

Climatology of the United States

No. 20

1971-2000

Station: CORDES, AZ

COOP ID: 022109

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,771 Feet Lat: 34° 18N

Lon: 112° 10W

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	58.0	32.5	45.3	81+	1971	19	51.6	1986	10+	1971	7	38.9	1979	612	0	.0	.0	26.0	.1	14.9	.0
Feb	61.0	34.8	47.9	85	1986	26	53.6	1991	12	1985	5	43.3	1998	478	0	.0	.0	25.4	.2	9.9	.0
Mar	65.0	37.4	51.2	87	1988	26	59.4	1972	15	1966	3	43.4	1973	434	6	.0	.0	29.5	.0	6.8	.0
Apr	72.9	41.6	57.3	93	1989	6	64.9	1989	23	1975	2	49.8	1975	262	29	.0	.4	29.5	.0	2.7	.0
May	81.6	48.4	65.0	102	1984	28	71.4	2000	29+	1975	6	59.3	1977	105	105	.2	4.7	31.0	.0	.2	.0
Jun	92.4	57.1	74.8	111+	1990	26	78.8	1974	36	1955	3	70.0	1998	9	302	5.3	20.1	30.0	.0	.0	.0
Jul	95.7	64.5	80.1	115	1995	28	83.7	1996	48	1953	18	75.3	1976	0	468	8.4	26.9	31.0	.0	.0	.0
Aug	93.5	63.9	78.7	107+	1993	1	82.6	1994	44	1976	5	76.0	1979	0	425	3.5	24.8	31.0	.0	.0	.0
Sep	88.1	58.0	73.1	106	1950	1	76.7	1997	38	1970	25	67.1	1986	8	248	.6	13.3	30.0	.0	.0	.0
Oct	77.4	47.8	62.6	100	1980	1	67.7	1988	23	1971	30	57.0	1984	148	73	@	3.0	30.9	.0	.3	.0
Nov	65.6	37.4	51.5	88	1999	5	59.0	1995	12	1958	17	46.5	2000	410	4	.0	.0	28.6	.0	6.1	.0
Dec	58.4	32.5	45.5	80+	1980	26	52.6	1980	8	1990	23	40.0	1971	607	0	.0	.0	26.7	.1	14.5	.0
Ann	75.8	46.3	61.1	115	Jul 1995	28	83.7	Jul 1996	8	Dec 1990	23	38.9	Jan 1979	3073	1660	18.0	93.2	349.6	.4	55.4	.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

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

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**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: CORDES, AZ

COOP ID: 022109

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,771 Feet Lat: 34°18N

Lon: 112°10W

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	1.70	1.14	2.15	1979	17	7.61	1993	.00+	1976	5.3	3.2	1.2	.4	.00	.02	.16	.36	.62	.96	1.39	1.98	2.84	4.37	5.95
Feb	1.88	1.11	2.74	1980	14	7.09	1980	.00+	1974	4.9	3.4	1.3	.4	.00	.05	.25	.50	.80	1.17	1.64	2.25	3.13	4.66	6.20
Mar	1.71	1.33	2.31	1991	1	5.40	1991	.00+	1997	6.5	3.9	1.2	.2	.00	.00	.33	.66	.98	1.32	1.71	2.19	2.84	3.86	4.86
Apr	.63	.40	1.41	1965	4	3.18	1988	.00+	1996	2.9	1.6	.4	.1	.00	.00	.00	.11	.24	.38	.56	.78	1.09	1.63	2.15
May	.46	.28	.98	1986	31	2.78	1992	.00+	2000	2.6	1.3	.2	.0	.00	.00	.00	.06	.15	.26	.39	.56	.80	1.21	1.61
Jun	.22	.07	1.21	1955	13	1.10	1973	.00+	1998	1.7	.7	.1	.0	.00	.00	.00	.00	.00	.06	.14	.25	.40	.67	.95
Jul	1.75	1.52	1.62	1984	21	3.94	1990	.00	1993	6.5	4.0	1.2	.4	.15	.34	.63	.88	1.15	1.43	1.76	2.16	2.70	3.57	4.41
Aug	2.18	1.72	3.32	1995	15	5.16	1995	.37+	1985	7.6	4.5	1.3	.5	.39	.59	.91	1.20	1.51	1.83	2.21	2.66	3.25	4.22	5.14
Sep	1.94	1.87	3.75	1995	10	6.70	1983	.00	1973	5.0	3.3	1.3	.5	.01	.07	.25	.49	.79	1.16	1.64	2.28	3.20	4.84	6.51
Oct	1.24	.75	2.19	2000	22	6.17	1972	.00+	1999	3.6	2.6	.8	.3	.00	.00	.11	.27	.47	.73	1.05	1.47	2.08	3.16	4.26
Nov	1.18	.47	3.74	1978	11	5.25	1978	.00+	1999	3.4	2.1	.6	.4	.00	.00	.06	.18	.35	.59	.90	1.34	1.98	3.16	4.38
Dec	1.32	.77	3.48	1965	10	4.82	1992	.00+	1999	4.6	2.7	.8	.3	.00	.00	.14	.32	.54	.81	1.14	1.59	2.21	3.30	4.40
Ann	16.21	15.15	3.75	Sep 1995	10	7.61	Jan 1993	.00+	May 2000	54.6	33.3	10.4	3.5	8.20	9.56	11.40	12.87	14.22	15.57	17.01	18.63	20.66	23.71	26.44

+ 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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151 Patton Avenue
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Station: CORDES, AZ

COOP ID: 022109

Climate Division: AZ 3

NWS Call Sign:

Elevation: 3,771 Feet

Lat: 34° 18N

Lon: 112° 10W

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	.1	.0	#	0	2.0	1982	21	2.0	1982	#	1996	23	#	1996	@	@	.0	.0	.0	.0	.0	.0	.0
Feb	.5	.0	#	0	4.0	1987	25	7.0	1987	3	1978	14	#	1978	.2	.2	.1	.0	.0	@	@	.0	.0
Mar	.3	.0	#	0	3.0	1981	6	4.0	1981	2	1976	4	#+	1976	.3	.2	@	.0	.0	.1	.0	.0	.0
Apr	.4	.0	#	0	5.0	1999	2	6.8	1999	3	1975	7	#	1975	.2	.1	.1	@	.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	.3	.0	0	0	7.0	1991	30	7.0	1991	0	0	0	0	0	.2	.1	@	@	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	3.0	1985	12	5.5	1985	1	1971	7	#	1971	.2	.2	@	.0	.0	@	.0	.0	.0
Ann	1.9	.0	N/A	N/A	7.0	Nov 1991	30	7.0+	Nov 1991	3+	Feb 1978	14	#+	Jan 1996	1.1	.8	.2	@	.0	.1	@	.0	.0

+ Also occurred on an earlier date(s) #Denotes trace amounts

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-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	5/20	5/13	5/07	5/03	4/29	4/24	4/20	4/14	4/07
32	5/05	4/26	4/20	4/15	4/10	4/05	3/30	3/24	3/15
28	4/16	4/04	3/27	3/20	3/13	3/06	2/27	2/18	2/07
24	3/22	3/07	2/24	2/15	2/06	1/28	1/19	1/07	12/20
20	2/14	1/29	1/16	1/04	12/22	12/05	0/00	0/00	0/00
16	1/30	1/04	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	10/17	10/22	10/26	10/29	11/01	11/05	11/08	11/12	11/17
32	10/29	11/02	11/05	11/08	11/11	11/13	11/16	11/19	11/23
28	11/02	11/09	11/15	11/19	11/24	11/28	12/03	12/08	12/16
24	11/15	11/23	11/30	12/05	12/10	12/16	12/22	12/30	1/13
20	11/24	12/07	12/17	12/26	1/06	1/21	0/00	0/00	0/00
16	12/22	1/17	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	214	204	197	192	186	181	175	168	159
32	243	233	226	220	214	209	202	195	186
28	298	283	273	264	255	247	238	227	212
24	>365	346	330	319	309	300	290	279	264
20	>365	>365	>365	>365	>365	347	332	318	302
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

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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	612	478	434	262	105	9	0	0	8	148	410	607	3073
60	457	340	295	159	44	1	0	0	1	72	274	453	2096
57	365	262	222	111	23	0	0	0	0	42	202	364	1591
55	308	212	180	83	14	0	0	0	0	28	161	307	1293
50	174	111	96	33	3	0	0	0	0	8	79	180	684
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	411	446	595	757	1022	1283	1491	1448	1230	949	585	416	10633
55	6	14	62	150	323	593	778	735	540	264	55	10	3530
57	1	8	42	118	270	533	716	673	480	216	37	5	3099
60	0	2	22	76	199	444	623	580	391	153	18	1	2509
65	0	0	6	29	105	302	468	425	248	73	4	0	1660
70	0	0	0	10	43	178	313	272	127	26	0	0	969

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	200	250	360	528	785	1059	1259	1214	1003	721	370	213	200	450	810	1338	2123	3182	4441	5655	6658	7379	7749	7962
45	90	132	215	381	630	909	1104	1059	853	567	232	96	90	222	437	818	1448	2357	3461	4520	5373	5940	6172	6268
50	28	53	104	247	475	759	949	904	703	415	123	35	28	81	185	432	907	1666	2615	3519	4222	4637	4760	4795
55	3	13	43	132	326	609	794	749	554	276	52	2	3	16	59	191	517	1126	1920	2669	3223	3499	3551	3553
60	0	0	7	54	192	460	639	594	404	153	15	0	0	0	7	61	253	713	1352	1946	2350	2503	2518	2518
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	143	173	246	357	508	654	794	784	652	454	245	153	143	316	562	919	1427	2081	2875	3659	4311	4765	5010	5163

(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