

# Climatography of the United States

No. 20

1971-2000

Station: BRISTOW, OK

COOP ID: 341144

Climate Division: OK 5

NWS Call Sign:

Elevation: 830 Feet

Lat: 35° 50N

Lon: 96° 24W

## 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	48.3	25.8	37.1	81	1943	24	44.6	1990	-18	1930	22	26.2	1979	867	0	.0	.0	16.1	3.4	23.2	.5
Feb	55.0	30.5	42.8	92	1996	22	52.1	1976	-12	1996	4	30.7	1978	628	0	.0	.1	19.5	1.8	16.9	.3
Mar	63.8	39.3	51.6	98	1916	21	55.6	1986	-11	1948	12	46.1	1975	417	1	.0	.1	27.8	.2	9.1	.0
Apr	72.9	48.4	60.7	102	1972	12	68.2	1981	18	1936	3	54.4	1983	171	40	@	.6	29.8	.0	1.4	.0
May	79.3	57.3	68.3	100	1928	31	73.2	1996	31+	1917	1	62.8	1976	46	147	.0	2.5	31.0	.0	.0	.0
Jun	86.6	65.5	76.1	110	1924	25	80.7	1998	45+	1976	20	72.3	1982	3	334	.4	13.4	30.0	.0	.0	.0
Jul	92.7	69.7	81.2	114+	1936	19	87.0	1980	46	1925	15	77.9	1976	0	501	6.0	25.7	31.0	.0	.0	.0
Aug	92.5	67.9	80.2	115	1936	10	85.8	1980	49	1967	28	73.8	1992	3	474	7.2	24.5	31.0	.0	.0	.0
Sep	84.2	60.2	72.2	110	1998	4	81.6	1998	28	1984	30	63.9	1974	36	252	1.5	11.3	30.0	.0	.1	.0
Oct	74.6	49.4	62.0	100	1953	1	68.0	1979	16	1993	31	54.9	1976	144	50	.0	1.4	30.8	.0	1.5	.0
Nov	60.7	38.5	49.6	88	1945	6	58.5	1999	6	1976	28	41.9	1972	468	6	.0	.0	25.7	.1	9.9	.0
Dec	50.9	29.0	40.0	82	1948	13	44.9	1999	-14	1989	23	25.4	1983	777	0	.0	.0	19.0	2.0	20.4	.3
Ann	71.8	48.5	60.2	115	Aug 1936	10	87.0	Jul 1980	-18	Jan 1930	22	25.4	Dec 1983	3560	1805	15.1	79.6	321.7	7.5	82.5	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](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: 1915-2001

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

016-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: BRISTOW, OK**

**COOP ID: 341144**

**Climate Division: OK 5**

**NWS Call Sign:**

**Elevation: 830 Feet Lat: 35°50N**

**Lon: 96°24W**

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	1.39	1.27	3.05	1983	31	3.88	1990	.00+	1986	5.6	3.4	.8	.4	.00	.11	.34	.56	.79	1.05	1.35	1.72	2.24	3.10	3.94
Feb	2.08	1.34	4.29	1985	22	6.10	1985	.01	1991	5.3	3.6	1.5	.5	.20	.35	.63	.92	1.24	1.59	2.01	2.54	3.25	4.45	5.62
Mar	3.52	3.12	3.22	1920	25	9.73	1990	.07	1971	7.4	5.5	2.7	1.1	.64	.95	1.47	1.95	2.44	2.96	3.56	4.29	5.25	6.80	8.28
Apr	3.53	2.97	5.73	1998	27	7.78	1993	.47	1989	7.4	5.8	2.2	1.0	.84	1.17	1.69	2.15	2.61	3.09	3.63	4.28	5.12	6.46	7.72
May	5.85	5.86	4.65	1943	17	13.55	1995	1.19	1988	9.8	7.1	3.8	2.0	2.05	2.60	3.40	4.08	4.72	5.38	6.11	6.95	8.02	9.69	11.22
Jun	4.45	4.04	5.16	1948	23	10.09	1999	.52	1976	7.7	5.7	3.0	1.4	.91	1.32	1.97	2.57	3.17	3.81	4.54	5.41	6.57	8.41	10.16
Jul	2.43	2.28	6.65	1922	2	6.12	1994	.18	1986	5.6	4.0	1.5	.7	.19	.35	.66	1.00	1.37	1.80	2.31	2.95	3.85	5.35	6.83
Aug	2.63	2.30	5.06	1958	21	7.29	1992	.00	2000	5.8	4.2	1.6	.7	.17	.44	.86	1.24	1.65	2.09	2.61	3.25	4.10	5.51	6.87
Sep	4.63	3.88	7.70	1970	23	12.41	1986	1.10	1972	7.3	5.3	2.8	1.5	1.01	1.44	2.12	2.73	3.35	4.00	4.74	5.62	6.78	8.64	10.39
Oct	3.95	2.77	5.60	1998	5	12.11	1998	.96	1976	6.4	4.6	2.2	1.3	.51	.83	1.39	1.94	2.52	3.16	3.91	4.83	6.07	8.10	10.07
Nov	3.40	3.54	3.82	1996	7	8.36	1996	.06	1989	6.5	4.8	2.2	1.1	.39	.66	1.13	1.60	2.11	2.67	3.33	4.15	5.26	7.09	8.87
Dec	2.50	1.67	3.70	1932	23	10.88	1984	.02	1996	5.6	3.8	1.8	.7	.15	.30	.61	.95	1.33	1.78	2.32	3.02	4.00	5.65	7.30
Ann	40.36	41.42	7.70	Sep 1970	23	13.55	May 1995	.00+	Aug 2000	80.4	57.8	26.1	12.4	29.10	31.29	34.09	36.21	38.09	39.90	41.77	43.84	46.34	49.97	53.09

+ 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: 1915-2001

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

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**Climate Division: OK 5**

**NWS Call Sign:**

**Elevation: 830 Feet**

**Lat: 35°50N**

**Lon: 96°24W**

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	3.4	2.4	#	#	6.0	1987	17	13.3	1979	11	1988	7	2	1988	1.8	1.4	.5	.2	.0	3.2	1.5	.6	.2
Feb	2.7	1.0	#	#	6.5	1993	15	12.0	1978	7	1993	15	2	1978	1.3	.8	.3	.1	.0	2.2	1.1	.3	.0
Mar	1.2	.0	#	0	10.8	1989	6	12.1	1989	14	1999	14	1+	1999	.4	.3	.1	.1	@	.4	.3	.2	.1
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	.5	1993	30	.5	1993	1	1993	30	#	1993	@	.0	.0	.0	.0	@	.0	.0	.0
Nov	.4	.0	#	0	2.0	1974	30	2.0+	1995	4	1976	11	#+	1997	.4	.2	.0	.0	.0	.2	.0	.0	.0
Dec	1.5	.6	#	#	6.0	1984	4	7.6	1987	6	1984	4	1	1987	1.3	.7	.2	@	.0	1.4	.5	.1	.0
Ann	9.2	4.0	N/A	N/A	10.8	Mar 1989	6	13.3	Jan 1979	14	Mar 1999	14	2+	Jan 1988	5.2	3.4	1.1	.4	@	7.4	3.4	1.2	.3

+ 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	5/02	4/28	4/24	4/22	4/19	4/16	4/14	4/10	4/06
32	4/15	4/12	4/09	4/07	4/05	4/03	4/01	3/29	3/26
28	4/11	4/05	4/01	3/28	3/25	3/21	3/18	3/13	3/08
24	3/26	3/22	3/18	3/15	3/12	3/10	3/07	3/03	2/26
20	3/19	3/12	3/07	3/03	2/27	2/23	2/18	2/13	2/06
16	3/11	3/03	2/25	2/20	2/15	2/11	2/05	1/30	1/22
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	9/27	10/02	10/06	10/09	10/12	10/15	10/18	10/21	10/26
32	10/10	10/15	10/19	10/22	10/25	10/28	11/01	11/05	11/10
28	10/17	10/24	10/29	11/02	11/06	11/10	11/14	11/19	11/25
24	10/27	11/03	11/08	11/13	11/17	11/21	11/25	12/01	12/08
20	11/08	11/14	11/18	11/22	11/25	11/29	12/03	12/07	12/13
16	11/16	11/24	11/30	12/05	12/09	12/14	12/19	12/24	1/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	192	186	182	178	175	171	168	163	157
32	221	215	210	206	202	199	195	190	183
28	252	243	236	231	225	220	214	207	198
24	276	267	260	254	249	243	238	231	221
20	298	289	282	276	271	266	260	253	244
16	331	317	308	301	294	288	281	272	261

\* 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	867	628	417	171	46	3	0	3	36	144	468	777	3560
60	714	497	275	83	12	0	0	0	12	62	332	627	2614
57	627	422	200	46	4	0	0	0	5	32	260	541	2137
55	569	375	157	29	2	0	0	0	2	20	217	484	1855
50	429	270	77	7	0	0	0	0	0	4	130	351	1268
32	89	43	1	0	0	0	0	0	0	0	6	55	194

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	246	345	608	859	1125	1321	1524	1494	1206	929	534	301	10492
55	12	33	51	197	413	631	811	781	519	236	55	17	3756
57	8	24	32	155	354	571	749	719	462	187	38	12	3311
60	2	15	14	102	268	481	656	626	378	123	20	5	2690
65	0	0	1	40	147	334	501	474	252	50	6	0	1805
70	0	0	0	11	63	199	347	328	154	14	0	0	1116

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	106	207	408	650	911	1115	1314	1283	1000	711	334	134	106	313	721	1371	2282	3397	4711	5994	6994	7705	8039	8173
45	51	124	278	501	756	965	1159	1128	850	556	223	66	51	175	453	954	1710	2675	3834	4962	5812	6368	6591	6657
50	17	68	172	360	601	815	1004	973	700	407	129	31	17	85	257	617	1218	2033	3037	4010	4710	5117	5246	5277
55	6	29	90	234	447	665	849	818	552	270	67	9	6	35	125	359	806	1471	2320	3138	3690	3960	4027	4036
60	0	9	41	131	300	515	694	663	410	156	27	1	0	9	50	181	481	996	1690	2353	2763	2919	2946	2947
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	85	158	273	419	600	760	866	838	658	461	215	101	85	243	516	935	1535	2295	3161	3999	4657	5118	5333	5434

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