

# Climatology of the United States No. 20

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

Station: PECOS NATIONAL MONUMENT, NM

1971-2000

COOP ID: 296676

Climate Division: NM 2

NWS Call Sign:

Elevation: 6,878 Feet Lat: 35° 33N

Lon: 105° 41W

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	47.0	15.8	31.4	90	1954	25	37.1	1999	-27+	1971	5	24.3	1979	1042	0	.0	.0	12.2	2.0	30.3	2.5
Feb	50.0	20.2	35.1	75	1986	26	41.7	2000	-29	1951	1	29.7	1979	837	0	.0	.0	15.6	1.1	26.7	.8
Mar	55.5	24.8	40.2	78	1997	21	46.2	1972	-18	1948	5	34.8	1991	769	0	.0	.0	23.1	.3	27.0	.2
Apr	62.9	30.6	46.8	87	1950	23	53.1	1981	6	1951	11	40.5	1973	548	0	.0	.0	27.3	.0	18.7	.0
May	72.0	38.6	55.3	97	2000	31	65.3	1996	14	1967	2	50.3	1990	318	17	.0	.3	30.7	.0	6.7	.0
Jun	82.8	47.5	65.2	100	1994	26	70.4	1990	11	1952	17	62.1	1991	70	74	@	4.4	30.0	.0	.2	.0
Jul	84.5	52.8	68.7	98+	1948	15	73.5	1980	35	1948	31	63.5	1990	26	138	.0	5.9	31.0	.0	.0	.0
Aug	81.7	51.3	66.5	95+	1985	9	69.9	1995	36	1972	26	62.6	1971	44	91	.0	2.2	31.0	.0	.0	.0
Sep	76.1	44.6	60.4	95	1956	15	65.0	2000	20	1970	26	56.1	1991	168	28	.0	.3	30.0	.0	1.3	.0
Oct	66.7	34.1	50.4	86+	1948	4	54.3	1979	6	1991	31	44.6	1984	453	1	.0	.0	29.8	@	13.0	.0
Nov	54.3	23.8	39.1	82	1949	26	45.8	1995	-23	1976	28	33.3	1991	779	0	.0	.0	20.9	.6	26.7	.2
Dec	48.2	17.2	32.7	72+	1950	11	39.3	1980	-19	1961	12	25.4	1974	1002	0	.0	.0	14.9	1.5	29.7	1.5
Ann	65.1	33.4	49.3	100	Jun 1994	26	73.5	Jul 1980	-29	Feb 1951	1	24.3	Jan 1979	6056	349	@	13.1	296.5	5.5	180.3	5.2

+ 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

069-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: PECOS NATIONAL MONUMENT, NM**

**COOP ID: 296676**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 6,878 Feet Lat: 35°33N**

**Lon: 105°41W**

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	.62	.82+	1979	18	1.73	1974	.00+	2000	4.0	2.3	.3	.0	.00	.05	.16	.27	.39	.52	.68	.88	1.15	1.60	2.05
Feb	.63	.35	1.05	1993	15	2.13	1978	.00	1984	3.8	2.1	.3	@	.01	.05	.13	.22	.32	.44	.58	.76	1.02	1.45	1.89
Mar	.90	.72	1.25	1985	11	3.31	1985	.00	1972	5.4	2.7	.5	.1	.06	.15	.29	.42	.56	.71	.89	1.11	1.40	1.88	2.35
Apr	.79	.76	1.97	1985	29	2.68	1985	.00+	1993	4.1	2.5	.3	.1	.00	.00	.15	.28	.42	.57	.76	.98	1.29	1.81	2.31
May	1.29	1.24	1.85	1991	21	4.55	1994	.00+	1998	5.2	3.4	.8	.1	.00	.11	.32	.52	.74	.98	1.26	1.59	2.07	2.84	3.61
Jun	1.39	1.39	1.94	1949	19	3.89	1986	.00	1980	5.9	3.8	.9	.2	.09	.23	.45	.65	.87	1.10	1.38	1.72	2.17	2.92	3.65
Jul	3.19	3.14	2.00	1985	23	5.96	1991	.57	1987	11.9	8.0	2.0	.5	1.15	1.45	1.88	2.25	2.59	2.95	3.34	3.79	4.37	5.25	6.07
Aug	3.49	3.13	2.40	1969	24	6.92	1993	1.54	1986	11.4	8.1	2.1	.6	1.53	1.84	2.28	2.64	2.97	3.30	3.66	4.08	4.60	5.39	6.11
Sep	1.99	1.97	1.99	1982	16	4.54	1982	.00	2000	6.7	4.6	1.6	.3	.25	.50	.84	1.12	1.41	1.71	2.05	2.45	2.98	3.83	4.64
Oct	1.35	.80	1.76	1998	27	5.16	1998	.00+	1995	4.5	3.2	.7	.3	.00	.00	.24	.46	.69	.96	1.28	1.68	2.22	3.14	4.04
Nov	1.06	.89	1.87	1977	7	3.75	1978	.00+	1989	3.9	2.8	.6	.1	.00	.07	.23	.39	.57	.77	1.01	1.31	1.73	2.44	3.13
Dec	.61	.34	.95	1959	26	1.77	1986	.00	1977	3.0	1.8	.3	.0	.01	.04	.10	.18	.28	.40	.54	.73	1.00	1.46	1.93
Ann	17.40	18.03	2.40	Aug 1969	24	6.92	Aug 1993	.00+	Sep 2000	69.8	45.3	10.4	2.3	12.51	13.46	14.67	15.59	16.40	17.19	18.00	18.90	19.98	21.55	22.91

+ 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](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

# 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](http://www.ncdc.noaa.gov)

**Station: PECOS NATIONAL MONUMENT, NM**

**COOP ID: 296676**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 6,878 Feet**

**Lat: 35°33N**

**Lon: 105°41W**

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	5.4	3.9	1	#	10.0	1974	1	20.0	1974	14	1974	3	7	1997	1.5	1.2	.9	.6	.1	4.3	3.0	2.2	.8
Feb	3.5	.0	1	0	10.0	1983	4	15.0	1990	13	1986	10	5	1986	1.5	1.3	.5	.1	.1	1.6	.6	.1	.0
Mar	3.2	1.2	#	0	5.0	1973	24	20.0	1973	9	1973	24	2	1973	1.3	1.2	.4	.1	.0	1.0	.5	.2	.0
Apr	2.2	.0	#	0	8.0	1975	12	20.0	1973	10	1973	3	2	1973	.8	.6	.3	.1	.0	.7	.3	.2	@
May	.0	.0	#	0	.0	0	0	.0	0	#	1995	7	#	1995	.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	.6	.0	#	0	5.0	1972	31	5.0	1972	7	1996	27	#+	1999	.3	.2	.1	.1	.0	.1	@	.0	.0
Nov	3.5	.0	#	0	8.0	1971	16	21.0	1971	14	1971	17	2	1997	1.1	.9	.4	.3	.0	1.0	.8	.5	.2
Dec	4.5	1.6	1	#	14.0	2000	26	18.5	2000	14	2000	26	4	1992	1.6	1.2	.6	.3	.1	2.0	.9	.5	.1
Ann	22.9	6.7	N/A	N/A	14.0	Dec 2000	26	21.0	Nov 1971	14+	Dec 2000	26	7	Jan 1997	8.1	6.6	3.2	1.6	.3	10.7	6.1	3.7	1.1

+ 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

# Climatography of the United States

## No. 20 1971-2000

**Station:** PECOS NATIONAL MONUMENT, NM

**COOP ID:** 296676

**Climate Division:** NM 2

**NWS Call Sign:**

**Elevation:** 6,878 Feet

**Lat:** 35° 33N

**Lon:** 105° 41W

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	6/14	6/08	6/05	6/02	5/30	5/27	5/24	5/20	5/15
32	6/08	6/02	5/29	5/26	5/22	5/19	5/16	5/11	5/06
28	5/23	5/18	5/15	5/12	5/09	5/06	5/03	4/29	4/24
24	5/15	5/09	5/04	5/01	4/27	4/24	4/20	4/16	4/10
20	5/05	4/28	4/23	4/19	4/15	4/11	4/06	4/01	3/25
16	4/21	4/13	4/08	4/03	3/30	3/25	3/20	3/15	3/07
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	9/07	9/11	9/14	9/17	9/20	9/22	9/25	9/28	10/02
32	9/18	9/22	9/24	9/27	9/29	10/01	10/03	10/06	10/09
28	9/27	10/01	10/04	10/06	10/09	10/11	10/13	10/16	10/20
24	10/04	10/10	10/14	10/17	10/20	10/23	10/27	10/31	11/05
20	10/19	10/24	10/27	10/30	11/02	11/05	11/08	11/12	11/17
16	11/02	11/06	11/10	11/12	11/15	11/18	11/21	11/24	11/29
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	131	125	120	116	112	109	105	100	94
32	149	142	137	133	129	125	120	115	108
28	172	165	160	156	152	148	144	140	133
24	198	190	184	180	175	170	165	160	151
20	227	218	212	206	201	196	190	184	174
16	255	246	240	235	230	225	220	213	205

\* 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

**Climatology  
of the United States  
No. 20  
1971-2000**

**Station: PECOS NATIONAL MONUMENT, NM**

**COOP ID: 296676**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 6,878 Feet    Lat: 35° 33N    Lon: 105° 41W**

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	1042	837	769	548	318	70	26	44	168	453	779	1002	6056
60	887	697	614	402	198	20	4	8	77	304	629	847	4687
57	794	613	521	319	141	7	0	1	41	224	539	754	3954
55	732	557	460	267	109	4	0	0	24	176	480	692	3501
50	577	418	314	155	49	0	0	0	5	82	341	537	2478
32	114	54	16	1	0	0	0	0	0	0	32	96	313

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	95	141	269	443	722	994	1135	1069	850	571	243	116	6648
55	0	0	1	19	118	307	422	357	184	34	2	0	1444
57	0	0	0	11	88	251	360	296	141	20	0	0	1167
60	0	0	0	4	52	174	271	209	87	7	0	0	804
65	0	0	0	0	17	74	138	91	28	1	0	0	349
70	0	0	0	0	4	18	51	23	5	0	0	0	101

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	11	34	91	227	479	760	897	828	620	341	81	16	11	45	136	363	842	1602	2499	3327	3947	4288	4369	4385
45	0	5	30	116	334	610	742	673	470	206	27	0	0	5	35	151	485	1095	1837	2510	2980	3186	3213	3213
50	0	0	5	44	194	460	587	518	321	93	3	0	0	0	5	49	243	703	1290	1808	2129	2222	2225	2225
55	0	0	0	8	91	313	432	363	185	27	0	0	0	0	0	8	99	412	844	1207	1392	1419	1419	1419
60	0	0	0	0	32	176	277	214	77	4	0	0	0	0	0	0	32	208	485	699	776	780	780	780
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	40	59	115	207	353	494	571	524	404	271	104	45	40	99	214	421	774	1268	1839	2363	2767	3038	3142	3187

(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)