

U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric 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° 27' N
LONGITUDE 99° 38' W
ELEV. (GROUND) 1461 ft.

CLIMATOLOGICAL SUMMARY

STATION MUNDAY, TEXAS

MEANS AND EXTREMES FOR PERIOD 1940-1969

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	Greatest Depth					Year	Max. above 32° and below 32° and below 0° and below	Min.	Max. above 90° and below 32° and below 0° and below		Min.				
																			Mean	Maximum monthly	Year	
(a)	30	30	30	30		30		14	30	30		30	30		14		14	14	14	14		
Jan	57.0	30.2	43.6	88	1969	- 9	1947	661	0.96	1.78	1968	2.0	19.5	1966	10	1966	2	0	2	19	*	Jan
Feb	61.5	34.3	47.9	92	1962	- 1	1951	510	1.17	1.47	1944	1.8	10.0	1968	6	1968+	3	*	1	14	0	Feb
Mar	69.5	40.0	54.8	100	1946	6	1948	350	1.12	1.90	1963	1.2	9.0	1969+	7	1969	3	*	*	8	0	Mar
Apr	79.8	51.4	65.6	102	1959	26	1954+	88	2.50	5.00	1967	T	T	1957+	0		4	6	0	1	0	Apr
May	86.0	59.8	72.9	107	1967+	38	1954+	14	3.80	3.05	1941	0	0	0	0		6	13	0	0	0	May
Jun	93.3	68.2	80.8	112	1953	49	1947	*	2.98	3.16	1948	0	0	0	0		5	23	0	0	0	Jun
Jul	97.7	71.4	84.6	112	1954+	55	1952	0	2.34	3.08	1953	0	0	0	0		4	28	0	0	0	Jul
Aug	97.9	70.3	84.1	116	1943	53	1966	*	2.06	3.50	1953	0	0	0	0		3	29	0	0	0	Aug
Sep	89.7	63.0	76.4	109	1959+	38	1942	3	2.88	3.41	1966	0	0	0	0		4	15	0	0	0	Sep
Oct	79.9	52.8	66.4	102	1956	28	1957+	82	2.52	4.13	1960	T	T	1967	0		4	5	0	*	0	Oct
Nov	67.6	40.5	54.1	92	1952	15	1951+	327	1.38	2.31	1962	0.3	4.2	1957	3	1957	2	*	0	5	0	Nov
Dec	58.9	33.2	46.1	91	1954	7	1954+	588	1.18	1.56	1946	1.3	11.5	1954	3	1969	3	0	1	15	0	Dec
Year	78.2	51.3	64.8	116	Aug. 1943	- 9	Jan. 1947	2623	24.89	5.00	Apr. 1967	6.6	19.5	1966	10	Jan. 1966	43	121	4	62	*	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

+ Also on earlier dates, months, or years.

* Less than one half.

THE CLIMATE OF MUNDAY, TEXAS

Located in the southeastern part of Knox County on the agricultural plain called Knox Prairie, Munday was named for R. P. Munday, the town's first postmaster on whose land the townsite was located. Munday is an agribusiness and petroleum center, serving an area whose economy is about equally divided between agriculture and oil.

Knox County is rolling plains, eroded by breaks of the Wichita and Brazos Rivers. Cotton and small grains provide most of the farm income, with about 10,000 acres devoted to guar. Approximately 38,000 acres are irrigated. Cattle and hogs are the principal livestock. Soils are mostly sandy and loam types, and elevations within the county range from 1,300 to 1,700 feet above sea level. Mineral production includes both oil and gas.

Munday has a warm-temperate, subtropical climate with dry winters and hot humid summers. Tropical Maritime air masses play a dominant 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. There is a wide range in annual extremes of temperature, characteristic of a continental environment. The mean total annual precipitation at Munday is 24.89 inches with approximately three-fourths of this amount falling during the warm season, April through October. Rainfall, which occurs mostly in the form of thundershowers, may vary considerably from month to month, and from year to year.

The prevailing winds at Munday are southerly to southeasterly throughout the year, except in January and February, when northerly winds are the most frequent. The area receives approximately 64 percent of the total possible sunshine in winter, 68 percent in spring, 77 percent in summer, and 71 percent in the fall. Mean relative humidity at noon, Central Standard Time, is estimated at .48 percent in January, .46 percent in April, .44 percent in July, .48 percent in October. In an average year, thunderstorms occur on 44 days.

Winter: Surges of Polar Canadian air masses are common, but cold spells are brief, and are not severe. Cold fronts often are accompanied by strong gusty winds and sudden drops in temperature; however, the cloudiness associated with the frontal passages dissipates quickly, and sunshine and southerly winds bring rapid warming. Winter is a relatively dry period. Snow may fall once or twice a month, but accumulations are rare. Strong winds often accompany snowfall so that considerable drifting occurs. Rare, but exceptionally heavy snows, such as occurred at Munday in January 1966, February 1968 and March 1969, bias the snowfall data so that the mean value over estimates expected snowfall.

Spring is a pleasant season at Munday. Rapid changes in the weather are experienced often in March. Showery precipitation increases in April, and thunderstorm activity reaches a peak in May. Occasionally, late spring and early summer thunderstorms are accompanied by destructive winds and hail. As the spring season progresses, cold fronts become weaker; and temperature changes are moderate. March and April are the windiest months of the year.

Summer: Daytime temperatures are hot, with only a few days when maxima do not reach or exceed 90°F. Maxima above 100°F are not uncommon. Evaporative-type home air conditioners operate effectively more than 90 percent of the time in July and August. Automotive air conditioning is recommended for travel.

Fall is the most delightful season at Munday. Temperatures are moderate, winds are light, and fair weather persists. Fall is ideally suited for most types of outdoor activities except swimming.

The mean length of the warm season (freeze free period) at Munday is 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 3 and November 6, respectively.

MONDAY, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1940	34.4	46.7	56.6	64.4	72.3	76.1	84.4	81.0	76.1	68.6	50.9	46.3	63.3
1941	47.3	45.6	50.1	63.3	70.2	76.8	80.8	81.4	75.2	67.2	54.0	48.0	63.5
1942	41.6	48.0	55.0	64.7	70.8	80.3	82.2	81.6	73.3	63.7	56.8	44.6	63.6
1943	44.0	51.7	51.2	67.3	70.2	81.2	85.6	89.2	76.3	64.0	53.0	41.7	64.4
1944	44.7	48.9	54.1	63.1	70.2	81.4	84.2	85.4	75.4	65.9	55.0	41.8	64.3
1945	44.0	48.2	58.9	60.4	73.4	80.4	81.1	83.6	78.0	64.0	54.6	43.6	66.0
1946	43.4	51.1	59.2	69.8	71.0	79.8	85.6	85.0	74.8	67.8	54.6	49.2	63.6
1947	41.3	41.5	49.2	62.8	70.4	81.3	84.3	85.8	79.0	71.5	49.0	46.2	63.6
1948	39.2	42.8	51.1	71.0	73.9	82.0	83.3	83.9	76.5	64.5	53.5	50.9	64.5
1949	39.5	46.7	55.5	62.0	73.5	80.1	85.7	83.9	74.4	64.9	58.1	48.6	63.9
1950	44.4	52.7	55.8	65.1	72.1	79.5	80.7	79.8	73.9	70.1	53.5	44.3	64.5
1951	44.5	50.1	55.4	64.0	73.5	79.7	86.7	87.5	76.9	68.5	50.3	48.2	65.4
1952	51.0	52.5	54.9	63.3	73.3	86.3	85.3	91.3	81.3	76.7	64.0	45.6	66.4
1953	51.7	49.2	60.6	64.0	72.9	89.3	83.8	87.4	76.9	66.2	53.0	45.4	66.1
1954	45.0	56.7	54.7	69.8	67.9	82.2	88.9	87.4	82.3	68.9	56.6	48.9	67.4
1955	44.9	47.7	57.7	69.6	75.4	78.1	85.4	84.7	79.7	66.4	53.5	46.2	65.8
1956	42.9	47.5	58.3	65.1	78.4	86.0	88.0	85.9	79.7	70.2	52.6	49.7	67.1
1957	43.3	51.6	53.4	61.5	69.1	78.3	87.1	84.9	74.3	61.9	49.2	49.2	63.7
1958	45.1	42.7	46.6	61.0	72.7	82.4	83.9	84.8	76.9	64.9	55.9	44.0	63.4
1959	42.6	48.8	56.5	65.3	75.8	80.3	81.2	85.1	79.4	63.6	48.5	48.9	64.7
1960	43.4	47.5	48.3	67.8	73.1	83.7	83.3	84.2	78.6	67.9	57.4	41.8	64.3
1961	41.9	47.7	58.0	67.0	74.5	77.5	80.5	81.0	74.9	66.9	51.1	44.6	63.8
1962	40.1	53.8	54.3	64.2	78.2	80.5	84.2	85.1	75.0	69.3	55.1	46.9	65.3
1963	39.1	48.4	59.9	70.0	74.6	80.5	86.6	85.4	78.3	72.6	56.4	40.2	66.0
1964	46.1	44.1	55.5	68.3	75.9	80.1	86.9	85.5	75.5	64.8	56.1	47.1	65.5
1965	48.9	46.9	46.8	68.7	73.4	79.5	86.4	83.1	78.2	65.0	59.5	50.9	65.6
1966	37.1	43.6	58.9	64.6	72.5	80.1	87.9	80.1	73.2	62.8	58.2	43.2	63.6
1967	47.3	48.0	63.7	70.8	71.9	82.0	82.4	81.1	73.3	65.7	54.3	43.9	65.4
1968	43.6	43.5	54.4	62.7	71.3	78.8	81.7	82.3	74.4	68.9	52.5	44.9	63.3
1969	47.4	47.6	46.8	66.2	71.7	79.8	88.8	85.5	74.9	61.5	53.7	46.5	64.2

STATION HISTORY

Rainfall observations began at Gorse, six miles east-northeast of Monday on September 1, 1912. On December 1, 1915, the station was moved to Monday; then on December 1, 1916, it was relocated two miles west of the town. The station was moved back to Monday on July 1, 1922. On December 1, 1935, the station was moved again, to a site 4 3/4 miles south-southwest of Monday, then on July 1, 1937, it was moved back to Monday, to a site one-half mile northwest of the post office building; and temperature observations were begun. On October 1, 1965, Glynn D. Weaver was appointed Cooperative Weather Observer, and the station moved to his residence, at 240 15th Avenue, 0.4 mile southwest of the post office. 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, 41-6146-02.

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MONDAY, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1940	0.39	2.56	T	2.61	2.76	4.40	0.21	2.37	2.47	0.73	2.90	0.78	22.18
1941	0.73	3.03	0.96	6.43	10.47	8.16	3.53	3.17	1.81	6.14	0.77	1.51	46.71
1942	0.06	0.24	0.52	7.72	1.47	1.54	1.19	3.69	4.61	5.14	0.87	2.64	29.69
1943	0.07	0.03	2.22	1.75	2.45	2.77	0.61	T	0.28	0.27	1.51	2.72	14.68
1944	1.72	3.00	1.01	1.25	1.88	4.03	4.03	2.20	0.24	1.46	2.55	1.52	21.23
1945	1.55	1.84	1.25	3.12	0.48	2.39	0.41	1.45	2.76	1.46	0.45	0.22	21.00
1946	1.00	1.35	0.76	0.60	3.57	3.83	0.74	2.29	5.51	1.22	2.70	3.19	26.76
1947	0.60	0.25	1.71	1.97	8.50	3.83	1.43	0.14	1.98	1.81	3.03	1.90	24.32
1948	0.44	1.86	0.65	0.29	3.76	5.66	3.83	0.55	0.40	2.34	0.73	0.03	30.44
1949	4.38	1.24	0.48	2.05	4.08	4.84	1.45	3.15	5.17	2.59	0	0.12	30.49
1950	1.03	0.68	T	3.09	7.55	4.79	5.50	2.51	4.11	0.30	0.16	T	17.21
1951	0.11	0.58	0.70	1.06	4.23	2.93	1.59	1.69	3.86	0	1.85	1.30	14.29
1952	0.14	0.84	0.68	3.04	3.70	0.11	2.01	0.07	0.55	0	0.95	0.25	28.36
1953	0.12	1.85	1.72	1.84	1.05	1.07	7.16	7.84	0.18	4.35	1.26	2.79	18.78
1954	0.71	0.07	0.02	4.49	6.62	1.65	0	1.18	T	0.57	0.24	T	22.56
1955	1.03	0.85	1.43	0.96	5.93	3.64	0.95	0.40	4.64	2.49	0.27	1.54	11.11
1956	0.45	1.02	0.31	0.23	2.19	0.10	0.45	1.44	0.52	2.59	0.20	0.20	32.47
1957	0.96	2.00	1.91	5.93	6.93	2.65	0.19	0.97	1.31	4.38	5.04	1.07	23.11
1958	1.22	0.77	1.56	2.43	3.89	1.91	4.28	0.90	3.75	1.07	0.98	2.78	23.64
1959	0.10	0.17	0.74	1.62	2.95	4.73	3.05	0.56	0.55	5.11	0.45	0	29.28
1960	1.51	1.44	0.22	1.09	2.09	2.68	4.83	1.43	2.27	9.45	0	3.34	23.44
1961	0.64	1.43	1.60	0.04	1.09	2.68	4.76	1.38	2.26	0.87	2.80	0.73	22.44
1962	0.17	0.15	0.70	1.97	1.27	7.22	2.73	3.46	9.28	3.14	2.59	1.10	33.78
1963	0.02	0.28	3.07	1.20	4.10	2.18	2.20	0.77	1.61	1.46	2.74	0.88	20.51
1964	0.97	2.27	0.97	0.66	2.90	4.55	0.78	1.69	6.47	0.83	1.69	0.52	24.30
1965	0.94	0.95	0.32	3.82	3.95	2.08	0.51	2.08	1.15	3.88	0.10	0.84	21.14
1966	1.83	0.91	1.15	4.22	1.24	0.91	1.40	6.94	7.01	1.03	0.08	0.08	26.72
1967	0	0.21	1.50	7.51	1.64	1.34	7.51	T	2.52	2.36	0.68	0.87	25.14
1968	5.52	1.58	3.89	1.26	4.41	1.64	2.69	4.40	0.59	1.28	2.56	0.79	30.61
1969	0.53	1.59	2.50	0.96	6.69	2.25	0.10	2.65	8.56	4.17	0.89	1.63	32.52

T - Trace

Monthly Temperatures and Precipitation

