

# Climatology of the United States

No. 20

1971-2000

Station: PAGE, AZ

COOP ID: 026180

Climate Division: AZ 2

NWS Call Sign:

Elevation: 4,270 Feet Lat: 36° 55N

Lon: 111° 27W

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	43.1	26.3	34.7	64	1975	27	40.4	1981	-11	1963	13	26.4	1979	939	0	.0	.0	6.7	2.4	26.0	.0
Feb	50.3	30.4	40.4	72+	1989	26	47.9	1995	6	1989	6	30.4	1979	692	0	.0	.0	15.5	.8	16.2	.0
Mar	59.5	37.0	48.3	82	1971	27	54.7	1972	18	1962	1	42.6	1973	521	2	.0	.0	27.9	@	5.6	.0
Apr	68.5	43.6	56.1	91+	2000	28	63.3	1989	25	1975	2	50.0	1983	292	24	.0	.1	29.1	.0	1.6	.0
May	78.5	52.6	65.6	102	2000	30	71.9	2000	31	1967	1	60.1	1980	102	118	.1	2.6	31.0	.0	.5	.0
Jun	90.2	62.3	76.3	107	1970	27	81.7	1994	44+	1993	8	72.3	1979	5	343	3.3	18.1	30.0	.0	.1	.0
Jul	95.1	68.3	81.7	109	1985	5	85.7	1996	56+	1982	6	78.2	1987	0	518	7.8	27.6	31.0	.0	.0	.0
Aug	92.0	66.4	79.2	106	1969	10	83.7	1994	46	1968	23	76.0	1979	0	441	2.8	23.0	31.0	.0	.0	.0
Sep	83.5	58.4	71.0	100	1977	8	73.9	1995	40	1970	26	66.4	1986	15	194	@	7.1	30.0	.0	@	.0
Oct	69.7	46.6	58.2	93	1963	3	63.7	1988	24	1971	30	52.2	1984	241	28	.0	.2	30.3	.0	.9	.0
Nov	53.8	34.7	44.3	77	1988	3	49.9	1995	16	1976	28	39.5	2000	622	0	.0	.0	20.8	.1	9.5	.0
Dec	43.7	27.1	35.4	66+	1980	5	42.3	1980	1+	1990	24	26.1	1978	917	0	.0	.0	5.9	2.2	25.2	.0
Ann	69.0	46.1	57.6	109	Jul 1985	5	85.7	Jul 1996	-11	Jan 1963	13	26.1	Dec 1978	4346	1668	14.0	78.7	289.2	5.5	85.6	.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: 1957-2001

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

061-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: PAGE, AZ**

**COOP ID: 026180**

**Climate Division: AZ 2**

**NWS Call Sign:**

**Elevation: 4,270 Feet Lat: 36°55N**

**Lon: 111°27W**

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	.61	.36	.90	1979	19	3.21	1993	.00+	1992	4.5	2.1	.3	.0	.00	.00	.04	.15	.26	.40	.56	.76	1.05	1.52	2.00
Feb	.48	.35	.84	1970	16	1.75	1993	.00	1972	4.0	1.7	.1	.0	.01	.04	.10	.17	.25	.34	.44	.58	.77	1.10	1.42
Mar	.65	.63	1.20	1970	2	1.83	1983	.00+	1989	5.2	2.1	.2	.0	.00	.00	.13	.23	.35	.47	.62	.81	1.07	1.50	1.92
Apr	.50	.37	.91	1988	17	2.14	1988	.00+	1992	3.5	1.5	.3	.0	.00	.00	.07	.15	.24	.34	.46	.62	.83	1.20	1.56
May	.40	.26	1.26	1965	13	1.85	1992	.00+	1991	3.2	1.3	.1	.0	.00	.00	.03	.10	.17	.25	.36	.49	.68	1.01	1.34
Jun	.14	.08	.50	1967	20	.93	1972	.00+	1991	1.7	.5	.0	.0	.00	.00	.00	.02	.05	.08	.12	.17	.24	.37	.49
Jul	.58	.45	.82	1983	24	1.68	1992	.00	1993	4.6	1.9	.2	.0	.01	.05	.12	.20	.30	.40	.54	.71	.95	1.35	1.75
Aug	.69	.65	1.97	1963	31	1.83	1982	.00	1976	5.2	2.3	.2	.0	.09	.18	.30	.39	.49	.59	.71	.85	1.03	1.32	1.59
Sep	.66	.48	1.29	1983	26	3.22	1997	.00	1979	4.5	1.9	.3	.1	.01	.03	.10	.19	.29	.42	.58	.79	1.09	1.61	2.14
Oct	.99	.78	1.35	2000	22	3.89	1972	.00+	1999	4.3	2.3	.4	.1	.00	.00	.12	.26	.43	.63	.88	1.20	1.65	2.43	3.22
Nov	.56	.51	1.00	1979	8	2.06	1978	.00+	1999	3.2	1.6	.2	@	.00	.00	.10	.21	.31	.43	.55	.71	.93	1.27	1.61
Dec	.48	.28	2.00	1978	31	4.00	1978	.00+	1989	3.9	1.2	.3	@	.00	.00	.03	.10	.18	.29	.41	.58	.81	1.22	1.63
Ann	6.74	6.46	2.00	Dec 1978	31	4.00	Dec 1978	.00+	Nov 1999	47.8	20.4	2.6	.2	3.28	3.86	4.65	5.28	5.86	6.45	7.07	7.78	8.67	10.00	11.20

+ 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

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

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**Station: PAGE, AZ**

**COOP ID: 026180**

**Climate Division: AZ 2**

**NWS Call Sign:**

**Elevation: 4,270 Feet**

**Lat: 36°55N**

**Lon: 111°27W**

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	2.1	.0	#	0	5.4	1987	16	12.4	1974	9+	1987	17	2	1979	.9	.6	.2	.1	.0	1.0	.4	.2	.0
Feb	1.2	.0	#	0	6.8	1982	4	8.3	1982	4+	1979	1	#+	1983	.6	.4	.2	.1	.0	.3	.1	.0	.0
Mar	.2	.0	#	0	1.3	1973	23	1.3+	1998	1	1973	23	#+	1977	.3	.1	.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	#	1971	29	#	1971	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.5	.0	#	0	5.0	1979	20	5.0	1979	7	1981	30	#+	1985	.2	.1	.1	.1	.0	@	@	.0	.0
Dec	1.4	.0	#	0	5.3	1971	7	10.6	1971	7+	1978	6	3	1971	.6	.5	.1	.1	.0	.1	.0	.0	.0
Ann	5.4	.0	N/A	N/A	6.8	Feb 1982	4	12.4	Jan 1974	9+	Jan 1987	17	3	Dec 1971	2.6	1.7	.6	.4	.0	1.4	.5	.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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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	5/15	5/05	4/28	4/23	4/17	4/12	4/06	3/30	3/21
32	5/03	4/22	4/14	4/08	4/01	3/26	3/19	3/12	3/01
28	4/13	4/02	3/25	3/18	3/11	3/05	2/26	2/18	2/07
24	3/25	3/12	3/03	2/23	2/16	2/09	2/01	1/23	1/10
20	3/06	2/21	2/11	2/02	1/25	1/16	1/06	12/23	0/00
16	2/10	1/29	1/20	1/11	12/31	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	10/11	10/16	10/20	10/24	10/27	10/30	11/02	11/06	11/12
32	10/20	10/26	10/31	11/03	11/07	11/10	11/14	11/18	11/24
28	10/25	11/02	11/08	11/13	11/17	11/21	11/26	12/02	12/10
24	11/07	11/16	11/23	11/29	12/05	12/10	12/16	12/23	1/02
20	11/26	12/05	12/11	12/17	12/22	12/27	1/03	1/13	0/00
16	12/08	12/16	12/23	12/29	1/07	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	226	215	206	199	192	185	178	169	157
32	255	242	234	226	219	212	204	195	183
28	290	276	266	258	250	242	233	224	210
24	344	323	310	299	289	279	269	257	240
20	>365	>365	>365	348	332	320	308	295	278
16	>365	>365	>365	>365	>365	>365	>365	337	312

\* 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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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	939	692	521	292	102	5	0	0	15	241	622	917	4346
60	784	552	375	182	44	0	0	0	2	134	473	762	3308
57	691	468	294	130	23	0	0	0	1	86	384	669	2746
55	629	414	245	100	15	0	0	0	0	61	326	607	2397
50	482	285	143	43	4	0	0	0	0	21	195	459	1632
32	89	19	2	0	0	0	0	0	0	0	3	72	185

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	173	252	506	722	1040	1328	1541	1464	1170	810	370	178	9554
55	0	2	36	132	341	638	828	751	480	158	4	0	3370
57	0	0	23	102	288	578	766	689	420	121	2	0	2989
60	0	0	11	64	216	489	673	596	332	76	0	0	2457
65	0	0	2	24	118	343	518	441	194	28	0	0	1668
70	0	0	0	7	52	209	363	287	84	7	0	0	1009

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	25	95	297	516	811	1104	1329	1249	943	592	181	26	25	120	417	933	1744	2848	4177	5426	6369	6961	7142	7168
45	0	34	165	376	657	954	1174	1094	794	439	85	2	0	34	199	575	1232	2186	3360	4454	5248	5687	5772	5774
50	0	6	74	244	506	804	1019	939	644	301	26	0	0	6	80	324	830	1634	2653	3592	4236	4537	4563	4563
55	0	0	24	140	360	656	864	784	496	175	3	0	0	0	24	164	524	1180	2044	2828	3324	3499	3502	3502
60	0	0	2	66	226	508	709	629	349	84	0	0	0	0	2	68	294	802	1511	2140	2489	2573	2573	2573
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	13	57	170	311	524	722	862	829	625	346	93	10	13	70	240	551	1075	1797	2659	3488	4113	4459	4552	4562

(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)