

# Climatography of the United States

No. 20

1971-2000

Station: MADISON, ME

COOP ID: 174927

Climate Division: ME 2

NWS Call Sign:

Elevation: 260 Feet Lat: 44°48N Lon: 69°53W

## 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	26.2	3.7	15.0	60	1957	22	23.4	1990	-39	1994	20	5.1	1994	1552	0	.0	.0	.6	22.0	30.8	14.1
Feb	30.0	5.5	17.8	59+	1994	21	27.8	1981	-39	1962	2	7.6	1993	1323	0	.0	.0	.8	15.9	27.8	11.4
Mar	39.0	17.5	28.3	72	1981	30	34.3	1983	-24	1950	4	22.2	1972	1139	0	.0	.0	4.6	7.0	28.4	3.1
Apr	50.6	30.6	40.6	89	1990	28	44.9	1986	5	1954	5	35.2	1975	732	0	.0	.0	16.1	.6	18.7	.0
May	64.3	41.1	52.7	94	1992	23	58.5	1998	21	1966	8	47.6	1974	385	2	.0	.3	28.9	.0	3.6	.0
Jun	73.3	50.9	62.1	98	1995	20	66.8	1999	31	1967	1	58.3	1982	114	28	.0	.7	30.0	.0	@	.0
Jul	78.5	56.4	67.5	97	1952	14	71.1	1994	31	1970	28	63.5	1992	27	103	.0	1.4	31.0	.0	.0	.0
Aug	77.0	54.7	65.9	102	1955	5	69.4	1973	33+	1990	20	61.9	1982	51	76	@	.9	31.0	.0	.0	.0
Sep	68.0	46.1	57.1	93+	1973	1	63.8	1999	23	1965	28	53.7	1978	244	6	.0	.1	29.9	.0	1.6	.0
Oct	56.3	36.0	46.2	84+	1968	18	50.7	1971	15+	1972	22	42.4	1974	585	0	.0	.0	24.2	.0	13.3	.0
Nov	43.4	27.8	35.6	73	1953	20	41.0	1979	-5	1989	24	31.9	1995	882	0	.0	.0	7.6	3.1	23.0	.1
Dec	31.3	13.6	22.5	62+	2001	7	29.8	1973	-30	1980	26	5.8	1989	1320	0	.0	.0	1.1	15.5	29.7	6.4
Ann	53.2	32.0	42.6	102	Aug 1955	5	71.1	Jul 1994	-39+	Jan 1994	20	5.1	Jan 1994	8354	215	@	3.4	205.8	64.1	176.9	35.1

+ 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](http://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

021-A

# Climatology 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: MADISON, ME**

**COOP ID: 174927**

**Climate Division: ME 2**

**NWS Call Sign:**

**Elevation: 260 Feet Lat: 44°48N**

**Lon: 69°53W**

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	3.23	3.06	1.96	1978	21	7.35	1978	.81	1980	9.5	7.1	2.0	.6	.93	1.24	1.70	2.10	2.49	2.90	3.35	3.88	4.56	5.64	6.63
Feb	2.32	2.40	1.99	1970	4	4.70	1971	.62	1991	7.9	5.5	1.6	.3	.89	1.11	1.41	1.67	1.91	2.16	2.43	2.74	3.13	3.74	4.29
Mar	3.20	3.25	2.08+	2000	29	6.37	1983	.80	1981	9.8	6.5	2.1	.7	1.26	1.56	1.98	2.33	2.65	2.99	3.35	3.77	4.30	5.11	5.85
Apr	3.31	2.98	2.60	1987	1	7.58	1983	.35	1999	9.7	6.8	2.2	.7	.99	1.31	1.78	2.18	2.58	2.99	3.44	3.97	4.66	5.74	6.74
May	3.64	3.43	2.25	1984	29	9.32	1984	.41	1992	10.9	7.3	2.7	.8	.86	1.19	1.73	2.20	2.68	3.18	3.74	4.41	5.29	6.68	7.99
Jun	3.63	3.54	2.54	1954	27	7.30	1998	1.04	1979	11.5	8.2	2.4	.7	1.41	1.75	2.23	2.63	3.00	3.38	3.80	4.28	4.88	5.82	6.67
Jul	3.28	2.89	4.50	2000	17	10.53	1976	.94	1978	10.6	6.5	2.2	.5	.89	1.20	1.68	2.09	2.50	2.92	3.39	3.95	4.68	5.82	6.88
Aug	3.25	2.90	3.16	1989	6	7.05	1988	.67	1995	9.6	6.7	2.1	.6	.96	1.27	1.73	2.13	2.52	2.93	3.38	3.91	4.59	5.66	6.65
Sep	3.26	2.96	3.72	1999	11	8.38	1999	.52	1984	9.4	5.8	2.0	.7	.86	1.16	1.64	2.05	2.46	2.89	3.37	3.93	4.67	5.83	6.92
Oct	3.50	3.36	2.46	1966	20	7.83	1990	1.01	1982	9.6	6.4	2.3	.8	1.01	1.34	1.84	2.28	2.70	3.14	3.63	4.21	4.95	6.12	7.21
Nov	3.61	3.43	3.32	1966	3	8.98	1983	1.75	1987	9.9	7.1	2.9	.9	1.53	1.86	2.32	2.69	3.05	3.40	3.79	4.23	4.79	5.64	6.41
Dec	3.36	2.85	2.77	1973	18	11.28	1973	1.09	1992	10.6	7.1	2.0	.7	.92	1.23	1.72	2.14	2.56	2.99	3.47	4.04	4.79	5.95	7.04
Ann	39.59	39.12	4.50	Jul 2000	17	11.28	Dec 1973	.35	Apr 1999	119.0	81.0	26.5	8.0	28.12	30.33	33.18	35.33	37.25	39.10	41.02	43.13	45.70	49.42	52.64

+ 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:  
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**Station: MADISON, ME**

**COOP ID: 174927**

**Climate Division: ME 2**

**NWS Call Sign:**

**Elevation: 260 Feet**

**Lat: 44° 48N**

**Lon: 69° 53W**

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	20.1	18.2	0	0	18.0	1978	21	42.0	1994	0	0	0	0	0	7.1	5.5	2.5	1.2	.3	-9.9	-9.9	-9.9	-9.9
Feb	16.3	12.4	#	0	14.0	1993	17	38.0	1993	#	1999	7	#	1999	5.7	4.3	2.2	.8	.2	-9.9	-9.9	-9.9	-9.9
Mar	12.4	11.9	#	0	15.0	1993	14	31.3	1971	4	1986	20	1	1986	4.7	3.3	1.8	.9	.2	-9.9	-9.9	-9.9	-9.9
Apr	6.2	4.4	#	0	17.0	1975	4	20.0	1972	1	1986	7	#+	2000	2.0	1.6	.9	.3	@	-9.9	-9.9	-9.9	-9.9
May	.0	.0	0	0	1.0	1974	8	1.0	1974	0	0	0	0	0	@	@	.0	.0	.0	-9.9	-9.9	-9.9	-9.9
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	-9.9	-9.9	-9.9	-9.9
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	-9.9	-9.9	-9.9	-9.9
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	-9.9	-9.9	-9.9	-9.9
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	-9.9	-9.9	-9.9	-9.9
Oct	.2	.0	#	0	2.0	1979	10	2.0+	2000	#	2000	29	#	2000	.2	.1	.0	.0	.0	-9.9	-9.9	-9.9	-9.9
Nov	4.6	3.0	#	0	10.0	1980	19	15.0+	1980	#	1983	16	#	1983	2.2	1.5	.5	.3	@	-9.9	-9.9	-9.9	-9.9
Dec	18.5	15.0	#	0	13.5	1972	1	48.5	1972	#+	1999	12	#+	1999	6.6	5.2	2.7	1.0	@	-9.9	-9.9	-9.9	-9.9
Ann	78.3	64.9	N/A	N/A	18.0	Jan 1978	21	48.5	Dec 1972	4	Mar 1986	20	1	Mar 1986	28.5	21.5	10.6	4.5	.7	-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:

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**Lat: 44° 48N**

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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	6/15	6/09	6/05	6/02	5/30	5/27	5/23	5/19	5/14
32	5/25	5/21	5/19	5/16	5/14	5/12	5/09	5/06	5/03
28	5/07	5/04	5/01	4/29	4/27	4/25	4/22	4/20	4/16
24	4/26	4/21	4/18	4/15	4/12	4/09	4/06	4/03	3/29
20	4/17	4/13	4/10	4/07	4/05	4/02	3/31	3/28	3/24
16	4/10	4/06	4/03	3/31	3/28	3/26	3/23	3/20	3/15
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	8/28	9/03	9/07	9/11	9/14	9/17	9/21	9/25	10/01
32	9/16	9/20	9/23	9/26	9/29	10/01	10/04	10/07	10/11
28	9/28	10/03	10/07	10/10	10/12	10/15	10/18	10/22	10/26
24	10/10	10/15	10/18	10/22	10/25	10/27	10/31	11/03	11/08
20	10/24	10/29	11/02	11/05	11/08	11/11	11/14	11/18	11/23
16	11/05	11/11	11/15	11/18	11/21	11/24	11/28	12/02	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	131	123	116	111	106	102	96	90	82
32	153	147	144	140	137	134	130	126	121
28	188	181	176	172	168	164	160	155	148
24	213	207	202	198	195	191	187	183	176
20	236	229	224	220	216	212	208	203	196
16	262	254	248	242	237	232	227	221	212

\* 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: MADISON, ME**

**COOP ID: 174927**

**Climate Division: ME 2      NWS Call Sign:      Elevation: 260 Feet    Lat: 44° 48N    Lon: 69° 53W**

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	1552	1323	1139	732	385	114	27	51	244	585	882	1320	8354
60	1397	1183	984	582	243	37	2	9	124	431	732	1165	6889
57	1304	1099	891	492	170	14	0	2	71	340	642	1072	6097
55	1242	1043	829	432	129	6	0	0	45	282	582	1010	5600
50	1087	903	674	288	53	1	0	0	10	154	432	855	4457
32	540	412	189	11	0	0	0	0	0	0	49	359	1560

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	11	13	73	269	641	904	1100	1049	752	438	157	62	5469
55	0	0	0	1	56	220	387	336	107	7	0	0	1114
57	0	0	0	0	36	168	325	275	72	3	0	0	879
60	0	0	0	0	15	101	234	190	35	1	0	0	576
65	0	0	0	0	2	28	103	76	6	0	0	0	215
70	0	0	0	0	0	3	26	17	0	0	0	0	46

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	0	11	96	409	677	859	806	510	207	44	1	0	0	11	107	516	1193	2052	2858	3368	3575	3619	3620
45	0	0	3	37	263	527	704	651	363	107	14	0	0	0	3	40	303	830	1534	2185	2548	2655	2669	2669
50	0	0	0	13	144	379	549	498	224	40	1	0	0	0	0	13	157	536	1085	1583	1807	1847	1848	1848
55	0	0	0	2	62	240	394	344	119	12	0	0	0	0	0	2	64	304	698	1042	1161	1173	1173	1173
60	0	0	0	0	21	124	246	196	47	0	0	0	0	0	0	0	21	145	391	587	634	634	634	634
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	10	72	243	407	550	510	306	128	27	0	0	0	10	82	325	732	1282	1792	2098	2226	2253	2253

(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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)