

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

LATITUDE: 34° 28' N
LONGITUDE: 104° 15' W
ELEV. (GROUND): 4030 Ft.

CLIMATOLOGICAL SUMMARY

STATION: FORT SUMNER
NEW MEXICO

MEANS AND EXTREMES FOR PERIOD OF RECORD: 1928 - 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	Temperatures				
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest daily	Year		Precip. .10 inch or more	90° and above	Temperatures		
																				Max.	Min.	
Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean	Maximum monthly	Year	Greatest daily	Year	Precip. .10 inch or more	90° and above	32° and below	32° and below	0° and below						
(a)	30	30	30	30	--	30	--	30	30	30	--	30	30	--	30	--	30	30	30	30	30	(a)
Jan.	54.2	23.3	38.5	78	1950	-16	1943	820	0.43	0.80	1939	2.5	12.5	1936	7.0	1948	1	0	1	26	*	Jan.
Feb.	59.0	26.1	42.5	84	1940	-23	1933	630	0.47	1.15	1928	1.3	6.0	1939	6.0	1939	1	0	1	22	*	Feb.
Mar.	66.7	31.6	49.2	87	1940	4	1948+	490	0.59	1.54	1941	0.9	7.5	1934	5.0	1934	1	0	*	16	0	Mar.
Apr.	75.7	40.3	58.0	97	1943	18	1938	230	0.90	3.00	1931	0.5	7.0	1940	7.0	1940	2	1	0	3	0	Apr.
May	83.4	49.6	66.5	101	1951	27	1929	50	1.99	3.05	1937	0.1	3.0	1935	3.0	1935	4	9	0	0	0	May
June	93.4	60.7	77.1	108	1957+	40	1950	0	1.11	1.78	1934	0	0	--	0	--	3	28	0	0	0	June
July	94.4	64.0	79.3	109	1958	52	1959+	0	2.65	2.97	1939	0	0	--	0	--	5	26	0	0	0	July
Aug.	93.0	62.6	78.0	106	1945+	49	1950	0	2.51	3.25	1933	0	0	--	0	--	4	24	0	0	0	Aug.
Sept.	87.2	55.0	71.1	104	1945	32	1936	10	1.70	3.69	1941	0	0	--	0	--	3	13	0	*	0	Sept.
Oct.	76.6	42.8	59.9	95	1934+	21	1945 ^b	180	1.41	4.51	1954	0	0	--	0	--	2	2	0	2	0	Oct.
Nov.	64.0	29.3	46.5	85	1956+	2	1938	560	0.42	1.24	1935	0.7	8.5	1929	6.0	1929	1	0	*	20	0	Nov.
Dec.	55.7	24.4	40.1	82	1939+	-1	1943	770	0.44	1.10	1943	2.2	11.7	1943	8.5	1943	1	0	1	27	*	Dec.
Year	75.3	42.5	58.9	109	July 1958	-23	Feb. 1933	3740	14.62	4.51	Oct. 1954	8.2	12.5	Jan. 1936	8.5	Dec. 1943	28	103	3	116	1	Year

* Less than one half.

** Base 65° F (estimated).

(a) Average length of record, years.

† Trace, an amount too small to measure.

+ Also on earlier dates, months, or years.

‡ Partial year's record considered.

CLIMATE OF FORT SUMNER, NEW MEXICO

Fort Sumner, located in the northeastern part of the county in the east-central section of New Mexico, is the county seat of De Baca County and is situated on the Pecos river about 10 miles downstream from the Alamogordo Dam and Reservoir, which impound water for irrigation in the lower valley. To the east there is a slight rise to the relatively level plains of eastern New Mexico; westward the terrain slopes gradually upward to the Manzano mountains about 100 miles away. The valley proper ranges from one to three miles in width. Some fruit and feed crops are grown under irrigation. Stock raising is the principal agricultural activity of the surrounding countryside.

Weather records began near Fort Sumner in May 1908 and have been fairly continuous since that time. During the 1944-1946 period the records were somewhat broken, so that--to obtain a complete 30-year period of record for this summary--averages for those years were not used, although the partial records were considered in obtaining extreme values.

Less than 15 inches of precipitation in an average year gives Fort Sumner a semiarid climate, while the large annual and diurnal temperature range is typical of a continental climate.

Summers are moderately warm with daytime temperatures rising to 90° or higher much of the time from late May until mid-September and with readings of 100° or higher to be expected on several days each summer. Normally, there is considerable cooling at night, for the valley location and the usual clear, dry air are conducive to rapid radiation and valley inversions. A drop in temperature of 30° or more from the day's high can be expected to result in comfortable cooling of most nights even during the hottest summer weather. Summer is also the rainy season: the six months May through October normally receive 80 per cent of the year's moisture, much of it associated with brief afternoon and evening thundershowers, which tend to cool and freshen the summer air. Hail sometimes accompanies the more severe thunderstorms, and small tornadoes have been reported in that section of the State, but there is no record of serious damage in Fort Sumner. This summer-rainfall maximum helps produce good forage on adjacent range lands.

Winters are generally dry, bringing less than one-half inch of moisture per month. Only one or two days a month from November to April have as much as one-tenth inch of precipitation. Winter skies are clear much of the time, resulting in moderate daytime temperatures so that--even in midwinter--shade temperatures normally exceed 50°. On an average of only three days during the winter does the temperature fail to rise above freezing. Nights are cool, with minima falling below freezing most of the time from early November to mid-March; but readings of zero or below occur on the average of only once each winter. Some snow falls, but usually only a few inches at any time, which normally lie on the ground for only one or two days. Moderately strong winds may accompany a winter storm and cause considerable drifting, but typical blizzard conditions are rare and of short duration.

With no records available on wind, sunshine, or relative humidity, only a general statement is possible. The average hourly wind is probably near 12 miles per hour, with late winter and spring months somewhat windier. At times winds of 25 to 35 miles per hour may persist for several hours, accompanied during the drier months by some blowing dust. Humidities are believed to average about 55 per cent for the year, ranging from near 75 per cent in the cooler morning hours to about 35 per cent during the heat of the day. Generally, humidities are considerably lower in late winter and spring months and during periods of high or low temperatures. Sunshine averages around 75 per cent of the possible hours, with winters unusually clear and sunny.

Fort Sumner has an average growing season of slightly over six months: the average date of the last freezing temperature in the spring is April 17, and the average date of the first freeze in fall is October 24.

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Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1928	39.2	40.9	51.0	55.2	64.0	76.2	80.4	74.9	67.6	60.6	44.0	37.6	57.6
1929	40.0	35.8	49.0	59.1	62.2	76.8	78.5	76.8	70.1	57.2	42.6	42.0	57.5
1930	30.9	46.5	62.6	66.3	77.2	77.0	77.0	72.4	72.4	58.6	46.0	32.3	58.1
1931	37.8	44.3	50.4	55.2	65.4	78.0	79.4	76.0	74.1	63.8	45.8	37.0	58.9
1932	33.4	47.6	46.4	59.2	66.9	76.2	80.4	75.4	69.9	58.0	44.0	27.6	57.4
1933	37.0	34.2	50.9	55.5	66.8	77.2	81.4	78.0	75.6	65.0	55.9	44.8	60.2
1934	41.8	43.4	49.1	61.0	72.6	80.7	84.3	79.9	71.0	63.8	47.8	43.0	61.5
1935	42.7	43.0	53.2	59.2	60.6	76.5	80.4	78.8	70.8	61.4	46.2	38.1	59.2
1936	36.6	39.9	52.9	59.2	66.4	78.6	77.3	80.7	70.6	55.2	45.1	40.4	58.6
1937	31.6	44.2	43.0	57.4	68.4	76.0	80.2	79.4	74.0	59.5	44.8	39.6	58.2
1938	38.0	43.2	51.8	54.2	66.2	75.3	77.5	79.0	70.8	61.3	44.4	41.6	58.6
1939	40.8	36.8	50.6	58.0	68.0	78.6	78.6	75.6	72.2	57.6	43.6	43.4	58.6
1940	34.8	41.4	51.8	57.0	66.8	74.4	81.1	76.0	72.9	60.2	43.5	43.2	58.6
1941	40.4	44.8	46.2	55.0	65.9	72.0	75.6	76.2	69.4	57.5	48.6	40.4	57.6
1942	37.1	38.1	46.6	59.6	64.2	75.8	77.2	75.2	67.7	58.6	51.4	42.1	57.5
1943	38.8	45.4	47.8	62.4	66.2	76.8	78.9	82.1	70.4	56.8	44.9	35.7	58.8
1947	38.5	40.6	47.6	56.8	66.6	76.8	80.2	79.2	72.8	63.6	42.6	39.8	58.8
1948	35.4	38.4	45.0	62.1	68.9	77.7	79.8	78.9	71.3	59.0	44.8	42.0	58.6
1949	30.0	41.7	51.0	57.1	68.0	74.9	78.4	77.1	70.9	58.5	52.0	37.0	58.0
1950	42.2	46.2	49.1	57.9	65.9	76.2	76.1	75.8	70.5	63.3	50.0	44.8	60.0
1951	39.2	44.3	50.0	56.4	68.5	77.1	82.8	79.6	71.5	61.9	46.2	41.5	59.9
1952	44.4	44.8	47.7	58.5	67.6	79.5	78.6	80.8	69.8	58.4	43.3	39.8	59.4
1953	46.6	42.6	53.4	57.2	63.6	82.0	81.5	79.2	73.2	64.3	53.8	41.0	61.5
1954	46.1	52.6	52.7	65.5	69.3	80.6	83.3	79.5	74.4	61.8	51.6	43.6	63.4
1955	39.8	40.3	51.1	59.4	66.4	74.5	76.8	77.9	72.1	60.2	48.1	44.3	59.2
1956	42.3	38.4	52.1	57.2	70.3	79.3	78.1	75.7	71.1	60.0	42.5	41.1	59.0
1957	39.3	50.6	49.0	54.9	64.5	76.3	81.1	78.3	67.9	57.6	44.1	44.6	59.0
1958	37.1	44.5	43.8	55.2	68.2	78.2	80.2	78.4	70.4	57.3	47.7	41.0	58.5
1959	37.4	40.7	47.7	57.6	66.3	75.3	77.3	77.3	70.3	57.2	44.4	39.9	57.6
1960	35.0	37.6	48.2	58.6	65.4	76.7	75.2	75.6	68.4	56.6	46.4	34.0	56.5

STATION HISTORY

The first weather station was established about four miles southeast of Fort Sumner in May 1908. The equipment was at an elevation of 3,960 feet and was known as Sunnyside until May 1909, when the name was changed to Fort Sumner. Records continued at this site until October 1916 with F. A. Manzanares and Peter Yocky as observers. In November 1916 the station was moved to Fort Sumner and has been located at several sites within the city since that time. The elevation at this site is 4,034 feet. Practically no elevation differences existed among the various locations, all within a few blocks of the Post Office. Observers have been J. V. Sterns, Chester Jacobs, Tom Bonner (who served from 1946 to 1959), and the present observer, Ernest Mares.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1928	0	2.55	.23	1.20	7.24	.68	.78	5.68	.51	3.22	.85	.75	23.89
1929	T	.78	.72	.06	2.67	.16	3.61	1.59	1.52	1.01	1.14	0.15	13.41
1930	.36	T	.47	.54	1.49	1.58	4.27	4.37	1.41	2.89	1.19	.12	18.69
1931	.59	1.10	1.24	4.10	1.20	T	2.99	5.84	2.03	.83	.91	.77	21.60
1932	.46	.71	.15	1.13	2.14	1.58	3.12	3.37	4.37	.57	T	.72	18.32
1933	T	.06	T	.33	2.10	2.05	2.84	8.21	1.20	0.24	.21	0	17.24
1934	T	.03	.79	.92	1.38	2.13	.59	1.16	.48	.92	.58	.19	9.17
1935	.51	T	.16	0	2.08	.30	.95	2.96	.25	.06	1.44	.12	8.83
1936	1.29	.06	0	.26	2.14	1.02	2.76	2.39	4.27	0	.21	.38	14.78
1937	.03	.68	1.00	.85	6.38	1.45	1.48	1.23	3.46	.67	T	.38	17.61
1938	.71	1.09	.42	.17	.22	3.10	5.16	.95	1.92	1.50	.07	.46	15.77
1939	2.39	.52	1.08	1.59	2.50	1.10	4.21	1.46	1.07	.93	.06	1.14	18.05
1940	.85	.41	.32	1.26	2.71	.65	1.33	.44	.35	.37	1.45	.49	10.63
1941	.30	1.68	3.96	4.61	6.17	3.62	4.23	2.25	8.53	5.47	.06	.49	41.37
1942	.30	.55	.08	3.58	.91	.69	1.18	10.17	2.13	1.62	0	.55	23.76
1943	.06	.01	.62	.11	1.32	2.56	1.69	.21	1.11	.22	.56	1.74	10.21
1947	.33	T	.09	.60	3.41	0	1.36	1.85	.16	.53	.94	.78	10.05
1948	.58	1.01	.45	.24	1.36	1.32	2.42	2.65	0	.63	.08	.35	11.09
1949	.90	.39	.09	.50	2.80	1.07	5.01	1.54	3.71	.63	.25	.27	17.16
1950	0	.15	T	.05	1.15	1.34	3.31	.28	2.17	1.01	T	.02	8.48
1951	.42	.51	.21	T	.86	T	1.63	.96	1.16	.65	.16	.38	5.94
1952	.15	.24	.25	.66	.55	.28	2.02	2.19	1.06	0	1.21	.18	8.79
1953	.19	.23	.26	.19	.55	T	2.94	.59	0	.65	.48	.30	6.38
1954	.02	.04	.42	.93	.41	T	.42	1.35	.98	6.45	.07	T	10.73
1955	.15	T	.12	.51	.27	.33	1.66	.19	1.12	.61	0	.03	4.99
1956	T	.35	0	.22	1.29	.43	1.07	0	0	.31	.03	.01	4.45
1957	.03	.42	1.70	.73	1.94	.97	1.70	.89	.24	2.40	.31	T	11.33
1958	1.34	.09	2.39	.82	.50	1.35	2.07	3.67	5.17	1.14	.11	.04	18.69
1959	.10	.16	.60	.84	2.12	1.21	2.20	4.70	1.16	1.52	.01	.86	14.48
1960	.85	.25	.29	0	.74	2.22	9.77	1.11	1.56	5.31	T	1.49	23.69