

# Climatology of the United States

No. 20

1971-2000

Station: CARRIZOZO 1 SW, NM

COOP ID: 291515

Climate Division: NM 5

NWS Call Sign:

Elevation: 5,405 Feet Lat: 33° 38N

Lon: 105° 54W

## 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	52.3	22.4	37.4	73	1953	11	42.2	1999	-18	1971	5	32.4	1979	858	0	.0	.0	20.5	1.0	28.0	.2
Feb	57.7	25.7	41.7	79	1989	25	47.4	1996	-5+	1951	1	37.6	1985	653	0	.0	.0	23.1	.5	22.1	@
Mar	64.8	30.9	47.9	87	1989	11	54.8	1974	-7	1965	4	42.8	1987	531	0	.0	.0	29.4	.1	17.1	.0
Apr	73.2	36.8	55.0	97	1989	21	61.9	1989	15	1975	3	47.7	1983	311	10	.0	.1	29.4	.0	8.1	.0
May	81.6	45.8	63.7	101	1989	23	70.5	1996	24	1967	2	58.7	1987	123	83	@	3.9	30.9	.0	.7	.0
Jun	90.8	54.4	72.6	108	1994	28	78.8	1990	36	1963	10	68.7	1979	11	238	2.4	17.6	30.0	.0	.0	.0
Jul	91.0	59.0	75.0	105+	1989	1	78.2	1980	46+	1987	4	71.7	1991	0	310	1.4	19.4	31.0	.0	.0	.0
Aug	88.1	57.0	72.6	103	1972	1	76.3	1995	41	2001	5	69.7	1979	3	237	.2	13.7	31.0	.0	.0	.0
Sep	82.8	50.4	66.6	98+	1948	5	73.3	1998	32+	1965	30	63.5+	1988	53	102	.0	4.5	30.0	.0	.1	.0
Oct	73.4	38.6	56.0	91	1989	13	59.3	1998	12+	1991	31	50.8	1976	285	7	.0	.1	30.6	.0	4.6	.0
Nov	60.9	27.9	44.4	80+	1973	9	48.9	1998	-7	1976	28	37.7	2000	618	0	.0	.0	26.5	.1	19.9	.1
Dec	52.5	21.6	37.1	74	1987	4	42.4	1977	-15	1978	9	33.0	1997	866	0	.0	.0	20.8	.7	27.4	.2
Ann	72.4	39.2	55.8	108	Jun 1994	28	78.8	Jun 1990	-18	Jan 1971	5	32.4	Jan 1979	4312	987	4.0	59.3	333.2	2.4	128.0	.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](http://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

018-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: CARRIZOZO 1 SW, NM**

**COOP ID: 291515**

**Climate Division: NM 5**

**NWS Call Sign:**

**Elevation: 5,405 Feet Lat: 33°38N**

**Lon: 105°54W**

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	.71	.61	1.06	1978	30	2.81	1978	.00+	2000	3.7	2.1	.3	@	.00	.06	.17	.28	.40	.53	.69	.88	1.15	1.59	2.03
Feb	.59	.57	1.60	2001	27	1.51	1990	.00+	2000	3.6	1.8	.3	.0	.00	.09	.21	.30	.40	.50	.61	.74	.91	1.20	1.47
Mar	.69	.54	1.10	2000	22	2.25	1998	.00	1971	3.6	2.1	.3	.1	.01	.05	.13	.23	.34	.47	.63	.83	1.12	1.62	2.12
Apr	.41	.19	.87	1977	15	1.98	1997	.00+	1993	2.1	1.2	.2	.0	.00	.00	.00	.03	.11	.20	.32	.48	.72	1.13	1.54
May	.74	.55	1.60	1954	18	3.45	1992	.00+	2000	3.1	2.1	.4	@	.00	.00	.00	.17	.32	.50	.69	.94	1.28	1.86	2.41
Jun	.95	.82	1.25	1996	27	3.15	2000	.08	1998	4.6	2.9	.6	@	.07	.13	.25	.39	.53	.70	.90	1.16	1.51	2.11	2.70
Jul	2.19	2.06	2.50	1991	2	6.33	1991	.38	2000	7.9	5.1	1.3	.3	.52	.72	1.04	1.33	1.61	1.91	2.25	2.65	3.17	4.01	4.79
Aug	2.50	2.62	2.37	1977	13	4.84	1977	.00	1978	9.2	5.9	1.5	.4	.54	.89	1.31	1.64	1.96	2.28	2.63	3.05	3.58	4.40	5.17
Sep	1.63	1.48	3.70	1965	3	5.00	1996	.21	1998	6.3	3.9	.9	.2	.25	.39	.62	.85	1.08	1.34	1.63	1.99	2.47	3.25	4.00
Oct	1.39	.73	2.55	1986	2	4.84	1985	.00+	1995	3.9	2.6	1.0	.3	.00	.00	.05	.24	.49	.79	1.17	1.67	2.38	3.61	4.89
Nov	.84	.62	1.05	1991	16	3.08	1978	.00+	1999	2.9	2.2	.5	.1	.00	.00	.18	.32	.47	.63	.82	1.05	1.36	1.88	2.39
Dec	.87	.67	1.46	1994	5	2.98	1994	.00+	1996	3.6	2.6	.4	.1	.00	.00	.18	.33	.48	.65	.85	1.09	1.42	1.98	2.52
Ann	13.51	13.95	3.70	Sep 1965	3	6.33	Jul 1991	.00+	May 2000	54.5	34.5	7.7	1.5	8.77	9.65	10.80	11.69	12.48	13.26	14.06	14.96	16.06	17.66	19.07

+ 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

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

Complete documentation available from:  
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**Climate Division: NM 5**

**NWS Call Sign:**

**Elevation: 5,405 Feet**

**Lat: 33°38N**

**Lon: 105°54W**

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	2.6	1.4	#	0	7.0	1977	9	9.8	1978	5	1996	2	1	1996	1.0	.7	.3	.2	.0	.3	.1	.0	.0
Feb	1.9	.0	#	0	8.0	1986	9	15.7	1986	12	1986	10	2	1986	1.1	.7	.2	@	.0	.1	.0	.0	.0
Mar	1.1	.0	#	0	8.6	1999	17	9.6	1999	7	1998	30	#+	1999	.6	.4	.1	.1	.0	.1	.1	.1	.0
Apr	.5	.0	#	0	8.0	1983	4	8.0	1983	8	1983	4	#+	1997	.3	.2	.1	@	.0	.2	.1	.1	.0
May	#	.0	0	0	#	1990	2	#+	1990	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	.2	.0	0	0	4.0	1991	30	4.0	1991	0	0	0	0	0	.1	.1	@	.0	.0	.0	.0	.0	.0
Nov	1.0	.0	#	0	6.0	1972	1	9.0	1972	3	1983	26	#+	1996	.4	.4	.1	@	.0	.2	.1	.0	.0
Dec	1.5	.0	#	0	10.0	2000	27	10.0	2000	10	2000	27	2	1978	1.0	.8	.3	.1	@	.4	.2	.1	.1
Ann	8.8	1.4	N/A	N/A	10.0	Dec 2000	27	15.7	Feb 1986	12	Feb 1986	10	2+	Feb 1986	4.5	3.3	1.1	.4	@	1.3	.6	.3	.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

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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	5/24	5/19	5/16	5/13	5/11	5/08	5/06	5/03	4/28
32	5/12	5/07	5/04	5/02	4/29	4/27	4/24	4/21	4/16
28	5/01	4/26	4/22	4/19	4/16	4/13	4/10	4/06	4/01
24	4/17	4/12	4/09	4/06	4/03	4/01	3/29	3/25	3/21
20	4/10	4/02	3/28	3/23	3/18	3/14	3/09	3/03	2/23
16	3/28	3/18	3/11	3/05	2/27	2/22	2/16	2/09	1/30
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	9/28	10/02	10/05	10/08	10/10	10/13	10/16	10/19	10/23
32	10/04	10/09	10/12	10/15	10/18	10/21	10/24	10/27	11/01
28	10/13	10/18	10/21	10/24	10/27	10/30	11/02	11/05	11/10
24	10/24	10/28	11/01	11/04	11/07	11/09	11/12	11/16	11/21
20	10/29	11/04	11/08	11/12	11/15	11/18	11/22	11/26	12/02
16	11/06	11/13	11/18	11/22	11/26	11/30	12/05	12/09	12/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	168	163	159	155	152	149	145	141	135
32	190	184	179	175	171	167	163	159	152
28	215	208	202	198	193	189	185	179	172
24	237	230	225	221	217	213	208	203	196
20	272	262	254	247	241	235	228	221	210
16	309	296	287	279	271	264	256	246	233

\* 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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**Degree Days to Selected Base Temperatures (°F)**

<b>Base</b>	<b>Heating Degree Days (1)</b>												
<b>Below</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>65</b>	858	653	531	311	123	11	0	3	53	285	618	866	4312
<b>60</b>	703	513	381	187	54	2	0	0	13	158	470	711	3192
<b>57</b>	610	429	296	128	28	0	0	0	4	99	383	618	2595
<b>55</b>	548	373	243	95	17	0	0	0	2	69	328	556	2231
<b>50</b>	393	241	135	36	4	0	0	0	0	22	204	403	1438
<b>32</b>	21	5	0	0	0	0	0	0	0	0	6	24	56

<b>Base</b>	<b>Cooling Degree Days (1)</b>												
<b>Above</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>32</b>	186	276	492	689	983	1217	1333	1257	1039	745	378	181	8776
<b>55</b>	0	1	22	94	287	527	620	544	351	100	10	0	2556
<b>57</b>	0	0	13	67	236	467	558	482	293	69	5	0	2190
<b>60</b>	0	0	5	36	169	379	465	389	212	35	1	0	1691
<b>65</b>	0	0	0	10	83	238	310	237	102	7	0	0	987
<b>70</b>	0	0	0	1	30	121	162	104	34	1	0	0	453

**Growing Degree Units (2)**

<b>Base</b>	<b>Growing Degree Units (Monthly)</b>												<b>Growing Degree Units (Accumulated Monthly)</b>											
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>40</b>	51	125	274	469	758	1003	1112	1044	834	538	195	55	51	176	450	919	1677	2680	3792	4836	5670	6208	6403	6458
<b>45</b>	13	50	152	325	604	853	957	889	684	391	96	14	13	63	215	540	1144	1997	2954	3843	4527	4918	5014	5028
<b>50</b>	0	12	67	199	451	703	802	734	534	250	29	0	0	12	79	278	729	1432	2234	2968	3502	3752	3781	3781
<b>55</b>	0	1	22	96	301	553	647	579	385	131	5	0	0	1	23	119	420	973	1620	2199	2584	2715	2720	2720
<b>60</b>	0	0	0	33	170	403	492	424	241	44	0	0	0	0	0	33	203	606	1098	1522	1763	1807	1807	1807
<b>Base</b>	<b>Growing Degree Units for Corn (Monthly)</b>												<b>Growing Degree Units for Corn (Accumulated Monthly)</b>											
<b>50/86</b>	78	139	238	354	505	624	714	676	538	379	184	80	78	217	455	809	1314	1938	2652	3328	3866	4245	4429	4509

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)