

Climatography of the United States

No. 20

1971-2000

Station: GASCON, NM

COOP ID: 293488

Climate Division: NM 2

NWS Call Sign:

Elevation: 8,250 Feet Lat: 35° 54N

Lon: 105° 27W

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	43.3	16.2	29.8	71	1997	1	36.7	1986	-26	1971	6	22.0	1988	1093	0	.0	.0	8.2	4.6	29.7	1.8
Feb	45.1	18.1	31.6	70+	1963	5	37.7	1995	-17	1989	7	25.7	1990	936	0	.0	.0	9.5	3.4	27.3	1.2
Mar	49.1	22.2	35.7	78	1971	28	41.4	1972	-11	1965	4	30.0	1988	909	0	.0	.0	15.4	1.2	28.3	.3
Apr	55.2	26.5	40.9	78	1972	10	47.1	1981	-9	1961	9	34.2	1973	724	0	.0	.0	23.0	.6	23.7	.2
May	63.5	33.7	48.6	85	2000	29	56.6	1996	5	1961	7	43.6	1993	510	1	.0	.0	29.5	.0	13.4	.0
Jun	73.1	41.1	57.1	90+	1956	13	63.4	1980	20+	1961	1	52.7	1987	251	13	.0	@	30.0	.0	1.6	.0
Jul	75.2	45.0	60.1	91	1957	3	65.4	1980	30	1960	24	55.3	1988	170	19	.0	@	31.0	.0	.0	.0
Aug	73.0	44.0	58.5	89	1970	1	61.9	1977	29	1992	27	54.5	1987	212	11	.0	.0	31.0	.0	.1	.0
Sep	68.4	39.1	53.8	89+	1956	13	57.9	2000	15	1971	19	48.0	1988	340	3	.0	.0	29.7	.0	4.0	.0
Oct	60.5	30.1	45.3	80+	1957	3	49.5	1979	-1	1993	30	40.9	1984	611	0	.0	.0	27.7	.2	20.3	@
Nov	50.3	21.7	36.0	74+	1999	13	42.2	1999	-19	1976	28	28.8	1992	871	0	.0	.0	15.8	1.6	27.4	.3
Dec	44.2	16.6	30.4	72	1965	4	39.3	1980	-21	1978	8	24.2	1987	1072	0	.0	.0	10.5	4.2	29.9	1.9
Ann	58.4	29.5	44.0	91	Jul 1957	3	65.4	Jul 1980	-26	Jan 1971	6	22.0	Jan 1988	7699	47	.0	.0	261.3	15.8	205.7	5.7

+ 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: 1953-2001

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

046-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: GASCON, NM

COOP ID: 293488

Climate Division: NM 2

NWS Call Sign:

Elevation: 8,250 Feet Lat: 35°54N

Lon: 105°27W

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	1.04	.86	.98	1987	16	2.60	1987	.00+	1998	4.6	2.8	.7	.0	.00	.17	.38	.55	.71	.88	1.08	1.30	1.61	2.10	2.57
Feb	1.11	.91	1.60	1963	11	3.39	1990	.00	1999	4.9	3.0	.6	.1	.06	.16	.33	.49	.67	.86	1.09	1.37	1.76	2.39	3.01
Mar	2.05	1.67	3.48	1998	15	4.97+	1998	.00	1972	6.5	4.2	1.2	.4	.25	.50	.85	1.14	1.43	1.75	2.10	2.52	3.08	3.98	4.82
Apr	1.87	1.41	3.22	1999	30	5.36	1999	.06	1991	6.1	3.7	1.2	.4	.18	.31	.57	.83	1.11	1.43	1.80	2.28	2.92	4.00	5.05
May	2.08	1.91	2.30	1978	2	6.41	1979	.10	1996	6.6	4.7	1.3	.3	.25	.41	.70	.99	1.30	1.64	2.05	2.54	3.22	4.33	5.42
Jun	2.13	1.91	1.96	1996	27	5.84	1986	.10	1980	6.9	4.9	1.6	.2	.21	.36	.65	.95	1.27	1.63	2.06	2.60	3.34	4.56	5.76
Jul	3.83	4.05	1.71	1975	16	7.43	1971	.77	1979	11.6	8.3	2.7	.6	1.12	1.48	2.03	2.50	2.97	3.45	3.98	4.60	5.41	6.68	7.86
Aug	4.10	3.40	3.10	1961	12	8.44	1991	.94	1985	11.9	9.1	2.7	.7	1.19	1.58	2.16	2.67	3.17	3.68	4.25	4.92	5.80	7.16	8.43
Sep	2.21	2.22	1.54	1975	4	6.12	1990	.36	2000	7.6	4.9	1.5	.3	.44	.64	.96	1.26	1.56	1.88	2.25	2.69	3.28	4.21	5.10
Oct	1.66	.94	2.31+	1969	22	4.93	1984	.00	1995	4.9	3.3	1.1	.3	.02	.10	.29	.52	.78	1.09	1.48	1.99	2.71	3.96	5.21
Nov	1.38	1.29	1.99	1977	7	5.47	1978	.01	1973	4.5	2.8	.9	.2	.04	.10	.24	.42	.63	.89	1.21	1.64	2.26	3.33	4.41
Dec	1.14	1.04	1.68	1959	14	3.07	1984	.02	1977	4.2	2.9	.6	.1	.07	.14	.28	.44	.61	.81	1.06	1.37	1.81	2.55	3.29
Ann	24.60	23.70	3.48	Mar 1998	15	8.44	Aug 1991	.00+	Feb 1999	80.3	54.6	16.1	3.6	17.95	19.25	20.91	22.16	23.27	24.35	25.45	26.67	28.14	30.27	32.11

+ 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: 1953-2001

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

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Station: GASCON, NM

COOP ID: 293488

Climate Division: NM 2

NWS Call Sign:

Elevation: 8,250 Feet

Lat: 35° 54N

Lon: 105° 27W

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	16.3	12.6	2	2	22.0	1990	19	45.2	1990	24	1987	17	7	1987	4.4	3.7	2.2	1.3	.5	9.3	5.9	3.2	.8
Feb	16.7	12.4	2	1	32.0	1990	20	69.3	1990	44	1987	26	15	1987	4.2	3.7	2.2	1.2	.4	6.3	3.8	2.3	.7
Mar	30.6	23.5	2	1	24.0	1998	15	96.2	1973	27	1973	30	7	1987	5.2	4.9	3.2	2.0	.8	6.3	4.2	3.2	1.1
Apr	13.7	8.9	1	#	28.0	1975	12	47.4	1973	27	1973	2	8	1973	3.5	3.2	2.1	1.3	.6	2.9	2.1	1.5	.6
May	4.8	1.0	#	0	36.0	1978	2	49.0	1978	23	1978	2	2	1978	1.0	.8	.6	.3	.1	.5	.3	.1	.1
Jun	#	.0	#	0	#	1999	11	#+	1999	1	1989	3	#+	1993	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	#+	1994	31	#+	1994	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	#	0	.0	0	0	.0	0	#	1996	19	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.4	.0	#	0	8.0	1971	18	9.0	1971	7	1971	18	#	1971	.1	.1	.1	@	.0	@	@	@	.0
Oct	6.0	3.8	#	#	21.0	1996	27	24.0	1972	20	1996	27	4	1984	1.7	1.6	1.0	.5	.2	1.4	.9	.6	.2
Nov	12.2	10.4	1	1	18.5	1991	16	39.7	1991	20	1991	16	4	1991	3.1	2.7	1.6	1.0	.4	4.8	2.6	1.5	.2
Dec	17.9	15.1	2	2	28.0	1978	6	44.8	1987	22	1978	6	7	1987	3.9	3.6	2.2	1.4	.4	9.3	5.8	4.1	1.6
Ann	118.6	87.7	N/A	N/A	36.0	May 1978	2	96.2	Mar 1973	44	Feb 1987	26	15	Feb 1987	27.1	24.3	15.2	9.0	3.4	40.8	25.6	16.5	5.3

+ 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

Complete documentation available from:

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Climate Division: NM 2

NWS Call Sign:

Elevation: 8,250 Feet

Lat: 35° 54N

Lon: 105° 27W

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	6/28	6/24	6/21	6/18	6/16	6/13	6/10	6/07	6/03
32	6/20	6/15	6/11	6/08	6/05	6/02	5/30	5/26	5/21
28	6/09	6/03	5/31	5/28	5/25	5/22	5/19	5/15	5/10
24	5/20	5/16	5/12	5/09	5/07	5/04	5/01	4/28	4/23
20	5/10	5/04	4/30	4/26	4/23	4/20	4/16	4/12	4/06
16	4/28	4/21	4/17	4/13	4/09	4/06	4/02	3/28	3/22
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	8/16	8/23	8/29	9/02	9/06	9/10	9/15	9/20	9/27
32	9/05	9/10	9/14	9/17	9/20	9/23	9/26	9/30	10/05
28	9/16	9/20	9/23	9/26	9/28	10/01	10/03	10/06	10/11
24	9/25	9/30	10/04	10/07	10/10	10/12	10/16	10/19	10/24
20	10/02	10/08	10/12	10/16	10/20	10/23	10/27	11/01	11/07
16	10/10	10/16	10/21	10/25	10/29	11/01	11/05	11/10	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	108	99	93	87	82	77	71	65	56
32	130	122	116	111	106	101	96	90	82
28	146	139	134	130	126	122	118	113	106
24	177	170	164	160	155	151	146	141	133
20	207	198	191	185	179	173	167	161	151
16	227	218	212	207	202	197	191	185	177

* 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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NWS Call Sign:

Elevation: 8,250 Feet Lat: 35° 54N Lon: 105° 27W

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	1093	936	909	724	510	251	170	212	340	611	871	1072	7699
60	938	796	754	574	363	138	73	99	205	456	721	917	6034
57	845	712	661	485	281	87	34	53	138	364	631	824	5115
55	783	656	599	427	232	60	18	30	101	305	571	762	4544
50	628	516	445	288	130	18	2	5	35	172	428	607	3274
32	148	106	45	14	1	0	0	0	0	2	65	149	530

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	78	94	159	280	515	752	872	822	654	414	184	100	4924
55	0	0	0	3	33	122	177	139	65	4	0	0	543
57	0	0	0	1	20	89	130	100	42	1	0	0	383
60	0	0	0	0	9	49	77	53	18	0	0	0	206
65	0	0	0	0	1	13	19	11	3	0	0	0	47
70	0	0	0	0	0	1	3	0	0	0	0	0	4

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	8	13	38	106	279	517	632	580	416	194	51	11	8	21	59	165	444	961	1593	2173	2589	2783	2834	2845
45	0	0	5	37	146	367	477	425	270	85	10	0	0	0	5	42	188	555	1032	1457	1727	1812	1822	1822
50	0	0	0	4	56	221	322	271	139	23	0	0	0	0	0	4	60	281	603	874	1013	1036	1036	1036
55	0	0	0	0	13	105	170	127	46	1	0	0	0	0	0	0	13	118	288	415	461	462	462	462
60	0	0	0	0	1	29	48	30	2	0	0	0	0	0	0	0	1	30	78	108	110	110	110	110
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	21	26	53	110	218	353	399	365	283	180	71	31	21	47	100	210	428	781	1180	1545	1828	2008	2079	2110

(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