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: 485252

Lon: 110°12W

Station: LA BARGE, WY

Climate Division: WY 3 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 29.3 -4.2 12.6 59 1974 12 20.5 1999 -42+1985 31 -1.1 1979 1629 0 .0 .0 .1 18.9 30.8 18.1 Jan 33.7 .0 16.9 57 1977 20 24.6 1977 -45+ 1985 2 .9 1993 1350 0 .0 .0 1.0 11.3 28.2 13.3 Feb Mar 42.5 13.2 27.9 67 1986 28 35.7 1992 -35 1993 2 19.9 1976 1153 0 .0 .0 7.2 2.7 30.6 3.1 22.4 79 7 1975 18.5 Apr 51.9 37.2 1987 24 44.4 1990 -1 1980 30.3 835 0 .0 .0 .3 27.6 .1 May 63.0 31.9 47.5 84 1993 14 52.6 1992 4 1975 2 42.8 1975 544 0 .0 .0 28.5 .0 17.4 .0 38.7 1990 27 13 50.1 73.2 56.0 95 62.3 1988 21 +2001 1998 280 9 .0 .3 30.0 .0 4.6 .0 Jun Jul 82.0 43.5 62.8 95 1973 10 66.2 26 1993 55.2 1993 114 43 2.8 31.0 1998 .0 .0 .6 .0 1993 80.5 42.0 61.3 95+ 2000 1 65.1 1971 23 +1978 27 57.8 139 23 .0 .9 31.0 .0 3.0 0. Aug 2 Sep 70.2 32.8 51.5 90 1990 12 57.5 1990 8+ 1985 30 46.4 1985 407 .0 @ 29.0 .1 15.0 .0 45.6 25 1984 Oct 58.2 21.5 39.9 80 +1996 10 1988 -7 1975 31.6 781 0 .0 .0 25.2 .5 28.3 .1 40.0 8.8 24.4 1983 5 32.7 1995 -29+ 1991 3 17.4 2000 1218 0 .0 .0 29.4 6.4 Nov 66+ 6.4 6.6 Dec 30.5 -2.1 14.2 59 1970 8 24.6 1980 -52 1990 23 2.4 1990 1576 0 .0 .0 .5 16.0 31.0 16.9 Aug Jul Dec Jan 20.7 37.7 95+ 2000 66.2 1998 -52 1990 23 1979 10026 77 .0 4.0 208.4 56.4 246.5 58.0 54.6 -1.1 Ann

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

Issue Date: February 2004 052-A

(1) From the 1971-2000 Monthly Normals

Elevation: 6,595 Feet Lat: 42°16N

- (2) Derived from station's available digital record: 1958-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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COOP ID: 485252

Station: LA BARGE, WY

Climate Division: WY 3 NWS Call Sign: Elevation: 6,595 Feet Lat: 42°16N Lon: 110°12W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total						ays (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										
	Medi	ans(1)				Extremes	3			Daily Precipitation				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	.42	.37	.40	1975	8	2.19	1980	.00+	1976	4.7	1.6	.0	.0	.00	.04	.11	.17	.24	.32	.41	.52	.67	.93	1.17
Feb	.41	.35	.50	1995	14	1.18	1976	.00+	1991	4.5	1.4	@	.0	.00	.00	.07	.15	.22	.30	.40	.52	.68	.94	1.20
Mar	.46	.43	.82	1996	23	1.07+	1994	.00+	1997	3.9	1.7	.2	.0	.00	.04	.12	.20	.27	.36	.46	.58	.74	1.01	1.28
Apr	.87	.72	1.21	1991	21	2.59	1978	.00	1998	4.4	2.3	.4	.1	.04	.11	.24	.37	.51	.66	.85	1.08	1.39	1.91	2.43
May	1.53	1.10	1.75	1980	23	7.29	1980	.04	1974	6.6	4.2	.8	.3	.13	.23	.43	.64	.88	1.14	1.46	1.87	2.42	3.36	4.28
Jun	.89	.71	1.05	1969	15	3.13	1995	.00+	2000	5.1	2.4	.4	@	.00	.08	.23	.37	.52	.68	.88	1.11	1.42	1.95	2.46
Jul	.90	.90	1.00	1981	25	2.18	1973	.00+	1988	5.4	2.9	.4	.1	.00	.18	.37	.51	.64	.79	.94	1.12	1.36	1.73	2.09
Aug	.88	.69	2.25	1976	23	2.95	1976	.00+	1988	4.6	2.6	.5	.2	.00	.00	.24	.39	.54	.70	.89	1.12	1.41	1.90	2.36
Sep	.81	.60	1.32	1965	6	2.87	1982	.00+	1975	5.4	2.9	.3	@	.00	.07	.21	.33	.47	.62	.79	1.00	1.30	1.78	2.26
Oct	.61	.52	.94	1998	3	1.74	1971	.00+	1984	3.7	1.7	.3	.0	.00	.00	.16	.26	.37	.48	.61	.77	.97	1.31	1.64
Nov	.50	.48	.45	1973	1	1.83	1983	.00	1999	4.2	2.1	@	.0	.05	.10	.19	.26	.33	.41	.51	.62	.77	1.01	1.23
Dec	.36	.27	2.30	1964	24	1.38	1996	.00+	2000	3.9	1.3	.1	.0	.00	.00	.00	.11	.19	.27	.36	.47	.61	.85	1.07
Ann	8.64	8.53	2.30	Dec 1964	24	7.29	May 1980	.00+	Dec 2000	56.4	27.1	3.4	.7	4.51	5.22	6.17	6.93	7.63	8.32	9.05	9.88	10.91	12.46	13.84

⁺ 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: 1958-2001

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

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COOP ID: 485252

Station: LA BARGE, WY

Climate Division: WY 3 NWS Call Sign: Elevation: 6,595 Feet Lat: 42°16N Lon: 110°12W

										Snov	w (inc	hes)													
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)				
	Mean	s/Medi	ians (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	5.5	4.7	4	3	7.0	1996	27	16.3	1996	15	1972	7	13	1972	2.9	1.8	.7	.2	.0	-9.9	-9.9	-9.9	-9.9		
Feb	3.8	2.7	4	2	7.6	1987	25	14.0	1995	21	1993	26	16	1993	2.5	1.6	.4	.2	.0	-9.9	-9.9	-9.9	-9.9		
Mar	3.8	2.5	1	#	8.2	1996	23	14.0	1990	18	1993	9	9	1993	1.8	1.4	.5	.2	.0	5.3	2.9	1.8	.5		
Apr	3.5	2.0	#	0	8.0	1991	21	18.0	1999	7	1999	24	3	1973	1.1	.9	.4	.1	.0	.9	.4	.1	.0		
May	1.0	.0	#	0	6.0	2000	10	8.5	1980	4	2000	10	#+	2000	.3	.3	.1	@	.0	.1	.1	.0	.0		
Jun	#	.0	#	0	#	2000	18	#+	2000	#	2000	18	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Jul	.0	.0	#	0	.0	0	0	.0	0	#	2000	1	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Aug	.0	.0	#	0	.0	0	0	.0	0	#	1999	24	#	1999	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Sep	.8	.0	#	0	6.8	2000	23	15.8	2000	13	2000	23	1	2000	.2	.2	.2	.1	.0	.3	.3	.2	.1		
Oct	.8	.0	#	0	8.0	1971	29	8.0	1993	8	1993	9	1	1996	.4	.2	.2	.1	.0	.8	.3	.1	.0		
Nov	4.4	3.0	1	#	7.0	1989	26	26.0	1983	7+	1991	18	6	1971	1.9	1.5	.4	.2	.0	5.2	1.9	1.1	.0		
Dec	3.6	1.9	2	#	6.0	1981	30	10.5	1988	12	1971	31	8	1992	2.0	1.4	.6	.2	.0	8.6	4.4	2.2	.0		
Ann	27.2	16.8	N/A	N/A	8.2	Mar 1996	23	26.0	Nov 1983	21	Feb 1993	26	16	Feb 1993	13.1	9.3	3.5	1.3	.0	-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

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COOP ID: 485252

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Climate Division: WY 3

NWS Call Sign:

Elevation: 6,595 Feet

Lat: 42°16N Lon: 110°12W

				Freez	ze Data											
			Spri	ng Freeze D	ates (Month/	Day)										
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(*)								
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	7/29	7/24	7/20	7/17	7/14	7/11	7/08	7/04	6/29							
32	7/12	7/06	7/02	6/28	6/25	6/21	6/18	6/13	6/07							
28	6/24	6/16	6/11	6/06	6/02	5/29	5/24	5/19	5/11							
24	6/09	6/02	5/28	5/24	5/19	5/15	5/11	5/05	4/28							
20	5/23	5/17	5/13	5/09	5/06	5/03	4/29	4/25	4/20							
16	5/16	5/09	5/04	4/29	4/25	4/21	4/17	4/11	4/04							
-			Fal	l Freeze Da	tes (Month/D	ay)		•	•							
Tomp (F)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	8/02	8/06	8/10	8/12	8/15	8/18	8/21	8/24	8/29							
32	8/08	8/14	8/19	8/22	8/26	8/29	9/02	9/06	9/13							
28	8/20	8/26	8/31	9/04	9/07	9/11	9/15	9/19	9/26							
24	9/01	9/06	9/10	9/13	9/16	9/20	9/23	9/27	10/02							
20	9/12	9/17	9/21	9/24	9/27	9/30	10/03	10/07	10/12							
16	9/17	9/24	9/29	10/03	10/07	10/11	10/15	10/20	10/27							
-				Freeze F	ree Period	•		•	•							
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	1								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	53	46	40	36	31	27	22	17	10							
32	80	73	69	65	61	58	54	49	43							
28	126	116	109	102	97	91	84	77	67							
24	147	138	131	125	119	114	108	101	92							
20	166	158	152	148	143	139	134	128	121							
16	197	186	178	171	164	158	151	143	132							

^{*} 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.

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Lon: 110°12W

Station: LA BARGE, WY

Climate Division: WY 3

Elevation: 6,595 Feet Lat: 42°16N

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1629	1350	1153	835	544	280	114	139	407	781	1218	1576	10026
60	1474	1210	998	685	391	159	39	50	268	626	1068	1421	8389
57	1381	1126	905	595	301	103	16	22	195	533	978	1328	7483
55	1319	1070	843	535	245	72	8	11	152	472	918	1266	6911
50	1164	930	688	394	127	22	1	1	70	324	768	1111	5600
32	619	450	220	53	1	0	0	0	0	22	276	574	2215

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	13	24	91	208	479	719	953	907	584	264	48	20	4310
55	0	0	0	0	11	101	248	205	47	1	0	0	613
57	0	0	0	0	5	72	194	154	29	0	0	0	454
60	0	0	0	0	1	38	124	89	12	0	0	0	264
65	0	0	0	0	0	9	43	23	2	0	0	0	77
70	0	0	0	0	0	1	8	2	0	0	0	0	11

										Gro	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	0	66	261	501	719	655	371	110	6	0	0	0	0	66	327	828	1547	2202	2573	2683	2689	2689	
45	0	0	0	19	140	353	565	500	236	41	0	0	0	0	0	19	159	512	1077	1577	1813	1854	1854	1854	
50	0	0	0	2	57	217	411	346	122	8	0	0	0	0	0	2	59	276	687	1033	1155	1163	1163	1163	
55	0	0	0	0	8	103	258	198	40	0	0	0	0	0	0	0	8	111	369	567	607	607	607	607	
60	0 0 0 0 0 34 122 76 8 0 0 0										0	0	0	0	0	0	34	156	232	240	240	240	240		
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	thly)				Growing Degree Units for Corn (Accumulated Monthly)												
50/86	0	0	16	91	231	372	502	484	327	172	16	0	0	0	16	107	338	710	1212	1696	2023	2195	2211	2211	

(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

NWS Call Sign:

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