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

COOP ID: 048892

Station: THERMAL RGNL AP, CA

Climate Division: CA 7 NWS Call Sign: TRM Elevation: -112 Feet Lat: 33°38N Lon: 116°10W

									ŗ	Гетр	eratui	re (°F)									
	Mean (1)							Extr	emes				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	71.2	38.8	55.0	92+	1971	19	60.5	1986	17	1972	5	49.6	1979	315	5	.0	.1	30.9	.0	6.3	.0
Feb	75.9	43.2	59.6	100	1986	27	64.1	1991	20+	1990	15	55.1	1994	170	16	@	.7	28.0	@	1.9	.0
Mar	81.1	48.4	64.8	102+	1988	26	71.7	1972	26	1971	3	59.9	1991	100	93	.1	3.9	31.0	.0	.3	.0
Apr	88.4	54.8	71.6	110	1989	8	77.7	1989	32	1999	10	64.4	1975	24	221	2.0	12.1	30.0	.0	@	.0
May	95.3	62.3	78.8	116	1983	28	83.3	1984	41	1951	15	73.3	1977	1	429	7.0	22.5	31.0	.0	.0	.0
Jun	104.3	69.1	86.7	122+	1990	26	90.9	1981	51+	1999	6	83.1	1995	0	651	21.4	28.7	30.0	.0	.0	.0
Jul	107.5	74.9	91.2	126	1995	28	93.5	1989	57	1994	6	86.5	1993	0	811	29.3	31.0	31.0	.0	.0	.0
Aug	105.6	74.5	90.1	121	1997	5	93.2	1986	52+	1999	31	87.0	1993	0	777	27.2	30.7	31.0	.0	.0	.0
Sep	100.6	68.3	84.5	123	1950	1	88.5	1984	48	1993	25	79.6	1985	0	583	17.3	28.2	30.0	.0	.0	.0
Oct	90.5	56.5	73.5	114	1980	2	78.5	1988	28	1971	30	67.1	1971	15	279	4.1	17.6	31.0	.0	.1	.0
Nov	78.4	43.5	61.0	98+	1997	2	65.8	1995	24+	1994	29	51.7	1994	169	48	.0	1.9	30.0	.0	1.8	.0
Dec	70.6	37.2	53.9	93	1958	3	59.6	1980	14	1990	23	49.5	1992	347	3	.0	@	31.0	.0	7.4	.0
Ann	89.1	56.0	72.6	126	Jul 1995	28	93.5	Jul 1989	14	Dec 1990	23	49.5	Dec 1992	1141	3916	108.4	177.4	364.9	@	17.8	.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 228-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: 1950-2001

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

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										Pı	ecipi	tation	(incl	nes)												
	Mea	ans/	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												
	Medi	ans(1)				Extremes	•			"	any 110	приано	11	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	.72	.32	2.27	1993	16	4.57	1993	.00+	1976	3.5	1.8	.3	.1	.00	.00	.04	.11	.22	.36	.55	.82	1.22	1.94	2.69		
Feb	.63	.26	1.15	1986	15	3.40	1980	.00+	1984	2.7	1.5	.4	.1	.00	.00	.02	.08	.16	.28	.45	.69	1.05	1.73	2.45		
Mar	.43	.15	1.22	1983	2	2.00	1983	.00+	1999	2.3	1.2	.2	@	.00	.00	.00	.00	.07	.19	.33	.52	.78	1.21	1.65		
Apr	.06	.00	.47	1975	9	.50	1975	.00+	2000	.7	.2	.0	.0	.00	.00	.00	.00	.00	.00	.00	.03	.09	.20	.32		
May	.06	.00	.80	1976	7	.80	1976	.00+	2000	.5	.2	@	.0	.00	.00	.00	.00	.00	.00	.00	.01	.06	.20	.35		
Jun	.02	.00	.41	1972	7	.41	1972	.00+	2000	.1	.1	.0	.0	**	**	**	**	**	**	**	**	**	**	**		
Jul	.19	.00	1.92	1979	20	2.01	1979	.00+	2000	.6	.2	.1	.1	.00	.00	.00	.00	.00	.00	.00	.01	.11	.54	1.08		
Aug	.37	.01	2.44	1977	16	3.62	1977	.00+	1999	1.1	.7	.2	.1	.00	.00	.00	.00	.00	.00	.05	.20	.51	1.10	1.88		
Sep	.41	.06	3.23	1976	10	5.24	1976	.00+	1998	1.3	.8	.1	.1	.00	.00	.00	.00	.00	.05	.16	.34	.66	1.28	1.96		
Oct	.14	.01	.89	1963	18	1.53	1987	.00+	1999	1.0	.4	@	.0	.00	.00	.00	.00	.00	.00	.03	.09	.21	.45	.73		
Nov	.21	.04	1.34	1985	25	1.51	1985	.00+	1999	1.2	.5	.1	@	.00	.00	.00	.00	.00	.04	.10	.19	.35	.64	.94		
Dec	.29	.07	1.26	1965	16	1.49	1984	.00+	2000	2.1	.8	.1	@	.00	.00	.00	.00	.04	.09	.18	.30	.49	.84	1.22		
Ann	3.53	3.10	3.23	Sep 1976	10	5.24	Sep 1976	.00+	Dec 2000	17.1	8.4	1.5	.5	.63	.94	1.46	1.94	2.43	2.97	3.57	4.30	5.28	6.86	8.36		

⁺ 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: 1950-2001

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Climate Division: CA 7 NWS Call Sign: TRM Elevation: -112 Feet Lat: 33°38N Lon: 116°10W

										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	#	.0	0	0	#	1979	31	#	1979	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	N/A	N/A	#	Jan 1979	31	#	Jan 1979	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			

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

- (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/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

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COOP ID: 048892

Lon: 116°10W

Lat: 33°38N

Elevation: -112 Feet

Station: THERMAL RGNL AP, CA

Climate Division: CA 7 NWS Call Sign: TRM

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 3/28 3/19 3/12 3/06 3/01 2/24 2/18 2/11 2/02 32 2/19 3/08 2/26 2/12 2/07 2/01 1/25 1/18 1/08 28 2/16 2/06 1/29 1/23 1/16 1/09 12/31 12/15 0/00 12/19 24 1/21 1/09 12/30 12/01 0/00 0/00 0/00 0/00 20 1/11 12/11 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) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 11/01 11/06 11/10 11/13 11/16 11/19 11/23 11/26 12/01 32 11/08 11/16 11/22 11/27 12/02 12/07 12/12 12/18 12/27 28 11/18 11/27 12/04 12/11 12/17 12/23 1/01 1/16 0/00 24 12/01 12/15 12/28 1/11 0/00 0/00 0/00 0/00 0/00 20 12/28 1/25 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 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 290 279 272 266 260 254 247 240 36 230 32 337 324 314 306 298 290 282 272 259 28 >365 349 334 322 310 298 282 >365 >365 24 >365 >365 >365 >365 >365 >365 >365 354 333 20 >365 >365 >365 >365 >365 >365 >365 >365 >365

>365

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

>365

Derived from 1971-2000 serially complete daily data

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Complete documentation available from:

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^{*} 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 l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	315	170	100	24	1	0	0	0	0	15	169	347	1141		
60	180	77	36	5	0	0	0	0	0	3	84	209	594		
57	118	39	17	1	0	0	0	0	0	1	49	140	365		
55	85	21	10	0	0	0	0	0	0	0	32	103	251		
50	25	3	0	0	0	0	0	0	0	0	8	35	71		
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	713	771	1016	1188	1451	1641	1834	1800	1573	1286	869	678	14820		
55	84	148	312	498	738	951	1121	1087	883	573	211	68	6674		
57	56	109	258	439	676	891	1059	1025	823	512	168	43	6059		
60	25	63	184	353	583	801	966	932	733	422	113	19	5194		
65	5	16	93	221	429	651	811	777	583	279	48	3	3916		
70	0	2	34	119	283	501	656	622	433	158	15	0	2823		

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	469	565	760	936	1191	1387	1582	1556	1337	1046	640	438	469	1034	1794	2730	3921	5308	6890	8446	9783	10829	11469	11907				
45	316	420	605	786	1036	1237	1427	1401	1187	891	490	286	316	736	1341	2127	3163	4400	5827	7228	8415	9306	9796	10082				
50	178	283	450	636	881	1087	1272	1246	1037	737	341	152	178	461	911	1547	2428	3515	4787	6033	7070	7807	8148	8300				
55	73	151	300	486	726	937	1117	1091	887	583	204	51	73	224	524	1010	1736	2673	3790	4881	5768	6351	6555	6606				
60	17	60	165	339	571	787	962	936	737	429	97	8	17	77	242	581	1152	1939	2901	3837	4574	5003	5100	5108				
Base		•	•	Gro	wing De	gree Unit	s for Co	rn (Mont	thly)	•					Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)	•					
50/86	335	378	492	589	747	831	953	946	822	658	438	330	335	713	1205	1794	2541	3372	4325	5271	6093	6751	7189	7519				

(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