U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: NEWPORT, VT **COOP ID: 435542**

Climate Division: VT 1 **NWS Call Sign:** **Elevation: 770 Feet** **Lat: 44˚56N** **Lon: 72˚12W**

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	26.3	5.5	15.9	64+	1950	4	26.7	1990	-38+	1957	14	2.8	1994	1521	0	.0	.0	.6	21.7	30.2	12.4
Feb	31.0	7.8	19.4	62	2000	27	32.3	1981	-38	1993	7	9.1	1993	1277	0	.0	.0	1.0	16.5	26.9	10.7
Mar	41.0	18.7	29.9	83	1998	31	37.4+	1977	-32	1938	4	22.3	1984	1089	0	.0	.0	5.4	7.3	27.3	3.2
Apr	54.2	31.3	42.8	87+	1976	19	48.1	1987	-2	1964	1	36.4	1972	667	0	.0	.0	17.4	.7	18.4	@
May	69.0	43.2	56.1	92	1977	22	62.0	1975	20	1966	8	49.5	1997	293	17	.0	.4	29.9	.0	3.9	.0
Jun	76.8	52.4	64.6	95+	1994	18	69.1	1999	28	1986	3	61.2	1985	72	60	.0	.9	30.0	.0	.1	.0
Jul	80.9	56.8	68.9	98	1953	18	72.3	1994	36	1992	2	64.3	1992	17	136	.0	1.5	31.0	.0	.0	.0
Aug	78.8	54.8	66.8	95+	1975	2	72.1	1973	32	1965	31	64.4	1982	36	91	.0	.6	31.0	.0	.0	.0
Sep	69.5	46.8	58.2	96	1999	4	63.8	1999	23+	1956	27	54.1	1978	215	9	.0	.1	29.7	.0	1.5	.0
Oct	57.0	37.0	47.0	84+	1947	17	53.8	1971	0	1937	26	42.2	1972	559	0	.0	.0	23.0	.1	10.8	.0
Nov	43.1	27.3	35.2	74	1950	2	40.1	1979	-7+	1938	26	31.0	1980	894	0	.0	.0	6.8	4.8	22.1	.2
Dec	31.0	13.0	22.0	66	1998	7	29.2	1996	-40	1933	30	3.0	1989	1333	0	.0	.0	.9	16.9	29.4	5.7
Ann	54.9	32.9	43.9	98	Jul 1953	18	72.3	Jul 1994	-40	Dec 1933	30	2.8	Jan 1994	7973	313	.0	3.5	206.7	68.0	170.6	32.2

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1930-2001

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

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	2.96	2.84	2.08	1998	8	6.54	1979	.50	1981
Feb	2.16	2.13	1.45	1951	7	4.37	1976	.36	1999
Mar	2.96	3.04	1.52	1990	20	4.29	1972	1.18	1996
Apr	2.93	2.71	1.61	1950	20	6.48	2000	.83	1999
May	3.67	3.51	1.92	1984	29	6.64	1974	1.17	1977
Jun	3.93	3.79	3.78	1942	14	10.76	1978	1.18	1995
Jul	4.19	4.13	3.20	1938	29	6.53	1996	1.59	1979
Aug	4.18	3.78	2.92	1971	28	7.83	1991	1.38	1996
Sep	3.76	3.23	3.26	1947	12	8.50	1999	1.26	1984
Oct	3.45	3.28	2.61	1937	20	7.21	1995	.56	1994
Nov	3.47	3.46	3.09	1943	22	6.58	1983	1.67	1991
Dec	3.12	2.82	2.06	2000	17	7.11	1973	1.38	1999
Ann	40.78	40.91	3.78	Jun 1942	14	10.76	Jun 1978	.36	Feb 1999

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	18.4	7.9	1.4	.3
Feb	13.6	6.4	1.1	.1
Mar	15.3	8.0	1.5	.2
Apr	14.1	8.1	1.7	.1
May	14.5	9.1	2.2	.5
Jun	13.9	8.8	2.2	.8
Jul	13.1	9.1	3.2	.7
Aug	12.8	8.1	3.0	.8
Sep	13.2	7.9	2.3	.8
Oct	14.5	7.9	2.3	.6
Nov	16.7	8.5	2.0	.4
Dec	17.3	8.3	1.7	.4
Ann	177.4	98.1	24.6	5.7

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.92	1.20	1.62	1.98	2.32	2.68	3.08	3.54	4.14	5.07	5.93
Feb	.66	.86	1.17	1.44	1.69	1.96	2.25	2.59	3.04	3.73	4.37
Mar	1.69	1.91	2.21	2.45	2.66	2.87	3.10	3.35	3.65	4.11	4.52
Apr	1.10	1.37	1.76	2.09	2.40	2.72	3.06	3.46	3.97	4.76	5.47
May	1.33	1.68	2.18	2.59	2.99	3.40	3.84	4.35	5.01	6.02	6.95
Jun	1.40	1.77	2.31	2.76	3.18	3.62	4.10	4.66	5.37	6.47	7.48
Jul	2.05	2.41	2.90	3.29	3.65	4.01	4.39	4.83	5.38	6.20	6.94
Aug	1.71	2.09	2.63	3.08	3.50	3.92	4.38	4.91	5.58	6.61	7.54
Sep	1.46	1.81	2.31	2.72	3.11	3.50	3.93	4.43	5.06	6.03	6.91
Oct	1.24	1.57	2.04	2.43	2.80	3.18	3.60	4.09	4.70	5.66	6.54
Nov	2.01	2.27	2.61	2.89	3.13	3.38	3.63	3.92	4.27	4.80	5.26
Dec	1.11	1.41	1.83	2.19	2.53	2.88	3.26	3.71	4.28	5.16	5.96
Ann	31.15	33.07	35.49	37.31	38.92	40.46	42.04	43.78	45.87	48.88	51.46

+ 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: 1930-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	24.7	24.7	12	10
Feb	17.2	15.5	16	15
Mar	18.8	19.4	13	12
Apr	6.9	6.1	2	1
May	.1	.0	#	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	#	.0	0	0
Oct	1.1	.0	#	0
Nov	11.0	10.7	1	1
Dec	23.1	22.9	6	5
Ann	102.9	99.3	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	16.0	1986	26	47.5	1987	34	1978	22	21+	1979
Feb	14.0	1995	4	43.9	1995	40	1971	23	30	1979
Mar	16.0	1994	3	38.9	1997	47	1971	7	34	1971
Apr	9.0	1983	17	19.4	1983	26	1971	1	14	1978
May	2.0	1983	9	2.0	1983	#	1978	1	#	1978
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	#	1992	30	#	1992	0	0	0	0	0
Oct	7.0	1987	4	7.7	1987	5	1979	9	#+	2000
Nov	16.3	1971	25	31.7	1971	17+	1990	14	4	1990
Dec	19.0	1996	8	52.9	1972	24	1978	29	14	1981
Ann	19.0	Dec 1996	8	52.9	Dec 1972	47	Mar 1971	7	34	Mar 1971

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	15.7	7.1	2.5	1.2	.2
Feb	11.1	5.3	1.6	.8	.1
Mar	9.9	5.1	2.0	1.0	.3
Apr	3.9	2.1	.7	.3	.0
May	.1	@	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.9	.3	.1	.1	.0
Nov	6.7	3.0	.9	.3	.1
Dec	12.6	6.2	1.8	1.0	.1
Ann	60.9	29.1	9.6	4.7	.8

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	28.8	26.2	24.6	17.4
Feb	27.0	25.4	25.0	21.2
Mar	24.9	21.9	20.6	16.0
Apr	6.1	4.6	3.3	2.3
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.3	.1	@	.0
Nov	8.7	3.2	1.6	.3
Dec	25.0	19.0	14.8	6.4
Ann	120.8	100.4	89.9	63.6

+ 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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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	6/15	6/10	6/06	6/02	5/30	5/27	5/24	5/20	5/14
32	5/28	5/24	5/21	5/19	5/16	5/14	5/12	5/09	5/05
28	5/17	5/13	5/09	5/07	5/04	5/01	4/29	4/25	4/21
24	4/30	4/26	4/23	4/21	4/19	4/17	4/15	4/12	4/09
20	4/19	4/16	4/13	4/11	4/09	4/07	4/05	4/03	3/30
16	4/14	4/10	4/07	4/05	4/03	4/01	3/29	3/27	3/23

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	9/02	9/06	9/09	9/12	9/14	9/16	9/19	9/22	9/26
32	9/16	9/20	9/23	9/26	9/28	10/01	10/03	10/06	10/11
28	9/27	9/30	10/03	10/05	10/07	10/09	10/11	10/14	10/17
24	10/06	10/11	10/14	10/17	10/20	10/22	10/25	10/29	11/02
20	10/24	10/28	11/01	11/04	11/07	11/09	11/12	11/16	11/20
16	11/03	11/07	11/10	11/12	11/15	11/17	11/19	11/22	11/26

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	127	119	114	110	106	102	98	93	86
32	148	143	140	137	134	131	128	125	120
28	171	166	162	159	155	152	149	145	140
24	201	195	190	187	183	179	175	171	164
20	230	223	218	214	211	207	203	198	192
16	241	236	232	228	225	222	218	214	209

***** 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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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	1521	1277	1089	667	293	72	17	36	215	559	894	1333	7973
60	1366	1137	934	518	175	19	1	4	104	408	744	1178	6588
57	1273	1053	841	431	120	6	0	1	58	322	654	1085	5844
55	1211	997	779	375	90	3	0	0	38	268	594	1023	5378
50	1056	857	625	246	37	0	0	0	9	153	445	868	4296
32	521	384	169	13	0	0	0	0	0	1	57	374	1519

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	23	31	103	336	747	978	1142	1079	784	465	153	65	5906
55	0	0	0	8	123	291	429	366	132	19	0	0	1368
57	0	0	0	4	92	234	367	304	93	11	0	0	1105
60	0	0	0	1	54	157	274	215	48	4	0	0	753
65	0	0	0	0	17	60	136	91	9	0	0	0	313
70	0	0	0	0	3	12	45	22	0	0	0	0	82

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	1	2	27	139	475	719	878	811	533	229	52	2	1	3	30	169	644	1363	2241	3052	3585	3814	3866	3868
45	0	0	8	72	329	569	723	656	384	128	19	1	0	0	8	80	409	978	1701	2357	2741	2869	2888	2889
50	0	0	3	31	198	421	568	502	249	62	6	0	0	0	3	34	232	653	1221	1723	1972	2034	2040	2040
55	0	0	0	14	109	277	413	348	138	23	2	0	0	0	0	14	123	400	813	1161	1299	1322	1324	1324
60	0	0	0	4	49	158	264	210	64	4	0	0	0	0	0	4	53	211	475	685	749	753	753	753
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	0	17	99	296	445	571	519	316	127	26	0	0	0	17	116	412	857	1428	1947	2263	2390	2416	2416

(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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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