

Climatography of the United States

No. 20

1971-2000

Station: WAXAHACHIE, TX

COOP ID: 419522

Climate Division: TX 5

NWS Call Sign:

Elevation: 630 Feet Lat: 32°25N Lon: 96°51W

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	56.9	35.0	46.0	95	1911	31	53.2	1990	-2	1930	18	36.5	1978	595	4	.0	.0	22.4	.9	12.7	.0
Feb	62.7	39.4	51.1	97	1918	25	59.8	1976	-1	1910	18	39.5	1978	404	13	.0	.1	23.5	.7	7.5	.0
Mar	70.6	46.9	58.8	98	1916	18	64.7	1974	7	1943	3	54.2	1996	215	21	.0	.2	30.0	@	2.5	.0
Apr	77.5	54.1	65.8	102	1963	11	71.2	1981	25	1920	5	60.9	1997	66	89	.0	.7	30.0	.0	.2	.0
May	84.3	62.6	73.5	104+	1927	28	79.4	1996	36	1909	1	69.7	1976	9	271	.1	5.6	31.0	.0	.0	.0
Jun	91.5	69.5	80.5	114	1980	27	85.4	1998	48+	1917	17	76.9	1989	0	464	1.5	20.6	30.0	.0	.0	.0
Jul	96.0	73.2	84.6	112	1897	26	90.6	1998	55	1967	15	80.9	1976	0	607	7.3	28.5	31.0	.0	.0	.0
Aug	95.8	72.4	84.1	115	1909	18	88.4	1985	53	1906	28	78.5	1992	0	592	7.0	27.5	31.0	.0	.0	.0
Sep	89.3	66.2	77.8	109	1985	1	83.4	1977	37+	1942	27	70.3	1974	2	384	1.1	16.9	30.0	.0	.0	.0
Oct	80.1	56.2	68.2	106	1979	2	71.5	1979	20	1917	30	61.3	1976	37	134	.1	3.5	30.9	.0	.1	.0
Nov	67.4	45.7	56.6	96	1921	23	62.6	1999	14+	1911	29	50.1	1976	279	26	.0	.1	28.0	.0	3.0	.0
Dec	58.9	37.5	48.2	93	1908	17	54.2	1984	-4	1989	23	36.7	1983	523	3	.0	.0	24.7	.7	9.3	@
Ann	77.6	54.9	66.3	115	Aug 1909	18	90.6	Jul 1998	-4	Dec 1989	23	36.5	Jan 1978	2130	2608	17.1	103.7	342.5	2.3	35.3	@

+ 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: 1897-2001

(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

Station: WAXAHACHIE, TX

COOP ID: 419522

Climate Division: TX 5

NWS Call Sign:

Elevation: 630 Feet Lat: 32°25N

Lon: 96°51W

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	2.11	1.76	4.72	1990	19	6.82	1990	.00	1986	6.5	4.5	1.3	.5	.12	.31	.64	.95	1.28	1.65	2.07	2.60	3.33	4.51	5.67
Feb	2.85	2.66	3.25	1965	9	7.31	1997	.07	1999	6.4	4.5	2.1	.9	.38	.61	1.02	1.42	1.84	2.30	2.83	3.49	4.38	5.83	7.23
Mar	3.21	3.25	4.46	1973	10	7.30	1977	.29	1972	7.8	5.2	2.0	1.1	.55	.83	1.30	1.74	2.19	2.68	3.24	3.92	4.83	6.29	7.69
Apr	3.89	3.21	7.00	1976	19	11.25	1976	.14	1987	6.2	4.5	2.4	1.2	.52	.83	1.39	1.93	2.49	3.12	3.85	4.75	5.96	7.94	9.86
May	4.85	4.95	5.19	1976	26	10.03	1976	.39	1996	8.5	6.4	3.2	1.7	.95	1.39	2.10	2.76	3.42	4.13	4.94	5.91	7.19	9.25	11.21
Jun	3.51	2.92	6.48	1945	12	13.49	2000	.20	1980	6.7	5.1	2.3	.9	.46	.75	1.25	1.74	2.25	2.82	3.48	4.29	5.39	7.19	8.93
Jul	2.28	1.86	3.25	1927	14	6.67	1973	.00+	2000	4.7	3.5	1.6	.8	.00	.18	.54	.90	1.28	1.70	2.21	2.82	3.68	5.10	6.49
Aug	2.26	1.39	6.95	1915	18	5.88	1990	.00	2000	4.5	3.4	1.6	.8	.04	.17	.45	.76	1.12	1.54	2.06	2.73	3.67	5.28	6.89
Sep	3.16	2.65	10.80	1958	19	8.52	1976	.50	1997	6.1	4.5	2.1	.9	.81	1.11	1.57	1.97	2.38	2.80	3.27	3.82	4.55	5.70	6.77
Oct	4.43	4.04	7.64	1985	19	12.36	1991	.22	1995	6.6	5.1	2.5	1.4	.30	.58	1.14	1.74	2.43	3.22	4.17	5.38	7.06	9.91	12.73
Nov	3.04	2.46	7.00	1918	8	7.02	2000	.48	1999	6.8	4.9	2.1	.9	.59	.86	1.31	1.72	2.13	2.58	3.09	3.70	4.51	5.81	7.05
Dec	3.22	2.42	4.54	1991	21	8.85	1991	.36+	1989	6.3	4.6	2.2	.9	.39	.65	1.10	1.55	2.03	2.56	3.17	3.94	4.97	6.68	8.33
Ann	38.81	37.68	10.80	Sep 1958	19	13.49	Jun 2000	.00+	Aug 2000	77.1	56.2	25.4	12.0	25.18	27.73	31.04	33.59	35.88	38.11	40.44	43.02	46.19	50.82	54.87

+ 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: 1897-2001

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

Complete documentation available from:
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1971-2000

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Station: WAXAHACHIE, TX

COOP ID: 419522

Climate Division: TX 5

NWS Call Sign:

Elevation: 630 Feet

Lat: 32°25N

Lon: 96°51W

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	.2	.0	#	0	2.5	1978	22	2.5	1978	3	1978	22	#	1978	.1	.1	.0	.0	.0	@	@	.0	.0
Feb	.4	.0	#	0	3.4	1988	8	4.4	1988	#	1988	11	#	1988	.2	.2	.1	.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	#	1993	26	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	#	.0	#	0	#	1990	23	#+	1990	#	1990	23	#	1990	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.6	.0	N/A	N/A	3.4	Feb 1988	8	4.4	Feb 1988	3	Jan 1978	22	#+	Dec 1990	.3	.3	.1	.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

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Climate Division: TX 5

NWS Call Sign:

Elevation: 630 Feet

Lat: 32°25N

Lon: 96°51W

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	4/09	4/04	4/01	3/29	3/26	3/23	3/20	3/16	3/11
32	4/04	3/28	3/22	3/18	3/14	3/10	3/05	2/28	2/21
28	3/19	3/10	3/04	2/26	2/21	2/16	2/10	2/03	1/25
24	3/08	2/27	2/20	2/14	2/08	2/03	1/28	1/21	1/12
20	2/27	2/17	2/09	2/02	1/26	1/19	1/10	12/24	0/00
16	2/14	2/04	1/28	1/21	1/14	1/05	12/20	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	10/27	11/01	11/04	11/07	11/10	11/13	11/16	11/19	11/24
32	11/01	11/07	11/11	11/14	11/18	11/21	11/25	11/29	12/05
28	11/11	11/18	11/23	11/27	12/01	12/05	12/09	12/14	12/20
24	11/18	11/27	12/03	12/09	12/14	12/20	12/25	1/01	1/10
20	12/02	12/10	12/17	12/22	12/28	1/03	1/10	1/24	0/00
16	12/20	12/29	1/04	1/10	1/17	1/26	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	246	240	236	232	229	225	221	217	211
32	273	265	258	253	248	243	238	232	223
28	310	300	294	288	282	277	271	265	255
24	347	329	320	312	305	299	292	284	273
20	>365	>365	>365	>365	345	329	318	307	294
16	>365	>365	>365	>365	>365	362	349	338	326

* 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 5 NWS Call Sign: Elevation: 630 Feet Lat: 32°25N Lon: 96°51W

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	595	404	215	66	9	0	0	0	2	37	279	523	2130
60	451	284	112	18	1	0	0	0	0	9	172	381	1428
57	370	223	68	6	0	0	0	0	0	3	122	301	1093
55	319	187	46	2	0	0	0	0	0	1	94	253	902
50	212	113	14	0	0	0	0	0	0	0	43	154	536
32	16	5	0	0	0	0	0	0	0	0	0	5	26

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	448	538	829	1013	1285	1454	1630	1615	1373	1120	737	507	12549
55	38	76	162	325	572	764	917	902	683	408	141	43	5031
57	27	56	122	269	510	704	855	840	623	348	109	29	4492
60	16	33	73	190	418	614	762	747	533	261	69	16	3732
65	4	13	21	89	271	464	607	592	384	134	26	3	2608
70	0	3	5	29	146	316	452	437	247	48	7	0	1690

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	256	366	594	782	1046	1226	1393	1375	1143	880	507	301	256	622	1216	1998	3044	4270	5663	7038	8181	9061	9568	9869
45	155	249	446	634	891	1076	1238	1220	993	725	375	187	155	404	850	1484	2375	3451	4689	5909	6902	7627	8002	8189
50	82	151	308	485	736	926	1083	1065	843	572	250	102	82	233	541	1026	1762	2688	3771	4836	5679	6251	6501	6603
55	36	83	187	340	582	776	928	910	693	421	153	48	36	119	306	646	1228	2004	2932	3842	4535	4956	5109	5157
60	9	33	99	211	429	626	773	755	545	282	78	18	9	42	141	352	781	1407	2180	2935	3480	3762	3840	3858
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	163	231	373	505	712	835	927	914	770	579	310	183	163	394	767	1272	1984	2819	3746	4660	5430	6009	6319	6502

(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