

# Climatology of the United States

## No. 20

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

**Station: BINGHAMTON BROOME CO AP, NY**

**1971-2000**

**COOP ID: 300687**

**Climate Division: NY 2**

**NWS Call Sign: BGM**

**Elevation: 1,600 Feet Lat: 42° 12N**

**Lon: 75° 59W**

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	28.4	15.0	21.7	63+	1998	8	31.1	1990	-20	1957	15	11.5	1977	1331	0	.0	.0	1.5	19.8	29.2	3.5
Feb	30.9	16.7	23.8	66	1954	16	32.5	1984	-15+	1979	18	13.0	1979	1156	0	.0	.0	1.9	15.4	25.9	2.0
Mar	40.6	24.7	32.7	82+	1998	31	39.4	2000	-7	1993	19	25.2	1984	997	1	.0	.0	7.4	7.3	24.0	.3
Apr	53.1	35.1	44.1	88	1990	28	49.2	1991	9	1982	7	36.2	1975	617	4	.0	.0	18.5	.7	11.9	.0
May	65.6	46.2	55.9	89+	1996	20	61.8	1991	25+	1978	1	50.1	1997	292	23	.0	.0	29.4	.0	.9	.0
Jun	73.4	54.4	63.9	94	1952	26	67.2	1995	33	1980	9	60.3	1985	90	73	.0	.2	30.0	.0	.0	.0
Jul	78.1	59.2	68.7	98	1988	16	73.0	1988	39	1963	9	64.7	2000	22	153	.0	1.2	31.0	.0	.0	.0
Aug	75.8	57.4	66.6	95	2001	9	71.6	1995	37	1965	30	63.3	1982	43	108	.0	.4	31.0	.0	.0	.0
Sep	67.8	49.9	58.8	96+	1953	3	62.8	1998	25	1974	24	55.5	1975	202	32	.0	.1	29.8	.0	.3	.0
Oct	56.7	39.6	48.1	85	1951	5	55.5	1971	17	1976	28	42.2	1972	514	2	.0	.0	24.0	@	6.2	.0
Nov	44.3	30.9	37.6	77	1982	2	44.1	1975	3	1976	30	30.6	1976	812	0	.0	.0	9.7	4.1	18.1	.0
Dec	33.4	20.8	27.1	65+	1984	29	34.0	1982	-18	1980	25	13.6	1989	1161	0	.0	.0	2.5	13.7	27.3	1.0
Ann	54.0	37.5	45.8	98	Jul 1988	16	73.0	Jul 1988	-20	Jan 1957	15	11.5	Jan 1977	7237	396	.0	1.9	216.7	61.0	143.8	6.8

+ 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](http://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: 1951-2001

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

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1971-2000**

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**Climate Division: NY 2**

**NWS Call Sign: BGM**

**Elevation: 1,600 Feet Lat: 42°12N**

**Lon: 75°59W**

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	2.58	2.17	1.64	1996	19	6.39	1979	.89	1981	16.7	6.4	1.5	.2	.86	1.10	1.46	1.76	2.06	2.36	2.69	3.08	3.57	4.34	5.05
Feb	2.46	2.04	2.16	1966	13	4.48	1998	.67	1987	13.5	6.2	1.4	.2	.93	1.16	1.48	1.76	2.02	2.29	2.58	2.91	3.34	3.99	4.59
Mar	2.97	2.78	1.57	1964	10	6.00	1980	.69	1981	14.9	7.4	1.9	.3	1.22	1.49	1.87	2.19	2.49	2.79	3.11	3.49	3.97	4.69	5.36
Apr	3.49	2.93	2.86	1980	9	8.57	1983	.98	1985	13.5	7.3	2.2	.5	1.18	1.51	1.99	2.40	2.79	3.20	3.64	4.15	4.82	5.85	6.79
May	3.55	3.30	2.91	1992	31	7.04	2000	1.29	1987	13.2	7.9	2.4	.4	1.31	1.64	2.12	2.52	2.90	3.29	3.72	4.21	4.84	5.80	6.69
Jun	3.80	3.45	3.57	2001	16	9.18	1972	.98	1979	12.6	7.8	2.4	.7	1.22	1.58	2.11	2.57	3.01	3.46	3.96	4.55	5.30	6.47	7.55
Jul	3.49	3.17	3.24	1976	11	7.36	1986	1.45	1979	11.3	7.0	2.3	.8	1.25	1.58	2.06	2.45	2.83	3.22	3.65	4.14	4.77	5.75	6.64
Aug	3.35	3.01	2.64	1959	31	6.79	1976	1.40	1999	10.5	6.8	2.2	.7	1.44	1.74	2.17	2.51	2.84	3.16	3.51	3.92	4.43	5.20	5.90
Sep	3.59	3.05	3.50	1985	27	9.66	1977	1.16	1978	11.6	6.5	2.5	.7	1.20	1.54	2.04	2.46	2.87	3.28	3.74	4.28	4.96	6.03	7.01
Oct	3.02	2.69	3.50	1962	11	7.19	1990	.90	1994	11.9	6.5	1.8	.6	.89	1.18	1.61	1.98	2.34	2.72	3.14	3.63	4.26	5.25	6.17
Nov	3.32	3.36	2.62	1972	8	7.52	1972	1.12	1976	15.1	7.4	1.9	.4	1.29	1.60	2.04	2.40	2.75	3.10	3.48	3.92	4.48	5.33	6.11
Dec	3.03	2.78	2.66	1983	13	6.11	1983	1.19	1988	16.2	7.0	1.9	.4	1.15	1.43	1.83	2.17	2.49	2.82	3.17	3.58	4.11	4.91	5.64
Ann	38.65	37.75	3.57	Jun 2001	16	9.66	Sep 1977	.67	Feb 1987	161.0	84.2	24.4	5.9	29.52	31.34	33.64	35.37	36.89	38.36	39.86	41.51	43.50	46.36	48.81

+ 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: 1951-2001

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

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COOP ID: 300687

Climate Division: NY 2

NWS Call Sign: BGM

Elevation: 1,600 Feet

Lat: 42° 12N

Lon: 75° 59W

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	19.9	17.7	5	4	16.1	1983	15	43.6	1987	32	1994	8	24	1994	16.9	5.3	1.8	.8	.1	23.5	16.8	12.2	4.1
Feb	16.2	12.3	5	4	21.0	1972	19	44.3	1972	24	1972	20	14	1994	13.3	4.6	1.3	.5	.1	21.3	15.7	11.7	5.4
Mar	12.6	10.1	2	2	18.6	1993	13	37.9	1993	35	1993	15	16	1993	10.2	3.1	1.3	.7	.1	13.2	8.2	5.2	2.5
Apr	4.6	2.4	#	1	9.0	1982	6	22.9	1983	9	1983	21	1+	1984	4.0	1.1	.4	.3	.0	2.3	.9	.5	.0
May	.2	.0	#	0	1.8	1977	9	2.1	1977	1+	1977	9	#	2000	.3	.1	.0	.0	.0	.1	.0	.0	.0
Jun	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1977	.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	.8	.0	#	0	6.8	1993	31	11.6	1993	3	1993	31	#	1993	.9	.2	.1	@	.0	.1	@	.0	.0
Nov	7.1	6.1	1	0	10.8	1995	14	17.9	1971	13+	1995	15	4	1995	6.5	2.4	.6	.3	@	5.2	2.3	1.4	.2
Dec	15.9	14.5	2	2	14.1	1993	21	31.8	1977	17+	1977	10	6+	1995	13.1	4.5	1.4	.7	.1	16.3	9.0	4.7	1.4
Ann	77.3	63.1	N/A	N/A	21.0	Feb 1972	19	44.3	Feb 1972	35	Mar 1993	15	24	Jan 1994	65.2	21.3	6.9	3.3	.4	82.0	52.9	35.7	13.6

+ 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

Complete documentation available from:

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**Elevation:** 1,600 Feet

**Lat:** 42° 12N

**Lon:** 75° 59W

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	6/04	5/29	5/24	5/20	5/17	5/13	5/09	5/05	4/28
32	5/12	5/08	5/05	5/03	5/01	4/29	4/26	4/24	4/20
28	4/29	4/25	4/23	4/21	4/19	4/17	4/15	4/12	4/09
24	4/20	4/16	4/13	4/11	4/09	4/07	4/04	4/02	3/29
20	4/11	4/07	4/04	4/02	3/31	3/28	3/26	3/23	3/19
16	4/06	4/02	3/29	3/27	3/24	3/21	3/19	3/15	3/11
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	9/14	9/19	9/22	9/25	9/28	10/01	10/04	10/07	10/12
32	9/24	9/29	10/03	10/06	10/09	10/12	10/15	10/19	10/24
28	10/02	10/09	10/13	10/17	10/21	10/24	10/28	11/02	11/08
24	10/21	10/27	10/31	11/03	11/06	11/10	11/13	11/17	11/23
20	10/30	11/05	11/10	11/14	11/17	11/21	11/25	11/29	12/06
16	11/14	11/19	11/23	11/26	11/29	12/02	12/06	12/09	12/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	156	148	143	138	133	129	124	118	111
32	177	172	167	164	160	157	154	149	143
28	206	198	193	188	184	180	175	170	162
24	233	225	220	215	211	207	202	197	189
20	255	247	241	236	231	226	221	215	207
16	273	265	259	254	250	245	240	234	227

\* 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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**Elevation: 1,600 Feet    Lat: 42°12N    Lon: 75°59W**

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	1331	1156	997	617	292	90	22	43	202	514	812	1161	7237
60	1187	1014	847	479	184	25	5	9	87	379	672	1020	5908
57	1094	930	754	393	129	9	0	2	47	299	582	927	5166
55	1032	874	692	338	98	4	0	0	29	250	523	865	4705
50	877	734	542	214	42	0	0	0	6	148	380	710	3653
32	362	274	126	8	0	0	0	0	0	4	44	245	1063

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	34	45	152	386	755	973	1154	1092	821	513	219	63	6207
55	0	0	6	27	130	292	442	380	171	34	5	0	1487
57	0	0	4	19	99	239	380	320	133	21	3	0	1218
60	0	0	2	11	62	166	289	235	85	10	2	0	862
65	0	0	1	4	23	73	153	108	32	2	0	0	396
70	0	0	0	1	5	20	60	36	9	0	0	0	131

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	7	11	63	202	519	742	916	853	592	290	91	18	7	18	81	283	802	1544	2460	3313	3905	4195	4286	4304
45	0	1	30	115	371	592	761	698	444	172	45	4	0	1	31	146	517	1109	1870	2568	3012	3184	3229	3233
50	0	0	14	62	237	443	606	543	302	94	20	2	0	0	14	76	313	756	1362	1905	2207	2301	2321	2323
55	0	0	4	28	133	299	451	390	179	40	4	0	0	0	4	32	165	464	915	1305	1484	1524	1528	1528
60	0	0	2	9	63	178	299	244	89	10	1	0	0	0	2	11	74	252	551	795	884	894	895	895
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	3	37	112	290	456	605	549	337	149	42	4	0	3	40	152	442	898	1503	2052	2389	2538	2580	2584

(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:  
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## 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](http://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.

- 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/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)