

# Climatography of the United States No. 20

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

Station: HOOKER, OK

1971-2000

COOP ID: 344298

Climate Division: OK 1

NWS Call Sign:

Elevation: 2,995 Feet Lat: 36° 52N

Lon: 101° 12W

## 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	47.2	20.4	33.8	82+	1951	26	44.1	1986	-22	1959	4	20.9	1979	967	0	.0	.0	14.7	5.8	29.6	1.3
Feb	53.7	25.3	39.5	88	1970	17	47.8	2000	-16	1982	6	27.1	1978	715	0	.0	.0	17.6	3.4	23.8	.7
Mar	62.3	32.5	47.4	93	1963	28	53.6	1986	-5	1948	5	41.8	1998	546	0	.0	.1	24.9	1.0	17.1	.0
Apr	71.6	41.2	56.4	101	1989	23	63.7	1981	7	1979	4	50.3	1973	282	23	@	1.0	28.1	.1	5.4	.0
May	79.9	51.3	65.6	105+	1953	26	71.6	1998	25	1953	14	60.5	1995	95	113	.5	3.9	30.7	.0	.3	.0
Jun	89.8	60.6	75.2	112+	1978	25	80.1	1981	40	1954	3	69.5	1989	9	314	3.7	15.5	30.0	.0	.0	.0
Jul	94.6	65.5	80.1	110	1981	21	85.5	1980	48	1990	14	76.8+	1973	0	467	6.7	24.0	31.0	.0	.0	.0
Aug	92.8	64.0	78.4	108+	1964	6	83.7	2000	45	1976	28	72.2	1974	2	418	4.8	21.4	31.0	.0	.0	.0
Sep	85.1	55.9	70.5	108	1995	6	77.3	1998	29	1983	21	62.1	1974	36	201	1.2	10.5	29.7	.0	.2	.0
Oct	74.2	43.7	59.0	98	1954	3	62.7	1979	13	1993	30	52.9	1976	206	17	.0	2.1	29.9	.1	3.5	.0
Nov	58.2	30.9	44.6	91	1980	8	52.2	1999	-6	1976	28	35.5	1972	613	0	.0	@	21.9	.9	19.0	.1
Dec	48.9	22.7	35.8	85	1955	24	42.3	1994	-14+	1989	22	23.6	1983	904	0	.0	.0	15.1	4.0	28.6	1.0
Ann	71.5	42.8	57.2	112+	Jun 1978	25	85.5	Jul 1980	-22	Jan 1959	4	20.9	Jan 1979	4375	1553	16.9	78.5	304.6	15.3	127.5	3.1

+ 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](http://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

052-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: HOOKER, OK**

**COOP ID: 344298**

**Climate Division: OK 1**

**NWS Call Sign:**

**Elevation: 2,995 Feet Lat: 36° 52N**

**Lon: 101° 12W**

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	.49	.39	1.60	1990	19	1.80	1999	.00+	1998	2.7	1.3	.1	@	.00	.00	.06	.14	.23	.33	.45	.61	.83	1.19	1.55
Feb	.49	.34	1.88	1990	21	2.21	1990	.00+	1999	2.7	1.4	.2	@	.00	.00	.00	.05	.14	.26	.40	.59	.85	1.32	1.78
Mar	1.42	1.12	2.33	2000	23	7.08	1973	.00+	1997	4.8	2.9	.8	.3	.00	.00	.22	.44	.69	.97	1.31	1.75	2.35	3.37	4.38
Apr	1.54	1.23	3.25	1985	29	4.44	1988	.02	1996	5.4	3.3	1.0	.2	.09	.18	.37	.58	.82	1.10	1.43	1.87	2.47	3.49	4.52
May	3.02	2.84	4.30	1972	11	10.71	1972	.66	1986	7.7	5.0	2.0	.8	.73	1.02	1.46	1.85	2.24	2.65	3.11	3.65	4.37	5.50	6.57
Jun	2.49	2.12	4.73	1960	9	7.31	1989	.15	1998	6.9	4.9	1.8	.5	.34	.55	.90	1.25	1.61	2.01	2.48	3.04	3.81	5.06	6.27
Jul	2.47	1.90	3.85	1973	14	7.00	1996	.32	1983	6.5	4.7	1.6	.5	.31	.51	.86	1.20	1.57	1.97	2.44	3.01	3.79	5.07	6.32
Aug	2.12	1.72	5.00	1972	24	7.86	1972	.07	1978	6.6	3.8	1.6	.4	.20	.35	.64	.93	1.25	1.62	2.04	2.58	3.31	4.54	5.73
Sep	1.75	1.19	3.20	1969	1	9.07	1985	.00	1980	5.6	3.2	1.0	.5	.05	.16	.39	.64	.92	1.24	1.63	2.13	2.82	3.99	5.15
Oct	1.18	.78	3.13	1998	1	6.84	1998	.00+	1989	3.9	2.2	.7	.3	.00	.03	.16	.32	.51	.74	1.03	1.41	1.95	2.90	3.85
Nov	.79	.67	1.77	1948	18	3.84	1972	.00+	1999	3.4	1.9	.6	@	.00	.00	.08	.19	.32	.48	.68	.95	1.33	1.99	2.66
Dec	.55	.48	2.40	1997	3	3.42	1997	.00+	1996	3.0	1.7	.2	.1	.00	.00	.08	.17	.26	.37	.50	.67	.90	1.30	1.69
Ann	18.31	17.82	5.00	Aug 1972	24	10.71	May 1972	.00+	Nov 1999	59.2	36.3	11.6	3.6	11.71	12.93	14.53	15.76	16.86	17.94	19.06	20.31	21.84	24.09	26.06

+ 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:  
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

# 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](http://www.ncdc.noaa.gov)

**Station: HOOKER, OK**

**COOP ID: 344298**

**Climate Division: OK 1**

**NWS Call Sign:**

**Elevation: 2,995 Feet**

**Lat: 36° 52N**

**Lon: 101° 12W**

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	4.3	3.7	1	#	12.0	1990	19	13.2	1993	12	1990	20	3	1993	2.4	1.6	.5	.2	@	6.0	2.7	1.6	.2
Feb	3.7	1.0	1	#	12.0	1983	1	16.6	1971	13	1971	22	3	1978	1.9	1.1	.3	.2	.1	2.8	1.6	.8	.1
Mar	3.8	1.0	#	#	11.3	1994	9	17.0	1999	11	1994	9	1	1999	1.4	1.1	.4	.2	@	1.8	.7	.3	.1
Apr	1.0	.0	#	0	10.0	1988	2	12.2	1988	12	1988	2	1	1988	.3	.3	.1	.1	@	.3	.2	.2	.1
May	.1	.0	#	0	1.5	1978	3	1.5	1978	2	1978	3	#	1978	@	@	.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	#	1995	22	#	1995	#	1995	22	#	1995	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	2.0	1979	31	2.0	1979	2+	1997	25	#+	1997	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	1.8	.0	#	0	6.1	1992	25	19.5	1972	8	1972	21	2	1972	.7	.6	.1	.1	.0	.7	.4	.2	.0
Dec	4.4	3.5	#	#	9.5	1997	24	16.1	1992	9	1987	15	2	1987	1.9	1.4	.4	.2	.0	3.8	1.1	.5	.0
Ann	19.2	9.2	N/A	N/A	12.0+	Jan 1990	19	19.5	Nov 1972	13	Feb 1971	22	3+	Jan 1993	8.7	6.2	1.8	1.0	.1	15.5	6.7	3.6	.5

+ 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: HOOKER, OK**

**COOP ID: 344298**

**Climate Division: OK 1**

**NWS Call Sign:**

**Elevation: 2,995 Feet**

**Lat: 36° 52N**

**Lon: 101° 12W**

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	5/13	5/09	5/05	5/02	4/30	4/27	4/24	4/21	4/16
32	5/06	4/30	4/26	4/23	4/20	4/16	4/13	4/09	4/03
28	4/21	4/16	4/13	4/10	4/07	4/05	4/02	3/29	3/25
24	4/10	4/05	4/02	3/30	3/28	3/25	3/22	3/19	3/14
20	4/07	4/01	3/28	3/24	3/20	3/17	3/13	3/08	3/02
16	3/31	3/23	3/17	3/12	3/08	3/04	2/27	2/21	2/13
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	9/23	9/28	10/01	10/05	10/07	10/10	10/14	10/17	10/22
32	10/01	10/06	10/10	10/13	10/16	10/20	10/23	10/27	11/01
28	10/16	10/20	10/23	10/26	10/28	10/31	11/03	11/06	11/10
24	10/25	10/30	11/03	11/06	11/09	11/12	11/16	11/19	11/25
20	10/31	11/05	11/10	11/13	11/17	11/20	11/24	11/28	12/04
16	11/09	11/16	11/21	11/25	11/29	12/03	12/07	12/12	12/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	182	175	169	164	160	156	151	146	138
32	201	193	188	183	179	175	170	165	158
28	221	215	211	207	203	200	196	191	185
24	247	240	235	230	226	222	217	212	205
20	265	257	251	246	241	236	231	225	217
16	296	285	278	271	265	259	252	245	234

\* 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: HOOKER, OK**

**COOP ID: 344298**

**Climate Division: OK 1**

**NWS Call Sign:**

**Elevation: 2,995 Feet    Lat: 36°52N    Lon: 101°12W**

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	967	715	546	282	95	9	0	2	36	206	613	904	4375
60	812	581	396	172	38	1	0	0	10	97	468	749	3324
57	721	502	311	119	19	0	0	0	3	54	385	656	2770
55	662	450	259	90	11	0	0	0	0	35	332	596	2435
50	518	330	149	36	2	0	0	0	0	9	216	451	1711
32	132	59	4	0	0	0	0	0	0	0	16	80	291

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	188	268	481	731	1042	1296	1490	1438	1155	835	392	198	9514
55	5	16	23	131	340	606	777	725	465	156	19	2	3265
57	2	11	14	101	286	546	715	663	408	114	12	0	2872
60	0	6	5	63	212	457	622	570	324	64	5	0	2328
65	0	0	0	23	113	314	467	418	201	17	0	0	1553
70	0	0	0	7	48	189	312	273	108	3	0	0	940

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	51	115	258	479	777	1055	1236	1182	901	575	197	61	51	166	424	903	1680	2735	3971	5153	6054	6629	6826	6887
45	13	50	157	339	623	905	1081	1027	751	425	108	23	13	63	220	559	1182	2087	3168	4195	4946	5371	5479	5502
50	0	18	77	221	470	755	926	872	604	286	48	2	0	18	95	316	786	1541	2467	3339	3943	4229	4277	4279
55	0	2	34	123	326	605	771	717	461	172	18	0	0	2	36	159	485	1090	1861	2578	3039	3211	3229	3229
60	0	0	7	57	197	457	616	562	326	86	1	0	0	0	7	64	261	718	1334	1896	2222	2308	2309	2309
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	71	125	216	329	486	674	789	760	575	380	165	75	71	196	412	741	1227	1901	2690	3450	4025	4405	4570	4645

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)