U. S. DEPARTMENT OF COMMERCE
Environmental Science Services Administration
in cooperation with
Cotton Economic Research and
Bureau of Business Research of
The University of Texas at Austin

CLIMATOGRAPHY OF THE UNITED STATES NO. 20-41

CLIMATOLOGICAL SUMMARY

LATITUDE 30° 52' N
LONGITUDE 102° 55' W
ELEV. (GROUND) 2995 ft.

STATION FORT STOCKTON, TEXAS

MEANS AND EXTREMES FOR PERIOD 1938-1967

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest Depth	Year	Mean number of days: Precip. .10 inch or more	Temperatures: Max. 90° and above	Max. 32° and below	Min. 32° and below	Min. 0° and below	Month
(a)	30	30	30	30		30		12	30	30		30	30		12		12	12	12	12	12	
Jan	61.1	31.0	46.1	88	1954	5	1949+	632	0.83	1.75	1946	1.5	11.0	1946	1	1958+	2	0	1	20	0	Jan
Feb	66.3	34.9	50.6	95	1940	6	1956	465	0.52	1.28	1965	0.7	5.5	1956	2	1961	3	0	1	14	0	Feb
Mar	73.6	40.1	56.9	98	1946	13	1948	317	0.42	2.20	1945	0.2	2.4	1947	1	1962	1	1	*	8	0	Mar
Apr	82.6	49.5	66.1	105	1943	26	1952+	92	0.62	2.62	1949	*	1.0	1939	0		1	8	0	*	0	Apr
May	89.7	58.2	74.0	109	1938	35	1951	16	1.67	3.38	1957	0	0		0		3	17	0	0	0	May
Jun	95.5	65.9	80.7	112	1939	42	1964	2	1.78	3.85	1941	0	0		0		3	24	0	0	0	Jun
Jul	95.9	67.9	81.9	111	1944	56	1954	0	1.44	3.13	1961	0	0		0		3	28	0	0	0	Jul
Aug	95.4	66.6	81.0	111	1944	51	1944	*	1.27	2.55	1942	0	0		0		3	27	0	0	0	Aug
Sep	89.8	60.9	75.4	108	1948+	35	1942	6	1.29	2.80	1944	0	0		0		3	17	0	0	0	Sep
Oct	81.5	51.2	66.4	100	1940+	29	1949	93	1.29	1.85	1941	0	0		0		3	5	0	0	0	Oct
Nov	70.4	39.1	54.8	94	1942	11	1938	314	0.51	1.02	1952	0.1	2.0	1943	T	1961	2	0	*	6	0	Nov
Dec	63.6	33.1	48.4	91	1954+	4	1953	561	0.59	1.41	1946	0.5	7.0	1946	0		1	0	*	17	0	Dec
Year	80.5	49.9	65.2	112	June 1939	4	Dec. 1953	2498	12.23	3.85	June 1941	3.0	11.0	Jan. 1946	2	Feb. 1961	28	127	2	65	0	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

THE CLIMATE OF FORT STOCKTON, TEXAS

Fort Stockton came into existence with the establishment of the Fort Stockton military post in 1859, an outpost at a crossing of the Old San Antonio Road and the ancient Comanche War Trail. Long before white men arrived, nearby Comanche Springs was a popular spot with Indians. Today, Fort Stockton is a retail and shipping center for vast ranching, natural gas and oil activities. A major West Texas crossroads, Fort Stockton is served by U.S. Highways 67, 285, 290, 385 and State Highway 18. Fort Stockton is the county seat of Pecos County. Manufactured products include food products, trailers and irrigation supplies. It is a center for marketing sheep, cattle and wool. Pecos County, second largest in Texas, is hilly and rolling, broken by tributaries of the Pecos River. Elevations range from 2,000 to 5,200 feet. Soils are clay, loam and sandy types. Over 645 million barrels of oil have been produced in the county since 1926. Approximately two-thirds of farm income comes from crops, chiefly cotton, grain sorghums and small grains. Forty thousand acres are irrigated. There are many interesting historical sites in and near Fort Stockton. Hunting is excellent over a broad area south of Fort Stockton, with abundant mule deer and pronghorn antelope.

Fort Stockton has an arid subtropical climate with hot summers. Mean annual total precipitation is 12.23 inches with more than 70 percent of this amount falling in the six-month period May through October. During May and June, much of the precipitation occurs from thunderstorms associated with cold frontal systems. Throughout the rest of the summer, most of the precipitation results from local thundershowers, and from showers developing in the mountains to the west, drifting eastward. Thunderstorms in the area occasionally may be accompanied by hail and strong, gusty winds. Monthly and annual precipitation totals are extremely variable. The wettest year of record (1870-1967) was 1880, when heavy rains in July, August and September boosted the total to 33.76 inches. Only 4.07 inches fell in 1910, the driest year of record. A monthly total of 14.68 fell in September 1883. Periods of several weeks with no measurable precipitation are not uncommon.

Prevailing winds are northerly November through February, and southeasterly April through October. March is a transitional month with wind components about equally divided between north and south. Mean annual relative humidity is 55-65 percent at 6:00 a.m., 35-40 percent at noon, and 30-35 percent at 6:00 p.m., Central Standard Time.

Winter: This season is characterized by fair, dry weather, generally, with mild days and cool nights. Although early morning minima usually dip into the low thirties, daytime temperatures rise to the mid-sixties. Prolonged cold spells are infrequent, occurring only as exceptionally strong and persistent outbreaks of cold dry arctic air sweep southward across the area. The lowest temperature of record at Fort Stockton is -7°F, and occurred on January 3, 1911. No sub-zero temperatures have occurred in the past 34 years.

Summer: Daytime temperatures are hot; there are few days when the daily maxima does not exceed 90°F. However, extremely low humidity and clear skies in the region permit rapid cooling to take place immediately after sundown, resulting in pleasantly cool nights throughout the summer. Evaporative-type home air-conditioners are effective for cooling in this dry climate. The highest temperature of record, 114°F, occurred on June 29, 1907, and again on June 17, 1924.

Spring and Fall: These are exceptionally pleasant periods in the Fort Stockton area. The weather is characterized by mild, sunny days and crisp, cool nights.

The mean length of the growing season (freeze free period) at Fort Stockton is 226 days. The mean dates of the last 32° freeze in the spring and the first in the fall are March 30 and November 11, respectively. Significant departures from these mean values may exist locally because of differences in topography, exposure, soil condition and vegetative cover. Mean annual lake evaporation is 76 inches. Mean annual sunshine is about 75 percent of the total possible.

FORT STOCKTON, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1938	49.9	57.0	62.2	66.6	75.9	82.4	80.6	80.8	76.2	69.9	54.8	49.3	67.1
1939	50.0	48.5	61.8	67.6	76.4	83.6	83.9	79.6	78.1	68.6	50.5	52.8	66.8
1940	42.0	52.9	60.2	68.2	75.0	78.3	82.8	80.6	76.2	67.9	54.7	51.5	65.9
1941	48.6	53.0	54.2	65.3	74.0	76.9	80.4	81.2	74.4	67.8	56.0	50.2	65.2
1942	46.4	51.0	56.7	65.2	74.5	82.9	83.8	81.5	73.4	67.3	61.6	53.0	66.4
1943	50.1	56.2	59.1	71.8	75.9	81.8	81.4	86.8	75.6	65.4	54.4	45.4	67.0
1944	47.3	55.1	59.2	66.6	75.0	82.5	83.0	81.9	73.6	66.3	55.1	45.8	66.0
1945	49.2	56.1	61.6	65.4	77.1	81.9	77.2	79.9	75.3	62.6	56.6	49.8	66.1
1946	42.6	51.1	59.6	69.8	73.5	80.8	82.6	82.4	77.0	68.8	54.0	49.8	66.0
1947	42.9	46.7	55.2	65.4	75.3	82.6	83.3	80.2	76.7	72.4	53.2	47.8	65.2
1948	43.8	50.0	55.6	73.1	76.6	84.4	83.9	83.6	75.3	66.3	54.5	55.0	66.9
1949	38.4	51.6	57.9	60.0	73.5	78.9	81.2	77.9	75.5	63.5	58.8	48.0	63.8
1950	52.3	53.8	58.4	65.8	74.5	80.6	81.0	79.8	75.3	69.9	54.9	48.5	66.2
1951	45.0	-	55.2	62.9	72.9	80.6	84.4	83.3	76.0	68.8	53.0	50.4	-
1952	53.1	51.1	54.0	62.6	71.7	81.1	80.0	84.3	75.9	64.5	51.9	45.8	64.7
1953	53.2	48.9	60.4	64.6	72.6	85.5	84.6	81.8	75.6	65.1	54.1	42.1	65.7
1954	50.0	55.1	56.9	69.2	71.1	80.3	82.3	81.2	78.0	67.3	55.4	50.2	65.4
1955	45.1	48.5	58.0	66.7	73.1	78.8	79.7	79.6	74.8	68.2	54.2	49.4	64.7
1956	46.8	47.3	57.3	64.0	76.8	82.8	82.6	81.6	-	68.1	51.5	49.1	-
1957	48.1	56.8	56.3	61.6	70.2	78.5	82.6	81.8	74.2	62.2	49.4	51.8	64.5
1958	43.8	47.6	49.8	61.8	70.5	82.4	83.9	81.5	75.5	61.7	54.8	47.5	63.4
1959	45.2	48.6	54.4	62.6	74.9	80.2	78.6	81.4	77.2	65.5	48.8	47.2	63.7
1960	44.3	44.6	51.5	66.2	72.5	82.2	79.5	80.0	75.5	66.8	55.0	-	-
1961	41.2	49.7	57.2	-	-	76.9	78.4	77.4	74.9	-	-	48.4	-
1962	41.3	56.3	51.6	66.3	75.9	79.0	85.0	83.0	76.1	68.4	56.2	46.1	65.4
1963	41.7	48.8	57.7	70.2	74.7	80.0	83.6	80.9	74.8	68.2	55.0	41.4	64.8
1964	44.2	43.4	55.0	65.8	74.8	78.4	82.9	82.5	73.9	63.3	55.6	47.6	64.0
1965	49.0	45.0	49.6	68.0	72.5	78.3	80.9	77.5	74.7	63.5	59.3	49.6	64.0
1966	41.5	44.2	57.4	64.1	72.0	78.3	83.6	79.2	75.0	61.4	57.8	45.2	63.3
1967	45.5	49.0	61.5	69.3	71.7	80.3	80.7	78.2	71.6	65.9	56.4	43.3	64.5

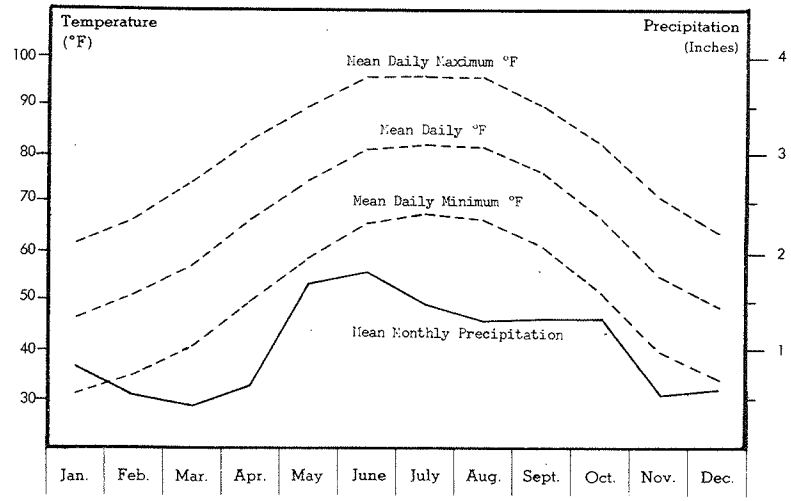
FORT STOCKTON, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1938	1.45	0.40	0.03	0.60	0.65	3.80	5.25	0.16	0.22	0.83	T	0.90	14.29
1939	3.10	0.15	0.25	0.20	1.26	0.20	1.87	1.60	0.33	0.50	1.61	0.65	11.72
1940	0.50	0.70	1.20	0.30	1.97	4.40	0.42	2.34	0.50	1.50	2.25	0.18	16.26
1941	2.23	1.47	0.95	2.10	3.08	6.01	1.55	3.05	3.90	3.85	T	1.10	29.29
1942	0.10	0.15	T	0.32	1.15	0.50	0.42	3.98	0.35	0.72	0.10	0.90	8.69
1943	0.15	0	0.70	0.30	1.80	3.87	1.92	0.62	1.75	1.08	0.85	0.79	13.83
1944	1.03	0.20	0	T	1.21	2.85	1.31	1.89	4.93	0.15	0.95	1.15	15.67
1945	0.10	0.05	2.20	0.56	0.40	0.20	3.36	0.10	1.52	5.91	T	T	14.40
1946	4.35	0.02	0.02	0.48	0.50	0.81	1.11	1.63	3.88	2.36	0.11	1.70	16.97
1947	1.25	0.12	0.90	0.07	2.32	0.60	0.34	1.23	0.02	0.12	0.89	1.20	9.06
1948	0.49	0.44	0.06	0.27	0.95	1.42	0.71	0.07	0.40	0.40	0.12	0.97	6.30
1949	1.47	T	0.07	4.50	1.80	1.23	2.01	2.09	1.03	1.56	0	0.85	16.61
1950	0.56	0.55	0	1.02	1.80	1.43	1.84	0.52	1.47	1.89	0	T	11.08
1951	0.02	-	1.43	0.16	1.32	1.37	T	1.48	0.72	0.12	T	0.13	-
1952	0.72	0.21	0.	1.22	3.60	1.41	1.14	0.33	0.34	0	1.17	1.07	11.21
1953	T	0.45	0.48	0.19	0.09	0.34	0.41	0.41	0.43	1.32	0.04	0.27	4.43
1954	0.23	0.24	0.26	1.12	2.44	2.70	0.13	3.14	0.07	0.36	0.02	T	10.71
1955	1.07	0.01	0	0.08	2.54	1.89	1.06	0.36	1.09	0.48	0.47	0.13	9.18
1956	0.49	0.57	0.02	0.30	0.09	0.21	0.83	0.36	0.30	1.13	T	0.19	4.49
1957	0.20	2.43	0.18	0.12	5.75	0.21	0.74	0.16	0.66	2.03	1.80	0.10	14.38
1958	1.55	1.46	1.35	0.62	2.12	0.73	0.71	1.69	3.77	2.87	0.40	0.01	17.28
1959	0.03	0.32	0.02	0.54	2.99	0.99	3.18	0.15	0.45	1.61	0.94	0.53	11.75
1960	1.11	0.73	0.38	1.08	0.21	1.25	3.88	2.13	0.10	1.92	0.21	1.62	14.62
1961	1.26	0.24	0.14	0.08	0.47	3.83	4.09	0.94	0.27	0.71	0.42	0.29	12.74
1962	0.43	0.51	0.85	0.29	0.41	2.02	1.48	0.86	0.54	0.96	0.53	0.75	9.63
1963	T	0.96	0	1.00	2.89	1.38	0.90	0.74	1.16	0.12	0.85	0.29	10.29
1964	0.36	0.02	0.37	0.20	0.55	1.37	1.10	1.44	4.36	0.87	0.25	0.31	11.20
1965	0.09	1.96	0.40	0.06	2.09	1.45	0.35	0.94	0.89	0.18	0.17	0.57	9.15
1966	0.55	0.15	0.11	0.64	2.43	1.79	0.25	2.36	2.49	2.48	0	0	13.25
1967	0	0.48	0.24	0.08	1.32	3.20	0.77	1.38	0.75	0.57	1.01	1.01	10.81

T - Trace

Monthly Temperatures and Precipitation



STATION HISTORY

Rainfall records were begun in Fort Stockton in 1859, and temperature records were started in 1904. There are no rainfall records for the period April 1861 through December 1869. Although instruments have been in several different locations, all the observations have been within three miles of the post office. At various times there has been more than one station in the Fort Stockton area, measuring different meteorological elements such as evaporation, humidity, in addition to temperature and precipitation. The station is currently located at Radio Station KFST, 1.5 miles southwest of the post office. Station equipment consists of a cotton region shelter, maximum and minimum thermometers and a standard eight-inch rain gage. Data are published monthly in CLIMATOLOGICAL DATA-TEXAS. Station index number, 41-3280-05

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