business Research

LATITUDE: 34° 04' N
LONGITUDE: 106° 54' W
ELEV. (GROUND): 4617 Ft.

CLIMATOLOGICAL SUMMARY

STATION: SOCORRO
NEW MEXICO

MEANS AND EXTREMES FOR PERIOD OF RECORD: 1931 - 1960

Month	Temperature (°F)								** Mean degree days	Precipitation Totals (Inches)						Mean number of days						Month	
	Means				Extremes					Mean	Greatest daily	Year	Snow, Sleet			Precip. .10 inch or more 90° and above	Temperatures		30° and below	32° and below	30° and below		
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest daily		Year	Max.					Min.
(a)	30	30	30	30	--	30	--	30	30	30	--	30	30	--	30	--	30	30	30	30	30	(a)	
Jan.	51.8	23.4	37.5	73	1952	- 2	1948	850	0.43	1.00	1939	2.0	17.5	1946	7.3	1946	1	0	1	27	*	Jan.	
Feb.	58.7	27.3	43.1	78	1954	- 2	1951	610	0.44	0.94	1941	1.3	6.0	1960	6.0	1960	1	0	*	21	*	Feb.	
Mar.	66.5	32.6	49.6	87	1946	11	1939	480	0.33	0.58	1957	0.7	4.0	1958	3.0	1944+	1	0	0	15	0	Mar.	
Apr.	75.8	41.1	58.5	93	1943	20	1935	210	0.43	1.17	1931	T	T	1945+	T	1945+	1	*	0	3	0	Apr.	
May	83.6	49.0	66.5	102	1951	31	1953+	50	0.70	2.53	1937	0	0	--	0	--	1	6	0	*	0	May	
June	93.4	58.1	75.8	106	1951	40	1932	0	0.67	1.60	1953	0	0	--	0	--	2	24	0	0	0	June	
July	94.6	63.5	79.0	107	1951	52	1935	0	1.34	1.34	1938	0	0	--	0	--	3	26	0	0	0	July	
Aug.	92.2	62.0	77.1	106	1934	49	1948+	0	1.48	2.00	1955	0	0	--	0	--	4	23	0	0	0	Aug.	
Sept.	86.4	54.7	70.5	102	1939	37	1935	0	1.32	1.93	1941	T	T	1936	T	1936	3	10	0	*	0	Sept.	
Oct.	75.7	42.6	59.2	94	1953	23	1956	200	0.88	1.62	1939	0	0	--	0	--	2	*	0	2	0	Oct.	
Nov.	61.7	29.4	45.5	82	1933	5	1938	590	0.23	0.55	1935	0.2	2.7	1946	2.0	1946	1	0	0	20	0	Nov.	
Dec.	52.7	23.9	38.4	78	1958	- 2	1932	820	0.51	1.38	1943	2.4	23.0	1960	16.0	1960	1	0	*	27	*	Dec.	
Year	74.4	42.3	58.4	107	July 1951	- 2	Feb. 1951+	3810	8.76	2.53	May 1937	6.6	23.0	Dec. 1960	16.0	Dec. 1960	21	89	1	115	*	Year	

* Less than one half.

** Base 65° F (estimated).

(a) Average length of record, years.

T Trace, an amount too small to measure.

+ Also on earlier dates, months, or years.

♠ Partial year's record considered.

CLIMATE OF SOCORRO, NEW MEXICO

Socorro, county seat of Socorro County, is located in the Rio Grande valley in the south-central section of the State. The Rio Grande runs in a north-south direction, and the immediate valley is about four miles wide at this point. About 20 miles away to the west stand the Magdalena mountains, with some peaks above 9,000 feet. On the east the valley is bordered by rolling, broken terrain, rising to low mountains several miles distant. Fruit, truck, feed, and some cotton are grown in the valley under irrigation, and stock is raised in nearby mesas and mountains. The New Mexico Institute of Mining and Technology is located in Socorro.

Weather records have been fairly continuous in Socorro since 1891. But only the most recent 30 years of record are used in this report.

Socorro has an arid continental climate. Summers are moderately warm, the maximum temperature averaging above 90° from June through August. During these months the high daytime temperature usually exceeds 90° on two days out of three, and practically every summer includes a few days when the temperature climbs above 100°. There is considerable cooling at night, the average diurnal temperature range exceeding 30°, and this cooling, combined with usually low humidities, makes most summer nights comfortably cool. Summer is also the rainy season, with almost half of the yearly precipitation falling during brief afternoon and evening thundershowers in the July-September period.

Winters are characterized by moderate daytime temperatures, cool nights, and little precipitation. Shade temperatures in winter normally rise to the mid-50s, and a day on which the temperature fails to go above freezing is rare. Generally, from mid-November to mid-March temperatures will fall below freezing at night; but only six times in 30 years has the minimum temperature dropped to zero or below. Winters are usually dry. From November through

May an average of only one day per month gets precipitation of one-tenth inch or more. Some of this winter precipitation falls as snow, the average yearly total being less than seven inches. While heavy snowfalls are rare, an occasional storm leaves a snow cover of six inches to a foot or more. Two snowstorms of interest in the earlier records were the 11.5 inches which fell on April 20-21, 1907, severely damaging fruit trees in the area, and a 9.0-inch fall on October 21, 1906. During the past 30 years only a trace of snow has fallen in April and none at all in October.

A five-year record of relative humidity made at the Socorro Airport shows an average annual relative humidity of 44 per cent. In the early morning humidities range from 47 per cent in April and May to 72 per cent in December. As the temperature rises, humidities fall to near 30 per cent in the afternoons and average about 20 per cent in the drier spring months. Wind records are not available, but velocities probably average less than 10 miles per hour for the year. Prevailing winds normally parallel the valley, with light northerly winds at night and mostly southerly winds in the daytime. Late winter and spring months are somewhat windier; occasionally, moderate to strong winds cause some blowing dust. It is estimated that sunshine prevails between 75 and 80 per cent of the possible hours, with winters normally bright and sunny. Socorro has an average growing season of 196 days: the average date of the last freeze in the spring is April 10, and that of the first freeze in the fall is October 23.

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Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	33.7	43.9	48.9	59.1	66.0	76.4	78.6	75.3	72.7	61.4	45.8	37.4	58.3
1932	34.9	48.0	48.8	60.2	65.8	74.6	79.5	77.6	68.0	57.2	45.8	43.9	57.9
1933	35.9	39.2	53.3	59.8	64.6	76.3	80.5	76.8	73.0	61.0	48.0	31.8	58.8
1934	37.7	47.9	52.6	59.6	70.6	74.8	81.7	79.8	69.8	60.0	47.6	39.6	60.1
1935	40.6	42.4	52.0	59.7	61.7	75.6	79.4	76.8	68.6	60.0	46.2	37.6	58.4
1936	37.2	45.2	51.8	60.3	68.6	77.4	79.0	78.0	69.3	57.3	44.7	38.8	59.0
1937	33.6	42.6	48.2	58.2	68.8	74.7	79.7	78.4	72.1	59.9	48.6	40.3	58.9
1938	39.3	45.8	52.4	59.0	66.9	76.1	77.2	76.8	67.8	58.8	41.6	40.2	58.5
1939	37.6	47.2	49.0	58.2	67.8	77.2	78.5	77.2	71.6	57.8	46.0	40.0	58.2
1940	36.4	42.6	50.4	56.0	66.4	74.2	80.0	77.0	71.3	61.5	46.0	42.8	58.7
1941	39.8	46.0	47.8	53.9	66.0	72.2	78.0	76.7	70.0	59.0	47.3	40.6	58.1
1942	40.4	39.5	45.9	56.6	66.2	77.3	79.6	76.0	68.8	59.8	51.2	43.1	60.7
1943	41.1	47.2	51.6	64.0	69.0	76.6	79.6	80.9	72.4	59.7	46.4	34.8	60.2
1944	32.2	43.1	48.4	56.7	66.7	75.0	79.7	78.0	69.8	61.0	45.0	38.4	57.8
1945	39.6	45.5	48.2	55.7	68.2	74.4	79.0	78.8	71.7	60.6	47.8	36.3	58.8
1946	34.0	42.4	50.7	62.8	65.8	78.5	78.8	76.9	72.4	58.5	43.5	43.2	59.0
1947	35.2	44.5	48.6	57.4	68.7	75.0	81.2	77.5	72.8	61.6	43.3	35.7	58.5
1948	35.5	40.8	46.4	62.5	68.8	75.0	80.1	78.5	72.1	57.6	40.1	40.0	58.1
1949	33.1	39.8	50.1	56.7	65.2	75.6	79.3	75.3	69.0	55.5	48.4	38.2	57.0
1950	38.9	46.2	51.4	60.9	67.1	76.6	76.9	75.3	68.2	64.0	47.7	42.1	59.6
1951	38.3	40.5	47.9	58.2	68.2	75.3	82.9	77.9	72.4	59.1	43.1	38.0	58.5
1952	41.5	42.1	45.9	58.1	67.2	77.5	78.2	79.0	70.1	58.5	42.0	36.4	58.0
1953	43.7	40.4	51.9	58.0	62.1	76.6	77.9	75.5	70.3	57.7	46.5	32.7	57.7
1954	38.2	46.5	49.1	63.5	67.7	75.6	80.6	75.2	71.7	61.2	48.0	37.1	59.5
1955	35.4	37.1	49.6	57.2	64.3	72.9	74.8	76.4	70.8	59.7	45.9	39.7	57.0
1956	42.2	38.0	49.5	56.3	67.4	77.8	76.5	74.5	71.0	59.6	40.1	35.4	57.4
1957	41.8	50.7	49.7	56.2	63.2	74.9	79.3	75.0	68.2	55.9	42.9	39.3	58.1
1958	36.4	45.8	45.3	56.4	67.1	77.1	78.9	78.1	68.9	57.2	45.4	40.0	58.0
1959	37.2	42.4	47.8	58.7	65.1	76.4	78.1	76.0	70.1	58.1	43.9	38.8	57.7
1960	34.9	39.4	52.4	58.6	64.1	75.9	76.3	77.0	70.4	56.6	47.5	29.6	56.9

STATION HISTORY

There are some early precipitation records for 1850-51 and 1879-81, but no information on the exact location of the station, which was probably at an Army installation. Temperature and rainfall records have been fairly continuous since October 1891, with the equipment located at several sites in town until January 1, 1941, when the station was moved to the Airport about 2.5 miles south and 160 feet higher than the city exposures. Records were continued at the Airport until the end of December 1946. In February 1947 the station was moved to the campus of the New Mexico Institute of Mining and Technology, about one mile northwest of the Post Office, where students have continued the weather records.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	.10	1.59	.74	2.13	1.28	.58	2.85	2.00	4.16	.52	.25	.20	15.90
1932	.55	.88	.74	0	.18	1.12	1.60	2.31	1.43	.65	0	.84	10.30
1933	.38	.82	0	.18	.08	2.90	3.08	1.78	1.99	.76	.45	0	12.42
1934	T	.15	.17	.52	.62	.42	.53	1.75	.71	.05	.33	.54	6.79
1935	1.62	.81	.06	.06	1.62	.02	.51	2.72	2.51	.07	1.05	1.09	12.14
1936	.97	.27	T	.03	.14	.85	1.73	.29	2.44	.13	.05	.20	7.10
1937	T	.77	.86	.24	4.94	.65	.48	.61	.54	1.23	0	.60	10.92
1938	.64	.48	.21	.36	.07	1.80	2.45	.05	2.17	.48	.13	.08	8.67
1939	1.24	.19	T	.08	T	0	1.56	1.15	2.36	1.77	.51	.26	10.04
1940	.01	T	.08	.16	1.76	.92	1.29	1.02	1.10	1.10	.77	.04	7.25
1941	.18	1.22	.84	.74	3.37	.56	1.37	1.80	4.56	1.91	.32	.78	17.65
1942	.05	.45	.16	1.51	0	T	.10	1.49	1.39	.23	0	.71	6.09
1943	.08	T	.04	T	.83	2.02	.31	.77	.83	.15	T	2.04	7.07
1944	.69	.04	.04	.19	.14	.09	.70	1.49	.74	1.52	1.00	.82	7.46
1945	.82	.06	.32	.11	T	.02	2.90	1.92	.26	.28	0	.14	6.83
1946	1.65	.05	.07	.21	.03	.15	.94	.80	1.20	.64	.42	.14	6.30
1947	.32	.03	.29	.04	.42	.22	.72	2.67	.20	.22	.19	.72	6.04
1948	.47	2.46	.08	.04	1.53	.84	.13	.84	.76	.53	.02	.28	7.88
1949	.64	.19	.01	.34	.51	1.12	1.94	.71	2.84	1.10	.02	.33	8.75
1950	T	.25	.25	.34	0	1.19	2.10	3.04	1.12	.15	0	0	8.44
1951	.56	.04	.13	.68	.08	.09	.53	2.02	.13	.39	.16	.69	5.50
1952	.14	.15	.29	.42	.95	1.26	1.07	.81	1.42	0	.15	.24	6.90
1953	0	.91	.89	1.52	.05	1.74	1.58	1.55	.24	.33	.26	.10	9.51
1954	.16	0	.46	.35	.57	.23	.55	3.58	1.24	.16	0	T	7.30
1955	.49	0	0	T	.06	.60	2.29	1.69	.14	.95	T	.18	6.40
1956	.18	.35	0	T	.03	.43	1.36	.16	T	.52	0	0	3.03
1957	.21	.60	.80	.40	.20	.15	1.92	2.73	.12	3.34	.56	.06	11.08
1958	.55	.05	1.89	1.25	.60	.63	.57	.49	2.56	2.48	.16	.27	11.50
1959	.02	.06	.34	.35	.50	.08	1.26	1.30	.00	1.87	.11	1.75	7.64
1960	.11	.36	.19	T	.33	.66	1.80	.78	.46	2.66	.01	2.34	10.39