

# Climatology of the United States

## No. 20

### 1971-2000

**Station: JACKSON, WY**

**COOP ID: 484910**

**Climate Division: WY 2**

**NWS Call Sign:**

**Elevation: 6,230 Feet Lat: 43° 29N**

**Lon: 110° 46W**

### 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	28.2	5.0	16.6	55+	1974	16	25.0	1998	-50	1979	1	3.2	1979	1499	0	.0	.0	@	19.0	30.3	12.4
Feb	33.5	8.1	20.8	58	1986	25	30.5	1995	-44	1956	1	12.7	1985	1238	0	.0	.0	.9	11.6	27.2	9.7
Mar	42.7	17.5	30.1	68	1986	28	37.2	1992	-32	1966	4	21.0	1985	1082	0	.0	.0	6.3	2.8	29.5	2.6
Apr	52.9	24.4	38.7	79	1992	29	44.7	2000	-5	1970	1	32.0	1975	790	0	.0	.0	17.7	.1	26.0	.1
May	63.0	30.8	46.9	83	1954	19	51.1	2000	5	1988	2	43.0	1975	563	0	.0	.0	27.7	.0	19.1	.0
Jun	73.7	37.0	55.4	95	1988	26	61.5	1988	19+	1979	1	50.8	1998	296	6	.0	.5	29.9	.0	8.0	.0
Jul	81.9	40.9	61.4	96	2000	31	65.6	1989	24+	1968	1	54.2	1993	138	26	.0	2.4	31.0	.0	2.5	.0
Aug	81.0	39.2	60.1	98	1981	19	63.0	1982	18	1960	28	56.3	1975	168	17	.0	1.5	31.0	.0	5.0	.0
Sep	71.3	31.4	51.4	93	1956	18	57.0	1998	8	1995	22	46.2	1971	411	1	.0	@	29.0	.0	17.8	.0
Oct	58.6	23.4	41.0	87	1997	1	47.0	1988	2	1972	31	35.5	1984	744	0	.0	.0	24.4	.5	26.1	.0
Nov	40.0	15.8	27.9	66	1999	7	34.2	1999	-27	1955	16	20.7	1979	1114	0	.0	.0	5.6	7.4	28.2	3.6
Dec	28.2	5.9	17.1	55	1995	1	26.2	1996	-49	1978	31	4.8	1986	1486	0	.0	.0	.4	19.6	30.0	12.8
Ann	54.6	23.3	39.0	98	Aug 1981	19	65.6	Jul 1989	-50	Jan 1979	1	3.2	Jan 1979	9529	50	.0	4.4	203.9	61.0	249.7	41.2

+ 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](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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### 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	Median	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	1.39	1.44	1.36	1998	12	2.80	1996	.10	1992	11.3	4.9	.4	@	.27	.40	.60	.79	.98	1.18	1.41	1.69	2.05	2.64	3.19
Feb	1.07	1.05	1.16	1963	1	2.37	1976	.04	1991	8.0	4.1	.3	.0	.17	.26	.42	.57	.72	.88	1.07	1.30	1.61	2.11	2.59
Mar	1.16	1.01	1.80	1995	3	4.21	1995	.14	1992	8.8	3.7	.3	@	.18	.28	.45	.61	.77	.95	1.16	1.41	1.75	2.30	2.83
Apr	1.18	1.25	1.19	1990	28	2.46	1975	.04	1979	7.6	4.3	.3	.1	.18	.28	.45	.62	.78	.97	1.18	1.44	1.78	2.35	2.88
May	2.21	1.90	1.56	1980	24	6.02	1980	.83	1992	10.9	6.6	1.2	@	.75	.96	1.26	1.52	1.77	2.02	2.30	2.63	3.04	3.69	4.29
Jun	1.61	1.61	1.26	1998	4	4.19	1998	.22	1986	8.9	4.6	.6	.1	.39	.54	.77	.98	1.19	1.41	1.65	1.95	2.33	2.94	3.51
Jul	1.28	1.07	1.18	1997	12	3.26	1993	.00	1988	7.5	4.2	.4	.1	.15	.31	.52	.71	.89	1.09	1.32	1.58	1.94	2.51	3.05
Aug	1.32	1.22	1.20	1971	29	3.27	1983	.23	1996	8.7	4.4	.4	@	.34	.47	.66	.83	.99	1.17	1.36	1.59	1.89	2.36	2.81
Sep	1.32	1.25	1.16	1966	14	3.24	1983	.03	1979	8.0	3.9	.5	@	.11	.20	.37	.55	.75	.98	1.26	1.61	2.09	2.89	3.68
Oct	1.22	1.16	1.17	1972	10	3.21	1972	.00	1978	7.8	4.2	.4	.1	.14	.29	.49	.67	.84	1.03	1.24	1.50	1.84	2.38	2.90
Nov	1.56	1.33	1.50	1983	25	4.24	1988	.10	1976	10.2	5.2	1.0	.1	.24	.37	.59	.81	1.03	1.28	1.56	1.90	2.36	3.12	3.84
Dec	1.46	1.19	1.40	1964	23	5.27	1996	.16	1979	10.8	5.1	.5	.0	.24	.36	.57	.77	.98	1.20	1.46	1.78	2.20	2.88	3.53
Ann	16.78	16.12	1.80	Mar 1995	3	6.02	May 1980	.00+	Jul 1988	108.5	55.2	6.3	.5	10.92	12.01	13.43	14.52	15.50	16.45	17.44	18.55	19.90	21.88	23.60

+ 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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Climate Division: WY 2

NWS Call Sign:

Elevation: 6,230 Feet

Lat: 43° 29N

Lon: 110° 46W

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	15.9	13.6	12	12	13.0	1998	12	40.5	1972	31+	1979	27	29	1979	9.6	5.6	2.1	.6	.1	27.1	25.8	24.4	20.3
Feb	11.8	10.9	15	14	13.0	1998	24	31.1	1978	35	1985	9	29	1979	5.9	4.1	1.4	.6	.1	24.6	23.8	23.4	19.8
Mar	7.7	6.5	10	8	10.0	1971	17	23.8	1985	36	1985	27	28	1985	5.0	2.8	.7	.3	@	20.2	18.2	17.4	13.5
Apr	2.8	1.4	1	1	7.0	1976	26	13.0	1973	30	1985	1	7	1985	1.8	1.1	.2	.1	.0	4.0	3.1	2.7	1.9
May	.9	.0	#	0	8.0	1973	1	8.0	1973	8	1973	1	#	1997	.3	.3	.1	.1	.0	.2	.1	.1	.0
Jun	.2	.0	#	0	4.0	1973	18	5.0	1973	4	1973	18	#	1995	.2	.0	@	.0	.0	.2	@	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	3	1987	22	#	1987	.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	.1	.0	#	0	2.0	1971	30	2.0	1971	2	1971	30	#	1971	.0	.0	.0	.0	.0	@	.0	.0	.0
Oct	1.1	.0	#	0	6.0	1971	1	10.5	1971	6	1971	1	#	1991	.7	.4	.1	@	.0	.5	.1	@	.0
Nov	12.3	12.0	3	1	12.0	1989	26	40.2	1985	18+	1985	30	10	1985	5.9	3.8	1.5	.8	.1	10.7	8.7	5.7	2.5
Dec	18.6	18.3	7	2	15.0	1978	18	36.4	1978	33	1978	18	19	1978	9.5	6.4	1.7	.7	.1	22.9	19.4	18.1	10.1
Ann	71.4	62.7	N/A	N/A	15.0	Dec 1978	18	40.5	Jan 1972	36	Mar 1985	27	29+	Feb 1979	38.9	24.5	7.8	3.2	.4	110.4	99.2	91.8	68.1

+ 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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<b>Freeze Data</b>									
<b>Spring Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of later date in spring (thru Jul 31) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	8/02	7/29	7/27	7/24	7/22	7/20	7/18	7/15	7/11
<b>32</b>	7/26	7/20	7/16	7/13	7/10	7/07	7/04	6/30	6/24
<b>28</b>	7/11	7/03	6/28	6/23	6/19	6/14	6/09	6/04	5/27
<b>24</b>	6/14	6/08	6/03	5/30	5/26	5/22	5/18	5/14	5/07
<b>20</b>	5/30	5/23	5/18	5/14	5/10	5/07	5/02	4/28	4/21
<b>16</b>	5/15	5/09	5/04	4/30	4/27	4/23	4/19	4/14	4/08
<b>Fall Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of earlier date in fall (beginning Aug 1) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	7/30	8/02	8/04	8/06	8/08	8/10	8/12	8/14	8/18
<b>32</b>	7/31	8/06	8/10	8/13	8/16	8/19	8/22	8/26	9/01
<b>28</b>	8/14	8/19	8/23	8/27	8/30	9/03	9/06	9/10	9/16
<b>24</b>	8/28	9/03	9/07	9/10	9/14	9/17	9/20	9/24	9/30
<b>20</b>	9/09	9/14	9/17	9/20	9/23	9/26	9/29	10/02	10/07
<b>16</b>	9/22	9/27	10/01	10/04	10/07	10/10	10/13	10/16	10/21
<b>Freeze Free Period</b>									
<b>Temp (F)</b>	<b>Probability of longer than indicated freeze free period (Days)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	33	27	23	19	16	13	9	5	0
<b>32</b>	60	52	46	41	36	32	26	20	12
<b>28</b>	102	92	84	78	72	66	60	52	42
<b>24</b>	135	127	120	115	110	105	99	93	84
<b>20</b>	160	151	145	140	135	130	125	118	110
<b>16</b>	186	178	172	167	162	157	152	146	138

\* 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

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Lon: 110° 46W

### 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
65	1499	1238	1082	790	563	296	138	168	411	744	1114	1486	9529
60	1344	1098	927	640	408	169	51	69	268	589	964	1331	7858
57	1251	1014	834	550	318	109	21	32	192	496	874	1238	6929
55	1189	958	772	490	260	77	11	17	147	435	814	1176	6346
50	1034	818	618	347	135	24	1	2	62	285	664	1021	5011
32	501	339	167	27	0	0	0	0	0	9	193	500	1736

### Cooling Degree Days (1)

Base	Cooling Degree Days (1)												
	Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
32	24	25	108	227	461	700	912	872	580	288	69	37	4303
55	0	0	0	0	7	87	209	176	37	0	0	0	516
57	0	0	0	0	3	59	158	129	22	0	0	0	371
60	0	0	0	0	1	29	95	72	8	0	0	0	205
65	0	0	0	0	0	6	26	17	1	0	0	0	50
70	0	0	0	0	0	0	4	1	0	0	0	0	5

### 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	4	69	236	467	673	631	353	110	7	0	0	0	4	73	309	776	1449	2080	2433	2543	2550	2550
45	0	0	0	22	118	322	518	476	219	39	0	0	0	0	0	22	140	462	980	1456	1675	1714	1714	1714
50	0	0	0	1	42	186	363	322	104	8	0	0	0	0	0	1	43	229	592	914	1018	1026	1026	1026
55	0	0	0	0	6	83	211	178	38	0	0	0	0	0	0	0	6	89	300	478	516	516	516	516
60	0	0	0	0	0	22	84	66	7	0	0	0	0	0	0	0	0	22	106	172	179	179	179	179
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	14	87	219	361	496	479	324	163	15	0	0	0	14	101	320	681	1177	1656	1980	2143	2158	2158

(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 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
- 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)