

Climatography of the United States

No. 20

1971-2000

Station: BOCA, CA

COOP ID: 040931

Climate Division: CA 3

NWS Call Sign:

Elevation: 5,575 Feet Lat: 39° 23N

Lon: 120° 06W

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	41.4	11.2	26.3	64	1996	14	34.8	1981	-39	1952	1	17.7	1993	1199	0	.0	.0	6.2	3.4	30.3	6.2
Feb	44.4	14.1	29.3	68+	1991	15	35.8	1991	-43	1989	7	19.0	1990	1001	0	.0	.0	9.2	2.0	27.9	3.3
Mar	49.4	19.7	34.6	76	1966	31	40.4	1978	-27	1952	21	28.1	1977	944	0	.0	.0	16.5	.6	30.2	.8
Apr	56.5	23.5	40.0	81	1981	30	45.6	1987	0+	1975	6	30.4	1975	751	0	.0	.0	22.3	@	28.4	@
May	65.1	29.5	47.3	90	1984	29	52.9	1973	11	1950	7	41.3	1977	548	0	.0	@	28.3	.0	21.9	.0
Jun	74.8	33.9	54.4	96	1985	19	59.9	1977	16	1976	4	50.9	1991	324	4	.0	.8	29.8	.0	12.7	.0
Jul	83.1	37.4	60.3	98+	1988	22	64.9	1996	21	1976	1	54.2	1983	168	20	.0	5.5	31.0	.0	6.8	.0
Aug	82.9	36.0	59.5	99	1981	9	63.9	1971	18	1957	30	54.5	1976	183	10	.0	4.7	31.0	.0	8.6	.0
Sep	76.1	31.0	53.6	96	1950	4	58.1	1975	10	1950	30	48.8	1986	344	1	.0	.8	29.7	.0	19.0	.0
Oct	65.7	25.0	45.4	89	1980	1	50.0	1987	4	1956	24	41.1	1984	608	0	.0	.0	28.0	.1	27.8	.0
Nov	51.1	19.7	35.4	79	1976	5	41.2	1995	-6	1958	17	27.1	1994	888	0	.0	.0	16.4	.7	28.7	.2
Dec	42.6	13.3	28.0	70	1958	4	36.1	1981	-28+	1990	22	18.3	1990	1149	0	.0	.0	7.7	3.4	30.1	3.2
Ann	61.1	24.5	42.8	99	Aug 1981	9	64.9	Jul 1996	-43	Feb 1989	7	17.7	Jan 1993	8107	35	.0	11.8	256.1	10.2	272.4	13.7

+ 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

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**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: BOCA, CA

COOP ID: 040931

Climate Division: CA 3

NWS Call Sign:

Elevation: 5,575 Feet Lat: 39°23N

Lon: 120°06W

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	3.76	3.30	2.77	1967	22	10.01	1997	.01	1991	7.6	6.5	2.9	1.3	.19	.40	.84	1.34	1.92	2.61	3.45	4.52	6.05	8.65	11.25
Feb	3.70	2.91	2.88	1963	1	16.31	1986	.15	1988	6.8	5.8	2.9	1.1	.31	.56	1.05	1.56	2.12	2.77	3.53	4.50	5.84	8.07	10.28
Mar	3.00	2.36	2.38	1983	12	8.54	1995	.10	1988	7.1	6.1	2.3	.8	.31	.54	.95	1.37	1.82	2.32	2.92	3.66	4.67	6.35	7.98
Apr	1.08	1.03	2.38	1958	3	2.97	1982	.00+	1987	4.6	3.7	.6	.1	.00	.00	.41	.60	.77	.95	1.15	1.38	1.67	2.14	2.59
May	1.12	.98	1.65	1996	16	2.98	1996	.00+	1985	4.8	3.8	.5	.1	.00	.08	.26	.43	.62	.83	1.08	1.38	1.80	2.51	3.19
Jun	.57	.46	1.32	1970	27	1.71	1982	.00+	1994	2.9	2.3	.1	.0	.00	.00	.16	.28	.38	.49	.60	.74	.92	1.20	1.47
Jul	.57	.20	2.00	1985	26	2.26	1985	.00+	2000	1.9	1.1	.4	.1	.00	.00	.00	.00	.08	.23	.42	.66	1.02	1.63	2.25
Aug	.50	.30	2.78	1961	8	1.86	1976	.00+	1997	2.2	1.8	.2	@	.00	.00	.00	.11	.23	.35	.48	.65	.87	1.24	1.59
Sep	.85	.57	1.23	1989	17	4.17	1982	.00+	1995	3.5	2.5	.7	.1	.00	.00	.00	.15	.35	.55	.79	1.09	1.48	2.16	2.80
Oct	1.38	1.05	2.77	1962	14	6.27	1982	.00+	1995	3.9	3.0	.8	.3	.00	.00	.33	.57	.81	1.07	1.37	1.74	2.23	3.04	3.83
Nov	2.72	2.08	2.55	1949	10	10.68	1983	.09	1992	6.2	4.9	1.8	.7	.14	.29	.61	.97	1.39	1.88	2.49	3.27	4.38	6.26	8.15
Dec	3.04	1.85	2.80	1955	24	14.92	1996	.00+	1989	6.1	5.4	2.3	1.1	.00	.16	.59	1.05	1.55	2.14	2.85	3.73	4.98	7.08	9.16
Ann	22.29	20.05	2.88	Feb 1963	1	16.31	Feb 1986	.00+	Jul 2000	57.6	46.9	15.5	5.7	11.11	12.98	15.54	17.59	19.48	21.36	23.36	25.64	28.48	32.75	36.57

+ 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: BOCA, CA

COOP ID: 040931

Climate Division: CA 3

NWS Call Sign:

Elevation: 5,575 Feet

Lat: 39°23N

Lon: 120°06W

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	17.1	13.8	8	6	22.0	1971	13	58.0	1982	54	1993	10	40	1993	4.5	4.2	2.5	1.3	.5	21.9	19.4	16.1	8.4
Feb	19.9	17.0	10	9	30.0	1990	17	59.0	1975	70	1993	24	39	1993	3.9	3.8	2.5	1.6	.5	20.9	18.2	16.4	12.1
Mar	13.6	9.0	5	3	16.0	1985	27	52.0	1975	55	1993	1	21	1993	3.3	3.2	1.9	1.3	.5	13.8	11.9	9.9	6.3
Apr	4.0	2.0	1	#	18.0	1982	1	26.0	1982	31	1982	1	12	1975	1.2	1.2	.4	.2	.1	2.6	1.7	1.4	1.1
May	1.6	.0	#	#	8.0	1991	9	9.0	1991	6	1971	21	#+	2000	.6	.6	.3	.1	.0	.6	.2	@	.0
Jun	.1	.0	#	0	2.0	1988	7	2.0	1988	2	1988	7	#+	1988	.1	.1	.0	.0	.0	.1	.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	.2	.0	#	0	2.0	1971	30	3.0	1982	2	1982	29	#+	1986	.1	.1	.0	.0	.0	.1	.0	.0	.0
Oct	1.3	.0	#	0	5.0	1971	16	10.0+	1981	5	1981	29	#+	2000	.5	.5	.2	.1	.0	.6	.2	.1	.0
Nov	9.0	4.0	1	#	25.0	1985	10	42.0	1985	25	1985	11	8	1985	2.2	2.0	.9	.6	.2	5.8	3.6	2.2	.6
Dec	17.0	7.5	4	3	39.0	1996	21	69.0	1996	55	1996	23	14	1996	3.5	3.2	2.0	1.1	.4	17.0	13.5	8.3	3.0
Ann	83.8	53.3	N/A	N/A	39.0	Dec 1996	21	69.0	Dec 1996	70	Feb 1993	24	40	Jan 1993	19.9	18.9	10.7	6.3	2.2	83.4	68.7	54.4	31.5

+ 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

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NWS Call Sign:

Elevation: 5,575 Feet

Lat: 39° 23N

Lon: 120° 06W

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	8/03	8/01	7/30	7/29	7/27	7/26	7/25	7/23	7/21
32	8/01	7/28	7/25	7/22	7/19	7/17	7/14	7/11	7/07
28	7/22	7/15	7/11	7/06	7/02	6/28	6/24	6/19	6/12
24	6/30	6/21	6/14	6/08	6/03	5/29	5/23	5/16	5/07
20	6/10	6/01	5/26	5/21	5/16	5/11	5/06	4/30	4/21
16	5/12	5/05	4/30	4/26	4/22	4/18	4/14	4/09	4/02
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	7/31	8/01	8/02	8/03	8/04	8/05	8/06	8/07	8/09
32	7/31	8/03	8/05	8/06	8/08	8/09	8/11	8/13	8/16
28	8/03	8/10	8/15	8/19	8/23	8/27	8/31	9/05	9/12
24	8/18	8/28	9/04	9/09	9/15	9/20	9/26	10/03	10/12
20	9/15	9/22	9/27	10/01	10/05	10/09	10/14	10/19	10/26
16	10/01	10/09	10/15	10/20	10/25	10/30	11/04	11/10	11/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	16	13	11	9	7	5	3	0	0
32	35	29	25	22	19	15	12	8	2
28	83	72	64	57	51	45	38	30	19
24	146	131	120	112	103	95	86	75	61
20	175	164	155	148	142	135	128	119	108
16	217	206	198	192	185	179	172	164	154

* 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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Climate Division: CA 3 NWS Call Sign: Elevation: 5,575 Feet Lat: 39° 23N Lon: 120° 06W

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	1199	1001	944	751	548	324	168	183	344	608	888	1149	8107
60	1044	861	789	601	396	192	72	74	205	453	738	994	6419
57	951	777	696	511	309	128	34	33	135	362	648	901	5485
55	889	721	634	454	254	94	18	16	97	303	588	839	4907
50	734	581	481	316	140	32	2	1	32	172	439	684	3614
32	253	150	75	24	1	0	0	0	0	1	59	215	778

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	77	73	154	263	476	670	876	850	646	416	161	89	4751
55	0	0	0	3	16	74	181	153	53	5	0	0	485
57	0	0	0	0	9	48	134	107	32	2	0	0	332
60	0	0	0	0	2	22	80	56	12	0	0	0	172
65	0	0	0	0	0	4	20	10	1	0	0	0	35
70	0	0	0	0	0	0	3	0	0	0	0	0	3

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	1	33	94	256	440	639	610	413	205	39	2	0	1	34	128	384	824	1463	2073	2486	2691	2730	2732
45	0	0	1	33	136	296	484	455	270	90	5	0	0	0	1	34	170	466	950	1405	1675	1765	1770	1770
50	0	0	0	4	57	169	330	302	142	26	0	0	0	0	0	4	61	230	560	862	1004	1030	1030	1030
55	0	0	0	0	14	71	189	164	51	2	0	0	0	0	0	0	14	85	274	438	489	491	491	491
60	0	0	0	0	1	21	80	57	7	0	0	0	0	0	0	0	1	22	102	159	166	166	166	166
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	12	32	64	139	254	379	500	500	395	260	79	19	12	44	108	247	501	880	1380	1880	2275	2535	2614	2633

(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