

Climatography of the United States

No. 20

1971-2000

Station: ANTLERS, OK

COOP ID: 340256

Climate Division: OK 9

NWS Call Sign:

Elevation: 520 Feet Lat: 34°15N Lon: 95°39W

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	51.8	28.6	40.2	82	1952	19	47.7	1990	-3	1962	11	29.1	1979	768	0	.0	.0	18.8	1.7	21.0	.1
Feb	58.0	32.9	45.5	90	1996	21	53.5	1976	-10	1951	2	34.1	1978	552	4	.0	@	21.2	.9	13.7	.0
Mar	66.7	41.0	53.9	93	1974	31	59.0	1974	8	1948	11	47.4	1978	350	5	.0	.1	29.4	@	5.5	.0
Apr	74.9	48.6	61.8	95	1987	18	67.0	1981	24	1971	7	56.7	1983	133	36	.0	.5	29.9	.0	1.2	.0
May	81.2	58.1	69.7	97+	1958	30	74.3	1996	31	1960	1	64.1	1976	29	174	.0	1.7	31.0	.0	.0	.0
Jun	88.4	66.1	77.3	103+	1980	27	81.9	1998	45	1972	1	74.1	1982	0	367	.3	13.3	30.0	.0	.0	.0
Jul	93.8	69.5	81.7	110	1954	24	88.5	1998	50	1972	6	78.5	1976	0	517	5.0	25.5	31.0	.0	.0	.0
Aug	94.6	68.5	81.6	111	1956	6	86.5	2000	49	1967	13	75.6	1992	0	513	6.6	25.7	31.0	.0	.0	.0
Sep	86.9	61.4	74.2	110+	1985	1	80.9	1998	36	1967	29	66.8	1974	15	290	1.2	13.2	30.0	.0	.0	.0
Oct	76.6	50.3	63.5	99	1963	4	67.3	1971	21	1993	31	55.4	1976	114	65	.0	1.5	30.9	.0	1.2	.0
Nov	63.4	40.7	52.1	88	1955	14	57.4	1999	7	1976	29	45.5	1976	396	7	.0	.0	27.1	@	7.3	.0
Dec	54.0	31.6	42.8	83	1948	13	49.6	1984	-5	1989	23	31.2	1983	689	0	.0	.0	21.6	.9	16.7	.1
Ann	74.2	49.8	62.0	111	Aug 1956	6	88.5	Jul 1998	-10	Feb 1951	2	29.1	Jan 1979	3046	1978	13.1	81.5	331.9	3.5	66.6	.2

+ 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

006-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: ANTLERS, OK

COOP ID: 340256

Climate Division: OK 9

NWS Call Sign:

Elevation: 520 Feet Lat: 34°15N

Lon: 95°39W

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	2.15	1.73	4.86	1949	25	6.15	1998	.00+	1996	5.2	4.0	1.4	.4	.00	.43	.88	1.22	1.54	1.88	2.26	2.68	3.27	4.19	5.05
Feb	2.53	2.55	4.53	1950	12	6.85	1990	.00+	1996	4.6	4.1	1.8	.6	.00	.74	1.27	1.64	1.98	2.33	2.71	3.15	3.71	4.58	5.38
Mar	3.76	3.56	4.60	1977	27	9.11	1977	.66	1972	6.9	5.5	2.7	1.1	1.13	1.49	2.02	2.48	2.93	3.40	3.91	4.51	5.29	6.51	7.64
Apr	4.26	4.09	4.34	1986	19	11.08	1991	.00	1987	6.7	5.5	2.7	1.2	.51	1.04	1.76	2.37	2.99	3.64	4.37	5.25	6.42	8.28	10.04
May	6.01	6.11	5.81	1949	1	12.85	1982	.70	1988	8.5	7.4	3.6	1.7	2.10	2.66	3.49	4.18	4.85	5.53	6.27	7.14	8.25	9.97	11.54
Jun	4.90	4.70	3.10	1951	12	9.26	1973	1.44	1978	7.3	6.3	3.2	1.5	1.70	2.17	2.84	3.41	3.95	4.51	5.12	5.82	6.73	8.14	9.43
Jul	3.25	2.99	5.50	1985	3	8.73	1985	.00	1993	5.4	4.4	1.9	.9	.17	.46	.95	1.43	1.94	2.51	3.18	4.01	5.14	7.00	8.82
Aug	2.31	2.05	3.43	1955	4	7.01	1974	.12+	2000	4.8	3.6	1.3	.7	.25	.43	.75	1.07	1.42	1.81	2.26	2.83	3.60	4.87	6.11
Sep	4.24	3.29	6.62	1980	28	13.44	1974	.00	1982	6.1	4.9	2.5	1.6	.48	1.00	1.72	2.33	2.94	3.60	4.34	5.24	6.42	8.31	10.11
Oct	5.17	4.81	8.58	1991	25	15.53	1991	.00	1995	6.0	5.3	2.8	1.5	.13	.46	1.14	1.87	2.69	3.65	4.81	6.29	8.36	11.86	15.34
Nov	4.10	3.82	3.96	1996	7	11.15	1996	.00+	1995	5.8	4.9	2.6	1.4	.00	.92	1.77	2.41	3.01	3.64	4.33	5.10	6.16	7.82	9.37
Dec	3.50	3.25	4.04	1971	10	9.67	1971	.30	1989	6.3	4.6	2.4	1.1	.66	.98	1.49	1.96	2.45	2.97	3.56	4.27	5.21	6.73	8.17
Ann	46.18	44.39	8.58	Oct 1991	25	15.53	Oct 1991	.00+	Feb 1996	73.6	60.5	28.9	13.7	31.95	34.67	38.18	40.86	43.24	45.55	47.94	50.59	53.81	58.49	62.56

+ 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: ANTLERS, OK

COOP ID: 340256

Climate Division: OK 9

NWS Call Sign:

Elevation: 520 Feet

Lat: 34° 15N

Lon: 95° 39W

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	.1	.0	#	0	2.0	1978	25	2.0	1978	1	1973	12	#+	1974	.2	.1	.0	.0	.0	.3	.0	.0	.0
Feb	.6	.0	#	0	8.5	1978	18	8.5	1978	5	1975	24	#+	1975	.3	.3	.2	.1	.0	.1	.1	@	.0
Mar	.1	.0	#	0	1.0	1971	3	1.0	1971	1	1971	3	#	1971	.1	.1	.0	.0	.0	@	.0	.0	.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	#	.0	0	0	#	1971	23	#	1971	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.1	.0	#	0	1.0	1982	26	1.0+	1982	#+	1973	31	#+	1973	.1	.1	.0	.0	.0	.0	.0	.0	.0
Ann	.9	.0	N/A	N/A	8.5	Feb 1978	18	8.5	Feb 1978	5	Feb 1975	24	#+	Feb 1975	.7	.6	.2	.1	.0	.4	.1	@	.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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Lat: 34° 15N

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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	4/24	4/19	4/16	4/13	4/11	4/08	4/06	4/02	3/29
32	4/17	4/12	4/09	4/06	4/04	4/01	3/29	3/26	3/22
28	4/08	4/01	3/27	3/23	3/19	3/15	3/11	3/06	2/27
24	3/25	3/16	3/10	3/05	2/28	2/23	2/17	2/10	1/31
20	3/09	3/01	2/24	2/18	2/14	2/09	2/03	1/27	1/14
16	2/28	2/20	2/14	2/08	2/03	1/29	1/23	1/14	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	10/08	10/12	10/16	10/19	10/21	10/24	10/27	10/31	11/04
32	10/17	10/22	10/25	10/29	11/01	11/03	11/07	11/10	11/16
28	10/10	10/24	11/03	11/12	11/20	11/28	12/06	12/16	12/30
24	11/04	11/12	11/18	11/23	11/27	12/02	12/07	12/13	12/23
20	11/18	11/27	12/04	12/09	12/15	12/20	12/26	1/03	1/17
16	11/26	12/05	12/12	12/19	12/25	12/31	1/07	1/17	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	215	207	202	197	193	188	184	178	170
32	231	224	219	214	210	206	202	197	190
28	275	262	254	248	242	236	229	222	211
24	311	294	284	277	270	264	257	249	239
20	>365	332	318	308	301	293	285	277	265
16	>365	>365	342	325	316	309	302	294	284

* 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	768	552	350	133	29	0	0	0	15	114	396	689	3046
60	617	422	213	52	6	0	0	0	3	45	265	538	2161
57	531	348	148	23	1	0	0	0	0	21	198	452	1722
55	474	302	112	12	0	0	0	0	0	11	160	396	1467
50	340	204	48	1	0	0	0	0	0	2	84	269	948
32	48	19	0	0	0	0	0	0	0	0	1	24	92

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	302	395	678	893	1168	1356	1540	1536	1265	974	602	358	11067
55	16	34	76	215	455	666	827	823	575	273	71	17	4048
57	11	24	50	166	394	606	765	761	515	221	49	12	3574
60	4	14	23	105	305	516	672	668	428	151	26	4	2916
65	0	4	5	36	174	367	517	513	290	65	7	0	1978
70	0	0	0	7	78	223	362	361	174	20	0	0	1225

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	134	239	465	672	939	1128	1302	1292	1036	734	384	177	134	373	838	1510	2449	3577	4879	6171	7207	7941	8325	8502
45	64	142	322	522	784	978	1147	1137	886	579	259	93	64	206	528	1050	1834	2812	3959	5096	5982	6561	6820	6913
50	28	71	200	377	629	828	992	982	736	432	152	43	28	99	299	676	1305	2133	3125	4107	4843	5275	5427	5470
55	11	30	107	240	475	678	837	827	586	286	81	19	11	41	148	388	863	1541	2378	3205	3791	4077	4158	4177
60	0	9	46	130	322	528	682	672	442	164	32	0	0	9	55	185	507	1035	1717	2389	2831	2995	3027	3027
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	102	166	301	433	631	775	868	845	685	482	245	123	102	268	569	1002	1633	2408	3276	4121	4806	5288	5533	5656

(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