

Climatography of the United States

No. 20

1971-2000

Station: WATERTOWN AP, NY

COOP ID: 309005

Climate Division: NY 9

NWS Call Sign: ART

Elevation: 322 Feet

Lat: 44°00N

Lon: 76°01W

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	29.7	7.8	18.8	66+	1995	15	31.0	1990	-43	1994	16	6.9	1994	1433	0	.0	.0	1.4	17.7	28.7	9.3
Feb	31.7	9.2	20.5	63+	2000	27	30.6	1981	-34+	1979	11	7.9	1979	1247	0	.0	.0	1.8	15.5	26.0	8.2
Mar	41.7	19.8	30.8	83	1998	31	38.9	1973	-24	1984	12	20.1	1984	1062	0	.0	.0	6.7	7.5	25.7	2.3
Apr	54.7	31.9	43.3	89	1990	28	49.0	1987	6	1965	1	37.5	1975	652	0	.0	.0	18.4	.4	15.3	.0
May	67.0	42.9	55.0	87+	1966	24	60.0	1998	18	1966	7	49.3	1997	321	9	.0	.0	29.7	.0	2.3	.0
Jun	75.3	51.4	63.4	95	1949	14	67.1	1999	29	1964	5	59.0	1988	99	49	.0	.2	30.0	.0	.2	.0
Jul	80.3	56.9	68.6	97	1953	18	72.0	1995	33	1962	2	64.3	2000	19	131	.0	1.0	31.0	.0	.0	.0
Aug	78.4	55.0	66.7	96	1955	19	70.7	1973	30	1969	27	62.6	1982	43	97	.0	.6	31.0	.0	.0	.0
Sep	70.3	46.9	58.6	96	1953	4	65.4	1971	22	1991	30	54.5	1974	206	14	.0	.2	29.8	.0	1.7	.0
Oct	58.9	36.6	47.8	84+	1983	13	55.9	1971	12	1972	20	40.9	1974	536	1	.0	.0	25.0	.0	10.0	.0
Nov	46.8	27.9	37.4	77	1971	2	43.9	1975	-3	1996	28	32.1	1972	830	0	.0	.0	10.0	2.5	17.7	.1
Dec	35.4	15.1	25.3	68+	2001	6	33.5	1996	-37+	1989	27	6.8	1989	1233	0	.0	.0	2.7	12.0	27.2	4.4
Ann	55.9	33.5	44.7	97	Jul 1953	18	72.0	Jul 1995	-43	Jan 1994	16	6.8	Dec 1989	7681	301	.0	2.0	217.5	55.6	154.8	24.3

+ 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: 1949-2001

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

084-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: WATERTOWN AP, NY

COOP ID: 309005

Climate Division: NY 9

NWS Call Sign: ART

Elevation: 322 Feet Lat: 44°00N

Lon: 76°01W

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	2.77	2.20	2.28	1998	8	7.45	1999	.51	1981	17.3	7.4	1.2	.2	.63	.89	1.30	1.66	2.02	2.41	2.84	3.35	4.03	5.11	6.12
Feb	2.22	2.14	2.12	1954	16	5.48	1971	.54	1987	13.8	6.3	.9	.1	.73	.94	1.25	1.52	1.77	2.03	2.32	2.65	3.08	3.75	4.37
Mar	2.41	2.12	1.85	1971	4	5.72	1999	.36	1973	12.7	6.2	1.1	.3	.67	.89	1.24	1.55	1.84	2.15	2.50	2.91	3.44	4.27	5.05
Apr	2.77	2.26	1.68	1961	10	5.32	1984	.95	1999	12.6	7.0	1.6	.4	.88	1.15	1.53	1.87	2.19	2.52	2.88	3.31	3.86	4.72	5.51
May	2.86	2.68	2.16	1956	30	5.54	1976	.88	1980	12.3	7.4	1.4	.2	1.07	1.33	1.72	2.04	2.34	2.65	2.99	3.38	3.88	4.65	5.35
Jun	2.84	2.60	2.14+	1987	22	6.22	1982	.33	1973	11.2	6.5	1.5	.4	.78	1.05	1.46	1.82	2.17	2.54	2.94	3.42	4.05	5.03	5.95
Jul	2.48	2.30	2.34	1959	6	5.58	1995	.78	1983	9.3	5.3	1.6	.4	.76	1.00	1.35	1.65	1.94	2.25	2.58	2.97	3.48	4.27	5.00
Aug	3.11	3.03	4.09	1981	8	7.70	1981	.90	1995	10.3	6.1	2.2	.7	1.12	1.42	1.84	2.19	2.53	2.87	3.25	3.69	4.24	5.10	5.89
Sep	3.91	3.54	2.53	1979	14	7.42	1975	1.66	1990	11.1	7.5	2.7	.8	1.81	2.15	2.62	3.00	3.36	3.72	4.10	4.54	5.08	5.91	6.66
Oct	3.10	3.05	2.29	1955	16	6.78	1995	.88	1984	12.5	7.6	1.8	.4	1.19	1.48	1.89	2.24	2.56	2.89	3.25	3.66	4.19	5.00	5.74
Nov	3.45	3.52	2.97	1963	29	5.88	1985	1.21	1976	15.2	8.7	1.7	.4	1.45	1.76	2.20	2.56	2.90	3.25	3.61	4.04	4.58	5.40	6.14
Dec	2.83	2.52	2.26	1995	10	6.68	1985	.32	1979	16.4	8.0	1.4	.3	.91	1.18	1.58	1.91	2.24	2.58	2.95	3.38	3.94	4.81	5.62
Ann	34.75	34.78	4.09	Aug 1981	8	7.70	Aug 1981	.32	Dec 1979	154.7	84.0	19.1	4.6	27.44	28.92	30.77	32.16	33.38	34.54	35.73	37.04	38.61	40.85	42.77

+ 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: 1949-2001

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

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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: WATERTOWN AP, NY

COOP ID: 309005

Climate Division: NY 9

NWS Call Sign: ART

Elevation: 322 Feet

Lat: 44°00N

Lon: 76°01W

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	27.4	22.9	6	4	13.9	1997	11	80.5	1999	46	1994	22	23	1994	12.8	7.3	3.0	1.5	.3	23.1	17.1	14.5	6.8
Feb	20.0	18.9	6	4	19.0	1972	19	44.4	1971	40	1993	24	22	1971	9.7	5.5	2.1	1.1	.3	21.0	16.7	13.4	7.2
Mar	12.2	11.6	3	2	21.0	1971	4	33.4	1999	31+	1993	1	17	1993	6.4	3.3	1.4	.6	.2	14.7	10.4	6.7	2.4
Apr	2.7	1.1	#	1	6.0	1993	3	13.5	1993	5+	1993	4	1	1975	2.3	1.0	.2	.1	.0	1.8	.5	.1	.0
May	#	#	#	0	1.0	1996	12	1.0	1996	#	1996	12	#	2000	.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	#	1983	.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	.2	#	#	0	2.0	1972	18	3.0	1972	2	1972	19	#	1992	.3	.1	.0	.0	.0	.1	.0	.0	.0
Nov	6.9	4.0	#	0	13.5	1995	16	28.6	1995	18	1995	17	5	1995	3.9	2.1	.7	.3	.0	4.2	2.1	1.2	.3
Dec	23.0	17.0	3	1	45.0	1995	10	92.9	1985	38	1985	29	14	1985	10.9	6.2	2.1	1.1	.1	17.0	11.0	7.2	3.2
Ann	92.4	75.5	N/A	N/A	45.0	Dec 1995	10	92.9	Dec 1985	46	Jan 1994	22	23	Jan 1994	46.3	25.5	9.5	4.7	.9	81.9	57.8	43.1	19.9

+ 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: WATERTOWN AP, NY

COOP ID: 309005

Climate Division: NY 9

NWS Call Sign: ART

Elevation: 322 Feet

Lat: 44°00N

Lon: 76°01W

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	6/09	6/04	6/01	5/28	5/25	5/21	5/17	5/10
32	6/02	5/27	5/22	5/18	5/15	5/11	5/07	5/03	4/27
28	5/11	5/07	5/04	5/02	4/30	4/27	4/25	4/22	4/18
24	4/27	4/23	4/21	4/19	4/17	4/15	4/13	4/10	4/07
20	4/20	4/16	4/13	4/11	4/08	4/06	4/04	4/01	3/27
16	4/06	4/02	3/31	3/29	3/27	3/25	3/23	3/20	3/17
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	8/30	9/04	9/08	9/11	9/14	9/17	9/21	9/24	9/30
32	9/09	9/14	9/18	9/21	9/25	9/28	10/01	10/05	10/10
28	9/21	9/25	9/28	10/01	10/04	10/06	10/09	10/12	10/17
24	10/02	10/08	10/12	10/15	10/19	10/22	10/26	10/30	11/04
20	10/15	10/20	10/24	10/27	10/31	11/03	11/06	11/10	11/15
16	10/29	11/04	11/08	11/12	11/16	11/19	11/23	11/27	12/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	130	123	117	113	108	104	99	94	87
32	153	146	141	136	132	128	123	118	111
28	176	169	164	160	157	153	149	144	137
24	204	197	192	188	184	181	176	172	165
20	226	218	213	209	204	200	196	190	183
16	254	247	242	237	233	229	225	219	212

* 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: WATERTOWN AP, NY

COOP ID: 309005

Climate Division: NY 9 NWS Call Sign: ART Elevation: 322 Feet Lat: 44°00N Lon: 76°01W

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	1433	1247	1062	652	321	99	19	43	206	536	830	1233	7681
60	1278	1107	907	503	193	33	1	8	100	388	680	1078	6276
57	1185	1023	814	415	132	13	0	2	57	305	590	985	5521
55	1123	967	752	358	98	7	0	0	37	254	530	923	5049
50	968	827	602	230	39	1	0	0	9	147	385	777	3985
32	455	366	172	10	0	0	0	0	0	3	46	315	1367

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	45	43	133	348	711	940	1135	1076	798	491	206	105	6031
55	0	0	0	6	96	257	422	364	145	29	0	0	1319
57	0	0	0	3	68	203	360	303	105	18	0	0	1060
60	0	0	0	1	37	133	268	216	57	8	0	0	720
65	0	0	0	0	9	49	131	97	14	1	0	0	301
70	0	0	0	0	1	10	42	27	1	0	0	0	81

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	6	9	50	163	471	711	898	841	573	279	89	15	6	15	65	228	699	1410	2308	3149	3722	4001	4090	4105
45	1	2	18	89	323	561	743	686	425	167	46	6	1	3	21	110	433	994	1737	2423	2848	3015	3061	3067
50	0	0	11	43	197	411	588	532	286	90	17	0	0	0	11	54	251	662	1250	1782	2068	2158	2175	2175
55	0	0	2	18	105	267	433	379	169	37	4	0	0	0	2	20	125	392	825	1204	1373	1410	1414	1414
60	0	0	0	3	44	151	284	229	85	12	0	0	0	0	0	3	47	198	482	711	796	808	808	808
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	34	102	274	436	593	546	347	155	44	6	0	1	35	137	411	847	1440	1986	2333	2488	2532	2538

(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