

Climatography of the United States No. 20

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

Station: MOUNT WASHINGTON, NH

1971-2000

COOP ID: 275639

Climate Division: NH 1

NWS Call Sign: MWN

Elevation: 6,262 Feet Lat: 44° 16N

Lon: 71° 18W

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	14.0	-3.7	5.2	47	1995	19	14.4	1998	-46	1968	8	-2.9	1977	1857	0	.0	.0	.0	28.6	30.7	19.0
Feb	14.8	-1.7	6.6	43+	1999	12	18.6	1998	-42	1954	12	-1.0	1978	1639	0	.0	.0	.0	25.9	28.2	16.1
Mar	21.3	5.9	13.6	55	1998	31	22.6	1973	-38	1950	3	6.6	1978	1594	0	.0	.0	.1	24.8	30.4	10.3
Apr	29.4	16.4	22.9	60	1976	19	29.3	1986	-20+	1995	5	16.2	1975	1262	0	.0	.0	.5	19.0	27.9	1.8
May	41.6	29.5	35.6	66	1977	22	41.5	1998	-2	1966	7	28.0	1997	914	0	.0	.0	6.1	5.9	19.5	.0
Jun	50.3	38.5	44.4	69+	2001	15	48.8	1995	13	1980	9	39.7	1985	619	0	.0	.0	17.4	.7	6.6	.0
Jul	54.1	43.3	48.7	71+	1953	18	52.2	1994	24	2001	2	44.7	1992	504	0	.0	.0	24.4	@	1.6	.0
Aug	53.0	42.1	47.6	72	1975	2	51.1	1984	20+	1986	29	42.5	1982	542	0	.0	.0	22.4	.2	2.8	.0
Sep	46.1	34.6	40.4	69	1999	3	46.8	1999	9	1992	30	36.9	1984	740	0	.0	.0	11.5	2.1	12.3	.0
Oct	36.4	24.0	30.2	58	1951	5	39.7	1971	-2+	1976	27	23.3	1974	1079	0	.0	.0	1.9	11.4	23.7	.1
Nov	27.6	13.6	20.6	52+	1982	5	25.3	1979	-20	1958	30	13.9	1976	1333	0	.0	.0	.1	20.1	28.2	3.6
Dec	18.5	1.7	10.1	47	2001	6	17.4	1982	-41	1962	30	-4.8	1989	1702	0	.0	.0	.0	27.2	30.8	13.6
Ann	33.9	20.4	27.2	72	Aug 1975	2	52.2	Jul 1994	-46	Jan 1968	8	-4.8	Dec 1989	13785	0	.0	.0	84.4	165.9	242.7	64.5

+ 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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Elevation: 6,262 Feet Lat: 44°16N

Lon: 71°18W

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	8.52	8.11	4.56	1996	27	18.19	1978	1.29	1981	21.1	15.5	5.0	2.2	3.03	3.83	4.99	5.97	6.90	7.86	8.90	10.11	11.66	14.05	16.25
Feb	7.33	5.92	8.40	1969	25	19.81	1981	.98	1980	18.7	12.7	4.1	1.8	2.25	2.95	3.99	4.88	5.74	6.63	7.62	8.78	10.27	12.60	14.75
Mar	9.42	9.37	6.03	1999	22	15.98	1977	3.72	1981	19.6	14.8	6.1	2.5	4.09	4.94	6.12	7.09	7.99	8.90	9.88	11.00	12.42	14.57	16.52
Apr	8.43	7.71	8.19	1984	5	15.21	1988	3.82	1995	17.9	13.4	5.9	2.3	3.67	4.43	5.49	6.35	7.15	7.97	8.84	9.84	11.10	13.03	14.76
May	8.21	7.53	3.75	1997	7	19.28	1997	2.55	1980	17.0	12.7	5.6	2.3	2.95	3.72	4.84	5.78	6.67	7.59	8.59	9.75	11.23	13.52	15.62
Jun	8.36	8.49	5.41+	1998	14	19.96	1998	2.43	1979	16.0	12.7	6.1	1.9	3.23	4.01	5.11	6.03	6.90	7.79	8.75	9.86	11.27	13.44	15.41
Jul	8.02	7.51	5.84	1969	29	16.85	1996	3.75	1978	15.9	12.4	5.0	2.5	3.67	4.38	5.35	6.14	6.88	7.62	8.41	9.32	10.46	12.19	13.74
Aug	8.08	7.42	6.63	1991	19	20.69	1991	2.46	1996	15.4	11.5	5.4	2.3	3.51	4.23	5.25	6.08	6.85	7.64	8.48	9.44	10.66	12.51	14.19
Sep	8.55	7.94	5.08	1999	16	18.82	1999	4.48	1984	15.2	12.2	5.7	2.6	4.62	5.30	6.22	6.94	7.60	8.26	8.95	9.74	10.71	12.16	13.45
Oct	7.66	6.84	9.71	1995	21	21.25	1995	2.17	1994	16.9	12.2	4.9	2.0	3.29	3.98	4.95	5.74	6.48	7.23	8.03	8.96	10.12	11.90	13.51
Nov	10.49	10.11	4.94	1968	12	19.56	1983	3.24	1978	20.0	15.5	7.1	3.0	4.99	5.90	7.14	8.15	9.08	10.01	11.00	12.13	13.56	15.70	17.63
Dec	8.84	7.74	7.44	1969	27	17.95	1973	3.07	1992	21.0	15.5	5.3	2.2	3.03	3.87	5.08	6.12	7.10	8.12	9.23	10.53	12.19	14.76	17.13
Ann	101.91	103.59	9.71	Oct 1995	21	21.25	Oct 1995	.98	Feb 1980	214.7	161.1	66.2	27.6	78.03	82.79	88.81	93.33	97.31	101.13	105.06	109.36	114.55	122.01	128.41

+ 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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Station: MOUNT WASHINGTON, NH

COOP ID: 275639

Climate Division: NH 1

NWS Call Sign: MWN

Elevation: 6,262 Feet

Lat: 44° 16N

Lon: 71° 18W

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	52.0	50.7	8	7	23.4	1978	20	94.6	1978	28+	1978	25	21	1978	20.4	13.5	5.7	2.7	.8	29.9	24.3	18.4	12.9
Feb	44.3	45.7	10	8	17.2	1972	4	79.1	1972	25+	1977	27	21+	1978	18.2	10.9	5.0	2.4	.5	28.2	26.1	21.1	11.9
Mar	53.9	50.4	10	7	28.2	1983	19	86.6	1971	33+	1971	9	26	1971	17.7	12.2	6.2	3.3	.8	30.8	29.0	24.3	11.7
Apr	43.9	39.8	8	5	23.3	1974	24	110.9	1988	32+	1975	11	27	1978	14.2	9.4	4.5	2.4	.8	27.2	20.9	15.4	9.3
May	12.5	7.8	2	2	18.9	1997	7	95.8	1997	25+	1978	8	11	1978	6.6	3.3	1.0	.6	.2	11.0	6.1	4.4	2.0
Jun	1.3	.3	#	0	5.1	1988	30	6.7	1988	8	1988	23	#	2000	1.2	.3	.2	@	.0	.6	.1	.1	.0
Jul	.0	.0	#	0	.8	1979	5	.8	1979	2	1988	2	#	1998	.1	.0	.0	.0	.0	@	.0	.0	.0
Aug	.2	.0	#	0	1.6	1976	30	1.8	1986	1	1976	31	#	1988	.2	.1	.0	.0	.0	@	.0	.0	.0
Sep	2.2	1.6	#	0	7.7	1986	16	7.7	1986	3+	1987	27	#	1999	2.0	.7	.2	@	.0	1.1	.1	.0	.0
Oct	13.7	11.9	1	1	9.5	2000	29	42.5	2000	7	1977	18	2	1980	9.2	4.4	1.4	.5	.0	9.2	2.6	.5	.0
Nov	38.3	35.4	3	2	20.4	1972	28	80.7	1972	25	1972	29	12	1976	15.9	10.2	4.4	2.3	.6	20.0	10.8	5.6	1.5
Dec	48.7	50.3	5	4	19.6	1983	22	91.6	1972	28	1972	1	20	1972	19.3	12.6	5.3	2.5	.6	28.6	18.7	14.7	5.3
Ann	311.0	293.9	N/A	N/A	28.2	Mar 1983	19	110.9	Apr 1988	33+	Mar 1971	9	27	Apr 1978	125.0	77.6	33.9	16.7	4.3	186.6	138.7	104.5	54.6

+ 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

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No. 20 1971-2000

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NWS Call Sign: MWN

Elevation: 6,262 Feet

Lat: 44° 16N

Lon: 71° 18W

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	8/02	7/28	7/24	7/21	7/17	7/14	7/11	7/07	7/01
32	7/24	7/17	7/12	7/08	7/04	6/30	6/25	6/20	6/13
28	6/30	6/25	6/21	6/18	6/16	6/13	6/10	6/07	6/02
24	6/16	6/11	6/07	6/03	5/31	5/28	5/24	5/20	5/15
20	6/06	6/01	5/28	5/25	5/22	5/19	5/16	5/12	5/07
16	5/25	5/20	5/16	5/13	5/10	5/06	5/03	4/29	4/24
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	8/01	8/04	8/06	8/08	8/10	8/12	8/14	8/16	8/20
32	8/08	8/13	8/17	8/21	8/24	8/27	8/30	9/03	9/09
28	8/23	8/27	8/31	9/02	9/05	9/08	9/10	9/14	9/18
24	9/02	9/06	9/09	9/12	9/14	9/17	9/19	9/23	9/27
20	9/12	9/16	9/20	9/23	9/25	9/28	10/01	10/04	10/08
16	9/24	9/27	9/30	10/03	10/05	10/07	10/09	10/12	10/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	44	37	32	27	23	19	15	9	2
32	77	68	61	56	51	45	40	33	24
28	103	95	90	85	81	76	72	66	58
24	128	120	115	110	106	101	97	91	84
20	148	141	135	130	125	121	116	110	103
16	165	159	155	151	147	144	140	136	130

* 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

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NWS Call Sign: MWN

Elevation: 6,262 Feet Lat: 44°16N

Lon: 71°18W

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	1857	1639	1594	1262	914	619	504	542	740	1079	1333	1702	13785
60	1702	1499	1439	1112	759	469	349	387	590	924	1183	1547	11960
57	1609	1415	1346	1022	666	379	257	294	500	831	1093	1454	10866
55	1547	1359	1284	962	604	320	200	236	440	769	1033	1392	10146
50	1392	1219	1129	812	453	184	81	109	294	614	883	1237	8407
32	834	715	573	298	68	2	0	0	12	152	351	685	3690

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	0	0	2	26	177	372	519	482	262	96	8	7	1951
55	0	0	0	0	0	1	6	4	0	0	0	0	11
57	0	0	0	0	0	0	1	1	0	0	0	0	2
60	0	0	0	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	0	5	60	179	283	253	111	23	0	0	0	0	0	5	65	244	527	780	891	914	914	914
45	0	0	0	0	20	83	155	131	46	2	0	0	0	0	0	0	20	103	258	389	435	437	437	437
50	0	0	0	0	6	25	58	50	9	0	0	0	0	0	0	0	6	31	89	139	148	148	148	148
55	0	0	0	0	0	0	8	5	0	0	0	0	0	0	0	0	0	0	8	13	13	13	13	13
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	0	12	54	91	78	29	1	0	0	0	0	0	0	12	66	157	235	264	265	265	265

(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