

Climatology of the United States

No. 20

1971-2000

Station: MOUNT SUNAPEE, NH

COOP ID: 275629

Climate Division: NH 2

NWS Call Sign:

Elevation: 1,270 Feet Lat: 43° 20N

Lon: 72° 05W

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	30.0	13.1	21.6	60+	1995	16	30.3	1990	-26	1968	8	14.6	1977	1347	0	.0	.0	1.5	18.7	29.9	6.1
Feb	33.2	15.0	24.1	61	1997	22	33.0	1981	-20	1971	3	15.0	1979	1145	0	.0	.0	1.7	14.2	26.5	3.5
Mar	42.5	23.7	33.1	82	1998	31	39.5	1973	-11	1989	7	27.5	1984	988	0	.0	.0	6.7	5.6	26.1	.8
Apr	55.1	33.7	44.4	88	1976	19	48.6	1986	9	1965	1	37.8	1975	619	0	.0	.0	19.3	.3	15.0	.0
May	68.7	44.8	56.8	88+	1992	22	61.1	1975	22	1964	1	51.9	1997	267	11	.0	.0	30.2	.0	1.7	.0
Jun	76.1	54.1	65.1	93	1994	18	69.0	1976	32	1986	3	61.5	1982	61	63	.0	.4	30.0	.0	@	.0
Jul	80.3	58.9	69.6	98	1988	10	72.4	1988	38	1965	1	66.3	1992	9	152	.0	.6	31.0	.0	.0	.0
Aug	77.9	57.6	67.8	93+	2001	9	71.2	1973	30	1976	31	64.6	1982	22	108	.0	.3	31.0	.0	@	.0
Sep	69.4	49.8	59.6	87+	1999	3	63.7	1999	25+	1971	25	56.9	1978	173	11	.0	.0	29.9	.0	.8	.0
Oct	58.3	39.3	48.8	85	1963	8	55.6	1971	16	1972	20	44.9	1974	503	0	.0	.0	25.1	.0	8.3	.0
Nov	45.2	30.1	37.7	72+	1987	4	43.2	1999	5+	1982	28	33.1	1976	821	0	.0	.0	9.4	2.4	19.9	.0
Dec	34.0	19.0	26.5	67	1998	5	33.4	1998	-23	1980	25	11.5	1989	1193	0	.0	.0	2.2	13.8	28.7	2.0
Ann	55.9	36.6	46.3	98	Jul 1988	10	72.4	Jul 1988	-26	Jan 1968	8	11.5	Dec 1989	7148	345	.0	1.3	218.0	55.0	156.9	12.4

+ 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: 1957-2001

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

015-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: MOUNT SUNAPEE, NH

COOP ID: 275629

Climate Division: NH 2

NWS Call Sign:

Elevation: 1,270 Feet Lat: 43°20N

Lon: 72°05W

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	3.20	3.11	2.65	1964	21	7.71	1979	.21	1989	9.6	7.0	2.5	.8	.55	.83	1.30	1.74	2.19	2.67	3.23	3.90	4.80	6.25	7.64
Feb	2.71	2.72	2.75	2001	5	11.31	1981	.27	1987	7.3	5.0	2.0	.6	.55	.79	1.19	1.55	1.92	2.31	2.76	3.29	4.00	5.13	6.20
Mar	3.41	3.14	2.13	2001	7	6.60	1999	1.20	1981	9.8	6.6	2.5	.7	1.29	1.61	2.07	2.44	2.80	3.17	3.57	4.03	4.62	5.52	6.35
Apr	3.78	3.49	2.48	1980	10	7.82	1996	.43	1999	10.1	7.1	2.9	1.0	1.20	1.56	2.09	2.54	2.98	3.43	3.93	4.51	5.26	6.43	7.51
May	4.07	3.74	2.33	1996	12	10.72	1984	.61	1975	12.9	8.1	2.6	.8	1.21	1.59	2.17	2.68	3.16	3.67	4.23	4.89	5.74	7.08	8.32
Jun	3.91	3.79	2.76	1973	30	9.84	1998	.87	1979	11.8	7.7	2.9	.9	1.07	1.44	2.01	2.50	2.98	3.49	4.05	4.71	5.57	6.93	8.19
Jul	3.93	3.77	2.25	1975	13	9.29	1975	1.20	1982	11.1	7.0	2.5	1.1	1.15	1.52	2.08	2.57	3.04	3.54	4.08	4.72	5.55	6.85	8.06
Aug	3.99	3.47	2.94	1973	2	10.69	1990	.38	1996	11.4	7.0	2.7	1.0	1.22	1.60	2.17	2.65	3.12	3.61	4.15	4.78	5.59	6.86	8.04
Sep	3.64	3.08	4.91	1999	17	12.71	1999	.87	1978	10.6	7.4	2.3	.7	1.02	1.37	1.89	2.34	2.79	3.25	3.77	4.38	5.17	6.40	7.56
Oct	4.23	3.50	4.20	1996	21	11.22	1995	1.05	1994	9.5	6.0	2.2	1.2	1.10	1.50	2.11	2.65	3.19	3.75	4.37	5.11	6.07	7.59	9.01
Nov	3.98	3.60	3.31	1963	8	8.86	1983	1.28	1976	10.2	7.1	2.8	1.0	1.57	1.93	2.46	2.89	3.30	3.72	4.17	4.69	5.35	6.36	7.29
Dec	3.14	2.74	2.85	1969	27	8.63	1973	.00	1989	9.6	6.5	2.2	.8	.48	.89	1.43	1.87	2.30	2.75	3.26	3.86	4.65	5.89	7.06
Ann	43.99	44.01	4.91	Sep 1999	17	12.71	Sep 1999	.00	Dec 1989	123.9	82.5	30.1	10.6	33.55	35.62	38.25	40.22	41.96	43.64	45.35	47.23	49.50	52.77	55.57

+ 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: 1957-2001

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

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Station: MOUNT SUNAPEE, NH

COOP ID: 275629

Climate Division: NH 2

NWS Call Sign:

Elevation: 1,270 Feet

Lat: 43°20N

Lon: 72°05W

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	22.1	16.0	13	15	14.0	1978	14	43.1	1979	63	1987	31	38	1987	4.4	3.8	2.2	1.2	.4	-9.9	-9.9	-9.9	-9.9
Feb	14.4	12.3	15	13	22.0	1978	7	43.0	1981	63	1987	1	57	1987	2.9	2.7	2.0	1.2	.3	-9.9	-9.9	-9.9	-9.9
Mar	12.9	11.3	8	#	24.0	1993	14	27.5	1977	55	1987	4	49	1987	3.2	3.0	1.4	.5	.2	-9.9	-9.9	-9.9	-9.9
Apr	5.0	2.0	#	0	25.0	1982	7	25.0	1982	16	1984	1	4	1984	1.0	.9	.6	.4	.1	-9.9	-9.9	-9.9	-9.9
May	#	.0	0	0	#	1986	5	#+	1986	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	.0	.0	#	0	.4	1979	11	.4	1979	#	1997	22	#	1997	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	5.0	2.0	#	0	11.0	1971	25	26.0	1971	6	1986	21	1	1986	1.1	1.0	.4	.2	.1	-9.9	-9.9	-9.9	-9.9
Dec	18.8	20.4	1	#	13.0	1978	25	37.5	1972	14	1984	7	5+	1987	3.9	3.4	1.6	.9	.2	-9.9	-9.9	-9.9	-9.9
Ann	78.2	64.0	N/A	N/A	25.0	Apr 1982	7	43.1	Jan 1979	63+	Feb 1987	1	57	Feb 1987	16.5	14.8	8.2	4.4	1.3	-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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No. 20 1971-2000

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Climate Division: NH 2

NWS Call Sign:

Elevation: 1,270 Feet

Lat: 43°20N

Lon: 72°05W

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	6/09	6/03	5/30	5/26	5/23	5/19	5/16	5/11	5/05
32	5/23	5/18	5/14	5/11	5/08	5/05	5/01	4/27	4/22
28	5/09	5/05	5/02	4/29	4/27	4/24	4/22	4/19	4/14
24	4/24	4/19	4/16	4/13	4/10	4/08	4/05	4/01	3/28
20	4/13	4/09	4/05	4/03	3/31	3/29	3/26	3/23	3/19
16	4/09	4/04	3/31	3/28	3/26	3/23	3/20	3/16	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	9/06	9/11	9/15	9/18	9/21	9/24	9/27	10/01	10/06
32	9/18	9/22	9/25	9/28	9/30	10/03	10/05	10/08	10/13
28	9/26	10/02	10/05	10/08	10/11	10/14	10/17	10/21	10/26
24	10/10	10/16	10/20	10/24	10/27	10/30	11/03	11/07	11/13
20	10/21	10/28	11/01	11/05	11/08	11/12	11/16	11/20	11/26
16	11/07	11/12	11/15	11/18	11/21	11/24	11/27	12/01	12/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	144	136	130	125	120	116	110	104	96
32	167	159	154	149	145	141	136	131	123
28	187	180	175	171	167	163	158	153	146
24	224	215	209	204	199	194	189	183	174
20	245	237	231	226	221	216	211	205	197
16	262	254	249	244	240	236	231	226	218

* 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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NWS Call Sign:

Elevation: 1,270 Feet Lat: 43° 20N

Lon: 72° 05W

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	1347	1145	988	619	267	61	9	22	173	503	821	1193	7148
60	1192	1005	833	470	148	13	0	2	70	352	671	1038	5794
57	1099	921	740	384	94	4	0	0	34	268	581	945	5070
55	1037	865	678	328	66	1	0	0	19	216	521	883	4614
50	882	725	524	204	22	0	0	0	3	111	374	728	3573
32	348	260	88	5	0	0	0	0	0	0	37	249	987

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	24	39	123	377	767	992	1166	1108	828	520	206	79	6229
55	0	0	0	10	120	304	453	395	157	23	0	0	1462
57	0	0	0	5	86	246	391	333	112	12	0	0	1185
60	0	0	0	2	47	166	298	242	58	4	0	0	817
65	0	0	0	0	11	63	152	108	11	0	0	0	345
70	0	0	0	0	1	12	49	27	1	0	0	0	90

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	2	5	38	165	504	737	902	846	575	277	72	9	2	7	45	210	714	1451	2353	3199	3774	4051	4123	4132
45	0	0	9	86	353	587	747	691	426	161	31	2	0	0	9	95	448	1035	1782	2473	2899	3060	3091	3093
50	0	0	4	43	218	438	592	536	284	79	9	0	0	0	4	47	265	703	1295	1831	2115	2194	2203	2203
55	0	0	1	16	115	295	438	382	166	29	1	0	0	0	1	17	132	427	865	1247	1413	1442	1443	1443
60	0	0	0	4	52	170	285	236	79	8	0	0	0	0	0	4	56	226	511	747	826	834	834	834
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	25	108	305	464	594	542	338	151	41	4	0	0	25	133	438	902	1496	2038	2376	2527	2568	2572

(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