

Climatology of the United States

No. 20

1971-2000

Station: QUEMADO, NM

COOP ID: 297180

Climate Division: NM 4

NWS Call Sign:

Elevation: 6,878 Feet Lat: 34° 21N

Lon: 108° 30W

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	46.6	13.9	30.3	69+	1950	20	36.1	1986	-33	1971	7	22.7	1992	1077	0	.0	.0	11.4	2.1	30.5	2.5
Feb	51.6	17.4	34.5	77+	1957	14	40.2	1995	-27	1948	12	29.1	1985	854	0	.0	.0	16.8	.9	27.5	1.0
Mar	57.7	21.6	39.7	80	1989	10	42.6	1989	-20	1948	5	34.3	1987	786	0	.0	.0	24.6	.1	28.7	.1
Apr	65.5	25.7	45.6	88	1965	21	50.3	1989	3	1963	19	38.9	1983	581	0	.0	.0	28.0	.0	25.0	.0
May	74.6	33.2	53.9	95	1951	27	58.3	2000	11+	1950	6	50.9	1975	346	1	.0	.1	30.9	.0	14.5	.0
Jun	84.1	41.0	62.6	99	1961	22	66.4	1974	21+	1954	7	59.1	1983	114	40	.0	5.3	30.0	.0	2.9	.0
Jul	85.3	49.7	67.5	100	1970	14	70.8	1971	31+	1987	2	64.1	1987	20	97	.0	6.1	31.0	.0	.2	.0
Aug	82.5	48.8	65.7	99	1962	13	68.9	1995	32+	1960	18	63.0	1987	41	62	.0	1.6	31.0	.0	@	.0
Sep	77.8	41.2	59.5	94	1948	4	62.5	1983	21	1965	30	56.7	1987	171	6	.0	.1	30.0	.0	3.0	.0
Oct	68.2	29.4	48.8	87	1948	12	53.0	1988	3	1991	29	44.3	1984	503	0	.0	.0	30.0	.1	20.4	.0
Nov	55.7	19.4	37.6	81	1980	9	41.7	1995	-20	1976	29	31.8	2000	825	0	.0	.0	22.7	.4	28.1	.6
Dec	48.5	13.7	31.1	71	1958	8	37.5	1980	-20	1968	3	26.6	1987	1050	0	.0	.0	14.0	1.5	30.0	2.7
Ann	66.5	29.6	48.1	100	Jul 1970	14	70.8	Jul 1971	-33	Jan 1971	7	22.7	Jan 1992	6368	206	.0	13.2	300.4	5.1	210.8	6.9

+ 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: 1948-2001

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

072-A

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: QUEMADO, NM

COOP ID: 297180

Climate Division: NM 4

NWS Call Sign:

Elevation: 6,878 Feet Lat: 34°21N

Lon: 108°30W

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	.49	.35	.80	1961	28	2.05	1993	.00	1986	4.1	2.1	.2	.0	.01	.03	.08	.15	.23	.32	.44	.59	.81	1.19	1.58
Feb	.59	.52	.63	1963	12	1.71	1978	.00+	1999	4.4	1.9	.1	.0	.00	.00	.11	.22	.33	.44	.58	.75	.97	1.33	1.69
Mar	.68	.55	1.02	1982	13	2.49	1998	.00+	1989	5.1	1.8	.2	@	.00	.05	.16	.26	.37	.50	.65	.84	1.10	1.53	1.95
Apr	.40	.28	1.37	1988	17	1.77	1988	.00+	1991	3.9	1.3	.1	@	.00	.00	.07	.13	.20	.28	.37	.49	.65	.93	1.20
May	.46	.36	.80	1979	26	2.03	1979	.00+	2000	4.8	1.8	.2	.0	.00	.00	.05	.12	.21	.30	.42	.57	.78	1.13	1.49
Jun	.40	.26	1.30	1952	2	1.27	1979	.00+	1990	3.5	1.3	.2	.0	.00	.00	.08	.15	.23	.31	.40	.51	.66	.89	1.13
Jul	2.13	1.86	2.08	1957	23	4.50	1998	.56	1979	7.6	4.2	.9	.1	.58	.78	1.09	1.36	1.62	1.90	2.20	2.56	3.03	3.77	4.46
Aug	2.39	1.93	1.70	1971	6	6.61	1971	.48	1989	9.7	5.8	1.0	.1	.83	1.06	1.38	1.66	1.93	2.20	2.49	2.84	3.28	3.96	4.59
Sep	1.38	1.26	1.50	1997	20	4.20	1975	.11	2000	8.3	4.3	.6	.2	.23	.35	.55	.74	.93	1.14	1.38	1.68	2.07	2.71	3.33
Oct	1.11	.79	1.38	1974	6	4.37	2000	.00+	1982	4.6	2.7	.8	.1	.00	.02	.12	.26	.43	.65	.93	1.30	1.84	2.80	3.77
Nov	.65	.52	1.03	1987	1	1.49	2000	.00+	1999	4.4	2.1	.2	@	.00	.00	.23	.35	.45	.56	.68	.83	1.01	1.31	1.59
Dec	.50	.45	.87	1987	25	1.83	1987	.00+	1998	2.7	1.1	.1	.0	.00	.05	.13	.21	.29	.39	.49	.63	.81	1.10	1.39
Ann	11.18	10.96	2.08	Jul 1957	23	6.61	Aug 1971	.00+	May 2000	63.1	30.4	4.6	.5	7.46	8.16	9.07	9.76	10.38	10.98	11.61	12.30	13.15	14.39	15.46

+ 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: 1948-2001

(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: QUEMADO, NM

COOP ID: 297180

Climate Division: NM 4

NWS Call Sign:

Elevation: 6,878 Feet

Lat: 34° 21N

Lon: 108° 30W

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	4.6	3.0	1	1	9.0	1974	2	16.0	1974	7	1985	31	3	1985	2.1	1.6	.7	.2	.0	3.3	1.4	.3	.0
Feb	3.7	2.5	#	#	10.0	1987	19	10.5	1978	9	1987	26	2	1987	2.3	1.6	.7	.3	@	1.6	.8	.3	.0
Mar	5.7	4.0	#	#	7.0	1977	27	24.6	1973	4	1987	24	2	1982	3.0	2.2	.9	.2	.0	.8	.3	.0	.0
Apr	3.1	.6	#	0	13.0	1984	26	20.0	1984	7	1984	26	#+	1984	1.6	1.0	.4	.2	.1	.3	.1	.1	.0
May	.5	.0	#	0	6.0	1979	9	6.0	1979	2	1979	9	#	1979	.2	.1	.1	.1	.0	.1	.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	#	1971	25	#	1971	.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	6.0	1974	29	7.0	1972	7	1972	31	#+	1997	.4	.3	.1	.1	.0	.2	.1	.1	.0
Nov	3.1	2.0	#	#	8.5	1972	12	10.7	1972	7	1976	27	1	1976	1.6	1.1	.3	.1	.0	.9	.5	.2	.0
Dec	5.3	5.0	#	#	12.0	1987	25	23.2	1987	12	1987	25	2	1987	2.1	1.4	.5	.2	.1	2.6	1.0	.4	.1
Ann	27.1	17.1	N/A	N/A	13.0	Apr 1984	26	24.6	Mar 1973	12	Dec 1987	25	3	Jan 1985	13.3	9.3	3.7	1.4	.2	9.8	4.2	1.4	.1

+ 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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Lat: 34° 21N

Lon: 108° 30W

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	7/06	7/01	6/27	6/23	6/20	6/17	6/14	6/10	6/05
32	6/28	6/22	6/18	6/14	6/11	6/07	6/04	5/31	5/25
28	6/16	6/10	6/06	6/02	5/29	5/26	5/22	5/18	5/11
24	5/27	5/21	5/17	5/14	5/11	5/08	5/04	4/30	4/25
20	5/16	5/10	5/06	5/02	4/29	4/26	4/22	4/18	4/12
16	5/10	5/02	4/27	4/22	4/18	4/14	4/09	4/04	3/28
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	8/22	8/29	9/03	9/07	9/10	9/14	9/18	9/23	9/30
32	9/09	9/14	9/17	9/20	9/23	9/26	9/29	10/02	10/07
28	9/23	9/26	9/29	10/01	10/02	10/04	10/06	10/08	10/12
24	9/30	10/04	10/07	10/10	10/12	10/14	10/17	10/20	10/24
20	10/07	10/12	10/16	10/19	10/22	10/25	10/29	11/01	11/07
16	10/12	10/18	10/22	10/25	10/29	11/01	11/05	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	108	99	92	87	81	76	70	64	54
32	127	119	113	108	104	99	94	88	81
28	144	138	133	129	125	122	118	113	106
24	173	166	162	157	154	150	146	141	134
20	193	187	183	179	175	172	168	163	157
16	222	212	205	198	193	187	181	174	164

* 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	1077	854	786	581	346	114	20	41	171	503	825	1050	6368
60	922	714	631	431	203	40	1	4	63	350	675	895	4929
57	829	630	538	345	131	16	0	0	27	262	585	802	4165
55	767	574	476	289	92	8	0	0	13	209	525	740	3693
50	612	434	323	166	29	0	0	0	1	100	376	585	2626
32	128	41	6	1	0	0	0	0	0	0	22	101	299

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	74	111	243	410	678	916	1100	1044	825	520	187	74	6182
55	0	0	0	8	57	233	387	331	148	16	0	0	1180
57	0	0	0	4	34	182	325	270	102	7	0	0	924
60	0	0	0	0	13	115	233	180	48	2	0	0	591
65	0	0	0	0	1	40	97	62	6	0	0	0	206
70	0	0	0	0	0	7	19	9	0	0	0	0	35

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	4	17	77	199	429	685	867	805	583	290	54	2	4	21	98	297	726	1411	2278	3083	3666	3956	4010	4012
45	0	0	21	92	279	535	712	650	433	164	10	0	0	0	21	113	392	927	1639	2289	2722	2886	2896	2896
50	0	0	1	30	139	386	557	495	286	62	0	0	0	0	1	31	170	556	1113	1608	1894	1956	1956	1956
55	0	0	0	3	44	237	402	340	147	12	0	0	0	0	0	3	47	284	686	1026	1173	1185	1185	1185
60	0	0	0	0	5	116	247	187	48	0	0	0	0	0	0	0	5	121	368	555	603	603	603	603
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	32	73	137	245	386	502	558	527	420	290	118	44	32	105	242	487	873	1375	1933	2460	2880	3170	3288	3332

(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