

Climatography of the United States

No. 20

1971-2000

Station: ARDMORE, OK

COOP ID: 340292

Climate Division: OK 8

NWS Call Sign:

Elevation: 880 Feet Lat: 34°10N Lon: 97°08W

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	51.5	28.4	40.0	89	1911	31	47.3	1990	-8	1930	18	29.4	1979	777	0	.0	.0	19.0	2.1	17.5	@
Feb	57.8	33.0	45.4	95	1918	24	55.0	1976	-3	1905	13	32.9	1978	558	0	.0	.1	21.1	1.0	10.2	@
Mar	65.6	40.7	53.2	98+	1916	21	58.7	1974	7+	1943	3	48.2	1975	372	5	.0	.2	29.0	.1	3.8	.0
Apr	74.1	50.3	62.2	101	1925	18	68.2	1981	25+	1936	2	55.8	1983	134	50	.0	.3	30.0	.0	.3	.0
May	81.6	60.5	71.1	105	1927	28	76.9	1998	32	1903	1	66.8	1976	22	209	.1	3.9	31.0	.0	@	.0
Jun	89.3	68.4	78.9	112+	1918	25	84.1	1998	35	1903	1	75.0	1983	0	416	1.0	15.7	30.0	.0	.0	.0
Jul	94.7	72.7	83.7	111	1914	31	90.3	1998	54	1915	5	80.0	1989	0	579	5.9	25.8	31.0	.0	.0	.0
Aug	94.6	71.3	83.0	114	1936	11	88.7	2000	50+	1906	28	76.8	1992	0	555	5.8	25.4	31.0	.0	.0	.0
Sep	86.6	64.1	75.4	110	2000	3	82.7	1998	35	1942	27	67.3	1974	12	322	1.4	12.1	30.0	.0	.0	.0
Oct	76.7	52.8	64.8	102	1938	1	68.3	1998	18	1917	30	58.1	1976	91	84	.0	1.7	30.9	.0	.2	.0
Nov	63.7	40.6	52.2	93	1908	7	61.4	1999	13	1940	14	45.5	1972	394	8	.0	.0	26.7	.1	5.1	.0
Dec	54.7	31.7	43.2	92	1951	30	48.6	1984	-8	1989	23	30.1	1983	676	0	.0	.0	21.9	1.4	13.8	.1
Ann	74.2	51.2	62.8	114	Aug 1936	11	90.3	Jul 1998	-8+	Dec 1989	23	29.4	Jan 1979	3036	2228	14.2	85.2	331.6	4.7	50.9	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1901-2001

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

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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: ARDMORE, OK

COOP ID: 340292

Climate Division: OK 8

NWS Call Sign:

Elevation: 880 Feet Lat: 34°10N

Lon: 97°08W

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	1.84	1.48	6.30	1916	21	6.13	1998	.00	1986	5.5	3.5	1.4	.5	.06	.19	.44	.71	1.00	1.34	1.74	2.25	2.95	4.13	5.30
Feb	2.18	1.83	3.95	1997	20	6.51	1997	.02	1996	5.4	3.5	1.7	.6	.15	.28	.55	.85	1.19	1.57	2.04	2.64	3.47	4.88	6.28
Mar	3.17	3.23	3.74	1977	27	7.22	1973	.40	1986	6.9	5.0	2.3	1.1	.60	.88	1.35	1.78	2.22	2.69	3.22	3.87	4.72	6.10	7.41
Apr	3.17	2.93	7.35	1967	12	11.84	1990	.60	1987	6.5	5.2	2.0	.9	.67	.96	1.43	1.85	2.27	2.73	3.24	3.85	4.66	5.96	7.18
May	5.07	4.97	6.18	1993	9	13.43	1993	.00	1996	8.5	6.5	2.9	1.7	.42	.98	1.81	2.55	3.32	4.15	5.10	6.26	7.82	10.34	12.76
Jun	4.22	4.20	4.40	1991	8	7.86	1973	.63	1972	7.5	5.7	2.9	1.6	1.25	1.65	2.25	2.77	3.28	3.80	4.38	5.06	5.95	7.32	8.60
Jul	2.49	2.67	6.15	1919	19	6.76	1994	.00+	1998	4.7	3.3	1.6	.8	.00	.19	.60	.99	1.40	1.87	2.42	3.09	4.02	5.57	7.08
Aug	2.50	1.52	10.20	1919	18	11.73	1974	.00	2000	4.9	3.5	1.6	.8	.03	.13	.40	.72	1.11	1.59	2.20	2.98	4.12	6.08	8.07
Sep	4.15	3.72	4.95	1918	20	10.54	1973	.49	1983	6.0	4.5	2.4	1.5	.64	.99	1.59	2.16	2.76	3.41	4.15	5.07	6.29	8.28	10.19
Oct	4.42	3.34	6.50	1981	13	16.85	1981	.49	1995	6.6	5.0	2.8	1.6	.60	.96	1.59	2.21	2.85	3.56	4.38	5.39	6.76	8.99	11.14
Nov	2.68	1.83	4.08	1913	5	6.69	1996	.12	1999	5.6	3.9	1.8	.7	.29	.50	.87	1.24	1.65	2.09	2.62	3.28	4.17	5.65	7.09
Dec	2.31	1.76	5.84	1932	23	6.92	1987	.12	1989	5.3	3.6	1.7	.7	.16	.30	.60	.91	1.27	1.68	2.17	2.80	3.68	5.15	6.62
Ann	38.20	36.34	10.20	Aug 1919	18	16.85	Oct 1981	.00+	Aug 2000	73.4	53.2	25.1	12.5	23.87	26.51	29.97	32.64	35.04	37.40	39.86	42.60	45.97	50.93	55.27

+ 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: 1901-2001

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

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Station: ARDMORE, OK

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Climate Division: OK 8

NWS Call Sign:

Elevation: 880 Feet

Lat: 34°10N

Lon: 97°08W

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	1.1	.0	#	0	8.0	1977	9	8.0	1977	7	1988	6	1	1988	.4	.2	.1	.1	.0	.2	.1	.1	.0
Feb	.4	.0	#	0	6.0	1978	17	6.0+	1978	6	1978	17	2	1975	.2	.1	.1	.1	.0	.0	.0	.0	.0
Mar	.3	.0	#	0	3.5	1989	5	5.1	1989	2	1989	4	#+	1995	.1	.1	@	.0	.0	.1	.0	.0	.0
Apr	#	.0	0	0	#	1973	8	#	1973	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	#	1993	30	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	2.0	1980	17	2.0	1980	#+	1993	26	#+	1993	.2	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	5.5	2000	31	5.5	2000	4	1983	16	1	1983	.2	.2	.1	@	.0	.7	@	.0	.0
Ann	2.3	.0	N/A	N/A	8.0	Jan 1977	9	8.0	Jan 1977	7	Jan 1988	6	2	Feb 1975	1.1	.7	.3	.2	.0	1.0	.1	.1	.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

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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	4/17	4/11	4/07	4/04	4/01	3/28	3/25	3/21	3/16
32	4/12	4/04	3/30	3/26	3/22	3/17	3/13	3/08	3/01
28	3/29	3/20	3/14	3/09	3/04	2/27	2/22	2/15	2/07
24	3/15	3/07	2/28	2/23	2/18	2/13	2/08	2/02	1/24
20	3/08	2/26	2/19	2/13	2/08	2/02	1/27	1/20	1/11
16	2/28	2/17	2/10	2/03	1/27	1/20	1/12	12/30	0/00
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	10/19	10/25	10/29	11/01	11/05	11/08	11/11	11/15	11/21
32	10/28	11/03	11/08	11/11	11/15	11/18	11/22	11/26	12/03
28	11/07	11/14	11/19	11/23	11/26	11/30	12/04	12/09	12/15
24	11/15	11/23	11/29	12/04	12/09	12/13	12/18	12/24	1/01
20	11/14	11/26	12/04	12/11	12/18	12/24	12/31	1/09	1/20
16	12/04	12/13	12/19	12/25	12/30	1/05	1/12	1/23	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	240	232	227	222	217	213	208	203	195
32	264	255	248	243	237	232	227	220	211
28	295	285	278	272	267	261	255	248	238
24	325	312	304	297	291	284	278	270	260
20	>365	339	326	316	308	300	292	282	269
16	>365	>365	>365	>365	344	330	319	306	291

* 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	777	558	372	134	22	0	0	0	12	91	394	676	3036
60	626	430	233	56	4	0	0	0	2	33	264	528	2176
57	540	359	165	28	1	0	0	0	0	14	198	442	1747
55	482	315	128	16	0	0	0	0	0	8	160	387	1496
50	348	221	59	2	0	0	0	0	0	1	86	264	981
32	50	28	1	0	0	0	0	0	0	0	1	24	104

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	297	404	657	906	1210	1406	1602	1578	1300	1015	606	371	11352
55	16	47	72	232	497	716	889	865	610	310	75	21	4350
57	11	35	47	184	436	656	827	803	550	255	53	15	3872
60	4	22	22	123	346	566	734	710	462	180	29	7	3205
65	0	0	5	50	209	416	579	555	322	84	8	0	2228
70	0	0	0	14	102	271	424	403	201	29	0	0	1444

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	171	282	501	714	988	1181	1367	1352	1086	812	422	217	171	453	954	1668	2656	3837	5204	6556	7642	8454	8876	9093
45	96	181	357	565	833	1031	1212	1197	936	657	296	120	96	277	634	1199	2032	3063	4275	5472	6408	7065	7361	7481
50	39	102	237	420	678	881	1057	1042	786	505	185	58	39	141	378	798	1476	2357	3414	4456	5242	5747	5932	5990
55	8	53	136	282	525	731	902	887	637	360	104	23	8	61	197	479	1004	1735	2637	3524	4161	4521	4625	4648
60	0	17	65	160	373	581	747	732	489	227	48	4	0	17	82	242	615	1196	1943	2675	3164	3391	3439	3443
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	117	182	308	448	667	818	921	900	734	522	251	135	117	299	607	1055	1722	2540	3461	4361	5095	5617	5868	6003

(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