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

LATITUDE 32° 10' N
LONGITUDE 94° 20' W
ELEV. (GROUND) 282 ft.

CLIMATOLOGICAL SUMMARY

STATION CARTHAGE, TEXAS

MEANS AND EXTREMES FOR PERIOD 1952-1965

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)	14	14	14	14		14		12	14	14		14	14				12	12	12	12	12	
Jan	59.8	37.1	48.5	82	1956	6	1962	544	3.70	2.97	1953	0.5	5.0	1962			6	0	1	12	0	Jan
Feb	63.4	40.5	52.0	84	1954	16	1963	379	4.05	3.95	1952	0.3	4.0	1965			6	0	*	7	0	Feb
Mar	69.4	45.3	57.4	89	1955	20	1965+	280	4.10	3.61	1965	0.3	4.0	1965			6	0	0	4	0	Mar
Apr	78.2	54.6	66.4	91	1955	31	1962	66	4.33	2.96	1953	0					6	*	0	*	0	Apr
May	85.1	62.3	73.7	96	1958	40	1954	13	4.75	4.09	1965	0					5	7	0	0	0	May
Jun	91.3	68.3	79.8	103	1953	52	1956	*	3.59	2.70	1963	0					5	20	0	0	0	Jun
Jul	94.8	71.2	83.0	104	1964+	58	1952	0	2.28	2.75	1959	0					4	29	0	0	0	Jul
Aug	94.9	69.8	82.4	108	1962	55	1952	0	2.34	3.65	1964	0					4	27	0	0	0	Aug
Sep	89.6	63.8	76.7	102	1956	45	1953+	2	3.37	4.37	1958	0					5	17	0	0	0	Sep
Oct	80.4	52.2	66.3	95	1953	28	1952	73	2.60	2.93	1954	0					4	4	0	1	0	Oct
Nov	68.7	43.7	56.2	88	1955	20	1959	270	4.04	2.61	1959	*	0.2	1959			6	0	0	4	0	Nov
Dec	60.4	38.0	49.2	85	1955	9	1963	479	4.72	4.45	1960	0.1	1.4	1963			6	0	*	10	0	Dec
Year	78.0	53.9	66.0	108	Aug. 1962	6	Jan. 1962	2106	43.87	4.45	Dec. 1960	1.2	5.0	Jan. 1962			63	104	1	38	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 CARTHAGE, TEXAS

Carthage is located near the center of Panola County, a forested East Texas county adjacent to the Louisiana border. The surrounding terrain consists of rolling plains dissected by the Sabine River and its tributaries. The county is the center of a large lumber industry and contains one of the world's largest gas fields. Murvaul Reservoir, in the southwestern section of the county, is famous for the number and exceptionally large size of its Black Bass.

The climate is subtropical, permanently humid, with hot summers. Rainfall averages 43.87 inches annually, fairly evenly distributed throughout the year. Prevailing winds are from the southeast; consequently, the Gulf of Mexico plays a dominant role in determining the weather in the region. The Gulf tempers both the extremes of summer heat and winter cold. It also is the source of abundant rainfall.

The summer months are quite warm, with the average daily maximum temperatures near 95°F in both July and August. Winter temperatures are mild with only about one day during each year, on an average, when the daily maximum fails to go above freezing. Minimum temperatures are freezing or below only about one night in three during the winter months. Sudden changes in temperature and moisture do occur in winter as cold, dry polar air replaces the warm, moist tropical air from the Gulf, and vice versa. The occasional cold spells are of short duration, usually turning cold one day, reaching the lowest temperatures on the second night, and then warming up again on the third day. Subtropical vegetation and flowers fare well in winter. Roses often bloom in December and begin blooming again by late March.

Rainfall is heaviest November through May. July and August are the driest months. Late spring, summer, and early autumn rainfall is almost entirely of the local shower and thunderstorm type, whereas late fall, winter, and early spring rains are more general in nature, and associated with air mass changes.

Snowfall averages a little more than one inch a year; however, average values are misleading. One snow of three or four inches may be followed by several years of no measurable snow. Usually, snow melts almost as rapidly as it falls, and is an unimportant source of moisture. More troublesome than snowfall are the occasional ice and sleet storms which do considerable damage to trees, shrubs, and utility lines, as well as making travel difficult. They occur during brief periods in the winter months.

The spring and fall seasons are the most delightful. Temperatures are neither too hot nor too cold, and there are sufficient changes to make the weather interesting.

The growing season (freeze free period) at Carthage averages 240 days. The average date of the last spring freeze is March 16, while the average date of the first fall freeze is November 11.

Average annual relative humidity is approximately 85 percent at 6:00 a.m. and between 55 and 60 percent at both noon and 6:00 p.m., Central Standard Time. Diurnally, relative humidity is usually highest shortly before sunrise and lowest during mid-afternoon. The area receives about 65 percent of the total possible sunshine annually. Mean annual lake evaporation is estimated at 50 inches.

CARTHAGE, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1952	57.6	56.4	57.2	62.7	72.7	82.6	82.5	83.5	74.7	59.9	54.1	48.0	66.0
1953	52.0	49.8	63.2	63.6	73.8	84.0	80.8	80.0	75.3	66.7	52.3	46.5	65.7
1954	52.1	59.3	57.9	70.6	68.5	80.9	85.8	85.3	79.2	68.1	54.3	51.6	67.8
1955	50.2	51.7	61.9	70.3	76.2	77.8	82.3	80.6	78.4	66.4	57.0	57.6	67.0
1956	48.8	55.9	58.9	64.7	76.8	79.6	84.8	83.9	77.0	69.4	55.6	56.8	67.7
1957	50.4	58.8	57.2	67.1	74.9	79.2	83.2	81.4	74.7	63.7	56.7	55.1	66.9
1958	47.1	46.3	54.0	65.5	73.8	81.1	83.3	82.7	77.6	65.6	58.2	47.5	65.2
1959	47.3	52.7	57.2	64.0	76.0	79.0	81.9	81.8	78.1	67.8	52.3	51.9	65.8
1960	47.6	46.0	50.6	67.8	71.9	80.3	83.2	82.6	77.4	68.8	58.1	45.2	65.0
1961	44.0	53.4	61.8	63.2	72.5	76.3	80.1	79.4	76.4	66.0	54.1	48.7	64.7
1962	43.0	58.0	54.3	64.2	74.9	79.0	83.9	85.3	77.0	70.0	55.5	49.3	66.2
1963	41.7	45.9	62.1	69.9	74.1	81.2	83.9	83.7	76.3	70.3	58.8	41.1	65.8
1964	47.5	46.8	57.2	68.0	73.4	78.7	83.9	82.6	75.7	61.9	58.9	47.5	65.2
1965	49.5	47.0	49.5	68.4	72.8	77.7	82.6	80.4	76.2	63.3	61.2	48.6	64.8

CARTHAGE, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1952	4.57	7.56	3.43	5.86	5.09	0.18	2.64	2.66	0.29	0.09	5.55	5.35	43.27
1953	6.03	3.28	7.90	6.08	9.66	1.63	3.85	1.98	1.08	1.70	2.14	6.27	51.60
1954	3.81	1.34	2.19	3.95	6.47	0.25	0.57	0.68	0.78	6.19	4.02	3.77	34.02
1955	3.67	5.14	2.33	3.91	7.33	3.72	3.91	4.10	0.58	1.70	0.50	1.90	38.79
1956	2.88	4.82	3.50	4.49	4.02	3.43	1.45	1.51	0.58	2.01	3.46	2.04	34.19
1957	4.02	4.11	5.44	10.75	4.52	3.83	2.29	4.13	3.77	7.60	9.84	3.06	63.36
1958	3.50	2.06	3.26	4.69	4.06	5.18	1.67	2.14	11.50	1.40	3.09	0.80	43.35
1959	0.92	4.40	1.95	4.71	4.63	3.54	6.70	1.86	2.43	4.08	4.46	6.53	46.21
1960	3.48	4.92	3.82	2.97	1.14	3.99	1.36	2.45	4.86	3.88	3.55	10.69	47.11
1961	5.87	4.83	7.78	1.47	1.80	10.17	2.65	0.68	5.96	1.97	4.90	8.94	57.02
1962	5.02	2.57	2.29	4.14	3.09	7.12	2.93	1.04	3.84	4.86	4.59	2.61	44.10
1963	1.61	1.55	1.84	2.76	1.81	3.48	0.87	1.05	2.33	0	6.18	2.17	25.65
1964	2.39	3.18	5.03	3.75	2.32	0.43	0.19	6.77	2.95	0.57	2.46	3.33	33.37
1965	4.01	6.90	6.70	1.02	10.52	3.32	0.87	1.77	6.29	0.28	1.86	8.56	52.10

STATION HISTORY

Temperature and precipitation records began at Carthage December 1, 1907, but were discontinued February 29, 1908, only three months later. A climatological station was not re-established at Carthage until November 1, 1951. An instrument shelter with maximum and minimum thermometers, and an 8-inch standard rain gauge were installed at the city hall and fire station, 3½ blocks north-northeast of the post office. The station was moved short distances several times, each location being less than one mile from the post office. The station was moved back to the Carthage City Hall and Fire Station, 0.3 mile west-northwest of the new post office, February 2, 1967. The city of Carthage is the official observer. Temperature and precipitation data are published in CLIMATOLOGICAL DATA-TEXAS.

Weather Bureau State Climatologist
Environmental Science Services Administration
3600 Manor Road, Austin, Texas 78723
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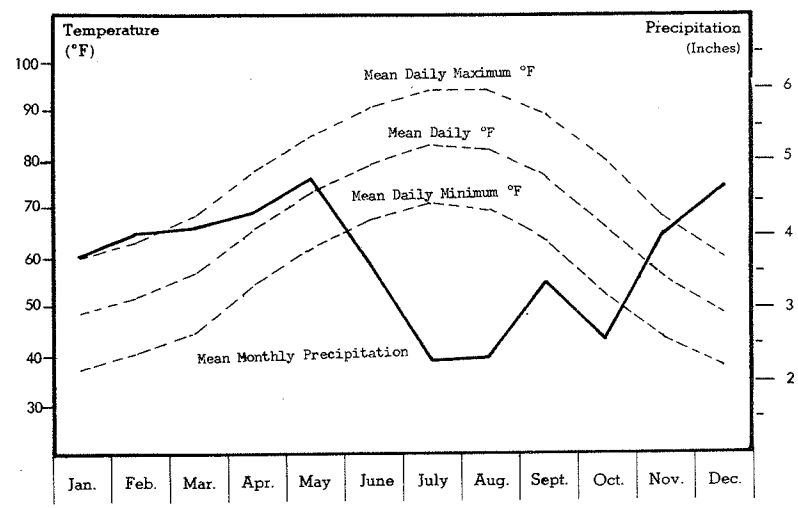
Monthly Temperatures and Precipitation