

Climatology of the United States

No. 20

1971-2000

Station: TAHLEQUAH, OK

COOP ID: 348677

Climate Division: OK 6

NWS Call Sign:

Elevation: 850 Feet Lat: 35° 56N Lon: 94° 58W

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	47.8	25.8	36.8	78	1950	25	45.0	1990	-13	1977	10	24.3	1979	875	0	.0	.0	14.9	3.5	22.4	.6
Feb	54.1	30.6	42.4	88	1996	22	52.3	1976	-11	1996	4	29.0	1979	640	0	.0	.0	18.1	2.3	15.9	.3
Mar	63.7	39.3	51.5	92	1974	31	56.8	1974	-10	1948	12	45.4	1996	421	2	.0	.1	27.5	.2	8.3	.0
Apr	72.6	48.0	60.3	93+	1960	6	66.3	1981	20	1954	1	54.3	1983	176	35	.0	.2	29.6	.0	1.7	.0
May	79.1	56.7	67.9	97	1985	31	73.1	1977	30	1954	4	63.0	1976	58	147	.0	.4	31.0	.0	.0	.0
Jun	86.3	64.8	75.6	105+	1952	29	79.7	1977	42	1983	1	72.0	1982	2	319	.1	8.8	30.0	.0	.0	.0
Jul	92.0	68.8	80.4	114	1954	13	85.2	1980	45	1971	31	76.7	1972	0	478	2.5	21.3	31.0	.0	.0	.0
Aug	92.3	67.6	80.0	110	1956	16	85.4	1980	48+	1949	22	73.6	1992	1	464	3.2	22.0	31.0	.0	.0	.0
Sep	84.3	60.4	72.4	107	1998	4	80.0	1978	28	1984	30	63.8	1974	34	253	.7	8.6	30.0	.0	@	.0
Oct	74.1	49.3	61.7	98+	1953	1	67.2	1979	17	1952	29	54.9	1976	156	53	.0	.5	30.7	.0	1.5	.0
Nov	60.5	38.4	49.5	86	1980	9	57.3	1999	6	1950	24	42.4	1976	471	5	.0	.0	24.9	.1	9.3	.0
Dec	50.7	29.0	39.9	80+	1948	14	47.2	1984	-14	1989	23	26.3	1983	780	0	.0	.0	17.7	2.1	18.9	.3
Ann	71.5	48.2	59.9	114	Jul 1954	13	85.4	Aug 1980	-14	Dec 1989	23	24.3	Jan 1979	3614	1756	6.5	61.9	316.4	8.2	78.0	1.2

+ 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/normals/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

093-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: TAHLEQUAH, OK

COOP ID: 348677

Climate Division: OK 6

NWS Call Sign:

Elevation: 850 Feet Lat: 35°56N

Lon: 94°58W

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	2.38	2.08	2.88	2000	3	6.64	1995	.09	1986	5.9	4.2	1.4	.7	.27	.45	.79	1.12	1.47	1.87	2.33	2.90	3.69	4.97	6.23
Feb	2.44	2.59	3.59	1951	20	4.96	1990	.15	1996	6.0	4.2	1.6	.7	.54	.77	1.12	1.45	1.77	2.11	2.50	2.96	3.57	4.54	5.45
Mar	4.15	3.66	3.78	1975	12	9.71	1973	.56	1971	7.9	6.3	2.7	1.4	1.21	1.60	2.20	2.71	3.21	3.73	4.31	4.99	5.86	7.24	8.52
Apr	4.08	4.42	2.91	1972	21	8.14	1990	.24	1989	8.5	6.4	2.7	1.2	1.01	1.40	1.99	2.52	3.04	3.59	4.21	4.94	5.89	7.40	8.82
May	5.66	5.77	4.60	1960	6	11.06	1999	1.62	1994	9.6	7.7	3.8	1.8	2.23	2.75	3.49	4.11	4.69	5.28	5.92	6.66	7.60	9.05	10.36
Jun	5.19	4.76	4.04	1974	9	14.23	2000	.90	1991	8.0	6.9	3.4	1.6	.97	1.43	2.19	2.89	3.61	4.38	5.26	6.32	7.73	10.00	12.16
Jul	3.48	3.45	6.13	1961	15	8.76	1994	.13	1974	5.5	4.3	2.2	1.4	.35	.61	1.09	1.57	2.10	2.69	3.38	4.25	5.43	7.40	9.32
Aug	3.23	2.88	4.64	1981	1	9.00	1981	.00	2000	5.8	4.6	2.0	1.1	.39	.80	1.34	1.80	2.27	2.76	3.32	3.98	4.86	6.27	7.60
Sep	5.35	4.87	6.23	1996	26	12.65	1973	.29	1979	7.7	6.5	3.1	1.4	1.16	1.65	2.44	3.15	3.86	4.62	5.47	6.50	7.85	10.00	12.03
Oct	4.33	3.46	6.60	1970	9	10.18	1985	.68	1978	6.8	5.3	2.8	1.2	.66	1.03	1.66	2.25	2.87	3.55	4.33	5.29	6.57	8.65	10.65
Nov	4.65	4.43	5.37	1994	5	11.34	1994	.62	1989	7.2	5.8	2.9	1.6	1.29	1.73	2.40	2.99	3.56	4.15	4.81	5.59	6.61	8.20	9.68
Dec	3.20	2.28	2.93	1975	6	7.52	1984	.27	1989	6.2	4.5	2.2	1.0	.37	.61	1.06	1.51	1.98	2.51	3.13	3.91	4.95	6.68	8.36
Ann	48.14	49.76	6.60	Oct 1970	9	14.23	Jun 2000	.00	Aug 2000	85.1	66.7	30.8	15.1	32.25	35.26	39.14	42.12	44.78	47.36	50.05	53.03	56.67	61.97	66.59

+ 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

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Federal Building
151 Patton Avenue
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www.ncdc.noaa.gov

Station: TAHLEQUAH, OK

COOP ID: 348677

Climate Division: OK 6

NWS Call Sign:

Elevation: 850 Feet

Lat: 35°56N

Lon: 94°58W

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	3.0	.6	#	#	14.0	1977	9	17.5	1977	14	1977	10	4	1977	1.0	.9	.3	.2	@	2.3	1.1	.6	.3
Feb	2.0	.4	#	#	8.0	1975	23	10.3	1978	11	1975	24	1	1985	.9	.6	.2	.1	.0	.9	.3	.2	@
Mar	.4	.0	#	0	4.0	1999	13	4.0	1999	14	1989	6	3	1994	.2	.1	.1	.0	.0	.1	@	.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	#	1993	30	#	1993	#	1993	30	#	1993	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	3.5	1971	23	4.7	1972	4	1971	23	#+	2000	.2	.2	.1	.0	.0	.3	.1	.0	.0
Dec	1.1	.0	#	0	5.5	1985	11	6.2	1985	6	1985	11	#+	1992	.5	.2	.1	@	.0	.4	.2	@	.0
Ann	7.1	1.0	N/A	N/A	14.0	Jan 1977	9	17.5	Jan 1977	14+	Mar 1989	6	4	Jan 1977	2.8	2.0	.8	.3	@	4.0	1.7	.8	.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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No. 20 1971-2000

Station: TAHLEQUAH, OK

COOP ID: 348677

Climate Division: OK 6

NWS Call Sign:

Elevation: 850 Feet

Lat: 35° 56N

Lon: 94° 58W

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	5/07	5/02	4/28	4/24	4/21	4/18	4/15	4/11	4/05
32	4/20	4/16	4/13	4/10	4/07	4/05	4/02	3/30	3/25
28	4/13	4/08	4/04	3/31	3/28	3/25	3/21	3/17	3/11
24	4/04	3/28	3/23	3/18	3/14	3/10	3/06	2/28	2/21
20	3/23	3/15	3/09	3/04	2/27	2/23	2/17	2/12	2/03
16	3/12	3/03	2/25	2/19	2/14	2/09	2/04	1/29	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	9/25	10/01	10/05	10/09	10/12	10/15	10/19	10/23	10/29
32	10/09	10/15	10/19	10/23	10/26	10/29	11/02	11/06	11/12
28	10/18	10/24	10/29	11/02	11/05	11/09	11/13	11/18	11/24
24	11/02	11/08	11/12	11/16	11/19	11/22	11/26	11/30	12/06
20	11/08	11/15	11/20	11/24	11/28	12/02	12/07	12/12	12/19
16	11/12	11/22	11/30	12/06	12/12	12/18	12/24	1/01	1/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	197	189	183	178	173	168	163	157	149
32	222	215	209	205	201	197	192	187	180
28	244	237	231	226	222	217	212	207	199
24	279	269	261	255	249	243	237	229	219
20	303	293	285	279	273	268	261	254	244
16	335	318	309	302	296	289	283	275	265

* 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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Station: TAHLEQUAH, OK

COOP ID: 348677

Climate Division: OK 6 NWS Call Sign: Elevation: 850 Feet Lat: 35° 56N Lon: 94° 58W

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	875	640	421	176	58	2	0	1	34	156	471	780	3614
60	723	509	280	85	18	0	0	0	11	71	335	632	2664
57	637	434	206	47	8	0	0	0	5	39	263	546	2185
55	579	386	164	29	4	0	0	0	2	25	220	489	1898
50	441	280	84	6	0	0	0	0	0	5	131	358	1305
32	101	47	2	0	0	0	0	0	0	0	6	62	218

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	250	337	606	849	1112	1307	1501	1485	1210	920	531	305	10413
55	15	32	56	188	403	617	788	772	522	232	54	19	3698
57	11	24	36	146	345	557	726	710	464	184	37	14	3254
60	3	15	16	94	262	467	633	617	381	123	20	7	2638
65	0	0	2	35	147	319	478	464	253	53	5	0	1756
70	0	0	0	9	66	184	324	316	153	16	0	0	1068

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	97	192	389	620	873	1072	1261	1248	983	691	327	132	97	289	678	1298	2171	3243	4504	5752	6735	7426	7753	7885
45	50	111	263	473	718	922	1106	1093	833	536	214	67	50	161	424	897	1615	2537	3643	4736	5569	6105	6319	6386
50	19	58	157	333	563	772	951	938	683	385	126	33	19	77	234	567	1130	1902	2853	3791	4474	4859	4985	5018
55	3	24	85	208	409	622	796	783	536	254	63	9	3	27	112	320	729	1351	2147	2930	3466	3720	3783	3792
60	0	6	35	111	267	472	641	628	392	145	22	2	0	6	41	152	419	891	1532	2160	2552	2697	2719	2721
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	67	132	250	395	578	740	851	835	655	444	198	87	67	199	449	844	1422	2162	3013	3848	4503	4947	5145	5232

(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