

Climatology of the United States

No. 20

1971-2000

Station: CAMPO, CA

COOP ID: 041424

Climate Division: CA 6

NWS Call Sign: CZZ

Elevation: 2,630 Feet Lat: 32° 37N

Lon: 116° 28W

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	62.2	34.1	48.2	85	1969	6	54.7	1986	10	1979	29	43.1	1979	522	0	.0	.0	28.8	.0	13.9	.0
Feb	64.2	34.3	49.3	86	1989	23	55.4	1995	12	1953	23	45.6	1998	440	0	.0	.0	26.9	.1	12.1	.0
Mar	66.0	35.8	50.9	92	1997	20	55.9	1972	15	1977	15	45.2	1973	438	0	.0	@	29.9	.0	9.8	.0
Apr	72.1	37.3	54.7	99	1989	7	60.0	1989	20	1953	9	48.1	1975	319	10	.0	.9	29.8	.0	6.1	.0
May	78.1	41.3	59.7	102	1984	29	66.8	1997	25	1975	6	54.4	1977	198	34	.1	3.8	30.9	.0	1.9	.0
Jun	87.3	44.7	66.0	107+	1994	26	72.3	1981	29	1977	14	61.1	1991	69	99	1.9	13.3	30.0	.0	.4	.0
Jul	93.5	51.0	72.3	111	1995	27	75.5	1972	34+	2000	4	66.4	1993	9	234	4.2	23.3	31.0	.0	.0	.0
Aug	93.6	52.3	73.0	107+	1998	4	77.3	1998	30	1978	25	68.4	1976	10	257	5.0	24.5	31.0	.0	.1	.0
Sep	88.8	48.7	68.8	107+	1982	2	73.3+	1984	29+	1973	18	62.1	1986	42	153	1.7	15.9	30.0	.0	.2	.0
Oct	79.4	41.8	60.6	103	1980	3	65.4	1988	22	1971	29	56.5	1971	170	33	.1	5.0	31.0	.0	2.4	.0
Nov	69.3	35.3	52.3	92+	1988	4	58.9	1995	16	1979	21	47.5	2000	381	1	.0	.1	29.7	.0	11.1	.0
Dec	63.0	32.5	47.8	86+	1989	5	52.9	1980	12	1974	26	43.1	1971	535	0	.0	.0	29.0	.0	18.0	.0
Ann	76.5	40.8	58.6	111	Jul 1995	27	77.3	Aug 1998	10	Jan 1979	29	43.1+	Jan 1979	3133	821	13.0	86.8	358.0	.1	76.0	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

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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	Median	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	3.30	1.68	3.73	1993	7	18.61	1993	.00	1972	7.7	5.0	2.1	.9	.04	.19	.56	.99	1.51	2.14	2.92	3.95	5.40	7.93	10.47	
Feb	3.04	2.39	2.72	1980	18	10.37	1998	.00	1984	6.9	5.1	2.5	.9	.12	.36	.79	1.23	1.72	2.26	2.91	3.73	4.85	6.72	8.56	
Mar	3.02	2.67	3.72	1991	1	9.92	1983	.00	1972	8.2	5.7	2.2	.7	.05	.21	.57	.98	1.46	2.03	2.73	3.64	4.92	7.13	9.34	
Apr	.94	.61	1.45	1951	29	3.31	1999	.00	1993	4.6	2.7	.5	.0	.02	.07	.18	.31	.46	.64	.85	1.13	1.52	2.19	2.86	
May	.26	.12	1.05	1957	11	1.17	1998	.00+	2000	2.2	.8	.1	.0	.00	.00	.00	.03	.08	.14	.21	.31	.45	.70	.95	
Jun	.09	.00	.38	1995	16	.55	1984	.00+	1996	.8	.4	.0	.0	.00	.00	.00	.00	.00	.00	.01	.06	.15	.32	.49	
Jul	.29	.06	1.49	1985	19	1.74	1985	.00+	2000	1.8	.8	.1	@	.00	.00	.00	.00	.00	.04	.13	.27	.49	.90	1.34	
Aug	.55	.11	2.42	1983	17	4.05	1983	.00+	1999	2.2	1.0	.3	.1	.00	.00	.00	.00	.05	.15	.30	.54	.92	1.64	2.42	
Sep	.40	.23	2.47	1976	10	2.85	1976	.00+	1994	2.3	1.0	.1	@	.00	.00	.00	.04	.12	.22	.34	.49	.71	1.08	1.46	
Oct	.65	.26	2.10	1986	10	3.13	1987	.00+	1999	3.1	1.5	.4	.1	.00	.00	.05	.13	.23	.36	.53	.76	1.09	1.68	2.29	
Nov	1.24	.97	4.26	1965	23	4.53	1985	.00+	1999	4.4	2.6	.8	.2	.00	.03	.16	.33	.53	.77	1.08	1.48	2.06	3.07	4.09	
Dec	1.80	1.36	2.37+	1967	19	4.45	1978	.03	1981	5.9	4.0	1.0	.3	.09	.19	.40	.64	.91	1.24	1.65	2.17	2.90	4.16	5.41	
Ann	15.58	13.29	4.26	Nov 1965	23	18.61	Jan 1993	.00+	Jul 2000	50.1	30.6	10.1	3.2	6.07	7.52	9.57	11.27	12.89	14.53	16.30	18.36	20.97	24.97	28.62	

+ 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

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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	.3	1975	30	.3	1975	#	1974	1	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Feb	#	.0	#	0	#	1990	14	#+	1990	3	1987	24	#	1987	.0	.0	.0	.0	.0	.0	@	@	.0	.0
Mar	#	.0	0	0	#	1984	27	#+	1984	#+	1976	3	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Apr	.0	.0	#	0	.0	0	0	.0	0	4	1999	2	#	1999	.0	.0	.0	.0	.0	.0	.1	@	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1976	.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	#	1975	28	#	1975	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Dec	.1	.0	0	0	2.0	1982	30	2.0	1982	#	1975	31	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Ann	.1	.0	N/A	N/A	2.0	Dec 1982	30	2.0	Dec 1982	4	Apr 1999	2	#+	Apr 1999	.0	.0	.0	.0	.0	.0	.1	.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	7/13	7/04	6/27	6/21	6/15	6/10	6/04	5/28	5/18
32	6/16	6/06	5/29	5/22	5/16	5/10	5/04	4/26	4/16
28	5/08	4/24	4/15	4/07	3/30	3/22	3/14	3/04	2/19
24	4/10	3/25	3/15	3/05	2/24	2/16	2/06	1/26	1/11
20	2/21	2/03	1/21	1/08	12/25	12/04	0/00	0/00	0/00
16	1/26	12/11	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	8/20	8/31	9/08	9/14	9/21	9/27	10/03	10/11	10/22
32	9/20	9/29	10/05	10/11	10/16	10/22	10/27	11/03	11/12
28	10/20	10/27	11/01	11/05	11/09	11/13	11/18	11/23	11/30
24	11/05	11/14	11/21	11/27	12/02	12/07	12/13	12/20	12/29
20	11/20	12/03	12/13	12/23	1/02	1/15	0/00	0/00	0/00
16	12/30	2/15	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	139	125	114	105	97	88	79	69	54
32	199	183	171	161	152	143	133	122	106
28	268	253	242	233	224	215	205	194	179
24	340	317	302	290	279	268	256	242	224
20	>365	>365	>365	>365	>365	>365	339	314	289
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

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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
65	522	440	438	319	198	69	9	10	42	170	381	535	3133
60	367	301	291	193	104	21	0	0	11	76	242	381	1987
57	279	222	211	135	61	8	0	0	3	40	169	294	1422
55	222	173	164	102	40	4	0	0	1	23	128	239	1096
50	106	78	76	39	11	0	0	0	0	4	52	124	490
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
32	501	484	586	681	859	1020	1249	1271	1101	886	610	488	9736
55	10	13	36	93	186	334	536	558	412	196	48	14	2436
57	5	6	21	66	145	278	474	496	354	151	29	8	2033
60	0	1	9	34	94	201	381	403	272	94	12	1	1502
65	0	0	0	10	34	99	234	257	153	33	1	0	821
70	0	0	0	1	9	34	114	135	70	7	0	0	370

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	270	283	348	449	620	788	1006	1034	871	649	381	253	270	553	901	1350	1970	2758	3764	4798	5669	6318	6699	6952
45	137	151	206	300	465	638	851	879	721	494	237	128	137	288	494	794	1259	1897	2748	3627	4348	4842	5079	5207
50	54	60	94	169	312	488	696	724	571	343	122	47	54	114	208	377	689	1177	1873	2597	3168	3511	3633	3680
55	11	16	29	72	171	338	541	569	422	203	48	5	11	27	56	128	299	637	1178	1747	2169	2372	2420	2425
60	0	0	0	20	73	201	386	415	274	93	7	0	0	0	0	20	93	294	680	1095	1369	1462	1469	1469
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	198	220	261	337	430	511	613	628	548	448	299	211	198	418	679	1016	1446	1957	2570	3198	3746	4194	4493	4704

(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 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.

- a. Temperature/ Precipitation Tables
 1. 1971-2000 Monthly Normals
 2. Cooperative Summary of the Day
 3. National Weather Service station records
 4. 1971-2000 serially complete daily data
- b. Degree Day Table
 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data
- c. Snow Tables
 1. Snow Climatology
 2. Cooperative Summary of the Day
- d. 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