

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: SAINT REGIS 1 NE, MT

1971-2000

COOP ID: 247318

Climate Division: MT 1

NWS Call Sign:

Elevation: 2,660 Feet Lat: 47° 18N

Lon: 115° 05W

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	31.2	16.1	23.7	61	1962	31	32.4	1994	-32	1962	21	7.7	1979	1282	0	.0	.0	.4	11.5	29.7	3.4
Feb	38.1	19.5	28.8	67	1995	24	37.7	1992	-26	1996	2	16.5	1989	1015	0	.0	.0	2.9	5.0	27.0	1.7
Mar	48.0	25.3	36.7	74	1994	31	43.6	1992	-11	1965	24	31.5	1976	879	0	.0	.0	14.1	.7	25.9	.2
Apr	58.0	31.1	44.6	90	1987	27	50.0	1987	10	1966	19	35.3	1975	614	0	.0	@	25.7	.0	17.6	.0
May	67.2	36.6	51.9	96+	1986	31	57.8	1993	20+	1999	9	46.0	1975	411	4	.0	.5	30.6	.0	9.2	.0
Jun	75.3	43.2	59.3	99	1986	18	64.5	1986	24	2000	3	54.8	1976	190	19	.0	2.8	30.0	.0	1.7	.0
Jul	83.7	45.8	64.8	102+	1979	22	70.1	1998	27	2000	5	58.2	1993	94	86	.4	10.6	31.0	.0	.4	.0
Aug	84.1	45.0	64.6	108	1961	4	67.6	1994	28+	1993	25	59.4	1980	93	79	.6	10.5	31.0	.0	.4	.0
Sep	73.1	37.5	55.3	100	1967	1	62.9	1990	17	2000	23	50.1	1971	304	12	.0	1.6	29.8	.0	7.7	.0
Oct	58.0	30.0	44.0	89	1963	1	48.2	1988	5	1971	29	40.1	1984	652	0	.0	.0	26.0	.1	19.9	.0
Nov	39.8	23.8	31.8	72	1999	12	37.2	1989	-12+	1993	24	20.0	1985	995	0	.0	.0	5.2	4.0	24.2	.6
Dec	31.5	17.7	24.6	53	1962	7	30.6	1979	-34	1968	30	14.4	1983	1253	0	.0	.0	.1	13.1	29.7	2.3
Ann	57.3	31.0	44.2	108	Aug 1961	4	70.1	Jul 1998	-34	Dec 1968	30	7.7	Jan 1979	7782	200	1.0	26.0	226.8	34.4	193.4	8.2

+ 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: 1960-2001

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

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Climate Division: MT 1

NWS Call Sign:

Elevation: 2,660 Feet Lat: 47°18N

Lon: 115°05W

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	2.22	1.95	1.45	1982	17	6.44	1974	.13	1988	11.3	5.2	.7	.1	.27	.44	.75	1.06	1.39	1.76	2.18	2.71	3.42	4.60	5.74
Feb	1.71	1.38	1.32	1963	3	5.27	1972	.05	1973	9.5	4.7	.4	.0	.17	.29	.52	.76	1.02	1.31	1.65	2.08	2.67	3.65	4.60
Mar	1.38	1.23	.90	1963	29	3.42	1997	.32	1988	9.4	4.4	.2	.0	.39	.52	.72	.89	1.06	1.23	1.43	1.66	1.95	2.42	2.85
Apr	1.44	1.44	1.40	1996	24	3.42	1996	.12	1977	9.0	4.5	.2	@	.25	.38	.59	.79	.99	1.21	1.45	1.76	2.16	2.81	3.43
May	1.82	1.60	1.48	1980	16	5.02	1998	.49	1974	11.9	5.0	.6	.1	.50	.67	.93	1.16	1.39	1.62	1.88	2.19	2.60	3.23	3.82
Jun	1.66	1.65	1.79	1964	8	3.53	1998	.21	1979	10.3	5.7	.6	@	.37	.53	.77	.99	1.21	1.44	1.70	2.02	2.43	3.08	3.70
Jul	1.14	.99	1.34	1982	1	2.66	1993	.00	1985	6.9	3.4	.4	.1	.08	.20	.39	.55	.73	.92	1.14	1.41	1.77	2.36	2.94
Aug	1.26	1.12	1.22	1992	22	3.14	1985	.15	1973	7.1	3.9	.5	.1	.22	.33	.51	.68	.86	1.05	1.27	1.54	1.90	2.47	3.02
Sep	1.30	.99	1.70	1986	9	4.99	1986	.17	1990	7.5	3.9	.6	.1	.16	.26	.44	.62	.82	1.03	1.28	1.59	2.01	2.70	3.37
Oct	1.56	1.44	1.67	1994	27	4.08	1994	.00+	1987	8.4	4.4	.8	.1	.00	.37	.69	.93	1.16	1.39	1.65	1.94	2.33	2.94	3.51
Nov	2.23	2.12	1.84	1964	24	6.02	1973	.02	1987	12.8	6.4	.7	.1	.30	.48	.80	1.11	1.44	1.80	2.22	2.73	3.42	4.55	5.65
Dec	2.27	1.97	1.28	1996	29	7.15	1996	.35	1987	12.2	5.2	.6	.1	.39	.59	.92	1.23	1.55	1.90	2.29	2.77	3.42	4.45	5.44
Ann	19.99	19.34	1.84	Nov 1964	24	7.15	Dec 1996	.00+	Oct 1987	116.3	56.7	6.3	.8	12.82	14.15	15.89	17.23	18.43	19.61	20.83	22.19	23.86	26.31	28.45

+ 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: 1960-2001

(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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Climate Division: MT 1

NWS Call Sign:

Elevation: 2,660 Feet

Lat: 47° 18N

Lon: 115° 05W

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	3.0	-99.9	7	6	7.6	1996	19	12.0	1999	30	1997	1	25	1997	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Feb	6.3	-99.9	6	4	8.0	1994	23	19.0	2000	25	1997	12	21	1997	5.0	3.8	1.7	.5	.0	-9.9	-9.9	-9.9	-9.9
Mar	2.0	-99.9	1	#	10.0	1998	4	10.0	1998	17	1997	15	11	1997	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Apr	.4	#	#	0	2.0	1997	9	3.0	1997	##	2000	24	##	2000	.4	.3	.0	.0	.0	.0	.0	.0	.0
May	#	.0	#	0	#	1999	4	#	1999	4	1990	9	2	1990	.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	.2	.0	#	0	2.0	1992	15	2.0	1992	##	1999	15	##	1999	.1	.1	.0	.0	.0	.0	.0	.0	.0
Nov	7.3	-99.9	1	#	8.0	1995	7	36.5	1996	19	1996	27	7	1996	4.6	3.8	1.6	.6	.0	-9.9	-9.9	-9.9	-9.9
Dec	25.6	16.0	5	2	10.0	1996	29	77.0	1996	41	1996	29	23	1996	7.8	6.6	2.5	1.2	.2	-9.9	-9.9	-9.9	-9.9
Ann	44.8	-9.9	N/A	N/A	10.0+	Mar 1998	4	77.0	Dec 1996	41	Dec 1996	29	25	Jan 1997	-9.9	-9.9	-9.9	-9.9	-9.9	-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:

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No. 20 1971-2000

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Climate Division: MT 1

NWS Call Sign:

Elevation: 2,660 Feet

Lat: 47° 18N

Lon: 115° 05W

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	7/31	7/23	7/17	7/12	7/07	7/02	6/27	6/21	6/12
32	7/07	6/29	6/23	6/18	6/13	6/08	6/03	5/28	5/20
28	6/15	6/06	5/30	5/24	5/19	5/13	5/07	5/01	4/21
24	5/24	5/16	5/10	5/05	4/30	4/26	4/20	4/14	4/06
20	5/06	4/26	4/19	4/13	4/07	4/02	3/27	3/19	3/09
16	4/07	3/30	3/24	3/18	3/14	3/09	3/03	2/25	2/17
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	8/05	8/11	8/15	8/19	8/23	8/27	8/31	9/04	9/10
32	8/24	8/29	9/02	9/05	9/09	9/12	9/15	9/19	9/25
28	9/04	9/10	9/13	9/17	9/20	9/23	9/26	9/30	10/06
24	9/17	9/23	9/28	10/02	10/05	10/09	10/13	10/17	10/23
20	9/25	10/03	10/10	10/15	10/20	10/25	10/30	11/05	11/14
16	10/17	10/25	10/31	11/06	11/11	11/15	11/21	11/27	12/05
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	81	69	61	53	46	40	32	24	12
32	120	108	100	93	87	80	74	65	54
28	157	146	137	130	123	117	109	101	89
24	190	179	171	164	157	151	144	136	124
20	237	223	212	203	195	186	177	167	152
16	276	264	255	248	241	234	227	218	206

* 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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COOP ID: 247318

Climate Division: MT 1

NWS Call Sign:

Elevation: 2,660 Feet Lat: 47°18N Lon: 115°05W

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	1282	1015	879	614	411	190	94	93	304	652	995	1253	7782
60	1127	875	724	466	271	90	31	31	183	497	845	1098	6238
57	1034	791	631	380	199	49	13	14	124	404	755	1005	5399
55	972	735	569	325	158	29	7	7	91	343	695	943	4874
50	817	595	416	201	78	6	0	1	33	198	547	788	3680
32	313	178	40	5	0	0	0	0	0	2	132	281	951

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	55	88	183	381	617	818	1015	1008	698	374	127	51	5415
55	0	0	0	11	61	158	310	303	99	1	0	0	943
57	0	0	0	6	40	117	254	247	72	0	0	0	736
60	0	0	0	2	19	68	178	172	41	0	0	0	480
65	0	0	0	0	4	19	86	79	12	0	0	0	200
70	0	0	0	0	0	3	27	23	3	0	0	0	56

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	2	45	190	395	605	798	792	486	184	23	0	0	2	47	237	632	1237	2035	2827	3313	3497	3520	3520
45	0	0	7	91	254	455	643	637	340	82	2	0	0	0	7	98	352	807	1450	2087	2427	2509	2511	2511
50	0	0	0	39	131	308	488	482	208	28	0	0	0	0	0	39	170	478	966	1448	1656	1684	1684	1684
55	0	0	0	13	57	176	334	328	104	4	0	0	0	0	0	13	70	246	580	908	1012	1016	1016	1016
60	0	0	0	0	12	79	194	188	35	0	0	0	0	0	0	0	12	91	285	473	508	508	508	508
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	4	55	158	291	401	515	517	364	164	11	0	0	4	59	217	508	909	1424	1941	2305	2469	2480	2480

(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