

Climatology of the United States

No. 20

1971-2000

Station: RANGELY 1 E, CO

COOP ID: 056832

Climate Division: CO 2

NWS Call Sign:

Elevation: 5,290 Feet Lat: 40°05N

Lon: 108°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	30.3	4.9	17.6	57	1975	26	29.1	1981	-37	1952	2	.4	1973	1469	0	.0	.0	1.0	15.5	31.0	11.3
Feb	38.0	11.3	24.7	67	1986	25	34.0	1995	-32	1951	1	10.4	1973	1130	0	.0	.0	4.3	7.4	27.9	6.2
Mar	51.0	24.6	37.8	76+	1986	30	44.6	1986	-17	1966	4	30.8	1976	843	0	.0	.0	18.8	.8	27.0	.6
Apr	61.0	32.7	46.9	86	1954	28	53.5	1992	-6	1975	2	41.5	1975	545	0	.0	.0	26.5	.1	15.4	.0
May	71.6	41.5	56.6	95+	2000	30	60.8	1992	8	1975	6	52.1	1995	269	8	.0	.3	30.7	.0	3.4	.0
Jun	83.9	49.9	66.9	108	1974	21	71.7	1994	29+	1973	30	61.7	1998	57	114	.3	9.7	30.0	.0	.6	.0
Jul	90.3	56.5	73.4	103	1976	10	76.2	1994	39+	1972	30	69.8	1993	2	261	.8	20.4	31.0	.0	.0	.0
Aug	88.4	55.0	71.7	103	1973	3	75.0	2000	24+	1974	31	68.6	1987	6	212	.3	15.5	31.0	.0	.3	.0
Sep	78.4	45.6	62.0	98	1958	3	66.8	1979	22	1971	19	58.6	1971	134	43	.0	2.7	29.9	.0	2.0	.0
Oct	65.0	34.1	49.6	86+	1963	1	53.7	1988	0	1991	31	45.0	1984	480	0	.0	.0	28.6	.2	15.5	@
Nov	46.0	21.5	33.8	74	1978	5	38.7	1995	-18	1969	18	25.5	2000	939	0	.0	.0	12.9	2.6	28.6	.6
Dec	33.4	8.9	21.2	60+	1995	2	31.0	1980	-29	1978	8	9.1	1972	1360	0	.0	.0	1.7	12.1	30.9	6.9
Ann	61.4	32.2	46.9	108	Jun 1974	21	76.2	Jul 1994	-37	Jan 1952	2	.4	Jan 1973	7234	638	1.4	48.6	246.4	38.7	182.6	25.6

+ 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: 1950-2001

(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: RANGELY 1 E, CO

COOP ID: 056832

Climate Division: CO 2

NWS Call Sign:

Elevation: 5,290 Feet Lat: 40°05N

Lon: 108°46W

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	.56	.47	.97	1956	16	1.49	1995	.00+	1976	4.3	2.0	.1	.0	.00	.07	.18	.27	.36	.45	.56	.69	.87	1.16	1.44
Feb	.48	.51	1.15	1962	16	1.09	1999	.00+	1976	4.2	1.7	.1	.0	.00	.00	.13	.21	.29	.38	.48	.61	.77	1.03	1.29
Mar	1.02	.90	1.52	1979	29	3.18	1979	.08	1972	6.2	3.2	.4	.1	.16	.24	.39	.53	.68	.84	1.02	1.24	1.54	2.03	2.50
Apr	1.26	1.19	.95	1971	19	2.71	1984	.32	1982	6.8	4.2	.5	.0	.44	.56	.73	.88	1.02	1.16	1.31	1.49	1.72	2.07	2.40
May	1.23	1.11	.93	1975	21	3.11	1995	.00	1974	7.2	3.9	.4	.0	.19	.35	.56	.73	.90	1.08	1.27	1.51	1.81	2.29	2.74
Jun	.85	.57	2.00	1970	10	3.98	1998	.02	1980	4.6	2.5	.2	@	.05	.10	.21	.32	.45	.60	.79	1.03	1.36	1.92	2.48
Jul	.95	.84	1.38	1964	13	2.66	1986	.00	1972	5.8	2.8	.4	@	.05	.14	.28	.42	.57	.74	.93	1.17	1.50	2.05	2.58
Aug	.93	.95	1.42	1953	1	2.18	1997	.03	1971	6.8	2.9	.3	.0	.13	.21	.34	.47	.60	.75	.93	1.14	1.42	1.89	2.34
Sep	1.19	1.09	1.61	1997	19	4.55	1997	.07	1987	6.0	3.4	.6	.1	.10	.18	.34	.51	.69	.89	1.14	1.45	1.88	2.59	3.29
Oct	1.39	1.24	1.75	1996	20	4.35	1981	.00	1988	5.5	3.6	.9	@	.17	.34	.58	.77	.97	1.19	1.43	1.71	2.09	2.70	3.27
Nov	.73	.66	.85	1983	8	1.89	1996	.00	1976	4.4	2.7	.2	.0	.13	.23	.35	.45	.55	.65	.76	.89	1.06	1.33	1.58
Dec	.51	.44	.90	1951	30	1.69	1972	.00+	1976	3.9	2.0	.1	.0	.00	.10	.20	.28	.36	.44	.53	.63	.77	.99	1.20
Ann	11.10	11.10	2.00	Jun 1970	10	4.55	Sep 1997	.00+	Oct 1988	65.7	34.9	4.2	.2	6.91	7.68	8.68	9.46	10.16	10.84	11.56	12.36	13.33	14.78	16.04

+ 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: 1950-2001

(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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Station: RANGELY 1 E, CO

COOP ID: 056832

Climate Division: CO 2

NWS Call Sign:

Elevation: 5,290 Feet

Lat: 40°05N

Lon: 108°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	4.1	3.4	5	4	8.0	1988	18	12.0	1989	20	1973	25	17	1973	3.1	2.3	.9	.2	.0	-9.9	-9.9	-9.9	-9.9
Feb	4.7	3.5	5	3	7.0	1989	13	16.4	1989	20+	1979	2	16	1979	2.8	2.0	.6	.2	.0	-9.9	-9.9	-9.9	-9.9
Mar	2.4	1.5	1	#	7.0	1988	10	11.0	1998	17	1973	2	11	1973	1.0	.8	.2	.1	.0	.6	.3	.2	.0
Apr	2.3	.0	#	0	8.0	1981	3	13.5	1991	3	1996	13	#+	1999	.7	.6	.3	.2	.0	.3	@	.0	.0
May	.1	.0	#	0	1.0	1999	4	1.5	1999	1	1999	4	#	1999	.1	@	.0	.0	.0	@	.0	.0	.0
Jun	.0	.0	#	0	.5	1990	1	.5	1990	#	1990	1	#	1990	@	.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	#	1984	25	#+	1984	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.2	.0	#	0	4.0	1996	26	4.0	1996	5	1996	29	1	1996	.1	.1	@	.0	.0	.2	.1	.0	.0
Nov	3.3	2.8	#	#	10.0	1977	19	10.0	1977	10	1977	19	2	1979	1.8	1.2	.4	@	@	2.2	.7	.2	.0
Dec	6.5	5.4	2	1	10.0	1987	23	19.8	1983	16+	1983	26	7	1972	3.8	2.7	.7	.1	.1	7.1	2.2	1.1	.5
Ann	23.6	16.6	N/A	N/A	10.0+	Dec 1987	23	19.8	Dec 1983	20+	Feb 1979	2	17	Jan 1973	13.4	9.7	3.1	.8	.1	-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

Complete documentation available from:

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NWS Call Sign:

Elevation: 5,290 Feet

Lat: 40° 05N

Lon: 108° 46W

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	6/19	6/11	6/06	6/01	5/28	5/24	5/19	5/14	5/06
32	6/07	5/31	5/25	5/21	5/16	5/12	5/07	5/02	4/25
28	5/21	5/15	5/10	5/06	5/02	4/28	4/24	4/19	4/12
24	4/30	4/24	4/20	4/16	4/12	4/09	4/05	4/01	3/26
20	4/24	4/16	4/11	4/07	4/03	3/30	3/25	3/20	3/13
16	4/16	4/07	3/31	3/25	3/19	3/14	3/08	3/01	2/19
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	9/02	9/08	9/12	9/15	9/18	9/22	9/25	9/29	10/05
32	9/14	9/19	9/23	9/25	9/28	10/01	10/04	10/07	10/12
28	9/16	9/23	9/27	10/01	10/05	10/09	10/13	10/18	10/24
24	9/29	10/06	10/11	10/15	10/19	10/23	10/27	11/01	11/08
20	10/20	10/24	10/27	10/29	10/31	11/03	11/05	11/08	11/12
16	10/26	10/31	11/03	11/06	11/09	11/12	11/15	11/19	11/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	142	132	125	118	113	107	100	93	83
32	164	154	146	140	134	128	122	115	105
28	186	176	168	162	156	150	143	136	125
24	219	208	201	195	189	183	177	169	159
20	238	229	222	216	211	206	200	194	184
16	267	256	248	241	234	228	221	213	202

* 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: 5,290 Feet Lat: 40°05N Lon: 108°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	Ann
65	1469	1130	843	545	269	57	2	6	134	480	939	1360	7234
60	1314	990	688	399	145	16	0	0	55	329	789	1205	5930
57	1222	906	595	317	89	6	0	0	27	245	699	1112	5218
55	1163	859	534	265	61	3	0	0	15	194	639	1050	4783
50	1017	726	391	156	18	0	0	0	2	92	490	895	3787
32	531	324	60	3	0	0	0	0	0	0	85	382	1385

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	85	119	240	449	762	1047	1282	1229	899	544	137	45	6838
55	4	9	1	20	109	360	569	516	224	25	0	0	1837
57	0	0	0	12	76	303	507	454	176	14	0	0	1542
60	0	0	0	5	39	223	414	362	114	5	0	0	1162
65	0	0	0	0	8	114	261	212	43	0	0	0	638
70	0	0	0	0	1	44	124	88	10	0	0	0	267

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	6	77	264	528	814	1048	987	667	308	29	0	0	6	83	347	875	1689	2737	3724	4391	4699	4728	4728
45	0	0	25	148	380	665	893	832	517	181	5	0	0	0	25	173	553	1218	2111	2943	3460	3641	3646	3646
50	0	0	5	66	241	515	738	677	374	82	0	0	0	0	5	71	312	827	1565	2242	2616	2698	2698	2698
55	0	0	0	22	128	370	583	522	238	25	0	0	0	0	0	22	150	520	1103	1625	1863	1888	1888	1888
60	0	0	0	1	47	229	428	367	127	3	0	0	0	0	0	1	48	277	705	1072	1199	1202	1202	1202
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	15	83	211	366	523	652	627	453	261	53	1	0	15	98	309	675	1198	1850	2477	2930	3191	3244	3245

(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