Station: DARBY, MT

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

2000 COOP ID: 242221

Climate Division: MT 1 NWS Call Sign: Elevation: 3,880 Feet Lat: 46°01N Lon: 114°11W

									r	Tempe	eratur	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 65		Mean	Numb	er of I	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	35.9	18.5	27.2	61+	1994	23	37.5	1994	-36	1963	11	8.3	1979	1173	0	.0	.0	3.1	9.4	27.9	3.6
Feb	42.3	21.5	31.9	70	1995	25	38.8	1992	-28	1989	3	19.6	1993	926	0	.0	.0	7.1	4.6	25.0	1.7
Mar	50.6	27.1	38.9	78	1978	29	46.6	1986	-13	1955	26	33.2	1976	810	0	.0	.0	16.8	.7	24.9	.2
Apr	58.7	32.6	45.7	84+	1992	28	51.1	1987	8	1977	2	38.7	1975	580	0	.0	.0	24.4	.0	16.5	.0
May	67.4	39.8	53.6	95	1986	31	58.5	1992	17	1954	2	48.9	1996	357	2	.0	.3	30.0	.0	5.6	.0
Jun	75.4	45.6	60.5	98	1970	26	66.8	1986	25	1952	13	56.1	1975	164	30	.0	1.9	30.0	.0	.7	.0
Jul	83.8	49.0	66.4	103	1973	10	72.1	1985	31+	1971	7	58.7	1993	67	111	.2	8.0	31.0	.0	@	.0
Aug	83.7	48.3	66.0	102+	1969	24	70.3	1983	27	1992	25	60.8	1980	78	109	@	7.9	31.0	.0	.2	.0
Sep	73.3	41.1	57.2	98+	1967	2	64.4	1998	19+	1985	30	52.4	1986	252	18	.0	.9	29.6	.0	3.7	.0
Oct	61.7	33.4	47.6	88+	1996	5	53.2	1988	0	1971	29	43.1	1984	540	0	.0	.0	26.6	.1	14.8	@
Nov	44.6	25.4	35.0	74	1988	1	41.1	1999	-25	1959	16	26.5	1985	901	0	.0	.0	9.1	3.4	23.8	.6
Dec	36.4	18.9	27.7	61+	1976	16	35.6	1980	-34	1983	24	13.5	1983	1158	0	.0	.0	2.5	8.3	28.3	2.5
Ann	59.5	33.4	46.5	103	Jul 1973	10	72.1	Jul 1985	-36	Jan 1963	11	8.3	Jan 1979	7006	270	.2	19.0	241.2	26.5	171.4	8.6

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 042-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽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

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

COOP ID: 242221

Station: DARBY, MT

Climate Division: MT 1 NWS Call Sign: Elevation: 3,880 Feet Lat: 46°01N Lon: 114°11W

										Pı	recipi	tation	(incl	nes)										
	Mo	ans/	P	recip	itatio	on Total	S			М	ean N	Numbo Pays (3		Proba	ability th		nonthly/	annual j	precipita ated am		ll be equ		· less tha	ın the
		ans(1)				Extremes	5			D	aily Pre	cipitatio	n		Th				_	incomplet			ion	
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	1.46	1.22	.98	1953	17	3.45	1975	.22	1981	10.8	4.8	.5	.0	.33	.47	.68	.87	1.06	1.27	1.49	1.77	2.13	2.70	3.23
Feb	1.08	.85	1.23	1995	1	4.46	1986	.16	1991	8.0	3.8	.3	@	.14	.22	.37	.53	.68	.86	1.07	1.32	1.67	2.23	2.78
Mar	.97	.84	1.10	1973	22	2.33	1974	.09	1998	8.0	3.0	.3	.1	.22	.31	.45	.58	.70	.84	.99	1.17	1.41	1.80	2.16
Apr	1.16	.95	1.70	1998	6	2.90	1998	.13	1977	8.4	3.9	.4	.1	.22	.32	.49	.65	.81	.98	1.18	1.41	1.73	2.23	2.72
May	2.03	2.03	1.68+	1987	16	4.59	1980	.57	1973	11.8	5.5	.9	.4	.61	.81	1.10	1.34	1.58	1.83	2.11	2.43	2.85	3.50	4.10
Jun	1.99	1.76	1.36	1993	16	6.08	1993	.38	1978	10.9	5.6	.9	.2	.57	.76	1.04	1.29	1.53	1.78	2.06	2.39	2.82	3.48	4.11
Jul	1.08	1.01	1.31	1970	27	2.71	1992	.00	1971	7.3	3.1	.5	.1	.05	.14	.29	.45	.62	.82	1.05	1.33	1.73	2.38	3.02
Aug	1.23	1.01	1.75	1974	20	2.99	1985	.03	1988	8.1	3.6	.5	.1	.15	.25	.43	.60	.78	.98	1.22	1.51	1.90	2.55	3.18
Sep	1.13	1.12	1.05	1973	8	3.02	1985	.03	1987	7.6	3.5	.5	@	.10	.17	.33	.48	.65	.85	1.08	1.38	1.78	2.46	3.12
Oct	1.07	.86	1.01	1967	23	4.08	1975	.00	1987	7.8	3.4	.5	.0	.11	.23	.41	.56	.72	.90	1.09	1.33	1.64	2.15	2.63
Nov	1.49	1.45	1.46	1995	11	5.05	1995	.17	1987	10.1	4.6	.6	.1	.25	.38	.60	.80	1.01	1.24	1.50	1.82	2.25	2.93	3.59
Dec	1.51	1.31	1.34	1956	10	5.24	1996	.19	1986	10.9	5.0	.4	.1	.17	.28	.49	.70	.93	1.18	1.48	1.84	2.34	3.17	3.97
Ann	16.20	15.32	1.75	Aug 1974	20	6.08	Jun 1993	.00+	Oct 1987	109.7	49.8	6.3	1.2	10.43	11.51	12.91	13.99	14.96	15.90	16.89	17.98	19.33	21.29	23.02

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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

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

COOP ID: 242221

Station: DARBY, MT

Climate Division: MT 1 NWS Call Sign: Elevation: 3,880 Feet Lat: 46°01N Lon: 114°11W

		Snow (inches) Snow Totals																					
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Means/Medians (1) Extremes (2)																ow Fa					Depth esholo	
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	1.5	-99.9	3	2	6.3	1982	15	7.3	1985	18	1979	12	15	1979	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Feb	1.8	-99.9	2	#	3.0	1982	3	5.3	1985	16	1979	2	13	1979	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Mar	.6	-99.9	#	0	2.0	1985	2	2.5	1985	12	1980	4	2	1980	-9.9	-9.9	-9.9	-9.9	-9.9	.4	.0	.0	.0
Apr	.8	-99.9	0	0	1.1	1982	3	3.1	1982	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
May	.1	.0	0	0	.3	1982	4	.3	1982	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Sep	.4	.0	#	0	3.0	1983	19	3.0	1983	2	1983	19	#	1983	-9.9	-9.9	-9.9	-9.9	-9.9	@	.0	.0	.0
Oct	-99.9	-99.9	#	0	.0	0	0	.0	0	4	1985	7	#	1985	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Nov	1.0	-99.9	#	0	1.5	1982	21	2.0	1982	5	1981	24	3	1985	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Dec	2.0	-99.9	2	#	6.0	1982	23	6.0	1982	11	1978	29	10	1978	-9.9	-9.9	-9.9	-9.9	-9.9	2.4	1.7	.6	.0
Ann	-9.9	-9.9	N/A	N/A	6.3	Jan 1982	15	7.3	Jan 1985	18	Jan 1979	12	15	Jan 1979	-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

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

[@] 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

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

COOP ID: 242221

Station: DARBY, MT Climate Division: MT 1

NWS Call Sign:

Elevation: 3,880 Feet

Lat: 46°01N

Lon:	114°11W
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				Freez	e Data									
			Spri	ng Freeze D	ates (Month	/Day)								
36														
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	7/13	7/07	7/02	6/28	6/25	6/21	6/17	6/12	6/06					
32	6/24	6/17	6/11	6/07	6/03	5/30	5/25	5/20	5/13					
28	5/24	5/19	5/16	5/12	5/10	5/07	5/03	4/30	4/25					
24	5/11	5/06	5/01	4/28	4/25	4/22	4/18	4/14	4/08					
20	4/29	4/22	4/16	4/12	4/08	4/04	3/30	3/25	3/18					
16	4/11	4/02	3/26	3/20	3/15	3/10	3/04	2/26	2/16					
•		•	Fal	l Freeze Da	tes (Month/L	Day)			•					
(E)		Pro	bability of ea	arlier date i	n fall (beginr	ning Aug 1) t	han indicate	d(*)						
Temp (F)	.10								.90					
36	8/20	8/25	8/29	9/01	9/03	9/06	9/09	9/13	9/17					
32	8/31	9/05	9/08	9/11	9/14	9/17	9/20	9/23	9/28					
28	9/12	9/17	9/21	9/24	9/27	9/30	10/03	10/07	10/12					
24	9/23	9/28	10/02	10/05	10/08	10/11	10/14	10/17	10/22					
20	10/12	10/18	10/23	10/26	10/30	11/02	11/06	11/10	11/16					
16	10/23	10/29	11/02	11/06	11/09	11/13	11/16	11/20	11/26					
<u> </u>		•		Freeze F	ree Period			•	1					
To (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	92	85	79	74	70	66	61	56	48					
32	126	118	112	107	102	98	93	87	79					
28	162	154	149	144	140	135	130	125	117					
24	190	182	176	170	165	160	155	149	140					
20	236	225	217	211	204	198	191	183	172					
16	270	259	251	245	238	232	225	218	207					

^{*} 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.

Complete documentation available from:

Climatography of the United States No. 20 1971-2000

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Station: DARBY, MT

COOP ID: 242221

Climate Division: MT 1 NWS Call Sign: Elevation: 3,880 Feet Lat: 46°01N Lon: 114°11W

				Deg	ree Days to	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1173	926	810	580	357	164	67	78	252	540	901	1158	7006
60	1018	786	655	432	217	73	19	25	140	386	751	1003	5505
57	925	702	562	347	148	37	8	11	89	296	661	910	4696
55	863	646	501	293	110	21	3	5	61	240	601	848	4192
50	720	515	355	175	41	4	0	0	18	122	457	694	3101
32	275	142	31	4	0	0	0	0	0	1	86	233	772

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	126	140	244	414	669	856	1067	1054	756	484	175	98	6083
55	0	0	0	14	65	187	357	347	127	10	0	0	1107
57	0	0	0	8	41	143	300	291	95	5	0	0	883
60	0	0	0	2	18	89	218	212	56	1	0	0	596
65	0	0	0	0	2	30	111	109	18	0	0	0	270
70	0	0	0	0	0	6	41	41	4	0	0	0	92

										Gro	wing	Degre	e Uni	ts (2)										
Base	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 40 8 23 74 191 409 605 807 799 510 253 47 10															Growi	ng Degre	ee Units (Accumu	lated Mo	onthly)			
	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													8	31	105	296	705	1310	2117	2916	3426	3679	3726	3736
45	0 2 23 95 267 456 652 644 362 144 16												0	2	25	120	387	843	1495	2139	2501	2645	2661	2661
50	0	0	2	42	148	307	497	489	231	67	3	0	0	0	2	44	192	499	996	1485	1716	1783	1786	1786
55	0	0	0	14	72	183	346	335	125	20	0	0	0	0	0	14	86	269	615	950	1075	1095	1095	1095
60	0 0 0 0 27 84 206 195 51 2 0										0	0	0	0	0	27	111	317	512	563	565	565	565	
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	6 1 20 71 152 278 389 514 517 353 199 33										2	1	21	92	244	522	911	1425	1942	2295	2494	2527	2529	

(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

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

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

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