

Climatography of the United States

No. 20

1971-2000

Station: KEENE, NH

COOP ID: 274399

Climate Division: NH 2

NWS Call Sign:

Elevation: 510 Feet Lat: 42° 57N Lon: 72° 19W

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	30.3	8.9	19.6	66	1932	14	27.9	1990	-31	1935	28	9.9	1994	1406	0	.0	.0	1.4	16.0	29.8	7.9
Feb	33.7	10.2	22.0	65	1957	26	30.2	1984	-35	1936	20	12.4	1979	1206	0	.0	.0	2.4	11.0	26.4	5.8
Mar	43.3	20.4	31.9	87	1998	29	37.4	1977	-21	1950	4	26.3	1984	1027	0	.0	.0	9.5	3.5	26.5	1.1
Apr	56.1	30.9	43.5	93+	1990	28	47.7	1986	6	1965	1	38.0	1975	646	0	.0	.1	22.7	.1	16.0	.0
May	69.2	42.5	55.9	95	1962	19	60.7	1975	22+	1966	3	50.1	1997	294	10	.0	.6	30.6	.0	3.9	.0
Jun	77.2	51.6	64.4	98+	1964	30	69.2	1976	27	1932	8	60.9	1980	72	55	.0	2.0	30.0	.0	.0	.0
Jul	82.2	56.7	69.5	99+	1995	15	73.2	1988	34	1936	1	64.4	1992	16	153	.0	4.1	31.0	.0	.0	.0
Aug	79.8	54.8	67.3	102	1955	5	71.1	1973	27+	1940	26	64.5	1992	30	101	.0	2.0	31.0	.0	@	.0
Sep	71.6	46.4	59.0	101	1953	2	63.1	1971	21	1963	24	55.4	1995	189	9	.0	.5	30.0	.0	1.7	.0
Oct	60.0	34.4	47.2	90	1963	7	54.0	1971	10	1936	28	41.2	1974	552	0	.0	.0	27.5	.0	13.1	.0
Nov	46.8	26.9	36.9	80	1950	2	42.4	1999	-15	1938	26	32.0	1976	845	0	.0	.0	12.1	1.3	21.2	.0
Dec	35.1	16.0	25.6	70	1998	8	32.5	1982	-29	1933	30	10.3	1989	1222	0	.0	.0	2.4	10.2	29.1	3.3
Ann	57.1	33.3	45.2	102	Aug 1955	5	73.2	Jul 1988	-35	Feb 1936	20	9.9	Jan 1994	7505	328	.0	9.3	230.6	42.1	167.7	18.1

+ 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: 1926-2001

(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: KEENE, NH

COOP ID: 274399

Climate Division: NH 2

NWS Call Sign:

Elevation: 510 Feet Lat: 42°57N

Lon: 72°19W

Precipitation (inches)

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	3.37	3.35	2.07	1979	25	9.24	1979	.72	1981	10.4	6.6	2.4	.7	.95	1.27	1.76	2.18	2.59	3.02	3.49	4.05	4.78	5.91	6.98
Feb	2.44	2.21	1.60	1951	18	7.04	1981	.09	1987	8.9	5.5	1.4	.4	.56	.79	1.14	1.46	1.78	2.12	2.50	2.96	3.56	4.50	5.40
Mar	3.26	3.13	2.35	1986	15	5.53	1980	.66	1981	10.2	6.8	2.3	.6	1.40	1.70	2.11	2.45	2.76	3.08	3.42	3.81	4.31	5.06	5.75
Apr	3.30	3.30	2.30	1996	17	6.80	1996	.77	1999	10.9	7.2	2.1	.5	1.27	1.58	2.02	2.38	2.72	3.08	3.46	3.90	4.46	5.32	6.10
May	3.85	3.64	3.80	1984	30	10.90	1984	1.05	1993	11.8	7.5	2.6	.7	1.14	1.51	2.06	2.53	2.99	3.47	4.00	4.62	5.43	6.69	7.86
Jun	3.52	3.16	3.04	1969	16	8.21	1998	.52	1979	10.9	7.0	2.2	.9	.86	1.19	1.71	2.16	2.61	3.09	3.62	4.26	5.09	6.40	7.63
Jul	3.90	3.55	2.78	1935	7	7.50	1988	1.27	1983	10.9	6.9	2.9	.9	1.57	1.93	2.44	2.85	3.25	3.65	4.08	4.58	5.21	6.18	7.06
Aug	3.96	3.95	3.06	1991	20	9.03	1990	.31	1996	10.3	6.9	2.6	1.0	1.36	1.73	2.28	2.74	3.18	3.63	4.13	4.71	5.45	6.60	7.66
Sep	3.45	2.76	4.37	1999	17	9.05	1999	1.01	1984	9.9	6.3	2.6	.8	1.05	1.38	1.86	2.29	2.69	3.12	3.58	4.13	4.84	5.94	6.96
Oct	3.53	3.11	3.56	1959	25	8.91	1995	.92	1994	9.6	6.4	2.6	1.0	1.30	1.63	2.11	2.50	2.88	3.27	3.69	4.17	4.80	5.75	6.63
Nov	3.54	3.25	3.15	1950	26	6.13	1983	1.28	1976	11.4	7.8	2.6	.7	1.73	2.03	2.44	2.78	3.08	3.39	3.71	4.09	4.55	5.25	5.88
Dec	3.21	2.89	1.99	1941	14	8.86	1973	.77	1989	10.7	6.4	2.3	.5	.89	1.20	1.66	2.06	2.45	2.86	3.32	3.86	4.56	5.66	6.68
Ann	41.33	42.02	4.37	Sep 1999	17	10.90	May 1984	.09	Feb 1987	125.9	81.3	28.6	8.7	31.56	33.50	35.96	37.80	39.43	40.99	42.59	44.35	46.47	49.52	52.13

+ 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: 1926-2001

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

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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1971-2000

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Station: **KEENE, NH**

COOP ID: 274399

Climate Division: **NH 2**

NWS Call Sign:

Elevation: **510 Feet**

Lat: **42° 57N**

Lon: **72° 19W**

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	15.5	15.0	7	6	12.0	1973	29	33.0	1987	25	1996	13	18	1982	6.4	4.6	2.3	1.1	.1	23.2	18.2	14.6	7.4
Feb	10.4	8.8	8	7	11.0	1972	20	26.9	1972	28	1978	8	22	1982	5.3	3.9	1.2	.5	.2	23.3	19.6	17.1	10.4
Mar	9.7	6.9	4	2	14.0	1984	14	33.0	1993	25	1982	6	18	1994	3.9	2.8	1.2	.7	.1	16.1	12.1	8.6	4.2
Apr	2.9	.5	#	#	14.0	1982	7	15.5	1982	15	1982	8	3	1982	1.0	.8	.3	.1	.1	1.9	1.1	.6	.2
May	#	.0	0	0	#	1977	10	#	1977	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	#	1983	27	#+	1983	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	3.5	2.0	#	#	9.0	1986	19	12.0	1986	13	1971	26	3	1997	1.8	1.2	.5	.1	.0	3.5	1.8	1.0	.0
Dec	11.0	10.6	3	2	10.0	1996	8	31.0	1972	17+	1996	9	10	1995	5.1	3.5	1.4	.7	@	17.4	11.3	5.6	1.6
Ann	53.0	43.8	N/A	N/A	14.0+	Mar 1984	14	33.0+	Mar 1993	28	Feb 1978	8	22	Feb 1982	23.5	16.8	6.9	3.2	.5	85.4	64.1	47.5	23.8

+ 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

Station: KEENE, NH

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Climate Division: NH 2

NWS Call Sign:

Elevation: 510 Feet

Lat: 42° 57N

Lon: 72° 19W

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	6/13	6/07	6/03	5/30	5/27	5/24	5/20	5/16	5/10
32	5/27	5/22	5/19	5/16	5/13	5/10	5/07	5/04	4/29
28	5/14	5/10	5/07	5/04	5/02	4/29	4/27	4/24	4/19
24	4/28	4/24	4/21	4/18	4/16	4/13	4/11	4/08	4/04
20	4/16	4/12	4/09	4/06	4/03	4/01	3/29	3/26	3/21
16	4/03	3/30	3/28	3/25	3/23	3/21	3/19	3/16	3/12
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	8/31	9/04	9/08	9/10	9/13	9/16	9/19	9/22	9/27
32	9/13	9/17	9/21	9/23	9/26	9/29	10/02	10/05	10/09
28	9/25	9/29	10/02	10/04	10/07	10/09	10/12	10/15	10/19
24	10/03	10/08	10/12	10/16	10/19	10/22	10/25	10/29	11/04
20	10/18	10/24	10/29	11/02	11/06	11/09	11/14	11/18	11/25
16	11/03	11/09	11/13	11/17	11/20	11/24	11/28	12/02	12/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	128	121	116	112	108	104	100	95	89
32	152	146	142	139	136	132	129	125	119
28	175	169	164	161	157	154	150	146	140
24	205	198	193	189	185	181	177	172	165
20	243	234	227	221	216	210	205	198	188
16	264	256	251	246	242	237	233	227	219

* 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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Climate Division: NH 2

NWS Call Sign:

Elevation: 510 Feet Lat: 42°57N Lon: 72°19W

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	1406	1206	1027	646	294	72	16	30	189	552	845	1222	7505
60	1251	1066	872	496	171	18	1	3	82	402	695	1067	6124
57	1158	982	779	409	113	5	0	0	43	316	605	974	5384
55	1096	926	717	351	82	2	0	0	26	263	545	912	4920
50	941	786	562	221	30	0	0	0	5	150	397	757	3849
32	413	315	115	6	0	0	0	0	0	2	40	272	1163

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	30	32	111	350	739	973	1160	1094	809	473	185	73	6029
55	0	0	0	6	108	285	447	381	145	21	0	0	1393
57	0	0	0	3	77	228	385	319	102	12	0	0	1126
60	0	0	0	1	42	151	293	228	52	4	0	0	771
65	0	0	0	0	10	55	153	101	9	0	0	0	328
70	0	0	0	0	1	10	57	27	0	0	0	0	95

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	4	45	192	530	766	940	885	606	282	81	7	1	5	50	242	772	1538	2478	3363	3969	4251	4332	4339
45	0	0	15	101	377	616	785	730	456	170	38	1	0	0	15	116	493	1109	1894	2624	3080	3250	3288	3289
50	0	0	6	49	239	466	630	575	315	85	13	0	0	0	6	55	294	760	1390	1965	2280	2365	2378	2378
55	0	0	2	19	130	320	475	422	185	36	2	0	0	0	2	21	151	471	946	1368	1553	1589	1591	1591
60	0	0	0	6	60	188	321	275	98	11	0	0	0	0	0	6	66	254	575	850	948	959	959	959
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	3	39	142	342	495	624	581	383	192	54	3	0	3	42	184	526	1021	1645	2226	2609	2801	2855	2858

(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