

Climatology of the United States

No. 20

1971-2000

Station: LOS ALAMOS, NM

COOP ID: 295084

Climate Division: NM 2

NWS Call Sign:

Elevation: 7,424 Feet Lat: 35° 52N

Lon: 106° 19W

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	38.4	17.7	28.1	65	1953	12	36.2	1986	-18	1963	13	21.4	1979	1145	0	.0	.0	4.1	6.2	30.5	.9
Feb	42.9	21.8	32.4	69	1986	25	39.1	1995	-17	1951	1	27.9	1985	914	0	.0	.0	8.2	3.3	27.0	.3
Mar	49.7	27.0	38.4	73	1989	11	45.2	1972	-3	1948	11	33.0	1973	826	0	.0	.0	17.5	.9	24.6	.0
Apr	57.9	33.1	45.5	80	1950	23	52.7	1989	8	1983	5	39.2	1983	585	0	.0	.0	24.6	.2	14.1	.0
May	67.2	41.7	54.5	90	2000	29	62.9	1996	24+	1976	1	49.8	1983	340	13	.0	@	30.2	.0	3.0	.0
Jun	77.7	51.1	64.4	95+	1952	9	69.7	1990	32+	1975	11	60.9	1995	88	71	.0	1.4	30.0	.0	.1	.0
Jul	80.0	54.6	67.3	94+	1952	21	70.3	1980	40	1995	4	64.7	1991	16	86	.0	1.4	31.0	.0	.0	.0
Aug	77.2	53.1	65.2	91+	1977	6	68.8	2000	31	1987	31	63.0	1993	51	55	.0	.2	31.0	.0	.0	.0
Sep	71.4	47.0	59.2	90	1948	3	64.4	1998	25+	1983	21	55.6	1996	191	15	.0	.0	29.8	.0	.4	.0
Oct	60.8	36.8	48.8	84	1980	1	53.5	1988	6	1993	30	42.5	1984	502	0	.0	.0	27.3	.2	8.0	.0
Nov	47.6	25.9	36.8	72	1950	1	43.8	1999	-14	1976	28	30.3	1972	848	0	.0	.0	13.7	1.9	24.4	.1
Dec	39.6	19.0	29.3	64	1980	27	37.4	1980	-13	1978	9	23.8	1992	1107	0	.0	.0	5.0	5.3	30.3	.5
Ann	59.2	35.7	47.5	95+	Jun 1952	9	70.3	Jul 1980	-18	Jan 1963	13	21.4	Jan 1979	6613	240	.0	3.0	252.4	18.0	162.4	1.8

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1943-2001

(3) Derived from 1971-2000 serially complete daily data

058-A

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: LOS ALAMOS, NM

COOP ID: 295084

Climate Division: NM 2

NWS Call Sign:

Elevation: 7,424 Feet Lat: 35° 52N

Lon: 106° 19W

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	.96	.79	1.20	1993	8	3.22	1993	.01	1986	5.9	2.5	.5	@	.05	.10	.22	.35	.49	.67	.88	1.16	1.54	2.21	2.87
Feb	.75	.51	.97	1987	19	2.78	1987	.04	1972	6.1	2.3	.3	.0	.04	.08	.16	.26	.38	.52	.68	.90	1.21	1.73	2.25
Mar	1.28	1.21	1.64	1973	9	4.11	1973	.09+	1997	7.2	3.5	.5	.1	.19	.29	.48	.66	.84	1.04	1.28	1.57	1.95	2.58	3.19
Apr	1.05	.67	2.00	1975	12	3.23	1975	.00	1991	6.1	2.9	.5	.1	.02	.08	.21	.36	.53	.72	.96	1.27	1.70	2.44	3.17
May	1.43	1.49	1.35	1952	17	3.46	1992	.00	1998	7.8	4.0	.7	.1	.05	.17	.38	.58	.81	1.07	1.37	1.76	2.28	3.16	4.02
Jun	1.44	1.18	2.16	1987	7	5.67	1986	.00	1980	7.6	3.4	.8	.2	.08	.22	.44	.65	.87	1.12	1.41	1.77	2.26	3.07	3.86
Jul	2.97	3.15	2.47	1968	31	5.29	1998	.35	1980	14.0	7.5	1.7	.3	.92	1.21	1.63	1.99	2.34	2.70	3.09	3.56	4.16	5.10	5.97
Aug	3.32	3.10	2.26	1951	1	6.44	1997	1.20	1973	15.0	8.2	2.0	.4	1.35	1.66	2.09	2.44	2.78	3.11	3.48	3.90	4.43	5.25	5.99
Sep	2.08	2.17	1.86	1973	10	4.55	1975	.34	2000	9.0	4.9	1.4	.2	.59	.78	1.08	1.34	1.60	1.86	2.15	2.50	2.95	3.65	4.31
Oct	1.54	.85	2.06	1957	19	4.16	1998	.00	1995	6.7	3.6	1.1	.2	.03	.12	.32	.53	.78	1.07	1.42	1.87	2.50	3.59	4.67
Nov	1.19	.81	1.77	1978	25	6.60	1978	.02	1999	5.7	2.6	.8	.2	.08	.16	.31	.47	.66	.87	1.12	1.45	1.90	2.66	3.41
Dec	.92	.47	1.60	1978	6	3.21	1984	.01	1981	5.6	2.5	.4	.1	.03	.07	.16	.28	.42	.59	.80	1.09	1.50	2.21	2.94
Ann	18.93	18.70	2.47	Jul 1968	31	6.60	Nov 1978	.00+	May 1998	96.7	47.9	10.7	1.9	13.29	14.38	15.77	16.83	17.78	18.69	19.64	20.68	21.95	23.79	25.39

+ 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: 1943-2001

(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:

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

Climatography of the United States

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151 Patton Avenue
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Station: LOS ALAMOS, NM

COOP ID: 295084

Climate Division: NM 2

NWS Call Sign:

Elevation: 7,424 Feet

Lat: 35° 52N

Lon: 106° 19W

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	13.4	11.3	5	4	22.0	1987	15	64.8	1987	40	1987	17	13	1993	4.8	3.2	1.6	1.0	.4	16.6	12.9	8.4	3.1
Feb	8.9	3.3	3	1	20.0	1987	19	48.5	1987	24	1979	1	14	1993	3.9	2.3	1.0	.6	.2	9.1	5.7	3.8	2.0
Mar	10.4	7.4	1	#	14.0	1973	9	36.0	1973	15	1993	1	5	1993	4.3	2.8	1.4	.7	.2	3.8	2.5	1.5	.4
Apr	4.7	2.1	#	0	20.0	1975	12	33.2	1975	8	1983	4	1	1983	1.9	1.3	.5	.3	.1	.6	.3	.1	.0
May	.9	.0	#	0	12.0	1978	2	16.0	1978	12	1978	2	1	1978	.3	.2	@	@	@	.3	.2	.1	@
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	.1	.0	0	0	1.5	1971	18	1.5	1971	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	2.9	.0	#	0	12.5	1996	21	21.2	1996	12	1996	21	1	1996	.9	.7	.4	.2	@	.9	.4	.2	@
Nov	5.3	5.1	#	#	12.0	1976	27	16.0	1997	12	1976	27	2+	2000	3.0	1.7	.5	.3	.1	2.6	1.0	.4	.1
Dec	10.9	7.0	3	1	22.0	1978	6	38.1	1984	22+	1984	15	8	1997	4.4	3.1	1.1	.6	.2	12.5	9.6	7.1	1.9
Ann	57.5	36.2	N/A	N/A	22.0+	Jan 1987	15	64.8	Jan 1987	40	Jan 1987	17	14	Feb 1993	23.5	15.3	6.5	3.7	1.2	46.4	32.6	21.6	7.5

+ 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:

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Climate Division: NM 2

NWS Call Sign:

Elevation: 7,424 Feet

Lat: 35° 52N

Lon: 106° 19W

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	6/05	6/01	5/28	5/25	5/23	5/20	5/17	5/14	5/09
32	5/28	5/22	5/18	5/15	5/11	5/08	5/04	4/30	4/24
28	5/14	5/09	5/05	5/02	4/29	4/26	4/22	4/19	4/13
24	4/30	4/24	4/20	4/17	4/13	4/10	4/06	4/02	3/27
20	4/15	4/10	4/07	4/04	4/02	3/30	3/27	3/24	3/19
16	4/09	4/01	3/27	3/22	3/18	3/14	3/09	3/03	2/24
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	9/16	9/20	9/23	9/25	9/28	9/30	10/03	10/06	10/10
32	9/24	9/29	10/02	10/05	10/08	10/11	10/14	10/18	10/23
28	9/28	10/04	10/09	10/12	10/16	10/20	10/24	10/28	11/04
24	10/16	10/21	10/24	10/28	10/30	11/02	11/05	11/09	11/14
20	10/19	10/24	10/28	11/01	11/04	11/07	11/11	11/15	11/21
16	11/02	11/08	11/12	11/15	11/18	11/22	11/25	11/29	12/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	145	139	134	131	128	124	121	116	111
32	171	164	158	154	149	145	141	135	128
28	195	186	180	175	170	165	159	153	145
24	224	216	209	204	199	195	189	183	175
20	238	231	225	220	216	211	207	201	194
16	274	264	257	251	245	239	233	226	215

* 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:

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Climate Division: NM 2 NWS Call Sign: Elevation: 7,424 Feet Lat: 35° 52N Lon: 106° 19W

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	1145	914	826	585	340	88	16	51	191	502	848	1107	6613
60	990	774	671	438	214	31	0	8	88	352	698	952	5216
57	897	690	578	353	153	14	0	2	47	269	608	859	4470
55	835	634	516	300	119	7	0	0	29	219	548	797	4004
50	680	494	368	182	54	1	0	0	6	115	404	642	2946
32	179	84	30	4	0	0	0	0	0	1	49	150	497

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	56	94	228	409	696	973	1094	1027	815	523	192	67	6174
55	0	0	1	15	102	290	381	314	154	27	0	0	1284
57	0	0	0	8	75	237	319	253	112	15	0	0	1019
60	0	0	0	3	43	164	226	166	63	5	0	0	670
65	0	0	0	0	13	71	86	55	15	0	0	0	240
70	0	0	0	0	2	18	12	6	2	0	0	0	40

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	1	21	83	223	469	749	864	798	590	307	64	4	1	22	105	328	797	1546	2410	3208	3798	4105	4169	4173
45	0	2	28	119	322	599	709	643	442	179	21	0	0	2	30	149	471	1070	1779	2422	2864	3043	3064	3064
50	0	0	1	47	190	450	554	488	298	77	0	0	0	0	1	48	238	688	1242	1730	2028	2105	2105	2105
55	0	0	0	12	89	305	399	333	168	24	0	0	0	0	0	12	101	406	805	1138	1306	1330	1330	1330
60	0	0	0	0	30	174	245	180	67	2	0	0	0	0	0	0	30	204	449	629	696	698	698	698
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	1	23	71	159	292	474	549	488	349	194	52	5	1	24	95	254	546	1020	1569	2057	2406	2600	2652	2657

(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

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
- 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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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