## 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

**COOP ID: 295370** 

Lon: 103°42W

**Station: MALJAMAR 4 SE, NM** 

Climate Division: NM 7 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 56.0 25.0 40.5 84 2000 17 46.4 1999 -13 1962 11 34.8 1979 760 0 .0 .0 23.3 1.4 25.2 .1 Jan 62.1 28.8 45.5 85 2000 3 54.2 2000 -10 1951 40.5 1973 548 0 .0 .0 24.5 .7 18.6 @ Feb 1 Mar 70.0 35.2 52.6 92 1997 21 57.4 1974 4 1971 3 47.7 1987 387 2 .0 .2 30.2 @ 10.8 0. 42.9 22 1983 43 Apr 78.3 60.6 100 +1989 66.6 2000 19 1987 3 53.3 176 .1 2.4 29.7 .0 3.0 0. May 86.4 52.1 69.3 109 1998 29 77.1 1996 30 1979 4 64.9 1975 51 182 1.9 11.4 31.0 .0 .1 .0 27 84.1 41 73.4 23.0 Jun 94.2 60.2 77.2 116 1994 1990 1970 1992 3 369 7.8 30.0 .0 .0 .0 Jul 95.5 63.5 79.5 26 84.7 49 1948 74.5 1975 0 449 9.5 26.1 31.0 0. 111+1995 1998 6 .0 .0 93.0 62.6 77.8 109 1994 18 82.0 1999 50 1976 29 72.7 1971 399 5.5 23.2 31.0 .0 .0 .0 Aug 30 28 Sep 86.6 56.4 71.5 107 2000 4 78.8 2000 1999 29 64.2 1974 223 1.2 13.3 29.9 .0 .1 .0 55.0 147 Oct 77.2 45.6 61.4 98+ 1998 10 65.9 1998 16 1991 31 1976 36 .0 2.6 30.6 .0 1.8 .0 64.9 33.8 49.4 1973 8 57.1 1999 -4 1976 29 43.5 1976 473 3 .0 .0 27.0 13.3 @ Nov 86+ .1 Dec 56.9 26.2 41.6 79+ 1980 28 46.2 1994 -3 1989 23 35.5 1983 726 0 .0 .0 24.6 .9 24.2 .1 Jun Jul Jan Jan 44.4 60.6 116 1994 27 84.7 1998 -13 1962 34.8 1979 3300 1706 26.0 102.2 342.8 3.1 97.1 .2 76.8 11 Ann

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 062-A

Elevation: 4,000 Feet Lat: 32°49N

<sup>+</sup> Also occurred on an earlier date(s)

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2000

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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Station: MALJAMAR 4 SE, NM

Climate Division: NM 7 NWS Call Sign: Elevation: 4,000 Feet Lat: 32°49N Lon: 103°42W

										Pı	recipi	tation	(incl	nes)										
	Me	Precipitation Totals  Means/ Medians(1)  Extremes										ays (3	3)	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										
	Medi	ans(1)				Extremes	•			Daily Precipitation				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	.44	.29	1.50	1961	24	1.60	1980	.00+	2000	3.0	1.5	.2	@	.00	.03	.10	.17	.24	.32	.42	.54	.71	1.00	1.28
Feb	.49	.35	.81	1988	5	1.86	1997	.00+	2000	2.9	1.5	.2	.0	.00	.00	.05	.13	.22	.32	.44	.60	.82	1.18	1.55
Mar	.41	.23	1.21	1968	20	1.83	1999	.00+	1996	2.2	1.2	.2	.0	.00	.02	.07	.13	.20	.28	.37	.50	.67	.96	1.25
Apr	.53	.43	1.57	1966	24	2.34	1997	.00+	1991	2.6	1.5	.3	.0	.00	.00	.10	.19	.28	.38	.51	.66	.87	1.23	1.58
May	1.81	1.44	3.30	1970	25	7.69	1992	.00+	2000	4.4	3.4	1.3	.5	.00	.06	.26	.51	.81	1.16	1.61	2.18	3.00	4.42	5.85
Jun	1.76	1.64	3.45	1948	2	5.85	1986	.00	1990	4.7	3.7	1.2	.6	.08	.23	.49	.74	1.02	1.34	1.70	2.17	2.80	3.85	4.87
Jul	2.29	1.88	3.41	1960	7	6.74	1975	.00	1980	5.9	4.6	1.4	.5	.15	.38	.75	1.08	1.44	1.82	2.27	2.83	3.57	4.79	5.97
Aug	2.79	2.07	4.72	1960	10	10.88	1972	.00	1994	6.2	4.8	1.7	.7	.12	.36	.77	1.17	1.61	2.11	2.70	3.43	4.44	6.11	7.74
Sep	3.06	2.33	3.50	1980	26	7.71	1991	.00	2000	5.6	4.4	2.0	.9	.10	.34	.76	1.21	1.69	2.25	2.91	3.75	4.91	6.84	8.75
Oct	1.17	.85	4.29	1955	3	4.78	1974	.00+	1989	3.9	2.5	.9	.1	.00	.00	.16	.34	.54	.77	1.06	1.43	1.94	2.82	3.70
Nov	.67	.54	2.25	1971	16	1.85	1978	.00+	1999	2.9	2.0	.4	.1	.00	.00	.12	.23	.35	.48	.64	.84	1.10	1.56	2.01
Dec	.66	.23	1.45	1971	5	3.70	1991	.00+	1996	3.0	1.7	.4	.1	.00	.00	.02	.09	.20	.34	.52	.77	1.13	1.76	2.42
Ann	16.08	15.78	4.72	Aug 1960	10	10.88	Aug 1972	.00+	Sep 2000	47.3	32.8	10.2	3.5	8.88	10.14	11.83	13.16	14.37	15.57	16.83	18.25	20.02	22.65	24.98

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2000

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**COOP ID: 295370** 

Station: MALJAMAR 4 SE, NM

Climate Division: NM 7 NWS Call Sign: Elevation: 4,000 Feet Lat: 32°49N Lon: 103°42W

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ians (1)	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	2.0	1.5	#	#	14.0	1982	13	14.0	1982	14	1982	13	1	1982	1.1	.8	.1	@	@	.7	.2	.2	@		
Feb	1.8	.0	#	0	9.0	1988	5	12.0	1973	9	1988	6	1	1988	.6	.3	.3	.1	.0	.2	.1	.1	.0		
Mar	.4	.0	#	0	4.0	1973	10	4.5	1973	1	1977	5	#+	1989	.3	.2	.1	.0	.0	@	.0	.0	.0		
Apr	.3	.0	0	0	4.0	1983	5	8.5	1983	0	0	0	0	0	.1	.1	.1	.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	.2	.0	0	0	2.0	1993	30	2.0	1993	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Nov	.9	.0	#	0	6.0	1976	12	9.5	1976	6	1976	12	#+	1982	.4	.3	.1	@	.0	.3	.2	@	.0		
Dec	2.5	.0	#	#	12.0	1987	14	15.7	1987	15	1987	14	1	1997	.9	.6	.3	.1	@	.7	.2	@	@		
Ann	8.1	1.5	N/A	N/A	14.0	Jan 1982	13	15.7	Dec 1987	15	Dec 1987	14	1+	Dec 1997	3.5	2.4	1.0	.2	@	1.9	.7	.3	@		

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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Lon: 103°42W

Lat: 32°49N

Station: MALJAMAR 4 SE, NM

Climate Division: NM 7 NWS Call Sign:

				Freez	e Data					
			Spri	ng Freeze D	ates (Month/	Day)				
Temp (F)		P	robability of	later date in	n spring (thr	u Jul 31) tha	n indicated(	(*)		
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90	
36	5/08	5/04	5/02	4/30	4/28	4/26	4/24	4/21	4/18	
32	4/30	4/25	4/21	4/18	4/15	4/12	4/09	4/05	3/31	
28	4/16	4/11	4/08	4/05	4/02	3/30	3/27	3/24	3/19	
24	4/10	4/03	3/30	3/26	3/23	3/19	3/15	3/11	3/05	
20	4/02	3/24	3/18	3/13	3/08	3/04	2/26	2/20	2/12	
16	3/21	3/11	3/03	2/25	2/20	2/14	2/08	2/01	1/22	
		-	Fal	l Freeze Dat	tes (Month/D	ay)				
Probability of earlier date in fall (beginning Aug 1) than indicated(*)										
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90	
36	9/28	10/04	10/09	10/13	10/17	10/21	10/25	10/29	11/05	
32	10/08	10/14	10/19	10/22	10/26	10/30	11/02	11/07	11/13	
28	10/13	10/20	10/25	10/29	11/02	11/05	11/09	11/14	11/21	
24	10/26	11/01	11/05	11/09	11/13	11/16	11/20	11/25	12/01	
20	11/05	11/10	11/14	11/18	11/21	11/24	11/28	12/02	12/07	
16	11/10	11/18	11/25	11/30	12/05	12/10	12/15	12/22	1/01	
		-		Freeze F	ree Period					
Tomp (F)			<b>Probability</b>	of longer th	an indicated	freeze free p	eriod (Days)			
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90	
36	191	184	179	175	171	167	163	158	151	
32	213	206	201	197	193	190	186	181	174	
28	236	228	222	217	213	208	204	198	190	
24	261	252	245	240	234	229	223	217	208	
20	290	278	270	263	257	251	244	236	224	
16	332	315	304	295	287	279	270	260	247	

<sup>\*</sup> 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 do

Complete documentation available from:

Elevation: 4,000 Feet

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	760	548	387	176	51	3	0	1	28	147	473	726	3300		
60	605	409	246	88	16	0	0	0	7	59	334	571	2335		
57	512	331	172	50	7	0	0	0	2	30	259	479	1842		
55	452	280	131	32	4	0	0	0	0	17	214	418	1548		
50	307	169	55	8	0	0	0	0	0	3	123	274	939		
32	15	4	0	0	0	0	0	0	0	0	3	8	30		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	278	381	638	858	1154	1356	1472	1421	1186	912	523	305	10484
55	2	13	57	199	445	666	759	708	496	216	45	2	3608
57	0	7	36	158	386	606	697	646	438	167	29	1	3171
60	0	2	16	105	302	516	604	553	353	104	15	0	2570
65	0	0	2	43	182	369	449	399	223	36	3	0	1706
70	0	0	0	13	93	233	302	253	124	7	0	0	1025

	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         Fe											Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
40	127	223	420	634	923	1130	1245	1192	959	679	309	138	127	350	770	1404	2327	3457	4702	5894	6853	7532	7841	7979
45	53	124	278	488	768	980	1090	1037	809	527	190	61	53	177	455	943	1711	2691	3781	4818	5627	6154	6344	6405
50	14	55	161	347	613	830	935	882	659	382	99	18	14	69	230	577	1190	2020	2955	3837	4496	4878	4977	4995
55	0	17	71	218	459	680	780	727	512	242	33	0	0	17	88	306	765	1445	2225	2952	3464	3706	3739	3739
60	0	1	21	107	311	530	625	572	367	126	7	0	0	1	22	129	440	970	1595	2167	2534	2660	2667	2667
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	143	212	333	440	584	695	775	754	613	448	248	152	143	355	688	1128	1712	2407	3182	3936	4549	4997	5245	5397

(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.

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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### 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