

# Climatology of the United States

No. 20

1971-2000

Station: CANYON DAM, CA

COOP ID: 041497

Climate Division: CA 2

NWS Call Sign:

Elevation: 4,560 Feet Lat: 40° 10N

Lon: 121° 05W

## 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	40.0	23.0	31.5	57+	1997	2	37.4	1986	-16	1962	22	26.0	1993	1039	0	.0	.0	1.8	2.9	28.9	.2
Feb	43.8	24.9	34.4	64	1963	7	40.4	1991	-14	1949	12	26.0	1990	858	0	.0	.0	6.2	1.4	26.1	.2
Mar	49.5	27.6	38.6	73	1960	23	43.3	1972	-5	1952	20	33.3	1973	820	0	.0	.0	15.5	.3	26.6	.0
Apr	57.6	30.7	44.2	81	1981	30	49.6	1987	13	1963	16	35.7	1975	626	0	.0	.0	23.1	.0	19.8	.0
May	67.1	36.8	52.0	92	1986	31	59.1	1992	20+	1964	2	45.1	1977	409	5	.0	.1	29.1	.0	7.9	.0
Jun	76.2	43.0	59.6	97	1950	30	64.9	1977	26	1952	12	54.1	1990	188	27	.0	1.1	29.8	.0	1.2	.0
Jul	84.0	48.0	66.0	102	1960	18	71.6	1988	31	1961	6	60.9	1983	70	102	.2	6.8	31.0	.0	.0	.0
Aug	83.4	46.7	65.1	102	1981	8	69.3	1977	30	1960	23	58.4	1989	84	84	.2	5.6	31.0	.0	@	.0
Sep	76.1	41.8	59.0	98+	1955	3	63.6	1974	23	1950	30	52.9	1986	209	27	.0	.9	29.7	.0	1.2	.0
Oct	64.1	34.9	49.5	88	1952	6	56.1	1988	13	1971	29	43.1	1989	484	2	.0	.0	28.3	.0	11.2	.0
Nov	48.2	28.6	38.4	74	1960	1	44.6	1995	7	1961	17	31.4	1994	798	0	.0	.0	12.8	.3	23.4	.0
Dec	40.4	23.6	32.0	60	1980	17	36.6	1981	-14	1972	9	25.5	1990	1024	0	.0	.0	2.2	2.8	28.8	.4
Ann	60.9	34.1	47.5	102+	Aug 1981	8	71.6	Jul 1988	-16	Jan 1962	22	25.5	Dec 1990	6609	247	.4	14.5	240.5	7.7	175.1	.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](http://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

036-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: CANYON DAM, CA**

**COOP ID: 041497**

**Climate Division: CA 2**

**NWS Call Sign:**

**Elevation: 4,560 Feet Lat: 40°10N**

**Lon: 121°05W**

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	6.68	5.29	5.85	1967	21	20.95	1995	.32	1984	11.2	8.6	4.7	2.0	.58	1.03	1.92	2.85	3.87	5.03	6.41	8.14	10.53	14.53	18.45
Feb	6.72	5.87	4.03	1950	4	22.29	1986	.55	1971	10.9	8.6	4.2	2.1	.87	1.41	2.36	3.30	4.28	5.38	6.65	8.21	10.33	13.80	17.16
Mar	5.71	4.31	3.47	1971	12	16.27	1995	1.02	1988	11.7	8.8	3.6	1.8	.88	1.36	2.19	2.98	3.80	4.69	5.72	6.98	8.66	11.41	14.04
Apr	2.44	2.06	2.52	1953	27	7.88	1995	.14	1973	7.9	5.3	1.7	.5	.34	.54	.90	1.23	1.59	1.98	2.43	2.98	3.73	4.94	6.11
May	1.64	1.20	2.15	1996	16	5.59	1996	.00	1976	6.5	4.1	.8	.3	.05	.16	.39	.62	.88	1.18	1.54	2.00	2.64	3.71	4.77
Jun	.76	.56	1.96	1958	12	2.77	1995	.00+	1986	3.3	1.9	.5	@	.00	.00	.12	.24	.37	.52	.71	.94	1.25	1.79	2.32
Jul	.25	.08	1.07	1974	8	1.13	1974	.00+	2000	1.1	.6	.1	@	.00	.00	.00	.00	.03	.09	.17	.28	.44	.71	.99
Aug	.35	.18	1.53	1965	11	1.67	1976	.00+	2000	1.6	.9	.2	@	.00	.00	.00	.00	.08	.17	.28	.43	.62	.96	1.30
Sep	.93	.41	1.97	1986	19	6.60	1986	.00+	1999	3.0	2.0	.6	.1	.00	.00	.00	.05	.23	.46	.74	1.11	1.64	2.55	3.46
Oct	2.18	1.85	5.20	1962	13	6.67	1982	.00+	1995	5.2	3.2	1.6	.7	.00	.14	.48	.81	1.17	1.59	2.08	2.68	3.53	4.95	6.35
Nov	4.71	2.77	3.42	1988	23	15.76	1973	.32	1995	9.3	7.2	3.3	1.4	.36	.66	1.27	1.92	2.64	3.47	4.46	5.72	7.46	10.38	13.27
Dec	5.43	4.01	4.30	1955	19	19.37	1996	.00	1989	10.2	7.4	3.5	1.7	.30	.81	1.65	2.45	3.29	4.24	5.34	6.70	8.55	11.59	14.56
Ann	37.80	33.91	5.85	Jan 1967	21	22.29	Feb 1986	.00+	Aug 2000	81.9	58.6	24.8	10.6	18.21	21.46	25.91	29.48	32.79	36.10	39.63	43.65	48.69	56.28	63.09

+ 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:  
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**Climate Division: CA 2**

**NWS Call Sign:**

**Elevation: 4,560 Feet**

**Lat: 40° 10N**

**Lon: 121° 05W**

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	22.7	19.0	15	10	18.0	1973	9	76.0	1973	115	1993	16	93	1993	5.8	5.4	3.1	1.8	.5	25.5	22.8	21.2	14.8
Feb	18.6	12.5	20	16	20.0	1990	16	51.0	1990	101	1993	23	84	1993	5.6	5.6	3.0	1.9	.5	25.5	23.8	22.9	18.0
Mar	15.4	9.6	12	6	16.0	1985	27	70.0	1991	95	1993	1	59	1993	4.2	4.1	2.1	1.0	.2	15.6	13.2	10.8	6.6
Apr	5.9	3.3	4	#	10.0	1982	2	30.0	1982	50	1982	1	27	1975	2.2	2.0	.7	.4	.1	3.9	3.2	2.4	1.4
May	.7	.0	#	0	3.0	1974	17	6.0	1974	8	1975	1	2	1975	.5	.3	.1	.0	.0	.3	.2	.2	.0
Jun	#	.0	0	0	#	1971	1	#	1971	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	2.0	1986	19	2.0	1986	2	1986	19	#	1986	@	@	.0	.0	.0	@	.0	.0	.0
Oct	.6	.0	#	0	3.0	1981	29	5.0	1984	3+	1984	17	#+	1996	.3	.3	.1	.0	.0	.3	.1	.0	.0
Nov	8.8	5.0	1	#	12.0	1981	26	52.0	1994	31	1994	27	15	1994	3.0	2.9	1.2	.5	.1	5.8	2.5	1.5	.7
Dec	16.9	15.0	6	4	24.0	1992	31	64.0	1971	72	1992	31	29	1994	4.5	4.4	2.2	1.4	.3	19.0	12.8	8.6	5.7
Ann	89.7	64.4	N/A	N/A	24.0	Dec 1992	31	76.0	Jan 1973	115	Jan 1993	16	93	Jan 1993	26.1	25.0	12.5	7.0	1.7	95.9	78.6	67.6	47.2

+ 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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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	7/10	7/04	6/29	6/25	6/21	6/17	6/13	6/09	6/02
32	6/18	6/12	6/07	6/03	5/31	5/27	5/23	5/19	5/12
28	5/27	5/20	5/16	5/12	5/08	5/05	5/01	4/26	4/20
24	4/26	4/21	4/17	4/14	4/10	4/07	4/04	3/31	3/25
20	4/16	4/06	3/29	3/23	3/17	3/11	3/05	2/25	2/15
16	4/03	3/23	3/15	3/09	3/03	2/24	2/18	2/10	1/30
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	8/16	8/24	8/31	9/05	9/10	9/14	9/20	9/26	10/04
32	9/07	9/15	9/20	9/25	9/30	10/04	10/09	10/14	10/22
28	9/29	10/05	10/10	10/14	10/18	10/21	10/25	10/30	11/05
24	10/22	10/28	11/01	11/05	11/08	11/11	11/15	11/19	11/25
20	11/03	11/10	11/15	11/19	11/23	11/27	12/01	12/06	12/13
16	11/12	11/21	11/27	12/02	12/07	12/12	12/18	12/24	1/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	111	100	92	86	80	73	67	59	48
32	149	140	133	127	121	116	110	103	93
28	188	179	172	167	161	156	150	144	135
24	236	228	221	216	211	206	201	194	186
20	285	273	264	257	250	243	236	227	215
16	320	306	295	287	279	271	262	252	238

\* 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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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	1039	858	820	626	409	188	70	84	209	484	798	1024	6609
60	884	718	665	477	271	93	19	25	111	339	648	869	5119
57	791	634	572	391	200	53	8	10	68	260	558	776	4321
55	729	578	510	336	159	34	3	5	46	212	499	714	3825
50	574	438	360	210	79	8	0	0	14	115	355	559	2712
32	104	53	22	6	0	0	0	0	0	1	28	100	314

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	88	119	226	371	619	829	1055	1023	808	542	219	99	5998
55	0	0	0	10	65	173	345	315	164	41	1	0	1114
57	0	0	0	5	44	132	288	259	127	26	0	0	881
60	0	0	0	2	22	82	206	180	80	12	0	0	584
65	0	0	0	0	5	27	102	84	27	2	0	0	247
70	0	0	0	0	0	5	34	25	6	0	0	0	70

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	10	51	161	382	599	810	785	579	311	51	1	0	10	61	222	604	1203	2013	2798	3377	3688	3739	3740
45	0	0	9	71	243	450	655	630	430	182	14	0	0	0	9	80	323	773	1428	2058	2488	2670	2684	2684
50	0	0	0	20	128	305	500	475	286	85	0	0	0	0	0	20	148	453	953	1428	1714	1799	1799	1799
55	0	0	0	0	52	175	348	322	159	29	0	0	0	0	0	0	52	227	575	897	1056	1085	1085	1085
60	0	0	0	0	12	78	206	182	62	4	0	0	0	0	0	0	12	90	296	478	540	544	544	544
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	15	55	141	276	399	525	515	396	236	42	0	0	15	70	211	487	886	1411	1926	2322	2558	2600	2600

(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](http://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](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 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.

- |   |   |
|---|---|
| <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)