

Climatography of the United States

No. 20

1971-2000

Station: NORMAN, OK

COOP ID: 346386

Climate Division: OK 5

NWS Call Sign:

Elevation: 1,179 Feet Lat: 35° 14N

Lon: 97° 27W

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	.0	.0	.0	81	1950	24	.0	0	-4+	1959	5	.0	0	0	0	.0	.0	17.9	3.0	23.5	.2
Feb	.0	.0	.0	85+	1962	12	.0	0	1	1951	1	.0	0	0	0	.0	@	19.9	1.7	16.0	.1
Mar	.0	.0	.0	93+	1967	11	.0	0	1	1948	11	.0	0	0	0	.0	.1	28.1	.1	7.2	.0
Apr	.0	.0	.0	99	1972	12	.0	0	22+	1957	13	.0	0	0	0	.0	.5	29.8	.0	1.2	.0
May	.0	.0	.0	100	2000	23	.0	0	34	1954	3	.0	0	0	0	.1	2.7	31.0	.0	.0	.0
Jun	.0	.0	.0	107	1953	22	.0	0	43	1951	3	.0	0	0	0	.5	14.2	30.0	.0	.0	.0
Jul	.0	.0	.0	109+	1954	12	.0	0	52	1971	31	.0	0	0	0	5.6	25.9	31.0	.0	.0	.0
Aug	.0	.0	.0	109+	1952	21	.0	0	48	1962	26	.0	0	0	0	4.2	25.3	31.0	.0	.0	.0
Sep	.0	.0	.0	107	1951	1	.0	0	38+	1967	28	.0	0	0	0	.9	11.0	30.0	.0	.0	.0
Oct	.0	.0	.0	99	1951	3	.0	0	23	1957	27	.0	0	0	0	.0	1.1	30.9	.0	.7	.0
Nov	.0	.0	.0	87	1950	6	.0	0	10	1959	17	.0	0	0	0	.0	.0	25.9	.1	8.6	.0
Dec	.0	.0	.0	86	1955	24	.0	0	2+	1950	6	.0	0	0	0	.0	.0	20.3	1.5	19.2	.2
Ann	.0	.0	.0	109+	Jul 1954	12	-99.9	0	-4+	Jan 1959	5	99.9	0	0	0	11.3	80.8	325.8	6.4	76.4	.5

+ 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

073-A

Climatology 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: NORMAN, OK

COOP ID: 346386

Climate Division: OK 5

NWS Call Sign:

Elevation: 1,179 Feet Lat: 35°14N

Lon: 97°27W

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	1.48	1.33	2.28	1985	1	3.76	1998	.00+	1986	5.0	2.8	.9	.3	.00	.00	.37	.63	.89	1.17	1.49	1.88	2.39	3.25	4.07
Feb	1.87	1.37	4.47	1985	23	6.47	1985	.07	1996	5.7	3.2	1.0	.4	.20	.34	.60	.86	1.14	1.45	1.82	2.28	2.91	3.95	4.96
Mar	3.23	2.83	3.35	1990	14	8.67	1990	.03	1971	8.5	5.4	2.2	1.0	.56	.85	1.32	1.76	2.21	2.70	3.26	3.93	4.84	6.29	7.69
Apr	3.24	2.84	3.49	1963	27	7.17	1990	.36	1989	7.7	5.0	2.6	1.1	.98	1.29	1.75	2.15	2.53	2.93	3.37	3.89	4.56	5.60	6.57
May	5.31	5.19	7.95	1949	18	12.31	1982	.18	1988	10.4	6.7	3.2	1.7	.99	1.46	2.24	2.96	3.69	4.48	5.38	6.47	7.91	10.23	12.44
Jun	4.81	4.44	7.13	1949	10	12.72	1989	1.04	1990	8.6	6.0	2.9	1.6	1.23	1.68	2.38	2.99	3.60	4.24	4.96	5.81	6.91	8.66	10.30
Jul	2.87	2.47	3.49	1959	1	7.41	1979	.00	1980	5.4	3.5	1.8	1.1	.10	.33	.74	1.15	1.61	2.13	2.74	3.52	4.59	6.38	8.14
Aug	2.50	2.17	3.81	1966	22	5.70	1992	.00	2000	6.1	3.7	1.6	.7	.23	.52	.93	1.29	1.67	2.07	2.53	3.09	3.83	5.04	6.19
Sep	3.92	3.48	6.38	1970	23	10.12	1991	.43	1972	7.5	5.5	2.7	1.4	.66	1.00	1.57	2.11	2.66	3.26	3.95	4.78	5.90	7.70	9.43
Oct	3.73	2.51	8.37	1983	20	16.50	1983	.80	1993	7.0	4.7	2.3	1.2	.41	.69	1.21	1.73	2.29	2.91	3.65	4.56	5.80	7.85	9.85
Nov	2.61	2.22	2.72	1964	17	5.92	1992	.02	1999	6.5	3.8	1.8	.8	.22	.40	.74	1.10	1.50	1.95	2.49	3.18	4.11	5.69	7.23
Dec	2.08	1.70	2.80	1991	20	7.91	1984	.18	1977	5.9	3.4	1.4	.6	.20	.35	.63	.92	1.24	1.59	2.01	2.53	3.25	4.45	5.62
Ann	37.65	38.33	8.37	Oct 1983	20	16.50	Oct 1983	.00+	Aug 2000	84.3	53.7	24.4	11.9	26.18	28.38	31.21	33.36	35.28	37.14	39.06	41.19	43.78	47.54	50.80

+ 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: NORMAN, OK

COOP ID: 346386

Climate Division: OK 5

NWS Call Sign:

Elevation: 1,179 Feet

Lat: 35°14N

Lon: 97°27W

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	2.3	.0	#	#	7.0	1973	7	12.0	1988	12	1988	7	2	1988	1.0	.6	.3	.2	.0	2.5	1.5	.8	.2
Feb	1.2	.0	#	#	3.8	1978	9	12.5	1978	8	1978	9	2	1978	.9	.4	.1	.0	.0	1.0	.0	.0	.0
Mar	.3	.0	#	0	6.0	1989	6	6.1	1989	6	1989	7	#+	1990	.1	.1	@	@	.0	.1	.1	.1	.0
Apr	#	.0	0	0	#	1973	8	#	1973	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	.5	.0	#	0	3.7	1980	17	4.0	1972	1	1991	3	#+	2000	.2	.2	@	.0	.0	.2	.0	.0	.0
Dec	.8	.0	#	#	3.5	1971	3	3.7	1971	3+	2000	31	#+	2000	1.0	.4	@	.0	.0	.8	.1	.0	.0
Ann	5.1	.0	N/A	N/A	7.0	Jan 1973	7	12.5	Feb 1978	12	Jan 1988	7	2+	Jan 1988	3.2	1.7	.4	.2	.0	4.6	1.7	.9	.2

+ 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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Climate Division: OK 5

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Elevation: 1,179 Feet

Lat: 35° 14N

Lon: 97° 27W

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	4/29	4/24	4/20	4/17	4/13	4/10	4/07	4/03	3/28
32	4/15	4/11	4/07	4/05	4/02	3/30	3/27	3/24	3/19
28	4/06	4/01	3/28	3/25	3/22	3/20	3/16	3/13	3/08
24	3/29	3/22	3/17	3/13	3/09	3/05	2/28	2/24	2/17
20	3/14	3/06	2/28	2/23	2/18	2/14	2/09	2/03	1/26
16	3/03	2/23	2/18	2/13	2/09	2/05	1/31	1/26	1/19
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	10/07	10/12	10/15	10/18	10/21	10/24	10/27	10/30	11/04
32	10/16	10/22	10/26	10/30	11/02	11/05	11/09	11/13	11/19
28	10/25	10/31	11/05	11/09	11/12	11/16	11/20	11/25	12/01
24	11/04	11/10	11/15	11/19	11/23	11/26	11/30	12/05	12/11
20	11/13	11/21	11/26	12/01	12/05	12/09	12/14	12/19	12/27
16	11/18	11/28	12/05	12/11	12/17	12/22	12/28	1/04	1/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	213	205	200	195	190	185	181	175	167
32	236	228	222	218	213	209	204	198	191
28	259	250	244	239	234	230	224	218	210
24	287	277	270	264	258	252	246	239	229
20	321	310	302	295	289	282	276	268	257
16	345	329	320	312	306	300	293	286	276

* 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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Elevation: 1,179 Feet Lat: 35°14N Lon: 97°27W

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	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	101	205	417	645	921	1124	1330	1282	1021	724	334	140	101	306	723	1368	2289	3413	4743	6025	7046	7770	8104	8244
45	41	116	284	498	766	974	1175	1127	871	570	216	66	41	157	441	939	1705	2679	3854	4981	5852	6422	6638	6704
50	15	60	172	357	611	824	1020	972	721	418	125	23	15	75	247	604	1215	2039	3059	4031	4752	5170	5295	5318
55	2	25	88	227	456	674	865	817	571	284	61	5	2	27	115	342	798	1472	2337	3154	3725	4009	4070	4075
60	0	5	36	122	308	524	710	662	431	162	22	0	0	5	41	163	471	995	1705	2367	2798	2960	2982	2982
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	83	149	270	412	608	766	882	848	677	462	208	107	83	232	502	914	1522	2288	3170	4018	4695	5157	5365	5472

(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