

# Climatography of the United States

No. 20

1971-2000

Station: CONROE, TX

COOP ID: 411956

Climate Division: TX 8

NWS Call Sign:

Elevation: 245 Feet Lat: 30°20N Lon: 95°29W

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	60.5	40.0	50.3	84	1971	31	57.0	1999	10	1962	12	41.8	1978	472	12	.0	.0	25.0	.3	8.8	.0
Feb	64.7	43.3	54.0	91	1986	20	62.8	1999	6	1951	2	43.4	1978	329	19	.0	.1	24.8	.2	4.6	.0
Mar	72.5	50.6	61.6	90	1974	30	66.7	1974	20+	1980	3	55.6	1996	153	45	.0	@	30.3	.0	1.3	.0
Apr	78.4	57.4	67.9	95	1963	11	72.2	1999	33+	1987	3	63.0	1997	37	124	.0	.8	30.0	.0	.0	.0
May	85.0	65.1	75.1	100	1998	31	79.8	1996	41	1970	4	70.0	1976	4	316	@	6.4	31.0	.0	.0	.0
Jun	90.7	71.3	81.0	104+	1998	21	87.3	1998	52+	1984	1	78.5	1976	0	479	.4	19.6	30.0	.0	.0	.0
Jul	94.3	73.1	83.7	105+	2000	15	88.5	1998	57	1967	16	80.2	1976	0	578	3.0	27.1	31.0	.0	.0	.0
Aug	94.3	72.4	83.4	107+	1962	10	87.6	1999	57+	1967	13	79.4	1992	0	569	2.9	26.9	31.0	.0	.0	.0
Sep	89.2	67.9	78.6	109	2000	4	82.9	1977	44	1983	22	73.3	1974	0	407	.3	17.0	30.0	.0	.0	.0
Oct	80.9	58.2	69.6	97+	1953	1	72.8	1991	26	1982	25	60.4	1976	37	178	.0	3.2	31.0	.0	.1	.0
Nov	70.6	49.4	60.0	89+	1978	3	66.9	1973	21	1976	29	52.8	1976	203	54	.0	.0	29.1	.0	1.6	.0
Dec	62.5	41.7	52.1	89	1955	25	61.0	1984	3	1989	23	42.8	1989	412	12	.0	.0	26.9	.3	6.8	.0
Ann	78.6	57.5	68.1	109	Sep 2000	4	88.5	1998	3	Dec 1989	23	41.8	Jan 1978	1647	2793	6.6	101.1	350.1	.8	23.2	.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](http://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: CONROE, TX**

**COOP ID: 411956**

**Climate Division: TX 8**

**NWS Call Sign:**

**Elevation: 245 Feet Lat: 30°20N**

**Lon: 95°29W**

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	4.21	3.66	4.00	1998	6	11.08	1991	.30	1999	8.8	6.8	2.6	1.2	.54	.88	1.48	2.06	2.68	3.37	4.16	5.14	6.47	8.64	10.75
Feb	2.97	2.32	3.15	1961	17	6.75	1998	.38	1999	6.8	4.8	1.9	.9	.60	.87	1.31	1.70	2.11	2.54	3.02	3.61	4.38	5.62	6.80
Mar	2.94	2.93	4.09	1949	22	5.26	1993	.82	1978	8.0	5.1	2.2	.9	1.09	1.36	1.76	2.09	2.41	2.73	3.08	3.48	4.00	4.80	5.53
Apr	3.85	3.07	11.61	1979	19	19.30	1979	.28	1984	6.0	4.4	2.4	1.3	.35	.62	1.14	1.67	2.26	2.92	3.70	4.69	6.04	8.29	10.50
May	5.50	5.16	6.20	1982	14	11.51	1983	.00	1998	7.6	6.0	3.5	1.9	.89	1.63	2.57	3.32	4.07	4.86	5.72	6.75	8.09	10.21	12.19
Jun	4.58	3.83	7.80	1973	14	13.13	1973	.28	1980	7.2	6.0	3.0	1.3	.63	1.01	1.67	2.30	2.97	3.70	4.55	5.60	7.00	9.30	11.52
Jul	3.22	2.41	5.10	1954	30	11.25	1979	.14	1998	7.6	5.4	2.0	.9	.22	.42	.83	1.27	1.77	2.34	3.03	3.90	5.12	7.18	9.21
Aug	3.73	3.13	4.21	1960	22	10.56	1996	.35	1990	7.5	5.8	2.4	1.0	.57	.88	1.42	1.94	2.47	3.06	3.73	4.55	5.66	7.46	9.18
Sep	4.46	3.86	9.87	1961	12	11.97	1976	.81	1994	7.3	5.7	3.0	1.5	.97	1.38	2.03	2.62	3.22	3.85	4.57	5.42	6.54	8.34	10.04
Oct	4.70	3.28	14.35	1994	17	26.26	1994	.30	1987	5.8	4.9	2.5	1.4	.28	.56	1.13	1.77	2.49	3.34	4.37	5.68	7.52	10.64	13.75
Nov	4.79	4.01	5.70	1985	23	13.18	1998	.52	1988	7.2	5.8	2.6	1.7	.98	1.42	2.12	2.76	3.41	4.10	4.89	5.83	7.07	9.06	10.95
Dec	4.37	4.06	3.50	2001	12	12.12	1982	1.05	1981	7.6	5.7	2.8	1.4	1.47	1.88	2.49	3.00	3.49	4.00	4.56	5.20	6.04	7.33	8.52
Ann	49.32	50.75	14.35	Oct 1994	17	26.26	Oct 1994	.00	May 1998	87.4	66.4	30.9	15.4	29.08	32.72	37.53	41.28	44.68	48.03	51.54	55.48	60.34	67.52	73.86

+ 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

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**Climate Division: TX 8**

**NWS Call Sign:**

**Elevation: 245 Feet**

**Lat: 30°20N**

**Lon: 95°29W**

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	2.5	1973	12	2.5	1973	3	1973	12	#+	1997	.1	.1	.0	.0	.0	@	@	.0	.0
Feb	.1	.0	#	0	1.0	1973	9	1.0	1973	#	1994	1	#	1994	.1	.1	.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	#	1989	22	#+	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.2	.0	N/A	N/A	2.5	Jan 1973	12	2.5	Jan 1973	3	Jan 1973	12	#+	Jan 1997	.2	.2	.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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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	4/06	3/29	3/24	3/20	3/16	3/11	3/07	3/02	2/23
32	3/20	3/13	3/08	3/03	2/27	2/23	2/19	2/13	2/06
28	3/17	3/05	2/24	2/16	2/09	2/02	1/25	1/15	12/31
24	2/28	2/15	2/05	1/27	1/18	1/07	12/17	0/00	0/00
20	2/07	1/26	1/16	1/05	12/18	0/00	0/00	0/00	0/00
16	1/17	1/02	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	10/28	11/03	11/07	11/11	11/15	11/18	11/22	11/27	12/03
32	11/02	11/10	11/15	11/20	11/25	11/29	12/04	12/09	12/17
28	11/14	11/24	11/30	12/06	12/11	12/17	12/23	12/30	1/10
24	12/02	12/15	12/24	1/02	1/11	1/24	0/00	0/00	0/00
20	12/23	1/05	1/16	1/27	2/15	0/00	0/00	0/00	0/00
16	1/03	1/19	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	269	260	254	248	243	238	233	226	217
32	300	289	282	276	270	264	257	250	240
28	>365	340	325	314	304	295	286	275	260
24	>365	>365	>365	>365	>365	342	326	312	297
20	>365	>365	>365	>365	>365	>365	>365	>365	339
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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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	472	329	153	37	4	0	0	0	0	37	203	412	1647
60	339	219	71	7	0	0	0	0	0	10	116	279	1041
57	269	167	39	1	0	0	0	0	0	4	76	212	768
55	228	136	25	0	0	0	0	0	0	2	55	173	619
50	143	72	6	0	0	0	0	0	0	0	21	95	337
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	574	615	915	1077	1335	1469	1601	1592	1397	1164	841	623	13203
55	81	107	226	387	622	779	888	879	707	453	206	84	5419
57	60	81	179	329	560	719	826	817	647	393	167	60	4838
60	37	50	117	244	467	629	733	724	557	306	117	34	4015
65	12	19	45	124	316	479	578	569	407	178	54	12	2793
70	4	7	11	46	181	330	423	414	262	81	19	1	1779

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	344	418	659	827	1076	1226	1354	1347	1159	908	595	387	344	762	1421	2248	3324	4550	5904	7251	8410	9318	9913	10300
45	224	295	510	677	921	1076	1199	1192	1009	754	449	256	224	519	1029	1706	2627	3703	4902	6094	7103	7857	8306	8562
50	132	187	362	527	766	926	1044	1037	859	599	316	153	132	319	681	1208	1974	2900	3944	4981	5840	6439	6755	6908
55	68	103	233	382	611	776	889	882	709	446	203	81	68	171	404	786	1397	2173	3062	3944	4653	5099	5302	5383
60	29	50	127	247	456	626	734	727	559	306	113	41	29	79	206	453	909	1535	2269	2996	3555	3861	3974	4015
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	210	261	416	541	747	851	918	906	792	604	374	239	210	471	887	1428	2175	3026	3944	4850	5642	6246	6620	6859

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)