

Climatography of the United States

No. 20

1971-2000

Station: ANVIL RANCH, AZ

COOP ID: 020287

Climate Division: AZ 7

NWS Call Sign:

Elevation: 2,750 Feet Lat: 31° 59N

Lon: 111° 23W

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	65.8	33.3	49.6	89	1971	19	54.9	1986	9+	1967	7	46.4	1979	479	0	.0	.0	30.2	.0	15.2	.0
Feb	69.6	35.9	52.8	97	1986	25	56.6	1995	11	1972	3	48.3	1998	343	0	.0	@	27.8	.1	9.3	.0
Mar	74.2	39.9	57.1	97	1988	26	64.0	1972	17+	1971	3	52.1	1973	262	15	.0	.7	31.0	.0	4.5	.0
Apr	81.8	44.3	63.1	104	1965	21	69.8	1989	24	1983	5	57.6	1983	127	69	.2	5.1	30.0	.0	1.0	.0
May	89.8	52.6	71.2	111	1958	28	76.1	1984	28	1969	6	67.3	1995	22	214	2.0	17.1	31.0	.0	.0	.0
Jun	99.4	62.3	80.9	116	1960	20	85.2	1990	38	1993	9	76.6	1991	0	475	15.9	28.3	30.0	.0	.0	.0
Jul	99.0	69.9	84.5	114	1958	11	86.9	1989	52+	1992	2	81.0	1984	0	603	15.4	29.5	31.0	.0	.0	.0
Aug	96.7	68.4	82.6	113	1962	11	85.1	1994	50	1968	15	78.6	1990	0	545	9.0	28.6	31.0	.0	.0	.0
Sep	94.1	61.9	78.0	111	1950	1	80.9	1997	38	1965	30	73.6	1985	0	389	4.2	24.3	30.0	.0	.0	.0
Oct	84.7	50.2	67.5	103	1950	8	71.4	1988	20	1971	30	62.7	1971	49	124	.4	9.5	31.0	.0	.5	.0
Nov	73.8	38.5	56.2	94+	1999	7	61.6	1999	15	1992	26	49.5	2000	275	9	.0	.6	29.9	.0	6.2	.0
Dec	65.9	33.4	49.7	86+	1980	16	55.9	1980	8	1954	28	45.0	1997	477	0	.0	.0	29.9	.0	14.6	.0
Ann	82.9	49.2	66.1	116	Jun 1960	20	86.9	Jul 1989	8	Dec 1954	28	45.0	Dec 1997	2034	2443	47.1	143.7	362.8	.1	51.3	.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

004-A

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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: ANVIL RANCH, AZ

COOP ID: 020287

Climate Division: AZ 7

NWS Call Sign:

Elevation: 2,750 Feet Lat: 31°59N

Lon: 111°23W

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	.84	.93	1.95	1960	11	2.80	1979	.00+	2000	3.4	2.1	.6	.1	.00	.00	.09	.22	.37	.55	.76	1.03	1.41	2.05	2.70
Feb	.80	.53	1.20	1979	5	3.15	1998	.00+	1999	3.2	2.0	.4	.1	.00	.00	.03	.16	.30	.48	.69	.98	1.38	2.06	2.76
Mar	.80	.59	1.10	1978	1	2.42	1978	.00+	1996	3.1	2.4	.5	@	.00	.00	.13	.28	.42	.59	.78	1.01	1.33	1.85	2.36
Apr	.22	.08	1.44	1953	22	1.07	1999	.00+	2000	1.6	1.0	@	.0	.00	.00	.00	.00	.03	.10	.18	.28	.41	.64	.86
May	.24	.04	.86	1993	15	1.38	1978	.00+	2000	1.3	.7	.1	.0	.00	.00	.00	.00	.00	.04	.16	.29	.46	.75	1.02
Jun	.35	.10	1.68	1980	30	1.68+	2000	.00+	1998	1.2	.8	.2	.1	.00	.00	.00	.00	.00	.07	.19	.36	.62	1.08	1.56
Jul	2.54	2.16	2.47	1990	23	8.85	1990	.33	1993	8.3	5.7	1.8	.5	.41	.63	1.00	1.35	1.71	2.10	2.55	3.10	3.84	5.04	6.18
Aug	2.69	2.55	2.80	1993	28	6.31	1984	.70	1975	7.6	5.8	1.4	.4	.63	.88	1.28	1.63	1.98	2.35	2.76	3.26	3.91	4.94	5.91
Sep	1.39	1.06	4.30	1962	26	4.51	1983	.00	1973	4.0	2.9	1.0	.4	.02	.09	.25	.44	.66	.92	1.25	1.67	2.27	3.29	4.32
Oct	1.12	.65	2.50	1988	20	5.10	1983	.00+	1999	3.1	2.2	.7	.2	.00	.00	.00	.25	.48	.73	1.04	1.41	1.93	2.82	3.67
Nov	.55	.38	1.80	1978	24	2.96	1978	.00+	1999	2.1	1.4	.3	.1	.00	.00	.08	.18	.28	.40	.53	.70	.93	1.30	1.67
Dec	1.07	.55	2.40	1994	5	4.22	1994	.00+	2000	3.3	2.4	.6	.2	.00	.00	.00	.11	.31	.56	.87	1.29	1.87	2.89	3.91
Ann	12.61	11.24	4.30	Sep 1962	26	8.85	Jul 1990	.00+	Dec 2000	42.2	29.4	7.6	2.1	6.34	7.40	8.84	9.99	11.05	12.11	13.23	14.50	16.10	18.49	20.63

+ 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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No. 20 1971-2000

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151 Patton Avenue
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Station: ANVIL RANCH, AZ

COOP ID: 020287

Climate Division: AZ 7

NWS Call Sign:

Elevation: 2,750 Feet

Lat: 31°59N

Lon: 111°23W

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	1.0	1986	7	1.0	1986	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Mar	#	.0	0	0	#	1976	8	#	1976	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	.2	.0	0	0	5.0	1971	8	5.0	1971	0	0	0	0	0	.1	.1	@	@	.0	.0	.0	.0	.0
Ann	.2	.0	N/A	N/A	5.0	Dec 1971	8	5.0	Dec 1971	0	0	0	0	0	.1	.1	@	@	.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

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Climate Division: AZ 7

NWS Call Sign:

Elevation: 2,750 Feet

Lat: 31° 59N

Lon: 111° 23W

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	5/05	4/30	4/26	4/22	4/19	4/16	4/13	4/09	4/03
32	4/19	4/12	4/07	4/02	3/29	3/24	3/20	3/15	3/07
28	4/02	3/24	3/18	3/12	3/07	3/02	2/25	2/18	2/09
24	3/12	2/27	2/18	2/10	2/03	1/26	1/18	1/08	12/23
20	2/14	1/31	1/20	1/11	1/01	12/21	12/05	0/00	0/00
16	1/24	1/07	12/23	12/03	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	10/14	10/20	10/23	10/27	10/30	11/02	11/05	11/09	11/15
32	10/21	10/27	10/31	11/03	11/06	11/10	11/13	11/17	11/22
28	11/04	11/09	11/14	11/17	11/21	11/24	11/28	12/02	12/08
24	11/15	11/20	11/25	11/28	12/02	12/05	12/09	12/13	12/20
20	11/18	11/30	12/09	12/17	12/26	1/06	1/25	0/00	0/00
16	12/08	12/16	12/24	1/06	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	217	209	203	198	193	188	183	177	169
32	248	239	233	227	222	217	211	205	196
28	287	277	270	264	258	252	246	239	229
24	>365	330	317	307	298	290	282	272	259
20	>365	>365	>365	>365	>365	359	333	314	292
16	>365	>365	>365	>365	>365	>365	>365	>365	340

* 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

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Climate Division: AZ 7 NWS Call Sign: Elevation: 2,750 Feet Lat: 31°59N Lon: 111°23W

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	479	343	262	127	22	0	0	0	0	49	275	477	2034
60	324	211	144	56	4	0	0	0	0	13	155	326	1233
57	236	140	92	28	1	0	0	0	0	5	100	242	844
55	180	102	63	17	0	0	0	0	0	2	71	191	626
50	74	33	18	4	0	0	0	0	0	0	23	92	244
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	544	582	776	933	1215	1465	1626	1568	1379	1098	725	546	12457
55	11	40	126	260	502	775	913	855	689	387	106	24	4688
57	5	22	93	211	441	715	851	793	629	327	75	14	4176
60	0	8	52	148	351	625	758	700	539	243	40	5	3469
65	0	0	15	69	214	475	603	545	389	124	9	0	2443
70	0	0	2	22	107	329	448	390	242	45	1	0	1586

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	314	386	538	704	975	1238	1388	1330	1149	862	499	318	314	700	1238	1942	2917	4155	5543	6873	8022	8884	9383	9701
45	177	245	384	554	820	1088	1233	1175	999	707	355	183	177	422	806	1360	2180	3268	4501	5676	6675	7382	7737	7920
50	71	129	240	405	665	938	1078	1020	849	553	222	82	71	200	440	845	1510	2448	3526	4546	5395	5948	6170	6252
55	18	47	119	265	510	788	923	865	699	403	113	20	18	65	184	449	959	1747	2670	3535	4234	4637	4750	4770
60	1	10	44	148	357	638	768	710	549	262	41	0	1	11	55	203	560	1198	1966	2676	3225	3487	3528	3528
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	259	299	385	476	609	735	874	853	723	554	366	262	259	558	943	1419	2028	2763	3637	4490	5213	5767	6133	6395

(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