U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: JORNADA EXP RANGE, NM **COOP ID: 294426**

Climate Division: NM 8 **NWS Call Sign:** **Elevation: 4,266 Feet** **Lat: 32˚37N** **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	56.8	21.1	39.0	80	1970	25	43.1	1999	-19	1962	11	34.8	1992	808	0	.0	.0	25.3	.4	27.9	.1
Feb	62.0	24.8	43.4	83	1986	27	49.1	1996	-1	1963	13	38.6	1974	605	0	.0	.0	25.8	.4	22.9	.0
Mar	68.9	30.5	49.7	89	1989	13	54.2	1972	2	1963	19	44.0	1977	474	0	.0	.0	30.5	.0	18.3	.0
Apr	76.5	37.1	56.8	96	1965	22	61.1	2000	13	1963	3	51.5	1973	259	13	.0	.9	29.8	@	9.2	.0
May	85.2	45.9	65.6	101+	1984	27	70.8+	2000	21	1967	2	61.2	1975	77	94	.3	7.7	31.0	.0	1.0	.0
Jun	94.1	55.2	74.7	110	1980	16	80.5	1994	27	1963	10	70.6	1992	6	296	6.6	23.8	30.0	.0	.0	.0
Jul	94.9	62.5	78.7	108+	1957	4	81.9	1978	45	1955	3	76.2	1976	0	424	6.1	26.2	31.0	.0	.0	.0
Aug	91.7	60.8	76.3	106+	1969	17	80.6	1994	43	1964	22	72.3	1974	1	349	1.6	22.1	31.0	.0	.0	.0
Sep	86.7	53.6	70.2	100+	1956	17	75.4	1998	31	1959	18	66.7	1974	21	175	.1	10.7	30.0	.0	.0	.0
Oct	77.5	40.2	58.9	96	2000	3	61.9	1988	15+	1970	28	54.7	1976	205	13	.0	1.3	30.9	.0	5.5	.0
Nov	65.3	27.8	46.6	85	1988	5	51.8	1999	-3	1976	30	40.6	1979	554	0	.0	.0	28.8	.0	22.0	@
Dec	56.5	21.4	39.0	76	1987	12	44.3	1977	-12	1987	15	35.0	1976	808	0	.0	.0	25.0	.3	27.3	.2
Ann	76.3	40.1	58.2	110	Jun 1980	16	81.9	Jul 1978	-19	Jan 1962	11	34.8	Jan 1992	3818	1364	14.7	92.7	349.1	1.1	134.1	.3

\+ 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/normals/usnormals.html

(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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	.58	.50	.60	1974	9	1.66	1993	.00+	2000
Feb	.38	.30	.55	1988	4	1.19	1973	.00+	2000
Mar	.26	.26	.97	1958	6	.65	1989	.00+	1996
Apr	.22	.09	.57	1958	16	.88	1983	.00+	2000
May	.48	.25	.90	1984	16	3.59	1992	.00+	2000
Jun	.93	.47	1.86	2000	19	4.51	2000	.00+	1990
Jul	2.09	1.97	1.78	1997	30	5.32	1997	.56+	1987
Aug	2.52	2.19	3.48	1959	9	6.58	1984	.90	1976
Sep	1.36	1.22	1.90	1954	25	3.66	1976	.00	1973
Oct	1.12	.83	1.55	1985	17	3.41	1974	.00+	1995
Nov	.61	.48	1.72	1978	1	3.06	1978	.00+	1999
Dec	.89	.69	1.27	1984	15	3.95	1991	.00+	1996
Ann	11.44	10.67	3.48	Aug 1959	9	6.58	Aug 1984	.00+	May 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	3.1	2.0	.2	.0
Feb	2.8	1.5	@	.0
Mar	2.1	.9	.0	.0
Apr	1.4	.8	.0	.0
May	2.6	1.3	.3	.0
Jun	3.1	1.8	.7	.3
Jul	8.4	5.3	1.5	.3
Aug	8.7	5.3	1.6	.4
Sep	5.6	3.4	.7	.2
Oct	4.0	2.9	.6	.2
Nov	2.3	1.6	.3	.1
Dec	3.8	2.6	.3	.1
Ann	47.9	29.4	6.2	1.6

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.00	.07	.17	.27	.36	.46	.58	.72	.91	1.22	1.52
Feb	.00	.00	.04	.12	.19	.27	.37	.48	.64	.89	1.15
Mar	.00	.00	.04	.10	.15	.21	.27	.34	.44	.59	.75
Apr	.00	.00	.00	.00	.03	.09	.16	.25	.39	.64	.90
May	.00	.00	.01	.07	.15	.26	.39	.57	.83	1.28	1.75
Jun	.00	.00	.05	.17	.33	.52	.77	1.10	1.58	2.40	3.25
Jul	.54	.74	1.04	1.31	1.57	1.85	2.16	2.52	3.00	3.75	4.46
Aug	.90	1.14	1.48	1.77	2.04	2.32	2.63	2.99	3.45	4.15	4.80
Sep	.08	.21	.42	.62	.83	1.07	1.34	1.67	2.13	2.88	3.61
Oct	.00	.00	.31	.51	.70	.90	1.14	1.42	1.78	2.39	2.97
Nov	.00	.00	.06	.15	.25	.37	.53	.73	1.02	1.52	2.02
Dec	.00	.06	.19	.33	.48	.64	.84	1.09	1.44	2.02	2.59
Ann	6.92	7.74	8.82	9.65	10.41	11.15	11.93	12.80	13.87	15.45	16.84

\+ 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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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	1.4	.0	#	0	6.0	1985	13	9.5	1985	6	1985	13	1	1985	.6	.5	.2	@	.0	.5	.2	@	.0
Feb	.4	.0	#	0	3.0	1987	21	3.0	1987	3	1987	21	#+	1988	.2	.2	@	.0	.0	.1	@	.0	.0
Mar	.1	.0	#	0	2.0	1987	29	2.0	1987	2	1987	29	#	1987	.1	@	.0	.0	.0	@	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	3.0	1976	12	6.0	1976	3	1976	12	#	1976	.1	.1	.1	.0	.0	@	@	.0	.0
Dec	1.4	.0	#	0	8.0	1984	15	11.5	1987	8	1984	15	1	1987	.5	.4	.2	.1	.0	.2	.2	.1	.0
Ann	3.5	.0	N/A	N/A	8.0	Dec 1984	15	11.5	Dec 1987	8	Dec 1984	15	1+	Dec 1987	1.5	1.2	.5	.1	.0	.8	.4	.1	.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

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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	5/20	5/16	5/13	5/11	5/08	5/05	5/02	4/27
32	5/16	5/11	5/07	5/04	5/01	4/28	4/25	4/21	4/16
28	5/03	4/27	4/22	4/18	4/14	4/10	4/06	4/01	3/26
24	4/21	4/15	4/11	4/07	4/04	3/31	3/28	3/23	3/17
20	4/06	3/30	3/25	3/21	3/17	3/13	3/09	3/04	2/25
16	3/24	3/15	3/08	3/02	2/24	2/18	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	10/02	10/06	10/09	10/12	10/14	10/16	10/19	10/22	10/26
32	10/05	10/10	10/14	10/17	10/20	10/23	10/26	10/29	11/03
28	10/13	10/18	10/22	10/25	10/28	10/31	11/03	11/06	11/11
24	10/22	10/27	10/31	11/04	11/07	11/10	11/13	11/17	11/23
20	10/31	11/05	11/09	11/13	11/16	11/20	11/23	11/27	12/03
16	11/12	11/18	11/22	11/25	11/29	12/02	12/06	12/10	12/15

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	173	167	163	159	155	152	148	144	138
32	189	183	178	175	171	168	164	159	153
28	216	209	204	200	196	192	187	182	175
24	240	232	226	221	216	211	206	201	192
20	269	260	254	249	244	239	233	227	218
16	313	301	292	284	277	270	262	253	241

***** 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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Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	808	605	474	259	77	6	0	1	21	205	554	808	3818
60	653	465	324	144	25	0	0	0	3	93	406	653	2766
57	560	381	240	92	10	0	0	0	0	50	321	560	2214
55	498	326	189	65	5	0	0	0	0	31	267	498	1879
50	344	198	89	20	0	0	0	0	0	6	152	345	1154
32	8	2	0	0	0	0	0	0	0	0	2	9	21

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	223	321	549	745	1041	1280	1447	1372	1144	832	438	223	9615
55	0	2	25	119	332	590	734	659	454	150	13	0	3078
57	0	0	14	87	275	530	672	597	394	107	7	0	2683
60	0	0	5	49	197	440	579	504	307	57	2	0	2140
65	0	0	0	13	94	296	424	349	175	13	0	0	1364
70	0	0	0	2	33	168	269	202	78	1	0	0	753

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	69	154	318	515	800	1052	1211	1136	912	590	230	70	69	223	541	1056	1856	2908	4119	5255	6167	6757	6987	7057
45	18	65	191	369	645	902	1056	981	762	439	122	18	18	83	274	643	1288	2190	3246	4227	4989	5428	5550	5568
50	0	18	90	237	491	752	901	826	612	291	47	0	0	18	108	345	836	1588	2489	3315	3927	4218	4265	4265
55	0	0	30	125	339	602	746	671	462	162	10	0	0	0	30	155	494	1096	1842	2513	2975	3137	3147	3147
60	0	0	2	45	201	452	591	516	316	67	0	0	0	0	2	47	248	700	1291	1807	2123	2190	2190	2190
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	129	194	299	406	537	632	762	731	583	433	244	122	129	323	622	1028	1565	2197	2959	3690	4273	4706	4950	5072

(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:
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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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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