

# Climatography of the United States

No. 20

1971-2000

Station: TACNA 3 NE, AZ

COOP ID: 028396

Climate Division: AZ 5

NWS Call Sign:

Elevation: 324 Feet Lat: 32°43N Lon: 113°55W

## 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	68.3	36.3	52.3	89	1971	20	56.5	1986	14	1971	7	47.1	1979	394	0	.0	.0	31.0	.0	11.1	.0
Feb	73.6	40.7	57.2	92+	1989	26	63.2	1995	23	1985	1	52.8	1985	227	7	.0	.2	27.9	.1	4.6	.0
Mar	78.9	45.7	62.3	100	1988	26	68.8	1972	25	1971	3	57.8	1991	143	60	@	3.4	31.0	.0	.8	.0
Apr	86.5	52.1	69.3	108	1980	20	75.3	1989	31	1975	2	63.4	1975	36	165	1.5	12.2	30.0	.0	.1	.0
May	94.0	60.5	77.3	115	1983	29	83.7	1997	37	1975	6	72.5	1991	4	383	7.6	23.1	31.0	.0	.0	.0
Jun	103.1	68.8	86.0	121	1980	29	91.5	1994	42	1979	19	80.3	1991	0	628	21.6	28.7	30.0	.0	.0	.0
Jul	106.0	78.1	92.1	126	1995	28	96.5	1980	52	1979	4	87.7	1991	0	838	27.7	30.9	31.0	.0	.0	.0
Aug	104.9	77.7	91.3	118+	1998	28	97.2	1995	51	1975	17	86.9	1979	0	816	26.5	30.7	31.0	.0	.0	.0
Sep	100.1	70.0	85.1	115+	1995	2	90.8	1995	43	1970	26	77.8	1985	0	602	17.8	28.3	30.0	.0	.0	.0
Oct	89.6	56.1	72.9	110	1980	2	78.8	1988	27	1971	30	68.0	1971	21	263	3.6	17.5	31.0	.0	.2	.0
Nov	76.7	41.9	59.3	96	1988	6	65.3	1995	24	1975	20	54.6	2000	193	23	.0	1.0	30.0	.0	3.6	.0
Dec	67.8	35.4	51.6	83	1980	17	55.7	1983	13	1990	23	47.5	1990	416	0	.0	.0	30.8	.0	12.3	.0
Ann	87.5	55.3	71.4	126	Jul 1995	28	97.2	Aug 1995	13	Dec 1990	23	47.1	Jan 1979	1434	3785	106.3	176.0	364.7	.1	32.7	.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: 1969-2001

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

091-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: TACNA 3 NE, AZ

COOP ID: 028396

Climate Division: AZ 5

NWS Call Sign:

Elevation: 324 Feet Lat: 32°43N

Lon: 113°55W

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	.50	.37	2.30	1979	17	3.23	1979	.00+	2000	2.7	1.4	.2	@	.00	.00	.00	.07	.17	.28	.42	.61	.87	1.32	1.77
Feb	.41	.21	1.35	1992	7	1.80	1992	.00+	1989	2.5	1.1	.2	@	.00	.00	.00	.05	.12	.21	.32	.48	.70	1.11	1.51
Mar	.48	.18	.94	1992	3	1.88	1979	.00+	1999	2.5	1.3	.3	.0	.00	.00	.00	.04	.12	.23	.37	.56	.83	1.31	1.80
Apr	.19	.00	.99	1999	2	1.14	1999	.00+	2000	.9	.5	.1	.0	.00	.00	.00	.00	.00	.00	.04	.17	.35	.64	.92
May	.11	.00	1.12	1994	24	1.29	1994	.00+	2000	.5	.2	.1	@	.00	.00	.00	.00	.00	.00	.00	.02	.12	.35	.62
Jun	.01	.00	.10	1997	6	.10	1997	.00+	2000	.1	@	.0	.0	**	**	**	**	**	**	**	**	**	**	**
Jul	.38	.11	.90	1984	27	3.82	1984	.00+	2000	1.7	1.1	.3	.0	.00	.00	.00	.00	.00	.07	.20	.38	.67	1.18	1.73
Aug	.77	.50	2.88	1977	16	3.02	1977	.00+	1995	3.0	1.7	.5	.1	.00	.00	.05	.19	.34	.51	.71	.97	1.32	1.91	2.51
Sep	.45	.13	1.64	1971	30	1.88	1997	.00+	2000	1.6	.9	.3	.1	.00	.00	.00	.00	.06	.15	.29	.49	.78	1.30	1.84
Oct	.29	.01	2.33	1972	6	3.13	1972	.00+	1999	1.3	.7	.1	@	.00	.00	.00	.00	.00	.00	.05	.18	.42	.94	1.51
Nov	.28	.04	2.18	1969	10	1.65	1993	.00+	2000	1.5	.7	.1	.1	.00	.00	.00	.00	.00	.04	.14	.28	.49	.87	1.26
Dec	.48	.21	1.22	1984	8	3.17	1984	.00+	2000	2.7	1.2	.2	@	.00	.00	.00	.01	.07	.17	.32	.52	.83	1.40	1.99
Ann	4.35	3.85	2.88	Aug 1977	16	3.82	Jul 1984	.00+	Dec 2000	21.0	10.8	2.4	.3	1.08	1.49	2.12	2.68	3.23	3.81	4.46	5.24	6.25	7.85	9.35

+ 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: 1969-2001

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

Complete documentation available from:  
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: TACNA 3 NE, AZ**

**COOP ID: 028396**

**Climate Division: AZ 5**

**NWS Call Sign:**

**Elevation: 324 Feet**

**Lat: 32°43N**

**Lon: 113°55W**

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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.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	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.0	.0	N/A	N/A	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

# Climatography of the United States

## No. 20 1971-2000

**Station: TACNA 3 NE, AZ**

**COOP ID: 028396**

**Climate Division: AZ 5**

**NWS Call Sign:**

**Elevation: 324 Feet**

**Lat: 32° 43N**

**Lon: 113° 55W**

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	4/12	4/03	3/27	3/21	3/15	3/10	3/04	2/25	2/16
32	3/26	3/15	3/07	3/01	2/23	2/17	2/10	2/02	1/23
28	2/26	2/17	2/10	2/03	1/29	1/23	1/17	1/09	12/28
24	1/26	1/17	1/10	1/04	12/26	0/00	0/00	0/00	0/00
20	1/01	12/14	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	10/29	11/02	11/05	11/08	11/10	11/13	11/15	11/18	11/22
32	11/08	11/12	11/16	11/19	11/22	11/24	11/27	12/01	12/05
28	11/15	11/24	11/30	12/06	12/11	12/16	12/22	12/29	1/08
24	12/08	12/18	12/26	1/03	1/15	0/00	0/00	0/00	0/00
20	12/23	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	270	259	252	245	239	233	226	218	208
32	306	294	285	278	271	264	257	248	236
28	>365	352	335	324	315	306	297	287	273
24	>365	>365	>365	>365	>365	>365	354	342	331
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)

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

**Station: TACNA 3 NE, AZ**

**COOP ID: 028396**

**Climate Division: AZ 5      NWS Call Sign:      Elevation: 324 Feet    Lat: 32°43N    Lon: 113°55W**

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	394	227	143	36	4	0	0	0	0	21	193	416	1434
60	248	115	64	9	0	0	0	0	0	4	91	268	799
57	170	67	33	3	0	0	0	0	0	1	50	186	510
55	127	42	20	1	0	0	0	0	0	0	31	139	360
50	49	9	4	0	0	0	0	0	0	0	6	55	123
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	629	704	940	1120	1402	1618	1861	1839	1592	1265	820	607	14397
55	44	101	246	431	689	928	1148	1126	902	553	160	33	6361
57	25	71	198	373	627	868	1086	1064	842	491	120	17	5782
60	10	35	136	288	534	778	993	971	752	402	71	6	4976
65	0	7	60	165	383	628	838	816	602	263	23	0	3785
70	0	0	18	77	243	478	683	661	454	150	4	0	2768

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	389	494	681	852	1114	1333	1572	1561	1337	1009	578	367	389	883	1564	2416	3530	4863	6435	7996	9333	10342	10920	11287
45	238	351	526	702	959	1183	1417	1406	1187	854	428	219	238	589	1115	1817	2776	3959	5376	6782	7969	8823	9251	9470
50	114	212	371	552	804	1033	1262	1251	1037	699	285	97	114	326	697	1249	2053	3086	4348	5599	6636	7335	7620	7717
55	34	98	225	402	649	883	1107	1096	887	546	156	24	34	132	357	759	1408	2291	3398	4494	5381	5927	6083	6107
60	2	31	109	260	494	733	952	941	737	393	63	0	2	33	142	402	896	1629	2581	3522	4259	4652	4715	4715
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	299	358	455	537	678	780	950	952	816	629	411	293	299	657	1112	1649	2327	3107	4057	5009	5825	6454	6865	7158

(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)