

# Climatology of the United States

## No. 20

### 1971-2000

**Station: TORRANCE, CA**

**COOP ID: 048973**

**Climate Division: CA 6**

**NWS Call Sign: TOA**

**Elevation: 110 Feet**

**Lat: 33°48N**

**Lon: 118°20W**

### 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	66.4	46.2	56.3	89	1976	16	61.1	1986	25	1949	4	53.0	1979	272	1	.0	.0	31.0	.0	.2	.0
Feb	67.2	47.5	57.4	92	1954	23	61.4	1977	28	1956	17	53.3	1979	218	4	.0	.0	28.1	.0	.0	.0
Mar	67.7	48.8	58.3	96	1988	26	62.8	1988	32	1989	3	54.8	1991	217	7	.0	.1	31.0	.0	@	.0
Apr	70.6	51.1	60.9	104	1989	6	65.8	1992	28	1956	6	55.3	1975	149	23	.1	.4	30.0	.0	.0	.0
May	71.7	54.7	63.2	100	1979	13	67.9	1997	39+	1964	3	60.1	1975	100	44	@	.3	31.0	.0	.0	.0
Jun	74.7	57.8	66.3	104	1981	16	71.6	1981	42	1992	13	62.9	1982	45	82	.1	.9	30.0	.0	.0	.0
Jul	77.6	61.1	69.4	102	1985	1	72.9	1985	43	1965	23	66.3	1987	10	143	.1	.7	31.0	.0	.0	.0
Aug	78.7	62.0	70.4	101	1983	6	74.4	1983	51+	1989	31	66.4	1975	15	181	@	1.4	31.0	.0	.0	.0
Sep	77.9	61.1	69.5	111	1955	1	76.6	1984	43	1954	22	65.2	1986	22	158	.2	2.2	30.0	.0	.0	.0
Oct	75.3	56.7	66.0	106	1961	15	69.1	1983	37+	1971	30	62.7	1996	44	75	.1	1.6	31.0	.0	.0	.0
Nov	70.5	50.1	60.3	98+	1966	1	65.6	1976	32	1958	17	55.3	1994	163	21	.0	.3	30.0	.0	.0	.0
Dec	66.8	46.0	56.4	94	1958	3	59.7	1977	27+	1990	23	51.5	1971	271	3	.0	@	31.0	.0	.2	.0
Ann	72.1	53.6	62.9	111	Sep 1955	1	76.6	Sep 1984	25	Jan 1949	4	51.5	Dec 1971	1526	742	.6	7.9	365.1	.0	.4	.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: 1949-2001

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

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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	3.60	2.25	6.53	1956	26	16.92	1995	.00+	1976	7.0	5.0	2.3	1.1	.00	.11	.53	1.02	1.61	2.32	3.20	4.33	5.96	8.75	11.57	
Feb	3.22	2.57	3.60	1963	10	13.08	1998	.03	1984	6.2	4.5	2.3	1.2	.08	.19	.50	.88	1.37	1.97	2.74	3.77	5.27	7.90	10.59	
Mar	2.79	2.57	3.04	1983	1	8.90	1983	.00+	1997	6.3	4.4	1.9	.7	.00	.10	.43	.82	1.28	1.83	2.50	3.37	4.60	6.73	8.86	
Apr	.73	.45	1.47	1988	20	3.09	1983	.00+	1997	2.8	1.7	.5	.1	.00	.00	.00	.00	.24	.44	.67	.95	1.32	1.93	2.52	
May	.26	.00	2.18	1977	8	3.48	1977	.00+	2000	1.1	.5	.2	@	.00	.00	.00	.00	.00	.00	.01	.08	.29	.71	1.30	
Jun	.08	.00	.65	1999	2	.76	1999	.00+	2000	.4	.2	.1	.0	.00	.00	.00	.00	.00	.00	.00	.00	.05	.28	.54	
Jul	.04	.00	.57	1997	22	.57	1997	.00+	2000	.3	.1	@	.0	.00	.00	.00	.00	.00	.00	.00	.00	.02	.12	.24	
Aug	.13	.00	2.80	1977	17	3.08	1977	.00+	2000	.3	.2	@	@	**	**	**	**	**	**	**	**	**	**	**	
Sep	.23	.02	1.20	1986	25	1.67	1976	.00+	1999	1.2	.6	.1	.1	.00	.00	.00	.00	.00	.00	.05	.17	.37	.75	1.16	
Oct	.48	.15	1.94	2000	27	2.59	1987	.00+	1999	2.2	1.0	.2	.1	.00	.00	.00	.02	.09	.20	.34	.53	.83	1.36	1.91	
Nov	1.24	.87	4.60	1970	29	5.98	1985	.00+	2000	3.2	2.1	1.0	.3	.00	.00	.07	.22	.42	.68	1.01	1.46	2.12	3.25	4.43	
Dec	1.99	.98	3.47	1965	29	7.24	1971	.00+	2000	4.9	3.1	1.2	.6	.00	.04	.24	.50	.81	1.21	1.70	2.36	3.30	4.96	6.64	
Ann	14.79	13.06	6.53	Jan 1956	26	16.92	Jan 1995	.00+	Dec 2000	35.9	23.4	9.8	4.2	4.98	6.38	8.43	10.16	11.82	13.54	15.41	17.60	20.41	24.76	28.77	

+ 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: 1949-2001

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

Complete documentation available from:  
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Lat: 33°48N

Lon: 118°20W

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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<b>Freeze Data</b>									
<b>Spring Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of later date in spring (thru Jul 31) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	2/26	2/08	1/25	1/12	12/27	11/29	0/00	0/00	0/00
<b>32</b>	1/15	12/21	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>28</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>24</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>20</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>16</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>Fall Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of earlier date in fall (beginning Aug 1) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	12/04	12/15	12/25	1/03	1/15	0/00	0/00	0/00	0/00
<b>32</b>	12/29	2/04	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>28</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>24</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>20</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>16</b>	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>Freeze Free Period</b>									
<b>Temp (F)</b>	<b>Probability of longer than indicated freeze free period (Days)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	>365	>365	>365	>365	>365	>365	358	335	314
<b>32</b>	>365	>365	>365	>365	>365	>365	>365	>365	>365
<b>28</b>	>365	>365	>365	>365	>365	>365	>365	>365	>365
<b>24</b>	>365	>365	>365	>365	>365	>365	>365	>365	>365
<b>20</b>	>365	>365	>365	>365	>365	>365	>365	>365	>365
<b>16</b>	>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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Lon: 118° 20W

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	272	218	217	149	100	45	10	15	22	44	163	271	1526
60	135	100	97	61	29	7	0	1	4	7	70	138	649
57	75	54	49	26	10	1	0	0	0	1	34	80	330
55	45	29	26	13	4	0	0	0	0	0	19	50	186
50	7	4	4	1	0	0	0	0	0	0	3	9	28
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	752	710	813	864	968	1027	1157	1189	1125	1054	848	755	11262
55	84	95	126	188	259	337	444	476	435	341	177	92	3054
57	52	63	87	141	202	279	382	414	375	280	133	60	2468
60	19	26	42	85	128	195	289	322	289	193	79	25	1692
65	1	4	7	23	44	82	143	181	158	75	21	3	742
70	0	0	0	4	8	19	44	79	68	15	3	0	240

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	515	517	578	637	734	808	931	966	912	831	631	524	515	1032	1610	2247	2981	3789	4720	5686	6598	7429	8060	8584
45	360	372	423	487	579	658	776	811	762	676	481	370	360	732	1155	1642	2221	2879	3655	4466	5228	5904	6385	6755
50	210	227	269	337	424	508	621	656	612	521	331	220	210	437	706	1043	1467	1975	2596	3252	3864	4385	4716	4936
55	87	98	126	192	269	358	466	501	462	367	182	92	87	185	311	503	772	1130	1596	2097	2559	2926	3108	3200
60	23	27	34	72	123	208	311	346	312	214	70	23	23	50	84	156	279	487	798	1144	1456	1670	1740	1763
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	277	272	304	351	426	502	615	650	600	511	353	287	277	549	853	1204	1630	2132	2747	3397	3997	4508	4861	5148

(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:

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## 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.

- 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](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)