

Climatography of the United States No. 20

Station: AUSTIN CITY (CAMP MABRY), TX

1971-2000

COOP ID: 410428

Climate Division: TX 7

NWS Call Sign: ATT

Elevation: 621 Feet

Lat: 30°18N

Lon: 97°42W

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	60.3	40.0	50.2	90	1971	30	57.3	1990	-2	1949	31	40.7	1979	475	7	.0	@	24.1	.4	6.6	.0
Feb	65.1	44.0	54.6	99	1996	21	62.3	1999	7	1951	2	45.2	1978	319	18	.0	.3	24.4	.3	3.5	.0
Mar	72.5	50.9	61.7	98	1971	28	66.8	1974	18+	1948	12	57.2	1996	163	59	.0	.6	30.2	.0	.8	.0
Apr	78.9	57.6	68.3	98+	2000	23	73.5	1972	31	1940	13	63.0	1997	44	147	.0	1.6	30.0	.0	.0	.0
May	84.8	65.4	75.1	102	1998	7	80.6	1996	43	1954	4	70.5	1976	2	323	.1	7.2	31.0	.0	.0	.0
Jun	90.9	71.1	81.0	108	1998	14	86.4	1998	53	1970	3	77.8	1983	0	495	1.0	20.8	30.0	.0	.0	.0
Jul	95.0	73.4	84.2	109	1954	26	88.0	1998	64+	1970	23	80.1	1976	0	605	4.3	28.0	31.0	.0	.0	.0
Aug	95.6	73.3	84.5	107	2000	31	88.3	1999	61+	1967	13	80.9	1992	0	610	5.6	28.2	31.0	.0	.0	.0
Sep	90.1	68.8	79.5	112	2000	5	84.2	1977	41	1942	27	72.7	1974	2	439	.8	18.2	30.0	.0	.0	.0
Oct	81.4	59.8	70.6	98+	1991	12	73.9	1979	30	1993	31	61.8	1976	32	207	.0	4.4	30.9	.0	@	.0
Nov	70.1	49.3	59.7	91	1951	13	65.6	1973	20	1976	29	52.2	1976	205	51	.0	.0	28.8	.0	.8	.0
Dec	62.3	41.9	52.1	90	1955	25	58.3	1984	4	1989	23	41.8	1983	406	13	.0	.0	26.2	.3	4.9	.0
Ann	78.9	58.0	68.5	112	Sep 2000	5	88.3	Aug 1999	-2	Jan 1949	31	40.7	Jan 1979	1648	2974	11.8	109.3	347.6	1.0	16.6	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1930-2001

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

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

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COOP ID: 410428

Climate Division: TX 7

NWS Call Sign: ATT

Elevation: 621 Feet Lat: 30°18N

Lon: 97°42W

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	1.89	1.39	4.41	1991	9	9.21	1991	.04	1971	7.7	3.8	1.1	.3	.12	.23	.47	.73	1.02	1.35	1.76	2.29	3.01	4.25	5.47
Feb	1.99	2.00	3.05	1958	21	6.56	1992	.03	1999	7.0	3.7	1.5	.3	.21	.36	.64	.92	1.22	1.55	1.94	2.43	3.10	4.20	5.28
Mar	2.14	2.09	2.69	1980	27	6.03	1983	.00	1972	7.9	4.4	1.4	.5	.33	.61	.97	1.27	1.57	1.88	2.22	2.63	3.17	4.01	4.81
Apr	2.51	2.11	3.56	1976	18	8.13	1976	.06	1984	7.2	3.9	1.7	.7	.28	.47	.82	1.17	1.55	1.97	2.46	3.07	3.90	5.28	6.62
May	5.03	5.38	5.55	1979	21	9.49	1995	.73	1998	9.5	6.0	3.1	1.6	1.13	1.60	2.34	3.00	3.66	4.37	5.16	6.11	7.35	9.34	11.21
Jun	3.81	3.05	8.00	1941	7	14.96	1981	.21	1974	7.5	5.2	2.4	1.3	.42	.70	1.23	1.76	2.33	2.97	3.72	4.65	5.92	8.02	10.07
Jul	1.97	1.34	5.20	1936	16	10.54	1979	.00	1993	5.1	3.1	1.2	.5	.04	.15	.40	.67	.99	1.36	1.81	2.38	3.20	4.58	5.96
Aug	2.31	1.30	5.68	1994	9	8.90	1974	.06+	1977	5.2	3.3	1.4	.7	.06	.15	.37	.66	1.01	1.44	1.99	2.72	3.78	5.63	7.52
Sep	2.91	2.45	4.71	1973	26	7.44	1973	.27	1989	7.2	4.4	1.9	.8	.44	.68	1.11	1.51	1.93	2.38	2.91	3.56	4.42	5.83	7.19
Oct	3.97	2.89	6.24	1998	17	12.39	1998	.31	1987	7.4	5.1	2.4	1.2	.39	.67	1.21	1.77	2.36	3.04	3.84	4.84	6.21	8.48	10.71
Nov	2.68	2.64	7.55	2001	15	7.95	2000	.15	1999	8.2	4.3	1.7	.7	.32	.53	.90	1.28	1.68	2.12	2.64	3.28	4.15	5.58	6.98
Dec	2.44	1.78	4.21	1991	20	14.16	1991	.14	1989	7.9	4.0	1.4	.7	.18	.33	.64	.98	1.35	1.78	2.30	2.96	3.87	5.41	6.92
Ann	33.65	33.98	8.00	Jun 1941	7	14.96	Jun 1981	.00+	Jul 1993	87.8	51.2	21.2	9.3	20.94	23.28	26.34	28.71	30.84	32.93	35.11	37.55	40.55	44.95	48.81

+ 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: 1930-2001

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

Complete documentation available from:
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Station: AUSTIN CITY (CAMP MABRY), TX

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Climate Division: TX 7

NWS Call Sign: ATT

Elevation: 621 Feet

Lat: 30°18N

Lon: 97°42W

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	.4	.0	#	0	3.9	1985	2	7.5	1985	4	1985	13	#	1985	.3	.1	.1	.0	.0	.2	.1	.0	.0
Feb	.1	.0	#	0	1.2	1985	1	1.2	1985	1+	1985	2	#	1985	.2	.0	.0	.0	.0	.1	.0	.0	.0
Mar	#	.0	0	0	#	1994	9	#+	1994	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	#	1994	.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	#	1997	.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	.1	.0	0	0	1.0	1980	25	2.0	1980	#+	1980	26	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	#	.0	0	0	#	1998	24	#+	1998	#+	1996	16	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.6	.0	N/A	N/A	3.9	Jan 1985	2	7.5	Jan 1985	4	Jan 1985	13	#+	Aug 1997	.6	.2	.1	.0	.0	.3	.1	.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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Lat: 30° 18N

Lon: 97° 42W

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	3/29	3/21	3/15	3/10	3/06	3/01	2/24	2/18	2/10
32	3/15	3/06	2/28	2/22	2/17	2/12	2/07	1/31	1/23
28	3/06	2/24	2/17	2/10	2/04	1/29	1/22	1/13	12/27
24	2/19	2/09	2/01	1/25	1/17	1/07	0/00	0/00	0/00
20	2/07	1/27	1/18	1/08	12/23	0/00	0/00	0/00	0/00
16	1/05	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	11/04	11/09	11/13	11/17	11/20	11/23	11/26	11/30	12/06
32	11/15	11/22	11/27	12/02	12/06	12/10	12/15	12/20	12/28
28	11/28	12/06	12/11	12/16	12/21	12/26	12/31	1/07	1/20
24	12/11	12/22	1/01	1/09	1/19	2/02	0/00	0/00	0/00
20	12/19	1/02	1/15	1/29	0/00	0/00	0/00	0/00	0/00
16	1/02	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	285	276	269	264	259	253	248	241	232
32	323	312	304	297	291	285	278	270	259
28	>365	>365	341	328	319	311	303	294	281
24	>365	>365	>365	>365	>365	347	334	323	311
20	>365	>365	>365	>365	>365	>365	>365	357	335
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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Climate Division: TX 7 NWS Call Sign: ATT Elevation: 621 Feet Lat: 30°18N Lon: 97°42W

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	475	319	163	44	2	0	0	0	2	32	205	406	1648
60	342	203	63	8	0	0	0	0	0	4	118	277	1015
57	272	152	32	2	0	0	0	0	0	1	78	209	746
55	231	122	19	0	0	0	0	0	0	1	56	171	600
50	146	61	4	0	0	0	0	0	0	0	21	92	324
32	8	0	0	0	0	0	0	0	0	0	0	0	8

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	566	636	924	1095	1347	1485	1628	1635	1428	1199	833	628	13404
55	65	110	248	409	634	795	915	922	738	490	202	81	5609
57	46	84	201	352	572	735	853	860	678	431	163	60	5035
60	26	53	138	271	480	645	760	767	589	343	113	36	4221
65	7	18	59	147	323	495	605	610	439	207	51	13	2974
70	1	4	20	61	185	345	450	457	298	104	15	2	1942

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	357	451	684	867	1108	1253	1393	1396	1195	959	605	405	357	808	1492	2359	3467	4720	6113	7509	8704	9663	10268	10673
45	233	324	534	717	953	1103	1238	1241	1045	804	459	272	233	557	1091	1808	2761	3864	5102	6343	7388	8192	8651	8923
50	137	214	390	568	798	953	1083	1086	895	650	324	164	137	351	741	1309	2107	3060	4143	5229	6124	6774	7098	7262
55	69	123	257	421	643	803	928	931	745	497	209	82	69	192	449	870	1513	2316	3244	4175	4920	5417	5626	5708
60	29	63	143	279	488	653	773	776	596	353	118	41	29	92	235	514	1002	1655	2428	3204	3800	4153	4271	4312
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	204	268	424	571	770	872	937	934	819	643	368	235	204	472	896	1467	2237	3109	4046	4980	5799	6442	6810	7045

(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/normal/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