U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: NEWKIRK 1 NW, OK **COOP ID: 346278**

Climate Division: OK 2 **NWS Call Sign:** **Elevation: 1,140 Feet** **Lat: 36˚53N** **Lon: 97˚04W**

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	41.9	20.4	31.2	80	1967	22	40.5	1990	-18	1930	18	17.9	1979	1049	0	.0	.0	11.2	6.4	25.3	.7
Feb	49.5	24.8	37.2	90	1996	22	46.4	1976	-22	1899	12	22.3	1978	782	0	.0	@	15.5	3.7	18.4	.5
Mar	58.1	33.3	45.7	94	1907	20	50.9	1986	-2+	1948	11	39.8	1975	597	0	.0	@	24.7	.5	10.8	.0
Apr	67.8	43.6	55.7	99	1972	12	63.3	1981	15	1936	3	48.9	1983	295	17	.0	.2	29.2	.0	2.5	.0
May	76.7	55.3	66.0	103+	1913	29	72.0	1974	26	1909	1	62.1	1979	79	110	.0	1.5	31.0	.0	@	.0
Jun	86.0	64.7	75.4	110	1911	25	79.7	1990	38	1903	1	70.2	1992	6	317	.5	12.1	30.0	.0	.0	.0
Jul	92.2	69.8	81.0	117	1954	14	87.8	1980	50+	1905	9	77.3	1989	0	495	4.8	23.3	31.0	.0	.0	.0
Aug	91.1	67.9	79.5	115+	1936	11	86.3	2000	47	1915	30	72.3	1992	3	453	4.7	21.3	31.0	.0	.0	.0
Sep	82.9	60.0	71.5	109	1919	10	79.3	1998	32+	1903	27	64.0	1974	32	225	1.0	9.0	30.0	.0	@	.0
Oct	71.6	47.9	59.8	99	1898	3	63.3	1979	15	1993	31	53.9	1976	191	28	.0	.8	30.6	.0	1.2	.0
Nov	56.6	34.6	45.6	88	1915	7	54.6	1999	6+	1903	18	39.9	1976	581	0	.0	.0	22.3	.6	10.6	.0
Dec	45.2	24.6	34.9	81	1955	24	39.6	1999	-13	1989	22	21.1	1983	933	0	.0	.0	12.8	3.5	22.7	.5
Ann	68.3	45.6	57.0	117	Jul 1954	14	87.8	Jul 1980	-22	Feb 1899	12	17.9	Jan 1979	4548	1645	11.0	68.2	299.3	14.7	91.5	1.7

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1898-2001

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

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: NEWKIRK 1 NW, OK

COOP ID: 346278

Climate Division: OK 2 **NWS Call Sign:** **Elevation: 1,140 Feet** **Lat: 36˚53N** **Lon: 97˚04W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.02	.73	3.15	1999	31	4.37	1999	.00+	1996
Feb	1.36	.99	3.73	1997	21	4.70	1997	.03	1996
Mar	2.82	2.02	3.10	1984	23	8.70	1973	.00	1971
Apr	3.88	4.16	5.65	1922	8	10.48	1988	.35	1989
May	4.94	4.32	5.00	1909	24	13.27	1993	1.06	1988
Jun	5.05	4.65	8.05	1916	5	11.01	2000	.93	1988
Jul	3.80	3.81	4.41	1958	6	9.12	1994	.13	1980
Aug	3.28	2.61	6.70	1898	7	10.35	1977	.00	2000
Sep	3.89	3.94	7.37	1996	26	10.52	1986	.00	1975
Oct	3.42	2.81	5.63	1998	2	15.19	1986	.02	1978
Nov	2.78	2.58	7.65	1979	21	9.83	1979	.00	1976
Dec	1.73	1.45	3.80	1971	15	5.61	1984	.00	1977
Ann	37.97	36.74	8.05	Jun 1916	5	15.19	Oct 1986	.00+	Aug 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	3.5	2.0	.6	.2
Feb	5.0	3.1	.7	.2
Mar	6.4	4.9	1.6	.9
Apr	7.3	5.6	2.6	1.1
May	8.9	6.7	3.4	1.5
Jun	8.4	6.7	3.3	1.5
Jul	6.0	4.9	2.5	1.4
Aug	5.9	3.9	1.9	1.1
Sep	6.1	4.4	1.9	1.0
Oct	6.2	4.1	1.9	.9
Nov	5.3	3.9	1.7	.6
Dec	4.6	3.2	1.2	.4
Ann	73.6	53.4	23.3	10.8

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.00	.00	.20	.37	.55	.75	.98	1.28	1.68	2.34	3.00
Feb	.08	.16	.33	.52	.72	.97	1.26	1.64	2.17	3.07	3.97
Mar	.18	.46	.91	1.32	1.76	2.24	2.79	3.47	4.40	5.91	7.38
Apr	.67	1.01	1.58	2.11	2.65	3.24	3.92	4.73	5.82	7.59	9.27
May	1.20	1.67	2.39	3.03	3.66	4.33	5.08	5.97	7.14	8.99	10.73
Jun	1.19	1.67	2.40	3.06	3.72	4.41	5.19	6.12	7.34	9.27	11.08
Jul	.57	.88	1.43	1.96	2.51	3.11	3.80	4.65	5.78	7.63	9.41
Aug	.07	.28	.70	1.16	1.68	2.29	3.03	3.98	5.31	7.56	9.80
Sep	.25	.63	1.25	1.82	2.42	3.08	3.85	4.80	6.08	8.18	10.21
Oct	.18	.36	.77	1.22	1.75	2.37	3.13	4.11	5.50	7.86	10.22
Nov	.06	.23	.58	.97	1.42	1.93	2.56	3.37	4.50	6.42	8.34
Dec	.05	.17	.41	.66	.93	1.25	1.63	2.12	2.79	3.92	5.04
Ann	24.41	26.93	30.21	32.74	35.02	37.24	39.55	42.12	45.28	49.90	53.94

\+ 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: 1898-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: NEWKIRK 1 NW, OK **COOP ID: 346278**

Climate Division: OK 2 **NWS Call Sign:** **Elevation: 1,140 Feet** **Lat: 36°53N** **Lon: 97°04W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	3.1	1.0	#	#	10.5	1988	7	16.0	1988	11	1988	7	3	1988	.9	.9	.3	.1	@	1.9	1.3	.9	.3
Feb	3.2	.3	#	0	9.0	1980	8	12.0	1975	9	1971	22	1	1993	.9	.8	.5	.1	.0	.4	.2	.0	.0
Mar	1.8	.0	#	0	5.5	1988	18	10.0	1988	5+	2000	11	#+	2000	.6	.6	.3	.1	.0	.4	.2	.1	.0
Apr	#	.0	#	0	#	1997	8	#	1997	#	1997	8	#	1997	.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	#	1997	26	#+	1997	#+	1997	26	#+	1997	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.5	.0	#	0	7.0	1988	20	7.0	1988	7	1988	20	1	1988	.2	.2	@	@	.0	.2	.1	@	.0
Dec	1.2	.0	#	#	9.0	1987	15	9.5	2000	9	1987	15	2	2000	.9	.8	.4	.1	.0	1.4	.7	.3	.0
Ann	9.8	1.3	N/A	N/A	10.5	Jan 1988	7	16.0	Jan 1988	11	Jan 1988	7	3	Jan 1988	3.5	3.3	1.5	.4	@	4.3	2.5	1.3	.3

+ Also occurred on an earlier date(s) #Denotes trace amounts

(1) Derived from Snow Climatology and 1971-2000 daily data

@ Denotes mean number of days greater than 0 but less than .05

(2) Derived from 1971-2000 daily data

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: NEWKIRK 1 NW, OK **COOP ID: 346278**

Climate Division: OK 2 **NWS Call Sign:** **Elevation: 1,140 Feet** **Lat: 36˚53N** **Lon: 97˚04W**

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	5/08	5/03	4/29	4/26	4/23	4/20	4/17	4/13	4/08
32	4/22	4/18	4/14	4/11	4/09	4/06	4/03	3/31	3/27
28	4/08	4/04	3/31	3/29	3/26	3/23	3/21	3/17	3/13
24	4/03	3/28	3/24	3/21	3/17	3/14	3/10	3/06	3/01
20	3/24	3/16	3/11	3/06	3/01	2/25	2/20	2/14	2/06
16	3/15	3/06	2/28	2/23	2/18	2/12	2/07	2/01	1/23

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	9/29	10/05	10/09	10/13	10/16	10/19	10/23	10/27	11/02
32	10/14	10/19	10/22	10/26	10/29	10/31	11/04	11/07	11/12
28	10/24	10/30	11/03	11/07	11/10	11/14	11/17	11/21	11/27
24	10/29	11/05	11/10	11/15	11/19	11/23	11/27	12/02	12/10
20	11/06	11/14	11/19	11/24	11/28	12/02	12/07	12/12	12/19
16	11/14	11/23	11/29	12/04	12/08	12/13	12/18	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	197	190	184	180	176	171	167	162	154
32	224	216	211	206	202	198	193	188	180
28	248	242	237	233	229	225	221	216	209
24	273	263	257	251	246	241	235	228	219
20	303	292	284	277	271	265	258	250	239
16	329	316	308	300	293	286	278	270	257

***** 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/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: NEWKIRK 1 NW, OK **COOP ID: 346278**

Climate Division: OK 2 **NWS Call Sign:** **Elevation: 1,140 Feet** **Lat: 36˚53N** **Lon: 97˚04W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1049	782	597	295	79	6	0	3	32	191	581	933	4548
60	895	652	446	180	28	0	0	0	9	90	438	778	3516
57	804	574	360	124	13	0	0	0	3	51	357	686	2972
55	744	524	305	93	7	0	0	0	0	33	306	626	2638
50	600	406	187	38	1	0	0	0	0	8	196	483	1919
32	189	114	10	0	0	0	0	0	0	0	14	108	435

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	163	258	436	711	1054	1302	1518	1473	1184	860	422	198	9579
55	5	24	18	115	348	612	805	760	494	180	25	4	3390
57	3	18	11	86	292	552	743	698	437	136	16	1	2993
60	1	12	4	51	215	462	650	605	352	82	7	0	2441
65	0	0	0	17	110	317	495	453	225	28	0	0	1645
70	0	0	0	4	43	189	342	309	128	6	0	0	1021

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	53	139	313	558	855	1109	1305	1272	985	667	260	79	53	192	505	1063	1918	3027	4332	5604	6589	7256	7516	7595
45	23	77	202	415	700	959	1150	1117	835	515	162	35	23	100	302	717	1417	2376	3526	4643	5478	5993	6155	6190
50	3	34	117	284	545	809	995	962	685	372	90	11	3	37	154	438	983	1792	2787	3749	4434	4806	4896	4907
55	1	9	55	172	392	659	840	807	537	244	41	2	1	10	65	237	629	1288	2128	2935	3472	3716	3757	3759
60	0	1	23	94	258	509	685	652	396	135	14	0	0	1	24	118	376	885	1570	2222	2618	2753	2767	2767
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	44	103	200	347	558	754	875	849	658	416	154	51	44	147	347	694	1252	2006	2881	3730	4388	4804	4958	5009

(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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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