U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: FORT BIDWELL, CA **COOP ID: 043157**

Climate Division: CA 3 **NWS Call Sign:** **Elevation: 4,500 Feet** **Lat: 41˚52N** **Lon: 120˚09W**

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	38.3	20.7	29.5	65	1971	18	37.7	1986	-26	1962	23	12.5	1977	1101	0	.0	.0	4.0	6.0	27.2	1.6
Feb	43.8	24.6	34.2	69+	1986	27	41.4	1991	-22	1949	13	24.1	1993	863	0	.0	.0	8.7	2.3	23.8	.8
Mar	50.6	29.0	39.8	80	1966	30	45.5	1978	-5	1971	1	34.8	1971	782	0	.0	.0	18.5	.2	21.8	.1
Apr	58.0	32.8	45.4	83+	1987	27	52.0	1990	10	1964	23	37.4	1975	589	0	.0	.0	24.6	.0	15.0	.0
May	66.4	38.7	52.6	97	1983	28	59.9	1992	19+	1968	6	46.2	1977	390	4	.0	.2	29.7	.0	6.5	.0
Jun	74.9	44.7	59.8	97+	1988	19	65.2	1986	26	1962	4	55.7	1991	188	32	.0	1.4	30.0	.0	1.0	.0
Jul	83.7	50.4	67.1	99+	1983	30	71.4	1994	32	1976	1	59.9	1993	53	115	.0	9.1	31.0	.0	@	.0
Aug	83.2	49.4	66.3	100+	1992	11	71.0	1986	30	1999	31	60.5	1976	60	100	.1	7.2	31.0	.0	@	.0
Sep	75.8	42.4	59.1	102	1950	2	63.4	1987	17	1970	14	53.1	1985	205	29	.0	1.5	29.8	.0	2.8	.0
Oct	64.1	34.4	49.3	88+	1976	9	57.3	1988	5	1971	29	44.1	1984	489	1	.0	.0	28.4	.0	12.5	.0
Nov	47.3	26.9	37.1	78	1949	1	44.9	1995	-4	1993	25	29.6	1985	837	0	.0	.0	13.3	1.1	22.5	.1
Dec	38.5	20.8	29.7	66	1958	11	36.6	1981	-26	1972	9	21.4	1990	1096	0	.0	.0	4.0	5.2	27.4	1.4
Ann	60.4	34.6	47.5	102	Sep 1950	2	71.4	Jul 1994	-26+	Dec 1972	9	12.5	Jan 1977	6653	281	.1	19.4	253.0	14.8	160.5	4.0

+ 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/normals/usnormals.html

(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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	2.59	2.17	2.05	1972	22	5.96	1998	.26	1992
Feb	2.22	1.73	3.43	1986	17	9.62	1986	.47	1988
Mar	2.13	1.79	2.35	1971	12	4.87	1971	.89	1994
Apr	1.47	1.27	1.05	1995	29	3.27	1997	.22	1977
May	1.36	1.12	1.27	1977	10	4.30	1971	.12	1974
Jun	.86	.70	.99	1987	7	2.08	1992	.00	1973
Jul	.40	.29	1.25	1958	23	1.57	1987	.00+	1989
Aug	.46	.11	1.10	1965	11	2.32	1976	.00+	2000
Sep	.70	.60	.87	1972	27	2.51	1986	.00+	1999
Oct	1.08	.90	1.80	1962	13	2.99	1984	.00+	1988
Nov	2.39	2.35	1.70	1953	23	6.27	1988	.21	1976
Dec	2.59	1.92	2.18	1955	23	8.40	1983	.05	1976
Ann	18.25	17.31	3.43	Feb 1986	17	9.62	Feb 1986	.00+	Aug 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.2	7.5	1.3	.3
Feb	11.3	7.0	.7	.1
Mar	12.0	7.2	.6	.2
Apr	9.0	4.8	.5	@
May	7.6	4.2	.5	@
Jun	5.3	3.2	.2	.0
Jul	2.7	1.4	.1	.0
Aug	2.4	1.2	.3	@
Sep	4.1	2.0	.3	.0
Oct	6.0	3.4	.5	.1
Nov	11.4	7.2	.9	.1
Dec	11.0	7.8	1.2	.2
Ann	94.0	56.9	7.1	1.0

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	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.49	.72	1.10	1.45	1.81	2.19	2.63	3.15	3.85	4.98	6.05
Feb	.46	.67	.99	1.29	1.59	1.91	2.27	2.70	3.27	4.19	5.05
Mar	.71	.91	1.21	1.46	1.70	1.95	2.22	2.54	2.94	3.58	4.16
Apr	.34	.47	.69	.88	1.07	1.28	1.50	1.78	2.13	2.70	3.24
May	.19	.30	.49	.68	.88	1.10	1.35	1.66	2.08	2.76	3.42
Jun	.06	.14	.28	.40	.53	.68	.85	1.06	1.34	1.80	2.25
Jul	.00	.00	.07	.14	.22	.30	.40	.51	.67	.92	1.18
Aug	.00	.00	.00	.00	.04	.15	.30	.51	.81	1.36	1.92
Sep	.00	.00	.00	.19	.34	.50	.68	.90	1.20	1.69	2.16
Oct	.00	.00	.35	.54	.72	.91	1.12	1.38	1.70	2.23	2.74
Nov	.41	.61	.96	1.29	1.63	2.00	2.41	2.92	3.60	4.70	5.75
Dec	.31	.51	.87	1.23	1.62	2.05	2.55	3.17	4.01	5.40	6.74
Ann	11.45	12.70	14.34	15.61	16.75	17.87	19.04	20.34	21.93	24.28	26.34

+ 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

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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	12.0	10.5	3	1
Feb	10.0	8.5	3	1
Mar	6.6	6.8	1	#
Apr	3.2	1.8	#	0
May	.7	.0	#	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.6	.0	#	0
Nov	6.6	5.5	#	#
Dec	11.8	8.5	2	1
Ann	51.5	41.6	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	12.0	1993	7	46.0	1993	33	1993	13	25	1993
Feb	12.0	1995	13	32.0	1994	33	1993	17	24	1993
Mar	14.0	1971	12	16.0+	1985	25	1993	1	9	1993
Apr	5.5	1975	4	14.5	1975	2	1975	25	#+	1999
May	4.0	1977	6	5.5	1977	2	1977	6	#+	1999
Jun	.5	1980	3	.5	1980	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.5	1986	19	.5	1986	0	0	0	0	0
Oct	4.5	1984	11	11.5	1984	5	1984	16	1	1984
Nov	10.0	1998	7	21.0	1985	9	1998	10	4	1994
Dec	14.0	1983	23	44.0	1983	20	1988	23	7	1994
Ann	14.0+	Dec 1983	23	46.0	Jan 1993	33+	Feb 1993	17	25	Jan 1993

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	5.2	4.6	1.7	.6	.1
Feb	4.9	4.1	1.4	.5	.1
Mar	3.6	3.0	.7	.2	@
Apr	1.9	1.7	.2	.1	.0
May	.4	.3	.1	.0	.0
Jun	@	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	@	.0	.0	.0	.0
Oct	.3	.2	.1	.0	.0
Nov	3.6	2.9	.8	.2	@
Dec	5.2	4.4	1.7	.4	@
Ann	25.1	21.2	6.7	2.0	.2

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	11.5	9.4	7.4	2.7
Feb	5.7	4.1	2.8	.6
Mar	2.5	1.6	1.0	.5
Apr	.3	.0	.0	.0
May	@	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.1	.1	@	.0
Nov	3.7	1.8	.8	.0
Dec	9.4	5.4	4.0	1.0
Ann	33.2	22.4	16.0	4.8

+ 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

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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	7/07	7/02	6/28	6/24	6/21	6/18	6/14	6/10	6/04
32	6/22	6/16	6/13	6/09	6/06	6/03	5/30	5/27	5/21
28	6/01	5/25	5/20	5/16	5/13	5/09	5/05	5/01	4/24
24	5/14	5/06	4/30	4/26	4/21	4/17	4/12	4/06	3/29
20	4/27	4/18	4/11	4/06	4/01	3/27	3/22	3/15	3/06
16	3/27	3/18	3/12	3/07	3/02	2/24	2/19	2/13	2/04

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	8/17	8/23	8/28	9/02	9/06	9/10	9/14	9/19	9/26
32	9/03	9/09	9/14	9/18	9/21	9/25	9/29	10/03	10/09
28	9/17	9/23	9/28	10/01	10/05	10/08	10/12	10/16	10/22
24	10/02	10/09	10/13	10/18	10/22	10/26	10/30	11/04	11/11
20	10/20	10/26	10/29	11/02	11/05	11/08	11/11	11/15	11/21
16	10/28	11/04	11/08	11/12	11/16	11/20	11/24	11/28	12/05

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	105	95	88	82	76	70	64	57	47
32	132	123	117	112	107	101	96	90	81
28	171	162	155	149	144	139	133	126	117
24	214	203	196	189	183	177	170	162	152
20	249	238	230	223	217	211	204	196	185
16	295	282	273	266	259	252	244	235	223

***** 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

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Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1101	863	782	589	390	188	53	60	205	489	837	1096	6653
60	946	723	627	444	252	95	13	15	108	342	687	941	5193
57	853	639	534	361	182	55	4	5	66	262	598	848	4407
55	791	583	472	308	142	36	1	2	44	214	540	786	3919
50	648	450	326	193	66	9	0	0	13	116	399	631	2851
32	217	88	18	7	0	0	0	0	0	2	60	167	559

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	139	149	260	408	637	834	1086	1063	814	537	213	93	6233
55	0	0	1	19	66	180	374	352	168	37	3	0	1200
57	0	0	0	12	44	140	315	293	129	23	1	0	957
60	0	0	0	5	21	89	231	210	82	10	0	0	648
65	0	0	0	0	4	32	115	100	29	1	0	0	281
70	0	0	0	0	0	8	41	31	7	0	0	0	87

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	8	29	91	209	420	620	856	828	588	319	65	10	8	37	128	337	757	1377	2233	3061	3649	3968	4033	4043
45	0	3	29	110	276	471	701	673	439	194	19	0	0	3	32	142	418	889	1590	2263	2702	2896	2915	2915
50	0	0	1	42	157	324	546	518	300	93	1	0	0	0	1	43	200	524	1070	1588	1888	1981	1982	1982
55	0	0	0	11	71	191	392	363	177	34	0	0	0	0	0	11	82	273	665	1028	1205	1239	1239	1239
60	0	0	0	0	25	91	243	222	80	8	0	0	0	0	0	0	25	116	359	581	661	669	669	669
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	1	28	72	161	287	406	547	538	411	252	50	6	1	29	101	262	549	955	1502	2040	2451	2703	2753	2759

(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:
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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

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/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