

Climatology of the United States

No. 20

1971-2000

Station: NEW BEDFORD, MA

COOP ID: 195246

Climate Division: MA 3

NWS Call Sign:

Elevation: 70 Feet

Lat: 41° 38N

Lon: 70° 56W

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	36.9	20.0	28.5	66	1967	24	36.5	1990	-8	1957	15	18.8	1981	1135	0	.0	.0	4.6	9.6	25.3	.9
Feb	38.5	21.6	30.1	66+	1991	5	36.8	1998	-6	1993	7	20.1	1979	979	0	.0	.0	4.1	7.3	22.2	.4
Mar	46.0	28.9	37.5	80	1998	29	42.7	2000	4	1967	19	31.5	1984	854	0	.0	.0	11.1	1.7	16.7	.0
Apr	56.0	38.1	47.1	89	1990	28	51.1	1976	16	1982	7	42.4	1972	538	0	.0	.0	23.9	@	3.3	.0
May	67.3	48.4	57.9	98	1987	31	63.5	1991	32	1977	9	54.6	1997	233	11	.0	.4	30.4	.0	@	.0
Jun	77.1	58.1	67.6	100	1988	15	71.4	1999	44+	1980	9	63.2	1982	33	111	@	1.5	30.0	.0	.0	.0
Jul	83.1	65.2	74.2	103	1999	5	78.2	1999	50	1985	1	71.7	2000	0	284	.2	4.2	31.0	.0	.0	.0
Aug	81.9	64.6	73.3	107	1975	2	76.0	1988	44	1982	29	69.5	1982	1	256	.1	2.9	31.0	.0	.0	.0
Sep	74.3	57.2	65.8	94+	1969	2	69.3	1999	36+	1991	30	62.4	1978	52	74	.0	.4	30.0	.0	.0	.0
Oct	63.3	46.0	54.7	87	1949	10	59.4	1971	27	1976	27	50.4	1988	325	4	.0	.0	29.9	.0	.8	.0
Nov	52.2	36.6	44.4	79+	1975	4	49.8	1975	11	1987	21	39.4	1976	617	0	.0	.0	18.7	.3	8.2	.0
Dec	41.9	25.7	33.8	74	2001	5	40.1	1990	-5+	1980	25	20.2	1989	967	0	.0	.0	8.1	4.6	20.6	.2
Ann	59.9	42.5	51.2	107	Aug 1975	2	78.2	Jul 1999	-8	Jan 1957	15	18.8	Jan 1981	5734	740	.3	9.4	252.8	23.5	97.1	1.5

+ 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

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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: NEW BEDFORD, MA

COOP ID: 195246

Climate Division: MA 3

NWS Call Sign:

Elevation: 70 Feet

Lat: 41°38N

Lon: 70°56W

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	4.69	4.11	3.58	1978	14	11.29	1978	1.40	1985	11.1	8.0	3.4	1.3	1.46	1.91	2.57	3.14	3.69	4.26	4.88	5.62	6.56	8.04	9.40
Feb	4.01	3.53	3.53	1998	18	8.57	1998	1.38	1987	10.2	6.8	2.9	1.0	1.56	1.93	2.46	2.90	3.31	3.74	4.20	4.73	5.40	6.44	7.39
Mar	4.68	4.42	5.92	2001	30	7.51	1980	1.12	1981	11.9	7.8	3.3	1.4	2.03	2.45	3.03	3.51	3.96	4.42	4.90	5.46	6.17	7.24	8.21
Apr	4.37	4.19	3.76	1970	2	9.60	1983	1.23	1976	12.1	7.1	2.9	1.3	1.67	2.08	2.66	3.14	3.60	4.07	4.57	5.16	5.91	7.05	8.10
May	3.69	3.49	3.55	1967	25	6.01	1989	1.25	1993	12.2	7.0	2.8	.7	1.59	1.92	2.39	2.77	3.12	3.48	3.87	4.31	4.87	5.72	6.49
Jun	3.95	3.36	4.57	1972	19	10.15	1998	.71	1999	10.2	5.9	2.3	1.2	.72	1.07	1.65	2.18	2.73	3.33	4.00	4.82	5.91	7.66	9.33
Jul	3.54	3.22	2.65	1989	17	8.12	1990	1.13	1987	8.9	5.9	2.6	1.1	1.05	1.38	1.89	2.32	2.75	3.19	3.68	4.25	4.99	6.15	7.23
Aug	4.55	4.19	7.28	1992	9	14.72	1985	.92	1984	9.4	6.1	2.7	1.3	.98	1.40	2.06	2.67	3.28	3.93	4.66	5.53	6.69	8.53	10.27
Sep	3.89	3.48	3.88	1960	20	8.74	1996	.78	1980	8.9	5.9	2.6	1.0	.94	1.30	1.87	2.38	2.88	3.41	4.00	4.71	5.63	7.10	8.47
Oct	3.97	3.63	3.25	1996	20	7.39	1996	.85	1994	9.6	6.3	2.7	1.1	1.36	1.74	2.28	2.75	3.19	3.65	4.15	4.73	5.47	6.63	7.69
Nov	4.66	4.34	3.19	1997	1	8.95	1988	1.39	1976	11.3	7.3	3.1	1.5	1.66	2.10	2.74	3.27	3.78	4.30	4.87	5.53	6.38	7.68	8.88
Dec	4.77	4.59	5.31	1973	17	10.44	1973	1.26	1988	12.8	8.7	3.1	1.2	1.62	2.07	2.73	3.29	3.83	4.38	4.98	5.68	6.58	7.98	9.27
Ann	50.77	50.16	7.28	Aug 1992	9	14.72	Aug 1985	.71	Jun 1999	128.6	82.8	34.4	14.1	39.18	41.49	44.42	46.62	48.55	50.41	52.31	54.39	56.91	60.51	63.60

+ 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: NEW BEDFORD, MA

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Climate Division: MA 3

NWS Call Sign:

Elevation: 70 Feet

Lat: 41°38N

Lon: 70°56W

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	10.0	7.9	2	#	13.5	1996	8	33.4	1996	32	1996	10	11	1996	4.2	2.8	1.0	.5	.1	-9.9	-9.9	-9.9	-9.9
Feb	7.9	6.4	1	#	21.0	1978	6	26.0	1978	15	1999	26	5	1994	4.1	2.6	.9	.5	.1	-9.9	-9.9	-9.9	-9.9
Mar	4.3	2.6	#	#	10.0	1999	15	15.5	1978	8	1996	4	2	1996	2.3	1.6	.5	.2	@	-9.9	-9.9	-9.9	-9.9
Apr	1.3	.0	#	0	10.0	1997	1	10.0	1997	10	1997	1	1	1997	.5	.3	.1	.1	@	1.0	.6	.3	.1
May	.1	.0	#	0	1.8	1977	9	1.8	1977	#	1983	11	#	1983	@	@	.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	0	0	.5	1972	19	.5	1972	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.0	.0	#	0	10.0	1989	23	10.0	1989	#+	1997	28	#+	1997	.5	.3	.1	@	@	.0	.0	.0	.0
Dec	4.9	3.4	#	0	9.5	1982	12	15.1+	1995	9	1995	21	3	1995	2.6	1.8	.5	.2	.0	2.6	2.3	1.0	.0
Ann	29.5	20.3	N/A	N/A	21.0	Feb 1978	6	33.4	Jan 1996	32	Jan 1996	10	11	Jan 1996	14.3	9.4	3.1	1.5	.2	-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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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	5/06	5/02	4/28	4/26	4/23	4/20	4/18	4/14	4/10
32	4/26	4/21	4/18	4/16	4/13	4/11	4/08	4/05	4/01
28	4/12	4/07	4/03	4/01	3/29	3/26	3/23	3/20	3/15
24	4/05	4/01	3/29	3/26	3/23	3/21	3/18	3/15	3/11
20	3/31	3/25	3/20	3/17	3/13	3/10	3/06	3/02	2/24
16	3/22	3/15	3/10	3/06	3/02	2/26	2/22	2/17	2/11
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	10/01	10/06	10/10	10/14	10/17	10/20	10/23	10/27	11/02
32	10/11	10/19	10/24	10/28	11/02	11/06	11/10	11/15	11/23
28	11/02	11/07	11/11	11/14	11/17	11/20	11/23	11/26	12/01
24	11/13	11/19	11/22	11/26	11/29	12/02	12/05	12/09	12/14
20	11/22	11/27	11/30	12/04	12/07	12/10	12/13	12/17	12/22
16	11/27	12/04	12/09	12/14	12/18	12/22	12/27	1/01	1/08
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	185	180	176	172	168	162	155
32	230	220	213	207	202	196	190	183	173
28	253	246	240	236	232	228	224	218	211
24	271	264	258	254	250	245	241	235	228
20	290	283	277	272	268	263	258	253	245
16	320	310	302	296	290	284	278	270	260

* 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	1135	979	854	538	233	33	0	1	52	325	617	967	5734
60	980	839	699	389	116	5	0	0	12	191	467	812	4510
57	887	755	606	301	66	1	0	0	3	127	379	719	3844
55	825	699	544	245	42	0	0	0	1	92	324	657	3429
50	670	559	391	126	9	0	0	0	0	34	197	513	2499
32	209	140	33	0	0	0	0	0	0	0	6	121	509

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	98	85	202	452	801	1069	1306	1278	1012	703	379	177	7562
55	0	0	0	7	130	379	593	565	323	82	7	0	2086
57	0	0	0	3	92	320	531	503	265	55	3	0	1772
60	0	0	0	1	49	234	438	410	183	26	0	0	1341
65	0	0	0	0	11	111	284	256	74	4	0	0	740
70	0	0	0	0	1	34	140	120	16	0	0	0	311

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	26	30	81	256	569	834	1059	1030	778	475	207	63	26	56	137	393	962	1796	2855	3885	4663	5138	5345	5408
45	5	6	34	134	416	684	904	875	628	325	115	22	5	11	45	179	595	1279	2183	3058	3686	4011	4126	4148
50	0	0	6	54	267	534	749	720	478	200	52	3	0	0	6	60	327	861	1610	2330	2808	3008	3060	3063
55	0	0	2	16	143	385	594	565	335	103	17	0	0	0	2	18	161	546	1140	1705	2040	2143	2160	2160
60	0	0	0	2	62	245	439	410	200	39	3	0	0	0	0	2	64	309	748	1158	1358	1397	1400	1400
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	5	7	33	108	295	529	732	711	484	242	89	26	5	12	45	153	448	977	1709	2420	2904	3146	3235	3261

(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