

**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° 22' N  
LONGITUDE 98° 46' W  
ELEV. (GROUND) 1197 ft.

**CLIMATOLOGICAL SUMMARY**

STATION OLNEY, TEXAS

MEANS AND EXTREMES FOR PERIOD 1944-1967

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	32° and below	32° and below	0° and below	
(a)	12	12	12	12		12		12	24	24		24	24			12	12	12	12	12		
Jan	55.2	29.1	42.2	84	1957	-5	1966	702	1.18	1.67	1965	1.2	6.0	1947		2	0	2	20	*	Jan	
Feb	59.5	33.8	46.7	90	1962	8	1960	518	1.23	1.83	1964	0.9	7.0	1961		3	*	1	13	0	Feb	
Mar	68.0	40.5	54.3	96	1967	11	1965	357	1.21	1.90	1945	0.5	7.0	1947		3	1	*	8	0	Mar	
Apr	78.2	52.2	65.2	96	1967+	29	1959	97	2.98	3.94	1966	0				4	3	0	1	0	Apr	
May	85.4	60.7	73.1	108	1967	36	1960	16	3.50	3.02	1949	0				5	10	0	0	0	May	
Jun	91.8	67.9	79.9	109	1960	52	1964	*	2.46	3.04	1944	0				4	20	0	0	0	Jun	
Jul	96.2	71.8	84.0	111	1964	60	1965	0	1.99	3.28	1960	0				3	28	0	0	0	Jul	
Aug	97.7	70.2	84.0	110	1964	53	1961+	0	1.25	1.94	1966	0				2	30	0	0	0	Aug	
Sep	88.7	63.5	76.1	104	1963	41	1967	3	3.41	8.04	1955	0				5	14	0	0	0	Sep	
Oct	79.0	52.3	65.9	100	1956	27	1957	82	2.27	4.61	1959	T	T	1967		4	4	0	*	0	Oct	
Nov	66.9	41.5	54.2	90	1965	10	1959	326	1.47	2.30	1946	0.2	2.0	1951		3	*	0	5	0	Nov	
Dec	58.0	33.1	45.6	85	1956	10	1963+	597	1.18	2.70	1946	0.4	5.0	1954		3	0	1	15	0	Dec	
Year	77.1	51.4	64.3	111	July 1964	-5	Jan. 1966	2698	24.13	8.04	Sept. 1955	3.2	7.0	Feb. 1961		41	110	4	62	*	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.

# Period of record 1956-1967

THE CLIMATE OF OLNEY, TEXAS

Olney, located in Young County in North Central Texas, approximately 43 miles south of Wichita Falls, is the commercial center for the northern portion of Young County and the southern portion of Archer County. An aircraft plant is located here. For outdoor recreational activities, Possum Kingdom, Graham, and Kickapoo Lakes are only short distances away. Fort Belknap Park, site of a U.S. Army post established in 1851, is about 15 miles south of Olney. In the surrounding area, gas, oil, sand, and gravel are produced; beef cattle, wheat, and cotton are the leading agricultural products.

The climate of Olney is subtropical with dry winters and hot humid summers. Tropical maritime air masses play a predominate role in determining the climate of the area from April through October, while those air masses of polar origin largely control the climate from November through March. The decrease in mean monthly rainfall during this latter period is attributed to the frequency of the drier polar air masses and the closing off of the Gulf of Mexico moisture supply. Mean annual rainfall is 24.13 inches. There is a wide range in annual extremes of temperature, characteristic of a continental type of climate. Both temperature and precipitation vary considerably within short periods. The greater part of rainfall comes in the form of showers rather than general rains. Prolonged dry spells are not uncommon; and during unusually wet years, much of the rainfall may fall in heavy downpours that produce rapid run-off and erosion of the soil. Prevailing winds southerly throughout the year, except in January and February northerly winds predominate. Mean annual relative humidity is 78 percent at 6:00 a.m., 50 percent at noon, and 47 percent at 6:00 p.m., Central Standard Time. The seasonal variation in relative humidity is small.

Winters are mild, although the passage of cold fronts, or "northerners," may bring abrupt temperature drops, as much as 20° to 30°F within an hour. Cold spells are brief, terminated by the usually

rapid return of sunny skies and southerly winds. Precipitation is most often in the form of light general rain or drizzle. Snow may fall once or twice a month, but the average accumulation during January and February is less than two inches. Snow usually melts as it falls, only briefly interrupting outdoor activities.

Spring is a pleasant season. Rapid changes in the weather are experienced often in March, but changes are less frequent and become less abrupt as the spring season progresses. Wind speeds are higher, on an average, in March and April than during other months. Thunderstorm days increase during the spring, reaching a peak in May. Occasionally, late spring and early summer thunderstorms are accompanied by destructive winds and hail.

Summer: Daytime temperatures are hot, particularly those of July and August; daily maxima of 100°F or above are not uncommon. Thunderstorms occur on an average of nine days in June and tend to break the spells of hot weather into short periods, but these occur less frequently in July and August. Mid-summer is a relatively dry period that offers little variety in the day-to-day weather. Because of the rather low relative humidity in the Olney area, evaporative-type home air-conditioners are effective about 90 percent of the time during July and August.

Fall is a delightful season characterized by mild sunny days and clear cool nights. Wind speeds are usually lower during the fall than during any other season. Fall is well suited to most outdoor activities.

The mean length of the warm season (freeze free period) at Olney is 215 days. The mean lake evaporation is estimated at 64 inches. Thunderstorms occur on an average of 48 days each year.

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1956	42.2	47.4	58.4	64.6	77.0	83.9	-	84.9	78.3	69.3	52.1	48.6	-
1957	42.4	51.7	51.8	60.8	70.8	79.4	85.2	83.2	73.3	61.0	49.6	48.6	-
1958	42.9	42.0	46.2	60.5	70.8	79.4	84.3	84.9	76.5	64.9	55.9	43.4	-
1959	41.9	48.0	56.1	66.5	71.2	79.8	81.1	84.3	78.1	63.2	48.0	48.3	-
1960	43.1	42.5	47.6	66.5	71.2	82.1	83.0	83.2	77.2	68.1	56.8	40.7	63.5
1961	40.3	48.5	56.9	64.6	73.2	77.1	81.1	81.6	75.4	69.7	51.3	44.6	-
1962	39.3	53.5	53.6	62.4	77.1	76.8	83.7	84.8	75.4	69.7	54.4	48.4	65.0
1963	38.2	48.5	58.7	69.7	73.9	80.7	86.4	85.8	78.7	72.9	56.7	39.5	65.8
1964	45.3	43.0	55.6	67.7	74.1	79.8	87.0	85.3	75.8	64.4	55.8	46.5	65.0
1965	47.2	45.4	46.0	67.7	71.7	78.9	86.0	83.0	78.6	64.5	59.5	51.4	65.0
1966	36.7	43.5	57.3	62.6	70.2	78.9	-	-	73.4	63.1	57.8	42.1	-
1967	46.6	46.0	62.6	70.2	69.7	80.2	82.6	82.5	72.5	64.2	52.8	44.6	64.5

STATION HISTORY

A precipitation station, designated Olney 5NW, index number, 41-6641-03, was established at the Olney Water Works, five miles northwest of the Olney Post Office, on April 10, 1941. A complete climatological station equipped with standard 8-inch rain gage, cotton region shelter, and maximum and minimum thermometers and designated Olney, index number, 41-6636-03, was established 0.6 mile north of the Olney Post Office on November 13, 1955. The latter station has been relocated several times but has remained within a radius of one mile of the post office building. It is presently located at the residence of the Cooperative Weather Observer, Mr. James F. Page, 0.8 mile west of the post office. Data from both stations, Olney and Olney 5NW, are published monthly in CLIMATOLOGICAL DATA-TEXAS. Data from Olney for the period 1956-1968 are used in this climatological summary. Rainfall data prior to 1956 are from Olney 5NW.

Weather Bureau State Climatologist  
 Environmental Science Services Administration  
 3600 Manor Road, Austin, Texas 78723  
 April 1969

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.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1944	1.63	3.67	0.62	1.50	2.69	4.51	0.15	3.20	1.20	2.16	2.78	1.39	25.50
1945	0.93	2.77	3.90	3.74	0	0.25	4.74	0	0	0	0.54	0.18	17.05
1946	1.59	1.00	1.58	1.22	2.48	2.64	T	1.80	7.78	1.17	3.47	3.65	28.15
1947	0.63	1.72	0.83	3.77	7.61	0.23	1.45	-	0.40	4.70	2.88	2.21	-
1948	-	1.63	0.80	1.00	-	4.46	1.62	-	2.89	1.38	0.28	0.63	-
1949	3.26	1.63	-	0.79	4.36	-	-	-	1.25	3.35	0	0.99	-
1950	2.33	2.33	3.25	3.25	6.11	-	-	3.86	3.11	0.51	0	0.05	-
1951	0.25	0.41	1.02	3.78	5.01	3.25	2.07	1.04	0.80	1.79	0.28	T	20.52
1952	0.99	0.35	0.70	2.36	1.97	0.92	0.22	1.04	0.80	0	0.97	0.15	13.26
1953	0.05	0.57	2.09	1.52	1.51	1.08	2.88	0.98	0.77	5.35	1.25	0.15	19.11
1954	0.82	0.08	0.40	3.88	5.62	1.43	0.92	0.98	0.70	0.35	1.33	1.66	18.17
1955	1.45	1.28	1.06	2.26	3.72	5.77	1.22	0.52	9.35	2.80	0	0.26	28.59
1956	0.43	1.07	1.14	2.59	2.19	0.92	1.06	0.43	0.55	1.70	0.87	2.31	15.36
1957	0.60	3.01	2.02	8.67	9.60	2.48	1.51	0.28	2.52	3.68	5.06	1.07	40.50
1958	1.46	0.95	1.53	4.94	2.04	2.10	4.78	1.90	4.59	1.20	1.25	0.85	27.59
1959	1.12	0.34	0.58	0.80	3.78	4.53	0.96	1.07	2.11	6.44	0.16	2.53	23.42
1960	1.98	2.00	0.69	0.96	1.59	1.25	5.60	0.87	3.73	3.55	T	2.55	24.77
1961	1.85	2.14	2.60	T	1.45	3.23	2.70	0.02	5.93	1.56	3.94	1.40	26.82
1962	0.75	0.29	1.89	1.85	1.41	6.31	4.94	0.55	8.17	2.45	2.22	1.31	32.14
1963	0.16	0.43	1.43	3.41	3.22	2.71	1.85	0.21	0.67	4.83	2.40	1.14	22.46
1964	2.27	2.43	1.17	2.36	6.98	2.69	T	1.67	5.22	0.31	2.96	0.46	28.52
1965	2.17	1.21	0.74	2.43	4.26	1.47	0.02	2.32	2.82	3.18	0.17	0.75	21.52
1966	1.38	1.13	0.57	11.95	0.62	0.67	2.86	3.17	8.02	0.71	0.38	0.48	31.94
1967	0	0.24	0.52	2.55	2.22	1.16	2.33	0.24	6.45	1.40	0.53	1.32	18.96

T - Trace

Monthly Temperatures and Precipitation

