

Climatology of the United States

No. 20

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

Station: CHICKASHA EXPERIMENT STN, OK

1971-2000

COOP ID: 341750

Climate Division: OK 5

NWS Call Sign:

Elevation: 1,085 Feet Lat: 35°03N

Lon: 97°55W

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	25.3	38.6	85	1967	24	45.4	1990	-11	1988	8	27.6	1978	821	0	.0	.0	17.3	3.0	23.9	.1
Feb	58.6	29.9	44.3	90	1996	22	53.7	1976	-3	1996	4	30.4	1978	588	0	.0	@	20.2	1.7	16.7	.2
Mar	67.6	38.8	53.2	95	1967	11	58.3	1974	6	1980	2	48.4	1998	368	2	.0	.2	28.3	.2	8.3	.0
Apr	76.9	47.8	62.4	102	1972	12	68.4	1981	19	1971	7	57.3	1997	137	58	@	.9	29.9	.0	1.3	.0
May	84.3	58.0	71.2	107+	1985	30	76.9	1974	29	1960	1	66.7	1976	23	214	.3	5.6	31.0	.0	.0	.0
Jun	91.9	66.7	79.3	112	1980	27	84.0	1998	46	1954	4	74.3	1982	0	429	1.8	17.4	30.0	.0	.0	.0
Jul	97.3	70.4	83.9	111+	1980	2	89.6	1980	52	1970	23	80.4	1976	0	585	7.4	26.6	31.0	.0	.0	.0
Aug	96.0	68.7	82.4	107+	1956	15	87.5	2000	48	1962	26	75.9	1992	0	539	4.7	25.7	31.0	.0	.0	.0
Sep	89.0	60.9	75.0	110	2000	3	82.9	1998	33	1984	30	67.1	1974	15	314	1.5	12.7	30.0	.0	.0	.0
Oct	78.7	49.3	64.0	103	1977	1	67.1	1979	14	1993	31	56.8	1976	107	77	@	2.1	30.9	.0	1.1	.0
Nov	64.4	37.5	51.0	89	1980	9	57.9	1999	5	1976	29	45.1+	2000	425	3	.0	.0	26.2	.1	9.9	.0
Dec	54.0	28.5	41.3	85	1955	24	46.2	1996	-12	1989	23	29.1	1983	737	0	.0	.0	19.8	1.9	20.5	.2
Ann	75.9	48.5	62.2	112	Jun 1980	27	89.6	Jul 1980	-12	Dec 1989	23	27.6	Jan 1978	3221	2221	15.7	91.2	325.6	6.9	81.7	.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: 1953-2001

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

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NWS Call Sign:

Elevation: 1,085 Feet Lat: 35°03N

Lon: 97°55W

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	1.27	1.43	3.06	1998	4	4.65	1998	.00+	1986	4.0	2.5	.9	.3	.00	.00	.13	.31	.52	.78	1.10	1.53	2.13	3.18	4.25
Feb	1.79	1.57	1.97	1998	1	4.93	1990	.01	1996	5.1	3.5	1.1	.5	.12	.23	.45	.70	.97	1.29	1.68	2.17	2.85	4.01	5.16
Mar	2.82	2.48	2.77	1985	20	7.75	1985	.22	1971	6.5	4.9	2.1	.9	.45	.69	1.10	1.49	1.89	2.32	2.83	3.44	4.26	5.59	6.86
Apr	3.51	3.59	6.29	1992	17	9.30	1992	.36	1987	6.6	5.0	2.3	1.2	.61	.92	1.43	1.91	2.41	2.94	3.55	4.28	5.26	6.85	8.36
May	5.24	5.54	6.62	1987	27	11.45	1982	.39	1988	8.5	6.7	3.7	1.8	1.02	1.50	2.27	2.97	3.69	4.46	5.33	6.38	7.77	9.99	12.11
Jun	4.11	3.97	3.06	1979	9	7.71	1985	.61	1994	7.4	6.0	2.7	1.4	.95	1.33	1.94	2.47	3.01	3.58	4.22	4.99	5.99	7.58	9.08
Jul	2.11	1.52	2.82	1989	14	9.85	1975	.00+	1998	4.5	3.2	1.4	.7	.00	.00	.37	.71	1.08	1.50	2.00	2.63	3.49	4.94	6.38
Aug	2.73	2.61	3.90	1955	10	7.57	1996	.00	2000	6.0	4.6	1.8	.9	.55	.94	1.40	1.77	2.12	2.48	2.88	3.35	3.95	4.89	5.76
Sep	3.60	2.74	5.21	1959	25	9.88	1991	.60	1972	6.7	5.1	2.5	1.3	.71	1.04	1.57	2.05	2.54	3.07	3.66	4.38	5.33	6.85	8.29
Oct	3.88	2.60	7.30	1983	20	13.27	1983	.21	1978	6.1	4.6	2.2	1.1	.38	.65	1.18	1.72	2.31	2.97	3.76	4.73	6.08	8.31	10.50
Nov	2.13	1.63	2.24	1964	3	5.31	1992	.04	1976	5.5	3.7	1.5	.6	.18	.32	.60	.90	1.22	1.59	2.03	2.59	3.36	4.65	5.92
Dec	1.90	1.63	3.18	1984	31	8.09	1984	.08	1981	4.9	3.2	1.3	.5	.09	.18	.40	.65	.94	1.29	1.72	2.28	3.06	4.42	5.78
Ann	35.09	34.94	7.30	Oct 1983	20	13.27	Oct 1983	.00+	Aug 2000	71.8	53.0	23.5	11.2	24.95	26.91	29.43	31.33	33.03	34.67	36.37	38.24	40.51	43.80	46.65

+ 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: 1953-2001

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

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Climate Division: OK 5

NWS Call Sign:

Elevation: 1,085 Feet

Lat: 35°03N

Lon: 97°55W

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	1.9	.2	#	0	6.0	1973	7	9.0	1995	6	1973	7	1	1973	.9	.7	.2	.1	.0	.1	.0	.0	.0
Feb	1.3	.0	#	0	9.0	1979	7	18.5	1978	1	1975	6	#+	1996	.5	.5	.2	.2	.0	.1	.0	.0	.0
Mar	.3	.0	#	0	3.0	1995	2	6.0	1995	#+	1999	14	#+	1999	.1	.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	#	1988	11	#	1988	.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	.1	.0	0	0	1.0	1993	30	1.0	1993	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	0	0	1.0	1991	2	1.5	1991	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	1.1	.0	#	0	7.0	1975	25	7.0	1975	4	1995	19	#+	2000	.5	.3	.1	.1	.0	.1	.1	.0	.0
Ann	4.8	.2	N/A	N/A	9.0	Feb 1979	7	18.5	Feb 1978	6	Jan 1973	7	1	Jan 1973	2.2	1.8	.6	.4	.0	.3	.1	.0	.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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COOP ID: 341750

Climate Division: OK 5

NWS Call Sign:

Elevation: 1,085 Feet

Lat: 35° 03N

Lon: 97° 55W

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	4/27	4/23	4/20	4/17	4/15	4/13	4/10	4/07	4/04
32	4/17	4/12	4/09	4/06	4/03	4/01	3/29	3/25	3/21
28	4/09	4/03	3/30	3/27	3/23	3/20	3/16	3/12	3/06
24	3/30	3/24	3/19	3/14	3/10	3/06	3/02	2/25	2/18
20	3/22	3/13	3/07	3/01	2/24	2/19	2/14	2/07	1/30
16	3/03	2/24	2/19	2/14	2/10	2/06	2/01	1/27	1/20
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	10/01	10/06	10/11	10/14	10/17	10/21	10/24	10/29	11/03
32	10/14	10/19	10/23	10/26	10/29	11/01	11/04	11/07	11/12
28	10/24	10/31	11/04	11/08	11/12	11/15	11/19	11/24	11/30
24	10/29	11/05	11/11	11/15	11/19	11/23	11/28	12/03	12/10
20	11/10	11/18	11/23	11/28	12/02	12/07	12/11	12/17	12/24
16	11/18	11/28	12/05	12/10	12/16	12/21	12/27	1/03	1/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	205	198	193	189	185	181	176	171	165
32	227	220	216	212	208	204	200	196	189
28	257	249	243	238	233	228	223	217	209
24	283	273	265	259	253	247	241	234	223
20	316	302	293	285	278	271	264	256	244
16	341	325	317	310	304	298	292	285	275

* 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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COOP ID: 341750

Climate Division: OK 5

NWS Call Sign:

Elevation: 1,085 Feet Lat: 35°03N Lon: 97°55W

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	821	588	368	137	23	0	0	0	15	107	425	737	3221
60	668	458	229	60	5	0	0	0	3	42	289	585	2339
57	582	384	159	31	1	0	0	0	0	20	218	499	1894
55	524	338	121	18	0	0	0	0	0	10	177	442	1630
50	386	238	53	3	0	0	0	0	0	2	95	310	1087
32	67	32	0	0	0	0	0	0	0	0	2	36	137

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	269	374	658	911	1213	1419	1608	1562	1289	993	571	322	11189
55	13	36	65	239	501	729	895	849	599	290	56	15	4287
57	10	27	42	191	440	669	833	787	539	238	37	10	3823
60	3	16	18	131	350	579	740	694	452	166	18	3	3170
65	0	0	2	58	214	429	585	539	314	77	3	0	2221
70	0	0	0	18	107	285	430	386	195	28	0	0	1449

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	206	420	667	953	1165	1343	1300	1030	731	334	133	101	307	727	1394	2347	3512	4855	6155	7185	7916	8250	8383
45	43	119	283	517	798	1015	1188	1145	880	578	218	59	43	162	445	962	1760	2775	3963	5108	5988	6566	6784	6843
50	13	63	170	375	643	865	1033	990	730	427	125	23	13	76	246	621	1264	2129	3162	4152	4882	5309	5434	5457
55	2	26	85	244	488	715	878	835	582	288	59	8	2	28	113	357	845	1560	2438	3273	3855	4143	4202	4210
60	0	7	39	136	336	565	723	680	437	168	20	0	0	7	46	182	518	1083	1806	2486	2923	3091	3111	3111
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	86	161	280	430	630	791	885	860	682	475	217	101	86	247	527	957	1587	2378	3263	4123	4805	5280	5497	5598

(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