

# Climatography of the United States

No. 20

1971-2000

Station: SNAKE RIVER, WY

COOP ID: 488315

Climate Division: WY 2

NWS Call Sign:

Elevation: 6,882 Feet Lat: 44°08N

Lon: 110°40W

## 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	25.7	-1.9	11.9	51	1974	16	18.4	1998	-43+	1985	31	1.3	1979	1647	0	.0	.0	@	24.5	31.0	16.8
Feb	31.3	.0	15.7	51+	1992	29	22.8	1995	-44	1982	5	5.2	1985	1383	0	.0	.0	.1	15.1	28.2	13.3
Mar	37.8	8.0	22.9	59	1999	20	30.5	1992	-36	1955	5	14.5	1976	1306	0	.0	.0	2.4	6.6	31.0	8.0
Apr	45.6	17.6	31.6	74+	1987	27	37.5	1987	-11+	1983	6	24.9	1975	1002	0	.0	.0	9.9	1.2	29.6	1.5
May	55.7	26.6	41.2	80+	1986	30	46.4	1987	1	1972	1	35.4	1975	740	0	.0	.0	23.3	.0	26.7	.0
Jun	66.6	33.2	49.9	92	1988	24	55.3	1988	20+	1991	15	45.3	1998	454	0	.0	.1	28.8	.0	15.0	.0
Jul	75.5	37.1	56.3	97	1951	18	59.3	1974	10	1955	14	48.0	1993	277	6	.0	.2	30.9	.0	6.3	.0
Aug	75.0	35.1	55.1	93	1971	14	61.4	1971	16+	1992	28	50.6	1975	314	5	.0	.3	30.9	.0	10.6	.0
Sep	65.2	26.4	45.8	89+	1998	8	52.8	1998	7	1983	20	41.1	1985	576	0	.0	.0	27.5	@	25.4	.0
Oct	52.2	18.5	35.4	76+	1992	2	40.9	1988	-12+	1972	31	29.2	1984	919	0	.0	.0	19.0	.9	30.3	.5
Nov	34.9	8.5	21.7	63+	1999	8	31.1	1999	-38	1955	16	14.0	1994	1299	0	.0	.0	2.4	12.4	29.8	7.6
Dec	26.0	-2.3	11.9	51	1999	1	20.4	1980	-46	1978	31	1.2	1990	1648	0	.0	.0	@	24.4	31.0	17.7
Ann	49.3	17.2	33.3	97	Jul 1951	18	61.4	Aug 1971	-46	Dec 1978	31	1.2	Dec 1990	11565	11	.0	.6	175.2	85.1	294.9	65.4

+ 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](http://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: 1948-2001

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

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**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

**Station: SNAKE RIVER, WY**

**COOP ID: 488315**

**Climate Division: WY 2**

**NWS Call Sign:**

**Elevation: 6,882 Feet Lat: 44°08N**

**Lon: 110°40W**

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	3.92	3.81	2.20	1953	18	7.39	1999	.55	1992	19.5	11.7	2.0	.1	1.08	1.45	2.02	2.51	2.99	3.50	4.06	4.72	5.57	6.92	8.18
Feb	3.08	2.94	1.83	1997	1	8.55	1986	.90	1984	15.6	9.1	1.4	.2	.93	1.23	1.66	2.04	2.40	2.78	3.20	3.69	4.32	5.31	6.23
Mar	2.69	2.45	1.04+	1991	5	4.86	1995	.61	1994	15.6	8.9	.8	@	1.02	1.27	1.63	1.93	2.21	2.50	2.81	3.17	3.63	4.34	4.99
Apr	2.26	2.03	1.60	1981	2	4.22	1975	.70	1977	12.1	6.4	.7	.1	.90	1.11	1.41	1.65	1.88	2.11	2.36	2.65	3.02	3.59	4.10
May	2.74	2.44	1.32	1999	31	5.11	1996	.83	1992	12.8	7.9	1.2	.3	.96	1.22	1.59	1.91	2.21	2.52	2.86	3.25	3.75	4.53	5.24
Jun	2.31	2.15	1.80	1970	11	5.47	1998	.32	1988	12.2	6.1	1.2	.1	.85	1.07	1.38	1.64	1.89	2.14	2.41	2.73	3.14	3.77	4.34
Jul	1.68	1.50	2.00	1950	11	3.45	1985	.28	1974	9.8	5.0	.7	.1	.38	.53	.78	1.00	1.22	1.46	1.72	2.03	2.45	3.11	3.73
Aug	1.68	1.71	1.21	1977	26	3.16	1997	.17	1988	9.8	5.1	.7	.1	.46	.62	.86	1.07	1.28	1.50	1.74	2.03	2.40	2.99	3.53
Sep	1.79	1.95	1.70	1950	10	3.85	1973	.03	1987	8.8	5.0	.8	.1	.23	.38	.63	.88	1.15	1.44	1.77	2.19	2.75	3.67	4.56
Oct	1.96	2.05	1.24	1997	24	3.93	1983	.20	1987	8.7	5.4	1.0	.1	.50	.69	.97	1.23	1.47	1.74	2.03	2.37	2.82	3.54	4.20
Nov	3.39	3.17	1.56	1999	26	6.44	1995	.35	1976	15.2	9.1	1.9	.3	1.00	1.32	1.81	2.23	2.63	3.06	3.52	4.07	4.79	5.90	6.94
Dec	4.04	3.80	1.75	1948	12	11.90	1996	.70	1986	17.7	10.9	2.4	.3	.99	1.37	1.96	2.48	3.00	3.55	4.16	4.89	5.84	7.35	8.77
Ann	31.54	30.41	2.20	Jan 1953	18	11.90	Dec 1996	.03	Sep 1987	157.8	90.6	14.8	1.8	22.14	23.94	26.27	28.03	29.61	31.13	32.70	34.44	36.55	39.62	42.28

+ 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: 1948-2001

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

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Station: SNAKE RIVER, WY

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Climate Division: WY 2

NWS Call Sign:

Elevation: 6,882 Feet

Lat: 44°08N

Lon: 110°40W

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	52.5	49.2	45	42	16.5	1989	23	111.2	1999	78	1976	12	66	1978	17.1	14.4	8.0	3.9	.7	-9.9	-9.9	-9.9	-9.9
Feb	43.0	38.2	55	53	24.0	1986	13	85.0	1999	91	1997	15	85	1997	14.0	11.9	5.8	3.2	.5	-9.9	-9.9	-9.9	-9.9
Mar	34.2	23.5	58	60	14.0	1991	18	64.0+	1991	96+	1997	3	81+	1997	13.3	10.8	4.5	2.0	.3	-9.9	-9.9	-9.9	-9.9
Apr	19.8	19.6	44	47	15.5	1995	29	37.0	1993	87	1974	2	74	1982	8.0	6.3	2.7	1.0	.1	-9.9	-9.9	-9.9	-9.9
May	6.5	3.9	13	14	11.0	1975	7	26.6	1984	65	1975	7	40	1975	3.2	2.4	.9	.4	@	9.5	8.2	7.9	6.9
Jun	.5	.0	#	0	3.0	1981	14	4.0	1981	13	1975	1	1	1975	.4	.2	.1	.0	.0	.4	.2	.1	.1
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	.2	.0	#	0	2.0	1981	26	2.0	1981	4	1982	29	#+	2000	.2	.2	.0	.0	.0	.1	.0	.0	.0
Oct	7.0	6.2	1	#	13.0	1975	26	28.0	1975	17	1984	28	4	1984	3.7	3.0	1.1	.4	@	4.0	2.2	1.2	@
Nov	38.5	39.2	10	10	17.0	1997	27	97.5	1988	39	1988	29	21	1984	13.0	10.7	5.6	2.9	.4	22.5	21.3	19.0	10.5
Dec	62.1	55.4	29	26	19.0	1994	5	154.0	1996	76	1996	27	45	1996	16.0	13.5	7.7	4.6	1.0	28.4	28.4	28.4	27.6
Ann	264.3	235.2	N/A	N/A	24.0	Feb 1986	13	154.0	Dec 1996	96+	Mar 1997	3	85	Feb 1997	88.9	73.4	36.4	18.4	3.0	-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

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**Lat: 44° 08N**

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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	8/01	7/31	7/30	7/29	7/29	7/28	7/27	7/26	7/25
32	8/02	7/29	7/26	7/24	7/22	7/20	7/17	7/15	7/11
28	7/24	7/19	7/15	7/11	7/08	7/04	7/01	6/27	6/21
24	7/04	6/26	6/21	6/16	6/11	6/07	6/02	5/27	5/19
20	5/31	5/27	5/23	5/20	5/17	5/15	5/12	5/08	5/03
16	5/19	5/15	5/12	5/09	5/06	5/04	5/01	4/28	4/23
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	7/31	8/01	8/02	8/03	8/04	8/05	8/06	8/07	8/08
32	7/29	8/01	8/04	8/06	8/08	8/11	8/13	8/16	8/19
28	8/01	8/07	8/11	8/14	8/17	8/20	8/24	8/27	9/02
24	8/11	8/18	8/23	8/27	8/31	9/04	9/08	9/13	9/20
20	9/01	9/07	9/11	9/14	9/17	9/20	9/23	9/27	10/02
16	9/09	9/16	9/20	9/24	9/28	10/01	10/05	10/10	10/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	12	10	8	7	5	4	3	1	0
32	34	28	24	20	17	13	10	6	0
28	63	55	49	44	40	35	30	24	16
24	111	100	93	86	80	74	67	59	49
20	145	137	131	126	122	117	112	107	99
16	165	158	153	148	144	139	135	129	122

\* 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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**NWS Call Sign:**

**Elevation: 6,882 Feet Lat: 44°08N**

**Lon: 110°40W**

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	1647	1383	1306	1002	740	454	277	314	576	919	1299	1648	11565
60	1492	1243	1151	852	585	307	146	180	428	764	1149	1493	9790
57	1399	1159	1058	762	492	225	90	118	342	671	1059	1400	8775
55	1337	1103	996	702	431	176	59	85	287	609	999	1338	8122
50	1182	963	841	552	284	80	14	28	167	454	849	1183	6597
32	624	463	304	106	10	0	0	0	1	48	340	629	2525

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	0	4	21	94	292	537	752	714	415	152	31	3	3015
55	0	0	0	0	1	23	98	86	11	0	0	0	219
57	0	0	0	0	0	12	67	58	6	0	0	0	143
60	0	0	0	0	0	4	30	27	2	0	0	0	63
65	0	0	0	0	0	0	6	5	0	0	0	0	11
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	16	116	327	535	489	216	38	0	0	0	0	0	16	132	459	994	1483	1699	1737	1737	1737
45	0	0	0	1	40	190	381	334	105	5	0	0	0	0	0	1	41	231	612	946	1051	1056	1056	1056
50	0	0	0	0	5	93	234	193	33	0	0	0	0	0	0	0	5	98	332	525	558	558	558	558
55	0	0	0	0	0	28	97	75	6	0	0	0	0	0	0	0	0	28	125	200	206	206	206	206
60	0	0	0	0	0	1	20	14	0	0	0	0	0	0	0	0	0	1	21	35	35	35	35	35
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	43	132	279	422	412	255	104	4	0	0	0	0	43	175	454	876	1288	1543	1647	1651	1651

(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:

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## 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](http://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.

- 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
- 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
- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table  
1971-2000 serially complete daily data

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)