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: 293368

Station: GAGE 4 ESE, NM

Climate Division: NM 8

NWS Call Sign:

Elevation: 4,410 Feet Lat: 32°13N Lon: 108°01W

									r	Гетр	eratur	e (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	aber 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	57.3	25.9	41.6	80+	1971	18	45.8	1999	-13	1962	11	37.4	1973	725	0	.0	.0	26.1	.2	25.6	.0
Feb	62.6	29.2	45.9	85	1986	26	50.9	1996	-2	1963	13	40.5	1974	535	0	.0	.0	26.1	.3	19.5	.0
Mar	69.7	33.1	51.4	92	1989	11	57.1	1989	10	1966	5	46.1	1973	423	2	.0	.1	30.7	.0	13.5	.0
Apr	77.9	38.8	58.4	99	2000	27	65.4	1989	17	1984	2	51.5	1975	230	30	.0	1.3	29.9	@	5.2	.0
May	86.9	47.8	67.4	105	2000	24	73.8	2000	26	1967	2	62.3	1975	70	142	.5	11.3	31.0	.0	.2	.0
Jun	96.2	57.5	76.9	116	1994	25	83.1	1994	38+	1968	10	73.2	1979	3	358	9.0	26.2	30.0	.0	.0	.0
Jul	95.4	64.0	79.7	109+	1957	4	82.5	1980	49	1978	26	76.7	1986	0	456	6.8	26.3	31.0	.0	.0	.0
Aug	92.5	62.6	77.6	106	1994	23	83.1	1994	49	1968	15	73.8	1990	1	391	2.6	22.9	31.0	.0	.0	.0
Sep	87.8	56.1	72.0	102+	1983	4	76.9	1998	36	1965	30	68.2	1975	15	223	.2	12.3	30.0	.0	.0	.0
Oct	78.0	44.2	61.1	96+	1996	9	65.3	1988	21	1996	22	55.7	1976	157	36	.0	2.2	30.9	.0	1.5	.0
Nov	66.0	31.9	49.0	83+	1973	12	55.1	1999	7	1957	23	43.8	2000	482	1	.0	.0	28.8	@	15.3	.0
Dec	56.9	25.7	41.3	78	1954	3	45.3	1980	0+	1978	8	37.4	1988	735	0	.0	.0	25.2	.2	25.9	.1
Ann	77.3	43.1	60.2	116	Jun 1994	25	83.1+	Aug 1994	-13	Jan 1962	11	37.4+	Dec 1988	3376	1639	19.1	102.6	350.7	.7	106.7	.1

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 045-A

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

⁽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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										Pı	recipit	tation	(incl	nes)											
	Me	ans/	P	recip	itatio	on Total	s			M	ean N	Numb Oays (3		Proba	ability th		nonthly/	annual _j indic	precipita ated am	nount	ll be equ		· less tha	ın the	
		ans(1)				Extreme	5			D	aily Pre	cipitatio	n	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	.73	.61	.93	1997	4	3.32	1993	.00+	2000	4.1	2.5	.3	.0	.00	.00	.12	.26	.39	.54	.71	.92	1.21	1.68	2.14	
Feb	.59	.65	1.40	1949	12	1.76	1973	.00+	2000	3.3	1.7	.3	.0	.00	.00	.00	.17	.30	.44	.59	.77	1.01	1.42	1.80	
Mar	.36	.18	.86	1958	11	1.64	1992	.00	1971	2.9	1.3	.1	.0	.00	.02	.05	.10	.15	.22	.31	.42	.59	.88	1.18	
Apr	.15	.03	.93	1996	5	1.06	1985	.00+	2000	1.6	.6	.1	.0	.00	.00	.00	.00	.00	.00	.06	.15	.26	.47	.67	
May	.25	.12	.59	1982	22	2.34	1992	.00+	2000	1.6	1.0	.1	.0	.00	.00	.00	.00	.00	.07	.16	.28	.45	.75	1.05	
Jun	.54	.14	1.44	1967	17	2.88	1979	.00+	1995	1.9	1.2	.3	.2	.00	.00	.00	.00	.02	.13	.30	.56	.94	1.64	2.36	
Jul	2.06	1.65	3.30	1973	13	8.19	1973	.10	1978	6.4	4.5	.9	.3	.35	.52	.82	1.11	1.40	1.71	2.07	2.51	3.09	4.04	4.94	
Aug	2.39	2.03	2.40	1999	5	7.47	1999	.35	1994	6.5	4.6	1.6	.5	.43	.64	.99	1.32	1.65	2.01	2.42	2.92	3.58	4.64	5.65	
Sep	1.32	1.04	3.20	1987	29	3.69	1987	.00	1984	4.4	2.9	.9	.2	.11	.26	.48	.67	.87	1.09	1.33	1.63	2.04	2.69	3.32	
Oct	1.18	.88	1.90	1971	25	3.70	1984	.00+	1999	4.9	2.9	.7	.1	.00	.00	.15	.33	.53	.77	1.06	1.44	1.97	2.89	3.80	
Nov	.76	.46	2.00	1986	2	3.06	1986	.00+	1999	2.8	1.9	.5	.2	.00	.00	.13	.26	.39	.54	.72	.94	1.25	1.76	2.27	
Dec	1.27	.66	2.10	1992	4	6.40	1991	.00+	1996	3.7	2.8	.7	.1	.00	.05	.21	.39	.60	.85	1.16	1.54	2.10	3.04	3.98	
Ann	11.60	11.03	3.30	Jul 1973	13	8.19	Jul 1973	.00+	May 2000	44.1	27.9	6.5	1.6	7.24	8.04	9.09	9.90	10.63	11.35	12.09	12.92	13.95	15.45	16.77	

⁺ 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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Climate Division: NM 8 NWS Call Sign: Elevation: 4,410 Feet Lat: 32°13N Lon: 108°01W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nui	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa				Snow = Thr	_	
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	.7	.0	#	0	6.0	1973	1	6.0+	1973	2	1988	22	#+	1990	.4	.3	.1	.1	.0	.1	.0	.0	.0
Feb	.6	.0	#	0	4.5	1973	22	4.5	1973	4	1979	5	#+	1988	.3	.2	.1	.0	.0	.1	.1	.0	.0
Mar	.1	.0	0	0	1.0	1987	20	1.0	1987	0	0	0	0	0	.1	.1	.0	.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	#	.0	0	0	#	1991	30	#	1991	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	1.9	.0	#	0	7.0	1987	14	18.0	1987	1	1985	12	#	1985	.4	.4	.2	.2	.0	.1	.0	.0	.0
Ann	3.3	.0	N/A	N/A	7.0	Dec 1987	14	18.0	Dec 1987	4	Feb 1979	5	#+	Jan 1990	1.2	1.0	.4	.3	.0	.3	.1	.0	.0

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

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^{-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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Lon: 108°01W

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S Call Sign: Elevation: 4,410 Feet

				Freez	e Data								
			Spri	ng Freeze D	ates (Month/	(Day)							
Freeze Date Freeze Date													
	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	5/18	5/12	5/08	5/05	5/01	4/28	4/25	4/21	4/15				
32	5/05	4/30	4/25	4/22	4/18	4/15	4/11	4/07	4/01				
28	4/23	4/16	4/11	4/07	4/04	3/31	3/27	3/22	3/16				
24	4/10	4/03	3/28	3/24	3/19	3/15	3/10	3/05	2/25				
20	3/24	3/13	3/06	2/27	2/21	2/15	2/09	2/01	1/22				
16	3/03	2/18	2/09	2/01	1/25	1/17	1/08	12/28	12/07				
			Fal	l Freeze Da	tes (Month/D	Day)							
Tomp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)					
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	10/09	10/13	10/17	10/19	10/22	10/24	10/27	10/30	11/04				
32	10/14	10/19	10/22	10/25	10/28	10/31	11/03	11/07	11/11				
28	10/23	10/28	11/01	11/04	11/07	11/09	11/12	11/16	11/21				
24	10/29	11/04	11/09	11/12	11/16	11/19	11/23	11/27	12/03				
20	11/14	11/20	11/24	11/27	12/01	12/04	12/08	12/12	12/17				
16	11/23	11/30	12/05	12/10	12/14	12/18	12/24	12/30	0/00				
		•	•	Freeze F	ree Period	•		•					
Tomn (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)						
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	190	184	180	176	173	169	166	161	155				
32	213	206	201	196	192	188	183	178	171				
28	238	231	225	221	216	212	207	202	194				
24	268	259	252	246	241	235	230	223	213				
20	317	305	296	289	282	275	267	259	247				
16	>365	>365	345	330	320	311	302	293	280				

^{*} 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.

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				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	725	535	423	230	70	3	0	1	15	157	482	735	3376
60	570	395	279	130	25	0	0	0	2	68	339	580	2388
57	477	314	201	85	11	0	0	0	0	36	259	487	1870
55	415	261	157	60	6	0	0	0	0	22	212	425	1558
50	265	144	71	20	1	0	0	0	0	4	113	274	892
32	2	0	0	0	0	0	0	0	0	0	0	3	5

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	300	389	602	790	1096	1346	1479	1413	1198	901	509	291	10314
55	0	6	45	160	389	656	766	700	508	210	31	0	3471
57	0	2	28	125	332	596	704	638	448	162	18	0	3053
60	0	0	12	80	252	506	611	545	360	101	8	0	2475
65	0	0	2	30	142	358	456	391	223	36	1	0	1639
70	0	0	0	9	65	221	301	243	114	7	0	0	960

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	(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	115 201 359 557 867 1113 1239 1169 955 660 290												115	316	675	1232	2099	3212	4451	5620	6575	7235	7525	7629
45	39 95 217 411 712 963 1084 1014 805 505 163												39	134	351	762	1474	2437	3521	4535	5340	5845	6008	6044
50	4	30	103	270	558	813	929	859	655	355	72	1	4	34	137	407	965	1778	2707	3566	4221	4576	4648	4649
55	0	0	35	149	406	663	774	704	505	214	19	0	0	0	35	184	590	1253	2027	2731	3236	3450	3469	3469
60	0	0	1	59	254	513	619	549	356	100	0	0	0	0	1	60	314	827	1446	1995	2351	2451	2451	2451
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	/ 86 137 199 304 418 561 663 780 757 608 438 249 13												137	336	640	1058	1619	2282	3062	3819	4427	4865	5114	5245

(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