

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 33° 10' N
 LONGITUDE 101° 49' W
 ELEV. (GROUND) 3120 ft.

CLIMATOLOGICAL SUMMARY

STATION TAHOKA, TEXAS

MEANS AND EXTREMES FOR PERIOD 1954-1969

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)	14	14	14	14		14		14		16	16		16	16	14		14	14	14	14			
Jan	54.8	25.2	40.0	86	1969	-5	1964+	767	0.51	0.75	1958	2.5	12.5	1958	-		1	0	2	24	*	Jan	
Feb	58.4	28.9	43.7	87	1962	-1	1960	601	0.67	1.06	1957	2.7	9.0	1956	-		2	0	1	19	*	Feb	
Mar	66.6	34.9	50.8	91	1963	9	1962	442	0.84	1.33	1968	2.6	12.0	1969+	11	1969	2	*	1	12	0	0	Mar
Apr	76.2	46.1	61.2	99	1965	27	1959	153	1.22	1.62	1954	0	0		0		2	3	0	1	0	0	Apr
May	84.2	54.9	69.6	102	1958	33	1967	38	3.29	3.95	1957	0	0		0		5	10	0	0	0	0	May
Jun	89.9	62.8	76.4	105	1957	45	1964	2	2.89	2.23	1968	0	0		0		6	17	0	0	0	0	Jun
Jul	92.8	66.4	79.6	106	1958	57	1958	0	2.63	3.85	1955	0	0		0		4	24	0	0	0	0	Jul
Aug	92.0	65.0	78.5	106	1959	54	1966+	1	1.53	1.92	1965	0	0		0		3	23	0	0	0	0	Aug
Sep	84.9	58.3	71.6	99	1965+	38	1967	12	1.60	1.85	1955	0	0		0		4	10	0	0	0	0	Sep
Oct	76.4	47.8	62.1	93	1968+	30	1969+	142	1.91	2.76	1960	0	0		0		3	2	0	1	0	0	Oct
Nov	64.8	36.6	50.7	86	1965	8	1957	423	0.79	0.91	1957	0.8	6.5	1968	3	1968	2	0	0	10	0	0	Nov
Dec	56.2	28.7	42.5	82	1964+	6	1966	691	0.56	1.20	1959	2.2	13.5	1960	9	1960	2	0	1	22	0	0	Dec
Year	74.8	46.3	60.6	106	Aug. 1959+	-5	Jan. 1964+	3272	18.44	3.95	May 1957	10.8	13.5	Dec. 1960	-	-	36	89	5	89	*	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.

1956 - 1969

THE CLIMATE OF TAHOKA, TEXAS

Located on the High Plains, 29 miles south of Lubbock, at an elevation of 3,120 feet, Tahoka is the county seat and marketing center of Lynn County. The town owes its name to nearby Tahoka Lake, a natural spring-fed lake whose Indian name means deep clear water. The Tahoka Daisy (a member of the aster family), first discovered at Tahoka Lake, now spreads wild over the High Plains to rival the bluebonnet (state flower) and wild verbena.

Lynn County is high plain, broken by draws and dotted by playas. Soils are sandy loams, black, and gray types. Elevations range from 2,600 to 3,300 feet above mean sea level. The economy of Lynn County is based on agribusinesses centered in cotton, grain sorghums and cattle. About 92,000 acres are irrigated.

The climate of Tahoka is a dry steppe type with mild winters. Mean annual precipitation is 18.44 inches. In an average year, four-fifths of the total precipitation falls during the warm season, April through October. Rains occur most frequently as the result of thunderstorms with monthly and annual amounts extremely variable. Annual extremes since 1929 range from 40.98 inches in 1941 to only 10.08 in 1956. Drought periods of several months duration are not uncommon. The prevailing winds at Tahoka are southwesterly November through April and southerly May through October. Wind speeds average about 13.4 miles per hour annually. Mean relative humidity at noon, Central Standard Time, is estimated at 49 percent in January, 40 percent in April, 45 percent in July, and 45 percent in October. The Tahoka area receives approximately 67 percent of the total possible sunshine in winter; 78 percent in summer. Free-water (lake) evaporation averages 71 inches annually.

Winter: Frequent surges of cold Polar Canadian air bring strong northerly winds and sharp drops in temperature. However, cold spells rarely last longer than about 48 hours before sunshine and southwesterly winds bring rapid warming. Freezes occur on about three out of four nights, but days are usually sunny, and daily maxima average 54.8°F in January. The lowest temperature of record

at Tahoka is -15°F and occurred on February 8, 1933. Winter is a dry season. Precipitation most often falls in the form of light snow. Usually, the snow piles up in drifts, resulting in an uneven moisture distribution. The arithmetic mean is a poor estimate of expected snowfall at Tahoka as this statistic is biased by a few exceptionally heavy snows, such as occurred in January 1958, March 1968 and 1969, and December 1960.

Spring weather is characterized by frequent changes. Through March and April, warm and cold spells follow each other in rapid succession. These are the windiest months of the year. Infrequently, persistently strong southwesterly to northwesterly winds may produce dust storms in the area. Thunderstorms, which rarely occur in winter, increase in number through the spring season and reach peak frequency in May and June. In an average year, May is the wettest month. A few of these late spring and early summer thunderstorms may be accompanied by damaging wind and hail.

Summer is one of the most pleasant seasons on the High Plains. While afternoon temperatures are sometimes hot, most nights are pleasantly cool. After sunset, temperatures drop rapidly in the clear, dry air. Evaporative-type air-conditioners operate efficiently in this climate. While June and July are relatively wet months, average rainfall decreases significantly in August. Thunderstorms occur on an average of 41 days annually.

Fall weather, like that of summer, is very pleasant. There is greater variety than in summer since the Tropical Maritime air mass is replaced often by cooler, drier, polar air. Rainfall decreases rather abruptly in November since the Tropical Maritime air is seldom present so far north this late in the season. Mild, sunny days and clear, cool nights characterize the fall season.

The warm season (freeze free period) at Tahoka averages 217 days. The mean dates of the last occurrence of 32°F or below in the spring and the first occurrence of 32°F or below in the fall are April 4 and November 7, respectively.

TAHOCA, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1956	42.4	42.5	55.4	59.6	72.9	78.8	79.5	78.8	74.5	64.1	48.6	45.6	61.9
1957	42.9	51.7	52.3	57.7	65.8	76.7	82.0	79.7	70.6	59.9	45.9	47.1	61.0
1958	39.9	-	-	-	71.1	76.7	81.3	80.1	72.9	61.4	52.1	42.3	-
1959	39.5	45.1	51.4	60.3	71.1	76.7	78.1	79.3	73.1	59.4	46.5	44.5	60.3
1960	39.2	38.8	47.9	63.4	69.3	-	75.6	78.9	73.3	63.9	53.6	38.4	-
1961	38.2	44.5	52.4	61.7	71.2	75.6	79.1	79.1	71.8	63.3	46.9	42.2	60.1
1962	37.4	51.6	50.0	62.0	73.9	74.5	80.7	79.8	73.8	64.2	52.3	43.9	61.6
1963	35.9	45.5	54.7	65.6	70.5	75.4	82.0	80.3	70.8	67.3	52.2	38.2	60.8
1964	40.5	39.2	50.8	62.6	71.1	77.0	82.0	80.3	71.7	61.9	51.4	41.6	60.8
1965	43.6	40.6	42.7	62.7	68.9	75.7	80.7	77.3	70.8	62.4	56.6	46.1	60.8
1966	34.5	38.7	53.7	58.7	67.5	75.9	82.3	75.2	70.5	59.0	54.7	39.6	59.2
1967	41.8	43.4	56.0	64.4	67.0	75.9	77.4	75.8	68.8	61.9	51.5	38.6	60.2
1968	40.2	40.8	50.1	56.1	68.0	75.1	76.6	77.2	69.1	63.6	48.2	41.3	59.0
1969	44.3	44.5	42.6	62.0	67.0	76.4	82.1	80.6	70.5	57.2	49.8	45.3	60.2

TAHOCA, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1954	0.02	0.33	0.31	2.62	4.52	0.79	0.24	3.26	0	2.06	0.12	0.35	13.86
1955	0.92	0.54	0	0.88	3.70	0.46	5.23	0.10	3.00	2.03	0	0	17.08
1956	0.18	1.82	0.99	0.10	2.56	3.08	0.94	0.39	0.73	1.48	0	0.26	10.08
1957	1.45	0.59	2.48	3.05	8.24	3.49	3.46	0.84	0.97	4.26	2.98	0.78	30.28
1958	1.14	0.13	0.76	1.76	2.55	2.26	2.01	0.86	1.41	1.63	0.78	1.78	17.78
1959	0.85	0.96	1.31	1.31	3.26	7.14	3.76	0.43	2.51	2.79	0.29	1.78	23.54
1960	1.55	0.63	0.22	0.33	1.48	1.50	6.59	0.25	1.14	5.72	0	1.67	20.71
1961	0.10	0.83	1.22	0.12	0.50	4.13	3.89	0.30	0.25	0.60	1.49	0.29	15.17
1962	0.04	0.04	0.11	1.37	0.14	2.74	4.26	1.86	3.70	2.01	0.44	0.72	17.49
1963	0.02	0.16	0.70	0.54	8.24	4.22	1.15	1.03	0.58	0.44	0.93	0.62	19.63
1964	0.45	0.44	0.54	0.54	2.78	2.01	0.54	1.86	1.43	0.85	0.55	0.91	11.61
1965	0.02	0.52	0.12	1.05	4.94	2.43	0.91	3.39	1.69	0.85	0.02	0.32	16.26
1966	0.59	0.41	0.66	2.76	1.43	1.99	0.21	4.43	2.59	0.05	0.01	0.71	15.13
1967	1.87	0.23	1.36	1.10	0.90	3.87	3.91	1.95	1.59	0.31	0.80	0.71	16.73
1968	1.02	1.35	2.84	0.69	1.61	4.27	2.74	1.41	0.49	0.75	3.01	0.77	21.80
1969	0.02	1.40	1.91	1.85	5.80	1.93	2.27	2.04	3.44	5.65	1.32	0.50	27.93

T - Trace

STATION HISTORY

Temperature and precipitation observations began at Tahoka on March 1, 1913, but were terminated on August 31, 1917. The climatological station was reactivated on September 1, 1928. Throughout its history, the station has been located within a radius of one mile of the Tahoka Post Office. Frank P. Hill, the present Cooperative Weather Observer, was appointed on May 4, 1953. The station was relocated to its present site at 2411 West First Street, 1.0 mile west-southwest of the Tahoka Post Office on February 23, 1966. Station equipment consists of a cotton region shelter, maximum and minimum thermometers and a standard, eight-inch, non-recording rain gage. Daily temperature and precipitation data are published monthly in Climatological Data-Texas. Station index number: 41-8818-01.

BSSA State Climatologist for Texas
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 July 1970

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

