

# Climatology of the United States No. 20

Station: EL VADO DAM, NM

1971-2000

COOP ID: 292837

Climate Division: NM 2

NWS Call Sign:

Elevation: 6,740 Feet Lat: 36° 36N

Lon: 106° 44W

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	40.4	6.4	23.4	64	1981	1	30.4	1999	-45	1971	7	16.8	1973	1290	0	.0	.0	4.1	4.7	30.8	9.7
Feb	45.3	13.0	29.2	67+	1981	20	36.8	1995	-35+	1949	9	19.8	1974	1004	0	.0	.0	8.6	2.1	27.5	4.1
Mar	51.9	21.2	36.6	75	1989	11	40.5	1972	-17	1966	4	32.1	1977	881	0	.0	.0	18.5	.4	29.0	.1
Apr	60.4	25.6	43.0	84	1948	29	49.0	1989	4	1983	5	38.2	1973	660	0	.0	.0	25.1	.1	24.6	.0
May	70.2	33.3	51.8	92	2000	30	55.7	1996	11	1967	2	48.3	1975	412	0	.0	.1	30.3	.0	14.3	.0
Jun	81.5	40.1	60.8	101	1948	9	64.3	2000	24+	1950	9	56.7	1975	149	23	.0	1.9	30.0	.0	3.6	.0
Jul	85.7	48.1	66.9	98	1998	1	70.0	1998	30+	1962	15	64.1	1995	31	90	.0	6.4	31.0	.0	@	.0
Aug	82.6	47.9	65.3	95+	1996	14	68.6+	1995	29+	1962	25	62.1	1974	55	64	.0	1.9	31.0	.0	.1	.0
Sep	76.2	39.0	57.6	91+	1948	1	62.2	1998	17	1985	30	54.0	1985	230	7	.0	.3	29.9	.0	5.5	.0
Oct	65.5	27.8	46.7	90	1980	3	50.3	1987	5+	1989	31	42.3	1984	569	0	.0	@	28.4	.0	23.5	.0
Nov	51.0	18.3	34.7	77	1977	6	38.7	1978	-24	1957	22	29.4	2000	910	0	.0	.0	16.3	1.1	28.0	.5
Dec	42.4	10.4	26.4	64+	1980	28	34.3	1980	-37	1961	12	20.7	1978	1196	0	.0	.0	6.2	3.5	30.7	4.8
Ann	62.8	27.6	45.2	101	Jun 1948	9	70.0	Jul 1998	-45	Jan 1971	7	16.8	Jan 1973	7387	184	.0	10.6	259.4	11.9	217.6	19.2

+ 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

036-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: EL VADO DAM, NM**

**COOP ID: 292837**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 6,740 Feet Lat: 36°36N**

**Lon: 106°44W**

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	.90	.72	1.82	1958	20	2.13	1979	.15	1976	6.3	3.3	.1	.0	.14	.21	.34	.47	.60	.74	.90	1.10	1.37	1.80	2.22
Feb	.74	.67	.63	1988	3	1.73	1982	.03	1999	6.2	2.7	.1	.0	.09	.14	.25	.35	.46	.58	.72	.90	1.14	1.54	1.92
Mar	1.01	.96	1.01	1974	10	2.55	1978	.02	1997	7.7	3.2	.3	@	.09	.16	.30	.44	.59	.77	.97	1.23	1.58	2.17	2.74
Apr	.96	.77	1.30	1985	29	2.87	1999	.06	1996	6.3	3.1	.4	@	.08	.15	.27	.41	.55	.72	.92	1.17	1.52	2.10	2.67
May	1.26	1.08	1.17	1979	28	4.44	1979	.00+	1996	6.9	3.9	.6	@	.00	.16	.39	.59	.80	1.02	1.27	1.57	1.98	2.64	3.28
Jun	.88	.74	1.12	1949	20	2.35	1986	.02+	1998	5.2	2.9	.3	.0	.07	.13	.24	.36	.50	.65	.84	1.07	1.39	1.93	2.47
Jul	1.76	1.41	1.92	1999	27	5.07	1999	.20	1993	9.5	5.1	.8	.2	.31	.46	.72	.96	1.21	1.48	1.78	2.15	2.64	3.43	4.19
Aug	2.50	2.61	2.44	1969	30	4.44	1984	.04	2000	11.8	6.7	1.3	.3	.57	.81	1.17	1.50	1.83	2.17	2.56	3.03	3.64	4.61	5.52
Sep	1.61	1.48	1.95	1971	30	3.80	1977	.13	2000	7.0	4.5	.7	.1	.32	.46	.70	.92	1.14	1.37	1.64	1.96	2.39	3.07	3.72
Oct	1.42	1.20	1.55	1985	7	4.18	1972	.00	1995	6.3	4.1	.8	.1	.05	.16	.36	.57	.79	1.05	1.35	1.74	2.27	3.15	4.02
Nov	1.12	1.23	1.49	1962	15	2.63	1986	.00	1989	6.6	4.1	.5	.0	.09	.21	.39	.55	.72	.91	1.12	1.38	1.74	2.31	2.86
Dec	.78	.62	.83+	1951	30	2.32	1990	.00+	1999	5.7	2.5	.3	.0	.00	.05	.16	.28	.41	.56	.74	.96	1.27	1.79	2.30
Ann	14.94	14.93	2.44	Aug 1969	30	5.07	Jul 1999	.00+	Dec 1999	85.5	46.1	6.2	.7	10.43	11.30	12.41	13.25	14.01	14.73	15.49	16.32	17.34	18.81	20.09

+ 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

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**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 6,740 Feet**

**Lat: 36°36N**

**Lon: 106°44W**

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	12.7	12.5	5	3	12.0	1971	4	40.5	1979	39	1979	31	20	1979	4.5	4.0	1.8	.6	.1	20.2	15.7	12.5	6.2
Feb	8.1	5.5	5	3	8.0	1982	4	29.0	1982	45	1979	3	26	1979	3.4	2.5	1.1	.4	.0	15.7	12.4	9.9	4.8
Mar	4.6	3.5	1	#	8.0	1975	11	13.0	1980	14+	1979	4	8	1979	2.2	1.8	.7	.1	.0	5.5	3.2	2.0	.5
Apr	2.4	1.0	#	#	9.0	1987	6	9.0	1987	9	1987	6	1	1979	1.0	.7	.3	.1	.0	.9	.3	.1	.0
May	.3	.0	#	0	8.0	1978	6	8.0	1978	8	1978	6	1	1978	.1	.1	@	@	.0	.1	.1	@	.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	#	1988	1	#	1988	.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	1.0	.0	#	0	6.0	1991	30	11.0	1991	9	1991	31	1	1991	.3	.3	.2	@	.0	.3	.1	.1	.0
Nov	5.3	5.8	#	#	7.0	2000	23	17.0	1975	7+	1983	28	2	1983	2.7	2.3	.6	.1	.0	3.3	1.6	.5	.0
Dec	8.4	4.5	2	1	9.0	1987	25	29.0	1990	15	1990	30	6	1990	3.6	2.9	1.1	.5	.0	10.3	6.0	3.6	.8
Ann	42.8	32.8	N/A	N/A	12.0	Jan 1971	4	40.5	Jan 1979	45	Feb 1979	3	26	Feb 1979	17.8	14.6	5.8	1.8	.1	56.3	39.4	28.7	12.3

+ 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	7/17	7/11	7/07	7/03	6/30	6/27	6/23	6/19	6/13
32	6/28	6/23	6/20	6/17	6/15	6/12	6/09	6/06	6/01
28	6/17	6/11	6/07	6/03	5/30	5/26	5/22	5/18	5/11
24	5/27	5/22	5/18	5/15	5/12	5/09	5/06	5/02	4/27
20	5/14	5/08	5/04	5/01	4/28	4/25	4/21	4/18	4/12
16	5/03	4/26	4/21	4/17	4/13	4/09	4/04	3/30	3/23
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	8/19	8/24	8/28	9/01	9/04	9/07	9/11	9/15	9/20
32	9/05	9/09	9/13	9/15	9/18	9/21	9/23	9/27	10/01
28	9/13	9/17	9/20	9/22	9/24	9/27	9/29	10/02	10/05
24	9/22	9/27	9/30	10/03	10/06	10/09	10/12	10/15	10/20
20	9/29	10/05	10/10	10/13	10/17	10/20	10/24	10/28	11/03
16	10/16	10/20	10/24	10/27	10/30	11/01	11/04	11/08	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	89	81	75	70	65	60	55	49	41
32	113	107	102	98	95	91	87	82	76
28	140	132	126	121	117	112	107	101	94
24	166	159	154	150	146	142	138	134	127
20	198	189	182	176	171	166	160	153	144
16	224	215	209	204	199	194	189	183	175

\* 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)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1290	1004	881	660	412	149	31	55	230	569	910	1196	7387
60	1135	864	726	510	264	59	3	10	112	414	760	1041	5898
57	1042	780	633	421	185	27	0	2	62	322	670	948	5092
55	980	724	571	362	139	14	0	1	38	264	610	886	4589
50	825	584	417	226	55	2	0	0	7	136	460	731	3443
32	309	157	29	4	0	0	0	0	0	0	52	212	763

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	42	76	171	334	611	864	1082	1032	767	455	132	38	5604
55	0	0	0	2	37	188	369	319	115	5	0	0	1035
57	0	0	0	1	21	141	307	259	79	2	0	0	810
60	0	0	0	0	7	82	217	173	40	0	0	0	519
65	0	0	0	0	0	23	90	64	7	0	0	0	184
70	0	0	0	0	0	3	18	11	0	0	0	0	32

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	4	42	146	366	620	830	781	528	230	29	0	0	4	46	192	558	1178	2008	2789	3317	3547	3576	3576
45	0	0	7	62	227	470	675	626	380	115	3	0	0	0	7	69	296	766	1441	2067	2447	2562	2565	2565
50	0	0	0	16	105	324	520	471	238	38	0	0	0	0	0	16	121	445	965	1436	1674	1712	1712	1712
55	0	0	0	0	33	186	365	316	118	6	0	0	0	0	0	0	33	219	584	900	1018	1024	1024	1024
60	0	0	0	0	3	80	213	171	37	0	0	0	0	0	0	0	3	83	296	467	504	504	504	504
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	4	24	79	171	310	461	543	518	394	251	79	13	4	28	107	278	588	1049	1592	2110	2504	2755	2834	2847

(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)