

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: SARATOGA SPRINGS 4 SW, NY

1971-2000

COOP ID: 307484

Climate Division: NY 5

NWS Call Sign:

Elevation: 310 Feet

Lat: 43°02N

Lon: 73°49W

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	30.1	11.6	20.9	63+	1995	17	31.1	1990	-33	1994	27	10.9+	1982	1368	0	.0	.0	1.1	16.7	29.5	7.8
Feb	34.0	13.8	23.9	64	1981	21	31.8	1981	-29	1979	18	14.0	1979	1152	0	.0	.0	1.7	11.7	26.0	6.0
Mar	44.9	24.0	34.5	88	1998	31	41.8	1977	-13+	1982	4	27.6	1984	947	0	.0	.0	9.1	3.1	24.9	1.0
Apr	58.7	34.6	46.7	92	1990	29	51.6	1991	5	1965	1	40.3	1975	550	0	.0	.2	23.5	.1	13.9	.0
May	71.7	45.8	58.8	93	1962	18	63.7	1998	21	1956	8	54.4	1997	218	25	.0	.6	30.6	.0	1.9	.0
Jun	78.9	54.4	66.7	99	1964	30	70.5	1999	32	1964	5	62.5	1985	41	91	.0	2.0	30.0	.0	.0	.0
Jul	83.0	59.3	71.2	97+	1995	14	74.7	1995	37	1963	9	68.0	1976	5	195	.0	4.6	31.0	.0	.0	.0
Aug	80.6	57.5	69.1	96+	2001	9	72.0	1973	31	1965	31	65.5	1982	17	143	.0	1.9	31.0	.0	.0	.0
Sep	72.3	49.3	60.8	94	1973	5	65.3	1999	22	1963	24	57.0	1988	149	22	.0	.5	30.0	.0	1.3	.0
Oct	60.4	38.2	49.3	88+	1963	8	54.9	1971	14	1964	8	43.5	1974	488	1	.0	.0	27.7	.0	10.6	.0
Nov	47.1	30.7	38.9	82	1982	2	44.7	1999	2	1962	19	34.3	1972	784	0	.0	.0	11.4	1.2	19.0	.0
Dec	34.8	18.8	26.8	67+	2001	6	33.6	1998	-23	1955	21	12.0	1989	1185	0	.0	.0	2.1	9.9	28.3	3.0
Ann	58.0	36.5	47.3	99	Jun 1964	30	74.7	Jul 1995	-33	Jan 1994	27	10.9+	Jan 1982	6904	477	.0	9.8	229.2	42.7	155.4	17.8

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1955-2001

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

076-A

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Station: SARATOGA SPRINGS 4 SW, NY

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Climate Division: NY 5

NWS Call Sign:

Elevation: 310 Feet Lat: 43°02N

Lon: 73°49W

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	3.42	3.09	2.41	1998	8	6.64	1998	.62	1981	10.4	7.0	2.4	.6	.97	1.30	1.79	2.21	2.63	3.06	3.54	4.11	4.84	5.99	7.06
Feb	2.56	2.49	1.90	1958	16	5.78	1971	.06	1987	7.9	5.2	1.7	.5	.55	.79	1.17	1.51	1.85	2.21	2.62	3.11	3.76	4.79	5.77
Mar	3.58	3.67	3.10	1977	13	7.23	1977	.45	1981	9.7	7.2	2.3	.9	1.34	1.67	2.15	2.55	2.93	3.32	3.75	4.24	4.86	5.82	6.70
Apr	3.60	3.35	2.20	1970	2	8.34	1983	.64	1999	10.7	7.4	2.4	.9	1.32	1.66	2.15	2.55	2.94	3.33	3.76	4.26	4.89	5.87	6.77
May	4.06	3.45	2.53	1984	29	9.72	1984	1.26	1995	11.8	7.8	2.8	.9	1.23	1.62	2.19	2.69	3.17	3.67	4.22	4.87	5.71	7.01	8.22
Jun	3.97	3.71	4.19	1966	26	7.98	1972	1.35	1988	11.1	7.4	3.1	.8	1.43	1.80	2.34	2.79	3.23	3.67	4.15	4.71	5.43	6.54	7.56
Jul	3.80	3.50	2.98	1994	26	10.00	1996	.41	1983	10.1	6.7	2.6	.8	.83	1.18	1.74	2.24	2.75	3.29	3.89	4.62	5.57	7.10	8.54
Aug	4.05	3.61	3.74	1971	28	7.84	1990	1.48	1980	9.9	6.7	2.7	.9	1.58	1.96	2.49	2.93	3.35	3.78	4.24	4.77	5.45	6.48	7.43
Sep	3.65	2.97	3.54	1999	17	8.15	1987	1.51	1990	10.1	6.5	2.3	.9	1.35	1.69	2.18	2.59	2.98	3.38	3.81	4.31	4.95	5.94	6.84
Oct	3.54	2.91	2.80	1972	7	8.23	1995	.90	1982	9.8	6.4	2.2	.8	1.12	1.46	1.95	2.38	2.79	3.22	3.68	4.23	4.93	6.03	7.04
Nov	3.75	3.60	2.65	1972	9	8.02	1972	1.40	1978	10.8	7.5	2.6	.9	1.55	1.90	2.38	2.78	3.15	3.53	3.93	4.40	5.00	5.90	6.73
Dec	3.33	3.28	2.14	2000	17	7.37	1973	1.02	1979	10.3	7.1	2.3	.6	1.08	1.40	1.86	2.26	2.64	3.03	3.47	3.97	4.62	5.63	6.56
Ann	43.31	41.90	4.19	Jun 1966	26	10.00	Jul 1996	.06	Feb 1987	122.6	82.9	29.4	9.5	32.76	34.85	37.50	39.49	41.25	42.94	44.68	46.58	48.88	52.20	55.04

+ 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: 1955-2001

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

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Station: SARATOGA SPRINGS 4 SW, NY

COOP ID: 307484

Climate Division: NY 5

NWS Call Sign:

Elevation: 310 Feet

Lat: 43°02N

Lon: 73°49W

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	20.7	18.7	8	7	16.0	1987	23	58.0	1987	34	1987	31	21	1987	6.9	5.0	2.7	1.2	.3	22.8	19.9	16.9	9.6
Feb	11.7	9.6	9	7	11.0	1988	4	28.7	1972	32+	1987	1	25	1987	5.1	3.6	1.4	.8	.2	24.4	20.4	16.7	10.9
Mar	11.2	7.0	5	2	15.0	1994	3	34.9	1971	34	1971	7	27	1971	4.0	2.8	1.3	.6	.2	12.6	9.9	7.3	4.6
Apr	2.3	.5	#	#	12.0	2000	9	12.8	2000	20	1971	1	5	1971	1.0	.7	.2	.1	@	.9	.4	.3	@
May	#	.0	#	0	#	1989	8	#+	1989	#	1996	12	#	1996	.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	#	1992	30	#	1992	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.0	.0	#	0	1.0	1987	4	1.0	1987	#+	1997	23	#+	1997	@	@	.0	.0	.0	.0	.0	.0	.0
Nov	3.8	2.7	#	#	23.8	1971	25	27.2	1971	24	1971	25	4	1997	1.8	1.2	.4	.1	@	2.9	1.4	.9	.2
Dec	13.7	14.5	3	3	14.0	1978	25	26.7	1972	19	1995	21	10	1995	5.1	3.8	1.3	.7	.1	15.6	10.6	7.6	2.6
Ann	63.4	53.0	N/A	N/A	23.8	Nov 1971	25	58.0	Jan 1987	34+	Jan 1987	31	27	Mar 1971	23.9	17.1	7.3	3.5	.8	79.2	62.6	49.7	27.9

+ 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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Climate Division: NY 5

NWS Call Sign:

Elevation: 310 Feet

Lat: 43°02N

Lon: 73°49W

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	6/08	6/03	5/31	5/27	5/25	5/22	5/19	5/15	5/10
32	5/20	5/16	5/13	5/11	5/08	5/06	5/04	5/01	4/27
28	5/08	5/04	5/02	4/29	4/27	4/25	4/23	4/21	4/17
24	4/24	4/20	4/18	4/16	4/14	4/12	4/10	4/08	4/05
20	4/15	4/10	4/07	4/05	4/02	3/31	3/28	3/25	3/21
16	4/08	4/04	4/01	3/29	3/26	3/24	3/21	3/18	3/14
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	9/08	9/12	9/15	9/17	9/19	9/21	9/23	9/26	9/30
32	9/16	9/20	9/23	9/25	9/28	9/30	10/03	10/06	10/10
28	9/23	9/28	10/02	10/05	10/08	10/11	10/14	10/17	10/22
24	10/08	10/14	10/19	10/23	10/27	10/30	11/03	11/08	11/14
20	10/19	10/25	10/30	11/03	11/07	11/10	11/14	11/19	11/25
16	11/02	11/08	11/12	11/16	11/19	11/22	11/26	11/30	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	135	129	124	120	117	113	109	104	98
32	157	152	148	145	142	139	135	132	127
28	179	173	169	166	163	159	156	152	146
24	215	208	203	199	195	191	186	181	175
20	241	233	227	222	218	213	208	202	194
16	260	252	246	241	237	232	227	222	214

* 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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COOP ID: 307484

Climate Division: NY 5 NWS Call Sign: Elevation: 310 Feet Lat: 43°02N Lon: 73°49W

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	1368	1152	947	550	218	41	5	17	149	488	784	1185	6904
60	1213	1012	792	403	114	8	0	1	59	340	634	1030	5606
57	1120	928	699	319	70	2	0	0	29	258	544	937	4906
55	1058	872	637	267	47	1	0	0	16	209	484	875	4466
50	903	732	486	154	14	0	0	0	3	109	340	720	3461
32	389	267	89	3	0	0	0	0	0	0	30	253	1031

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	44	39	165	443	830	1040	1214	1149	863	535	236	92	6650
55	0	0	0	17	164	351	501	436	189	32	0	0	1690
57	0	0	0	9	124	292	439	374	142	19	0	0	1399
60	0	0	0	3	76	208	346	282	82	7	0	0	1004
65	0	0	0	0	25	91	195	143	22	1	0	0	477
70	0	0	0	0	5	23	75	48	2	0	0	0	153

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	6	56	232	583	812	979	914	632	303	90	9	1	7	63	295	878	1690	2669	3583	4215	4518	4608	4617
45	0	0	23	131	428	662	824	759	482	182	41	2	0	0	23	154	582	1244	2068	2827	3309	3491	3532	3534
50	0	0	12	68	284	512	669	604	336	88	15	1	0	0	12	80	364	876	1545	2149	2485	2573	2588	2589
55	0	0	4	28	165	363	514	449	211	40	5	0	0	0	4	32	197	560	1074	1523	1734	1774	1779	1779
60	0	0	1	10	79	227	359	299	111	11	0	0	0	0	1	11	90	317	676	975	1086	1097	1097	1097
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	2	45	157	368	525	656	607	399	193	50	6	0	2	47	204	572	1097	1753	2360	2759	2952	3002	3008

(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