

# Climatography of the United States

No. 20

1971-2000

Station: GUNNISON 3 SW, CO

COOP ID: 053662

Climate Division: CO 2

NWS Call Sign:

Elevation: 7,640 Feet Lat: 38° 32N

Lon: 106° 58W

## 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	25.3	-6.1	9.6	63	1954	31	20.5	1981	-45+	1930	22	-6.1	1984	1718	0	.0	.0	.1	21.5	31.0	21.3
Feb	30.9	-.5	15.2	61+	1904	26	25.2	1995	-43	1916	1	-1.3	1974	1396	0	.0	.0	.8	13.8	28.2	13.9
Mar	42.4	13.9	28.2	75	1928	27	36.3	1990	-29	1903	2	18.8	1984	1143	0	.0	.0	8.4	3.4	30.8	3.0
Apr	53.8	21.6	37.7	78+	1981	30	43.8	1989	-14	1973	8	30.4	1984	819	0	.0	.0	21.7	.2	28.3	.1
May	64.7	29.8	47.3	87+	1956	31	51.1	1996	7	1968	7	43.7	1975	551	0	.0	.0	29.5	.0	21.6	.0
Jun	75.2	36.1	55.7	95+	1954	23	59.3	1988	15	1919	1	51.6	1975	283	3	.0	.2	29.9	.0	7.7	.0
Jul	79.8	42.3	61.1	95+	1939	11	64.3	1998	23	1968	1	58.1	1992	135	12	.0	.5	31.0	.0	.6	.0
Aug	77.8	40.8	59.3	98+	1931	25	62.9+	1994	24+	1980	21	55.1	1976	187	11	.0	.1	31.0	.0	2.5	.0
Sep	70.9	32.2	51.6	91	1930	3	56.6	1990	9	1978	21	47.8	1975	404	0	.0	.0	29.9	.0	14.9	.0
Oct	60.3	21.6	41.0	82	1938	1	44.7	1988	-6+	1975	25	36.2	1976	746	0	.0	.0	27.3	.2	28.2	@
Nov	42.7	10.6	26.7	69+	1952	3	31.0	1981	-26+	1975	26	19.6+	2000	1150	0	.0	.0	9.2	5.0	29.8	3.8
Dec	29.3	-2.1	13.6	62	1939	10	26.7	1980	-47	1924	25	2.8	1978	1595	0	.0	.0	.6	19.0	31.0	18.4
Ann	54.4	20.0	37.3	98+	Aug 1931	25	64.3	Jul 1998	-47	Dec 1924	25	-6.1	Jan 1984	10127	26	.0	.8	219.4	63.1	254.6	60.5

+ 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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1900-2001

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

051-A

# 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: GUNNISON 3 SW, CO**

**COOP ID: 053662**

**Climate Division: CO 2**

**NWS Call Sign:**

**Elevation: 7,640 Feet Lat: 38°32N**

**Lon: 106°58W**

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	.77	.61	.97	1969	25	2.38	1979	.00	1991	7.1	3.0	.3	.0	.04	.11	.23	.35	.47	.60	.76	.95	1.21	1.64	2.06
Feb	.60	.60	1.01	1937	14	1.21	1989	.00	1972	5.5	2.1	.1	.0	.06	.13	.23	.32	.40	.50	.61	.74	.91	1.19	1.46
Mar	.54	.51	1.50	1948	1	1.86	1995	.00	1977	6.3	1.9	.1	.0	.07	.14	.23	.31	.39	.47	.56	.67	.81	1.04	1.25
Apr	.63	.56	1.90	1996	13	2.29	1996	.01	1979	6.0	2.0	.1	@	.07	.12	.21	.30	.39	.50	.62	.77	.98	1.32	1.65
May	.82	.90	1.04	1937	29	1.64	1995	.06	1974	7.5	2.8	.3	.0	.14	.21	.33	.44	.56	.68	.83	1.00	1.23	1.61	1.96
Jun	.60	.68	1.10	1912	17	1.52	1995	.02	1980	6.0	2.0	.1	.0	.07	.11	.20	.28	.37	.47	.59	.74	.93	1.26	1.58
Jul	1.24	1.15	1.42	1935	21	3.25	1981	.15	1979	9.9	4.4	.3	.0	.30	.41	.59	.76	.92	1.09	1.28	1.50	1.80	2.27	2.71
Aug	1.70	1.71	1.24	1994	2	3.61	1971	.14	1985	11.2	5.2	.6	.1	.46	.62	.86	1.08	1.29	1.51	1.76	2.05	2.43	3.03	3.59
Sep	.99	.94	1.16	1918	10	2.35	1990	.02	1978	8.1	3.2	.1	.0	.10	.18	.31	.45	.60	.77	.97	1.21	1.55	2.10	2.64
Oct	.73	.59	1.33	1947	14	2.10	1998	.09	1992	6.0	2.6	.3	.0	.10	.16	.26	.36	.47	.59	.72	.89	1.12	1.49	1.84
Nov	.57	.48	1.25	1959	4	1.58	1983	.01+	1989	6.0	1.9	.1	.0	.05	.09	.16	.24	.33	.43	.55	.70	.90	1.24	1.58
Dec	.76	.63	2.80	1997	8	3.10	1997	.00+	1990	7.0	2.4	.1	.1	.00	.00	.16	.28	.41	.56	.74	.95	1.24	1.73	2.20
Ann	9.95	9.91	2.80	Dec 1997	8	3.61	Aug 1971	.00+	Jan 1991	86.6	33.5	2.5	.2	6.89	7.48	8.23	8.81	9.32	9.82	10.33	10.90	11.60	12.61	13.48

+ 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: 1900-2001

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

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Station: GUNNISON 3 SW, CO

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Climate Division: CO 2

NWS Call Sign:

Elevation: 7,640 Feet

Lat: 38°32N

Lon: 106°58W

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	11.2	7.9	7	5	11.0	1978	6	34.9	1979	24	1975	9	19	1975	6.1	3.6	1.3	.6	@	24.8	20.9	17.5	8.9
Feb	7.9	8.6	9	7	11.0	1989	4	15.6	1975	27	1974	26	23	1974	5.0	2.8	.8	.2	.1	19.3	17.8	15.9	9.8
Mar	5.9	4.7	3	1	6.0	1985	27	17.4	1995	25	1984	3	21	1984	4.3	2.5	.5	.1	.0	6.7	4.2	3.0	1.1
Apr	3.4	2.2	#	#	7.0	1987	6	12.0	1987	8	1990	30	1	1995	2.4	1.1	.3	@	.0	.7	.1	.0	.0
May	.7	.0	#	0	3.0	1979	10	4.0	1990	5	1990	1	#+	1999	.4	.3	.1	.0	.0	.1	.0	.0	.0
Jun	#	.0	0	0	#	1999	6	#	1999	0	0	0	0	0	.0	.0	.0	.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	.1	.0	#	0	2.0	1971	17	2.0	1971	#	1971	17	#	1971	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	1.4	.5	#	0	6.0	1984	17	10.5	1984	6	1984	17	1	1997	1.0	.5	.1	@	.0	.7	.2	@	.0
Nov	5.5	4.4	1	#	9.0	1975	27	21.0	1975	16	1975	30	3	1975	3.8	1.9	.6	.2	.0	5.2	2.3	.5	.2
Dec	9.7	8.5	3	2	10.0	1981	27	22.6	1996	24	1983	25	15	1983	5.5	3.5	1.1	.3	@	16.4	13.2	9.3	1.8
Ann	45.8	36.8	N/A	N/A	11.0+	Feb 1989	4	34.9	Jan 1979	27	Feb 1974	26	23	Feb 1974	28.5	16.2	4.8	1.4	.1	73.9	58.7	46.2	21.8

+ 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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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	7/31	7/25	7/20	7/16	7/13	7/09	7/05	6/30	6/24
32	7/16	7/09	7/05	7/01	6/27	6/23	6/19	6/15	6/08
28	6/23	6/18	6/15	6/12	6/09	6/06	6/03	5/31	5/26
24	6/07	6/02	5/29	5/25	5/22	5/19	5/16	5/12	5/06
20	5/22	5/18	5/14	5/11	5/08	5/06	5/03	4/29	4/24
16	5/12	5/06	5/01	4/27	4/23	4/19	4/15	4/10	4/04
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	7/29	8/03	8/07	8/10	8/13	8/16	8/20	8/24	8/29
32	8/11	8/18	8/23	8/27	8/31	9/04	9/08	9/13	9/19
28	8/25	8/31	9/04	9/07	9/11	9/14	9/18	9/22	9/28
24	9/07	9/12	9/15	9/19	9/21	9/24	9/27	10/01	10/06
20	9/19	9/24	9/27	9/30	10/02	10/05	10/07	10/10	10/15
16	9/24	9/29	10/03	10/07	10/10	10/13	10/17	10/21	10/27
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	59	49	42	36	31	25	19	13	3
32	93	83	76	70	64	58	52	45	34
28	118	109	103	98	93	88	83	77	68
24	147	138	132	126	121	116	111	105	96
20	165	159	154	150	146	142	138	133	126
16	195	186	180	174	169	164	159	152	144

\* 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](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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**Elevation: 7,640 Feet    Lat: 38°32N    Lon: 106°58W**

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	1718	1396	1143	819	551	283	135	187	404	746	1150	1595	10127
60	1563	1256	988	669	396	152	41	79	260	591	1000	1440	8435
57	1470	1172	895	579	304	91	13	38	182	498	910	1347	7499
55	1408	1116	833	519	245	59	5	21	137	436	850	1285	6914
50	1253	976	678	378	120	13	0	3	53	286	700	1130	5590
32	719	513	223	46	0	0	0	0	0	9	208	589	2307

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	24	41	103	216	473	710	900	847	587	286	48	17	4252
55	0	0	0	0	5	79	192	155	34	0	0	0	465
57	0	0	0	0	2	51	138	110	19	0	0	0	320
60	0	0	0	0	0	21	73	58	6	0	0	0	158
65	0	0	0	0	0	3	12	11	0	0	0	0	26
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	3	71	255	493	671	622	372	110	2	0	0	0	3	74	329	822	1493	2115	2487	2597	2599	2599
45	0	0	0	16	127	344	516	467	229	32	0	0	0	0	0	16	143	487	1003	1470	1699	1731	1731	1731
50	0	0	0	0	44	200	361	312	105	4	0	0	0	0	0	0	44	244	605	917	1022	1026	1026	1026
55	0	0	0	0	3	80	207	159	30	0	0	0	0	0	0	0	3	83	290	449	479	479	479	479
60	0	0	0	0	0	12	70	48	5	0	0	0	0	0	0	0	0	12	82	130	135	135	135	135
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	24	118	255	399	479	446	335	191	26	0	0	0	24	142	397	796	1275	1721	2056	2247	2273	2273

(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](http://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](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.

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## 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)