

Climatography of the United States

No. 20

1971-2000

Station: JULESBURG, CO

COOP ID: 054413

Climate Division: CO 4

NWS Call Sign:

Elevation: 3,469 Feet Lat: 40° 59N Lon: 102° 16W

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	41.1	13.6	27.4	74+	1997	2	33.1	1999	-34	1930	17	13.5	1979	1168	0	.0	.0	6.9	7.8	30.6	4.7
Feb	48.6	19.1	33.9	79	1962	11	42.2	1992	-26	1936	8	22.8	1989	873	0	.0	.0	12.1	5.0	26.9	2.4
Mar	56.5	25.7	41.1	88	1967	29	48.2	1986	-23	1960	3	34.7	1975	742	0	.0	.0	19.4	1.7	25.2	.6
Apr	65.8	33.8	49.8	94	1989	22	58.0	1981	-8	1936	2	42.7	1983	458	3	.0	.2	25.5	.4	13.2	.0
May	75.0	44.5	59.8	99+	1994	31	65.1	1977	19	1967	1	53.5	1995	198	35	.0	1.2	30.5	.0	1.9	.0
Jun	85.8	54.1	70.0	107	1953	29	75.0	1988	33+	1964	2	64.4	1982	35	184	1.0	9.1	30.0	.0	.0	.0
Jul	91.8	60.3	76.1	109+	1973	6	80.2	1974	35	1922	12	71.4	1992	1	344	3.3	19.1	31.0	.0	.0	.0
Aug	90.4	58.4	74.4	109	1955	25	80.8	1983	38+	1993	31	70.5	1977	7	298	1.2	13.5	31.0	.0	.0	.0
Sep	81.6	47.4	64.5	103+	1985	1	70.2	1990	16	1926	25	59.0	1999	109	94	.3	6.4	29.6	@	1.5	.0
Oct	68.8	35.0	51.9	95	1947	5	56.5	1979	-3	1925	30	47.2	1976	408	1	.0	.3	28.5	.2	11.6	.0
Nov	52.2	23.6	37.9	84	1989	20	45.4	1999	-14	1950	24	28.8	1985	813	0	.0	.0	16.4	3.2	26.6	.3
Dec	43.4	15.6	29.5	76	1939	6	36.9	1980	-38	1919	9	14.5	1983	1099	0	.0	.0	8.6	6.3	30.4	3.1
Ann	66.8	35.9	51.4	109+	Jul 1973	6	80.8	Aug 1983	-38	Dec 1919	9	13.5	Jan 1979	5911	959	5.8	49.8	269.5	24.6	167.9	11.1

+ 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: 1918-2001

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

057-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: JULESBURG, CO

COOP ID: 054413

Climate Division: CO 4

NWS Call Sign:

Elevation: 3,469 Feet Lat: 40°59N

Lon: 102°16W

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	.38	.23	1.30	1990	20	1.79	1994	.00+	1999	2.9	1.2	.1	.1	.00	.00	.04	.12	.20	.28	.38	.49	.65	.90	1.16
Feb	.35	.29	.63	1953	19	1.05	1984	.00+	1998	2.7	1.3	.1	.0	.00	.00	.06	.12	.19	.26	.34	.44	.58	.80	1.02
Mar	1.32	.92	2.00	1959	25	4.12	1977	.05	1984	5.3	3.3	.7	.3	.06	.13	.29	.46	.67	.91	1.20	1.58	2.12	3.05	3.97
Apr	1.63	1.52	1.88	1955	11	3.86	1977	.07	1989	6.3	3.8	.9	.3	.21	.34	.57	.80	1.04	1.30	1.61	1.99	2.51	3.36	4.19
May	3.38	2.47	3.42	1951	20	7.20	1987	.43	1994	9.8	5.9	2.1	.7	.67	.98	1.47	1.93	2.39	2.88	3.44	4.12	5.01	6.44	7.80
Jun	2.57	2.27	3.05	1934	15	8.19	1992	.36	2000	8.4	5.4	1.6	.4	.61	.85	1.23	1.56	1.90	2.25	2.65	3.12	3.73	4.71	5.63
Jul	2.27	2.00	4.40	1988	17	6.78	1988	.61	1991	7.2	4.9	1.5	.5	.57	.78	1.12	1.41	1.70	2.00	2.35	2.75	3.28	4.11	4.90
Aug	2.23	1.97	3.15	1932	13	6.03	1999	.65	1984	7.1	4.4	1.5	.5	.76	.97	1.28	1.54	1.79	2.04	2.32	2.65	3.07	3.72	4.31
Sep	1.30	1.02	2.53	1925	14	4.88	1996	.00+	1983	4.7	2.7	.8	.3	.00	.06	.24	.44	.65	.91	1.21	1.60	2.14	3.05	3.97
Oct	.94	.83	2.15	1965	18	3.18	1997	.00+	1988	3.9	2.5	.6	@	.00	.04	.16	.29	.45	.63	.85	1.14	1.54	2.23	2.91
Nov	.58	.35	3.85	1922	4	1.88	1972	.00+	1999	3.1	1.8	.3	@	.00	.00	.06	.19	.30	.42	.57	.74	.97	1.35	1.74
Dec	.29	.22	.70	1918	20	1.12	1979	.00+	2000	2.2	1.0	@	.0	.00	.00	.00	.04	.12	.19	.28	.37	.51	.72	.93
Ann	17.24	18.21	4.40	Jul 1988	17	8.19	Jun 1992	.00+	Dec 2000	63.6	38.2	10.2	3.1	10.93	12.10	13.62	14.80	15.86	16.89	17.97	19.18	20.65	22.82	24.71

+ 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: 1918-2001

(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: JULESBURG, CO

COOP ID: 054413

Climate Division: CO 4

NWS Call Sign:

Elevation: 3,469 Feet

Lat: 40° 59N

Lon: 102° 16W

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	5.7	5.5	2	1	10.0	1990	20	15.0	1994	25	1988	25	10	1988	1.8	1.5	.5	.2	.1	10.7	6.5	3.9	.0
Feb	4.2	2.8	1	#	7.0	1984	12	16.0	1984	10	1988	1	4	1988	1.6	1.4	.8	.3	.0	5.1	3.3	1.9	.0
Mar	5.7	5.0	1	#	10.0	1971	4	24.5	1971	15	1977	10	10	1977	2.0	1.6	.6	.2	.1	3.2	1.8	.7	.3
Apr	1.9	.0	#	0	6.0	1984	21	17.0	1984	8	1975	1	3	1973	.9	.7	.2	.1	.0	.7	.4	.2	.0
May	#	.0	0	0	#	1997	24	#+	1997	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	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	.3	.0	#	0	5.0	1985	29	5.0	1985	5	1985	29	#+	1985	.1	.1	.1	.1	.0	.1	.1	.1	.0
Oct	1.0	.0	#	0	6.0	1997	25	6.0	1997	4	1991	30	#+	1992	.4	.3	.1	.1	.0	.2	.2	.0	.0
Nov	4.8	.3	1	#	10.0	1975	19	21.6	1983	18	1983	28	3	1975	1.5	1.2	.6	.2	.1	3.0	1.6	1.2	.2
Dec	4.6	3.4	1	#	8.0	1993	16	20.5	1985	12	1985	14	8	1985	2.2	1.3	.4	.2	.0	6.5	5.1	4.0	1.4
Ann	28.2	17.0	N/A	N/A	10.0+	Jan 1990	20	24.5	Mar 1971	25	Jan 1988	25	10+	Jan 1988	10.5	8.1	3.3	1.4	.3	29.5	19.0	12.0	1.9

+ Also occurred on an earlier date(s) #Denotes trace amounts

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-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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Climate Division: CO 4

NWS Call Sign:

Elevation: 3,469 Feet

Lat: 40° 59N

Lon: 102° 16W

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	5/28	5/23	5/19	5/16	5/14	5/11	5/08	5/04	4/30
32	5/19	5/15	5/12	5/09	5/07	5/05	5/02	4/29	4/25
28	5/09	5/04	4/30	4/27	4/24	4/22	4/18	4/15	4/10
24	4/26	4/22	4/19	4/17	4/15	4/12	4/10	4/07	4/03
20	4/17	4/12	4/09	4/06	4/03	3/31	3/29	3/25	3/20
16	4/10	4/03	3/28	3/24	3/19	3/15	3/11	3/05	2/26
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	9/11	9/15	9/18	9/20	9/23	9/25	9/27	9/30	10/04
32	9/15	9/20	9/23	9/26	9/29	10/02	10/05	10/08	10/13
28	9/24	9/30	10/04	10/07	10/10	10/13	10/16	10/20	10/26
24	10/04	10/10	10/14	10/18	10/21	10/25	10/29	11/02	11/08
20	10/15	10/21	10/24	10/28	10/31	11/03	11/06	11/10	11/15
16	10/28	11/01	11/05	11/08	11/10	11/13	11/16	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	148	142	138	135	131	128	124	120	114
32	164	157	152	148	144	141	137	132	125
28	190	182	177	172	168	164	159	154	146
24	210	203	198	193	189	185	181	175	168
20	232	224	219	214	210	206	201	196	188
16	263	254	247	241	235	229	224	217	207

* 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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Elevation: 3,469 Feet Lat: 40° 59N Lon: 102° 16W

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	1168	873	742	458	198	35	1	7	109	408	813	1099	5911
60	1013	733	587	319	101	9	0	1	46	261	663	944	4677
57	920	653	496	243	60	3	0	0	23	183	573	851	4005
55	858	600	439	199	40	1	0	0	13	138	518	789	3595
50	705	471	298	108	11	0	0	0	2	57	380	644	2676
32	242	129	25	0	0	0	0	0	0	0	64	210	670

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	97	181	306	535	860	1138	1366	1314	975	617	240	133	7762
55	0	7	7	44	187	450	653	601	298	42	5	0	2294
57	0	4	1	28	145	392	591	539	248	25	0	0	1973
60	0	0	0	14	93	308	498	447	181	10	0	0	1551
65	0	0	0	3	35	184	344	298	94	1	0	0	959
70	0	0	0	0	8	91	200	167	40	0	0	0	506

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	9	42	120	297	600	886	1118	1011	716	376	84	16	9	51	171	468	1068	1954	3072	4083	4799	5175	5259	5275
45	0	12	56	185	449	737	963	856	570	243	36	0	0	12	68	253	702	1439	2402	3258	3828	4071	4107	4107
50	0	1	19	102	304	588	808	701	429	134	9	0	0	1	20	122	426	1014	1822	2523	2952	3086	3095	3095
55	0	0	2	47	177	441	653	546	294	58	0	0	0	0	2	49	226	667	1320	1866	2160	2218	2218	2218
60	0	0	0	17	87	297	498	396	177	14	0	0	0	0	0	17	104	401	899	1295	1472	1486	1486	1486
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	21	62	126	224	377	560	716	639	463	291	96	38	21	83	209	433	810	1370	2086	2725	3188	3479	3575	3613

(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