

Climatography of the United States

No. 20

1971-2000

Station: POTOMAC, MT

COOP ID: 246685

Climate Division: MT 1

NWS Call Sign:

Elevation: 3,620 Feet Lat: 46° 53N

Lon: 113° 34W

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	29.2	7.5	18.4	54+	1989	31	31.2	1994	-43	1979	1	-.6	1979	1447	0	.0	.0	.5	14.8	30.2	8.0
Feb	36.4	11.2	23.8	64	1995	24	31.8	1991	-42	1981	10	13.5	1989	1154	0	.0	.0	2.1	6.4	27.7	5.0
Mar	45.6	19.3	32.5	73	1978	29	39.9	1992	-30	1965	24	26.2	1975	1009	0	.0	.0	10.6	1.4	29.8	.9
Apr	56.3	24.8	40.6	86	1987	28	45.7	1987	5	1982	8	32.9	1975	733	0	.0	.0	22.7	.1	24.8	.0
May	65.3	32.4	48.9	97	1986	29	53.5	1993	13	1999	8	44.7	1974	501	0	.0	.2	29.8	.0	15.5	.0
Jun	73.1	39.2	56.2	97	1977	6	61.8	1986	23	1965	28	52.5	1975	272	7	.0	1.3	30.0	.0	3.9	.0
Jul	81.5	41.7	61.6	101	1985	9	66.8	1985	24	1971	7	55.4	1993	149	43	.1	6.2	31.0	.0	1.3	.0
Aug	81.9	39.3	60.6	102+	1969	24	65.0	1983	22+	1965	31	55.1	1980	165	29	@	6.5	30.9	.0	2.9	.0
Sep	71.2	31.8	51.5	97	1998	5	58.1	1998	10+	2000	24	46.2	1971	408	3	.0	1.1	29.3	.0	15.9	.0
Oct	57.5	23.4	40.5	88+	1992	2	47.0	1988	-9	1991	29	37.2	1985	761	0	.0	.0	23.8	.3	26.6	.1
Nov	38.4	16.6	27.5	72	1999	13	34.2	1999	-21+	1993	27	17.5	1985	1124	0	.0	.0	4.4	6.0	28.1	2.1
Dec	28.8	8.2	18.5	62	1975	9	26.1	1999	-50+	1983	24	2.8	1983	1442	0	.0	.0	.3	17.0	30.2	6.7
Ann	55.4	24.6	40.1	102+	Aug 1969	24	66.8	Jul 1985	-50+	Dec 1983	24	-.6	Jan 1979	9165	82	.1	15.3	215.4	46.0	236.9	22.8

+ 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: 1964-2001

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

Climatology 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: POTOMAC, MT

COOP ID: 246685

Climate Division: MT 1

NWS Call Sign:

Elevation: 3,620 Feet Lat: 46°53N

Lon: 113°34W

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	1.48	1.33	1.11	1982	23	3.37	1996	.13	1985	12.5	5.1	.3	@	.39	.53	.75	.94	1.12	1.32	1.53	1.79	2.12	2.64	3.13
Feb	1.09	1.06	.90	1972	27	2.70	1986	.15	1991	8.7	3.5	.3	.0	.23	.33	.49	.63	.78	.94	1.11	1.32	1.60	2.05	2.47
Mar	.79	.80	.91	1997	11	2.02	1989	.12	1985	8.3	2.5	.2	.0	.17	.24	.36	.46	.57	.68	.81	.96	1.16	1.49	1.79
Apr	1.01	.95	1.19	1996	11	2.47	1992	.01	1977	7.9	3.1	.2	.1	.15	.24	.38	.52	.67	.83	1.01	1.24	1.54	2.04	2.51
May	1.78	1.54	1.40	1980	23	5.91	1980	.26	1973	9.9	5.3	.7	.1	.43	.60	.86	1.09	1.32	1.56	1.83	2.15	2.57	3.24	3.87
Jun	1.82	1.71	1.76	2001	4	3.55	1992	.02	1979	10.5	5.2	.9	.1	.31	.47	.73	.98	1.24	1.51	1.83	2.22	2.73	3.56	4.35
Jul	.97	.71	1.23	1989	26	3.30	1989	.00	1973	6.3	2.6	.3	.1	.04	.11	.25	.39	.55	.72	.93	1.19	1.55	2.15	2.75
Aug	1.05	.96	1.05	1978	13	2.49	1989	.00	2000	7.0	3.4	.5	.1	.11	.23	.41	.56	.72	.88	1.07	1.30	1.61	2.10	2.56
Sep	1.02	.84	1.23	1972	12	4.36	1985	.02	1979	6.3	3.0	.3	@	.08	.15	.28	.42	.58	.76	.97	1.24	1.61	2.24	2.86
Oct	1.02	.83	1.56	2000	1	4.38	1975	.03	1978	7.0	3.0	.4	.1	.06	.13	.25	.39	.55	.73	.95	1.23	1.63	2.30	2.96
Nov	1.45	1.30	1.21	1999	26	3.59	1995	.26	1979	10.5	5.1	.4	@	.31	.45	.66	.85	1.04	1.25	1.48	1.76	2.12	2.71	3.26
Dec	1.66	1.50	.97	1996	30	5.73	1996	.14	1985	11.7	5.3	.4	.0	.34	.49	.73	.96	1.18	1.42	1.69	2.02	2.45	3.15	3.80
Ann	15.14	15.00	1.76	Jun 2001	4	5.91	May 1980	.00+	Aug 2000	106.6	47.1	4.9	.6	9.81	10.80	12.10	13.10	13.99	14.86	15.77	16.79	18.02	19.84	21.42

+ 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: 1964-2001

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

Complete documentation available from:

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

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Station: POTOMAC, MT

COOP ID: 246685

Climate Division: MT 1

NWS Call Sign:

Elevation: 3,620 Feet

Lat: 46° 53N

Lon: 113° 34W

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	17.5	19.0	9	7	14.0	1982	23	51.0	1996	32	1982	23	22+	1982	7.7	5.7	1.8	.7	.1	29.0	26.9	20.0	10.1
Feb	9.8	10.5	8	5	8.0	1976	26	22.0	1986	31	1997	12	29	1997	4.5	3.6	1.0	.3	.0	22.6	16.7	12.6	4.1
Mar	4.0	3.3	3	1	9.0	1997	11	16.0	1989	38	1997	14	26	1997	2.5	1.9	.6	.2	.0	9.3	6.2	4.0	1.5
Apr	.6	.0	#	0	2.0	1989	1	4.5	1989	10	1997	2	3	1997	.3	.3	.0	.0	.0	.2	.0	.0	.0
May	.1	.0	#	0	1.5	1980	23	1.5	1980	2	1980	23	#	1980	.1	@	.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	.1	.0	0	0	2.5	1984	23	2.5	1984	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	.6	.0	#	0	6.8	1975	21	6.8	1975	7	1975	21	1	1975	.6	.4	.1	.1	.0	.7	.2	.2	.0
Nov	9.5	7.0	2	1	12.0	1975	30	31.0	1996	20	1975	30	6	1996	4.0	3.2	1.3	.4	.2	9.9	5.1	2.8	1.1
Dec	13.1	12.3	6	4	14.0	1996	24	27.4	1983	49	1996	28	24	1996	8.1	6.1	2.0	.7	@	22.9	16.9	10.2	5.7
Ann	55.3	52.1	N/A	N/A	14.0+	Dec 1996	24	51.0	Jan 1996	49	Dec 1996	28	29	Feb 1997	27.8	21.2	6.8	2.4	.3	94.6	72.0	49.8	22.5

+ 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

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Station: POTOMAC, MT

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Climate Division: MT 1

NWS Call Sign:

Elevation: 3,620 Feet

Lat: 46° 53N

Lon: 113° 34W

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	8/02	7/29	7/25	7/22	7/20	7/17	7/14	7/11	7/06
32	7/22	7/14	7/09	7/05	7/01	6/26	6/22	6/17	6/09
28	6/27	6/20	6/14	6/10	6/06	6/02	5/28	5/23	5/16
24	6/06	5/31	5/26	5/22	5/18	5/15	5/11	5/06	4/29
20	5/15	5/09	5/05	5/01	4/27	4/24	4/20	4/15	4/09
16	5/04	4/25	4/20	4/14	4/10	4/05	3/31	3/25	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	8/01	8/05	8/08	8/10	8/13	8/15	8/17	8/20	8/24
32	8/08	8/13	8/17	8/20	8/23	8/26	8/29	9/02	9/07
28	8/23	8/28	8/31	9/03	9/06	9/09	9/12	9/15	9/20
24	9/04	9/08	9/11	9/14	9/16	9/18	9/21	9/24	9/28
20	9/20	9/25	9/29	10/02	10/05	10/08	10/11	10/14	10/19
16	9/29	10/04	10/08	10/11	10/14	10/17	10/21	10/25	10/30
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	42	36	31	27	23	19	15	10	4
32	76	68	62	57	53	48	43	37	29
28	116	107	101	96	92	87	82	76	67
24	143	135	129	125	120	116	111	105	97
20	187	178	171	165	160	154	149	142	133
16	215	205	198	192	187	181	175	169	159

* 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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Climate Division: MT 1

NWS Call Sign:

Elevation: 3,620 Feet Lat: 46° 53N Lon: 113° 34W

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	1447	1154	1009	733	501	272	149	165	408	761	1124	1442	9165
60	1292	1014	854	583	348	148	66	73	269	606	974	1287	7514
57	1199	930	761	493	262	92	32	37	196	513	884	1194	6593
55	1137	874	699	434	209	62	18	21	153	451	824	1132	6014
50	982	734	544	294	102	16	3	3	69	299	674	977	4697
32	476	273	107	15	0	0	0	0	0	10	206	450	1537

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	52	43	121	273	522	724	917	888	585	272	71	31	4499
55	0	0	0	1	18	96	222	196	47	0	0	0	580
57	0	0	0	0	9	66	174	149	30	0	0	0	428
60	0	0	0	0	2	33	114	93	14	0	0	0	256
65	0	0	0	0	0	7	43	29	3	0	0	0	82
70	0	0	0	0	0	0	11	6	0	0	0	0	17

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	0	0	15	111	305	507	691	676	380	118	7	0	0	0	15	126	431	938	1629	2305	2685	2803	2810	2810
45	0	0	0	44	175	359	536	521	244	42	0	0	0	0	0	44	219	578	1114	1635	1879	1921	1921	1921
50	0	0	0	13	85	223	382	367	131	12	0	0	0	0	0	13	98	321	703	1070	1201	1213	1213	1213
55	0	0	0	0	25	113	237	225	51	1	0	0	0	0	0	0	25	138	375	600	651	652	652	652
60	0	0	0	0	7	44	115	98	15	0	0	0	0	0	0	0	7	51	166	264	279	279	279	279
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	3	34	132	256	358	483	486	329	158	11	0	0	3	37	169	425	783	1266	1752	2081	2239	2250	2250

(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