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: 292024

Lon: 107°38W

Station: COLUMBUS, NM

Climate Division: NM 8

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 59.2 29.9 44.6 80 2000 19 49.0 1999 -12 1948 29 39.3 1973 633 0 .0 .0 26.7 19.8 0. Jan 64.9 33.6 49.3 86 1986 26 55.0 1996 5+ 1963 13 45.0 1973 441 0 .0 .0 27.0 .2 12.8 0. Feb Mar 71.3 38.8 55.1 91 1989 12 59.8 1989 10 1965 4 49.3 1973 316 8 .0 @ 30.9 .0 6.2 0. 78.4 45.2 20 22 1983 Apr 61.8 98 1989 21 69.4 1989 1968 54.7 156 60 .0 1.6 29.9 .0 1.6 0. May 86.8 54.3 70.6 105 1951 27 76.2 2000 28 1967 1 66.1 1972 38 209 .6 12.1 31.0 .0 .0 .0 95.5 1994 85.2+ 43 75.4 9.4 Jun 63.8 79.7 111 +26 1994 1965 11 1973 0 440 26.9 30.0 .0 .0 .0 Jul 94.9 67.5 81.2 109+ 8 84.9 1980 54 1970 14 77.5 1976 502 7.6 27.3 31.0 0. 1951 0 .0 .0 91.8 65.7 78.8 105 +1969 16 83.9 1994 52+ 1968 22 75.1 1990 0 426 2.2 24.0 31.0 .0 .0 .0 Aug 9 .5 Sep 87.4 59.9 73.7 103 1948 4 78.6 1998 40 1970 23 69.4 1976 268 14.3 30.0 .0 .0 .0 48.3 28 Oct 78.1 63.2 96+ 1967 5 67.6 1987 17 1970 55.8 1976 119 64 .0 2.6 30.9 .0 .6 .0 36.6 51.5 1973 8 55.7 1999 2 1976 29 45.0 1976 408 3 .0 .0 28.8 @ 8.9 0. Nov 66.4 86+ Dec 58.5 30.1 44.3 80 1987 11 49.1 1981 -7 1953 24 39.8 1976 643 0 .0 .0 26.1 .1 19.7 .0 Jun Jun Jan Jan 47.8 62.8 111+1994 26 85.2+ 1994 -12 1948 29 39.3 1973 2763 1980 20.3 108.8 353.3 .5 69.6 .0 77.8 Ann

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

Issue Date: February 2004 027-A

(1) From the 1971-2000 Monthly Normals

Elevation: 4,065 Feet Lat: 31°50N

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

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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Climate Division: NM 8 NWS Call Sign: Elevation: 4,065 Feet Lat: 31°50N Lon: 107°38W

										Pı	recipit	tation	(incl	nes)												
	Ma	Precipitation Totals Means/										Numbo Pays (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												
		ans(1)				Extremes	S			D	aily Pre	cipitatio	n	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	.56	.41	.63	1993	18	2.61	1993	.00+	2000	4.0	2.0	.1	.0	.00	.00	.03	.13	.24	.36	.51	.70	.96	1.41	1.86		
Feb	.41	.37	.90	1953	28	1.98	1973	.00+	2000	2.9	1.2	.1	.0	.00	.00	.00	.09	.18	.27	.38	.52	.71	1.04	1.36		
Mar	.30	.20	.99	1964	18	.90	2000	.00+	1999	2.1	1.0	.1	.0	.00	.00	.00	.07	.15	.22	.29	.39	.51	.72	.91		
Apr	.28	.09	.88	1981	23	1.73	1981	.00+	2000	1.4	.8	.1	.0	.00	.00	.00	.00	.00	.09	.20	.34	.52	.82	1.11		
May	.26	.12	1.18	1952	18	1.53	1992	.00+	2000	1.8	.7	.1	.0	.00	.00	.00	.00	.06	.13	.21	.32	.47	.72	.97		
Jun	.60	.21	2.90	2000	27	8.55	2000	.00+	1995	2.3	1.2	.3	.1	.00	.00	.00	.01	.07	.17	.34	.59	1.00	1.79	2.65		
Jul	2.00	1.82	2.48	1955	26	4.34	1972	.06	1980	8.1	4.8	1.1	.4	.33	.50	.79	1.07	1.35	1.66	2.01	2.44	3.02	3.96	4.85		
Aug	2.00	1.93	2.78	1954	6	5.19	1984	.20	1975	7.1	4.6	1.4	.3	.32	.49	.78	1.05	1.34	1.65	2.01	2.45	3.03	3.98	4.89		
Sep	1.33	1.14	1.92	1978	21	3.78	1978	.00+	2000	5.3	3.7	.7	.2	.00	.25	.52	.73	.93	1.15	1.39	1.66	2.04	2.63	3.19		
Oct	1.10	.93	1.74	1954	2	3.07	1984	.00+	1995	4.2	2.7	.7	.1	.00	.00	.15	.34	.54	.77	1.04	1.38	1.85	2.62	3.39		
Nov	.59	.34	1.82	1961	8	2.97	1978	.00+	1999	2.7	1.7	.3	.1	.00	.02	.08	.16	.26	.37	.52	.70	.97	1.44	1.91		
Dec	.84	.46	1.22	1982	1	3.69	1982	.00+	2000	3.4	2.3	.6	@	.00	.00	.02	.13	.27	.45	.68	.99	1.44	2.22	3.04		
Ann	10.27	10.06	2.90	Jun 2000	27	8.55	Jun 2000	.00+	Dec 2000	45.3	26.7	5.6	1.2	5.65	6.46	7.54	8.40	9.18	9.95	10.76	11.68	12.82	14.52	16.02		

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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

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Station: COLUMBUS, NM

Climate Division: NM 8 NWS Call Sign: Elevation: 4,065 Feet Lat: 31°50N Lon: 107°38W

										Snov	w (incl	hes)											
						Sn	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1))	Extremes (2)												ow Fa	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	.8	.0	#	0	5.0	1973	2	6.0	1985	6	1985	13	#+	1997	.4	.2	.1	@	.0	.2	.2	.1	.0
Feb	.3	.0	#	0	3.0	1973	22	3.5	1973	1	1987	21	#+	1987	.1	.1	.1	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.2	1975	29	.2	1975	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.2	.0	#	0	4.0	1983	6	5.0	1983	5	1983	6	#	1983	.1	.1	@	.0	.0	.1	@	@	.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	.3	.0	#	0	4.5	1976	13	4.5	1976	4+	1980	16	#+	1980	.1	.1	.1	.0	.0	.1	@	.0	.0
Dec	.4	.0	#	0	8.0	1982	31	8.0	1982	3+	1987	26	#+	1987	.4	.2	.1	@	.0	.2	.1	.0	.0
Ann	2.0	.0	N/A	N/A	8.0	Dec 1982	31	8.0	Dec 1982	6	Jan 1985	13	#+	Jan 1997	1.1	.7	.4	@	.0	.6	.3	.1	.0

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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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Elevation: 4.065 Feet

Station: COLUMBUS, NM

NWS Call Sign: Climate Division: NM 8

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>365

>365

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 4/30 4/25 4/21 4/18 4/15 4/12 4/09 4/06 4/01 32 4/14 4/09 4/20 4/05 4/01 3/29 3/25 3/20 3/14 28 4/10 4/02 3/28 3/23 3/18 3/14 3/09 3/03 2/23 1/26 24 3/26 3/16 3/09 3/02 2/25 2/19 2/13 2/05 20 3/05 2/22 2/14 2/07 1/31 1/25 1/17 12/26 1/09 1/23 1/14 16 2/22 2/10 1/31 1/05 12/23 0/00 0/00 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 10/15 10/20 10/23 10/26 10/28 10/31 11/03 11/06 11/10 32 10/20 10/26 10/30 11/02 11/06 11/09 11/13 11/17 11/22 28 10/29 11/04 11/08 11/11 11/14 11/18 11/21 11/25 12/01 24 11/14 11/19 11/22 11/25 11/28 11/30 12/03 12/06 12/11 20 11/25 11/30 12/04 12/07 12/10 12/14 12/17 12/21 12/27 12/02 12/24 12/31 16 12/11 12/18 1/07 1/16 0/00 0/00 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 217 209 204 200 195 191 187 174 36 181 32 244 235 229 223 218 212 207 200 191 28 272 261 253 247 241 234 228 220 209 24 310 298 289 282 275 268 261 253 241 341 297 275 20 362 330 321 313 305 288

>365

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

>365

313

295

328

>365

344

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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Climate Division: NM 8 NWS Call Sign: Elevation: 4,065 Feet Lat: 31°50N Lon: 107°38W

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree I	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	633	441	316	156	38	0	0	0	9	119	408	643	2763		
60	478	303	186	77	11	0	0	0	1	49	269	488	1862		
57	387	226	124	43	5	0	0	0	0	24	197	395	1401		
55	328	178	90	28	2	0	0	0	0	14	154	335	1129		
50	191	84	30	7	0	0	0	0	0	2	72	194	580		
32	0	0	0	0	0	0	0	0	0	0	0	0	0		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	390	483	715	893	1194	1429	1525	1449	1249	968	585	380	11260
55	4	17	92	231	483	739	812	736	559	268	49	2	3992
57	1	9	63	187	424	679	750	674	499	217	32	0	3535
60	0	2	32	130	337	589	657	581	410	148	14	0	2900
65	0	0	8	60	209	440	502	426	268	64	3	0	1980
70	0	0	1	20	110	294	347	274	148	20	0	0	1214

Growing Degree Units (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													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
40	173	284	476	675	966	1213	1301	1225	1029	741	367	173	173	457	933	1608	2574	3787	5088	6313	7342	8083	8450	8623		
45	76	159	327	526	811	1063	1146	1070	879	588	233	73	76	235	562	1088	1899	2962	4108	5178	6057	6645	6878	6951		
50	20	66	192	381	656	913	991	915	729	434	121	22	20	86	278	659	1315	2228	3219	4134	4863	5297	5418	5440		
55	0	18	87	245	501	763	836	760	579	287	51	0	0	18	105	350	851	1614	2450	3210	3789	4076	4127	4127		
60	0 1 24 126 347 613 681 605 429 159 8 0											0	0	1	25	151	498	1111	1792	2397	2826	2985	2993	2993		
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)					
50/86	156 225 341 460 623 754 836 806 669 476 268 149												156	381	722	1182	1805	2559	3395	4201	4870	5346	5614	5763		

(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