

Climatology of the United States

No. 20

1971-2000

Station: MARIETTA 5 SW, OK

COOP ID: 345563

Climate Division: OK 8

NWS Call Sign:

Elevation: 802 Feet

Lat: 33° 53N

Lon: 97° 10W

Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	51.2	28.5	39.9	83+	1952	25	46.7	1990	-1	1977	10	30.0+	1979	780	0	.0	.0	18.6	2.2	18.3	@
Feb	57.6	33.0	45.3	96	1996	22	55.3	1976	0	1978	18	33.0	1978	557	0	.0	.1	21.0	1.1	11.4	@
Mar	65.2	40.5	52.9	97	1974	31	59.1	1974	7+	1948	11	48.1	1996	379	2	.0	.2	29.1	.1	4.9	.0
Apr	73.4	49.7	61.6	97	1972	12	67.0	1981	24	1975	3	56.5	1983	144	40	.0	.5	30.0	.0	.7	.0
May	80.7	59.8	70.3	101	1985	30	76.5	1996	37+	1954	3	66.6	1976	25	188	@	2.6	31.0	.0	.0	.0
Jun	88.4	67.7	78.1	111+	1980	27	83.4	1980	49	1964	1	74.6	1989	0	392	.7	14.1	30.0	.0	.0	.0
Jul	94.4	71.7	83.1	110+	1954	25	89.9	1980	55	1972	6	79.1	1976	0	559	5.9	25.8	31.0	.0	.0	.0
Aug	94.3	69.9	82.1	112	1956	16	88.2	1980	54+	1966	25	76.3	1992	0	530	7.1	25.7	31.0	.0	.0	.0
Sep	86.4	62.9	74.7	110+	2000	3	82.0	1998	36+	1984	30	66.5	1974	14	304	1.4	12.1	30.0	.0	.0	.0
Oct	76.2	51.5	63.9	102	1951	3	67.1	1979	20	1993	31	57.0	1976	100	65	@	1.9	30.8	.0	.3	.0
Nov	63.3	39.6	51.5	87+	1948	4	58.0	1999	13	1976	29	45.1	1972	411	6	.0	.0	26.8	@	6.0	.0
Dec	54.3	31.1	42.7	88	1951	30	48.4	1984	-8	1989	23	29.7	1983	692	0	.0	.0	21.6	1.4	15.5	.1
Ann	73.8	50.5	62.2	112	Aug 1956	16	89.9	Jul 1980	-8	Dec 1989	23	29.7	Dec 1983	3102	2086	15.1	83.0	330.9	4.8	57.1	.1

+ Also occurred on an earlier date(s)

@ Denotes mean number of days greater than 0 but less than .05

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

(3) Derived from 1971-2000 serially complete daily data

065-A

Climatography of the United States

No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: MARIETTA 5 SW, OK

COOP ID: 345563

Climate Division: OK 8

NWS Call Sign:

Elevation: 802 Feet Lat: 33°53N

Lon: 97°10W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution										
Month	Mean	Med- ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.73	1.60	2.11	2001	29	4.51	1998	.00	1986	5.9	3.8	1.3	.3	.15	.35	.63	.88	1.14	1.43	1.75	2.14	2.66	3.51	4.32
Feb	2.14	2.14	3.53	1966	9	5.00	1987	.00	1996	5.9	4.0	1.7	.4	.28	.56	.92	1.22	1.53	1.85	2.21	2.63	3.20	4.10	4.94
Mar	3.37	3.15	4.33	1977	27	9.28	1990	.34	1971	6.9	5.1	2.3	1.0	.58	.88	1.37	1.83	2.30	2.82	3.40	4.12	5.06	6.60	8.06
Apr	3.33	2.84	4.25	1990	26	13.72	1990	.24	1987	7.1	5.3	2.2	1.0	.49	.77	1.25	1.71	2.19	2.72	3.33	4.07	5.07	6.69	8.25
May	5.07	5.27	5.50	1993	9	10.34	1987	.71	1996	8.7	6.6	3.3	1.7	1.24	1.72	2.46	3.12	3.77	4.45	5.22	6.13	7.33	9.22	10.99
Jun	4.23	3.87	4.59	1985	6	7.98	1989	1.18	1979	7.4	5.7	3.0	1.3	1.27	1.68	2.28	2.79	3.30	3.82	4.39	5.07	5.94	7.31	8.58
Jul	2.17	1.76	3.00	1962	16	6.90	1994	.00+	1993	5.0	3.5	1.5	.7	.00	.26	.66	1.01	1.36	1.75	2.19	2.71	3.43	4.60	5.72
Aug	2.71	1.72	4.57	1974	27	10.92	1996	.00+	2000	5.2	3.7	1.5	1.0	.00	.26	.72	1.15	1.60	2.10	2.67	3.37	4.33	5.91	7.45
Sep	4.00	3.68	5.65	1980	28	9.22	1980	.19	1983	6.6	5.1	2.4	1.3	.51	.82	1.39	1.95	2.54	3.19	3.95	4.89	6.16	8.25	10.27
Oct	4.39	3.43	9.48	1981	13	24.00	1981	.24	1992	6.7	5.1	2.6	1.3	.61	.97	1.60	2.21	2.84	3.55	4.36	5.36	6.71	8.91	11.04
Nov	2.73	2.47	3.41	1961	22	6.37	1996	.42	1976	6.3	4.6	2.0	.9	.56	.81	1.21	1.58	1.95	2.34	2.79	3.32	4.03	5.16	6.24
Dec	2.38	1.81	3.75	1992	14	8.01	1987	.16	1981	6.0	4.1	1.6	.6	.23	.40	.73	1.06	1.42	1.82	2.30	2.90	3.72	5.09	6.42
Ann	38.25	35.22	9.48	Oct 1981	13	24.00	Oct 1981	.00+	Aug 2000	77.7	56.6	25.4	11.5	24.61	27.15	30.46	33.01	35.30	37.53	39.86	42.45	45.62	50.28	54.35

+ Also occurred on an earlier date(s)

Denotes amounts of a trace

@ Denotes mean number of days greater than 0 but less than .05

** Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Station: MARIETTA 5 SW, OK

COOP ID: 345563

Climate Division: OK 8

NWS Call Sign:

Elevation: 802 Feet

Lat: 33°53N

Lon: 97°10W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					Snow Depth >= Thresholds			
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	2.1	.0	#	0	7.0	1992	13	14.0	1992	7	1992	13	1	1992	.9	.7	.3	.1	.0	.6	.3	.1	.0
Feb	1.7	.0	#	0	5.0	1978	7	15.1	1978	7	1978	9	2	1978	.9	.7	.3	.1	.0	.7	.4	.1	.0
Mar	.4	.0	#	0	4.0	1989	5	6.5	1989	5	1989	6	1	1989	.2	.1	@	.0	.0	.2	.1	@	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.4	.0	#	0	2.5	1976	14	3.5	1976	2	1980	17	#+	1997	.3	.2	.0	.0	.0	.1	.0	.0	.0
Dec	1.1	.0	#	0	8.0	1983	16	9.5	1983	8	1983	25	4	1983	.4	.3	.1	@	.0	.8	.6	.6	.0
Ann	5.7	.0	N/A	N/A	8.0	Dec 1983	16	15.1	Feb 1978	8	Dec 1983	25	4	Dec 1983	2.7	2.0	.7	.2	.0	2.4	1.4	.8	.0

+ Also occurred on an earlier date(s) #Denotes trace amounts

@ Denotes mean number of days greater than 0 but less than .05

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

(1) Derived from Snow Climatology and 1971-2000 daily data

(2) Derived from 1971-2000 daily data

Complete documentation available from:

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/17	4/13	4/11	4/08	4/06	4/04	4/02	3/30	3/27
32	4/12	4/07	4/03	3/31	3/28	3/25	3/22	3/19	3/14
28	3/31	3/25	3/20	3/17	3/13	3/10	3/06	3/01	2/23
24	3/18	3/10	3/04	2/26	2/22	2/17	2/11	2/05	1/28
20	3/13	3/03	2/23	2/16	2/10	2/04	1/29	1/21	1/10
16	2/26	2/15	2/08	2/01	1/25	1/18	1/10	12/28	0/00
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/13	10/18	10/22	10/26	10/29	11/01	11/05	11/09	11/14
32	10/25	10/30	11/03	11/06	11/09	11/11	11/15	11/18	11/23
28	10/28	11/04	11/09	11/13	11/17	11/21	11/25	11/30	12/06
24	11/12	11/20	11/25	11/30	12/04	12/08	12/13	12/18	12/26
20	11/20	11/29	12/05	12/10	12/15	12/20	12/25	12/31	1/09
16	11/30	12/07	12/13	12/17	12/22	12/27	1/02	1/10	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	223	217	213	209	205	201	197	193	187
32	244	238	233	229	225	221	217	212	205
28	274	265	259	253	248	243	237	231	222
24	309	301	295	290	285	280	275	269	261
20	346	331	321	313	306	299	291	282	269
16	>365	>365	>365	352	333	323	313	304	292

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Degree Days to Selected Base Temperatures (° F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	780	557	379	144	25	0	0	0	14	100	411	692	3102
60	627	427	238	60	5	0	0	0	3	35	278	542	2215
57	540	353	167	29	1	0	0	0	0	15	209	456	1770
55	482	307	127	16	0	0	0	0	0	8	170	400	1510
50	346	209	56	2	0	0	0	0	0	1	92	273	979
32	45	20	0	0	0	0	0	0	0	0	2	26	93

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	289	392	646	886	1187	1382	1582	1553	1280	987	586	357	11127
55	13	35	60	213	474	692	869	840	590	282	64	19	4151
57	9	25	38	166	413	632	807	778	530	227	43	13	3681
60	2	15	16	107	323	542	714	685	443	155	22	6	3030
65	0	0	2	40	188	392	559	530	304	65	6	0	2086
70	0	0	0	9	87	248	404	377	187	19	0	0	1331

Growing Degree Units (2)																								
Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	165	266	481	695	964	1158	1351	1328	1070	792	408	200	165	431	912	1607	2571	3729	5080	6408	7478	8270	8678	8878
45	84	165	342	545	809	1008	1196	1173	920	638	282	109	84	249	591	1136	1945	2953	4149	5322	6242	6880	7162	7271
50	40	92	219	398	654	858	1041	1018	770	488	173	50	40	132	351	749	1403	2261	3302	4320	5090	5578	5751	5801
55	9	45	123	266	499	708	886	863	620	341	96	19	9	54	177	443	942	1650	2536	3399	4019	4360	4456	4475
60	1	13	57	148	347	558	731	708	473	213	45	5	1	14	71	219	566	1124	1855	2563	3036	3249	3294	3299
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	113	175	301	438	645	800	900	878	717	511	248	128	113	288	589	1027	1672	2472	3372	4250	4967	5478	5726	5854

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
- c. Only observed validated values were used to select the extreme daily values.
- d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.
Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.
- e. Degree Days were derived using the same techniques as the 1971-2000 normals.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html
- f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set.
Documentation of the serially complete data set is available from the link below:
- g. Snowfall and snow depth statistics were derived from the Snow Climatology.
Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html
Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,
www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf