

Climatology of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: JEFFREY CITY, WY

1971-2000

COOP ID: 484925

Climate Division: WY10

NWS Call Sign:

Elevation: 6,320 Feet Lat: 42° 30N

Lon: 107° 50W

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	30.1	8.5	19.3	57	1981	22	26.6	1999	-39	1979	2	3.9	1979	1416	0	.0	.0	.3	17.4	30.6	9.0
Feb	34.8	9.9	22.4	60	1982	22	31.1	1991	-38	1985	1	9.9	1989	1195	0	.0	.0	1.2	12.0	27.9	5.7
Mar	44.1	18.7	31.4	72	1986	31	38.2	1986	-26	1965	18	24.6	1998	1042	0	.0	.0	9.3	4.2	29.6	1.2
Apr	53.7	24.7	39.2	79+	2000	29	44.9	1992	-18	1966	20	32.8	1983	773	0	.0	.0	19.9	1.0	23.9	.2
May	64.0	33.7	48.9	92	1964	20	53.9	1992	13+	1997	3	44.0	1983	501	0	.0	.0	28.1	.1	13.9	.0
Jun	76.1	41.7	58.9	98	1964	30	66.1	1988	27	1982	9	52.8	1998	211	28	.0	1.0	29.7	.0	1.6	.0
Jul	84.5	47.8	66.2	96+	1998	18	69.2	1988	32+	1993	8	60.3	1993	51	86	.0	4.8	31.0	.0	.1	.0
Aug	83.0	46.8	64.9	96+	1988	1	69.3	2000	28	1964	25	61.6	1993	71	68	.0	2.9	31.0	.0	.1	.0
Sep	71.6	36.9	54.3	91+	1998	5	60.2	1990	1	1965	18	49.9	1971	329	6	.0	.2	28.5	.1	8.1	.0
Oct	58.7	27.7	43.2	82	1992	2	47.8	1988	-6	1991	31	38.1	1984	675	0	.0	.0	24.4	.9	22.5	.1
Nov	40.4	16.3	28.4	67+	1999	13	39.2	1999	-27+	1993	26	15.4	2000	1100	0	.0	.0	5.7	6.7	28.0	2.5
Dec	30.7	9.8	20.3	58	1980	18	30.0	1980	-38	1983	23	9.4	1978	1386	0	.0	.0	.9	17.6	30.6	6.5
Ann	56.0	26.9	41.5	98	Jun 1964	30	69.3	Aug 2000	-39	Jan 1979	2	3.9	Jan 1979	8750	188	.0	8.9	210.0	60.0	216.9	25.2

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1964-2001

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

Climatology 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: JEFFREY CITY, WY

COOP ID: 484925

Climate Division: WY10

NWS Call Sign:

Elevation: 6,320 Feet Lat: 42°30N

Lon: 107°50W

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	.41	.38	.67	1987	6	.91	1987	.00	1989	3.4	1.2	@	.0	.06	.11	.18	.24	.30	.36	.42	.50	.61	.77	.93
Feb	.35	.32	.93	1989	2	.93	1989	.00	1990	3.3	1.3	.1	.0	.09	.14	.20	.24	.28	.32	.37	.42	.48	.58	.67
Mar	.87	.80	1.20	1988	11	2.35	1998	.11	1999	5.9	2.2	.3	.1	.19	.27	.40	.51	.63	.75	.89	1.06	1.27	1.62	1.94
Apr	1.42	1.20	1.16	1979	11	4.02	1999	.17	1989	8.2	4.2	.7	.1	.37	.50	.71	.89	1.07	1.25	1.46	1.71	2.03	2.54	3.01
May	2.25	1.97	2.53	1965	8	5.57	1978	.22	1994	9.1	4.9	1.4	.1	.53	.74	1.07	1.36	1.66	1.97	2.31	2.73	3.27	4.13	4.94
Jun	1.08	1.02	1.65	1985	26	3.01	1998	.00	1981	6.6	2.7	.4	@	.07	.18	.35	.51	.67	.86	1.07	1.33	1.68	2.25	2.81
Jul	.97	.94	1.20	1990	30	3.33	1984	.05	1980	5.5	2.2	.4	.1	.10	.18	.31	.45	.59	.75	.95	1.19	1.51	2.05	2.58
Aug	.64	.54	1.68	1984	1	2.05	1984	.07	1995	4.7	1.6	.2	@	.10	.15	.25	.34	.43	.53	.64	.78	.97	1.28	1.57
Sep	.79	.67	1.69	1982	14	2.49	1982	.04	1979	4.8	2.3	.3	.1	.09	.15	.26	.37	.49	.62	.78	.97	1.23	1.66	2.08
Oct	.78	.61	1.57	1994	4	2.95	1994	.00	1988	4.2	2.4	.3	.1	.03	.09	.20	.32	.44	.58	.75	.96	1.25	1.73	2.20
Nov	.66	.56	.96	1983	28	2.69	1983	.00+	1989	4.3	2.0	.3	.0	.00	.09	.22	.32	.43	.54	.67	.82	1.03	1.36	1.68
Dec	.45	.36	.80	1983	20	1.28	1978	.06	1991	3.7	1.8	.1	.0	.07	.11	.17	.23	.30	.37	.45	.55	.68	.89	1.10
Ann	10.67	10.52	2.53	May 1965	8	5.57	May 1978	.00+	Feb 1990	63.7	28.8	4.5	.6	7.56	8.16	8.92	9.51	10.02	10.52	11.04	11.61	12.31	13.31	14.18

+ 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: 1964-2001

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

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

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: JEFFREY CITY, WY

COOP ID: 484925

Climate Division: WY10

NWS Call Sign:

Elevation: 6,320 Feet

Lat: 42° 30N

Lon: 107° 50W

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	5.3	5.0	2	2	7.5	1987	6	12.0	1995	13	1979	31	7	1979	3.0	2.2	.4	.1	.0	14.3	6.8	1.8	.0
Feb	5.9	5.5	2	1	10.0	1989	2	15.0	1989	14	1989	6	9	1979	3.0	2.5	.5	.3	.1	12.9	3.4	.9	.0
Mar	9.5	7.0	1	1	14.5	1988	11	31.0	1998	15	1998	19	5	1984	3.3	2.9	1.1	.5	.1	7.1	2.7	1.2	.2
Apr	9.5	6.5	1	#	11.0	1999	2	45.5	1999	16	1999	3	4	1999	3.4	3.0	1.5	.7	.1	4.3	1.5	.8	.2
May	3.7	2.0	#	#	10.0	1997	2	12.5	1997	10	1997	2	1	1980	.9	.8	.6	.3	.1	.7	.3	.2	.1
Jun	.3	.0	#	0	4.0	1998	4	6.0	1998	3	1998	4	#+	1998	.1	.1	.1	.0	.0	.1	.1	.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	1.2	.0	#	0	8.0	1982	14	13.0	2000	8	1982	14	1+	2000	.3	.3	.1	.1	.0	.1	.1	.1	.0
Oct	5.5	4.4	#	#	9.0	1998	17	17.0	1994	10	1995	23	1	1996	1.5	1.3	.6	.4	.0	1.7	.9	.6	@
Nov	10.6	12.0	1	1	10.9	1979	20	18.2	1978	12	1985	15	4	1978	3.5	3.1	1.4	.7	.1	10.8	5.1	2.3	.2
Dec	4.7	4.3	2	1	5.5	1988	26	15.5	1997	15	1978	3	8	1985	2.8	2.2	.8	.1	.0	17.5	4.3	.7	.0
Ann	56.2	46.7	N/A	N/A	14.5	Mar 1988	11	45.5	Apr 1999	16	Apr 1999	3	9	Feb 1979	21.8	18.4	7.1	3.2	.5	69.5	25.2	8.6	.7

+ 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

Complete documentation available from:

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

Climatography of the United States

No. 20 1971-2000

Station: JEFFREY CITY, WY

COOP ID: 484925

Climate Division: WY10

NWS Call Sign:

Elevation: 6,320 Feet

Lat: 42° 30N

Lon: 107° 50W

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	7/11	7/05	7/01	6/27	6/23	6/19	6/15	6/11	6/05
32	6/23	6/17	6/13	6/09	6/06	6/03	5/30	5/26	5/20
28	6/08	6/03	5/30	5/26	5/23	5/20	5/16	5/12	5/06
24	5/26	5/21	5/18	5/15	5/12	5/09	5/06	5/03	4/28
20	5/13	5/07	5/03	4/29	4/26	4/22	4/19	4/14	4/08
16	5/03	4/26	4/21	4/17	4/13	4/09	4/05	3/31	3/24
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	8/17	8/23	8/27	8/30	9/02	9/05	9/08	9/12	9/18
32	9/01	9/04	9/07	9/09	9/12	9/14	9/16	9/19	9/23
28	9/08	9/12	9/15	9/17	9/19	9/21	9/24	9/26	9/30
24	9/13	9/19	9/22	9/26	9/29	10/02	10/05	10/09	10/14
20	9/27	10/03	10/06	10/10	10/13	10/16	10/19	10/23	10/28
16	10/06	10/12	10/16	10/20	10/23	10/26	10/30	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	95	87	80	75	70	65	60	54	45
32	121	113	107	102	97	92	87	81	73
28	140	132	127	123	119	114	110	105	97
24	162	154	149	144	139	135	130	124	116
20	195	186	180	175	170	164	159	153	144
16	222	212	205	199	193	187	180	173	163

* 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: JEFFREY CITY, WY

COOP ID: 484925

Climate Division: WY10 NWS Call Sign: Elevation: 6,320 Feet Lat: 42°30N Lon: 107°50W

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	1416	1195	1042	773	501	211	51	71	329	675	1100	1386	8750
60	1261	1055	887	623	350	113	11	20	200	520	950	1231	7221
57	1168	971	794	533	266	69	3	7	135	427	860	1138	6371
55	1106	915	732	476	215	47	1	3	99	366	800	1076	5836
50	951	775	577	336	109	14	0	0	36	222	656	921	4597
32	420	307	125	30	1	0	0	0	0	8	222	393	1506

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	27	36	106	247	523	807	1059	1020	667	356	112	30	4990
55	0	0	0	2	24	164	347	310	76	1	0	0	924
57	0	0	0	0	13	126	287	252	52	0	0	0	730
60	0	0	0	0	4	80	201	172	27	0	0	0	484
65	0	0	0	0	0	28	86	68	6	0	0	0	188
70	0	0	0	0	0	7	20	14	1	0	0	0	42

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	1	19	117	294	577	821	796	455	180	20	0	0	1	20	137	431	1008	1829	2625	3080	3260	3280	3280
45	0	0	0	50	171	429	666	641	320	86	4	0	0	0	0	50	221	650	1316	1957	2277	2363	2367	2367
50	0	0	0	16	80	291	511	486	196	28	0	0	0	0	0	16	96	387	898	1384	1580	1608	1608	1608
55	0	0	0	1	25	171	357	334	100	6	0	0	0	0	0	1	26	197	554	888	988	994	994	994
60	0	0	0	0	1	75	213	191	32	0	0	0	0	0	0	0	1	76	289	480	512	512	512	512
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	26	113	230	391	537	527	341	176	19	0	0	0	26	139	369	760	1297	1824	2165	2341	2360	2360

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

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
- 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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