

# Climatography of the United States

No. 20

1971-2000

Station: SUPERIOR, AZ

COOP ID: 028348

Climate Division: AZ 6

NWS Call Sign:

Elevation: 2,860 Feet Lat: 33°18N

Lon: 111°06W

## 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	61.0	42.9	52.0	81+	2000	18	60.2	1986	20+	1975	4	46.8	1979	409	5	.0	.0	28.6	.0	2.1	.0
Feb	64.4	45.4	54.9	87	1963	7	60.4	1991	20	1972	12	47.4	1998	293	11	.0	.0	26.6	@	.8	.0
Mar	68.6	47.9	58.3	91+	1989	11	68.6	1972	24	1971	2	51.0	1973	256	47	.0	.2	30.3	.0	.5	.0
Apr	76.8	54.2	65.5	96+	2000	28	73.8	1989	29	1981	6	58.5	1975	102	117	.0	1.3	29.8	.0	.1	.0
May	85.4	61.7	73.6	105	2000	29	79.4	1984	38	1995	8	67.6	1975	22	288	.6	9.9	31.0	.0	.0	.0
Jun	95.8	71.9	83.9	111+	1990	27	87.9	1974	51	1971	1	79.4	1991	0	566	8.7	25.7	30.0	.0	.0	.0
Jul	98.1	75.4	86.8	112	1995	29	90.1	1972	59	1986	22	81.2	1986	0	674	13.0	28.8	31.0	.0	.0	.0
Aug	96.0	74.3	85.2	110	1985	25	88.3	1994	61+	1992	24	81.9	1984	0	625	7.0	28.2	31.0	.0	.0	.0
Sep	92.4	70.7	81.6	106	2000	15	85.7	1979	50+	1986	25	75.7	1985	0	496	2.6	21.6	30.0	.0	.0	.0
Oct	82.1	61.4	71.8	102+	1980	3	76.7	1999	33	1973	11	65.2	1971	37	245	.2	6.8	31.0	.0	.0	.0
Nov	69.6	50.3	60.0	89+	1999	15	68.5	1999	29+	1976	28	52.6	2000	202	50	.0	.0	29.5	.0	.2	.0
Dec	61.7	43.7	52.7	83	1980	29	59.3	1980	19	1978	8	48.2	1987	389	7	.0	.0	28.1	.0	1.7	.0
Ann	79.3	58.3	68.9	112	Jul 1995	29	90.1	Jul 1972	19	Dec 1978	8	46.8	Jan 1979	1710	3131	32.1	122.5	356.9	@	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/normal/usnormals.html](http://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: 1920-2001

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

090-A

**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: SUPERIOR, AZ**

**COOP ID: 028348**

**Climate Division: AZ 6**

**NWS Call Sign:**

**Elevation: 2,860 Feet Lat: 33°18N**

**Lon: 111°06W**

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	2.25	1.84	2.56	1943	24	11.29	1993	.00	1972	5.8	4.2	1.7	.5	.01	.07	.27	.53	.88	1.31	1.86	2.62	3.72	5.66	7.66
Feb	2.33	2.32	2.13	1963	11	6.40	1998	.00+	1984	5.6	4.2	1.7	.5	.00	.14	.49	.84	1.23	1.67	2.20	2.86	3.79	5.34	6.87
Mar	2.45	2.27	3.66	1954	22	7.48	1992	.00+	1984	6.0	4.7	2.0	.5	.00	.00	.43	.82	1.25	1.74	2.32	3.05	4.04	5.72	7.39
Apr	.74	.59	1.49	1999	2	2.91	1999	.00+	2000	2.7	1.8	.4	.1	.00	.00	.05	.19	.33	.50	.69	.93	1.26	1.81	2.38
May	.48	.19	1.73	1941	2	2.60	1992	.00+	2000	2.2	1.2	.2	.1	.00	.00	.00	.02	.09	.20	.34	.53	.82	1.35	1.90
Jun	.30	.06	1.24	1972	23	1.68	1972	.00+	1999	1.4	.7	.2	@	.00	.00	.00	.00	.02	.07	.16	.29	.51	.91	1.33
Jul	1.90	1.88	2.00	1976	18	5.81	1999	.04	1995	6.0	3.9	1.4	.3	.11	.21	.44	.70	.99	1.34	1.75	2.29	3.05	4.33	5.62
Aug	2.82	2.47	3.80	1990	14	9.45	1990	.71	2000	8.0	4.9	2.0	.5	.65	.92	1.33	1.70	2.07	2.46	2.89	3.42	4.10	5.19	6.22
Sep	1.79	1.61	2.75	1946	18	5.36	1983	.00+	2000	4.0	2.9	1.2	.5	.00	.00	.38	.69	1.00	1.35	1.75	2.26	2.93	4.05	5.15
Oct	1.48	1.11	3.72	1959	30	8.68	1972	.00+	1999	3.7	2.6	.9	.5	.00	.00	.17	.41	.68	.99	1.36	1.83	2.49	3.58	4.68
Nov	1.73	1.75	2.66	1941	13	5.63	1978	.00+	1999	3.8	2.9	1.2	.4	.00	.13	.41	.68	.96	1.29	1.67	2.14	2.79	3.87	4.93
Dec	1.97	1.19	2.92	1967	15	6.57	1978	.00	1981	4.8	3.4	1.3	.5	.01	.06	.22	.45	.74	1.12	1.61	2.28	3.27	5.02	6.84
Ann	20.24	18.42	3.80	Aug 1990	14	11.29	Jan 1993	.00+	Sep 2000	54.0	37.4	14.2	4.4	10.99	12.60	14.75	16.46	18.01	19.55	21.18	23.02	25.30	28.70	31.72

+ 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: 1920-2001

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

Complete documentation available from:  
[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

# 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](http://www.ncdc.noaa.gov)

Station: SUPERIOR, AZ

COOP ID: 028348

Climate Division: AZ 6

NWS Call Sign:

Elevation: 2,860 Feet

Lat: 33° 18N

Lon: 111° 06W

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	#	.0	0	0	#	1973	26	#	1973	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	#	.0	#	0	#	1975	16	#+	1975	3	1985	2	#	1985	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.3	.0	#	0	6.0	1976	4	6.0	1976	1	1975	14	#+	2000	.1	.1	@	@	.0	.1	.0	.0	.0
Apr	.1	.0	0	0	2.0	1976	16	2.0	1976	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	1.0	1975	29	1.0	1975	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Dec	.1	.0	0	0	2.5	1971	14	2.5	1971	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Ann	.5	.0	N/A	N/A	6.0	Mar 1976	4	6.0	Mar 1976	3	Feb 1985	2	#+	Mar 2000	.1	.1	@	@	.0	.1	.0	.0	.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:

[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

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

**Station: SUPERIOR, AZ**

**COOP ID: 028348**

**Climate Division: AZ 6**

**NWS Call Sign:**

**Elevation: 2,860 Feet**

**Lat: 33° 18N**

**Lon: 111° 06W**

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	4/19	4/05	3/26	3/17	3/09	3/01	2/20	2/10	1/27
32	3/30	3/13	3/01	2/18	2/07	1/27	1/14	12/24	0/00
28	2/11	1/26	1/10	0/00	0/00	0/00	0/00	0/00	0/00
24	1/27	12/19	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
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	11/05	11/15	11/22	11/28	12/04	12/10	12/16	12/23	1/02
32	11/21	12/02	12/11	12/18	12/26	1/03	1/13	2/01	0/00
28	12/22	1/09	1/29	0/00	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 Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	318	301	289	279	269	260	249	237	220
32	>365	>365	>365	344	321	305	291	276	257
28	>365	>365	>365	>365	>365	>365	>365	>365	339
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 documentation available from:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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

**Station: SUPERIOR, AZ**

**COOP ID: 028348**

**Climate Division: AZ 6**

**NWS Call Sign:**

**Elevation: 2,860 Feet    Lat: 33°18N    Lon: 111°06W**

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	409	293	256	102	22	0	0	0	0	37	202	389	1710
60	268	178	159	44	6	0	0	0	0	12	113	251	1031
57	195	124	112	23	2	0	0	0	0	6	72	182	716
55	155	94	84	15	1	0	0	0	0	3	51	143	546
50	75	36	35	3	0	0	0	0	0	0	18	67	234
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	619	642	814	1005	1288	1556	1697	1648	1486	1231	838	641	13465
55	61	92	185	330	576	866	984	935	796	521	198	72	5616
57	39	66	151	278	516	806	922	873	736	462	160	48	5057
60	19	35	105	209	427	716	829	780	646	375	110	24	4275
65	5	11	47	117	288	566	674	625	496	245	50	7	3131
70	0	1	18	52	173	416	519	470	348	140	18	0	2155

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	383	449	573	764	1050	1326	1454	1409	1251	995	604	406	383	832	1405	2169	3219	4545	5999	7408	8659	9654	10258	10664
45	241	310	422	614	895	1176	1299	1254	1101	840	457	262	241	551	973	1587	2482	3658	4957	6211	7312	8152	8609	8871
50	121	189	286	466	740	1026	1144	1099	951	686	318	141	121	310	596	1062	1802	2828	3972	5071	6022	6708	7026	7167
55	53	92	168	329	585	876	989	944	801	532	197	59	53	145	313	642	1227	2103	3092	4036	4837	5369	5566	5625
60	12	38	87	204	432	726	834	789	651	385	106	14	12	50	137	341	773	1499	2333	3122	3773	4158	4264	4278
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	194	239	337	487	700	872	959	943	846	662	351	203	194	433	770	1257	1957	2829	3788	4731	5577	6239	6590	6793

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)