

Climatology of the United States

No. 20

1971-2000

Station: HACHITA, NM

COOP ID: 293775

Climate Division: NM 8

NWS Call Sign:

Elevation: 4,507 Feet Lat: 31° 55N

Lon: 108° 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	58.4	26.8	42.6	78	1971	18	47.0	1971	-11	1962	11	38.4	1992	694	0	.0	.0	27.0	.1	24.1	.0
Feb	63.4	29.6	46.5	84	1957	14	52.7	1996	5+	1964	15	41.6	1974	518	0	.0	.0	26.7	.2	18.7	.0
Mar	69.8	34.0	51.9	90	1989	12	57.0	1989	9	1965	4	47.4	1987	407	1	.0	@	30.8	.0	13.0	.0
Apr	77.5	39.5	58.5	97	1965	22	65.1	1989	18	1955	2	52.1	1973	222	27	.0	.9	29.9	.0	5.9	.0
May	85.7	48.3	67.0	103	1951	27	73.2	1996	22	1967	2	62.3	1975	72	133	.1	8.9	31.0	.0	.3	.0
Jun	94.8	57.7	76.3	110	1994	27	83.1	1990	37	1968	10	73.2	1991	3	342	6.7	25.5	30.0	.0	.0	.0
Jul	94.0	63.8	78.9	108+	1957	4	82.5	1980	51	1987	7	76.0	1986	0	431	4.9	25.4	31.0	.0	.0	.0
Aug	91.3	62.3	76.8	105+	1951	16	81.0	1994	42	1966	25	73.5	1974	0	365	1.1	21.6	31.0	.0	.0	.0
Sep	87.4	56.2	71.8	102	1948	4	76.5	1997	32+	1965	22	68.8	1976	11	215	.1	12.0	30.0	.0	.0	.0
Oct	77.7	44.6	61.2	95+	1980	1	64.4	1987	20+	1970	28	56.0	1976	155	36	.0	2.0	30.9	.0	1.6	.0
Nov	66.0	33.0	49.5	86	1950	1	54.1	1995	8	1957	23	44.9	1972	465	0	.0	.0	28.9	.0	14.1	.0
Dec	57.9	27.2	42.6	81	1980	28	48.5	1980	-9	1978	9	39.1	1997	696	0	.0	.0	26.3	.1	23.6	.1
Ann	77.0	43.6	60.3	110	Jun 1994	27	83.1	Jun 1990	-11	Jan 1962	11	38.4	Jan 1992	3243	1550	12.9	96.3	353.5	.4	101.3	.1

+ 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: 1948-2001

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

050-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: HACHITA, NM

COOP ID: 293775

Climate Division: NM 8

NWS Call Sign:

Elevation: 4,507 Feet Lat: 31°55N

Lon: 108°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	.65	.57	.80	1966	18	2.05	1993	.00+	1996	3.9	2.2	.2	.0	.00	.00	.09	.19	.30	.43	.59	.80	1.08	1.57	2.06
Feb	.50	.51	1.20	1948	25	1.47	1973	.00+	1999	3.0	1.6	.1	.0	.00	.00	.07	.17	.27	.38	.50	.64	.83	1.14	1.45
Mar	.43	.30	1.47	1964	18	1.35	1983	.00+	1996	2.6	1.6	.1	.0	.00	.00	.00	.12	.22	.32	.43	.57	.74	1.03	1.30
Apr	.18	.10	1.50	1964	1	.72	1983	.00+	2000	1.5	.9	.0	.0	.00	.00	.00	.00	.02	.07	.13	.21	.32	.50	.68
May	.24	.10	.80	1992	28	1.76	1992	.00+	2000	1.6	.9	.1	.0	.00	.00	.00	.00	.00	.08	.17	.29	.44	.71	.98
Jun	.58	.30	2.40	2000	6	4.65	2000	.00+	1995	2.4	1.6	.4	.1	.00	.00	.00	.06	.16	.28	.45	.67	1.00	1.58	2.18
Jul	2.68	2.20	3.61	1999	17	9.18	1999	.69	1994	8.7	6.0	1.6	.4	.67	.92	1.31	1.66	2.00	2.36	2.76	3.24	3.86	4.85	5.77
Aug	2.20	1.73	4.00	2000	18	6.96	1984	.43	1971	8.3	5.3	1.2	.2	.53	.74	1.06	1.34	1.62	1.92	2.26	2.66	3.18	4.01	4.78
Sep	1.22	.90	1.50	1964	23	3.69	1976	.02	2000	4.9	3.0	.7	.1	.09	.16	.32	.49	.67	.89	1.15	1.48	1.93	2.71	3.47
Oct	1.11	.76	1.55	1983	2	3.02	1972	.00+	1999	4.2	2.8	.6	.2	.00	.00	.23	.41	.61	.83	1.08	1.40	1.82	2.53	3.23
Nov	.71	.39	1.12	1986	2	2.30	1986	.00+	1999	2.8	1.8	.4	.1	.00	.06	.17	.28	.40	.53	.68	.87	1.14	1.58	2.00
Dec	1.12	.62	2.00	1982	1	6.12	1991	.00+	1996	4.3	2.7	.6	.1	.00	.00	.08	.21	.38	.61	.90	1.30	1.88	2.92	3.98
Ann	11.62	10.99	4.00	Aug 2000	18	9.18	Jul 1999	.00+	May 2000	48.2	30.4	6.0	1.2	6.77	7.63	8.78	9.67	10.48	11.28	12.12	13.07	14.23	15.95	17.47

+ 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

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Station: HACHITA, NM

COOP ID: 293775

Climate Division: NM 8

NWS Call Sign:

Elevation: 4,507 Feet

Lat: 31°55N

Lon: 108°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	1.2	.5	#	0	5.0	1985	13	6.8	1973	5	1983	1	#+	1988	.7	.5	.2	@	.0	.3	.1	@	.0
Feb	.6	.0	#	0	4.0	1990	15	6.0	1990	3	1990	15	#+	1990	.4	.2	@	.0	.0	.1	@	.0	.0
Mar	.6	.0	#	0	6.0	1997	1	6.0	1997	1	1991	21	#	1991	.4	.2	@	@	.0	@	.0	.0	.0
Apr	.5	.0	#	0	4.0	1976	16	10.5	1983	1	1983	6	#	1983	.2	.2	.1	.0	.0	.1	.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	#	1976	28	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.3	.0	#	0	3.0	1976	13	3.0	1982	3	1982	25	#+	1990	.2	.1	.1	.0	.0	@	@	.0	.0
Dec	2.0	.0	#	0	9.0	1982	1	20.0	1982	7	1982	1	1	1982	.8	.5	.2	.1	.0	.4	.2	.1	.0
Ann	5.2	.5	N/A	N/A	9.0	Dec 1982	1	20.0	Dec 1982	7	Dec 1982	1	1	Dec 1982	2.7	1.7	.6	.1	.0	.9	.3	.1	.0

+ 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

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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	5/23	5/17	5/12	5/08	5/05	5/01	4/27	4/23	4/16
32	5/11	5/05	4/30	4/26	4/23	4/19	4/15	4/10	4/04
28	4/27	4/21	4/16	4/12	4/08	4/05	4/01	3/27	3/21
24	4/20	4/11	4/05	3/30	3/25	3/20	3/14	3/07	2/26
20	4/01	3/21	3/13	3/06	2/28	2/21	2/14	2/06	1/26
16	3/08	2/23	2/15	2/07	1/31	1/24	1/15	1/05	12/16
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	10/09	10/14	10/17	10/19	10/22	10/24	10/27	10/30	11/04
32	10/13	10/18	10/22	10/25	10/28	10/31	11/03	11/07	11/12
28	10/22	10/27	10/31	11/03	11/06	11/09	11/12	11/16	11/21
24	11/04	11/10	11/14	11/17	11/21	11/24	11/27	12/02	12/07
20	11/11	11/17	11/21	11/25	11/29	12/02	12/06	12/10	12/16
16	11/24	12/02	12/07	12/12	12/16	12/20	12/25	1/01	1/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	187	181	177	173	169	166	162	158	152
32	210	203	197	192	188	183	179	173	165
28	231	224	219	215	211	207	203	198	191
24	268	258	251	246	240	235	229	222	213
20	307	296	287	280	273	266	259	251	239
16	>365	364	342	330	320	311	302	292	278

* 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

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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	694	518	407	222	72	3	0	0	11	155	465	696	3243
60	539	378	262	121	25	0	0	0	1	66	320	541	2253
57	446	297	184	76	11	0	0	0	0	34	239	448	1735
55	385	245	140	51	6	0	0	0	0	20	190	387	1424
50	239	130	57	15	1	0	0	0	0	4	92	240	778
32	2	0	0	0	0	0	0	0	0	0	0	1	3

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	331	406	617	795	1084	1328	1454	1388	1195	904	525	328	10355
55	0	6	44	156	377	638	741	675	505	211	26	0	3379
57	0	2	26	121	320	578	679	613	445	163	14	0	2961
60	0	0	11	76	241	488	586	520	356	102	5	0	2385
65	0	0	1	27	133	342	431	365	215	36	0	0	1550
70	0	0	0	7	58	207	276	215	102	7	0	0	872

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	134	218	385	567	848	1099	1218	1148	954	670	307	129	134	352	737	1304	2152	3251	4469	5617	6571	7241	7548	7677
45	48	102	243	419	693	949	1063	993	804	515	181	48	48	150	393	812	1505	2454	3517	4510	5314	5829	6010	6058
50	8	36	117	275	538	799	908	838	654	363	80	6	8	44	161	436	974	1773	2681	3519	4173	4536	4616	4622
55	0	3	43	155	385	649	753	683	505	223	20	0	0	3	46	201	586	1235	1988	2671	3176	3399	3419	3419
60	0	0	5	62	238	499	598	528	356	106	1	0	0	0	5	67	305	804	1402	1930	2286	2392	2393	2393
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	152	212	320	426	559	665	778	752	614	449	253	145	152	364	684	1110	1669	2334	3112	3864	4478	4927	5180	5325

(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/normals/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