

Climatography of the United States

No. 20

1971-2000

Station: RIFLE, CO

COOP ID: 057031

Climate Division: CO 2

NWS Call Sign:

Elevation: 5,450 Feet Lat: 39° 32N Lon: 107° 48W

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	37.3	9.7	23.5	62	1986	29	31.5	1998	-38	1963	12	13.4	1973	1287	0	.0	.0	2.5	8.0	30.9	6.0
Feb	45.2	16.3	30.8	69+	1986	26	39.9	1995	-34	1933	10	20.3	1974	959	0	.0	.0	8.8	1.9	27.7	1.8
Mar	55.1	24.4	39.8	79	1986	28	45.5	1999	-16	1948	11	33.6	1976	783	0	.0	.0	21.8	.1	26.8	.0
Apr	63.6	30.1	46.9	92	1936	19	52.5	1992	7	1945	4	41.3	1975	544	0	.0	@	27.0	@	17.7	.0
May	72.7	38.8	55.8	96	2000	30	61.1	2000	17	1972	1	51.2	1975	292	7	.0	.2	30.7	.0	4.5	.0
Jun	84.2	45.7	65.0	102+	1990	30	69.3	1988	22	1937	6	60.4	1975	81	79	.1	8.5	30.0	.0	.4	.0
Jul	89.6	52.4	71.0	104+	1931	24	75.4	1998	33	1968	1	67.5	1992	10	195	.7	16.8	31.0	.0	.0	.0
Aug	87.9	51.3	69.6	101+	2000	10	74.0	2000	31	1960	17	66.2	1975	19	161	.1	12.6	31.0	.0	.0	.0
Sep	79.5	42.0	60.8	99+	1990	14	66.7	1998	21	1937	26	55.8	1971	162	34	.0	2.6	30.0	.0	3.2	.0
Oct	67.7	31.0	49.4	88+	1992	1	54.1	1988	7	1991	31	44.6	1984	486	0	.0	.0	28.7	.1	18.7	.0
Nov	50.5	21.2	35.9	79	1934	4	41.8	1999	-16	1955	16	29.7	2000	874	0	.0	.0	15.3	1.3	28.0	.2
Dec	39.4	11.7	25.6	65+	1980	3	35.0	1980	-27	1962	26	15.0	1978	1223	0	.0	.0	3.7	6.6	30.6	3.9
Ann	64.4	31.2	47.8	104+	Jul 1931	24	75.4	Jul 1998	-38	Jan 1963	12	13.4	Jan 1973	6720	476	.9	40.7	260.5	18.0	188.5	11.9

+ 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: 1910-2001

(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: RIFLE, CO

COOP ID: 057031

Climate Division: CO 2

NWS Call Sign:

Elevation: 5,450 Feet Lat: 39°32N

Lon: 107°48W

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	.96	.80	1.30	1978	27	2.50	1980	.13	1994	8.3	3.7	.2	@	.17	.25	.39	.52	.66	.80	.97	1.17	1.44	1.87	2.29
Feb	.90	.85	1.05	1996	21	2.45	1996	.05	1972	7.2	3.1	.3	@	.13	.21	.34	.47	.59	.74	.90	1.10	1.37	1.81	2.23
Mar	1.06	.95	.92	1912	20	3.04	1985	.16	1972	8.8	3.9	.2	.0	.20	.29	.44	.59	.73	.89	1.07	1.29	1.58	2.04	2.48
Apr	1.11	.89	1.10	1934	3	3.29	1999	.08	1982	8.1	4.0	.4	@	.22	.32	.48	.63	.78	.95	1.13	1.36	1.65	2.13	2.58
May	1.18	1.07	1.41	1916	20	3.22	1979	.00	1974	7.7	3.8	.4	.1	.14	.28	.48	.65	.82	1.00	1.21	1.45	1.77	2.29	2.78
Jun	.87	.66	1.98	1984	7	3.71	1984	.00	1971	5.5	2.7	.3	.1	.07	.16	.30	.43	.56	.71	.87	1.07	1.35	1.79	2.21
Jul	1.04	.85	1.40	1989	29	2.63	1989	.02	1994	7.0	3.6	.4	@	.13	.21	.36	.50	.66	.83	1.02	1.27	1.60	2.15	2.68
Aug	1.03	.90	2.15	1930	9	2.60	1984	.10	1975	7.3	3.2	.3	.1	.24	.34	.49	.62	.76	.90	1.06	1.25	1.50	1.90	2.28
Sep	1.21	1.20	1.76	1988	12	3.30	1986	.07	1979	7.4	4.2	.4	.1	.17	.27	.44	.61	.79	.98	1.20	1.48	1.85	2.46	3.05
Oct	1.31	1.10	1.36	1914	4	3.44	1972	.14	1988	7.2	4.4	.5	.1	.24	.35	.54	.72	.90	1.10	1.32	1.59	1.95	2.53	3.08
Nov	1.02	.89	1.21	1919	26	3.59	1985	.00	1976	7.3	3.6	.1	@	.18	.32	.49	.63	.76	.90	1.06	1.25	1.49	1.87	2.22
Dec	1.06	.89	1.42	1966	6	3.25	1978	.02	1976	7.9	3.7	.3	.0	.12	.19	.34	.49	.65	.82	1.03	1.29	1.64	2.22	2.79
Ann	12.75	12.17	2.15	Aug 1930	9	3.71	Jun 1984	.00+	Nov 1976	89.7	43.9	3.8	.5	8.08	8.94	10.07	10.94	11.72	12.49	13.28	14.17	15.27	16.87	18.27

+ 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: 1910-2001

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

Complete documentation available from:

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

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1971-2000

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Station: RIFLE, CO

COOP ID: 057031

Climate Division: CO 2

NWS Call Sign:

Elevation: 5,450 Feet

Lat: 39°32N

Lon: 107°48W

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	12.9	11.0	5	3	10.0	1974	5	36.7	1988	20	1975	8	15	1979	6.4	4.4	1.7	.8	@	19.4	15.3	12.5	5.7
Feb	7.8	7.0	3	1	16.7	1989	4	35.6	1989	25	1979	2	16	1979	4.4	3.0	1.0	.4	@	10.8	7.9	6.7	2.2
Mar	3.9	2.0	#	#	8.0	1985	27	25.0	1985	10	1985	29	2	1979	2.4	1.4	.4	.2	.0	1.5	.6	.4	@
Apr	.6	.0	#	0	3.0	1983	3	4.7	1975	1	1999	3	#+	2000	.7	.2	@	.0	.0	.2	.0	.0	.0
May	#	.0	#	0	#	1979	7	#+	1979	#	1999	10	#	1999	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	#	.0	0	0	#	1976	14	#	1976	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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	1.1	.0	#	0	4.5	1972	29	5.5	1972	5	1972	31	1	1972	.5	.4	.2	.0	.0	.4	.2	.1	.0
Nov	5.0	3.0	#	#	12.0	1985	9	28.0	1985	6	1975	27	1	1994	2.7	1.9	.8	.2	@	2.2	.9	.2	.0
Dec	12.5	10.7	2	2	11.5	1972	4	38.0	1972	16	1983	28	10	1972	6.2	4.9	1.8	.7	.1	11.4	7.2	5.0	1.4
Ann	43.8	33.7	N/A	N/A	16.7	Feb 1989	4	38.0	Dec 1972	25	Feb 1979	2	16	Feb 1979	23.3	16.2	5.9	2.3	.1	45.9	32.1	24.9	9.3

+ 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:

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NWS Call Sign:

Elevation: 5,450 Feet

Lat: 39° 32N

Lon: 107° 48W

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	6/24	6/19	6/15	6/12	6/09	6/05	6/02	5/29	5/24
32	6/13	6/07	6/02	5/29	5/25	5/22	5/18	5/13	5/07
28	5/25	5/20	5/15	5/12	5/08	5/05	5/01	4/27	4/21
24	5/07	5/01	4/27	4/23	4/20	4/16	4/13	4/08	4/02
20	4/25	4/19	4/15	4/11	4/08	4/04	3/31	3/27	3/21
16	4/11	4/04	3/30	3/25	3/21	3/17	3/12	3/07	2/28
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	8/31	9/05	9/09	9/12	9/15	9/18	9/21	9/25	9/30
32	9/12	9/16	9/19	9/22	9/24	9/26	9/29	10/02	10/06
28	9/20	9/25	9/28	10/01	10/03	10/06	10/09	10/12	10/17
24	9/28	10/04	10/09	10/12	10/16	10/20	10/23	10/28	11/03
20	10/16	10/20	10/24	10/27	10/29	11/01	11/04	11/07	11/12
16	10/25	10/30	11/02	11/05	11/08	11/11	11/14	11/18	11/22
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	118	111	106	102	98	94	89	84	77
32	143	136	130	125	121	117	112	106	99
28	172	163	157	152	147	143	137	131	123
24	204	195	189	184	178	173	168	162	153
20	227	219	213	208	204	199	195	189	181
16	257	248	242	236	231	226	221	214	205

* 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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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	1287	959	783	544	292	81	10	19	162	486	874	1223	6720
60	1132	819	628	397	165	26	1	2	73	335	724	1068	5370
57	1039	735	535	314	105	10	0	0	39	251	634	975	4637
55	977	679	474	261	74	5	0	0	24	199	574	913	4180
50	822	543	329	151	24	0	0	0	4	95	426	758	3152
32	335	150	24	2	0	0	0	0	0	0	52	259	822

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	71	115	265	448	737	988	1209	1165	863	538	167	59	6625
55	0	0	1	18	98	303	496	452	196	24	0	0	1588
57	0	0	0	10	68	248	434	390	152	13	0	0	1315
60	0	0	0	4	34	174	341	299	96	4	0	0	952
65	0	0	0	0	7	79	195	161	34	0	0	0	476
70	0	0	0	0	0	24	82	61	7	0	0	0	174

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	12	90	249	499	751	966	918	628	309	43	0	0	12	102	351	850	1601	2567	3485	4113	4422	4465	4465
45	0	2	28	134	350	601	811	763	478	180	10	0	0	2	30	164	514	1115	1926	2689	3167	3347	3357	3357
50	0	0	3	53	211	453	656	608	333	79	0	0	0	0	3	56	267	720	1376	1984	2317	2396	2396	2396
55	0	0	0	14	101	308	501	453	198	18	0	0	0	0	0	14	115	423	924	1377	1575	1593	1593	1593
60	0	0	0	0	28	175	346	299	86	1	0	0	0	0	0	0	28	203	549	848	934	935	935	935
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	28	117	222	365	496	604	580	438	286	70	5	0	28	145	367	732	1228	1832	2412	2850	3136	3206	3211

(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/normal/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