

Climatography of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: BEAVER CREEK RANGER STN, AZ

1971-2000

COOP ID: 020670

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,820 Feet Lat: 34°40N

Lon: 111°43W

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	56.7	30.1	43.4	81	1971	18	48.8	1986	1	1963	13	36.5	1979	670	0	.0	.0	26.2	.1	21.1	.0
Feb	61.2	33.6	47.4	83+	1986	27	52.3	1995	11+	1985	5	43.0	1973	494	0	.0	.0	25.6	.1	12.0	.0
Mar	65.6	37.8	51.7	87+	1989	11	58.3	1972	16	1966	4	41.8	1973	423	11	.0	.0	29.5	.0	6.8	.0
Apr	74.0	44.3	59.2	95	1996	27	66.6	1989	19	1975	2	50.8	1975	222	46	.0	.7	29.5	.0	2.0	.0
May	82.1	52.1	67.1	105	1994	29	74.3	1984	31	1965	10	61.1	1977	87	152	.2	5.9	31.0	.0	@	.0
Jun	92.5	61.1	76.8	111	1994	28	82.9	1994	36	1979	3	73.3	1975	4	357	5.4	21.5	30.0	.0	.0	.0
Jul	95.1	66.4	80.8	110	2000	19	83.6	1996	46	1968	22	78.2	1986	0	488	8.8	27.2	31.0	.0	.0	.0
Aug	92.9	65.0	79.0	107	1977	1	83.3	1995	46	1968	12	76.6	1972	0	432	3.3	24.8	31.0	.0	.0	.0
Sep	87.9	58.6	73.3	106	1979	10	77.0	1979	35	1988	22	68.7	1985	7	254	1.2	13.7	30.0	.0	.0	.0
Oct	77.7	46.7	62.2	98	1997	17	67.7	1988	22	1971	30	55.9	1971	150	63	.0	3.0	30.9	.0	1.3	.0
Nov	65.6	35.5	50.6	85	1980	5	57.0	1995	15	1976	28	44.8	1972	435	1	.0	.0	29.1	.0	10.9	.0
Dec	56.5	29.6	43.1	78	1981	20	48.6	1980	3	1978	8	37.5	1978	680	0	.0	.0	26.2	.2	22.2	.0
Ann	75.7	46.7	61.2	111	Jun 1994	28	83.6	Jul 1996	1	Jan 1963	13	36.5	Jan 1979	3172	1804	18.9	96.8	350.0	.4	76.3	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1957-2001

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

007-A

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COOP ID: 020670

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,820 Feet Lat: 34°40N

Lon: 111°43W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				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	1.47	1.12	2.06	1965	6	6.71	1993	.00+	1994	4.9	3.4	1.0	.2	.00	.00	.14	.34	.58	.88	1.26	1.76	2.47	3.72	4.98
Feb	1.68	1.50	1.78	1980	20	4.92	1980	.00+	1974	4.8	3.6	1.3	.3	.00	.24	.56	.83	1.10	1.39	1.71	2.09	2.61	3.46	4.26
Mar	2.10	1.74	1.91	1991	1	7.58	1991	.00+	1997	6.2	4.7	1.2	.2	.00	.00	.60	.98	1.33	1.71	2.14	2.67	3.34	4.45	5.52
Apr	.93	.83	1.54	1998	1	4.21	1988	.00+	2000	2.5	1.8	.6	.2	.00	.00	.00	.13	.30	.51	.77	1.12	1.61	2.46	3.31
May	.47	.27	.95	1965	14	2.83	1992	.00+	2000	2.9	1.5	.1	.0	.00	.00	.00	.03	.14	.25	.40	.58	.83	1.27	1.70
Jun	.23	.06	.76	2000	22	1.34	2000	.00+	1998	1.2	.7	.1	.0	.00	.00	.00	.00	.00	.05	.13	.24	.41	.70	1.00
Jul	1.67	1.29	2.20	1992	11	6.77	1999	.00	2000	5.2	3.3	1.2	.5	.06	.20	.44	.68	.94	1.25	1.60	2.05	2.67	3.69	4.71
Aug	2.15	2.04	3.60	1992	22	6.18	1992	.18	1976	7.5	4.6	1.3	.4	.34	.53	.84	1.14	1.44	1.78	2.16	2.63	3.25	4.27	5.24
Sep	1.93	1.41	2.75	1996	5	6.94	1997	.00+	1992	4.3	3.3	1.4	.5	.00	.00	.14	.49	.86	1.28	1.78	2.41	3.29	4.72	6.21
Oct	1.47	1.17	2.85	1981	2	7.35	1972	.00+	1999	3.7	2.8	1.1	.3	.00	.00	.32	.57	.83	1.11	1.44	1.85	2.39	3.31	4.20
Nov	1.26	1.08	2.70	1978	11	4.91	1982	.00+	1999	2.9	2.3	.8	.3	.00	.00	.20	.43	.67	.92	1.22	1.59	2.10	2.93	3.74
Dec	1.35	.78	1.77	1965	10	4.22	1984	.00+	2000	3.9	2.9	.8	.2	.00	.04	.20	.39	.61	.87	1.20	1.63	2.24	3.29	4.34
Ann	16.71	16.68	3.60	Aug 1992	22	7.58	Mar 1991	.00+	Dec 2000	50.0	34.9	10.9	3.1	10.00	11.22	12.82	14.06	15.19	16.29	17.45	18.75	20.35	22.71	24.79

+ 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: 1957-2001

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

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Station: BEAVER CREEK RANGER STN, AZ

COOP ID: 020670

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,820 Feet

Lat: 34° 40N

Lon: 111° 43W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					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	.9	.0	#	0	4.0	1979	25	12.0	1979	4	1979	29	#	1979	.2	.2	.2	.0	.0	.1	.1	.0	.0
Feb	.3	.0	#	0	7.0	1990	19	7.0	1990	2	1979	1	#	1979	.1	.1	@	@	.0	.1	.0	.0	.0
Mar	.3	.0	#	0	4.8	1976	3	4.8	1976	5	1976	3	#	1976	.1	.1	@	.0	.0	.1	.1	@	.0
Apr	.2	.0	#	0	5.0	1976	16	5.0	1976	4	1976	16	#	1976	@	@	@	@	.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	#	1994	19	#	1994	#	1994	19	#	1994	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.7	.0	#	0	8.0	1978	6	8.0+	1991	3	1984	14	#+	1984	.1	.1	.1	.1	.0	.0	.0	.0	.0
Ann	2.4	.0	N/A	N/A	8.0	Dec 1978	6	12.0	Jan 1979	5	Mar 1976	3	#+	Nov 1994	.5	.5	.3	.1	.0	.3	.2	@	.0

+ 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

Complete documentation available from:

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COOP ID: 020670

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,820 Feet

Lat: 34° 40N

Lon: 111° 43W

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	5/19	5/09	5/03	4/27	4/22	4/17	4/11	4/05	3/26
32	4/30	4/21	4/14	4/09	4/03	3/29	3/24	3/17	3/08
28	4/11	4/01	3/24	3/18	3/12	3/07	2/28	2/21	2/11
24	3/20	3/10	3/02	2/24	2/17	2/11	2/05	1/28	1/18
20	3/02	2/17	2/08	1/31	1/24	1/16	1/07	12/27	12/06
16	2/05	1/22	1/10	12/28	12/07	0/00	0/00	0/00	0/00
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	10/12	10/16	10/19	10/22	10/25	10/27	10/30	11/02	11/06
32	10/21	10/25	10/29	10/31	11/03	11/06	11/09	11/12	11/17
28	10/31	11/05	11/08	11/11	11/14	11/17	11/20	11/23	11/28
24	11/11	11/17	11/21	11/24	11/28	12/01	12/04	12/08	12/14
20	11/24	12/04	12/12	12/18	12/24	12/31	1/07	1/17	0/00
16	12/07	12/21	1/01	1/15	0/00	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	216	205	198	191	185	179	172	164	154
32	244	233	226	219	213	207	200	193	182
28	276	266	258	252	246	240	233	226	215
24	321	307	298	290	282	275	267	257	244
20	>365	>365	>365	357	336	321	308	294	276
16	>365	>365	>365	>365	>365	>365	>365	345	325

* 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 documentation available from:

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COOP ID: 020670

Climate Division: AZ 3 NWS Call Sign: Elevation: 3,820 Feet Lat: 34° 40N Lon: 111° 43W

Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	670	494	423	222	87	4	0	0	7	150	435	680	3172
60	515	355	288	131	36	0	0	0	1	72	294	525	2217
57	422	275	219	87	19	0	0	0	0	41	217	434	1714
55	364	224	180	64	12	0	0	0	0	26	172	376	1418
50	223	116	98	24	3	0	0	0	0	7	83	238	792
32	4	0	0	0	0	0	0	0	0	0	0	8	12

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	357	430	612	814	1088	1343	1511	1455	1237	936	556	351	10690
55	4	10	78	187	387	653	798	742	547	249	38	6	3699
57	0	5	56	151	332	593	736	680	487	201	23	2	3266
60	0	1	32	105	256	503	643	587	398	139	10	0	2674
65	0	0	11	46	152	357	488	432	254	63	1	0	1804
70	0	0	2	16	76	221	333	278	130	21	0	0	1077

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	150	242	386	585	849	1119	1283	1227	1015	705	330	143	150	392	778	1363	2212	3331	4614	5841	6856	7561	7891	8034
45	55	123	242	440	694	969	1128	1072	865	552	197	49	55	178	420	860	1554	2523	3651	4723	5588	6140	6337	6386
50	8	47	128	301	539	819	973	917	715	402	97	5	8	55	183	484	1023	1842	2815	3732	4447	4849	4946	4951
55	0	5	51	178	386	669	818	762	565	262	32	0	0	5	56	234	620	1289	2107	2869	3434	3696	3728	3728
60	0	0	14	82	244	519	663	607	415	143	2	0	0	0	14	96	340	859	1522	2129	2544	2687	2689	2689
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	138	189	264	380	542	702	820	791	657	456	254	136	138	327	591	971	1513	2215	3035	3826	4483	4939	5193	5329

(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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

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