

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: ORGAN PIPE CACTUS N M, AZ

1971-2000

COOP ID: 026132

Climate Division: AZ 7

NWS Call Sign:

Elevation: 1,678 Feet Lat: 31° 57N

Lon: 112° 48W

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	69.5	39.9	54.7	90	2000	17	58.9	1986	14	1962	12	47.9	1979	321	1	.0	@	30.8	.0	4.6	.0
Feb	73.5	42.0	57.8	95	1957	13	61.5	1996	19	1990	16	53.4	1998	213	10	.0	.3	27.9	.0	1.8	.0
Mar	77.9	45.0	61.5	99	1988	26	68.1	1972	25	1971	2	54.0	1973	169	59	.0	2.5	31.0	.0	.6	.0
Apr	85.6	49.8	67.7	104+	1989	20	74.8	1989	31	1983	5	60.6	1975	67	147	.9	9.4	30.0	.0	@	.0
May	92.8	57.0	74.9	111+	2000	28	81.7	1984	30+	1970	2	69.9	1977	13	319	4.7	20.5	31.0	.0	.0	.0
Jun	102.1	65.6	83.9	118	1990	26	87.5	1978	46	1963	8	79.1	1982	0	566	19.3	28.7	30.0	.0	.0	.0
Jul	104.3	74.0	89.2	118+	1998	15	92.4	1980	52	1970	5	86.7	1993	0	749	25.5	30.9	31.0	.0	.0	.0
Aug	102.7	72.9	87.8	116	1995	5	91.0	1995	50	1971	13	84.3	1979	0	706	23.2	30.5	31.0	.0	.0	.0
Sep	99.0	67.4	83.2	113	1950	1	87.0	1979	46	1950	25	78.6	1985	0	546	13.9	28.0	30.0	.0	.0	.0
Oct	89.2	56.8	73.0	107+	1987	6	77.9	1987	32	1979	31	67.9	1971	17	264	2.9	15.5	31.0	.0	@	.0
Nov	77.3	45.5	61.4	97	1999	15	66.8	1999	24	1979	20	54.8	2000	155	46	.0	1.3	30.0	.0	.9	.0
Dec	69.3	40.2	54.8	88	1958	3	60.2	1977	18	1960	7	50.3	1978	321	4	.0	.0	30.8	.0	3.8	.0
Ann	86.9	54.7	70.8	118+	Jul 1998	15	92.4	Jul 1980	14	Jan 1962	12	47.9	Jan 1979	1276	3417	90.4	167.6	364.5	.0	11.7	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

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

060-A

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No. 20

1971-2000

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Station: ORGAN PIPE CACTUS N M, AZ

COOP ID: 026132

Climate Division: AZ 7

NWS Call Sign:

Elevation: 1,678 Feet Lat: 31°57N

Lon: 112°48W

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	.85	.62	2.10	1979	17	4.75	1993	.00+	2000	3.9	1.8	.6	.1	.00	.00	.00	.14	.33	.54	.77	1.07	1.48	2.17	2.84
Feb	.81	.33	1.49	1992	13	3.70	1998	.00+	1984	3.5	1.8	.6	.1	.00	.00	.02	.09	.20	.36	.58	.89	1.36	2.22	3.13
Mar	1.00	.70	1.64	1992	28	3.58	1992	.00+	1990	3.7	2.3	.7	.1	.00	.00	.16	.34	.52	.73	.96	1.26	1.66	2.32	2.96
Apr	.20	.03	.63	1999	2	.93	1984	.00+	1996	1.3	.6	.1	.0	.00	.00	.00	.00	.00	.03	.11	.21	.36	.62	.89
May	.08	.01	1.28	1957	11	.71	1976	.00+	2000	.9	.3	.0	.0	.00	.00	.00	.00	.00	.00	.03	.07	.14	.27	.40
Jun	.04	.00	1.20	1962	28	.68	2000	.00+	1999	.5	.1	@	.0	.00	.00	.00	.00	.00	.00	.00	.00	.02	.13	.27
Jul	1.33	.87	2.05	1972	24	5.48	1990	.00	1994	4.1	2.4	1.0	.3	.03	.11	.27	.46	.67	.92	1.22	1.61	2.16	3.09	4.02
Aug	2.16	1.80	3.48	1951	27	6.70	1984	.00+	1976	6.9	3.8	1.4	.6	.00	.26	.66	1.00	1.35	1.73	2.17	2.69	3.41	4.57	5.70
Sep	.89	.66	2.02	1974	26	5.18	1974	.00+	2000	3.8	1.9	.5	.2	.00	.00	.08	.19	.34	.52	.75	1.06	1.50	2.28	3.08
Oct	.77	.40	2.02	1972	19	3.79	1972	.00+	1999	2.7	1.4	.5	.1	.00	.00	.00	.06	.19	.36	.58	.89	1.33	2.12	2.92
Nov	.61	.32	2.00	1975	28	2.86	1978	.00+	1999	2.2	1.4	.4	.1	.00	.00	.00	.04	.18	.33	.52	.76	1.09	1.66	2.22
Dec	1.14	.52	1.89	1983	2	4.42	1994	.00+	2000	3.8	2.1	.7	.3	.00	.00	.01	.11	.27	.50	.82	1.26	1.93	3.14	4.42
Ann	9.88	9.02	3.48	Aug 1951	27	6.70	Aug 1984	.00+	Dec 2000	37.3	19.9	6.5	1.9	4.50	5.37	6.57	7.55	8.46	9.37	10.35	11.47	12.87	15.00	16.92

+ 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: 1948-2001

(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: ORGAN PIPE CACTUS N M, AZ

COOP ID: 026132

Climate Division: AZ 7

NWS Call Sign:

Elevation: 1,678 Feet

Lat: 31°57N

Lon: 112°48W

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	#	1990	15	#	1990	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	#	1994	28	#	1994	.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	N/A	N/A	#	Feb 1990	15	#	Feb 1990	#	Apr 1994	28	#	Apr 1994	.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:

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No. 20 1971-2000

Station: ORGAN PIPE CACTUS N M, AZ

COOP ID: 026132

Climate Division: AZ 7

NWS Call Sign:

Elevation: 1,678 Feet

Lat: 31° 57N

Lon: 112° 48W

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	4/14	4/04	3/29	3/23	3/18	3/13	3/07	2/28	2/19
32	3/20	3/09	3/01	2/23	2/17	2/11	2/04	1/28	1/17
28	2/20	2/08	1/31	1/24	1/17	1/10	1/02	12/23	12/04
24	1/25	1/10	12/28	12/07	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	11/03	11/09	11/13	11/17	11/20	11/24	11/27	12/02	12/08
32	11/16	11/22	11/27	12/02	12/06	12/10	12/14	12/19	12/26
28	11/27	12/07	12/15	12/22	12/28	1/04	1/12	1/22	0/00
24	12/12	12/29	1/14	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	278	267	260	253	247	241	234	226	215
32	330	316	307	299	291	283	275	266	252
28	>365	>365	>365	355	339	328	318	308	295
24	>365	>365	>365	>365	>365	>365	>365	>365	338
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:
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No. 20
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COOP ID: 026132

Climate Division: AZ 7 NWS Call Sign: Elevation: 1,678 Feet Lat: 31°57N Lon: 112°48W

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	321	213	169	67	13	0	0	0	0	17	155	321	1276
60	181	106	86	23	2	0	0	0	0	3	72	185	658
57	113	61	49	11	0	0	0	0	0	1	39	121	395
55	79	37	31	6	0	0	0	0	0	0	24	87	264
50	20	8	9	0	0	0	0	0	0	0	5	25	67
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	703	721	913	1070	1330	1556	1772	1729	1536	1271	881	706	14188
55	69	114	231	386	617	866	1059	1016	846	558	215	80	6057
57	42	82	186	331	555	806	997	954	786	497	171	52	5459
60	16	43	131	254	464	716	904	861	696	406	113	23	4627
65	1	10	59	147	319	566	749	706	546	264	46	4	3417
70	0	1	20	71	194	417	594	551	396	147	13	0	2404

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	448	513	663	826	1079	1309	1521	1477	1290	1016	630	450	448	961	1624	2450	3529	4838	6359	7836	9126	10142	10772	11222
45	300	369	508	676	924	1159	1366	1322	1140	861	480	300	300	669	1177	1853	2777	3936	5302	6624	7764	8625	9105	9405
50	165	233	355	526	769	1009	1211	1167	990	706	335	166	165	398	753	1279	2048	3057	4268	5435	6425	7131	7466	7632
55	64	117	213	379	614	859	1056	1012	840	552	200	64	64	181	394	773	1387	2246	3302	4314	5154	5706	5906	5970
60	12	42	104	245	459	709	901	857	690	401	95	11	12	54	158	403	862	1571	2472	3329	4019	4420	4515	4526
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	307	346	434	527	663	780	937	919	808	640	415	304	307	653	1087	1614	2277	3057	3994	4913	5721	6361	6776	7080

(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