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: ANNAPOLIS POLICE BRKS, MD **COOP ID: 180193**

Climate Division: MD 6 **NWS Call Sign:** **Elevation: 25 Feet** **Lat: 39˚00N** **Lon: 76˚31W**

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	41.8	23.8	32.8	75+	1967	24	40.9	1998	-8	1984	22	21.8	1977	998	0	.0	.0	8.6	4.2	24.2	.3
Feb	45.0	25.1	35.1	80	1985	24	42.3	1976	0+	1979	10	24.0	1979	839	0	.0	.0	10.9	2.4	20.0	.1
Mar	54.3	32.8	43.6	92	1998	30	48.9	2000	10+	1960	11	38.3	1984	664	0	.0	@	22.7	.2	12.9	.0
Apr	65.1	42.1	53.6	94	1985	19	59.0	1994	22+	1956	1	48.6	1975	344	3	.0	.3	29.3	.0	2.4	.0
May	74.8	52.3	63.6	98+	1991	30	69.5	1991	33+	1956	25	60.0	1990	106	60	.0	1.8	31.0	.0	.0	.0
Jun	83.2	61.6	72.4	101	1988	22	77.1	1994	42	1990	6	68.8	1979	6	229	.1	7.0	30.0	.0	.0	.0
Jul	87.7	67.3	77.5	103	1991	23	81.5	1993	47	1952	2	73.6	2000	0	387	.5	13.5	31.0	.0	.0	.0
Aug	85.3	65.8	75.6	103+	1983	20	79.6	1995	43	1951	24	71.8	1992	0	326	.2	8.5	31.0	.0	.0	.0
Sep	78.0	58.5	68.3	100+	1954	6	74.5	1998	30+	1951	29	64.3	1975	34	132	.0	2.4	30.0	.0	.0	.0
Oct	66.9	46.3	56.6	93	1954	4	63.2	1984	24	1952	21	49.0	1987	286	25	.0	@	30.8	.0	1.2	.0
Nov	55.7	36.2	46.0	81	1993	15	52.4	1999	10	1955	29	39.7	1976	572	0	.0	.0	23.9	.0	9.1	.0
Dec	46.8	28.6	37.7	78+	1998	6	44.6	1984	-1	1989	22	23.2	1989	846	0	.0	.0	14.0	1.7	19.1	@
Ann	65.4	45.0	55.2	103+	Jul 1991	23	81.5	Jul 1993	-8	Jan 1984	22	21.8	Jan 1977	4695	1162	.8	33.5	293.2	8.5	88.9	.4

\+ 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: 1951-2001

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

Issue Date: February 2004

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: ANNAPOLIS POLICE BRKS, MD **COOP ID: 180193**

Climate Division: MD 6 **NWS Call Sign:** **Elevation: 25 Feet** **Lat: 39˚00N** **Lon: 76˚31W**

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	3.49	3.18	2.50	1998	23	8.35	1978	.72	1981
Feb	2.95	2.50	2.02	1988	12	6.94	1979	.46	1977
Mar	4.17	3.72	3.75	2001	30	10.16	1994	1.21	1986
Apr	3.34	3.08	2.47	1961	13	8.42	1983	.53	1985
May	4.42	4.36	4.70	1997	26	7.49	1989	1.38	1986
Jun	3.56	3.62	2.52	2001	7	8.63	1972	.87	1988
Jul	3.98	3.40	4.15	1969	23	8.79	2000	1.01	1974
Aug	4.04	4.19	5.22	1955	13	9.71	1994	1.14	1982
Sep	4.25	3.80	8.32	1999	16	15.21	1999	.50	1997
Oct	3.56	3.32	3.26	1966	19	8.14	1995	.26	2000
Nov	3.33	3.01	2.10	1952	21	6.74	1972	.46	1981
Dec	3.69	3.31	2.42	1993	5	8.19	1983	.74	1980
Ann	44.78	42.07	8.32	Sep 1999	16	15.21	Sep 1999	.26	Oct 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.1	7.1	2.7	.9
Feb	9.8	5.6	2.3	.7
Mar	11.5	7.3	3.2	1.1
Apr	10.9	7.2	2.4	.6
May	12.3	7.9	3.0	1.3
Jun	9.9	6.3	2.5	.7
Jul	10.9	7.1	2.3	.9
Aug	9.6	6.0	2.7	1.2
Sep	8.8	5.3	2.2	1.1
Oct	8.2	5.1	2.2	1.0
Nov	9.7	5.5	2.5	.9
Dec	10.3	6.3	2.6	.9
Ann	123.0	76.7	30.6	11.3

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	1.12	1.45	1.94	2.35	2.76	3.18	3.63	4.17	4.86	5.93	6.93
Feb	.73	1.00	1.43	1.81	2.19	2.59	3.04	3.57	4.26	5.36	6.39
Mar	1.20	1.59	2.19	2.71	3.21	3.74	4.32	5.01	5.90	7.29	8.59
Apr	1.14	1.46	1.92	2.30	2.68	3.06	3.48	3.97	4.60	5.57	6.47
May	1.75	2.16	2.74	3.22	3.67	4.13	4.63	5.20	5.93	7.05	8.07
Jun	1.06	1.40	1.91	2.34	2.77	3.21	3.69	4.27	5.00	6.16	7.23
Jul	1.28	1.66	2.22	2.69	3.15	3.63	4.15	4.76	5.54	6.76	7.89
Aug	1.16	1.54	2.12	2.62	3.11	3.62	4.19	4.85	5.72	7.07	8.33
Sep	.75	1.13	1.75	2.33	2.92	3.56	4.29	5.18	6.36	8.26	10.07
Oct	.78	1.11	1.63	2.10	2.57	3.08	3.64	4.32	5.21	6.63	7.97
Nov	.85	1.16	1.65	2.08	2.50	2.94	3.44	4.03	4.80	6.01	7.15
Dec	.89	1.24	1.78	2.26	2.73	3.24	3.80	4.47	5.35	6.74	8.04
Ann	33.41	35.64	38.49	40.64	42.53	44.35	46.23	48.29	50.79	54.38	57.47

\+ 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

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

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

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: ANNAPOLIS POLICE BRKS, MD **COOP ID: 180193**

Climate Division: MD 6 **NWS Call Sign:** **Elevation: 25 Feet** **Lat: 39°00N** **Lon: 76°31W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	2.6	.9	1	#
Feb	.5	.0	1	0
Mar	.5	.0	#	0
Apr	.0	.0	0	0
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	.0	.0	0	0
Nov	.3	.0	#	0
Dec	.6	.0	#	0
Ann	4.5	.9	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	6.0	1988	8	10.5	1988	22	1996	12	6	1996
Feb	3.5	1980	28	3.5	1980	22	1983	12	5	1983
Mar	6.5	1993	13	6.5	1993	9	1993	14	1	1993
Apr	.0	0	0	.0	0	0	0	0	0	0
May	.0	0	0	.0	0	0	0	0	0	0
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	.0	0	0	.0	0	0	0	0	0	0
Oct	.0	0	0	.0	0	0	0	0	0	0
Nov	4.0	1989	23	4.0	1989	5	1987	11	#+	1989
Dec	2.5	1989	13	4.0	1993	7	1989	13	3	1989
Ann	6.5	Mar 1993	13	10.5	Jan 1988	22+	Jan 1996	12	6	Jan 1996

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	.8	.6	.3	.1	.0
Feb	.4	.3	.2	.0	.0
Mar	.2	.2	.1	.1	.0
Apr	.0	.0	.0	.0	.0
May	.0	.0	.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	.0	.0	.0	.0	.0
Nov	.1	.1	.1	.0	.0
Dec	.5	.4	.0	.0	.0
Ann	2.0	1.6	.7	.2	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	.9	.6	.1	.0
Feb	-9.9	-9.9	-9.9	-9.9
Mar	.2	.2	.1	.0
Apr	.0	.0	.0	.0
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	.0	.0	.0	.0
Nov	.1	.1	.0	.0
Dec	.4	.1	.0	.0
Ann	-9.9	-9.9	-9.9	-9.9

+ 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/normals/usnormals.html

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: ANNAPOLIS POLICE BRKS, MD **COOP ID: 180193**

Climate Division: MD 6 **NWS Call Sign:** **Elevation: 25 Feet** **Lat: 39˚00N** **Lon: 76˚31W**

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	5/03	4/28	4/25	4/22	4/19	4/16	4/13	4/10	4/05
32	4/17	4/13	4/11	4/08	4/06	4/04	4/02	3/30	3/27
28	4/12	4/07	4/03	3/31	3/29	3/26	3/23	3/20	3/15
24	3/28	3/23	3/20	3/17	3/15	3/12	3/10	3/06	3/02
20	3/22	3/14	3/08	3/03	2/27	2/22	2/17	2/11	2/03
16	3/09	3/02	2/25	2/21	2/17	2/13	2/09	2/03	1/26

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	10/07	10/13	10/17	10/20	10/23	10/26	10/30	11/02	11/08
32	10/13	10/19	10/23	10/27	10/31	11/03	11/07	11/11	11/18
28	10/29	11/03	11/07	11/10	11/13	11/17	11/20	11/24	11/29
24	11/09	11/15	11/19	11/23	11/26	11/29	12/03	12/07	12/13
20	11/26	12/02	12/06	12/10	12/14	12/17	12/21	12/25	1/01
16	12/03	12/12	12/18	12/23	12/28	1/02	1/07	1/14	1/24

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	211	203	196	191	186	181	176	170	161
32	228	221	215	211	207	202	198	192	185
28	252	244	238	234	229	224	220	214	206
24	275	269	264	259	256	252	247	243	236
20	322	311	303	296	289	283	276	268	256
16	>365	335	325	318	311	305	298	290	280

***** 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/normals/usnormals.html

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: ANNAPOLIS POLICE BRKS, MD **COOP ID: 180193**

Climate Division: MD 6 **NWS Call Sign:** **Elevation: 25 Feet** **Lat: 39˚00N** **Lon: 76˚31W**

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	998	839	664	344	106	6	0	0	34	286	572	846	4695
60	843	699	510	211	38	0	0	0	8	174	424	691	3598
57	750	615	419	144	17	0	0	0	3	121	340	603	3012
55	688	559	362	106	9	0	0	0	1	92	286	545	2648
50	543	429	228	41	1	0	0	0	0	40	169	404	1855
32	133	84	10	0	0	0	0	0	0	0	4	72	303

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	158	168	368	649	978	1213	1410	1349	1088	762	422	249	8814
55	0	0	7	65	273	523	697	636	399	141	14	9	2764
57	0	0	2	43	219	463	635	574	341	108	9	5	2399
60	0	0	0	20	148	373	542	481	256	68	2	0	1890
65	0	0	0	3	60	229	387	326	132	25	0	0	1162
70	0	0	0	0	15	109	236	181	45	7	0	0	593

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	51	85	221	473	783	1020	1194	1140	911	577	267	99	51	136	357	830	1613	2633	3827	4967	5878	6455	6722	6821
45	19	34	121	329	628	870	1039	985	761	425	163	43	19	53	174	503	1131	2001	3040	4025	4786	5211	5374	5417
50	4	17	60	200	473	720	884	830	611	280	80	16	4	21	81	281	754	1474	2358	3188	3799	4079	4159	4175
55	0	2	25	105	323	570	729	675	463	158	34	3	0	2	27	132	455	1025	1754	2429	2892	3050	3084	3087
60	0	0	7	47	191	420	574	520	317	72	9	0	0	0	7	54	245	665	1239	1759	2076	2148	2157	2157
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	31	52	131	278	491	692	831	792	605	340	143	50	31	83	214	492	983	1675	2506	3298	3903	4243	4386	4436

(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