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: 047253

Lon: 117°39W

Station: RANDSBURG, CA

Climate Division: CA 7

NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 54.2 34.4 44.3 89 1976 25 49.8 1986 10 1949 4 38.3 1979 643 0 .0 .0 22.3 .1 8.3 Jan 58.6 37.1 47.9 80 1986 26 54.4 1991 16 1949 14 43.1 +1998 481 0 .0 .0 23.7 .1 4.6 0. Feb Mar 63.8 39.3 51.6 88 1966 31 59.4 1972 16 1977 28 44.3 1973 430 13 .0 .0 29.5 .0 3.2 0. 44.4 94 25 1975 Apr 71.9 58.2 1981 30 66.6 1989 1976 16 49.6 255 49 .0. .4 29.8 .0 .7 .0 May 81.3 52.1 66.7 103+ 1951 26 75.2 1997 30 1965 7 57.8 1998 109 162 .2 5.8 31.0 .0 0. .0 1973 39 2 70.8 4.2 19.5 Jun 91.4 60.9 76.2 111 8 81.8 1981 1983 1998 7 342 30.0 .0 .0 .0 Jul 97.7 66.5 82.1 1984 5 85.9 49 1987 18 77.3 1987 529 11.8 29.0 31.0 0. 111+1996 0 .0 .0 96.0 65.4 80.7 110 +1981 8 84.8 1996 49 +1976 16 75.0 1976 0 486 8.3 26.8 31.0 .0 .0 .0 Aug 2 11 Sep 88.3 59.9 74.1 107 +1950 78.8 1979 40 1948 26 67.0 1986 284 1.0 14.5 30.0 .0 .0 .0 27 57.0 1984 144 94 Oct 76.2 50.6 63.4 98 1980 1 70.5 1988 1971 29 .0 2.1 30.9 .0 .2 .0 62.4 40.3 51.4 83 1988 3 59.7 1995 12 1975 29 43.8 1994 415 .0 .0 28.2 .0 .0 Nov 6 2.6 Dec 54.3 34.5 44.4 77 1958 4 50.8 1980 9 1990 22 37.4 1984 639 0 .0 .0 22.5 .2 8.6 .0 Jul Jul Dec Dec 74.7 48.8 61.8 111+1984 5 85.9 1996 9 1990 22 37.4 1984 3134 1965 25.5 98.1 339.9 28.2 .0 .4 Ann

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

Issue Date: February 2004 179-A

(1) From the 1971-2000 Monthly Normals

Elevation: 3,570 Feet Lat: 35°22N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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Climate Division: CA 7 NWS Call Sign: Elevation: 3,570 Feet Lat: 35°22N Lon: 117°39W

										Pı	recipit	tation	(incl	nes)												
	Precipitation Totals Means/ Extremes										lean N of D	ays (3	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 11c	cipitatio	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	1.36	.82	2.04	1979	15	6.21	1995	.00+	1984	3.9	2.6	.9	.3	.00	.00	.10	.36	.62	.92	1.27	1.71	2.31	3.30	4.33		
Feb	1.56	.63	2.46	1998	24	7.30	1998	.00+	1985	4.1	2.7	1.1	.5	.00	.00	.05	.21	.44	.76	1.18	1.77	2.64	4.21	5.85		
Mar	1.24	.71	3.43	1983	1	5.00	1983	.00+	1997	4.6	2.8	.7	.3	.00	.00	.07	.23	.44	.70	1.03	1.47	2.11	3.23	4.37		
Apr	.31	.06	1.13	1999	12	1.78	1999	.00+	1996	1.9	.6	.2	@	.00	.00	.00	.00	.02	.08	.17	.31	.53	.94	1.36		
May	.15	.05	.79	1977	9	1.01	1977	.00+	1997	1.3	.4	@	.0	.00	.00	.00	.00	.03	.06	.10	.16	.25	.42	.59		
Jun	.04	.00	.39	1987	6	.46	1987	.00+	1999	.3	.2	.0	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.28		
Jul	.12	.03	.87	1974	23	.95	1984	.00+	2000	.9	.4	.1	.0	.00	.00	.00	.00	.00	.02	.06	.12	.22	.39	.57		
Aug	.23	.01	.80+	1998	12	1.51	1983	.00+	1999	1.1	.6	.1	.0	.00	.00	.00	.00	.00	.01	.07	.18	.37	.75	1.16		
Sep	.27	.02	1.61	1997	26	2.29	1997	.00+	2000	1.2	.7	.1	.1	.00	.00	.00	.00	.00	.01	.09	.22	.45	.87	1.33		
Oct	.33	.02	1.64	1987	31	3.01	1992	.00+	1999	1.2	.7	.1	@	.00	.00	.00	.00	.00	.01	.08	.23	.50	1.06	1.68		
Nov	.45	.21	1.44	1982	9	2.52	1982	.00+	1999	1.6	1.0	.3	.1	.00	.00	.00	.01	.08	.18	.32	.51	.78	1.27	1.77		
Dec	.80	.45	2.13	1965	30	3.63	1984	.00+	1999	2.8	1.9	.4	.1	.00	.00	.01	.10	.23	.39	.62	.92	1.37	2.16	2.98		
Ann	6.86	6.06	3.43	Mar 1983	1	7.30	Feb 1998	.00+	Sep 2000	24.9	14.6	4.0	1.4	1.55	2.19	3.19	4.09	4.99	5.95	7.03	8.31	10.00	12.69	15.22		

⁺ 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: 1948-2001

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

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COOP ID: 047253

Station: RANDSBURG, CA

Climate Division: CA 7 NWS Call Sign: Elevation: 3,570 Feet Lat: 35°22N Lon: 117°39W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	ın Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ans (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	1.0	.0	#	0	4.5	1977	6	8.0	1977	5	1979	31	#+	1993	.3	.3	.2	.0	.0	.1	.0	.0	.0
Feb	.4	.0	#	0	4.0	1983	3	4.0	1983	4	1983	3	#+	1994	.3	.2	@	.0	.0	.1	@	.0	.0
Mar	.4	.0	#	0	6.5	1991	27	9.5	1991	#	1982	17	#	1982	.2	.1	@	@	.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	.2	.0	#	0	3.0	1985	10	3.0	1985	1	1993	14	#+	1993	.1	@	@	.0	.0	@	.0	.0	.0
Dec	.9	.0	0	0	11.0	1987	17	12.5	1987	0	0	0	0	0	.3	.2	.1	@	@	.0	.0	.0	.0
Ann	2.9	.0	N/A	N/A	11.0	Dec 1987	17	12.5	Dec 1987	5	Jan 1979	31	#+	Feb 1994	1.2	.8	.3	@	@	.2	@	.0	.0

⁺ 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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COOP ID: 047253

Lon: 117°39W

Lat: 35°22N

Station: RANDSBURG, CA

Climate Division: CA 7 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 5/08 4/29 4/22 4/16 4/10 4/05 3/30 3/23 3/13 32 3/30 3/09 4/14 4/05 3/25 3/20 3/14 3/03 2/22 28 4/05 3/19 3/06 2/23 2/13 2/03 1/22 1/09 12/19 2/04 1/23 24 3/06 2/17 1/11 12/27 12/01 0/00 0/00 20 2/23 2/01 1/12 12/18 0/00 0/00 0/00 0/00 0/00 0/00 16 12/23 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 11/03 36 10/23 10/29 11/07 11/10 11/14 11/18 11/22 11/28 32 10/31 11/08 11/13 11/18 11/23 11/28 12/03 12/09 12/17 28 11/14 11/24 11/30 12/06 12/11 12/17 12/23 12/30 1/10 24 11/29 12/09 12/17 12/24 1/01 1/11 0/00 0/00 0/00 20 12/11 12/25 1/08 1/29 0/00 0/00 0/00 0/00 0/00 0/00 0/00 0/00 16 1/15 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 .90 246 235 227 220 213 207 200 192 36 181 32 286 273 264 255 248 240 232 223 209 28 347 321 306 295 284 273 261 245 >365 24 >365 >365 >365 >365 >365 364 330 308 284 20 >365 >365 >365 >365 >365 >365 >365 >365 316 16 >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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

Elevation: 3,570 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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Climate Division: CA 7 NWS Call Sign: Elevation: 3,570 Feet Lat: 35°22N Lon: 117°39W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	643	481	430	255	109	7	0	0	11	144	415	639	3134
60	488	344	297	161	53	1	0	0	2	72	283	491	2192
57	401	266	228	115	31	0	0	0	0	43	213	405	1702
55	342	217	189	88	22	0	0	0	0	29	173	350	1410
50	211	116	107	39	7	0	0	0	0	9	92	228	809
32	6	0	0	0	0	0	0	0	0	0	1	14	21

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	386	443	606	784	1076	1325	1552	1509	1264	973	582	398	10898
55	9	16	81	183	385	635	839	796	574	289	64	20	3891
57	6	9	59	149	333	575	777	734	514	241	44	13	3454
60	0	3	34	105	261	486	684	641	426	177	24	7	2848
65	0	0	13	49	162	342	529	486	284	94	6	0	1965
70	0	0	3	20	88	211	374	333	163	40	1	0	1233

			Growing Degree Units (2) Base Growing Degree Units (Monthly) Growing Degree Units (Accumulated Monthly)																						
Base					Growin	g Degree	Units (M	(Ionthly)					Growing Degree Units (Accumulated Monthly)												
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
40	193	270	397	581	862	1114	1333	1286	1054	761	379	198	193	463	860	1441	2303	3417	4750	6036	7090	7851	8230	8428	
45	93	155	258	434	707	964	1178	1131	904	607	244	95	93	248	506	940	1647	2611	3789	4920	5824	6431	6675	6770	
50	30	71	141	295	555	814	1023	976	754	456	136	26	30	101	242	537	1092	1906	2929	3905	4659	5115	5251	5277	
55	1	21	59	179	408	664	868	821	604	310	61	0	1	22	81	260	668	1332	2200	3021	3625	3935	3996	3996	
60	0	0	19	91	268	516	713	666	457	189	18	0	0	0	19	110	378	894	1607	2273	2730	2919	2937	2937	
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	93 144 225 360 552 717 839 820 690 476 202 97												93	237	462	822	1374	2091	2930	3750	4440	4916	5118	5215	

(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