U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YOUNGTOWN, AZ **COOP ID: 029634**

Climate Division: AZ 6 **NWS Call Sign:** **Elevation: 1,135 Feet** **Lat: 33˚36N** **Lon: 112˚18W**

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	68.0	41.3	54.7	87	1971	19	59.9	1986	20+	1971	8	49.7	1979	322	1	.0	.0	30.8	.0	3.7	.0
Feb	72.5	44.7	58.6	89+	1989	26	63.2	1991	24	1990	16	53.9	1998	192	12	.0	.0	27.9	@	1.3	.0
Mar	77.8	48.8	63.3	98+	1971	30	71.1	1972	24+	1971	2	56.7	1973	135	81	.0	2.1	31.0	.0	.1	.0
Apr	86.4	54.4	70.4	103+	1992	29	77.3	1989	32	1977	3	63.5	1975	43	205	.8	10.5	30.0	.0	@	.0
May	95.3	63.2	79.3	113+	2000	29	85.0	1984	38	1965	8	73.2	1977	4	444	7.4	23.6	31.0	.0	.0	.0
Jun	105.0	72.0	88.5	122	1990	26	92.6	1981	51	1969	10	83.6	1998	0	704	23.5	29.3	30.0	.0	.0	.0
Jul	107.6	79.3	93.5	122	1995	28	95.6	1989	62+	1978	6	91.0	1993	0	883	29.1	30.9	31.0	.0	.0	.0
Aug	106.1	78.3	92.2	116+	1994	3	95.7	1994	54	1968	23	88.6	1979	0	844	27.3	30.9	31.0	.0	.0	.0
Sep	101.1	71.3	86.2	114	2000	14	90.2	1995	48	1965	20	81.0	1985	0	636	16.0	28.4	30.0	.0	.0	.0
Oct	90.2	59.2	74.7	108	1980	2	79.8	1988	35	1970	29	70.6	1984	9	309	3.0	14.7	31.0	.0	@	.0
Nov	76.7	46.9	61.8	95	1999	13	66.8	1999	28+	1976	29	55.2	2000	142	46	.0	.7	30.0	.0	.4	.0
Dec	68.2	40.9	54.6	84	1980	16	59.8	1980	21+	1978	8	50.8	1978	326	1	.0	.0	30.7	.0	3.2	.0
Ann	87.9	58.4	73.2	122+	Jul 1995	28	95.7	Aug 1994	20+	Jan 1971	8	49.7	Jan 1979	1173	4166	107.1	171.1	364.4	@	8.7	.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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1964-2001

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YOUNGTOWN, AZ **COOP ID: 029634**

Climate Division: AZ 6 **NWS Call Sign:** **Elevation: 1,135 Feet** **Lat: 33˚36N** **Lon: 112˚18W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.03	.66	1.28	1993	17	6.57	1993	.00+	2000
Feb	1.15	.80	1.37	1992	7	5.01	1998	.00+	1989
Mar	1.15	1.07	2.22	1978	2	3.77	1978	.00+	1997
Apr	.29	.10	1.06	1999	2	1.78	1988	.00+	2000
May	.14	.02	.55	1973	31	1.04	1992	.00+	2000
Jun	.05	.00	.43	1967	19	.43	1972	.00+	1998
Jul	.82	.47	2.62	1992	24	3.60	1992	.00+	1997
Aug	1.06	.83	2.73	1982	24	4.11	1982	.00	1976
Sep	.75	.49	2.40	1970	6	3.51	1990	.00+	2000
Oct	.81	.52	1.83	2000	27	4.65	2000	.00+	1999
Nov	.69	.48	1.43	1978	11	2.96	1982	.00+	1999
Dec	1.09	.75	1.80	1967	15	3.93	1992	.00+	1999
Ann	9.03	8.19	2.73	Aug 1982	24	6.57	Jan 1993	.00+	Sep 2000

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	4.2	2.4	.7	.1
Feb	4.1	2.5	.8	.2
Mar	4.7	2.9	.7	.1
Apr	2.1	.6	.1	@
May	1.2	.5	@	.0
Jun	.5	.1	.0	.0
Jul	3.7	1.8	.5	.1
Aug	3.7	2.3	.7	.2
Sep	3.0	1.6	.5	.1
Oct	3.1	1.7	.5	.2
Nov	2.6	1.6	.4	.1
Dec	3.9	2.2	.8	.2
Ann	36.8	20.2	5.7	1.3

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.00	.00	.06	.19	.36	.57	.85	1.22	1.75	2.68	3.63
Feb	.00	.00	.15	.34	.56	.80	1.08	1.44	1.93	2.75	3.56
Mar	.00	.00	.17	.38	.59	.83	1.10	1.45	1.93	2.70	3.47
Apr	.00	.00	.00	.02	.06	.13	.21	.33	.50	.80	1.12
May	.00	.00	.00	.00	.00	.03	.07	.13	.24	.44	.67
Jun	.00	.00	.00	.00	.00	.00	.00	.02	.07	.18	.29
Jul	.00	.00	.07	.17	.30	.47	.68	.97	1.38	2.11	2.86
Aug	.02	.08	.22	.36	.53	.73	.97	1.29	1.73	2.47	3.22
Sep	.00	.00	.06	.17	.30	.46	.65	.91	1.27	1.89	2.52
Oct	.00	.00	.07	.17	.30	.47	.68	.96	1.36	2.07	2.79
Nov	.00	.00	.04	.12	.24	.38	.56	.81	1.17	1.79	2.44
Dec	.00	.00	.06	.17	.34	.55	.84	1.24	1.83	2.90	4.00
Ann	4.04	4.84	5.96	6.86	7.71	8.56	9.47	10.52	11.84	13.83	15.64

\+ 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: 1964-2001
(3) Derived from 1971-2000 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: YOUNGTOWN, AZ **COOP ID: 029634**

Climate Division: AZ 6 **NWS Call Sign:** **Elevation: 1,135 Feet** **Lat: 33°36N** **Lon: 112°18W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	#	1985	11	#	1985	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	#	.0	N/A	N/A	#	Dec 1985	11	#	Dec 1985	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/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YOUNGTOWN, AZ **COOP ID: 029634**

Climate Division: AZ 6 **NWS Call Sign:** **Elevation: 1,135 Feet** **Lat: 33˚36N** **Lon: 112˚18W**

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	3/21	3/11	3/03	2/25	2/19	2/13	2/06	1/30	1/19
32	2/28	2/17	2/09	2/02	1/26	1/20	1/13	1/05	12/24
28	2/05	1/24	1/14	12/31	0/00	0/00	0/00	0/00	0/00
24	1/21	12/16	0/00	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

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	11/12	11/17	11/21	11/24	11/27	11/30	12/03	12/07	12/12
32	11/17	11/25	12/01	12/06	12/11	12/15	12/21	12/26	1/04
28	12/12	12/26	1/09	1/30	0/00	0/00	0/00	0/00	0/00
24	1/08	0/00	0/00	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	317	305	296	288	281	273	265	256	244
32	355	341	331	324	317	309	302	293	281
28	>365	>365	>365	>365	>365	>365	>365	344	320
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
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/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YOUNGTOWN, AZ **COOP ID: 029634**

Climate Division: AZ 6 **NWS Call Sign:** **Elevation: 1,135 Feet** **Lat: 33˚36N** **Lon: 112˚18W**

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	322	192	135	43	4	0	0	0	0	9	142	326	1173
60	180	91	61	14	0	0	0	0	0	1	61	182	590
57	110	48	32	6	0	0	0	0	0	0	31	112	339
55	75	28	20	3	0	0	0	0	0	0	17	76	219
50	17	5	5	0	0	0	0	0	0	0	3	17	47
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	702	744	969	1152	1463	1694	1906	1867	1626	1323	893	698	15037
55	64	128	276	465	750	1004	1193	1154	936	610	220	61	6861
57	37	92	226	408	688	944	1131	1092	876	549	174	35	6252
60	13	51	162	326	595	854	1038	999	786	457	114	12	5407
65	1	12	81	205	444	704	883	844	636	309	46	1	4166
70	0	1	30	114	302	554	728	689	486	181	12	0	3097

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	432	525	706	895	1194	1421	1618	1580	1351	1040	623	427	432	957	1663	2558	3752	5173	6791	8371	9722	10762	11385	11812
45	285	380	551	745	1039	1271	1463	1425	1201	885	473	278	285	665	1216	1961	3000	4271	5734	7159	8360	9245	9718	9996
50	149	243	396	595	884	1121	1308	1270	1051	730	327	142	149	392	788	1383	2267	3388	4696	5966	7017	7747	8074	8216
55	54	119	251	446	729	971	1153	1115	901	575	193	43	54	173	424	870	1599	2570	3723	4838	5739	6314	6507	6550
60	7	41	132	304	574	821	998	960	751	423	90	5	7	48	180	484	1058	1879	2877	3837	4588	5011	5101	5106
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	278	336	446	569	748	861	998	986	852	664	397	275	278	614	1060	1629	2377	3238	4236	5222	6074	6738	7135	7410

(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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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