

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: SAVAGE RIVER DAM, MD

1971-2000

COOP ID: 188065

Climate Division: MD 8

NWS Call Sign:

Elevation: 1,495 Feet Lat: 39°31N

Lon: 79°08W

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	33.4	18.9	26.2	70	1985	2	34.9	1974	-25	1963	24	14.0	1977	1204	0	.0	.0	3.0	12.4	28.9	2.1
Feb	37.0	20.2	28.6	75	1954	17	35.6	1976	-16	1973	17	17.0	1978	1018	0	.0	.0	5.1	8.4	25.0	1.8
Mar	46.6	27.6	37.1	83	1989	28	43.1	1973	-4	1960	11	30.4	1984	864	0	.0	.0	13.4	2.9	22.7	.1
Apr	58.2	36.6	47.4	90	1976	19	51.9	1994	14	1985	10	40.7	1975	528	0	.0	@	23.4	.2	10.4	.0
May	68.1	46.4	57.3	91	2000	8	64.3	1991	24	1963	1	52.0	1997	261	20	.0	.1	30.4	.0	1.4	.0
Jun	75.9	55.0	65.5	96	1999	10	68.5	1994	33	1966	1	61.1	1972	63	75	.0	.5	30.0	.0	.0	.0
Jul	79.5	59.8	69.7	101	1999	24	75.5	1999	40+	1953	11	66.4	2000	17	162	@	2.2	31.0	.0	.0	.0
Aug	78.3	58.3	68.3	100	1999	1	72.7	1988	36+	1982	29	65.0	1982	30	133	@	2.0	31.0	.0	.0	.0
Sep	71.3	51.7	61.5	98+	1953	2	65.7	1998	28+	1957	28	57.2	1975	128	23	.0	.3	30.0	.0	.3	.0
Oct	60.0	40.0	50.0	92	1953	1	56.5	1984	17+	1969	24	45.0	1976	466	1	.0	.0	27.9	.0	7.5	.0
Nov	48.4	32.3	40.4	78	1961	4	46.9	1985	4	1951	21	33.2	1976	741	0	.0	.0	15.0	1.3	17.9	.0
Dec	37.8	24.1	31.0	71	2001	6	39.2	1984	-12+	1983	25	19.5	1989	1055	0	.0	.0	5.4	7.8	26.6	.6
Ann	57.9	39.2	48.6	101	Jul 1999	24	75.5	Jul 1999	-25	Jan 1963	24	14.0	Jan 1977	6375	414	.0	5.1	245.6	33.0	140.7	4.6

+ 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: 1948-2001

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

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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	2.89	3.02	2.11	1952	28	6.61	1996	.55	1981	13.2	6.9	1.9	.5	.78	1.05	1.47	1.84	2.20	2.57	2.99	3.49	4.14	5.15	6.10
Feb	2.47	2.21	2.46	2000	19	4.90	1979	.79	1976	10.8	5.8	1.5	.3	.77	1.01	1.36	1.65	1.94	2.24	2.57	2.95	3.45	4.22	4.94
Mar	3.28	3.25	1.91	1954	1	5.95	1994	.43	1995	12.2	7.3	2.1	.6	1.01	1.32	1.79	2.19	2.57	2.97	3.42	3.93	4.60	5.64	6.61
Apr	3.38	2.89	2.42	1964	29	7.33	1993	1.07	1997	13.2	7.5	2.1	.7	1.02	1.34	1.82	2.24	2.64	3.05	3.51	4.05	4.75	5.83	6.84
May	4.24	4.19	2.36	1999	8	8.34	1996	1.90	1993	14.1	9.0	3.1	.5	2.06	2.43	2.92	3.32	3.69	4.05	4.45	4.89	5.45	6.29	7.05
Jun	3.67	3.77	3.37	1995	28	7.41	1974	1.02	1999	12.4	7.9	2.4	.5	1.39	1.73	2.22	2.63	3.01	3.41	3.84	4.33	4.97	5.94	6.83
Jul	4.19	3.78	4.38	1949	12	10.42	1990	1.45	1988	11.9	7.7	2.8	.9	1.42	1.82	2.40	2.89	3.36	3.84	4.37	4.99	5.78	7.01	8.13
Aug	3.37	2.92	2.65	1949	18	6.36	1975	1.76	1999	10.9	7.0	1.9	.6	1.56	1.85	2.26	2.59	2.89	3.20	3.53	3.90	4.38	5.09	5.73
Sep	3.48	3.12	6.63	1996	7	10.80	1996	.31	1985	10.4	6.8	2.2	.7	.70	1.02	1.53	1.99	2.47	2.97	3.54	4.23	5.14	6.60	7.98
Oct	2.81	2.55	5.58	1954	16	8.83	1976	.53	1992	9.9	5.5	1.8	.7	.62	.88	1.30	1.67	2.04	2.44	2.88	3.41	4.11	5.23	6.28
Nov	3.00	2.92	3.58	1985	5	11.57	1985	.14	1998	11.4	5.7	2.1	.6	.59	.86	1.30	1.71	2.12	2.55	3.05	3.65	4.44	5.70	6.90
Dec	2.74	2.53	3.00	1974	2	5.87	1972	.78	1998	12.5	5.8	1.7	.5	.86	1.12	1.50	1.83	2.15	2.48	2.85	3.27	3.82	4.68	5.47
Ann	39.52	39.03	6.63	Sep 1996	7	11.57	Nov 1985	.14	Nov 1998	142.9	82.9	25.6	7.1	30.71	32.47	34.70	36.36	37.82	39.23	40.67	42.24	44.14	46.86	49.19

+ 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: 1948-2001

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

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

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Station: SAVAGE RIVER DAM, MD

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Climate Division: MD 8

NWS Call Sign:

Elevation: 1,495 Feet

Lat: 39°31N

Lon: 79°08W

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	11.2	11.0	4	2	11.0	1978	20	28.0	1978	32	1996	14	17	1996	4.2	4.1	1.3	.6	.2	15.3	7.6	5.2	2.4
Feb	8.7	6.3	4	3	19.0	1983	12	27.3	1979	34	1979	20	16	1978	2.4	2.1	.8	.4	.1	10.1	5.7	3.4	1.5
Mar	5.1	2.6	2	#	8.0	1984	9	17.0	1984	27	1993	14	11	1994	2.3	2.2	.4	.2	.0	3.9	1.5	.6	.0
Apr	.8	.0	#	#	3.0	1971	7	4.0	1987	4	1982	9	#+	1997	.5	.4	@	.0	.0	.4	@	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	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	#	1990	27	#+	1990	#+	1980	27	#+	1980	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.6	#	#	#	12.0	1971	25	13.0	1971	12	1971	25	2	1995	.9	.7	.1	@	@	1.5	.3	.1	@
Dec	4.8	4.0	1	#	8.0	1974	2	13.1	1985	27	1992	12	8	1992	2.1	1.8	.2	@	.0	7.3	3.2	1.5	.0
Ann	32.2	23.9	N/A	N/A	19.0	Feb 1983	12	28.0	Jan 1978	34	Feb 1979	20	17	Jan 1996	12.4	11.3	2.8	1.2	.3	38.5	18.3	10.8	3.9

+ 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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NWS Call Sign:

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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	6/03	5/29	5/25	5/21	5/18	5/15	5/12	5/08	5/02
32	5/15	5/11	5/09	5/06	5/04	5/02	4/29	4/26	4/23
28	5/02	4/27	4/24	4/21	4/18	4/16	4/13	4/10	4/05
24	4/14	4/11	4/08	4/06	4/04	4/01	3/30	3/27	3/24
20	4/09	4/04	3/31	3/28	3/25	3/22	3/19	3/15	3/10
16	3/30	3/25	3/21	3/18	3/14	3/11	3/08	3/04	2/26
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	9/15	9/19	9/22	9/24	9/27	9/29	10/02	10/05	10/09
32	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/24
28	10/08	10/13	10/17	10/20	10/23	10/26	10/30	11/02	11/08
24	10/22	10/27	10/30	11/02	11/05	11/07	11/10	11/14	11/18
20	11/04	11/09	11/14	11/17	11/20	11/24	11/27	12/01	12/07
16	11/14	11/20	11/25	11/29	12/03	12/06	12/10	12/15	12/21
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	148	142	138	134	131	127	124	119	113
32	177	171	166	162	159	155	151	147	141
28	210	202	197	192	187	183	178	172	164
24	233	226	222	218	214	211	207	202	196
20	264	256	250	245	240	235	230	224	216
16	285	278	272	267	262	258	253	247	239

* 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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NWS Call Sign:

Elevation: 1,495 Feet Lat: 39°31N Lon: 79°08W

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	1204	1018	864	528	261	63	17	30	128	466	741	1055	6375
60	1049	878	709	381	149	16	1	5	44	322	591	900	5045
57	956	794	616	296	98	5	0	0	19	243	502	807	4336
55	894	738	555	243	70	2	0	0	10	197	444	745	3898
50	739	598	410	131	24	0	0	0	1	105	307	597	2912
32	271	181	61	1	0	0	0	0	0	1	24	166	705

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	90	86	220	463	782	1002	1168	1126	885	559	273	134	6788
55	0	0	1	15	139	315	455	413	205	42	3	0	1588
57	0	0	0	7	105	258	393	351	154	26	1	0	1295
60	0	0	0	2	63	178	301	263	89	11	0	0	907
65	0	0	0	0	20	75	162	133	23	1	0	0	414
70	0	0	0	0	5	18	65	50	2	0	0	0	140

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	13	26	97	269	554	777	935	895	663	338	123	34	13	39	136	405	959	1736	2671	3566	4229	4567	4690	4724
45	1	5	48	163	401	627	780	740	513	209	59	12	1	6	54	217	618	1245	2025	2765	3278	3487	3546	3558
50	0	0	21	86	263	478	625	585	367	112	22	1	0	0	21	107	370	848	1473	2058	2425	2537	2559	2560
55	0	0	6	40	150	331	470	430	231	49	6	0	0	0	6	46	196	527	997	1427	1658	1707	1713	1713
60	0	0	0	13	70	198	318	279	125	14	0	0	0	0	0	13	83	281	599	878	1003	1017	1017	1017
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	5	22	73	176	331	493	618	583	411	205	77	19	5	27	100	276	607	1100	1718	2301	2712	2917	2994	3013

(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