

# Climatology of the United States

No. 20

1971-2000

Station: CLINTON, OK

COOP ID: 341909

Climate Division: OK 4

NWS Call Sign:

Elevation: 1,610 Feet Lat: 35° 31N

Lon: 98° 59W

## 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	47.5	22.8	35.2	83	1950	25	42.8	1990	-9	1984	19	23.7	1979	925	0	.0	.0	16.7	3.9	24.9	.1
Feb	53.9	27.4	40.7	89	1996	23	49.7	1976	-7	1996	4	28.0	1978	682	0	.0	.0	18.7	2.2	16.9	.3
Mar	62.4	35.3	48.9	96	1971	27	53.4+	1974	-2	1948	11	42.2	1996	500	1	.0	.2	27.4	.2	8.3	.0
Apr	71.7	45.0	58.4	102	1972	12	64.5	1972	20	1957	13	52.1	1997	234	34	@	1.1	29.6	.0	1.5	.0
May	80.1	56.0	68.1	106+	1953	23	75.0	1996	30	1984	8	62.6	1976	59	153	.3	5.1	31.0	.0	@	.0
Jun	89.6	66.2	77.9	112+	1953	14	83.9	1990	44	1964	1	72.9	1983	4	392	3.3	17.5	30.0	.0	.0	.0
Jul	95.8	70.4	83.1	115	1974	22	89.3	1980	50	1970	23	79.6	1975	0	562	11.3	27.0	31.0	.0	.0	.0
Aug	94.5	69.1	81.8	113	1964	6	87.7	1980	49	1956	21	74.7	1992	0	520	10.1	24.8	31.0	.0	.0	.0
Sep	85.7	61.0	73.4	111	1951	1	80.5	1998	33	1989	24	65.3	1974	21	271	2.4	12.4	30.0	.0	.0	.0
Oct	74.3	48.0	61.2	101	1979	8	66.1	1979	15	1993	31	55.7	1976	155	35	.1	1.4	30.8	.0	1.2	.0
Nov	59.8	35.1	47.5	88	1980	8	53.7	1999	9+	1959	17	42.4	2000	527	0	.0	.0	25.0	.1	10.0	.0
Dec	49.6	26.0	37.8	89	1955	24	42.6	1988	-11	1989	23	25.6	1983	843	0	.0	.0	18.0	2.0	22.6	.3
Ann	72.1	46.9	59.5	115	Jul 1974	22	89.3	Jul 1980	-11	Dec 1989	23	23.7	Jan 1979	3950	1968	27.5	89.5	319.2	8.4	85.4	.7

+ 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

025-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: CLINTON, OK**

**COOP ID: 341909**

**Climate Division: OK 4**

**NWS Call Sign:**

**Elevation: 1,610 Feet Lat: 35°31N**

**Lon: 98°59W**

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	1.05	1.19	1.88	1982	30	2.71	1973	.00+	1986	4.2	2.2	.7	.2	.00	.07	.23	.39	.57	.77	1.00	1.30	1.71	2.39	3.07
Feb	1.17	.89	1.95	1997	21	3.75	1997	.00	1991	4.4	2.8	.6	.1	.03	.12	.27	.44	.63	.84	1.10	1.43	1.88	2.65	3.41
Mar	2.51	2.43	4.10	1992	18	6.80	1973	.00	1972	5.7	4.0	1.7	.8	.07	.24	.57	.93	1.33	1.79	2.35	3.06	4.05	5.72	7.37
Apr	2.56	2.05	2.85	1997	11	8.90	1997	.10	1987	6.3	4.4	1.8	.8	.29	.49	.84	1.20	1.58	2.01	2.51	3.12	3.97	5.35	6.70
May	5.06	4.31	7.05	1951	17	17.79	1982	.63	1984	9.0	6.4	3.2	1.5	.91	1.35	2.09	2.78	3.49	4.25	5.12	6.17	7.57	9.83	11.99
Jun	4.06	3.32	4.60	1983	11	13.46	1989	.24	1998	7.4	6.0	2.6	1.2	1.01	1.39	1.98	2.51	3.03	3.58	4.19	4.91	5.86	7.37	8.78
Jul	2.30	1.70	4.06	1975	24	10.20	1975	.01	1980	5.2	3.7	1.6	.6	.12	.25	.52	.83	1.19	1.60	2.11	2.77	3.69	5.26	6.83
Aug	2.94	2.28	5.57	1968	15	8.81	1995	.00	2000	6.0	4.5	1.7	.7	.08	.29	.69	1.11	1.58	2.12	2.77	3.59	4.74	6.66	8.57
Sep	3.61	2.94	5.87	1996	15	11.00	1996	.00	2000	6.3	4.6	2.2	1.1	.12	.39	.90	1.42	1.99	2.65	3.43	4.42	5.79	8.08	10.33
Oct	3.01	2.15	8.07	1986	3	13.81	1986	.00	1992	5.7	4.1	1.9	.8	.10	.33	.76	1.19	1.67	2.22	2.87	3.68	4.81	6.70	8.56
Nov	1.85	1.76	3.71	1964	5	5.32	1992	.00+	1995	5.1	3.2	1.2	.4	.00	.32	.70	.99	1.28	1.58	1.92	2.31	2.84	3.69	4.50
Dec	1.37	.91	1.45	1984	16	4.77	1984	.00	1976	4.4	2.7	1.2	.3	.05	.15	.34	.54	.76	1.01	1.30	1.67	2.19	3.06	3.91
Ann	31.49	30.10	8.07	Oct 1986	3	17.79	May 1982	.00+	Sep 2000	69.7	48.6	20.4	8.5	20.50	22.55	25.22	27.28	29.12	30.92	32.78	34.86	37.41	41.13	44.38

+ 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](http://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: CLINTON, OK**

**COOP ID: 341909**

**Climate Division: OK 4**

**NWS Call Sign:**

**Elevation: 1,610 Feet**

**Lat: 35°31N**

**Lon: 98°59W**

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	3.3	2.7	#	0	6.0	1973	7	10.5	1984	8	1973	22	6	1973	1.8	1.1	.3	.1	.0	-9.9	-9.9	-9.9	-9.9
Feb	2.6	.5	#	0	6.5	1986	10	12.6	1978	5	1993	15	#+	1998	1.2	.9	.3	.1	.0	.7	.4	.1	.0
Mar	.3	.0	#	0	8.0	1994	9	8.0	1994	4	1995	3	#+	1998	.3	.1	.1	@	.0	.2	.2	.0	.0
Apr	#	.0	0	0	#	1983	5	#	1983	4	1973	8	4	1973	.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	.8	1991	31	.8	1991	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	5.0	1988	20	5.0	1988	3	1972	18	#+	2000	.3	.2	.1	@	.0	.1	.1	.0	.0
Dec	1.9	1.0	#	0	6.0	1972	15	7.8	1972	6	2000	27	#+	2000	.9	.7	.2	@	.0	.0	.0	.0	.0
Ann	8.7	4.2	N/A	N/A	8.0	Mar 1994	9	12.6	Feb 1978	8	Jan 1973	22	6	Jan 1973	4.5	3.0	1.0	.2	.0	-9.9	-9.9	-9.9	-9.9

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

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

**Station: CLINTON, OK**

**COOP ID: 341909**

**Climate Division: OK 4**

**NWS Call Sign:**

**Elevation: 1,610 Feet**

**Lat: 35°31N**

**Lon: 98°59W**

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	4/27	4/23	4/20	4/17	4/14	4/11	4/07	4/02
32	4/19	4/14	4/11	4/08	4/05	4/02	3/30	3/26	3/21
28	4/10	4/04	3/31	3/28	3/25	3/21	3/18	3/14	3/08
24	3/31	3/24	3/19	3/15	3/11	3/07	3/03	2/26	2/19
20	3/21	3/13	3/07	3/02	2/25	2/20	2/15	2/09	2/01
16	3/12	3/03	2/24	2/19	2/14	2/08	2/03	1/27	1/18
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	10/03	10/08	10/12	10/15	10/18	10/22	10/25	10/29	11/03
32	10/14	10/20	10/24	10/27	10/30	11/02	11/05	11/09	11/15
28	10/23	10/29	11/03	11/06	11/10	11/13	11/17	11/21	11/28
24	10/27	11/04	11/10	11/16	11/20	11/25	11/30	12/06	12/15
20	11/11	11/18	11/23	11/27	12/01	12/05	12/09	12/13	12/20
16	11/15	11/26	12/04	12/11	12/18	12/24	12/31	1/09	1/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	202	196	191	187	184	180	176	172	165
32	231	223	217	212	208	203	198	192	184
28	252	244	239	234	229	225	220	215	207
24	285	274	267	260	254	248	241	233	222
20	312	300	292	285	278	272	265	256	245
16	346	331	320	312	304	297	289	279	266

\* 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: CLINTON, OK**

**COOP ID: 341909**

**Climate Division: OK 4**

**NWS Call Sign:**

**Elevation: 1,610 Feet    Lat: 35°31N    Lon: 98°59W**

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	925	682	500	234	59	4	0	0	21	155	527	843	3950
60	770	552	354	134	19	0	0	0	5	64	382	688	2968
57	679	475	271	88	8	0	0	0	1	32	302	596	2452
55	618	425	222	64	4	0	0	0	0	18	252	536	2139
50	473	311	122	23	0	0	0	0	0	3	148	393	1473
32	94	56	3	0	0	0	0	0	0	0	5	52	210

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	192	298	526	790	1117	1378	1585	1543	1240	903	468	231	10271
55	3	23	32	164	409	688	872	830	550	208	25	3	3807
57	2	17	19	129	350	628	810	768	491	160	15	1	3390
60	0	10	9	84	268	538	717	675	405	99	6	0	2811
65	0	0	1	34	153	392	562	520	271	35	0	0	1968
70	0	0	0	10	71	257	407	370	162	8	0	0	1285

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	85	183	377	611	916	1161	1362	1323	1031	703	295	108	85	268	645	1256	2172	3333	4695	6018	7049	7752	8047	8155
45	33	101	248	465	761	1011	1207	1168	881	550	186	48	33	134	382	847	1608	2619	3826	4994	5875	6425	6611	6659
50	6	47	146	323	606	861	1052	1013	731	403	102	13	6	53	199	522	1128	1989	3041	4054	4785	5188	5290	5303
55	0	17	72	201	454	711	897	858	584	264	42	2	0	17	89	290	744	1455	2352	3210	3794	4058	4100	4102
60	0	2	30	103	305	561	742	703	440	152	16	0	0	2	32	135	440	1001	1743	2446	2886	3038	3054	3054
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	77	140	252	390	598	770	881	861	673	446	191	87	77	217	469	859	1457	2227	3108	3969	4642	5088	5279	5366

(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)