

# Climatology of the United States

## No. 20

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

**Station: BELFAST, ME**

**1971-2000**

**COOP ID: 170480**

**Climate Division: ME 3**

**NWS Call Sign:**

**Elevation: 30 Feet**

**Lat: 44° 24N**

**Lon: 69° 00W**

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	31.1	10.6	20.9	59+	1950	5	28.7	1990	-28	1957	14	13.2	1994	1368	0	.0	.0	1.3	15.7	29.9	7.7
Feb	33.8	12.9	23.4	60	1981	18	31.5	1984	-28	1962	2	15.0	1993	1167	0	.0	.0	1.2	11.1	26.6	5.1
Mar	42.0	22.6	32.3	82	1998	31	36.8	1977	-18	1950	4	27.6	1984	1015	0	.0	.0	6.5	3.6	26.5	.9
Apr	52.8	32.5	42.7	83	1957	21	45.7	1986	10+	1954	5	39.7+	1995	671	0	.0	.0	20.5	.2	15.3	.0
May	64.6	42.4	53.5	95	1992	22	58.4	1991	22	1966	3	49.4	1997	359	1	.0	.2	30.2	.0	2.1	.0
Jun	73.8	51.3	62.6	96	1984	10	66.8	1976	35+	1982	14	58.2	1982	106	31	.0	.9	30.0	.0	.0	.0
Jul	79.3	57.1	68.2	97+	1963	27	71.1	1973	44+	1992	17	64.4	1992	18	117	.0	1.5	31.0	.0	.0	.0
Aug	77.9	55.9	66.9	98+	1955	5	70.1	1973	35	1982	30	63.5	1982	31	89	.0	1.0	31.0	.0	.0	.0
Sep	69.8	48.1	59.0	93+	1960	8	63.9	1999	24	1955	14	54.5	1980	191	10	.0	.1	30.0	.0	.5	.0
Oct	58.5	38.2	48.4	87	1950	1	53.6	1971	20+	1982	25	44.7	1974	517	0	.0	.0	27.8	.0	8.6	.0
Nov	46.7	30.1	38.4	73	1974	1	43.8	1979	2	1989	24	34.4	1996	798	0	.0	.0	11.4	1.3	18.8	.0
Dec	35.7	17.5	26.6	65	1982	5	33.3	1973	-27	1980	26	10.5	1989	1191	0	.0	.0	2.8	9.9	28.6	3.1
Ann	55.5	34.9	45.2	98+	Aug 1955	5	71.1	Jul 1973	-28+	Feb 1962	2	10.5	Dec 1989	7432	248	.0	3.7	223.7	41.8	156.9	16.8

+ 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

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**Precipitation (inches)**

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	4.06	3.61	3.40	1992	5	10.22	1979	.79	1981	7.2	6.0	2.7	1.3	1.09	1.48	2.07	2.58	3.08	3.61	4.20	4.90	5.81	7.23	8.55
Feb	3.01	3.12	2.88	1961	26	6.31	1984	.53	1994	5.6	4.7	2.1	.9	1.04	1.32	1.74	2.09	2.42	2.77	3.14	3.58	4.14	5.01	5.80
Mar	4.38	3.90	3.28	1977	14	9.95	1972	1.14	1981	7.5	6.2	3.5	1.0	1.49	1.90	2.51	3.02	3.51	4.01	4.57	5.21	6.03	7.31	8.49
Apr	4.45	3.97	4.10	1983	17	13.67	1983	.37	1999	9.0	7.0	3.2	1.3	1.30	1.72	2.36	2.91	3.44	4.00	4.62	5.34	6.28	7.75	9.12
May	4.18	3.93	2.74	1989	6	9.84	1989	.29	1992	9.5	7.1	3.0	1.3	.94	1.33	1.94	2.49	3.04	3.63	4.28	5.07	6.10	7.74	9.29
Jun	3.88	3.49	2.72	1972	1	7.36	1977	.92	1983	8.6	6.7	2.7	1.1	1.33	1.70	2.23	2.68	3.12	3.56	4.05	4.61	5.34	6.47	7.50
Jul	3.20	2.73	5.20	1996	14	6.79	1996	.71	1999	8.2	6.2	2.1	.7	.96	1.27	1.72	2.11	2.49	2.89	3.32	3.83	4.49	5.53	6.48
Aug	3.01	2.71	3.42	1985	1	6.89	1991	.80	1993	7.1	5.5	2.0	.8	.90	1.19	1.61	1.98	2.34	2.71	3.13	3.61	4.23	5.21	6.12
Sep	4.10	3.63	4.07	1999	17	9.76	1999	.94	1978	7.7	5.9	2.4	1.2	.88	1.25	1.85	2.40	2.95	3.53	4.19	4.98	6.03	7.69	9.27
Oct	4.33	4.12	4.20	1959	25	8.98	1977	1.21	1997	7.7	6.2	3.0	1.3	1.66	2.06	2.64	3.12	3.57	4.03	4.54	5.12	5.85	6.99	8.03
Nov	4.74	4.03	4.60	1966	3	12.88	1983	1.97	1976	8.9	7.3	3.0	1.5	1.85	2.29	2.92	3.43	3.92	4.42	4.96	5.59	6.38	7.60	8.71
Dec	4.31	3.37	3.58	1973	17	10.13	1973	1.15+	1989	7.9	6.4	3.1	1.1	1.13	1.54	2.17	2.71	3.25	3.82	4.45	5.20	6.17	7.70	9.14
Ann	47.65	46.87	5.20	Jul 1996	14	13.67	Apr 1983	.29	May 1992	94.9	75.2	32.8	13.5	34.64	37.18	40.42	42.87	45.04	47.13	49.29	51.67	54.55	58.72	62.31

+ 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

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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	17.1	21.0	10	6	12.0	1986	5	24.0	1986	41	1971	4	35	1971	2.5	2.5	1.4	.6	.3	-9.9	-9.9	-9.9	-9.9
Feb	8.5	-99.9	9	8	13.0	1995	5	25.5	1995	44	1971	9	33	1971	1.8	1.8	1.2	.7	.1	-9.9	-9.9	-9.9	-9.9
Mar	8.7	6.5	6	2	12.0	1976	17	23.7	1976	40	1971	12	30	1987	2.1	1.7	1.1	.8	.1	-9.9	-9.9	-9.9	-9.9
Apr	1.4	.0	#	0	7.6	1975	3	7.6	1975	10	1982	8	2	1971	.4	.4	.2	.2	.0	1.5	1.0	.4	.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	.1	.0	#	0	3.0	2000	29	3.0	2000	3	2000	29	#	2000	@	@	@	.0	.0	.1	.1	.0	.0
Nov	2.9	.0	#	0	12.0	1989	21	18.0	1989	8	1980	20	1	1997	.5	.4	.2	.2	.1	.7	.5	.3	.0
Dec	9.9	4.0	3	2	13.6	1975	18	28.1	1975	20	1975	25	11	1995	2.1	1.9	1.2	.6	.2	-9.9	-9.9	-9.9	-9.9
Ann	48.6	-9.9	N/A	N/A	13.6	Dec 1975	18	28.1	Dec 1975	44	Feb 1971	9	35	Jan 1971	9.4	8.7	5.3	3.1	.8	-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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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## No. 20 1971-2000

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**Lat: 44°24N**

**Lon: 69°00W**

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	6/04	5/30	5/27	5/24	5/22	5/19	5/16	5/13	5/09
32	5/22	5/18	5/14	5/12	5/09	5/07	5/04	5/01	4/27
28	5/04	5/01	4/28	4/26	4/24	4/22	4/19	4/17	4/13
24	4/20	4/16	4/14	4/11	4/09	4/07	4/04	4/01	3/29
20	4/12	4/08	4/05	4/02	3/31	3/29	3/26	3/23	3/19
16	4/03	3/30	3/28	3/25	3/23	3/21	3/18	3/15	3/11
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	9/12	9/17	9/20	9/23	9/25	9/28	9/30	10/04	10/08
32	9/27	9/30	10/02	10/04	10/06	10/07	10/09	10/11	10/14
28	10/04	10/08	10/11	10/14	10/16	10/19	10/22	10/25	10/29
24	10/21	10/26	10/29	11/01	11/04	11/06	11/09	11/13	11/17
20	11/05	11/09	11/12	11/15	11/17	11/20	11/22	11/25	11/30
16	11/11	11/16	11/19	11/23	11/25	11/28	12/01	12/05	12/10
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	146	139	134	130	126	122	118	113	106
32	164	159	155	152	149	146	142	139	133
28	193	187	182	179	175	171	168	163	157
24	226	220	215	211	208	204	201	196	190
20	250	243	239	234	231	227	223	218	212
16	269	261	256	251	247	243	238	232	225

\* 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	1368	1167	1015	671	359	106	18	31	191	517	798	1191	7432
60	1213	1027	860	521	215	32	1	3	83	364	648	1036	6003
57	1120	943	767	431	143	11	0	0	42	276	558	943	5234
55	1058	887	705	371	102	5	0	0	24	221	498	881	4752
50	903	747	550	227	34	0	0	0	4	107	349	727	3648
32	364	268	91	2	0	0	0	0	0	0	26	258	1009

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	19	26	99	321	666	916	1123	1082	809	506	218	90	5875
55	0	0	0	0	55	231	410	369	143	14	0	0	1222
57	0	0	0	0	34	177	348	307	101	7	0	0	974
60	0	0	0	0	13	108	256	217	52	2	0	0	648
65	0	0	0	0	1	31	117	89	10	0	0	0	248
70	0	0	0	0	0	4	31	19	0	0	0	0	54

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	25	132	437	692	888	847	582	279	85	7	0	0	25	157	594	1286	2174	3021	3603	3882	3967	3974
45	0	0	3	52	284	542	733	692	432	155	34	1	0	0	3	55	339	881	1614	2306	2738	2893	2927	2928
50	0	0	0	14	154	392	578	537	284	67	6	0	0	0	0	14	168	560	1138	1675	1959	2026	2032	2032
55	0	0	0	0	62	249	423	382	159	18	0	0	0	0	0	0	62	311	734	1116	1275	1293	1293	1293
60	0	0	0	0	19	124	270	230	67	3	0	0	0	0	0	0	19	143	413	643	710	713	713	713
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	16	84	248	413	576	537	344	153	42	4	0	0	16	100	348	761	1337	1874	2218	2371	2413	2417

(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:

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## 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)