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: DONNER MEMORIAL ST PK, CA

2000 COOP ID: 042467

Climate Division: CA 3 NWS Call Sign: Elevation: 5,937 Feet Lat: 39°19N Lon: 120°14W

									r	Гетр	eratur	re (°F)											
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 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	39.6	14.4	27.0	61+	1976	29	34.7	1986	-18	1957	29	21.1	1982	1179	0	.0	.0	3.9	5.0	30.6	2.5		
Feb	42.1	16.5	29.3	65+	1986	28	36.8	1991	-28	1962	27	22.4	1990	1001	0	.0	.0	7.6	3.1	27.9	1.7		
Mar	45.1	21.2	33.2	71	1966	31	37.6	1986	-10	1955	1	27.2	1977	987	0	.0	.0	12.4	2.0	29.8	.3		
Apr	51.7	25.4	38.6	79	1981	30	44.9	1987	0+	1975	7	28.8	1975	794	0	.0	.0	19.8	.4	27.2	@		
May	60.8	31.2	46.0	87+	1986	31	52.6	1992	10	1974	18	39.1	1977	589	0	.0	.0	26.5	.0	19.6	.0		
Jun	71.1	36.9	54.0	95	1985	18	59.1	2000	21	1966	3	48.9	1980	335	4	.0	.4	29.4	.0	6.8	.0		
Jul	79.3	41.1	60.2	98	1972	16	64.3	1996	23	1974	11	55.3	1983	167	18	.0	2.2	30.9	.0	1.9	.0		
Aug	79.2	40.5	59.9	99	1981	9	63.1	1981	20	1974	14	54.0	1976	183	19	.0	2.1	31.0	.0	2.1	.0		
Sep	72.2	35.0	53.6	96	1955	3	57.3	1981	16	1974	28	48.8	1985	344	3	.0	.3	29.5	.0	10.4	.0		
Oct	61.6	28.1	44.9	90	1980	2	50.7	1988	4	1956	24	39.1	1971	625	0	.0	@	26.4	.1	25.7	.0		
Nov	47.4	21.4	34.4	75+	1976	5	41.7	1995	0+	1994	19	26.2	1994	917	0	.0	.0	13.8	1.5	28.7	.1		
Dec	39.7	15.3	27.5	67	1958	4	33.8	1981	-31	1965	25	20.7	1990	1163	0	.0	.0	4.8	5.2	30.4	1.9		
Ann	57.5	27.3	42.4	99	Aug 1981	9	64.3	Jul 1996	-31	Dec 1965	25	20.7	Dec 1990	8284	44	.0	5.0	236.0	17.3	241.1	6.5		

⁺ Also occurred on an earlier date(s)

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 059-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1953-2001

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

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Climate Division: CA 3 NWS Call Sign: Elevation: 5,937 Feet Lat: 39°19N Lon: 120°14W

		Precipitation (inches)																									
	Mea Medi		P	recipi	itatio	n Total					ean N of D	ays (3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount 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	6.89	6.00	4.10	1964	21	19.79	1997	.16	1991	10.7	8.5	4.3	2.4	.47	.90	1.77	2.72	3.77	5.00	6.48	8.36	10.98	15.40	19.78			
Feb	6.72	5.57	6.81	1963	1	16.41	1986	.02	1988	10.8	8.5	4.3	2.5	.65	1.13	2.04	2.98	3.99	5.14	6.50	8.20	10.53	14.40	18.20			
Mar	5.83	4.43	4.56	1995	11	20.89	1995	.46	1988	11.3	8.5	3.9	1.8	.69	1.15	1.96	2.78	3.64	4.60	5.73	7.12	9.01	12.12	15.14			
Apr	2.50	2.20	3.33	1958	3	8.79	1982	.02	1985	8.4	5.4	1.5	.4	.17	.33	.64	.98	1.37	1.81	2.34	3.02	3.97	5.57	7.16			
May	1.55	1.22	2.42	1957	19	4.91	1996	.00+	1985	6.1	3.9	.8	.2	.00	.21	.51	.76	1.01	1.27	1.58	1.94	2.43	3.23	4.00			
Jun	.76	.62	1.35	1970	27	2.45	1997	.00+	1994	3.5	2.3	.4	.0	.00	.10	.24	.36	.49	.62	.77	.95	1.20	1.60	1.99			
Jul	.47	.26	2.47	1974	9	3.93	1974	.00+	2000	1.8	1.0	.2	.1	.00	.00	.00	.05	.12	.22	.36	.54	.81	1.29	1.78			
Aug	.59	.22	1.85	1976	15	3.09	1976	.00+	1994	2.5	1.4	.3	.1	.00	.00	.02	.08	.17	.29	.45	.67	1.00	1.60	2.22			
Sep	1.11	.63	1.55	1998	6	4.93	1982	.00+	1995	3.8	2.3	.7	.2	.00	.00	.13	.29	.47	.70	.98	1.35	1.86	2.76	3.66			
Oct	2.18	1.72	4.00	1962	13	7.31	1975	.00+	1995	5.1	3.6	1.4	.7	.00	.00	.23	.58	.97	1.43	1.98	2.69	3.69	5.35	7.01			
Nov	4.92	2.98	3.31	1983	11	16.65	1981	.43	1992	8.8	6.7	3.0	1.5	.40	.73	1.38	2.06	2.81	3.66	4.69	5.98	7.77	10.76	13.71			
Dec	5.48	3.76	6.50	1964	23	20.20	1996	.00	1989	9.5	7.4	3.6	1.7	.15	.53	1.27	2.05	2.93	3.94	5.15	6.69	8.83	12.44	16.01			
Ann	39.00	36.85	6.81	Feb 1963	1	20.89	Mar 1995	.00+	Jul 2000	82.3	59.5	24.4	11.6	18.63	21.99	26.61	30.34	33.78	37.24	40.92	45.12	50.38	58.32	65.45			

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1953-2001

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Climate Division: CA 3 NWS Call Sign: Elevation: 5,937 Feet Lat: 39°19N Lon: 120°14W

										Snov	w (incl	hes)														
						Sno	ow To	tals							Mean Number of Days (1)											
	Mean	s/Medi	ans (1)	1					Extre	mes (2)				ow Fa	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	39.7	39.0	21	17	26.0	1997	23	79.9	1996	78	1971	15	60	1993	7.7	6.5	4.5	3.1	1.4	25.9	24.0	23.5	20.5			
Feb	46.4	43.5	28	29	25.0	1975	10	103.0	1975	94	1993	24	61	1993	8.3	7.0	4.6	3.1	1.5	-9.9	-9.9	-9.9	-9.9			
Mar	30.3	23.9	25	25	24.2	1985	27	100.8	1982	76	1993	1	55	1983	7.7	5.9	3.6	2.4	1.1	-9.9	-9.9	-9.9	-9.9			
Apr	16.4	8.4	12	4	27.0	1975	5	56.2	1982	77	1975	5	55	1975	4.5	3.4	1.9	1.0	.4	9.8	8.5	7.7	6.1			
May	4.5	3.0	2	#	8.2	1991	9	19.0	1977	46	1983	6	24	1983	1.9	1.4	.6	.2	.0	2.1	1.5	1.0	.8			
Jun	.5	.0	#	0	4.0	1995	16	4.0	1995	4	1995	16	#+	1999	.4	.2	@	.0	.0	.2	@	.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	1	1978	7	#	1978	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Sep	.3	.0	#	0	4.0	1971	30	4.0	1971	4	1971	30	#	1971	.1	.1	@	.0	.0	@	@	.0	.0			
Oct	2.4	.0	#	#	11.0	1981	29	12.8	1981	12	1981	29	1+	2000	.9	.6	.2	.1	@	1.0	.3	.2	@			
Nov	14.4	11.0	2	1	23.0	1985	10	51.6	1994	32	1994	26	11	1985	4.7	3.8	2.0	1.1	.2	8.5	6.5	4.5	2.2			
Dec	29.8	20.0	10	8	48.0	1996	22	104.9	1992	62	1992	30	23	1982	6.1	5.2	3.1	2.3	.9	19.4	17.4	14.6	9.2			
Ann	184.7	148.8	N/A	N/A	48.0	Dec 1996	22	104.9	Dec 1992	94	Feb 1993	24	61	Feb 1993	42.3	34.1	20.5	13.3	5.5	-9.9	-9.9	-9.9	-9.9			

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[@] 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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Station: DONNER MEMORIAL ST PK, CA

Climate Division: CA 3 NWS Call Sign:

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 8/02 7/29 7/26 7/23 7/20 7/18 7/15 7/12 7/08 32 7/24 7/18 7/13 7/09 7/02 7/06 6/28 6/24 6/17 28 7/09 7/01 6/25 6/20 6/16 6/11 6/06 5/31 5/23 5/25 4/18 24 6/02 5/20 5/15 5/11 5/06 5/02 4/26 20 5/07 5/02 4/28 4/25 4/22 4/19 4/16 4/12 4/07 4/03 16 5/05 4/26 4/19 4/13 4/08 3/28 3/21 3/12 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 8/01 8/04 8/07 8/09 8/11 8/14 8/16 8/18 8/22 32 8/10 8/16 8/20 8/24 8/28 8/31 9/04 9/08 9/14 28 8/28 9/04 9/09 9/14 9/18 9/22 9/26 10/01 10/09 24 9/16 9/24 10/01 10/06 10/11 10/16 10/21 10/28 11/05 20 10/02 10/10 10/16 10/21 10/26 10/31 11/05 11/10 11/18 10/25 11/04 11/08 11/29 16 10/18 10/30 11/12 11/16 11/21 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 40 34 29 25 21 18 14 9 3 36 32 84 73 65 58 52 46 39 31 20 73 28 125 114 106 100 93 87 81 62 24 192 178 169 160 153 145 137 127 113 173 155 20 217 206 199 192 186 180 166 238 16 251 228 221 213 206 198 188 175

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 do

Complete documentation available from:

Elevation: 5,937 Feet

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1179	1001	987	794	589	335	167	183	344	625	917	1163	8284		
60	1024	861	832	644	437	203	69	83	209	471	767	1008	6608		
57	931	777	739	555	351	139	31	42	142	381	677	915	5680		
55	869	721	677	498	295	103	16	24	105	324	617	853	5102		
50	714	581	524	360	176	40	2	4	39	197	470	698	3805		
32	205	132	98	44	5	0	0	0	0	5	80	197	766		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	48	55	133	240	439	659	874	859	648	403	153	57	4568		
55	0	0	0	4	16	73	178	170	63	9	0	0	513		
57	0	0	0	1	10	48	131	126	40	4	0	0	360		
60	0	0	0	0	3	22	76	74	18	1	0	0	194		
65	0	0	0	0	0	4	18	19	3	0	0	0	44		
70	0	0	0	0	0	0	2	3	0	0	0	0	5		

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	0	20	85	244	450	651	638	433	201	33	0	0	0	20	105	349	799	1450	2088	2521	2722	2755	2755					
45	0	0	0	27	133	305	496	483	292	95	5	0	0	0	0	27	160	465	961	1444	1736	1831	1836	1836					
50	0	0	0	3	55	181	346	328	164	34	0	0	0	0	0	3	58	239	585	913	1077	1111	1111	1111					
55	0	0	0	0	13	82	199	185	67	5	0	0	0	0	0	0	13	95	294	479	546	551	551	551					
60	0	0	0	0	1	24	86	72	15	0	0	0	0	0	0	0	1	25	111	183	198	198	198	198					
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)							
50/86	1	20	39	103	217	346	473	470	363	219	60	6	1	21	60	163	380	726	1199	1669	2032	2251	2311	2317					

(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

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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/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

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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