

# Climatography of the United States

No. 20

1971-2000

Station: STAR LAKE, NM

COOP ID: 298524

Climate Division: NM 1

NWS Call Sign:

Elevation: 6,635 Feet Lat: 35° 56N

Lon: 107° 28W

## Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number 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	40.2	11.1	25.7	66	1950	23	33.3	1986	-38	1971	6	18.5	1977	1220	0	.0	.0	5.0	6.2	30.7	6.1
Feb	46.4	18.5	32.5	69	1981	17	39.2	1995	-29	1951	1	27.7	1979	911	0	.0	.0	10.6	2.2	27.4	1.4
Mar	55.4	23.4	39.4	76	1989	10	43.8	1989	-18	1962	14	36.2	1981	795	0	.0	.0	23.0	.1	28.0	.1
Apr	64.0	27.6	45.8	86+	1953	2	50.6	1989	1	1955	4	40.4	1983	575	0	.0	.0	27.2	.0	21.8	.0
May	73.3	36.2	54.8	94	1980	23	60.3	1996	12+	1962	1	51.7	1983	321	2	.0	.2	30.9	.0	8.9	.0
Jun	83.9	45.1	64.5	98	1954	20	68.0	1974	25	1999	5	61.7	1995	76	60	.0	5.8	30.0	.0	1.2	.0
Jul	87.0	52.6	69.8	101	1960	28	72.1	1972	34	1966	2	67.4	1992	4	153	.0	9.8	31.0	.0	.0	.0
Aug	84.2	51.4	67.8	99	1971	3	71.3	1995	29	1968	24	65.0	1990	20	107	.0	3.9	31.0	.0	.0	.0
Sep	77.8	43.0	60.4	96	1977	5	64.2	1998	21+	1968	17	57.4	1985	157	20	.0	.2	30.0	.0	2.1	.0
Oct	66.3	30.7	48.5	89+	1972	2	52.2	1979	6	1993	31	43.7	1984	511	0	.0	.0	29.4	.1	17.4	.0
Nov	51.8	20.2	36.0	75+	1973	13	39.8	1981	-28	1976	28	30.4	2000	870	0	.0	.0	18.0	.9	27.7	.5
Dec	42.3	11.9	27.1	70	1980	18	34.7	1980	-36	1990	24	18.5	1990	1175	0	.0	.0	6.9	4.4	30.7	4.4
Ann	64.4	31.0	47.7	101	Jul 1960	28	72.1	Jul 1972	-38	Jan 1971	6	18.5+	Dec 1990	6635	342	.0	19.9	273.0	13.9	195.9	12.5

+ Also occurred on an earlier date(s)

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

Complete documentation available from: [www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: February 2004

086-A

(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

# 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: STAR LAKE, NM**

**COOP ID: 298524**

**Climate Division: NM 1**

**NWS Call Sign:**

**Elevation: 6,635 Feet Lat: 35°56N**

**Lon: 107°28W**

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							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	.52	.43	.93	1993	8	2.15	1993	.00	1994	4.6	2.0	.1	.0	.02	.07	.14	.22	.30	.39	.50	.64	.83	1.13	1.44
Feb	.36	.29	.80	1993	1	1.42	1993	.00	1995	3.9	1.3	.1	.0	.02	.06	.11	.16	.22	.28	.36	.45	.57	.77	.96
Mar	.59	.43	1.18	2000	31	3.20	2000	.00+	1997	4.6	1.9	.1	@	.00	.00	.07	.15	.25	.37	.52	.72	.99	1.48	1.96
Apr	.53	.30	1.34	1985	28	2.34	1985	.00+	1993	3.3	1.7	.2	@	.00	.00	.00	.10	.21	.33	.47	.66	.92	1.37	1.80
May	.62	.51	.91	1973	13	2.16	1992	.00+	2000	4.1	2.2	.2	.0	.00	.00	.00	.17	.32	.47	.63	.82	1.08	1.49	1.88
Jun	.64	.36	1.13	1991	13	3.27	1991	.00+	1998	3.6	1.8	.3	@	.00	.00	.06	.15	.27	.40	.57	.78	1.08	1.59	2.10
Jul	1.40	1.39	1.43	1999	9	3.38	1999	.00	1993	7.5	4.0	.5	.1	.24	.43	.67	.86	1.05	1.24	1.46	1.72	2.05	2.57	3.06
Aug	1.75	1.41	1.87	1968	1	4.44	1988	.29	2000	8.5	4.7	.7	.2	.45	.62	.87	1.10	1.32	1.55	1.81	2.12	2.52	3.15	3.74
Sep	1.25	1.12	1.13	1983	30	3.09	1975	.13	1979	6.2	3.4	.8	.1	.21	.31	.50	.67	.84	1.03	1.25	1.52	1.88	2.46	3.01
Oct	.97	.86	1.52	1998	26	3.40	1998	.00+	1999	5.3	3.2	.2	@	.00	.08	.24	.39	.55	.73	.94	1.20	1.56	2.16	2.74
Nov	.72	.53	1.10	1986	2	2.25	1991	.02	1980	4.8	2.3	.3	@	.06	.10	.20	.30	.41	.54	.69	.88	1.14	1.59	2.03
Dec	.56	.48	.80	1992	5	2.70	1992	.00+	1996	3.7	1.7	.2	.0	.00	.02	.09	.17	.26	.37	.50	.68	.92	1.34	1.77
Ann	9.91	9.61	1.87	Aug 1968	1	4.44	Aug 1988	.00+	May 2000	60.1	30.2	3.7	.4	6.18	6.87	7.77	8.46	9.09	9.70	10.35	11.06	11.94	13.24	14.37

+ Also occurred on an earlier date(s)

# 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

Complete documentation available from:

[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

# 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](http://www.ncdc.noaa.gov)

**Station: STAR LAKE, NM**

**COOP ID: 298524**

**Climate Division: NM 1**

**NWS Call Sign:**

**Elevation: 6,635 Feet**

**Lat: 35° 56N**

**Lon: 107° 28W**

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (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	5.2	5.0	2	1	8.0	1974	2	12.6	1974	12	1974	3	4	1977	3.1	2.3	.7	.1	.0	11.6	3.2	1.0	.0
Feb	3.5	2.0	1	#	7.0	1990	20	11.0	1975	9	1989	6	3	1979	2.1	1.6	.3	.1	.0	5.9	1.3	.4	.0
Mar	2.8	.4	#	#	7.0	1990	6	13.0	2000	11	1990	7	1	1990	1.4	.9	.5	.1	.0	.5	.2	.1	@
Apr	.9	.0	#	0	5.0	1991	26	5.0	1991	4	1983	4	#+	2000	.6	.4	.1	@	.0	.1	@	.0	.0
May	.7	.0	#	0	10.0	1978	6	15.0	1978	3	1978	6	#+	1990	.2	.1	.1	.1	@	.1	@	.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	#	1989	31	#	1989	.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	#	1971	18	#	1971	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.8	.0	#	0	6.0	1997	25	8.1	1997	5	1991	31	#+	1998	.3	.3	.1	.1	.0	.2	@	@	.0
Nov	2.1	1.4	#	#	7.0	1991	16	12.0	1991	6	1997	15	1	1976	1.3	.8	.2	.1	.0	1.0	.2	.2	.0
Dec	3.0	1.0	1	#	5.1	1971	8	9.1	1971	10	1990	30	4	1990	1.9	1.4	.6	@	.0	6.0	1.7	.2	.0
Ann	19.0	9.8	N/A	N/A	10.0	May 1978	6	15.0	May 1978	12	Jan 1974	3	4+	Dec 1990	10.9	7.8	2.6	.6	@	25.4	6.6	1.9	@

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

@ 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

Complete documentation available from:

[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

# Climatography of the United States

## No. 20 1971-2000

**Station: STAR LAKE, NM**

**COOP ID: 298524**

**Climate Division: NM 1**

**NWS Call Sign:**

**Elevation: 6,635 Feet**

**Lat: 35° 56N**

**Lon: 107° 28W**

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/26	6/21	6/17	6/14	6/11	6/08	6/05	6/01	5/27
32	6/20	6/15	6/11	6/08	6/05	6/02	5/29	5/25	5/20
28	6/04	5/30	5/26	5/23	5/20	5/17	5/13	5/09	5/04
24	5/26	5/21	5/17	5/13	5/10	5/07	5/04	4/30	4/25
20	5/15	5/08	5/03	4/28	4/24	4/20	4/16	4/11	4/04
16	5/01	4/24	4/19	4/15	4/11	4/07	4/03	3/29	3/22
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/05	9/09	9/13	9/16	9/18	9/21	9/24	9/27	10/01
32	9/14	9/18	9/21	9/23	9/25	9/27	9/30	10/02	10/06
28	9/21	9/25	9/28	9/30	10/02	10/04	10/07	10/09	10/13
24	9/28	10/03	10/06	10/09	10/12	10/14	10/17	10/20	10/25
20	10/08	10/14	10/18	10/21	10/24	10/28	10/31	11/04	11/09
16	10/16	10/21	10/25	10/28	10/31	11/03	11/07	11/10	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	118	111	106	102	98	94	90	86	79
32	130	124	119	115	112	108	105	100	94
28	154	147	143	139	135	131	127	122	116
24	173	167	162	158	154	150	146	141	134
20	204	197	191	187	182	178	173	168	160
16	229	220	213	208	203	198	192	186	177

\* 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: STAR LAKE, NM**

**COOP ID: 298524**

**Climate Division: NM 1**

**NWS Call Sign:**

**Elevation: 6,635 Feet    Lat: 35° 56N    Lon: 107° 28W**

Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1220	911	795	575	321	76	4	20	157	511	870	1175	6635
60	1065	771	640	426	183	21	0	2	62	358	720	1020	5268
57	972	687	547	339	116	7	0	0	29	269	630	927	4523
55	910	631	485	283	80	3	0	0	15	215	570	865	4057
50	755	491	333	160	24	0	0	0	2	101	420	710	2996
32	266	81	10	1	0	0	0	0	0	0	40	209	607

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	69	94	238	415	705	974	1172	1109	853	512	160	57	6358
55	0	0	0	8	72	287	459	396	179	13	0	0	1414
57	0	0	0	3	45	231	397	334	133	6	0	0	1149
60	0	0	0	0	19	155	304	243	76	2	0	0	799
65	0	0	0	0	2	60	153	107	20	0	0	0	342
70	0	0	0	0	0	13	41	23	2	0	0	0	79

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	0	12	74	214	471	744	929	878	628	294	47	0	0	12	86	300	771	1515	2444	3322	3950	4244	4291	4291
45	0	0	20	107	323	594	774	723	478	169	8	0	0	0	20	127	450	1044	1818	2541	3019	3188	3196	3196
50	0	0	1	38	184	444	619	568	332	68	0	0	0	0	1	39	223	667	1286	1854	2186	2254	2254	2254
55	0	0	0	6	80	297	464	413	192	17	0	0	0	0	0	6	86	383	847	1260	1452	1469	1469	1469
60	0	0	0	0	21	164	309	258	84	1	0	0	0	0	0	0	21	185	494	752	836	837	837	837
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	12	36	112	226	373	509	595	565	427	265	84	15	12	48	160	386	759	1268	1863	2428	2855	3120	3204	3219

(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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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.  
Complete documentation for the 1971-2000 Normals is available on the internet from:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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 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.

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)