## 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: ARTESIA 6 S, NM 1971-2000 COOP ID: 290600

Climate Division: NM 7 NWS Call Sign: Elevation: 3,320 Feet Lat: 32°46N Lon: 104°23W

									r	Гетре	eratur	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes					Degree Base To	•		Mean	Numb	er of I	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	56.4	21.3	38.9	85	1970	25	45.2	1999	-20	1962	11	33.7	1979	810	0	.0	.0	22.2	1.4	28.5	.5
Feb	62.4	25.4	43.9	86+	1962	12	50.7	1995	-9	1951	1	39.4	1973	592	0	.0	.0	23.7	1.0	23.0	.0
Mar	70.0	32.0	51.0	93	1971	28	55.4	1974	9	1971	3	46.8	1987	435	0	.0	.3	29.8	.1	15.2	.0
Apr	77.7	40.2	59.0	100+	1965	23	63.3	1986	16	1983	8	53.5	1983	209	27	@	2.3	29.5	.0	5.1	.0
May	85.8	51.0	68.4	106+	1989	24	76.4	1996	26	1967	2	64.0	1976	52	156	1.0	10.7	31.0	.0	@	.0
Jun	93.3	59.8	76.6	113	1994	28	82.1	1990	42	1970	2	72.2	1979	2	349	6.3	21.9	30.0	.0	.0	.0
Jul	93.8	63.7	78.8	111	1958	15	82.6	1998	53+	1952	8	74.7	1975	0	427	4.2	25.1	31.0	.0	.0	.0
Aug	91.8	61.9	76.9	107	1966	2	80.0	1994	48	1968	23	73.4	1971	1	368	1.5	22.2	31.0	.0	.0	.0
Sep	85.4	54.1	69.8	106	1948	5	75.5	1998	32	1968	28	64.0	1974	32	173	.3	11.1	29.9	.0	.0	.0
Oct	76.9	41.6	59.3	99	1956	15	62.5	1998	18+	1991	31	52.6	1976	193	15	.0	2.3	30.4	.0	3.2	.0
Nov	65.3	29.6	47.5	89+	1950	9	52.1	1999	-10+	1976	29	40.1	1976	528	0	.0	.0	27.0	.3	18.8	.1
Dec	57.1	21.7	39.4	85	1958	5	43.9+	1994	-13	1987	15	34.0+	1997	794	0	.0	.0	22.9	1.4	27.9	.4
Ann	76.3	41.9	59.1	113	Jun 1994	28	82.6	Jul 1998	-20	Jan 1962	11	33.7	Jan 1979	3648	1515	13.3	95.9	338.4	4.2	121.7	1.0

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

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

Issue Date: February 2004 007-A

<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: 1948-2001

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

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**COOP ID: 290600** 

Station: ARTESIA 6 S, NM

**Climate Division: NM 7** 

Elevation: 3,320 Feet Lat: 32°46N Lon: 104°23W

										Pı	ecipit	tation	(incl	ies)										
	Mea Medi		P	recipi	itatio	on Total					ean N of D	ays (3	)	Proba		M	nonthly/ onthly/Ar	annual j indic	precipita ated am	babilit ation wil nount vs Probal incomplet	l be equ	els		in the
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	.40	.31	.90	1968	21	1.30	1991	.00	1998	3.4	1.4	.1	.0	.01	.04	.09	.15	.21	.29	.38	.49	.65	.92	1.18
Feb	.44	.20	1.20	1948	5	2.22	1973	.00+	2000	2.8	1.5	.3	.0	.00	.00	.01	.06	.13	.23	.35	.51	.75	1.16	1.59
Mar	.28	.18	1.07	1958	6	1.13	1973	.00+	1980	2.5	.9	.1	.0	.00	.01	.05	.09	.14	.19	.26	.35	.47	.68	.89
Apr	.52	.21	2.32	1985	28	2.51	1985	.00+	1989	2.6	1.1	.3	.1	.00	.00	.03	.09	.17	.28	.41	.60	.87	1.35	1.85
May	1.23	1.00	2.11	1999	29	4.36	1999	.00+	2000	4.3	2.7	.8	.2	.00	.00	.28	.49	.71	.94	1.22	1.55	2.00	2.74	3.46
Jun	1.87	1.40	3.75	1948	2	9.77	1978	.00	1990	4.9	3.0	1.4	.4	.06	.21	.47	.74	1.04	1.38	1.78	2.29	3.00	4.18	5.35
Jul	1.38	1.17	1.95	1951	12	3.26	1991	.18	1983	6.0	3.3	.9	.1	.23	.35	.55	.74	.93	1.15	1.39	1.69	2.08	2.73	3.34
Aug	2.19	1.86	4.32	1966	23	6.30	1991	.24	1985	7.6	4.5	1.3	.3	.36	.55	.87	1.17	1.48	1.82	2.20	2.67	3.30	4.32	5.30
Sep	2.51	1.91	3.12	1980	10	9.06	1980	.00	2000	6.9	4.2	1.5	.6	.11	.31	.68	1.05	1.44	1.89	2.42	3.08	3.99	5.49	6.97
Oct	1.30	.79	3.75	1974	23	7.02	1974	.00+	1989	5.6	2.9	.7	.1	.00	.04	.18	.36	.57	.82	1.14	1.55	2.15	3.18	4.21
Nov	.69	.47	1.61	2000	7	3.57	2000	.00+	1999	3.1	1.6	.4	.1	.00	.00	.05	.14	.26	.41	.59	.82	1.16	1.75	2.34
Dec	.56	.25	.99	1997	23	3.00	1991	.00+	1996	3.2	1.7	.3	.0	.00	.00	.03	.09	.17	.28	.43	.63	.94	1.49	2.06
Ann	13.37	12.65	4.32	Aug 1966	23	9.77	Jun 1978	.00+	Sep 2000	52.9	28.8	8.1	1.9	6.77	7.89	9.40	10.61	11.72	12.83	14.00	15.34	17.00	19.51	21.74

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

**NWS Call Sign:** 

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: 290600** 

**Station: ARTESIA 6 S, NM** 

Climate Division: NM 7 NWS Call Sign: Elevation: 3,320 Feet Lat: 32°46N Lon: 104°23W

			Fall edian         Depth Mean         Depth Median         Day Snow Fall         Monthly Snow Fall         Year Fall         Day Snow Depth         Year Snow Depth         <																				
						Sn	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1)	)					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Snow Fall Median	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	2.1	1.5	#	#	8.5	1983	1	9.5	1983	9	1983	1	2	1983	1.1	.7	.2	.2	.0	1.5	.5	.2	.0
Feb	1.5	.0	#	#	5.5	1986	10	7.5	1979	6	1988	6	3	1979	.7	.7	.1	.1	.0	.7	.2	.1	.0
Mar	.5	.0	#	0	3.5	1977	6	4.0	1977	4	1977	6	#+	2000	.4	.2	@	.0	.0	.3	@	.0	.0
Apr	.6	.0	#	0	7.0	1983	6	15.5	1983	7	1983	6	1	1983	.2	.2	.1	@	.0	.2	.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	#	2000	5	#	2000	.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	1.5	1991	31	1.5	1991	2	1991	31	#+	1999	.1	.1	.0	.0	.0	@	.0	.0	.0
Nov	1.1	.0	#	0	5.5	1976	13	9.5	1976	4	1982	27	#+	2000	.5	.4	.2	@	.0	.5	.2	.0	.0
Dec	1.8	.1	#	#	9.0	1987	14	11.8	1987	9	1987	16	2	1997	1.0	.7	.3	.1	.0	1.3	.7	.4	.0
Ann	7.7	1.6	N/A	N/A	9.0	Dec 1987	14	15.5	Apr 1983	9+	Dec 1987	16	3	Feb 1979	4.0	3.0	.9	.4	.0	4.5	1.7	.7	.0

<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: 290600** 

Lat: 32°46N

Lon: 104°23W

Station: ARTESIA 6 S, NM

Climate Division: NM 7 NWS Call Sign:

Elevation: 3,320 Feet

				Freez	ze Data				
			Sprii	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(	*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/10	5/06	5/03	5/01	4/29	4/26	4/24	4/21	4/17
32	4/28	4/24	4/21	4/19	4/17	4/14	4/12	4/09	4/05
28	4/16	4/11	4/08	4/05	4/02	3/31	3/28	3/24	3/20
24	4/05	3/30	3/27	3/23	3/20	3/17	3/14	3/10	3/04
20	3/30	3/22	3/16	3/11	3/06	3/02	2/25	2/19	2/11
16	3/17	3/09	3/02	2/25	2/20	2/15	2/09	2/03	1/25
<b>'</b>		1	Fal	l Freeze Da	tes (Month/D	ay)			
Tomas (E)		Pro	bability of ea	rlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/29	10/04	10/08	10/11	10/14	10/17	10/20	10/24	10/29
32	10/09	10/14	10/18	10/21	10/23	10/26	10/29	11/02	11/06
28	10/20	10/25	10/28	10/31	11/03	11/06	11/09	11/12	11/17
24	10/28	11/02	11/06	11/10	11/13	11/16	11/19	11/23	11/29
20	11/05	11/11	11/15	11/18	11/21	11/24	11/28	12/02	12/07
16	11/14	11/21	11/26	11/30	12/04	12/08	12/12	12/17	12/24
		1		Freeze F	ree Period				
Town (F)			<b>Probability</b> 6	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	188	181	176	172	168	164	160	155	148
32	206	200	196	192	189	186	182	178	172
28	232	226	221	217	214	211	207	202	196
24	261	253	247	242	237	232	227	221	213
20	291	280	272	265	259	253	246	238	227

<sup>\*</sup> 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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**0/00** Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

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Complete documentation available from:

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**COOP ID: 290600** 

Station: ARTESIA 6 S, NM

Climate Division: NM 7 NWS Call Sign: Elevation: 3,320 Feet Lat: 32°46N Lon: 104°23W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	810	592	435	209	52	2	0	1	32	193	528	794	3648
60	655	452	284	108	15	0	0	0	7	86	385	639	2631
57	562	369	202	64	6	0	0	0	2	45	304	546	2100
55	500	315	153	42	3	0	0	0	0	28	255	485	1781
50	348	191	62	11	0	0	0	0	0	6	151	336	1105
32	14	3	0	0	0	0	0	0	0	0	4	17	38

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	226	336	589	808	1127	1338	1450	1390	1132	845	467	246	9954
55	0	4	28	160	417	648	737	677	442	160	27	1	3301
57	0	1	15	122	359	588	675	615	384	116	17	0	2892
60	0	0	5	76	275	498	582	522	298	63	7	0	2326
65	0	0	0	27	156	349	427	368	173	15	0	0	1515
70	0	0	0	6	72	211	273	219	82	2	0	0	865

										Gro	wing ]	Degre	e Uni	ts (2)										
Base					Growin	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	99	188	376	585	891	1110	1215	1158	907	621	275	109	99	287	663	1248	2139	3249	4464	5622	6529	7150	7425	7534
45													39	134	377	814	1550	2510	3570	4573	5331	5799	5961	6007
50													8	49	182	483	1065	1875	2780	3628	4238	4561	4639	4651
55	0	12	57	182	430	660	750	693	463	190	26	0	0	12	69	251	681	1341	2091	2784	3247	3437	3463	3463
60	<b>60</b> 0 0 15 87 283 510 595 538 322 88 5										0	0	0	15	102	385	895	1490	2028	2350	2438	2443	2443	
Base	e Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	<b>10/86</b> 152 213 319 422 564 690 779 742 579 426 247 1											157	152	365	684	1106	1670	2360	3139	3881	4460	4886	5133	5290

(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

#### 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