

Climatology of the United States No. 20

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

Station: BLUE RIDGE RANGER STN, AZ

1971-2000

COOP ID: 020871

Climate Division: AZ 2

NWS Call Sign:

Elevation: 6,880 Feet Lat: 34° 37N

Lon: 111° 11W

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	44.3	16.0	30.2	67+	2000	20	37.0	1986	-22	1971	6	25.0	1973	1081	0	.0	.0	10.6	2.9	30.0	2.0
Feb	47.8	18.9	33.4	71+	1986	27	38.5	1995	-16	1985	5	27.7	1979	886	0	.0	.0	11.2	1.6	27.4	1.0
Mar	52.6	23.3	38.0	74	1997	21	43.3	1972	-5	1987	2	30.1	1973	839	0	.0	.0	20.7	.5	27.6	.1
Apr	59.9	28.9	44.4	81	1996	27	50.7	1989	-2	1975	2	37.6	1975	619	0	.0	.0	25.7	.2	22.3	@
May	68.5	37.0	52.8	91	1984	31	59.9	1984	12	1975	6	47.0	1980	387	7	.0	@	30.1	@	11.2	.0
Jun	79.1	44.4	61.8	95+	1981	23	66.9	1974	26+	1995	9	56.9	1991	144	47	.0	2.3	30.0	.0	2.8	.0
Jul	82.8	53.2	68.0	98	1978	23	70.0+	1978	33+	1992	2	65.2	1987	12	104	.0	3.5	31.0	.0	.0	.0
Aug	80.0	51.3	65.7	93+	1994	5	68.8	1995	28	1979	21	63.2	1979	40	60	.0	.7	31.0	.0	.1	.0
Sep	74.8	43.9	59.4	89	1979	8	63.0	1983	19	1978	20	55.9	1988	178	9	.0	.0	29.9	.0	2.2	.0
Oct	64.9	32.0	48.5	85+	1980	5	53.0	1978	-1	1971	30	43.0	1971	513	0	.0	.0	29.0	.1	17.5	@
Nov	53.2	21.7	37.5	75	1997	3	42.2	1999	-8	1975	30	32.1	2000	828	0	.0	.0	19.5	.7	27.2	.2
Dec	45.5	15.3	30.4	71	1980	28	35.8	1980	-21	1990	23	23.0	1978	1073	0	.0	.0	10.4	2.9	29.8	1.9
Ann	62.8	32.2	47.5	98	Jul 1978	23	70.0+	Jul 1978	-22	Jan 1971	6	23.0	Dec 1978	6600	227	.0	6.5	279.1	8.9	198.1	5.2

+ 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/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1967-2001

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

011-A

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No. 20 1971-2000

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COOP ID: 020871

Climate Division: AZ 2

NWS Call Sign:

Elevation: 6,880 Feet Lat: 34°37N

Lon: 111°11W

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	1.84	1.18	2.42	1993	8	6.73	1993	.00	1972	5.5	3.6	.8	.3	.05	.17	.41	.67	.97	1.31	1.72	2.24	2.97	4.21	5.44
Feb	1.90	1.44	2.37	1980	20	6.35	1980	.05	1972	5.0	3.5	1.1	.4	.19	.33	.59	.86	1.14	1.46	1.84	2.32	2.97	4.04	5.09
Mar	2.14	2.13	1.89	1991	1	6.98	1991	.00+	1997	6.1	4.3	1.3	.3	.00	.18	.54	.88	1.23	1.63	2.10	2.66	3.44	4.74	6.00
Apr	.99	.85	1.46	1999	5	2.47	1975	.00+	1991	3.8	2.7	.7	.1	.00	.10	.27	.43	.59	.77	.98	1.23	1.58	2.15	2.71
May	.74	.55	.85+	2001	20	3.09	1992	.00+	1999	4.2	2.0	.4	.0	.00	.04	.14	.25	.37	.51	.69	.91	1.21	1.74	2.26
Jun	.44	.19	1.08	1984	30	2.93	1972	.00+	1999	2.7	1.4	.2	@	.00	.00	.00	.03	.10	.19	.32	.50	.77	1.24	1.73
Jul	2.23	2.08	1.72	1998	23	4.98	1999	.03	1993	9.8	5.5	1.3	.3	.30	.49	.81	1.11	1.44	1.80	2.21	2.72	3.41	4.53	5.61
Aug	3.17	3.09	2.54	1992	23	7.28	1992	.25	1975	11.5	6.9	1.9	.7	.75	1.05	1.51	1.93	2.34	2.77	3.26	3.84	4.60	5.81	6.94
Sep	1.91	1.77	2.60	1970	6	5.71	1996	.01	1973	6.8	4.1	1.0	.4	.15	.28	.53	.79	1.09	1.42	1.82	2.33	3.02	4.19	5.35
Oct	1.89	1.50	2.52	1972	19	9.55	1972	.00+	1999	4.4	2.9	1.2	.7	.00	.11	.39	.67	.99	1.35	1.78	2.33	3.09	4.37	5.63
Nov	1.60	1.63	2.34	1985	12	4.55	1985	.00+	1999	3.8	2.7	1.0	.3	.00	.12	.38	.63	.90	1.20	1.55	1.98	2.58	3.58	4.55
Dec	1.75	1.12	2.50	1978	18	7.35	1978	.04	1981	4.3	3.2	.8	.4	.04	.10	.27	.48	.74	1.07	1.49	2.05	2.86	4.30	5.77
Ann	20.60	20.29	2.60	Sep 1970	6	9.55	Oct 1972	.00+	Nov 1999	67.9	42.8	11.7	3.9	13.81	15.10	16.76	18.03	19.17	20.28	21.43	22.71	24.26	26.54	28.51

+ 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: 1967-2001

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

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

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Station: BLUE RIDGE RANGER STN, AZ

COOP ID: 020871

Climate Division: AZ 2

NWS Call Sign:

Elevation: 6,880 Feet

Lat: 34° 37N

Lon: 111° 11W

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	9.2	7.7	2	1	13.0	1982	22	27.0	1974	38	1997	14	12	1997	2.6	2.1	1.2	.6	.1	4.2	3.1	1.9	1.0
Feb	9.2	3.3	2	#	16.0	1987	24	33.0	1973	28	1987	25	11	1973	2.0	1.6	1.0	.6	.2	.7	.4	.2	.2
Mar	10.4	3.5	1	#	13.8	1991	27	54.6	1991	18	1973	15	10	1991	2.2	1.9	1.1	.4	.2	1.4	.9	.3	.1
Apr	5.2	.0	#	0	36.0	1999	5	37.0	1975	12	1975	10	1+	1997	1.2	1.1	.6	.3	.1	.7	.6	.3	.1
May	.3	.0	#	0	3.0	1995	7	3.0	1995	2	1982	12	#+	1995	.1	.1	@	.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	.4	.0	#	0	4.0	2000	31	4.0+	2000	2	1980	16	#	1980	.2	.2	.1	.0	.0	@	.0	.0	.0
Nov	4.6	.0	#	0	14.0	1975	28	21.9	1973	17	1983	26	4	1972	.7	.6	.4	.3	.1	.4	.3	.3	.1
Dec	5.1	1.0	1	#	24.0	1991	2	32.5	1971	20	1990	22	5	1975	1.5	1.3	.7	.4	.2	.5	.1	.1	.1
Ann	44.4	15.5	N/A	N/A	36.0	Apr 1999	5	54.6	Mar 1991	38	Jan 1997	14	12	Jan 1997	10.5	8.9	5.1	2.6	.9	7.9	5.4	3.1	1.6

+ 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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Climatography of the United States

No. 20 1971-2000

Station: BLUE RIDGE RANGER STN, AZ

COOP ID: 020871

Climate Division: AZ 2

NWS Call Sign:

Elevation: 6,880 Feet

Lat: 34° 37N

Lon: 111° 11W

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	7/06	7/01	6/27	6/24	6/22	6/19	6/16	6/12	6/07
32	6/24	6/20	6/16	6/14	6/11	6/09	6/06	6/03	5/30
28	6/10	6/04	5/31	5/27	5/24	5/21	5/17	5/13	5/07
24	5/25	5/19	5/15	5/12	5/09	5/05	5/02	4/28	4/22
20	5/16	5/08	5/02	4/27	4/23	4/18	4/13	4/07	3/30
16	4/30	4/22	4/16	4/11	4/06	4/02	3/28	3/22	3/14
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	8/29	9/04	9/08	9/12	9/15	9/19	9/22	9/27	10/02
32	9/03	9/09	9/14	9/17	9/21	9/24	9/28	10/02	10/08
28	9/16	9/23	9/27	10/01	10/05	10/09	10/13	10/17	10/24
24	10/03	10/09	10/12	10/16	10/19	10/22	10/25	10/29	11/03
20	10/10	10/15	10/19	10/23	10/26	10/29	11/02	11/06	11/12
16	10/23	10/28	11/01	11/04	11/07	11/10	11/13	11/16	11/21
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	110	101	95	90	85	80	75	69	60
32	123	116	110	105	101	96	92	86	78
28	156	148	143	138	133	129	124	118	110
24	182	175	170	166	162	159	155	150	143
20	218	207	199	192	186	179	173	164	153
16	243	233	226	220	214	208	202	194	184

* 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:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

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of the United States
No. 20
1971-2000**

Station: BLUE RIDGE RANGER STN, AZ

COOP ID: 020871

Climate Division: AZ 2 NWS Call Sign: Elevation: 6,880 Feet Lat: 34° 37N Lon: 111° 11W

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	1081	886	839	619	387	144	12	40	178	513	828	1073	6600
60	926	746	684	471	252	67	1	4	73	362	678	918	5182
57	833	662	591	386	184	37	0	1	35	276	588	825	4418
55	771	606	530	331	145	23	0	0	20	224	528	763	3941
50	616	466	381	208	69	6	0	0	3	117	379	608	2853
32	122	63	34	7	0	0	0	0	0	0	25	131	382

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	64	102	218	378	643	893	1116	1043	821	510	187	81	6056
55	0	0	0	12	75	226	403	330	151	21	0	0	1218
57	0	0	0	7	52	180	341	269	106	12	0	0	967
60	0	0	0	2	27	120	248	179	54	4	0	0	634
65	0	0	0	0	7	47	104	60	9	0	0	0	227
70	0	0	0	0	1	12	16	7	0	0	0	0	36

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	11	17	74	175	391	652	861	793	575	279	63	10	11	28	102	277	668	1320	2181	2974	3549	3828	3891	3901
45	2	0	21	79	252	504	706	638	426	156	16	0	2	2	23	102	354	858	1564	2202	2628	2784	2800	2800
50	0	0	1	27	134	355	551	483	283	62	0	0	0	0	1	28	162	517	1068	1551	1834	1896	1896	1896
55	0	0	0	2	55	217	396	328	150	13	0	0	0	0	0	2	57	274	670	998	1148	1161	1161	1161
60	0	0	0	0	13	107	243	177	52	0	0	0	0	0	0	0	13	120	363	540	592	592	592	592
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	33	41	105	175	302	452	555	508	384	250	95	38	33	74	179	354	656	1108	1663	2171	2555	2805	2900	2938

(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 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