

Climatography of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: SOCORRO, NM

1971-2000

COOP ID: 298387

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,585 Feet Lat: 34°05N

Lon: 106°53W

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	53.3	21.3	37.3	76	1999	25	42.1	1999	-12	1971	7	33.3	1992	859	0	.0	.0	21.4	.7	28.2	.3
Feb	60.7	25.7	43.2	81+	1986	25	48.3	1995	-2	1951	1	38.5	1974	611	0	.0	.0	24.9	.3	22.6	.0
Mar	68.3	31.4	49.9	88+	1978	31	55.0	1974	0	1941	29	45.3	1977	469	0	.0	.0	30.5	.0	17.8	.0
Apr	76.0	37.5	56.8	95+	1989	20	62.7	1989	17+	1981	5	51.3	1973	260	12	.0	.4	29.8	.0	8.2	.0
May	83.9	46.1	65.0	102	1951	27	71.7	1996	23	1983	4	61.4	1975	94	93	.1	5.2	31.0	.0	.6	.0
Jun	92.4	54.0	73.2	109	1994	26	77.5	1994	35	1971	5	69.5	1973	5	251	3.2	20.4	30.0	.0	.0	.0
Jul	93.6	60.1	76.9	107+	1934	14	80.0	1994	45	1973	23	74.5	1986	0	366	3.2	24.0	31.0	.0	.0	.0
Aug	90.7	58.6	74.7	106	1934	1	78.2	1995	37	1938	21	71.4	1979	0	301	.8	19.1	31.0	.0	.0	.0
Sep	85.3	50.9	68.1	102	1939	5	72.9	1998	32	1936	28	65.7	1988	28	120	@	7.1	30.0	.0	.0	.0
Oct	75.3	39.0	57.2	94	1953	1	60.5	1988	14	1991	31	53.6	1984	249	5	.0	.3	30.8	.0	6.0	.0
Nov	62.6	27.9	45.3	82+	1933	9	49.6	1995	-13	1976	29	39.9	2000	593	0	.0	.0	27.6	.1	22.6	.1
Dec	53.0	21.9	37.5	78	1958	4	42.7	1980	-6	1987	27	33.6	1992	855	0	.0	.0	20.3	.6	28.2	.1
Ann	74.6	39.5	57.1	109	Jun 1994	26	80.0	Jul 1994	-13	Nov 1976	29	33.3	Jan 1992	4023	1148	7.3	76.5	338.3	1.7	134.2	.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/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1931-2001

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

083-A

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NWS Call Sign:

Elevation: 4,585 Feet Lat: 34°05N

Lon: 106°53W

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	.34	.28	1.07	2001	27	1.82	1983	.00+	2000	2.8	1.2	.2	.0	.00	.00	.03	.07	.13	.21	.30	.41	.58	.87	1.16
Feb	.36	.25	1.34	1983	4	1.36	1983	.00+	1999	2.6	1.1	.1	@	.00	.00	.02	.08	.14	.22	.32	.44	.61	.90	1.20
Mar	.39	.21	1.27	1998	15	2.13	2000	.00+	1991	2.4	1.0	.1	.1	.00	.00	.03	.08	.15	.23	.33	.46	.65	.98	1.32
Apr	.34	.18	1.38	1974	30	1.42	1990	.00+	1996	2.0	.8	.2	@	.00	.00	.00	.02	.08	.17	.27	.41	.60	.95	1.29
May	.52	.44	2.53	1937	28	1.66	1986	.00+	2000	3.3	1.5	.3	@	.00	.00	.03	.10	.18	.29	.43	.62	.89	1.36	1.84
Jun	.64	.38	1.60	1953	17	2.96	1986	.00+	1989	3.3	1.5	.4	.1	.00	.00	.07	.16	.26	.39	.56	.77	1.07	1.59	2.12
Jul	1.46	1.19	2.10	1991	22	3.85	1998	.15+	1987	7.2	3.7	.7	.2	.17	.28	.49	.69	.91	1.15	1.43	1.78	2.26	3.04	3.80
Aug	2.20	1.72	2.00	1954	4	6.34	1988	.22	1976	8.1	4.6	1.2	.5	.48	.68	1.01	1.30	1.59	1.90	2.25	2.67	3.23	4.11	4.94
Sep	1.65	1.48	3.44	1980	11	4.84	1980	.11	2000	6.8	3.6	.9	.2	.21	.34	.58	.81	1.05	1.32	1.63	2.02	2.54	3.41	4.24
Oct	1.20	.85	1.62	1939	8	5.37	1972	.01+	1995	4.8	2.8	.8	.1	.02	.05	.15	.29	.46	.69	.98	1.39	1.98	3.04	4.14
Nov	.52	.33	.97	1994	12	1.60	1978	.00+	1999	2.7	1.3	.3	.0	.00	.00	.06	.15	.24	.35	.48	.64	.87	1.25	1.62
Dec	.60	.32	1.37	1960	8	2.31	1984	.00+	1996	3.4	1.8	.2	@	.00	.00	.02	.09	.19	.32	.49	.71	1.02	1.58	2.16
Ann	10.22	10.26	3.44	Sep 1980	11	6.34	Aug 1988	.00+	May 2000	49.4	24.9	5.4	1.2	6.23	6.96	7.91	8.66	9.33	9.98	10.67	11.44	12.39	13.79	15.02

+ 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: 1931-2001

(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: SOCORRO, NM

COOP ID: 298387

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,585 Feet

Lat: 34°05N

Lon: 106°53W

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	.9	.0	#	0	6.0	1975	1	6.0	1975	8	1975	1	1	1987	.4	.4	.2	@	.0	.5	.3	@	.0
Feb	1.7	.0	#	0	10.0	1987	20	10.0	1987	6	1987	20	#+	1998	.5	.4	.3	.1	@	.2	@	.0	.0
Mar	.4	.0	#	0	3.8	1975	29	3.8	1975	2	2000	22	#	2000	.2	.2	@	.0	.0	.1	.0	.0	.0
Apr	.2	.0	#	0	4.0	1997	11	4.0	1997	4+	1997	11	#+	1997	.1	.1	@	.0	.0	@	@	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.4	.0	#	0	4.4	1991	31	4.4	1991	4	1991	31	#+	1996	.1	.1	.1	.0	.0	.1	@	.0	.0
Nov	.8	.0	#	0	8.0	1976	27	9.0	1976	8	1976	27	1	1976	.2	.2	.1	.1	.0	.2	.2	.1	.0
Dec	2.0	.0	#	0	9.0	1984	14	10.4	1984	12	1984	15	2	1984	.9	.8	.2	.2	.0	1.0	.5	.3	.0
Ann	6.4	.0	N/A	N/A	10.0	Feb 1987	20	10.4	Dec 1984	12	Dec 1984	15	2	Dec 1984	2.4	2.2	.9	.4	@	2.1	1.0	.4	.0

+ 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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Climate Division: NM 5

NWS Call Sign:

Elevation: 4,585 Feet

Lat: 34° 05N

Lon: 106° 53W

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	5/23	5/19	5/16	5/13	5/10	5/08	5/05	5/02	4/27
32	5/12	5/07	5/03	4/30	4/27	4/24	4/21	4/17	4/12
28	4/30	4/24	4/20	4/16	4/13	4/09	4/06	4/02	3/27
24	4/16	4/11	4/07	4/04	4/01	3/29	3/26	3/22	3/17
20	4/07	3/30	3/25	3/21	3/16	3/12	3/07	3/02	2/23
16	3/21	3/12	3/06	2/28	2/23	2/17	2/12	2/05	1/27
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	9/26	9/30	10/03	10/05	10/08	10/10	10/12	10/15	10/19
32	10/07	10/11	10/14	10/16	10/19	10/21	10/23	10/26	10/30
28	10/10	10/15	10/19	10/23	10/26	10/29	11/01	11/05	11/10
24	10/22	10/26	10/30	11/01	11/04	11/07	11/10	11/13	11/18
20	11/03	11/07	11/11	11/13	11/16	11/18	11/21	11/24	11/28
16	11/09	11/14	11/19	11/22	11/25	11/29	12/02	12/06	12/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	165	160	156	153	150	146	143	139	134
32	190	185	181	177	174	170	167	163	157
28	215	208	203	199	195	191	187	182	175
24	231	226	222	219	216	213	210	207	201
20	269	260	254	249	244	239	233	227	219
16	306	296	288	281	275	269	262	254	244

* 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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NWS Call Sign:

Elevation: 4,585 Feet Lat: 34°05N Lon: 106°53W

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	859	611	469	260	94	5	0	0	28	249	593	855	4023
60	704	471	317	143	35	0	0	0	4	123	443	700	2940
57	611	387	231	89	16	0	0	0	1	69	355	607	2366
55	549	332	179	61	9	0	0	0	0	44	298	545	2017
50	395	203	78	17	1	0	0	0	0	10	172	390	1266
32	22	2	0	0	0	0	0	0	0	0	2	20	46

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	186	316	554	742	1023	1235	1389	1323	1082	780	399	188	9217
55	0	1	20	113	319	545	676	610	392	110	5	0	2791
57	0	0	10	81	264	485	614	548	332	74	2	0	2410
60	0	0	3	45	190	396	521	455	246	35	0	0	1891
65	0	0	0	12	93	251	366	301	120	5	0	0	1148
70	0	0	0	2	33	125	211	154	39	0	0	0	564

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	48	136	317	505	777	1001	1148	1082	848	539	189	47	48	184	501	1006	1783	2784	3932	5014	5862	6401	6590	6637
45	10	55	177	361	622	851	993	927	698	386	88	8	10	65	242	603	1225	2076	3069	3996	4694	5080	5168	5176
50	1	14	79	225	467	701	838	772	548	242	24	0	1	15	94	319	786	1487	2325	3097	3645	3887	3911	3911
55	0	0	23	112	317	551	683	617	398	122	3	0	0	0	23	135	452	1003	1686	2303	2701	2823	2826	2826
60	0	0	0	38	176	401	528	462	250	44	0	0	0	0	0	38	214	615	1143	1605	1855	1899	1899	1899
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	90	166	291	395	522	617	715	694	552	398	196	80	90	256	547	942	1464	2081	2796	3490	4042	4440	4636	4716

(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