

Climatology of the United States No. 20

Station: LOS ANGELES DOWNTOWN USC, CA

1971-2000

COOP ID: 045115

Climate Division: CA 6

NWS Call Sign: CQT

Elevation: 185 Feet

Lat: 34°02N

Lon: 118°18W

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	68.1	48.5	58.3	95	1971	18	65.2	1986	28	1949	4	52.6	1979	207	15	.0	.1	30.9	.0	@	.0
Feb	69.6	50.3	60.0	95	1995	20	65.3	1995	34+	1989	6	54.3	1979	149	23	.0	.3	28.2	.0	.0	.0
Mar	69.8	51.6	60.7	98	1988	26	65.1	1997	35	1976	4	55.1	1975	144	26	.0	.4	31.0	.0	.0	.0
Apr	73.1	54.4	63.8	106	1989	6	69.0	1992	39	1975	7	55.5	1975	83	58	.1	1.2	30.0	.0	.0	.0
May	74.5	57.9	66.2	102	1967	16	72.7	1997	46	1964	7	61.4	1977	36	84	.1	1.3	31.0	.0	.0	.0
Jun	79.5	61.4	70.5	112	1990	26	77.0	1981	50+	1953	2	64.9	1982	5	178	.5	2.5	30.0	.0	.0	.0
Jul	83.8	64.6	74.2	107	1985	1	78.8	1985	54	1952	1	70.4	1987	0	295	.4	4.3	31.0	.0	.0	.0
Aug	84.8	65.6	75.2	105	1983	6	80.5	1994	56+	1976	12	71.2	1976	0	325	.4	6.1	31.0	.0	.0	.0
Sep	83.3	64.6	74.0	110+	1988	4	80.9	1984	51	1948	26	68.4	1986	1	281	1.0	6.4	30.0	.0	.0	.0
Oct	79.0	59.9	69.5	108+	1987	4	73.7	1983	41	1971	30	65.1	2000	11	164	.4	3.4	31.0	.0	.0	.0
Nov	73.2	52.6	62.9	100	1966	1	67.1	1995	38	1978	12	57.9	1978	91	44	.0	.9	30.0	.0	.0	.0
Dec	68.7	48.3	58.5	91	1979	4	63.1	1980	30	1978	8	52.2	1971	201	13	.0	@	31.0	.0	.1	.0
Ann	75.6	56.6	66.2	112	Jun 1990	26	80.9	Sep 1984	28	Jan 1949	4	52.2	Dec 1971	928	1506	2.9	26.9	365.1	.0	.1	.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

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

Climatography of the United States

No. 20 1971-2000

Station: LOS ANGELES DOWNTOWN USC, CA

COOP ID: 045115

Climate Division: CA 6

NWS Call Sign: CQT

Elevation: 185 Feet Lat: 34°02N

Lon: 118°18W

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	3.33	1.94	5.71	1956	26	12.56	1995	.00+	1976	6.5	4.6	2.1	1.1	.00	.10	.49	.95	1.49	2.15	2.96	4.01	5.51	8.10	10.70
Feb	3.68	2.95	3.03	1980	16	13.68	1998	.00	1984	6.0	4.8	2.7	1.3	.03	.18	.55	1.02	1.60	2.30	3.19	4.37	6.06	9.01	12.01
Mar	3.14	2.72	3.42	1983	1	8.37	1983	.00+	1997	6.4	4.7	2.5	.9	.00	.22	.71	1.19	1.72	2.31	3.01	3.88	5.08	7.10	9.08
Apr	.83	.52	1.90	1956	12	5.16	1983	.00+	1997	3.0	1.8	.5	.2	.00	.00	.00	.06	.20	.39	.63	.96	1.44	2.30	3.17
May	.31	.04	2.02	1977	8	3.10	1998	.00+	2000	1.3	.6	.2	.1	.00	.00	.00	.00	.00	.03	.09	.23	.47	.91	1.47
Jun	.06	.00	.76	1993	5	.76	1993	.00+	2000	.6	.2	@	.0	.00	.00	.00	.00	.00	.00	.00	.00	.03	.17	.33
Jul	.01	.00	.13	1991	8	.18	1986	.00+	2000	.3	.1	.0	.0	**	**	**	**	**	**	**	**	**	**	**
Aug	.13	.00	2.06	1977	17	2.26	1977	.00+	1999	.5	.2	@	@	.00	.00	.00	.00	.00	.00	.00	.00	.05	.38	.74
Sep	.32	.02	1.95	1986	24	2.82	1976	.00+	1999	1.2	.6	.1	.1	.00	.00	.00	.00	.00	.00	.06	.19	.47	1.03	1.68
Oct	.37	.22	1.39	1987	31	2.37	1987	.00+	1999	2.0	.9	.2	.1	.00	.00	.00	.04	.13	.22	.33	.47	.66	.98	1.29
Nov	1.05	.64	3.85	1966	7	4.41	1982	.00+	2000	3.1	2.1	.7	.2	.00	.00	.05	.21	.40	.63	.91	1.28	1.80	2.68	3.59
Dec	1.91	1.20	3.84	1965	29	6.57	1971	.00+	2000	4.3	3.0	1.3	.5	.00	.00	.34	.66	.99	1.37	1.82	2.38	3.15	4.44	5.72
Ann	15.14	12.49	5.71	Jan 1956	26	13.68	Feb 1998	.00+	Dec 2000	35.2	23.6	10.3	4.5	5.05	6.48	8.59	10.37	12.09	13.86	15.80	18.06	20.96	25.47	29.63

+ 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

Climatography of the United States

No. 20 1971-2000

Station: LOS ANGELES DOWNTOWN USC, CA

COOP ID: 045115

Climate Division: CA 6

NWS Call Sign: CQT

Elevation: 185 Feet

Lat: 34°02N

Lon: 118°18W

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

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Climatography of the United States No. 20 1971-2000

Station: LOS ANGELES DOWNTOWN USC, CA

COOP ID: 045115

Climate Division: CA 6

NWS Call Sign: CQT

Elevation: 185 Feet

Lat: 34° 02N

Lon: 118° 18W

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	1/29	1/06	0/00	0/00	0/00	0/00	0/00	0/00	0/00
32	0/00	0/00	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	12/21	1/04	0/00	0/00	0/00	0/00	0/00	0/00	0/00
32	0/00	0/00	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	>365	>365	>365
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:

www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Climatology of the United States

No. 20 1971-2000

Station: LOS ANGELES DOWNTOWN USC, CA

COOP ID: 045115

Climate Division: CA 6

NWS Call Sign: CQT

Elevation: 185 Feet

Lat: 34°02N

Lon: 118°18W

Degree Days to Selected Base Temperatures (°F)

Base	Heating Degree Days (1)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Below 65	207	149	144	83	36	5	0	0	1	11	91	201	928
60	113	83	86	47	21	4	0	0	0	2	45	115	516
57	66	45	46	23	9	0	0	0	0	0	21	69	279
55	40	27	28	14	4	0	0	0	0	0	11	43	167
50	9	7	7	2	0	0	0	0	0	0	2	11	38
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Cooling Degree Days (1)

Base	Cooling Degree Days (1)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Above 32	831	795	904	964	1074	1165	1316	1347	1269	1171	939	835	12610
55	141	164	200	278	361	475	603	634	579	458	252	145	4290
57	99	120	149	222	299	415	541	572	519	396	197	101	3630
60	53	68	85	147	209	325	448	479	429	305	124	51	2723
65	15	23	26	58	84	178	295	325	281	164	44	13	1506
70	2	5	6	18	25	69	142	172	144	59	11	1	654

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	592	599	665	735	834	926	1076	1110	1042	932	706	595	592	1191	1856	2591	3425	4351	5427	6537	7579	8511	9217	9812
45	437	454	510	585	679	776	921	955	892	777	556	440	437	891	1401	1986	2665	3441	4362	5317	6209	6986	7542	7982
50	282	310	356	436	524	626	766	800	742	622	406	289	282	592	948	1384	1908	2534	3300	4100	4842	5464	5870	6159
55	149	175	206	288	369	476	611	645	592	467	263	152	149	324	530	818	1187	1663	2274	2919	3511	3978	4241	4393
60	53	72	92	153	215	326	456	490	442	313	134	58	53	125	217	370	585	911	1367	1857	2299	2612	2746	2804
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	320	326	368	433	516	613	746	768	705	609	415	323	320	646	1014	1447	1963	2576	3322	4090	4795	5404	5819	6142

(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