### 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: 292030** 

Lon: 104°11W

**Station: CONCHAS DAM, NM** 

Climate Division: NM 3 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 51.8 21.8 36.8 80 +1950 20 43.1 2000 -20 1963 13 28.9 1979 876 0 .0 .0 19.8 2.6 28.1 .3 Jan .2 56.9 26.2 41.6 82 1987 11 49.3 2000 -12 1951 35.3 1985 656 0 .0 .0 21.5 1.3 21.1 Feb 1 Mar 63.8 33.9 48.9 91 1988 20 54.3 1989 1 1948 11 45.4 1984 501 0 .0 @ 28.2 .2 12.0 0. 42.3 97 22 17 1973 Apr 71.1 56.7 1989 61.2 1992 1973 8 49.4 270 20 .0. .5 28.8 (a) 3.0 0. May 80.1 51.9 66.0 106 1998 30 73.3 1996 30 1954 3 60.6 1983 91 121 .2 5.1 30.9 .0 .1 .0 81.9 41 70.0 3.2 89.8 61.0 75.4 114 1998 28 1990 1983 1 1983 7 320 18.1 30.0 .0 .0 .0 Jun Jul 92.9 65.6 79.3 107 +1992 7 84.4 1980 51+ 1992 18 76.0 1975 442 4.2 24.5 31.0 0. 0 .0 .0 90.8 64.1 77.5 107 1994 19 81.9 2000 46 1973 73.7 1971 0 385 1.5 21.3 31.0 .0 .0 .0 Aug 29 .3 Sep 83.4 56.5 70.0 103 1995 6 76.4 1998 35+ 1971 18 65.0 1974 178 9.8 29.8 .0 .0 .0 44.7 97 53.4 1984 203 Oct 73.9 59.3 2000 3 62.6 1979 16 1991 31 26 .0 1.2 30.2 .0 1.4 .0 32.0 46.5 1980 9 53.7 1999 2 1976 28 38.7 1972 557 2 .0 .0 25.2 14.5 .0 Nov 61.0 86 .4 Dec 52.1 23.4 37.8 78+ 1955 23 43.8 1994 -10 1990 24 30.6 1983 846 0 .0 .0 20.3 1.9 26.5 .3 Jun Jul Jan Jan 72.3 43.6 58.0 114 1998 28 84.4 1980 -20 1963 13 28.9 1979 4036 1494 9.4 80.5 326.7 106.7 .8 6.4 Ann

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

Issue Date: February 2004 028-A

(1) From the 1971-2000 Monthly Normals

Elevation: 4,244 Feet Lat: 35°24N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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

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**COOP ID: 292030** 

Station: CONCHAS DAM, NM

Climate Division: NM 3 NWS Call Sign: Elevation: 4,244 Feet Lat: 35°24N Lon: 104°11W

										Pı	recipi	tation	(incl	nes)										
			P	recip	itatio	on Total	s			M	lean N of D	Numb Days (3		Precipitation Probabilities (1)  Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Medi					Extremes	S			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	.41	.34	1.42	1987	17	1.77	1987	.00+	2000	2.7	1.4	.1	@	.00	.00	.10	.18	.25	.33	.42	.53	.67	.89	1.10
Feb	.39	.23	1.04	1949	26	1.51	1986	.00+	2000	2.6	1.2	.2	.0	.00	.00	.01	.05	.11	.19	.29	.44	.66	1.05	1.46
Mar	.79	.61	1.61	1985	20	2.87	1985	.00	1996	3.7	2.1	.5	.1	.01	.04	.12	.23	.35	.50	.69	.94	1.30	1.93	2.56
Apr	.87	.63	1.59	1997	25	4.39	1997	.00+	1996	3.9	2.2	.5	.1	.00	.03	.13	.25	.39	.56	.77	1.05	1.45	2.13	2.82
May	1.64	1.43	1.90	1999	1	4.00	1987	.00	1974	6.1	3.4	1.2	.3	.08	.23	.48	.72	.98	1.26	1.60	2.02	2.58	3.52	4.43
Jun	2.02	1.71	2.87	1978	28	5.90	1978	.00	1998	7.0	4.3	1.4	.4	.14	.34	.67	.96	1.27	1.62	2.01	2.49	3.15	4.22	5.25
Jul	2.67	2.93	3.65	1955	4	6.78	1996	.15	1978	8.9	5.2	1.9	.5	.44	.67	1.06	1.42	1.80	2.21	2.68	3.26	4.02	5.26	6.45
Aug	2.64	2.54	3.53	1960	10	5.74	1990	.35	1973	9.4	5.6	1.5	.5	.55	.79	1.17	1.53	1.88	2.26	2.69	3.21	3.89	4.98	6.01
Sep	1.66	1.57	2.14	1972	1	5.38	1972	.07	2000	5.8	3.2	1.0	.4	.18	.31	.54	.77	1.02	1.30	1.62	2.02	2.57	3.48	4.36
Oct	1.18	.81	2.84	1985	17	5.47	2000	.01	1975	4.3	2.4	.7	.2	.02	.05	.15	.28	.45	.67	.96	1.36	1.94	2.99	4.08
Nov	.77	.57	1.48	1986	3	3.04	1986	.00+	1989	3.0	1.5	.4	.2	.00	.03	.14	.25	.37	.52	.70	.93	1.26	1.81	2.36
Dec	.47	.31	1.09	1959	16	1.92	1997	.00+	1985	3.0	1.4	.2	.0	.00	.02	.09	.16	.24	.33	.44	.58	.78	1.10	1.43
Ann	15.51	15.38	3.65	Jul 1955	4	6.78	Jul 1996	.00+	Feb 2000	60.4	33.9	9.6	2.7	9.52	10.61	12.05	13.16	14.17	15.15	16.18	17.33	18.75	20.83	22.67

<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: 1948-2001

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

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**COOP ID: 292030** 

Station: CONCHAS DAM, NM

Climate Division: NM 3 NWS Call Sign: Elevation: 4,244 Feet Lat: 35°24N Lon: 104°11W

										Snov	w (incl	hes)												
						Sno	ow To	tals									Mea	n Nu	mber	of Day	<b>VS</b> (1)			
	Mean	s/Medi	ans (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	3.9	2.4	1	#	15.0	1987	17	17.5	1987	15	1987	17	2	1988	1.3	1.0	.3	.2	@	1.7	.7	.3	.0	
Feb	3.8	.3	#	0	12.0	1986	6	27.8	1986	10	1990	20	1	1990	1.1	.8	.5	.3	.1	.8	.3	.2	@	
Mar	.6	.0	#	0	8.0	1988	3	8.5	1988	3+	1998	9	#+	1998	.2	.1	.1	@	.0	.1	@	.0	.0	
Apr	.2	.0	#	0	4.0	1997	25	5.0	1997	2	1983	4	#+	1983	.1	.1	@	.0	.0	.0	.0	.0	.0	
May	.2	.0	#	0	5.5	1978	2	5.5	1978	6	1978	2	#	1978	@	@	@	@	.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	.1	.0	#	0	3.6	1991	31	3.6	1991	3	1991	31	#	1991	@	@	@	.0	.0	@	@	.0	.0	
Nov	1.5	.0	#	0	6.0	1980	25	9.1	1980	7	1982	27	1	1980	.6	.4	.2	.1	.0	.2	.1	.0	.0	
Dec	3.4	2.8	#	0	10.0	1971	2	13.0	1971	10	1971	2	1+	2000	1.4	1.1	.5	.2	@	1.3	.5	.2	@	
Ann	13.7	5.5	N/A	N/A	15.0	Jan 1987	17	27.8	Feb 1986	15	Jan 1987	17	2	Jan 1988	4.7	3.5	1.6	.8	.1	4.1	1.6	.7	@	

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

- (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/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

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**COOP ID: 292030** 

Lon: 104°11W

Lat: 35°24N

**Station: CONCHAS DAM, NM** 

**Climate Division: NM 3** 

**NWS Call Sign:** 

				Freez	e Data									
			Spri	ng Freeze D	ates (Month/	Day)								
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(	*)						
Temp (I')	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	5/08	5/03	4/29	4/26	4/23	4/20	4/17	4/13	4/07					
32	4/22	4/18	4/15	4/13	4/10	4/08	4/06	4/03	3/29					
28	4/13	4/08	4/04	4/01	3/28	3/25	3/22	3/18	3/12					
24	4/03	3/28	3/24	3/20	3/16	3/13	3/09	3/04	2/26					
20	3/29	3/20	3/13	3/08	3/02	2/25	2/19	2/12	2/03					
16	3/12	3/03	2/24	2/18	2/13	2/08	2/02	1/26	1/17					
<u>'</u>			Fal	l Freeze Da	tes (Month/D	ay)			1					
To (E)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)													
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90 11/03 11/10 11/20 12/05 12/17					
36	10/02	10/08	10/12	10/15	10/18	10/21	10/25	10/29	11/03					
32	10/17	10/21	10/24	10/27	10/29	11/01	11/03	11/06	11/10					
28	10/28	11/01	11/04	11/06	11/08	11/10	11/13	11/16	11/20					
24	11/05	11/10	11/14	11/17	11/20	11/23	11/26	11/30	12/05					
20	11/09	11/15	11/20	11/24	11/28	12/02	12/06	12/10	12/17					
16	11/12	11/21	11/28	12/04	12/09	12/14	12/20	12/26	1/04					
<u> </u>			•	Freeze F	ree Period				1					
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	199	191	186	182	178	173	169	164	156					
32	217	211	207	204	201	198	195	191	186					
28	244	237	232	228	224	220	216	211	205					
24	272	264	258	253	248	243	238	232	224					
20	297	288	281	275	270	265	259	252	243					
16	327	315	308	302	296	290	285	278	268					

<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 documentation available from:

Elevation: 4,244 Feet

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Climate Division: NM 3 NWS Call Sign: Elevation: 4,244 Feet Lat: 35°24N Lon: 104°11W

				Deg	ree Days to	o Selected	Base Tem	peratures	( <b>°F</b> )				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	876	656	501	270	91	7	0	0	29	203	557	846	4036
60	721	516	349	158	36	1	0	0	6	101	416	691	2995
57	628	435	264	106	18	0	0	0	2	61	337	598	2449
55	566	383	211	77	10	0	0	0	0	41	288	537	2113
50	417	258	105	27	2	0	0	0	0	12	184	388	1393
32	47	18	0	0	0	0	0	0	0	0	10	36	111

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	194	286	522	740	1053	1303	1465	1408	1140	846	446	214	9617
55	0	7	20	128	351	613	752	695	450	174	34	1	3225
57	0	3	11	97	296	553	690	633	391	131	23	0	2828
60	0	0	3	59	222	463	597	540	306	79	11	0	2280
65	0	0	0	20	121	320	442	385	178	26	2	0	1494
70	0	0	0	5	53	192	288	235	84	4	0	0	861

										Gro	wing l	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (M	Ionthly)					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	85	168	334	539	833	1087	1238	1175	929	633	272	103	85	253	587	1126	1959	3046	4284	5459	6388	7021	7293	7396
45	31	88	203	395	679	937	1083	1020	780	482	162	42	31	119	322	717	1396	2333	3416	4436	5216	5698	5860	5902
50	2	33	110	263	524	787	928	865	631	335	82	10	2	35	145	408	932	1719	2647	3512	4143	4478	4560	4570
55	0	4	46	154	373	637	773	710	483	207	28	0	0	4	50	204	577	1214	1987	2697	3180	3387	3415	3415
60	0	0	12	73	236	490	618	555	344	102	4	0	0	0	12	85	321	811	1429	1984	2328	2430	2434	2434
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	107	160	249	351	526	695	801	773	598	405	206	109	107	267	516	867	1393	2088	2889	3662	4260	4665	4871	4980

(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