

# Climatology of the United States

No. 20

1971-2000

Station: CHULA VISTA, CA

COOP ID: 041758

Climate Division: CA 6

NWS Call Sign:

Elevation: 56 Feet

Lat: 32° 38N

Lon: 117° 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	68.5	46.1	57.3	88	1996	11	61.2	1980	24	1963	14	53.4	1972	243	4	.0	.0	31.0	.0	.2	.0
Feb	68.8	47.7	58.3	90	1995	19	62.2	1995	29	1990	19	54.9	1985	194	5	.0	@	28.1	.0	.1	.0
Mar	68.4	50.0	59.2	95	1988	26	63.3	1978	32	1971	2	55.2	1985	190	10	.0	.2	31.0	.0	@	.0
Apr	70.2	52.8	61.5	102	1989	6	65.9	1992	40+	1999	10	57.3	1975	126	20	.0	.2	30.0	.0	.0	.0
May	70.3	57.1	63.7	94	1953	6	69.0	1992	43+	1975	12	60.4	1998	91	50	.0	.0	31.0	.0	.0	.0
Jun	72.6	60.3	66.5	96	1990	27	71.2	1981	46	1950	9	63.3	1999	40	83	.0	.2	30.0	.0	.0	.0
Jul	76.1	64.0	70.1	97	1985	2	74.2	1984	52+	1968	1	67.0	1987	8	165	@	.1	31.0	.0	.0	.0
Aug	78.3	65.3	71.8	96	1991	12	75.0	1992	42	1994	13	68.4	1975	4	214	.0	.3	31.0	.0	.0	.0
Sep	78.7	63.7	71.2	108+	1988	4	75.9	1997	43+	1999	7	66.8	1986	8	193	.1	1.0	30.0	.0	.0	.0
Oct	76.4	57.7	67.1	106	1987	3	70.4	1987	36	1971	29	64.6	1971	31	95	@	.9	31.0	.0	.0	.0
Nov	72.2	49.8	61.0	96+	1997	2	65.3	1976	34	1964	15	56.9	1994	138	18	.0	.2	30.0	.0	.0	.0
Dec	68.8	45.5	57.2	86	1963	29	62.8	1977	28	1987	25	53.1	1987	248	5	.0	.0	31.0	.0	.2	.0
Ann	72.4	55.0	63.7	108+	Sep 1988	4	75.9	Sep 1997	24	Jan 1963	14	53.1	Dec 1987	1321	862	.1	3.1	365.1	.0	.5	.0

+ 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

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## No. 20 1971-2000

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

**Station: CHULA VISTA, CA**

**COOP ID: 041758**

**Climate Division: CA 6**

**NWS Call Sign:**

**Elevation: 56 Feet**

**Lat: 32°38N**

**Lon: 117°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	1.99	1.78	2.14	1986	30	8.25	1993	.00+	1976	6.4	4.1	1.6	.4	.00	.11	.39	.69	1.02	1.40	1.86	2.44	3.25	4.62	5.98
Feb	1.99	1.72	2.42	1986	15	7.77	1998	.00	1984	6.1	4.1	1.3	.4	.05	.19	.45	.74	1.06	1.42	1.87	2.43	3.22	4.55	5.86
Mar	2.07	1.47	2.89	1968	9	7.39	1983	.00+	1997	6.9	4.2	1.4	.3	.00	.11	.41	.72	1.07	1.46	1.94	2.54	3.39	4.81	6.22
Apr	.69	.54	1.20	1967	12	2.33	1988	.00+	2000	3.4	1.7	.4	.0	.00	.00	.06	.15	.26	.40	.58	.82	1.16	1.77	2.39
May	.14	.05	1.21	1977	9	1.42	1977	.00+	2000	1.6	.4	@	@	.00	.00	.00	.00	.01	.05	.09	.15	.24	.40	.57
Jun	.08	.00	.40+	1993	5	.60	1990	.00+	2000	1.0	.2	.0	.0	.00	.00	.00	.00	.00	.00	.00	.03	.10	.26	.44
Jul	.03	.00	.43	1999	8	.43	1999	.00+	2000	.3	.1	.0	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.20
Aug	.08	.00	1.93	1977	17	2.00	1977	.00+	1999	.5	.1	@	@	.00	.00	.00	.00	.00	.00	.00	.00	.02	.21	.48
Sep	.20	.00	1.20	1997	25	1.46	1976	.00+	1999	1.1	.5	.1	@	.00	.00	.00	.00	.00	.00	.02	.11	.29	.67	1.09
Oct	.39	.18	1.10	1986	10	2.66	1987	.00+	2000	2.5	1.0	.2	@	.00	.00	.00	.01	.07	.16	.28	.44	.68	1.10	1.54
Nov	1.11	.72	2.15	1985	24	8.13	1985	.00+	2000	3.4	2.2	.7	.2	.00	.00	.05	.21	.41	.65	.95	1.34	1.90	2.84	3.82
Dec	1.18	.94	1.40	1984	11	5.25	1984	.00+	1999	4.8	2.9	.7	.1	.00	.04	.19	.35	.55	.78	1.07	1.43	1.95	2.84	3.74
Ann	9.95	9.54	2.89	Mar 1968	9	8.25	Jan 1993	.00+	Nov 2000	38.0	21.5	6.4	1.4	4.27	5.16	6.42	7.45	8.41	9.38	10.43	11.63	13.15	15.46	17.55

+ 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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**Climate Division: CA 6**

**NWS Call Sign:**

**Elevation: 56 Feet**

**Lat: 32°38N**

**Lon: 117°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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.0	.0	N/A	N/A	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.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	2/28	2/10	1/28	1/15	1/01	12/14	0/00	0/00	0/00
32	1/22	12/29	0/00	0/00	0/00	0/00	0/00	0/00	0/00
28	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
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	11/27	12/08	12/17	12/26	1/04	1/18	0/00	0/00	0/00
32	12/27	1/17	0/00	0/00	0/00	0/00	0/00	0/00	0/00
28	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	>365	>365	>365	>365	>365	>365	348	318	291
32	>365	>365	>365	>365	>365	>365	>365	>365	>365
28	>365	>365	>365	>365	>365	>365	>365	>365	>365
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

\* 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	243	194	190	126	91	40	8	4	8	31	138	248	1321
60	112	84	80	41	24	6	0	0	0	3	48	119	517
57	59	41	36	14	8	1	0	0	0	0	19	66	244
55	32	21	18	6	3	0	0	0	0	0	9	38	127
50	5	3	1	0	0	0	0	0	0	0	0	6	15
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	784	735	843	884	982	1033	1180	1233	1175	1087	870	780	11586
55	104	112	148	200	272	343	467	520	485	374	188	105	3318
57	69	77	104	148	215	284	405	458	425	312	139	70	2706
60	28	36	54	85	138	199	312	365	335	222	78	30	1882
65	4	5	10	20	50	83	165	214	193	95	18	5	862
70	0	0	0	2	9	19	58	88	82	23	1	0	282

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	507	504	568	622	714	772	912	965	910	812	607	496	507	1011	1579	2201	2915	3687	4599	5564	6474	7286	7893	8389
45	353	359	413	472	559	622	757	810	760	657	457	343	353	712	1125	1597	2156	2778	3535	4345	5105	5762	6219	6562
50	204	215	258	322	404	472	602	655	610	502	307	195	204	419	677	999	1403	1875	2477	3132	3742	4244	4551	4746
55	80	90	118	180	249	322	447	500	460	347	163	73	80	170	288	468	717	1039	1486	1986	2446	2793	2956	3029
60	15	23	32	61	106	175	292	345	311	195	55	8	15	38	70	131	237	412	704	1049	1360	1555	1610	1618
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	273	267	289	335	405	472	602	654	605	502	339	273	273	540	829	1164	1569	2041	2643	3297	3902	4404	4743	5016

(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 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)