

**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 31° 07' N  
 LONGITUDE 97° 43' W  
 ELEV. (GROUND) 796 ft.

**CLIMATOLOGICAL SUMMARY**

STATION KILLEEN, TEXAS

MEANS AND EXTREMES FOR PERIOD 1951-1967

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 Depth	Year	90° and above	Max.		Min.		
																			32° and below		32° and below	0° and below	0° and below
(a)	11	11	11	11		11		11	17	17					11	11	11	11	11				
Jan	59.6	33.4	46.5	83	1967	7	1962	569	1.56	2.20	1965	0.4	6.0	1964	6	1964	3	0	*	15	0	Jan	
Feb	63.3	37.2	50.3	89	1963	20	1965	411	2.43	4.00	1958	0.5	5.0	1966	-	1964	4	0	0	10	0	Feb	
Mar	71.4	44.9	58.2	88	1963+	20	1965	243	1.66	2.06	1951	0	0	0	0	0	2	1	0	4	0	Mar	
Apr	79.4	55.1	67.3	94	1961	32	1961	67	3.21	4.11	1957	0	0	0	0	0	5	2	0	0	0	Apr	
May	85.3	62.4	73.9	98	1959	45	1961	7	4.03	4.60	1965	0	0	0	0	0	4	8	0	0	0	May	
Jun	91.9	68.4	80.2	104	1960	49	1960	0	3.30	6.40	1958	0	0	0	0	0	4	23	0	0	0	Jun	
Jul	95.9	70.9	83.4	106	1957	60	1967	0	1.29	3.13	1960	0	0	0	0	0	2	29	0	0	0	Jul	
Aug	96.5	69.9	83.2	110	1964	55	1967	0	1.93	3.80	1959	0	0	0	0	0	3	29	0	0	0	Aug	
Sep	89.5	65.2	77.4	101	1963+	49	1961	2	3.17	5.55	1950	0	0	0	0	0	5	16	0	0	0	Sep	
Oct	81.8	54.1	68.0	98	1966	30	1957	58	3.63	4.95	1959	0	0	0	0	0	4	2	0	*	0	Oct	
Nov	69.9	45.8	57.9	88	1966	19	1959	236	2.27	2.40	1965+	0	0	0	0	0	4	0	0	3	0	Nov	
Dec	61.7	41.1	51.4	84	1958	11	1963	473	2.07	2.80	1959	0	0	0	0	0	4	0	*	11	0	Dec	
Year	78.9	53.5	66.2	110	Aug. 1964	7	Jan. 1962	2066	30.55	6.40	1958	0.9	6.0	Jan. 1964	6	Jan. 1964	44	110	*	43	0	Year	

(a) Average length of record, years.

† Trace, an amount too small to measure.

\*\* Base 65°F

+ Also on earlier dates, months, or years.

\* Less than one half.

# Period of record, 1957-1967.

THE CLIMATE OF KILLEEN, TEXAS

Killeen is located in the western part of Bell County, in Central Texas, approximately 46 airline miles southwest of Waco. Killeen is the gateway to Fort Hood, the U.S. Army's huge armored installation. Killeen maintains three spacious public parks offering facilities for swimming, picnicking, softball, and tennis, and playground equipment for children. Outdoor recreational facilities for camping, picnicking, swimming, boating, and fishing are provided also at nearby Belton and Stillhouse Hollow reservoirs. The surrounding terrain is level to hilly, cut by the Lampasas and Leon rivers and their tributaries.

The climate of Killeen is humid subtropical with hot summers, although the city is located very near the western boundary of this particular climatic region. Precipitation decreases somewhat in winter, which is a climatic characteristic of the region to the west of Killeen. Tropical Maritime air controls the climate of the region during the spring, summer, and fall. During the winter months, Polar Canadian air masses predominate, although these cold air masses are modified considerably by the time they reach Central Texas. The prevailing winds at Killeen are southerly throughout the year, including the winter months. Rainfall is most frequent, and heaviest, during April, May, and June. A secondary rainfall peak occurs in the fall months of September and October. In an average year, January and March are relatively dry months, as are July and August. The mean total annual rainfall for the 17-year period 1951-1967, is 30.55 inches. This period is too short to establish a reliable estimate of the mean, and estimates of the 1931-1960 precipitation "normal" for Killeen, based on surrounding stations with 30 years of record, is 32 inches. Since moisture laden Tropical Maritime air is so often present, torrential downpours of short duration may occur almost any time during the year. As much as 4.0 inches of precipitation have fallen within a single 24-hour period in February, which is not usually a wet month. The variability in annual total precipitation is illustrated by the amounts which fell during the wettest and driest years, and which occurred only three years apart. A total of 54.53 inches fell in 1957, the wettest year, while only about one fifth of this amount, 11.30 inches, fell in 1954, the driest year. At Killeen there exists a wide range between annual temperature extremes also, typical of continental climates.

The relative humidity is fairly uniform throughout the year; however, it does vary considerably during the day. The average annual relative humidity is approximately 82 percent at 6:00 a.m., 54 percent at noon, and 50 percent at 6:00 p.m., Central Standard Time. The mean annual sunshine received is about 52 percent of the total possible, but varies from about 55 percent in winter to 75 percent in summer. While the strongest winds that are observed at Killeen are the gusts and squalls associated with thunderstorms, the strongest persistent wind speeds occur in March and April in association with intense low pressure centers (extratropical cyclones) that move eastward from the Texas Panhandle. Lake evaporation in the Killeen area is estimated at 37 inches annually.

Winter: Generally, temperatures are mild, and cold spells are quite brief. The minimum temperature drops to 32°F or below on less than one half of the winter nights. There is often considerable cloudiness in the morning which breaks up about noon and is followed by sunshine and warmer temperatures during the afternoon. Snow is usually of little or no consequence, often melting as rapidly as it falls with no accumulation on the ground. Measurable amounts are rare.

Summer: Daytime temperatures are hot in Killeen, and refrigerated type air-conditioning is recommended for maximum comfort indoors or while traveling via automobile. Except in June, there is little variety in the day-to-day weather.

Spring and fall are delightful seasons with moderate temperatures, characterized by mild days and cool nights. They are ideally suited for most outdoor recreational activities.

The mean length of the warm season (freeze free period) is approximately 260 days. The mean dates of the last occurrence of 32°F or below in the spring, and the first occurrence in the fall, are March 9 and November 24, respectively.

KILLEEN, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1957	-	-	62.6	72.1	79.5	84.2	83.6	75.1	62.8	52.2	-	-	-
1958	45.4	45.4	51.6	63.5	73.1	81.3	84.2	83.7	78.2	66.7	57.8	45.3	64.7
1959	43.6	48.7	58.4	64.3	76.7	80.8	82.6	82.4	-	67.3	51.3	52.4	-
1960	48.5	48.7	52.6	68.0	71.6	82.7	83.4	81.8	78.0	69.3	60.0	46.6	-
1961	43.8	54.0	62.7	65.7	74.5	79.3	79.7	75.1	66.4	53.6	49.3	65.2	65.2
1962	43.7	57.5	55.8	65.9	74.7	77.5	82.9	86.0	77.7	70.6	58.8	50.7	66.8
1963	44.9	49.7	62.5	76.2	82.6	85.3	85.0	79.2	71.8	64.6	61.2	51.6	66.8
1964	47.4	46.5	59.5	69.2	74.3	79.6	84.4	85.4	77.7	64.1	63.0	54.9	66.8
1965	52.5	49.1	52.5	70.1	72.6	78.7	82.7	82.1	79.7	64.1	63.0	54.9	66.8
1966	44.6	48.2	59.5	68.5	74.1	79.0	84.6	82.6	76.8	66.6	-	-	-
1967	50.8	53.7	66.3	74.7	-	81.9	84.2	82.9	-	68.6	59.5	50.1	-

KILLEEN, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1951	0.12	2.35	2.54	2.14	5.49	3.57	0.27	0.82	2.88	0.80	1.15	0.31	22.44
1952	1.08	2.23	2.90	6.37	6.64	1.72	0.62	0.55	0.70	9.79	4.97	5.49	33.27
1953	0.93	1.01	1.65	2.38	7.54	0.18	2.35	1.06	1.47	9.79	1.45	1.65	31.46
1954	0.82	0.10	0.89	1.80	2.07	0.41	1.02	0.19	0.18	1.29	2.45	0.08	11.30
1955	2.22	4.18	2.22	1.41	3.98	4.55	2.63	5.07	3.25	0.14	1.30	0.26	31.21
1956	2.04	1.43	0.12	0.67	3.79	1.75	0.07	1.44	0.42	2.09	2.19	1.87	17.88
1957	2.28	2.60	5.19	13.27	4.88	5.14	1.72	0	5.43	9.25	3.63	1.14	54.53
1958	1.79	7.82	1.53	1.29	3.54	8.14	0	1.83	2.11	2.37	1.94	1.17	36.53
1959	0.90	2.97	0.07	2.63	1.99	5.13	4.13	8.01	3.39	9.97	1.85	4.86	45.50
1960	2.31	2.27	1.10	1.42	1.45	2.53	3.68	2.61	5.29	7.52	1.77	7.06	36.56
1961	3.33	3.91	2.36	0.22	1.60	5.36	4.02	1.10	2.27	5.16	2.82	1.17	32.65
1962	0.40	3.80	0.74	4.89	3.33	7.54	0	0.55	2.27	1.47	1.96	2.19	30.83
1963	0.08	1.30	0.43	2.66	0.88	1.97	0	0.81	1.35	3.30	2.72	1.30	16.80
1964	3.79	1.50	2.25	1.10	3.75	2.99	0	2.50	9.25	1.82	2.17	1.10	44.69
1965	2.72	4.22	2.89	1.73	14.41	4.12	0.78	1.24	3.04	2.66	3.33	3.55	44.69
1966	1.79	1.42	0.80	5.16	1.91	1.07	0.04	3.39	6.42	0	0	0.60	22.60
1967	0.27	0.37	0.53	2.51	1.28	0	0.65	1.70	3.67	4.02	2.82	1.33	19.15

STATION HISTORY

A rainfall reporting station was established at the Post Engineering Disposal Plant, at Camp Hood, 0.6 mile southeast of the present Post Office building in Killeen, on January 1, 1945. The standard eight-inch rain gage has remained at this location throughout the history of the station. Rainfall records are complete from 1951 to the present, but there are several gaps in the records prior to 1951. Maximum and minimum thermometers, and a cotton region instrument shelter, were added to the station equipment on April 1, 1957. The U.S. Corps of Engineers is the official Cooperative Weather Observer. Temperature and precipitation data are published monthly in CLIMATOLOGICAL DATA-TEXAS. Station index number: 41-4791-03.

ESSA State Climatologist for Texas  
 Airport Administration Building  
 3600 Manor Road, Austin, Texas 78723  
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Single copies of this summary are available without charge from the Bureau of Business Research, The University of Texas, Austin, Texas 78712. Quantity rates upon request.

Monthly Temperatures and Precipitation

