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: 043191

Lon: 123°15W

Station: FORT ROSS, CA

Climate Division: CA 1

NWS Call Sign:

Temperature (°F)

Elevation: 112 Feet Lat: 38°31N

	Doily Doily Highest Lawest																				
	Mea	n (1)						Extr	emes						•		Mean	Numb	er of I	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	56.7	40.5	48.6	78	1962	8	53.0	1998	22	1987	16	44.4	1987	509	0	.0	.0	29.8	.0	3.3	.0
Feb	58.3	42.0	50.2	79	1987	7	53.2	1996	25+	1989	6	45.6	1989	417	0	.0	.0	27.6	@	1.6	.0
Mar	59.1	42.1	50.6	78	1953	7	55.7	1978	26	1977	30	46.2	1976	431	0	.0	.0	30.7	.0	.5	.0
Apr	60.6	42.2	51.4	86	2000	2	54.9	2000	26	1994	26	46.7	1975	409	0	.0	.0	29.9	.0	.5	.0
May	62.6	44.2	53.4	92	1987	6	57.1	1997	30	1982	2	51.2	1974	359	0	.0	.2	31.0	.0	.2	.0
Jun	65.2	46.4	55.8	88+	1995	25	60.4	1981	36+	1976	8	53.8	1975	276	0	.0	.0	30.0	.0	.0	.0
Jul	66.0	47.9	57.0	88	1993	31	59.6	1992	35	1991	10	54.5	1994	249	0	.3	.9	31.0	.0	.0	.0
Aug	67.2	48.8	58.0	85	1968	29	61.6	1997	30	1980	14	55.1	1973	218	1	.1	.9	31.0	.0	@	.0
Sep	67.7	48.1	57.9	97	1950	3	63.1	1997	35	1986	13	54.7	1985	217	4	.0	.1	30.0	.0	.0	.0
Oct	65.9	46.0	56.0	90+	1965	23	58.9	1995	35+	1991	31	52.1	1971	281	1	.1	.3	31.0	.0	.0	.0
Nov	61.2	43.2	52.2	80+	1966	1	57.0	1997	27+	1985	18	47.5	1994	384	0	.0	.0	30.0	.0	.9	.0
Dec	57.3	40.4	48.9	76	1958	14	52.7	1995	20+	1987	24	44.0	1985	501	0	.0	.0	30.1	.0	3.2	.0
Ann	62.3	44.3	53.3	97	Sep 1950	3	63.1	Sep 1997	20+	Dec 1987	24	44.0	Dec 1985	4251	6	.5	2.4	362.1	@	10.2	.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 075-A

- (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

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

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COOP ID: 043191

Station: FORT ROSS, CA

Climate Division: CA 1 NWS Call Sign: Elevation: 112 Feet Lat: 38°31N Lon: 123°15W

										Pı	recipi	tation	(incl	nes)										
		ans/	P	recipi	itatio	on Total					lean N of D	ays (3	5)	Proba		M	nonthly/ onthly/Ar	annual j indic	precipitated an	vs Proba	ll be equ	els		ın the
Month	Mean	ans(1) Med-	Highest	Year	Day	Highest	Year	Lowest	Year	>=	>=	>=	>=	.05	.10	.20	.30	.40	.50	incomplet	e gamma	.80	on .90	.95
		ian	Daily(2)			Monthly(1)		Monthly(1)		0.01	0.10	0.50	1.00							1				
Jan	7.21	6.78	5.70	1956	14	18.93	1995	.52	1984	12.1	9.1	4.6	1.9	.98	1.57	2.60	3.60	4.66	5.82	7.16	8.81	11.04	14.69	18.21
Feb	6.21	5.70	4.40	1996	4	21.68	1998	.27	1995	11.3	8.9	4.2	2.1	.63	1.09	1.94	2.80	3.74	4.79	6.03	7.58	9.69	13.20	16.62
Mar	5.59	4.64	3.14	1978	8	19.65	1983	.52	1988	11.1	8.3	4.2	1.4	.86	1.33	2.14	2.91	3.71	4.59	5.59	6.82	8.47	11.15	13.72
Apr	2.41	2.42	4.23	1953	27	5.65	1983	.12	1981	7.1	4.6	1.8	.4	.32	.51	.86	1.19	1.55	1.94	2.39	2.95	3.70	4.93	6.12
May	1.05	.55	2.50	1990	27	5.91	1990	.00+	1992	3.7	2.3	.7	.1	.00	.00	.06	.18	.34	.55	.83	1.21	1.76	2.76	3.80
Jun	.33	.08	2.50	1967	2	1.51	1993	.00+	1983	1.8	.6	.2	.1	.00	.00	.00	.02	.06	.13	.22	.35	.55	.93	1.33
Jul	.14	.00	2.53	1974	8	2.53	1974	.00+	2000	.5	.2	.1	@	.00	.00	.00	.00	.00	.00	.00	.02	.13	.43	.74
Aug	.26	.03	1.38	1997	20	2.15	1976	.00+	1998	1.4	.5	.1	.1	.00	.00	.00	.00	.00	.03	.09	.22	.42	.83	1.28
Sep	.64	.17	3.36	1959	18	2.66	1989	.00+	1998	2.5	1.4	.5	.2	.00	.00	.00	.01	.07	.20	.38	.65	1.08	1.88	2.73
Oct	2.22	1.69	4.12	1957	9	5.88	1982	.00+	1995	6.1	3.8	1.7	.6	.00	.39	.83	1.19	1.53	1.90	2.31	2.78	3.42	4.44	5.42
Nov	5.35	4.43	3.50	1977	21	18.15	1973	.67	1990	9.4	6.9	3.9	1.7	.56	.96	1.69	2.44	3.24	4.14	5.20	6.53	8.33	11.33	14.25
Dec	5.67	5.10	4.60	1981	19	15.02	1981	.00	1989	10.3	7.9	3.9	1.4	.67	1.37	2.33	3.14	3.96	4.83	5.82	7.00	8.56	11.05	13.42
Ann	37.08	32.95	5.70	Jan 1956	14	21.68	Feb 1998	.00+	Jul 2000	77.3	54.5	25.9	10.0	19.90	22.88	26.87	30.04	32.93	35.81	38.84	42.27	46.53	52.89	58.55

⁺ 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: 043191

Station: FORT ROSS, CA

Climate Division: CA 1 NWS Call Sign: Elevation: 112 Feet Lat: 38°31N Lon: 123°15W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nui	nber (of Day	yS (1)		
	Mean	s/Medi	ians (1)	ı					Extre	mes (2)							ow Fa				Snow = Thr	_	
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	#	1972	26	#	1972	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	#	.0	#	0	#	1996	24	#+	1996	#	1996	24	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	#	0	.0	0	0	.0	0	#	1995	23	#	1995	.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	.4	1987	30	.4	1987	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Ann	#	.0	N/A	N/A	.4	Dec 1987	30	.4	Dec 1987	#+	Feb 1996	24	#+	Feb 1996	@	.0	.0	.0	.0	.0	.0	.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: 043191

Lon: 123°15W

Lat: 38°31N

Station: FORT ROSS, CA

Climate Division: CA 1 NWS Call Sign:

VS Call Sign: Elevation: 112 Feet

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	(Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/19	5/30	5/17	5/05	4/24	4/13	4/01	3/18	2/27
32	5/18	4/19	3/29	3/11	2/20	2/01	1/07	11/22	0/00
28	3/01	2/03	1/07	0/00	0/00	0/00	0/00	0/00	0/00
24	12/17	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
,		•	Fal	l Freeze Da	tes (Month/D	Day)	•	•	1
To (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/27	10/14	10/27	11/06	11/16	11/26	12/07	12/19	1/05
32	10/20	11/14	12/03	12/19	1/04	1/22	2/13	3/26	0/00
28	12/03	1/03	2/02	3/20	0/00	0/00	0/00	0/00	0/00
24	1/03	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 F	ree Period				
Town (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	288	260	239	222	206	190	172	152	124
32	>365	>365	>365	>365	305	278	256	234	206
28	>365	>365	>365	>365	>365	>365	>365	>365	325
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 do

Complete documentation available from:

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Station: FORT ROSS, CA

COOP ID: 043191

Climate Division: CA 1 Elevation: 112 Feet Lat: 38°31N Lon: 123°15W **NWS Call Sign:**

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	509	417	431	409	359	276	249	218	217	281	384	501	4251		
60	354	277	295	260	208	132	105	83	96	140	239	347	2536		
57	267	199	208	178	126	64	46	33	48	76	159	261	1665		
55	211	151	156	128	83	33	19	12	25	45	114	206	1183		
50	100	61	63	43	16	2	0	0	3	6	37	100	431		
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	514	507	576	581	664	714	774	805	777	743	606	522	7783			
55	12	14	20	19	34	57	80	105	112	75	30	16	574			
57	6	7	10	9	15	28	45	63	75	44	15	8	325			
60	0	0	3	1	4	6	11	20	33	15	5	1	99			
65	0	0	0	0	0	0	0	1	4	1	0	0	6			
70	0	0	0	0	0	0	0	0	0	0	0	0	0			

										Gro	wing]	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	onthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec														Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	284	312	352	369	438	493	580	603	558	525	379	285	284	596	948	1317	1755	2248	2828	3431	3989	4514	4893	5178
45	138 170 199 220 283 343 425 448 408 370 229												138	308	507	727	1010	1353	1778	2226	2634	3004	3233	3374
50	42 61 69 82 133 194 270 293 258 216 100												42	103	172	254	387	581	851	1144	1402	1618	1718	1758
55	0	6	6	18	36	57	120	145	117	87	19	0	0	6	12	30	66	123	243	388	505	592	611	611
60	0	0	0	0	7	6	34	47	29	19	0	0	0	0	0	0	7	13	47	94	123	142	142	142
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0/86 125 145 169 187 230 253 309 328 298 282 189 131												125	270	439	626	856	1109	1418	1746	2044	2326	2515	2646

(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/normals/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.

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