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: HEADQUARTERS, ID **COOP ID: 104150**

Climate Division: ID 4 **NWS Call Sign:** **Elevation: 3,165 Feet** **Lat: 46˚38N** **Lon: 115˚49W**

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	34.8	18.3	26.6	55+	1972	22	32.8	1981	-27	1962	22	14.3	1979	1192	0	.0	.0	.3	9.2	30.5	3.5
Feb	39.8	20.2	30.0	64+	1995	25	35.5	1992	-24	1989	4	20.8	1989	980	0	.0	.0	2.7	4.1	27.4	1.6
Mar	46.1	24.7	35.4	72+	1999	21	41.2	1992	-10	1960	1	30.0	1976	918	0	.0	.0	10.2	.8	29.0	.4
Apr	54.5	29.4	42.0	88	1987	28	49.0	1987	4	1975	2	36.0	1975	692	0	.0	.0	18.3	.0	24.1	.0
May	63.5	35.3	49.4	97	1986	30	54.3	1993	19+	1976	2	44.5	1978	484	0	.0	.3	27.6	.0	10.5	.0
Jun	71.3	41.7	56.5	97+	1986	2	62.9	1986	25	1975	7	52.1	1976	267	12	.0	1.2	29.4	.0	2.0	.0
Jul	79.7	44.9	62.3	102+	1967	13	67.9	1975	26	1962	3	55.4	1993	134	50	@	4.6	31.0	.0	.4	.0
Aug	81.0	43.9	62.5	108	1961	5	67.4	1986	28	1980	29	57.4	1995	133	54	@	5.1	31.0	.0	.8	.0
Sep	70.5	36.5	53.5	99	1967	1	59.9	1990	18	1985	30	46.6	1971	355	10	.0	.8	29.4	.0	7.5	.0
Oct	58.0	29.8	43.9	85+	1975	3	51.6	1988	4+	1971	30	39.6	1971	655	0	.0	.0	23.6	.1	23.0	.0
Nov	41.3	24.9	33.1	69	1988	1	39.3	1999	-5+	1993	26	22.5	1985	957	0	.0	.0	5.1	2.5	27.1	.3
Dec	33.9	18.9	26.4	55	1980	27	31.7+	1979	-28	1968	31	17.1	1985	1197	0	.0	.0	.2	9.9	30.2	2.1
Ann	56.2	30.7	43.5	108	Aug 1961	5	67.9	Jul 1975	-28	Dec 1968	31	14.3	Jan 1979	7964	126	.0	12.0	208.8	26.6	212.5	7.9

\+ 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: 1959-2001

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

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: HEADQUARTERS, ID **COOP ID: 104150**

Climate Division: ID 4 **NWS Call Sign:** **Elevation: 3,165 Feet** **Lat: 46˚38N** **Lon: 115˚49W**

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	4.93	4.73	1.71	1965	29	9.98	1974	.93	1985
Feb	3.93	3.51	2.07	1999	24	8.47	1972	1.52	1993
Mar	3.40	3.28	1.75	1966	9	7.65	1997	.92	1992
Apr	3.09	3.06	2.30	1996	24	7.30	1996	.22	1977
May	3.36	3.21	1.92	1985	30	7.32	1998	1.23	1992
Jun	2.59	2.62	1.81	1970	15	6.35	1981	.28	1986
Jul	1.49	1.25	1.59	1997	1	4.20	1997	.00	1985
Aug	1.34	.94	1.49	1975	24	4.18	1976	.00	1986
Sep	1.78	1.73	1.43	1962	11	4.99	1985	.09	1999
Oct	2.60	2.57	2.20	2000	1	5.72	1995	.00	1978
Nov	5.00	4.83	2.09	1994	1	10.55	1973	1.73	1976
Dec	4.93	4.80	2.00+	1977	2	12.12	1996	.57	1985
Ann	38.44	37.17	2.30	Apr 1996	24	12.12	Dec 1996	.00+	Aug 1986

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	16.6	11.6	2.7	.5
Feb	13.4	9.8	2.1	.6
Mar	14.8	10.0	1.8	.1
Apr	12.9	7.9	1.4	.2
May	12.9	8.5	2.1	.3
Jun	11.0	6.3	1.4	.1
Jul	6.4	3.6	.8	.2
Aug	5.5	3.1	.9	.1
Sep	7.4	4.4	1.0	.1
Oct	9.1	5.7	1.5	.3
Nov	16.5	12.1	3.1	.5
Dec	16.5	11.5	3.0	.5
Ann	143.0	94.5	21.8	3.5

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	1.61	2.08	2.76	3.35	3.91	4.50	5.13	5.88	6.84	8.33	9.71
Feb	1.49	1.85	2.38	2.81	3.23	3.65	4.11	4.64	5.32	6.36	7.32
Mar	1.25	1.57	2.03	2.41	2.78	3.15	3.56	4.03	4.63	5.56	6.41
Apr	.96	1.26	1.69	2.07	2.43	2.80	3.21	3.70	4.32	5.29	6.19
May	1.25	1.57	2.02	2.39	2.75	3.11	3.51	3.97	4.55	5.45	6.28
Jun	.60	.84	1.22	1.56	1.89	2.25	2.65	3.13	3.76	4.76	5.71
Jul	.04	.14	.34	.56	.79	1.07	1.40	1.82	2.40	3.38	4.36
Aug	.05	.15	.33	.53	.74	.98	1.27	1.64	2.14	2.98	3.82
Sep	.16	.28	.52	.77	1.04	1.35	1.71	2.17	2.79	3.84	4.87
Oct	.12	.34	.73	1.11	1.52	1.98	2.52	3.20	4.13	5.67	7.18
Nov	1.87	2.34	3.01	3.57	4.10	4.64	5.23	5.91	6.78	8.12	9.35
Dec	1.32	1.78	2.50	3.12	3.74	4.38	5.09	5.94	7.05	8.78	10.40
Ann	25.59	28.01	31.14	33.55	35.70	37.79	39.96	42.37	45.31	49.61	53.36

\+ 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: 1959-2001
(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: HEADQUARTERS, ID **COOP ID: 104150**

Climate Division: ID 4 **NWS Call Sign:** **Elevation: 3,165 Feet** **Lat: 46˚38N** **Lon: 115˚49W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	32.5	33.5	21	18
Feb	18.3	17.0	23	20
Mar	10.0	9.5	17	15
Apr	3.3	2.0	5	2
May	.2	.0	#	0
Jun	#	.0	#	0
Jul	.0	.0	#	0
Aug	.0	.0	#	0
Sep	.0	.0	0	0
Oct	.5	.0	#	0
Nov	15.8	6.1	3	1
Dec	31.8	24.0	11	8
Ann	112.4	92.1	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	13.0	1974	31	62.0	1972	57	1972	14	51	1972
Feb	12.0	1994	24	37.0	1994	55	1972	7	46	1972
Mar	10.0	1971	4	31.0	1971	52	1997	11	42	1997
Apr	8.0	1971	24	16.0	1971	32	1989	3	19	1975
May	2.0	1974	15	2.5	1974	1+	2000	11	#+	2000
Jun	#	1996	19	#+	1996	#+	1999	9	#+	1999
Jul	.0	0	0	.0	0	#	1993	16	#	1993
Aug	.0	0	0	.0	0	#	1993	15	#	1993
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	3.0	1975	23	4.0	1975	3	1975	23	#+	1999
Nov	10.5	1985	26	59.5	1973	32	1973	25	12	1994
Dec	19.0	1975	1	88.0	1996	55	1971	21	39	1971
Ann	19.0	Dec 1975	1	88.0	Dec 1996	57	Jan 1972	14	51	Jan 1972

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	9.8	8.4	4.0	2.0	.2
Feb	6.3	5.5	1.9	.7	@
Mar	5.0	4.2	1.2	.3	.1
Apr	1.6	1.2	.4	.1	.0
May	.2	.1	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.5	.3	@	.0	.0
Nov	5.3	4.4	2.0	1.0	.1
Dec	9.2	7.8	3.1	1.4	.2
Ann	37.9	31.9	12.6	5.5	.6

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	-9.9	-9.9	-9.9	-9.9
Feb	-9.9	-9.9	-9.9	-9.9
Mar	-9.9	-9.9	-9.9	-9.9
Apr	5.7	4.7	4.2	2.5
May	.1	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.5	@	.0	.0
Nov	9.5	7.1	5.1	2.5
Dec	25.5	20.5	19.3	14.3
Ann	-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

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: HEADQUARTERS, ID **COOP ID: 104150**

Climate Division: ID 4 **NWS Call Sign:** **Elevation: 3,165 Feet** **Lat: 46˚38N** **Lon: 115˚49W**

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	7/25	7/19	7/14	7/10	7/07	7/03	6/29	6/24	6/18
32	7/07	6/28	6/23	6/18	6/13	6/09	6/04	5/29	5/21
28	6/04	5/29	5/24	5/20	5/16	5/12	5/08	5/03	4/27
24	5/16	5/09	5/04	4/29	4/25	4/21	4/16	4/11	4/03
20	4/22	4/16	4/11	4/07	4/03	3/31	3/26	3/22	3/15
16	4/11	4/01	3/26	3/20	3/15	3/10	3/04	2/25	2/16

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	8/06	8/12	8/16	8/20	8/23	8/27	8/31	9/04	9/10
32	8/20	8/26	8/31	9/04	9/08	9/11	9/15	9/20	9/27
28	9/07	9/12	9/16	9/20	9/23	9/26	9/29	10/03	10/09
24	9/22	9/29	10/03	10/07	10/11	10/15	10/19	10/23	10/30
20	10/07	10/16	10/23	10/28	11/03	11/08	11/13	11/20	11/29
16	10/25	11/01	11/06	11/11	11/15	11/19	11/24	11/29	12/07

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	70	62	57	52	47	43	38	32	24
32	119	108	100	92	86	79	72	64	53
28	155	146	140	134	129	124	119	112	104
24	199	189	181	175	169	163	156	149	138
20	245	234	226	219	213	206	199	191	180
16	279	267	259	251	245	238	231	222	211

***** 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: HEADQUARTERS, ID **COOP ID: 104150**

Climate Division: ID 4 **NWS Call Sign:** **Elevation: 3,165 Feet** **Lat: 46˚38N** **Lon: 115˚49W**

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	1192	980	918	692	484	267	134	133	355	655	957	1197	7964
60	1037	840	763	542	336	150	55	55	228	501	807	1042	6356
57	944	756	670	452	254	97	26	27	165	409	717	949	5466
55	882	700	608	394	204	69	15	16	128	348	657	887	4908
50	727	560	453	256	105	21	2	3	59	208	510	732	3636
32	227	133	54	8	0	0	0	0	0	3	109	226	760

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	58	77	160	306	539	735	939	944	646	371	142	52	4969
55	0	0	0	2	30	113	241	247	84	3	0	0	720
57	0	0	0	0	18	82	190	196	61	1	0	0	548
60	0	0	0	0	7	45	126	131	34	0	0	0	343
65	0	0	0	0	0	12	50	54	10	0	0	0	126
70	0	0	0	0	0	1	12	14	2	0	0	0	29

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	0	1	22	109	303	499	697	699	419	156	15	0	0	1	23	132	435	934	1631	2330	2749	2905	2920	2920
45	0	0	0	44	178	354	542	544	279	69	0	0	0	0	0	44	222	576	1118	1662	1941	2010	2010	2010
50	0	0	0	17	88	215	391	390	162	21	0	0	0	0	0	17	105	320	711	1101	1263	1284	1284	1284
55	0	0	0	2	38	115	247	249	74	2	0	0	0	0	0	2	40	155	402	651	725	727	727	727
60	0	0	0	0	10	49	130	128	24	0	0	0	0	0	0	0	10	59	189	317	341	341	341	341
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	3	35	103	220	322	462	469	313	151	15	0	0	3	38	141	361	683	1145	1614	1927	2078	2093	2093

(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