U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
IN COOPERATION WITH SOUTHERN OKLAHOMA DEVELOPMENT ASSOCIATION
CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 34

LATITUDE: 34° 05' N
LONGITUDE: 96° 46' W
ELEV. (GROUND): 770 feet

CLIMATOLOGICAL SUMMARY

STATION: Madill, Oklahoma

MEANS AND EXTREMES FOR PERIOD 1941 - 1970

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 daily	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)	30	30	30	30		30		20	30	34		30	30		23		18	21	21	21	21	
Jan.	52.9	31.1	42.0	82	1957+	2	1962+	707	1.93	1.80	1946	1.4	7.5	1966	6	1964	4	0	2	18	0	Jan.
Feb.	57.8	35.1	46.3	86	1956	1	1951	525	2.51	3.57	1966	0.7	10.0	1961	8	1961	4	0	1	11	0	Feb.
Mar.	64.7	41.2	53.0	93	1967+	7	1948	388	2.83	2.54	1938	0.2	4.0	1964	1	1964	5	*	*	6	0	Mar.
Apr.	75.2	52.5	63.9	95	1946	27	1957+	114	5.17	5.17	1959	0	0		0		6	*	0	1	0	Apr.
May	81.8	60.3	71.1	97	1951	35	1954	22	5.63	5.12	1968	0	0		0		7	3	0	0	0	May
June	89.4	68.1	78.8	105	1953	47	1954	1	3.98	6.57	1957	0	0		0		5	17	0	0	0	June
July	94.9	71.7	83.3	109	1954	57	1967	0	3.01	4.23	1950	0	0		0		3	30	0	0	0	July
Aug.	95.8	70.7	83.3	111	1964	54	1956	0	2.21	4.19	1946	0	0		0		4	27	0	0	0	Aug.
Sep.	88.5	63.2	75.7	108	1951	41	1967	4	3.96	4.00	1957	0	0		0		5	14	0	0	0	Sep.
Oct.	78.0	53.3	65.8	100	1963	25	1957	101	3.34	4.29	1959	0	0		0		4	3	0	0	0	Oct.
Nov.	65.4	41.3	53.4	88	1948	14	1959	367	2.37	3.31	1961	0	0		0		4	0	0		0	Nov.
Dec.	55.7	36.2	45.0	86	1955	6	1950	622	2.22	2.91	1946	T	1.0	1967	1	1967	4	0	1	14	0	Dec.
Year	74.2	52.1	63.2	111	Aug. 1964	1	Feb. 1951	2851	39.16	6.57	June 1957	2.3	10.0	Feb. 1961	8	Feb. 1961	55	94	4	57	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 MADILL AND MARSHALL COUNTY

Madill, the County Seat of Marshall County, is located 116 miles south-southeast of Oklahoma City and about equal distance north-northeast of Dallas. The principal highways serving Marshall County are U.S. Highway 70 and State Highway 99. The County is composed mostly of rolling prairie land with occasional outcroppings of limestone. Huge Lake Texoma surrounds Marshall County from the northeast through the southwest, providing excellent outdoor recreational and relaxation facilities. Madill is the only town in the world to honor a fish with a festival. For one full week each June, Madill hosts the National Sand Bass Festival at Lake Texoma.

The climate of Marshall County is moist subhumid, which means the precipitation received in a normal year is in excess of that needed for plant growth. The average yearly precipitation at Madill is a little over 39 inches, 70 percent of which falls during the warm season from April through October. Rainfall reaches a maximum in May, decreases during the summer, and reaches a secondary maximum in September. Much of the annual rainfall stems from thunder storms which occur on nearly 50 days of a normal year. The average daily maximum temperature for the 3 warmest months is 93 degrees and there are normally 17 days with maximum temperatures of 100 degrees or more from June through September. The average daily minimum temperature for the 3 summer months is 70 degrees. For maximum indoor comfort and for traveling during the summer season, refrigerated type air conditioning is recommended. The highest temperature of record at Madill is 111 degrees on August 5, 1964.

The winters are composed of frequent mild temperatures mixed with infrequent cold temperatures. A minimum temperature of 32 degrees or less occurs approximately 50percent of the time during the winter season. Freezing temperatures continue throughout the day about 4 times a year. In the past 21 years, there have been no zero temperatures recorded at Madill. The lowest temperature ever recorded at Madill was 1 degree on January 4, 1947 and on February 2, 1951.

The average yearly snowfall in Marshall County is nearly 2.5 inches, most of it occurring in January and February. There are about 5 days with measurable snowfall during an average year, but only 2 days normally receive as much as 1 inch of snow. The greatest seasonal snow at Madill was 11.5 inches in 1965-1966.

The prevailing yearly wind direction is southerly but northerly wind predominates from November through February. The average monthly wind speed ranges from 8 m.p.h. in July, August, September, and October to 12 m.p.h. in March and April. Gusty wind occurs with thunderstorms and with low pressure systems migrating from west to east during the winter and spring seasons.

The average monthly 6 a.m. relative humidity ranges from 75 percent in March to 85 percent in May, June and September; the average monthly 6 p.m. relative humidity ranges from 45 percent in March, July, August to 60 percent in December. During an average year, 140 clear days, 95 partly cloudy days and 130 cloudy days provide the Marshall County area with 70 percent of the total possible yearly sunshine.

There are 327 days of a normal year when VFR flight weather exists at 6 a.m. and 345 days at 6 p.m. July and August are the best months of the year for flying January and February the worst.

Severe storms have occurred in Marshall County during all months of the year, but occur with greater frequency in the spring. Since 1875, only 16 tornadoes are known to have struck the County.

Freeze information is not available for Madill, but is estimated here from information available for Tishomingo, only 14 miles northeast of Madill. The growing season (freeze-free period) has an average length of 213 days. The average date of the last spring freeze is April 2; the average date of the first fall freeze is November 1. Freezing temperatures have occurred as late as April 22 and as early as October 8. The following table shows the probability (in percent) of a temperature of 32°, 28°, and 20° occurring after the given spring date and before the given fall date.

Temperature	10%	25%	50%	75%	90%
	Last Spring Freeze				
32° and below	Apr. 17	Apr. 10	Apr. 2	Mar. 26	Mar.19
28° and below	Apr. 9	Mar. 31	Mar.22	Mar. 13	Mar. 4
20° and below	Mar. 17	Mar. 6	Feb.21	Feb. 8	Jan.27
	First Fall Freeze				
32° and below	Oct. 19	Oct. 25	Nov. 1	Nov. 8	Nov.13
28° and below	Oct. 25	Nov. 1	Nov. 9	Nov. 17	Nov.24
20° and below	Nov. 14	Nov. 23	Dec. 3	Dec. 13	Dec.25

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December 10, 1971

TOTAL PRECIPITATION (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1941	1.48	3.34	0.21	10.46	1.92	5.57	3.41	4.25	1.45	11.85	1.22	2.02	47.18
1942	1.49	0.93	0.25	15.73	1.82	7.49	--	--	--	--	--	--	--
1943	0.38	0.66	3.12	3.78	8.40	4.94	0.88	0.00	5.12	1.44	1.29	3.92	33.93
1944	2.66	6.37	3.01	3.16	8.00	1.80	1.68	2.42	0.53	3.79	3.96	3.98	41.36
1945	1.77	8.33	11.81	6.82	5.06	6.70	7.20	1.16	5.57	3.58	1.27	0.66	59.93
1946	3.90	4.81	2.36	2.79	8.79	2.04	2.07	5.69	2.22	0.32	1.28	5.35	47.62
1947	0.96	0.31	2.09	4.19	7.90	2.76	1.14	5.06	3.82	2.74	3.43	5.76	40.16
1948	0.69	3.70	1.21	1.15	7.21	4.88	8.34	0.03	--	0.84	0.32	0.53	--
1949	5.22	2.81	3.59	2.60	6.39	3.01	0.84	1.46	5.88	5.39	0.00	2.23	39.42
1950	3.70	1.65	0.20	4.38	9.11	2.21	10.97	7.71	3.65	1.11	0.15	T	44.84
1951	0.99	4.69	1.49	1.97	5.02	7.28	3.60	0.76	2.20	4.01	3.31	0.69	36.01
1952	0.54	2.42	3.42	7.83	2.88	0.00	3.78	0.53	0.96	0.09	4.72	1.20	28.37
1953	0.61	1.38	3.79	7.17	3.40	1.48	6.64	0.89	1.74	5.94	2.21	1.47	36.72
1954	2.26	0.45	0.08	4.44	8.04	3.36	0.08	1.33	1.71	8.31	0.58	4.13	34.77
1955	1.66	2.10	1.45	2.31	7.04	2.55	1.73	0.89	6.32	0.06	0.08	0.65	26.84
1956	1.39	2.78	0.46	3.90	2.97	1.55	0.16	0.82	T	2.27	1.66	3.33	21.29
1957	2.44	2.33	5.76	12.90	9.29	8.47	1.35	1.79	7.78	2.37	8.05	1.66	64.19
1958	4.88	0.31	3.01	2.83	5.10	4.07	2.72	3.44	1.74	1.50	2.08	0.87	32.55
1959	0.93	0.64	2.05	7.74	4.69	7.17	4.08	2.38	2.31	9.25	0.54	3.38	45.16
1960	2.76	3.25	2.45	1.80	3.94	1.24	5.41	2.34	4.75	2.42	0.47	4.27	35.10
1961	0.82	2.33	4.51	0.58	5.21	3.66	3.69	0.70	5.50	4.27	4.99	2.24	38.50
1962	0.53	1.14	2.43	4.43	1.79	11.01	3.32	1.63	8.29	5.05	4.31	0.78	44.71
1963	0.18	0.10	2.57	2.54	1.27	1.71	4.56	0.77	1.01	T	1.85	2.06	18.62
1964	1.46	1.55	4.67	5.42	5.00	4.98	0.00	6.38	7.97	0.12	5.91	0.97	44.43
1965	1.85	2.69	1.10	1.64	5.81	2.59	0.80	4.17	3.39	1.49	1.96	1.30	28.79
1966	2.93	5.03	1.54	7.52	1.52	2.56	0.70	3.49	1.97	0.58	1.06	1.34	30.24
1967	0.28	0.56	1.09	11.05	1.85	3.64	2.76	0.50	8.71	2.56	0.85	2.54	46.39
1968	4.97	1.45	6.99	4.58	10.19	5.52	2.35	1.06	7.18	2.30	3.59	2.39	52.57
1969	2.07	2.87	4.95	6.06	6.36	2.44	2.19	1.29	3.40	7.80	0.61	3.83	43.87
1970	0.61	4.22	3.32	3.46	2.98	2.80	0.89	1.01	9.58	5.49	0.93	0.90	36.19

AVERAGE TEMPERATURE (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1941	46.2	43.8	49.4	62.6	72.2	75.8	82.7	--	74.9	69.4	53.6	48.2	--
1942	40.8	46.1	54.9	63.6	69.5	78.8	--	--	--	--	--	--	--
1943	--	--	54.2	68.0	72.2	81.6	85.4	89.2	75.3	64.4	53.1	42.3	--
1944	44.2	49.4	53.8	--	--	--	83.1	84.4	75.6	66.6	55.6	41.2	--
1945	42.5	45.8	58.4	63.3	72.6	78.0	79.5	80.3	76.2	63.2	57.2	40.4	63.2
1946	43.1	50.6	59.0	67.3	68.2	77.0	84.4	84.0	73.8	67.5	55.8	50.0	65.1
1947	43.4	42.0	48.8	63.2	69.6	79.4	82.0	83.2	78.0	71.4	49.8	46.4	63.1
1948	36.6	43.6	50.7	69.3	70.9	80.5	82.8	83.1	76.8	--	51.6	48.0	--
1949	37.3	45.7	53.9	62.4	73.6	79.8	84.7	81.3	73.0	64.4	57.2	47.0	63.4
1950	4.45	50.3	52.0	61.8	71.9	78.0	78.3	78.6	72.7	69.2	52.8	43.6	62.8
1951	42.9	47.0	54.1	61.4	70.0	77.9	83.7	87.6	76.6	67.2	49.3	45.9	63.6
1952	50.7	50.8	52.5	59.5	70.7	83.0	84.4	87.5	76.9	62.2	52.6	43.3	64.5
1953	47.6	48.1	58.1	60.1	70.1	85.0	81.3	80.1	75.0	65.9	51.6	43.2	63.8
1954	42.6	54.8	52.8	68.8	65.7	78.9	87.5	86.0	79.0	66.1	53.3	46.7	65.2
1955	43.3	45.0	54.7	66.7	72.9	75.4	84.1	83.2	79.1	65.9	52.9	43.6	63.9
1956	41.5	47.2	55.8	63.1	75.2	81.7	87.7	87.5	79.6	69.7	50.9	48.3	65.7
1957	40.3	51.5	50.5	61.1	70.3	78.7	86.3	82.9	73.3	60.5	50.3	49.7	63.0
1958	42.4	41.7	47.3	60.2	71.3	79.3	81.8	82.3	76.7	65.1	55.5	41.6	62.1
1959	40.8	46.0	54.3	61.6	73.2	77.5	79.0	80.8	75.6	63.0	46.9	47.9	62.2
1960	41.4	40.2	44.7	65.1	69.4	79.3	81.8	81.9	77.2	67.4	55.5	41.1	62.1
1961	39.5	48.1	56.6	61.3	70.4	75.1	80.5	80.3	74.8	65.0	50.9	43.0	62.2
1962	37.7	50.5	51.3	60.5	75.0	76.9	82.2	83.2	74.6	68.6	52.9	45.1	63.2
1963	35.0	44.7	57.6	67.3	72.8	81.0	85.2	85.3	77.8	73.8	56.5	38.1	64.6
1964	42.9	42.4	52.7	65.8	71.5	78.5	85.6	84.2	74.2	62.3	55.8	44.8	63.4
1965	44.7	44.3	44.1	67.1	71.6	78.4	85.3	81.9	77.7	64.4	59.2	49.8	64.0
1966	37.6	43.9	55.6	62.3	69.8	77.7	86.0	80.1	72.5	63.5	57.9	42.3	62.4
1967	45.9	45.6	61.7	67.6	68.6	78.9	80.1	81.5	72.2	63.9	52.9	43.7	63.6
1968	41.5	42.0	53.4	62.4	69.8	77.4	80.6	83.2	72.8	65.5	51.6	43.4	62.0
1969	44.0	46.3	46.8	64.3	70.8	77.6	87.1	82.6	76.3	62.9	53.3	45.0	63.1
1970	37.8	46.1	49.6	64.0	71.0	77.0	82.9	85.3	77.7	62.1	51.4	50.0	62.9

STATION HISTORY

The weather station at Madill was established in December 1936 at latitude 34° 06' N and longitude 96° 46' W. The observing equipment has always been located within 1 mile of the post office at a ground elevation of 770 feet m.s.l. The equipment has always consisted of a maximum and a minimum thermometer installed approximately 5 feet above the ground in a louvered shelter which permits the free circulation of the air, plus a standard 8 inch nonrecording precipitation gage. The observed maximum and minimum temperatures and precipitation for the 24-hour period ending at observation time each day are published monthly in the U.S. Department of Commerce publication Climatological Data-Oklahoma.