

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: WOODSTOCK, VT

1971-2000

COOP ID: 439984

Climate Division: VT 3

NWS Call Sign:

Elevation: 600 Feet

Lat: 43° 37N

Lon: 72° 27W

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	27.9	3.5	15.7	67	1950	4	25.4	1990	-38	1957	14	5.4	1982	1529	0	.0	.0	.8	20.1	30.6	13.0
Feb	31.4	5.4	18.4	61	1961	20	27.1	1981	-31+	1958	18	9.5	1979	1305	0	.0	.0	1.0	15.0	27.7	11.7
Mar	40.9	18.3	29.6	77	1977	31	36.6	1973	-27	1950	4	23.6	1984	1097	0	.0	.0	5.6	5.4	28.2	2.2
Apr	54.0	30.5	42.3	89	1976	20	47.2	1986	3	1965	1	36.0	1972	682	0	.0	@	18.6	.2	19.6	.0
May	68.0	41.4	54.7	92	1975	24	59.6	1998	19	1956	9	49.4	1997	325	6	.0	.3	30.0	.0	6.0	.0
Jun	76.6	50.6	63.6	95	1969	28	68.0	1976	29+	1973	3	60.5	1985	84	42	.0	1.2	30.0	.0	.6	.0
Jul	81.7	55.1	68.4	98	1953	18	71.8	1999	36+	1965	7	64.3	1992	17	122	.0	2.8	31.0	.0	.0	.0
Aug	79.0	53.4	66.2	98+	1948	26	70.6	1973	29+	1965	31	63.1	1982	43	80	.0	1.2	31.0	.0	.1	.0
Sep	70.3	44.9	57.6	97	1951	10	62.5	1999	19	1963	24	54.6	1978	228	5	.0	.1	30.0	.0	2.9	.0
Oct	57.8	33.0	45.4	86	1963	8	52.0	1971	9	1972	20	39.5	1974	608	0	.0	.0	24.9	.0	16.8	.0
Nov	44.8	25.8	35.3	78	1950	2	42.0	1999	-10	1951	28	30.3	1972	892	0	.0	.0	8.5	2.9	23.6	.2
Dec	32.7	12.2	22.5	71	1998	8	30.9	1998	-30	1980	26	6.4	1989	1320	0	.0	.0	1.2	14.4	30.3	6.2
Ann	55.4	31.2	43.3	98+	Jul 1953	18	71.8	Jul 1999	-38	Jan 1957	14	5.4	Jan 1982	8130	255	.0	5.6	212.6	58.0	186.4	33.3

+ 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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COOP ID: 439984

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NWS Call Sign:

Elevation: 600 Feet Lat: 43°37N

Lon: 72°27W

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	3.59	3.52	2.02	1978	9	7.94	1978	.51	1981	12.2	7.0	2.5	.9	1.04	1.38	1.90	2.34	2.78	3.23	3.73	4.32	5.08	6.27	7.38
Feb	2.79	2.60	2.12	1952	18	9.34	1981	.21	1987	8.6	4.9	1.4	.5	.72	.98	1.38	1.74	2.09	2.46	2.87	3.36	4.00	5.01	5.96
Mar	3.28	3.42	2.10	1984	14	5.78	1983	.88	1981	11.8	7.0	2.3	.6	1.53	1.82	2.21	2.53	2.83	3.13	3.44	3.80	4.26	4.95	5.57
Apr	3.46	3.47	2.19	1975	4	6.50	1996	.52	1999	12.3	7.1	2.4	.7	1.36	1.68	2.14	2.51	2.87	3.23	3.63	4.08	4.65	5.54	6.34
May	3.87	3.37	2.88	1984	30	9.99	1984	1.08	1975	13.7	7.9	2.5	.7	1.32	1.69	2.22	2.67	3.10	3.55	4.03	4.60	5.33	6.45	7.48
Jun	3.44	3.07	3.40	1987	23	9.63	1998	.61	1999	13.5	7.8	2.1	.5	.89	1.22	1.72	2.16	2.59	3.04	3.55	4.15	4.94	6.18	7.33
Jul	3.73	3.66	2.95	1960	31	8.44	2000	.92	1983	13.5	7.6	2.6	.9	1.26	1.61	2.13	2.56	2.99	3.42	3.89	4.45	5.16	6.26	7.27
Aug	3.52	2.93	3.16	1976	10	7.29	1976	1.80	1996	11.6	7.0	1.9	.8	1.54	1.86	2.30	2.65	2.99	3.33	3.69	4.10	4.63	5.42	6.14
Sep	3.75	3.51	5.50	1999	17	8.38	1999	1.25	1972	12.8	6.9	2.1	.7	1.29	1.65	2.16	2.60	3.02	3.44	3.91	4.46	5.16	6.24	7.24
Oct	3.88	3.24	2.43	1962	7	8.24	1995	.58	1994	11.8	6.8	2.4	1.0	1.07	1.43	1.99	2.48	2.96	3.46	4.01	4.67	5.52	6.86	8.11
Nov	3.54	3.21	2.65	1950	26	7.51	1983	1.70	1978	11.3	6.7	2.4	.6	1.53	1.84	2.29	2.65	2.99	3.34	3.71	4.13	4.67	5.48	6.22
Dec	3.53	3.14	3.20	1948	30	8.48	1973	1.31	1989	13.0	7.1	2.4	.9	1.13	1.47	1.96	2.38	2.79	3.21	3.67	4.21	4.91	5.99	6.99
Ann	42.38	40.77	5.50	Sep 1999	17	9.99	May 1984	.21	Feb 1987	146.1	83.8	27.0	8.8	32.68	34.61	37.06	38.89	40.50	42.05	43.64	45.38	47.48	50.49	53.07

+ 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

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Station: WOODSTOCK, VT

COOP ID: 439984

Climate Division: VT 3

NWS Call Sign:

Elevation: 600 Feet

Lat: 43°37N

Lon: 72°27W

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	22.6	17.5	18	19	16.0	1987	23	59.5	1987	64	1978	24	44	1978	8.3	6.1	2.7	1.3	.4	-9.9	-9.9	-9.9	-9.9
Feb	17.7	15.7	20	18	24.5	1978	7	31.5	1978	79	1978	8	49	1978	6.0	4.6	2.4	1.2	.2	-9.9	-9.9	-9.9	-9.9
Mar	18.7	17.0	13	11	28.0	1984	14	51.9	1971	62	1971	9	43	1971	5.3	4.3	1.8	1.3	.3	-9.9	-9.9	-9.9	-9.9
Apr	5.9	4.0	2	#	11.0	1975	4	13.9	1975	28	1971	1	11	1975	2.1	1.6	.9	.3	.1	4.3	3.4	2.4	1.9
May	#	.0	0	0	#	1986	4	#	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	.1	.0	#	0	1.0	1976	25	1.0+	1979	1	1979	9	#	1979	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	7.6	4.2	1	#	14.0	1971	26	34.0	1971	9	1986	22	2	1986	2.7	2.3	.8	.5	.1	4.7	2.1	.7	.0
Dec	22.3	21.7	7	6	14.0	1986	19	47.0	1972	33	1981	31	19	1977	7.2	5.9	2.5	1.2	.3	20.2	15.2	10.6	6.9
Ann	94.9	80.1	N/A	N/A	28.0	Mar 1984	14	59.5	Jan 1987	79	Feb 1978	8	49	Feb 1978	31.7	24.9	11.1	5.8	1.4	-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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COOP ID: 439984

Climate Division: VT 3

NWS Call Sign:

Elevation: 600 Feet

Lat: 43°37N

Lon: 72°27W

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	6/21	6/16	6/13	6/10	6/07	6/05	6/02	5/29	5/25
32	6/14	6/08	6/04	5/31	5/28	5/24	5/21	5/16	5/11
28	5/22	5/17	5/14	5/12	5/09	5/07	5/04	5/01	4/26
24	5/08	5/04	5/01	4/28	4/25	4/23	4/20	4/17	4/12
20	4/24	4/19	4/16	4/13	4/10	4/07	4/04	4/01	3/27
16	4/14	4/09	4/06	4/03	3/31	3/29	3/26	3/22	3/18
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	8/20	8/26	8/31	9/04	9/08	9/11	9/15	9/20	9/26
32	9/07	9/12	9/15	9/18	9/20	9/23	9/26	9/29	10/04
28	9/22	9/26	9/28	10/01	10/03	10/05	10/07	10/10	10/13
24	10/01	10/06	10/09	10/12	10/15	10/18	10/22	10/25	10/30
20	10/09	10/15	10/19	10/23	10/26	10/29	11/02	11/06	11/12
16	10/20	10/27	11/02	11/06	11/10	11/14	11/19	11/24	12/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	115	107	101	96	92	87	82	76	68
32	139	131	125	120	115	110	105	99	91
28	163	157	153	149	146	142	139	134	128
24	192	185	180	176	172	168	164	159	153
20	222	214	208	203	198	194	188	183	174
16	251	242	235	229	223	218	212	205	195

* 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: WOODSTOCK, VT

COOP ID: 439984

Climate Division: VT 3 NWS Call Sign: Elevation: 600 Feet Lat: 43° 37N Lon: 72° 27W

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	1529	1305	1097	682	325	84	17	43	228	608	892	1320	8130
60	1374	1165	942	533	194	22	0	6	109	454	742	1165	6706
57	1281	1081	849	445	131	7	0	1	60	365	652	1072	5944
55	1219	1025	787	387	96	3	0	0	38	308	592	1010	5465
50	1064	885	632	254	38	0	0	0	9	182	443	855	4362
32	524	398	157	12	0	0	0	0	0	3	60	350	1504

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	18	17	84	319	704	948	1128	1060	767	419	158	53	5675
55	0	0	0	5	87	261	415	347	116	10	0	0	1241
57	0	0	0	2	60	206	353	286	78	5	0	0	990
60	0	0	0	0	30	131	260	198	37	1	0	0	657
65	0	0	0	0	6	42	122	80	5	0	0	0	255
70	0	0	0	0	0	6	34	18	0	0	0	0	58

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	0	23	134	450	699	879	797	532	200	49	3	2	2	25	159	609	1308	2187	2984	3516	3716	3765	3768
45	0	0	5	66	304	549	724	642	386	102	21	0	0	0	5	71	375	924	1648	2290	2676	2778	2799	2799
50	0	0	2	31	182	403	569	488	251	44	5	0	0	0	2	33	215	618	1187	1675	1926	1970	1975	1975
55	0	0	0	10	95	260	414	334	139	13	0	0	0	0	0	10	105	365	779	1113	1252	1265	1265	1265
60	0	0	0	2	40	143	264	197	65	1	0	0	0	0	0	2	42	185	449	646	711	712	712	712
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	19	109	297	446	575	507	334	144	32	2	0	0	19	128	425	871	1446	1953	2287	2431	2463	2465

(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

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