

Climatography of the United States

No. 20

1971-2000

Station: NEWPORT, NE

COOP ID: 255925

Climate Division: NE 2

NWS Call Sign:

Elevation: 2,230 Feet Lat: 42° 36N

Lon: 99° 20W

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	32.0	10.0	21.0	72	1981	25	32.0	1992	-28+	1988	6	6.4	1979	1364	0	.0	.0	3.9	15.2	30.3	8.6
Feb	38.0	15.7	26.9	78	1982	23	36.3	1999	-29	1996	2	13.5	1978	1068	0	.0	.0	6.9	10.9	26.3	4.6
Mar	47.4	24.8	36.1	86+	1978	31	42.2	1986	-20+	1998	11	28.3	1996	896	0	.0	.0	13.9	5.2	23.7	.8
Apr	59.0	35.7	47.4	96	1989	23	55.6	1981	4	1975	3	41.2	1995	531	2	.0	.4	22.5	.7	10.9	.0
May	70.5	47.2	58.9	102	1967	26	65.0	1977	18	1967	3	53.3	1995	224	32	.0	.6	30.0	.0	1.1	.0
Jun	81.3	56.5	68.9	107	1988	22	76.4	1988	34+	1969	14	63.7	1982	45	161	.5	5.9	29.9	.0	.0	.0
Jul	87.7	61.8	74.8	112	1954	13	80.3	1974	41+	1971	30	67.0	1992	7	308	2.4	13.4	31.0	.0	.0	.0
Aug	86.2	60.0	73.1	107+	1987	1	79.4	1983	37	1964	12	67.3	1992	16	267	1.2	11.5	31.0	.0	.0	.0
Sep	76.6	49.7	63.2	102+	1984	20	69.8	1998	22	1989	23	58.2	1993	126	70	.3	4.9	29.5	.0	1.1	.0
Oct	63.3	37.2	50.3	97	1963	5	54.8	1973	7	1997	27	46.0	1987	457	0	.0	.5	26.0	.4	8.8	.0
Nov	45.2	24.0	34.6	84+	1999	8	45.2	1999	-19	1959	14	21.0	1985	913	0	.0	.0	11.8	6.2	24.2	1.2
Dec	35.2	13.6	24.4	73	1998	3	32.4	1979	-32	1989	22	6.5	1983	1258	0	.0	.0	5.4	12.8	30.0	5.2
Ann	60.2	36.4	48.3	112	Jul 1954	13	80.3	Jul 1974	-32	Dec 1989	22	6.4	Jan 1979	6905	840	4.4	37.2	241.8	51.4	156.4	20.4

+ 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: 1948-2001

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

078-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: NEWPORT, NE

COOP ID: 255925

Climate Division: NE 2

NWS Call Sign:

Elevation: 2,230 Feet Lat: 42°36N

Lon: 99°20W

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	.52	.38	1.18	1988	19	1.67	1988	.02	1981	5.4	1.7	.1	@	.08	.13	.20	.27	.35	.43	.52	.63	.78	1.02	1.25
Feb	.75	.57	1.55	1971	19	2.43	1984	.02	1982	5.6	2.1	.2	@	.06	.11	.20	.31	.42	.55	.71	.91	1.19	1.65	2.11
Mar	1.64	1.27	2.02	1949	30	5.58	1987	.26	1994	7.9	3.7	1.0	.3	.24	.37	.61	.84	1.07	1.34	1.64	2.01	2.50	3.31	4.09
Apr	2.38	2.31	2.45	1968	20	5.15	1978	.41	1989	10.3	5.7	1.5	.3	.62	.84	1.19	1.49	1.79	2.11	2.45	2.87	3.41	4.26	5.06
May	3.88	3.29	3.60	1964	3	8.64	1995	1.18	1989	11.9	7.0	2.6	1.1	1.43	1.80	2.32	2.76	3.17	3.60	4.06	4.60	5.28	6.34	7.30
Jun	3.66	2.95	5.91	1994	18	8.57	1994	1.37	1988	11.5	6.3	2.1	.9	1.22	1.57	2.08	2.51	2.92	3.35	3.82	4.36	5.06	6.15	7.15
Jul	3.69	3.24	3.44	1978	21	11.97	1993	.42	1991	10.8	6.1	2.5	.9	.85	1.20	1.74	2.22	2.70	3.21	3.79	4.47	5.37	6.79	8.14
Aug	2.25	1.93	4.18	1988	4	7.10	1992	.04	2000	8.6	4.2	1.4	.5	.25	.42	.74	1.05	1.39	1.76	2.20	2.75	3.50	4.73	5.93
Sep	2.63	2.21	3.05	1999	4	7.97	1986	.20	1980	8.0	4.4	1.8	.8	.27	.46	.82	1.19	1.59	2.03	2.56	3.21	4.11	5.60	7.05
Oct	1.80	1.55	2.15	1982	9	6.06	1982	.15	1999	6.6	3.7	1.2	.4	.20	.34	.59	.84	1.11	1.41	1.76	2.19	2.79	3.76	4.72
Nov	1.21	1.09	1.97	1972	2	3.07	1979	.05	1980	6.4	2.7	.7	.2	.12	.20	.37	.54	.72	.93	1.17	1.48	1.90	2.59	3.28
Dec	.63	.49	1.44	1981	1	2.37	1982	.00	1991	5.4	2.0	.2	.1	.03	.09	.18	.28	.38	.49	.62	.78	1.00	1.36	1.71
Ann	25.04	25.98	5.91	Jun 1994	18	11.97	Jul 1993	.00	Dec 1991	98.4	49.6	15.3	5.5	15.55	17.29	19.57	21.34	22.93	24.49	26.12	27.94	30.18	33.47	36.35

+ 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

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No. 20 1971-2000

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Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
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Station: NEWPORT, NE

COOP ID: 255925

Climate Division: NE 2

NWS Call Sign:

Elevation: 2,230 Feet

Lat: 42°36N

Lon: 99°20W

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	6.0	4.6	4	3	14.0	1988	19	19.6	1988	25	1988	22	15	1988	5.3	1.9	.4	.1	@	18.5	13.6	9.8	3.3
Feb	6.2	5.1	4	3	7.4	1984	12	24.1	1984	20	1979	10	16	1979	4.7	2.0	.7	.2	.0	14.6	10.5	7.6	3.3
Mar	8.4	6.4	2	1	13.4	1987	24	26.6	1987	16	1987	26	7	1978	5.0	2.6	1.0	.3	.1	8.7	5.1	3.3	.9
Apr	5.4	2.9	#	#	13.0	1984	3	24.5	1995	12	1995	12	2	1995	2.1	1.3	.7	.4	.1	2.2	1.2	.7	.1
May	#	.0	#	0	#	1996	1	#+	1996	#+	1994	1	#+	1994	.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	.3	.0	#	0	3.2	1985	29	3.2	1985	2	1985	29	#+	1985	.1	.1	@	.0	.0	.1	.0	.0	.0
Oct	2.0	.4	#	#	7.4	1979	22	13.6	1995	9	1995	24	1	1995	1.1	.6	.3	.1	.0	.9	.3	.1	.0
Nov	8.0	6.2	2	1	13.0	1972	2	32.7	1979	20	1979	23	8	1985	4.2	2.2	.8	.4	.1	8.5	5.1	2.8	1.3
Dec	7.3	5.5	3	2	9.8	1981	1	19.8	1982	26	1983	31	20	1983	5.0	2.2	.7	.3	.0	16.4	11.1	6.2	2.7
Ann	43.6	31.1	N/A	N/A	14.0	Jan 1988	19	32.7	Nov 1979	26	Dec 1983	31	20	Dec 1983	27.5	12.9	4.6	1.8	.3	69.9	46.9	30.5	11.6

+ 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
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Climate Division: NE 2

NWS Call Sign:

Elevation: 2,230 Feet

Lat: 42°36N

Lon: 99°20W

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	5/23	5/19	5/15	5/13	5/10	5/07	5/04	5/01	4/27
32	5/13	5/09	5/06	5/03	5/01	4/29	4/26	4/23	4/19
28	5/07	5/02	4/29	4/26	4/24	4/21	4/18	4/15	4/10
24	4/26	4/21	4/17	4/14	4/11	4/08	4/05	4/02	3/28
20	4/15	4/10	4/07	4/05	4/02	3/30	3/28	3/24	3/20
16	4/10	4/03	3/30	3/26	3/22	3/18	3/14	3/09	3/03
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	9/11	9/15	9/18	9/20	9/22	9/25	9/27	9/30	10/04
32	9/13	9/19	9/24	9/27	10/01	10/04	10/08	10/12	10/18
28	9/26	10/01	10/05	10/08	10/11	10/14	10/18	10/22	10/27
24	10/03	10/08	10/12	10/16	10/19	10/22	10/25	10/29	11/04
20	10/14	10/19	10/23	10/26	10/29	11/01	11/04	11/08	11/13
16	10/22	10/28	11/01	11/04	11/08	11/11	11/14	11/18	11/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	151	145	141	138	135	132	128	124	119
32	174	166	161	156	152	147	143	137	130
28	192	184	179	174	170	166	161	155	148
24	214	206	200	194	190	185	180	174	165
20	229	223	218	213	209	205	201	196	189
16	259	249	242	236	230	224	218	211	201

* 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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Climate Division: NE 2 NWS Call Sign: Elevation: 2,230 Feet Lat: 42°36N Lon: 99°20W

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	1364	1068	896	531	224	45	7	16	126	457	913	1258	6905
60	1209	928	741	389	122	13	0	3	53	306	763	1103	5630
57	1116	849	648	310	78	5	0	1	26	223	675	1010	4941
55	1056	798	587	262	55	2	0	0	15	174	620	948	4517
50	912	667	442	158	18	0	0	0	2	81	482	804	3566
32	436	278	79	5	0	0	0	0	0	1	128	336	1263

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	95	134	206	466	831	1106	1324	1274	934	568	205	101	7244
55	2	10	1	33	173	418	611	561	259	28	8	0	2104
57	0	5	0	21	134	361	549	500	210	14	3	0	1797
60	0	0	0	10	85	279	456	409	147	4	0	0	1390
65	0	0	0	2	32	161	308	267	70	0	0	0	840
70	0	0	0	0	8	77	177	150	26	0	0	0	438

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	9	34	102	279	598	874	1085	1036	703	359	83	14	9	43	145	424	1022	1896	2981	4017	4720	5079	5162	5176
45	0	9	50	177	447	724	930	881	557	237	42	1	0	9	59	236	683	1407	2337	3218	3775	4012	4054	4055
50	0	1	21	101	307	574	775	726	416	139	17	0	0	1	22	123	430	1004	1779	2505	2921	3060	3077	3077
55	0	0	5	52	190	429	620	571	289	67	4	0	0	0	5	57	247	676	1296	1867	2156	2223	2227	2227
60	0	0	1	23	98	291	466	418	179	25	0	0	0	0	1	24	122	413	879	1297	1476	1501	1501	1501
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	13	35	82	180	361	560	712	673	443	239	69	20	13	48	130	310	671	1231	1943	2616	3059	3298	3367	3387

(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