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: 482595

Lon: 108°57W

Station: DIVERSION DAM, WY

Climate Division: WY 9 NWS Call Sign:

									,	Tempe	eratui	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 Daily 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	33.5	5.7	19.6	66	1989	30	29.7	1994	-38+	1963	12	6	1979	1408	0	.0	.0	3.8	11.4	30.4	9.1
Feb	39.1	10.7	24.9	78	1990	25	32.2	1988	-39	1989	2	10.1	1993	1122	0	.0	.0	7.5	6.8	27.5	5.1
Mar	48.5	19.3	33.9	80	1990	10	43.7	1986	-23	1996	1	26.6	1996	964	0	.0	.0	16.8	2.1	27.9	1.0
Apr	55.6	26.6	41.1	86+	1989	27	50.5	1989	-6	1983	7	34.3	1983	717	0	.0	.0	23.2	.6	20.2	.1
May	65.3	37.0	51.2	90	1954	20	56.6	1988	18+	1990	1	46.6	1995	432	3	.0	.0	29.6	.0	7.0	.0
Jun	76.1	44.1	60.1	105	1988	19	70.9	1988	27	1951	3	52.3	1998	199	52	.2	2.5	29.8	.0	.6	.0
Jul	83.3	49.4	66.4	112	1988	31	69.5	1989	33	1993	7	58.7	1993	66	107	.7	8.1	31.0	.0	.0	.0
Aug	81.7	48.4	65.1	106	1989	1	68.6	1983	30	1962	31	60.6	1993	68	69	.2	4.8	31.0	.0	@	.0
Sep	71.5	39.4	55.5	101	1988	8	60.7	1998	10	1985	29	52.1	1984	296	9	@	.8	28.8	.1	4.6	.0
Oct	60.6	29.4	45.0	96	1988	3	54.3	1988	-5	1971	30	40.0	1984	620	0	.0	.1	26.8	.5	18.2	.1
Nov	42.9	15.3	29.1	72	1999	14	39.1	1999	-23	1985	22	14.8	2000	1077	0	.0	.0	10.5	5.3	28.1	3.0
Dec	35.1	6.8	21.0	72	1989	3	33.7	1980	-44	1990	21	5.0	1983	1366	0	.0	.0	4.8	10.7	30.6	8.3
					Jul			Jun		Dec			Jan								
Ann	57.8	27.7	42.7	112	1988	31	70.9	1988	-44	1990	21	6	1979	8335	240	1.1	16.3	243.6	37.5	195.1	26.7

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 032-A

(1) From the 1971-2000 Monthly Normals

Elevation: 5,575 Feet Lat: 43°14N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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										Pı	recipi	tation	(incl	nes)										
			P	recip	itatio	on Total	S			M	lean N of D	Sumbo Pays (3		Proba	ability th		nonthly/	annual j	precipita ated an		ll be equ		less tha	ın the
		ans/				Extremes	3			D	aily Pre	cipitatio	n		Th		•		•	vs Probal incomplet	•		on	
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	.17	.13	.80	1962	8	.57	1980	.00+	2000	1.7	.8	.0	.0	.00	.00	.03	.06	.10	.13	.17	.22	.28	.37	.47
Feb	.18	.15	.79	1987	23	.79	1987	.00+	1999	1.7	.8	@	.0	.00	.00	.00	.03	.07	.12	.17	.23	.31	.45	.58
Mar	.51	.38	.72	1987	16	1.82	1992	.03+	1986	3.1	1.6	.3	.0	.03	.06	.12	.19	.26	.36	.47	.61	.82	1.16	1.51
Apr	1.22	.96	1.70	1971	25	4.88	1999	.00	1987	4.7	2.9	.6	.1	.04	.14	.31	.49	.68	.90	1.17	1.50	1.95	2.71	3.46
May	1.98	1.87	1.54	1986	7	4.50	1978	.00	1984	6.4	4.5	1.6	.3	.16	.38	.70	.99	1.29	1.62	1.99	2.45	3.06	4.05	5.00
Jun	1.20	.55	2.43	1992	15	5.08	1993	.00+	1986	4.5	2.9	.7	.2	.00	.00	.12	.31	.52	.77	1.08	1.47	2.03	2.95	3.89
Jul	.95	.53	2.25	1977	25	2.98	1977	.00+	1986	3.6	2.4	.5	.1	.00	.00	.20	.36	.52	.71	.92	1.19	1.54	2.14	2.73
Aug	.66	.53	2.63	1976	1	3.41	1976	.00+	1985	3.4	1.8	.2	@	.00	.00	.15	.26	.38	.50	.65	.83	1.07	1.47	1.85
Sep	1.07	.58	2.23	1950	20	5.52	1973	.00+	1979	3.5	2.3	.6	.3	.00	.00	.15	.32	.50	.72	.98	1.31	1.78	2.57	3.37
Oct	.74	.38	1.48	1971	1	3.47	1971	.00+	1992	3.2	2.0	.4	@	.00	.03	.13	.24	.36	.51	.68	.90	1.21	1.74	2.26
Nov	.37	.24	.70	1983	8	1.35	1983	.00+	1999	2.1	1.2	.2	.0	.00	.00	.00	.09	.17	.25	.35	.47	.63	.90	1.15
Dec	.19	.13	.74	1992	12	.97	1992	.00+	2000	1.6	.8	@	.0	.00	.00	.00	.05	.10	.14	.19	.25	.33	.46	.58
Ann	9.24	9.42	2.63	Aug 1976	1	5.52	Sep 1973	.00+	Dec 2000	39.5	24.0	5.1	1.0	4.62	5.39	6.45	7.29	8.06	8.84	9.66	10.59	11.76	13.51	15.08

⁺ 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

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Station: DIVERSION DAM, WY

Climate Division: WY 9 NWS Call Sign: Elevation: 5,575 Feet Lat: 43°14N Lon: 108°57W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (1))					Extre	mes (2)							ow Fa				Snow = Thr	_	
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	3.1	3.1	1	#	5.0	1972	12	9.5	1993	8	1993	12	6	1993	1.7	1.2	.4	.1	.0	4.2	.5	.1	.0
Feb	2.3	1.2	1	#	6.0	1976	4	8.0	1997	6+	1996	29	3	1993	1.0	.7	.3	@	.0	3.3	1.3	.5	.0
Mar	4.0	3.0	#	#	12.0	1997	4	14.0	1973	12	1997	4	5	1973	1.4	1.0	.4	.2	@	2.6	1.2	.6	.1
Apr	1.5	.0	#	0	12.0	1991	18	17.0	1991	16	1999	23	2+	1999	.6	.5	.2	.1	@	.7	.5	.3	.0
May	1.0	.0	#	0	14.0	1983	11	20.0	1983	2	1997	2	#+	1997	.2	.1	.1	.1	@	@	.0	.0	.0
Jun	.1	.0	#	0	2.2	1998	4	2.2	1998	2	1998	4	#+	1998	@	@	.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	.6	.0	#	0	5.0	1982	14	10.0	1982	2	2000	22	#+	2000	.3	.2	.1	.1	.0	.2	.0	.0	.0
Oct	.7	.0	#	0	4.0	1975	23	4.0+	1997	12	1971	30	1	1971	.3	.3	.1	.0	.0	.2	.1	.0	.0
Nov	2.9	2.0	1	#	7.0	1980	13	8.4	1998	18	1978	10	6	1978	1.3	.9	.4	.1	.0	3.4	1.4	.5	.0
Dec	2.0	1.7	1	#	12.0	1978	5	12.0+	1978	8	1979	24	6	1979	1.0	.7	.4	.1	.1	2.2	1.2	.6	.0
Ann	18.2	11.0	N/A	N/A	14.0	May 1983	11	20.0	May 1983	18	Nov 1978	10	6+	Jan 1993	7.8	5.6	2.4	.8	.1	16.8	6.2	2.6	.1

⁺ 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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Station: DIVERSION DAM, WY

Climate Division: WY 9 NWS Call Sign:

WS Call Sign:

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	(Day)			
Probability of later date in spring (thrum 10							n indicated(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/29	6/23	6/18	6/14	6/10	6/06	6/02	5/29	5/22
32	6/12	6/07	6/03	5/31	5/27	5/24	5/21	5/17	5/11
28	5/23	5/18	5/15	5/13	5/10	5/07	5/05	5/01	4/27
24	5/13	5/08	5/05	5/02	4/29	4/26	4/23	4/20	4/15
20	5/07	5/01	4/26	4/23	4/19	4/16	4/12	4/08	4/02
16	4/27	4/21	4/16	4/12	4/08	4/04	3/31	3/27	3/20
1		•	Fal	l Freeze Da	tes (Month/D	Day)			
To (E)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
remp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/24	8/30	9/02	9/06	9/09	9/12	9/15	9/19	9/24
32	9/05	9/09	9/12	9/15	9/17	9/20	9/22	9/25	9/29
28	9/13	9/17	9/21	9/23	9/26	9/29	10/01	10/05	10/09
24	9/18	9/25	9/29	10/03	10/07	10/10	10/14	10/18	10/25
20	9/29	10/04	10/09	10/12	10/15	10/19	10/22	10/26	11/01
16	10/11	10/17	10/21	10/25	10/28	10/31	11/04	11/08	11/14
1		-		Freeze F	ree Period	•		•	•
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	j.	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	116	107	101	95	90	85	79	73	63
32	130	124	119	115	112	109	105	100	94
28	156	150	145	142	138	135	131	127	121
24	187	178	171	165	160	154	149	142	132
20	206	197	190	184	178	173	167	160	151
16	229	220	213	208	202	197	191	184	175

^{*} 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:

Elevation: 5,575 Feet

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				Deg	ree Days to	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree I	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1408	1122	964	717	432	199	66	68	296	620	1077	1366	8335
60	1253	982	809	568	289	112	19	17	174	467	927	1211	6828
57	1160	898	716	482	213	71	8	5	117	379	837	1118	6004
55	1098	842	654	427	169	50	4	2	85	323	777	1056	5487
50	944	702	504	296	82	17	0	0	32	200	631	901	4309
32	453	277	102	29	0	0	0	0	0	9	203	411	1484

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	69	78	161	303	594	843	1064	1024	704	412	116	68	5436
55	0	0	0	10	50	202	355	313	99	12	0	0	1041
57	0	0	0	6	32	164	297	254	70	6	0	0	829
60	0	0	0	1	15	114	215	173	38	2	0	0	558
65	0	0	0	0	3	52	107	69	9	0	0	0	240
70	0	0	0	0	0	18	36	15	1	0	0	0	70

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	nthly)			
	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	4	15	60	183	399	662	881	836	530	248	30	7	4	19	79	262	661	1323	2204	3040	3570	3818	3848	3855
45	1 1 23 95 258 513 726 681 386 138 7											0	1	2	25	120	378	891	1617	2298	2684	2822	2829	2829
50	0 0 4 42 149 364 571 526 255 62 0											0	0	0	4	46	195	559	1130	1656	1911	1973	1973	1973
55	0	0	0	18	64	233	418	371	141	20	0	0	0	0	0	18	82	315	733	1104	1245	1265	1265	1265
60	0	0	0	1	25	126	271	224	59	6	0	0	0	0	0	1	26	152	423	647	706	712	712	712
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	86 4 24 76 152 274 427 561 537 359 209 40											11	4	28	104	256	530	957	1518	2055	2414	2623	2663	2674

(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