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: 298501

Lon: 104°36W

Station: SPRINGER, 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 47.7 13.6 30.7 74+ 1950 20 37.2 1999 -37 1963 13 22.4 1979 1066 0 .0 .0 15.6 3.5 30.3 3.0 Jan 53.2 17.6 35.4 78 1972 28 41.3 1999 -26 1982 6 31.0 1989 829 0 .0 .0 19.4 1.6 26.9 1.3 Feb Mar 60.0 24.2 42.1 84+ 1971 26 47.6 1989 -22 1948 11 38.7 1988 711 0 .0 .0 26.0 .3 26.9 .1 -5 1973 2 Apr 66.8 30.9 48.9 90 1981 25 53.8 1981 1957 8 40.1 487 .0. @ 28.2 .1 17.1 0. May 75.3 40.5 57.9 99 1953 25 64.4 2000 17 1981 22 53.7 1980 241 21 .0 1.0 30.6 .0 3.8 .0 84.5 1973 71.5 1990 29 7 63.1 .5 8.6 Jun 49.0 66.8 104 26 1954 1995 49 101 30.0 .0 .1 0. Jul 87.5 53.7 70.6 104+ 1964 3 75.6 35 1976 22 68.3 1990 3 177 .4 12.7 31.0 1980 .0 .0 .0 85.2 52.8 69.0 102 1956 8 71.9 1983 41 +1950 18 66.5 1990 10 135 .0 7.0 31.0 .0 .0 .0 Aug Sep 79.7 45.2 62.5 98 1956 14 66.7 1998 21 1970 26 59.6 1975 112 36 .0 2.4 29.9 .0 1.2 .0 92 -5 47.2 1984 Oct 70.6 33.1 51.9 1962 11 54.6 1988 1993 30 408 0 .0 .1 30.0 .1 15.1 @ 56.9 22.0 39.5 82 1994 44.6 1998 -22+ 1976 28 30.1 1972 767 0 .0 .0 22.2 .7 26.7 .4 Nov 1 Dec 47.5 14.1 30.8 78+ 1977 11 40.2 1980 -27 1978 9 22.8 1978 1059 0 .0 .0 15.0 3.3 30.2 2.5 Jun Jul Jan Jan

33.1

50.5

67.9

Ann

104 +

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

26

75.6

1980

-37

1963

13

22.4

1979

5742

472

Issue Date: February 2004 084-A

1973

(1) From the 1971-2000 Monthly Normals

31.8

.9

Elevation: 5,922 Feet Lat: 36°22N

(2) Derived from station's available digital record: 1948-2001

308.9

9.6

178.3

7.3

(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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COOP ID: 298501

Station: SPRINGER, NM

Climate Division: NM 3 NWS Call Sign: Elevation: 5,922 Feet Lat: 36°22N Lon: 104°36W

										Pı	recipi	tation	(incl	nes)										
	Mo	ans/	P	recip	itatio	on Total	s			М	ean N	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	5			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	.36	.26	1.15	2001	16	1.35	1990	.00+	1998	2.6	1.2	.2	.0	.00	.00	.06	.12	.19	.26	.35	.46	.61	.85	1.09
Feb	.33	.19	1.17	1981	28	1.35	1987	.00+	1999	2.2	.9	.2	@	.00	.00	.00	.04	.10	.18	.27	.40	.58	.89	1.20
Mar	.84	.59	1.40+	1973	30	3.46	1973	.09	1976	4.0	2.5	.5	.1	.07	.13	.24	.35	.48	.63	.80	1.02	1.32	1.82	2.32
Apr	.98	.64	3.62	1999	30	5.00	1999	.00+	1974	4.4	2.4	.5	.1	.00	.05	.18	.33	.49	.68	.91	1.20	1.60	2.29	2.98
May	2.02	1.72	4.05+	1955	18	7.14	1979	.00	1998	5.8	3.8	1.3	.4	.33	.61	.95	1.23	1.50	1.78	2.10	2.47	2.96	3.73	4.45
Jun	1.98	1.73	2.33	1986	1	6.72	1986	.05+	1990	7.6	4.2	1.2	.3	.15	.28	.54	.81	1.11	1.46	1.88	2.40	3.13	4.35	5.56
Jul	2.49	2.35	3.75	1969	17	5.83	1999	.12	1987	9.1	5.6	1.5	.6	.55	.78	1.14	1.47	1.80	2.15	2.55	3.02	3.65	4.64	5.58
Aug	3.46	3.25	2.55	1966	2	8.30	1981	.81	1973	10.5	7.0	2.6	.6	1.00	1.33	1.83	2.26	2.67	3.11	3.59	4.16	4.90	6.05	7.12
Sep	2.03	1.81	2.00	1999	16	5.90	1990	.05	1977	6.2	3.6	1.3	.5	.17	.31	.57	.85	1.16	1.51	1.93	2.46	3.20	4.42	5.63
Oct	1.18	.71	3.37	1957	20	4.73	2000	.00+	1995	3.9	2.6	.6	.2	.00	.00	.21	.44	.66	.90	1.17	1.50	1.96	2.69	3.41
Nov	.67	.52	1.90	1990	3	2.29	1978	.00+	1999	2.7	1.6	.4	.1	.00	.05	.16	.26	.38	.50	.65	.83	1.08	1.50	1.92
Dec	.36	.31	.80	1996	16	1.17	1987	.00+	1999	2.4	1.5	.1	.0	.00	.00	.05	.11	.18	.25	.34	.45	.60	.84	1.08
Ann	16.70+	16.71+	4.05+	May 1955	18	8.30	Aug 1981	.00+	Dec 1999	61.4	36.9	10.4	2.9	11.17	12.21	13.56	14.60	15.52	16.42	17.36	18.39	19.66	21.51	23.11

⁺ 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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COOP ID: 298501

Station: SPRINGER, NM

Climate Division: NM 3 NWS Call Sign: Elevation: 5,922 Feet Lat: 36°22N Lon: 104°36W

										Snov	w (incl	hes)													
						Sn	ow To	tals							Mean Number of Days (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	4.4	3.7	1	#	13.0	1990	18	17.0	1990	17	1990	19	2	1990	2.0	1.4	.6	.1	@	4.4	2.0	.6	.0		
Feb	3.9	1.1	1	#	15.0	1990	21	28.0	1990	26	1990	21	3	1983	1.6	1.0	.4	.2	.1	2.6	1.7	.9	.1		
Mar	5.5	3.8	#	#	14.0	1973	30	29.0	1973	21	1973	30	2	1973	2.0	1.5	.6	.2	@	1.3	.5	.3	.1		
Apr	2.0	.3	#	0	7.0	1995	22	14.0	1995	14	1973	1	3	1973	1.0	.8	.3	.2	.0	.8	.5	.4	.1		
May	.7	.0	#	0	10.5	1978	2	18.0	1978	11	1978	2	1	1978	.3	.2	.1	@	@	.2	.2	.1	@		
Jun	.0	.0	#	0	.0	0	0	.0	0	#	1983	9	#	1983	.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	2	1974	6	#+	1994	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Sep	.1	.0	#	0	2.0	1971	17	2.0	1971	2	1971	17	#	1971	.1	@	.0	.0	.0	@	.0	.0	.0		
Oct	1.1	.0	#	0	12.0	1996	27	12.0	1996	12	1996	27	1	1996	.5	.4	.2	.1	@	.2	.2	.1	@		
Nov	3.1	2.0	#	#	8.0	1996	30	14.0	1991	11	1972	1	2	1972	1.4	1.0	.4	.1	.0	1.7	.8	.2	.0		
Dec	5.0	3.5	1	#	8.0	1979	27	17.2	1987	8+	1996	16	3	1995	1.9	1.6	.7	.2	.0	7.1	4.1	1.4	.0		
Ann	25.8	14.4	N/A	N/A	15.0	Feb 1990	21	29.0	Mar 1973	26	Feb 1990	21	3+	Dec 1995	10.8	7.9	3.3	1.1	.1	18.3	10.0	4.0	.3		

⁺ 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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Climate Division: NM 3

NWS Call Sign:

Elevation: 5,922 Feet

Lat: 36°22N Lon: 104°36W

				Freez	ze 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((*)							
	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	6/17	6/10	6/04	5/31	5/26	5/22	5/18	5/12	5/05						
32	5/30	5/25	5/21	5/18	5/15	5/12	5/09	5/05	4/30						
28	5/17	5/12	5/09	5/06	5/03	4/30	4/27	4/23	4/18						
24	5/10	5/04	4/29	4/25	4/21	4/17	4/13	4/08	4/02						
20	5/01	4/25	4/21	4/17	4/14	4/10	4/07	4/02	3/27						
16	4/17	4/12	4/08	4/05	4/02	3/30	3/26	3/23	3/17						
		•	Fal	l Freeze Da	tes (Month/D	Day)			•						
Tomn (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	9/14	9/18	9/20	9/22	9/24	9/26	9/28	10/01	10/04						
32	9/21	9/24	9/26	9/28	9/30	10/02	10/04	10/06	10/09						
28	9/29	10/03	10/06	10/08	10/11	10/13	10/16	10/18	10/23						
24	10/07	10/11	10/14	10/17	10/19	10/21	10/24	10/27	10/31						
20	10/15	10/20	10/23	10/26	10/29	11/01	11/04	11/07	11/12						
16	10/28	11/01	11/04	11/07	11/09	11/12	11/15	11/18	11/22						
				Freeze F	ree Period										
Tomn (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	144	136	130	125	120	115	110	104	96						
32	156	150	145	141	137	133	129	125	118						
28	182	174	169	164	160	156	151	146	138						
24	203	195	190	185	180	176	171	165	157						
20	218	211	206	202	198	194	189	184	177						
16	238	232	228	224	221	217	214	209	203						

^{*} 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.

Complete documentation available from:

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Climate Division: NM 3 Lon: 104°36W **NWS Call Sign:** Elevation: 5,922 Feet Lat: 36°22N

	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	1066	829	711	487	241	49	3	10	112	408	767	1059	5742		
60	911	689	556	345	132	11	0	0	37	257	617	904	4459		
57	818	605	463	267	84	4	0	0	14	177	529	811	3772		
55	756	549	402	219	59	1	0	0	6	131	472	749	3344		
50	601	409	258	122	19	0	0	0	0	51	336	595	2391		
32	145	48	5	0	0	0	0	0	0	0	41	140	379		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	102	143	317	505	803	1042	1197	1148	914	615	264	104	7154
55	0	0	2	34	149	354	484	435	230	32	5	0	1725
57	0	0	0	22	112	296	422	373	177	17	2	0	1421
60	0	0	0	10	67	214	329	280	110	4	0	0	1014
65	0	0	0	2	21	101	177	135	36	0	0	0	472
70	0	0	0	0	4	31	57	34	6	0	0	0	132

	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	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	19	49	137	300	572	811	962	913	689	386	105	20	19	68	205	505	1077	1888	2850	3763	4452	4838	4943	4963
45	3	15	54	176	419	661	807	758	539	244	37	0	3	18	72	248	667	1328	2135	2893	3432	3676	3713	3713
50	0	0	16	79	270	511	652	603	394	121	8	0	0	0	16	95	365	876	1528	2131	2525	2646	2654	2654
55	0	0	2	21	142	364	497	448	248	41	0	0	0	0	2	23	165	529	1026	1474	1722	1763	1763	1763
60	0	0	0	2	55	215	342	293	124	6	0	0	0	0	0	2	57	272	614	907	1031	1037	1037	1037
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	thly)	•					Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	62	109	182	272	406	514	601	581	462	333	144	65	62	171	353	625	1031	1545	2146	2727	3189	3522	3666	3731

(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