

Climatology of the United States

No. 20

1971-2000

Station: CANADIAN, TX

COOP ID: 411412

Climate Division: TX 1

NWS Call Sign:

Elevation: 2,300 Feet Lat: 35° 55N

Lon: 100° 23W

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	47.4	18.8	33.1	85+	1986	20	42.1	1986	-14+	1942	5	20.6	1979	989	0	.0	.0	18.4	3.9	27.6	.8
Feb	53.6	23.1	38.4	90	1962	12	47.4	1976	-8+	1951	1	26.9	1978	746	0	.0	.0	19.5	2.3	20.6	.3
Mar	61.7	31.0	46.4	95+	1971	27	52.1	1986	-4	1920	7	41.9	1984	578	0	.0	.2	27.5	.5	12.8	.0
Apr	71.1	40.7	55.9	99+	1989	23	61.8	1981	15	1920	4	50.3	1997	289	17	.0	1.6	29.0	@	3.1	.0
May	78.9	51.6	65.3	105	1996	17	73.3	1996	24	1909	1	60.0	1976	101	109	.7	5.5	31.0	.0	.0	.0
Jun	88.1	61.7	74.9	112+	1994	26	80.7	1994	39	1917	2	70.0	1982	12	309	3.0	16.2	30.0	.0	.0	.0
Jul	93.9	65.9	79.9	111	1925	18	85.2	1980	47	1990	14	77.1	1975	0	462	7.8	25.9	31.0	.0	.0	.0
Aug	92.8	64.6	78.7	110	1922	24	84.2	2000	45+	1915	31	73.6	1992	1	426	6.7	23.8	31.0	.0	.0	.0
Sep	84.5	56.4	70.5	108	2000	11	77.2	1998	27	1984	30	63.8	1974	33	197	1.7	12.9	29.9	.0	.1	.0
Oct	73.8	43.4	58.6	101	1979	8	64.9	1979	11	1993	31	52.9	1976	219	20	.1	2.6	30.5	@	2.7	.0
Nov	59.1	30.0	44.6	90	1924	5	52.7	1999	-2	1906	21	37.1	1972	614	0	.0	.0	24.0	.4	15.6	.0
Dec	48.5	21.0	34.8	84	1955	24	40.6	1994	-13	1983	29	20.4	1983	938	0	.0	.0	18.4	2.8	26.3	.7
Ann	71.1	42.4	56.8	112+	Jun 1994	26	85.2	Jul 1980	-14+	Jan 1942	5	20.4	Dec 1983	4520	1540	20.0	88.7	320.2	9.9	108.8	1.8

+ 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: 1906-2001

(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: CANADIAN, TX

COOP ID: 411412

Climate Division: TX 1

NWS Call Sign:

Elevation: 2,300 Feet Lat: 35°55N

Lon: 100°23W

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	.46	.45	2.50	1944	2	1.39	1979	.00+	1996	2.9	1.5	.1	.0	.00	.00	.07	.15	.24	.33	.44	.58	.77	1.08	1.38
Feb	.71	.49	4.00	1911	17	2.48	1997	.00+	1996	3.4	1.9	.4	.1	.00	.00	.06	.16	.29	.44	.62	.87	1.21	1.79	2.38
Mar	1.70	1.57	2.30	2000	23	5.74	1973	.00+	1997	4.6	3.1	1.1	.5	.00	.08	.31	.56	.85	1.18	1.58	2.08	2.79	4.00	5.20
Apr	1.72	1.00	3.55	1922	24	8.97	1997	.00+	1996	5.1	3.5	1.2	.4	.00	.08	.30	.56	.84	1.18	1.58	2.10	2.83	4.07	5.31
May	3.75	3.28	4.75	1951	16	11.18	1977	.59	1984	7.8	5.9	2.7	1.2	.82	1.17	1.72	2.21	2.71	3.24	3.83	4.55	5.49	6.98	8.39
Jun	3.33	3.12	3.80	1993	19	8.66	2000	.46	1998	7.2	5.6	2.3	.8	.67	.98	1.46	1.91	2.36	2.84	3.39	4.05	4.92	6.31	7.63
Jul	2.19	1.92	4.65	1950	21	6.97	1996	.12	1983	5.9	4.1	1.6	.7	.31	.49	.80	1.11	1.43	1.78	2.18	2.67	3.34	4.43	5.48
Aug	2.36	1.94	3.80	1955	5	7.23	1977	.10+	1983	6.3	4.3	1.6	.6	.22	.39	.71	1.04	1.39	1.80	2.27	2.87	3.69	5.06	6.40
Sep	2.36	2.16	3.85	1937	7	6.56	1995	.00	1992	5.8	3.9	1.5	.7	.14	.37	.73	1.08	1.45	1.85	2.33	2.91	3.70	5.01	6.27
Oct	1.47	.61	5.15	1985	10	6.95	1985	.00+	1995	4.1	2.7	1.0	.4	.00	.00	.11	.29	.52	.82	1.20	1.72	2.47	3.80	5.16
Nov	.94	.67	2.56	1909	28	2.69	1981	.00+	1999	3.3	1.8	.6	.2	.00	.00	.14	.28	.44	.63	.86	1.15	1.55	2.24	2.92
Dec	.69	.41	1.65	1959	16	2.58	1991	.00	1976	3.0	1.9	.4	.2	.02	.06	.16	.26	.37	.49	.65	.84	1.12	1.58	2.04
Ann	21.68	21.17	5.15	Oct 1985	10	11.18	May 1977	.00+	Nov 1999	59.4	40.2	14.5	5.8	13.71	15.18	17.11	18.59	19.93	21.23	22.59	24.11	25.97	28.71	31.10

+ 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: 1906-2001

(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
Asheville, North Carolina 28801
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Station: CANADIAN, TX

COOP ID: 411412

Climate Division: TX 1

NWS Call Sign:

Elevation: 2,300 Feet

Lat: 35° 55N

Lon: 100° 23W

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	3.1	2.0	#	0	7.0	1977	9	7.5+	1984	12	1987	18	1	1997	1.4	1.0	.5	.1	.0	.2	.2	.1	.0
Feb	2.2	.0	#	0	10.0	1993	16	10.0	1993	19	1971	21	1	1975	1.4	1.3	.6	.1	@	.4	.3	.1	.0
Mar	1.2	.0	#	0	10.0	1988	17	11.0	1994	13	1988	17	7	1988	.4	.3	.3	.2	@	.2	.2	.1	.0
Apr	.5	.0	#	0	4.0	1973	8	8.0	1983	4	1973	8	#	1973	.2	.2	.1	.0	.0	.1	.1	.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	.1	.0	#	0	3.0	1991	31	3.0	1991	#	1997	26	#	1997	@	@	@	.0	.0	.0	.0	.0	.0
Nov	1.2	.0	#	0	12.0	1992	25	12.0	1992	1+	1997	10	#+	1997	.4	.4	.1	@	@	.2	.0	.0	.0
Dec	3.3	.0	#	0	14.0	1987	14	24.0	1987	12	2000	26	2	2000	.9	.8	.4	.2	.1	-9.9	-9.9	-9.9	-9.9
Ann	11.6	2.0	N/A	N/A	14.0	Dec 1987	14	24.0	Dec 1987	19	Feb 1971	21	7	Mar 1988	4.7	4.0	2.0	.6	.1	-9.9	-9.9	-9.9	-9.9

+ 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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Climate Division: TX 1

NWS Call Sign:

Elevation: 2,300 Feet

Lat: 35° 55N

Lon: 100° 23W

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	5/07	5/02	4/29	4/26	4/23	4/21	4/18	4/15	4/10
32	4/24	4/19	4/16	4/13	4/10	4/08	4/05	4/01	3/28
28	4/14	4/09	4/06	4/03	3/31	3/28	3/25	3/22	3/17
24	4/06	3/31	3/27	3/23	3/20	3/16	3/13	3/09	3/03
20	4/01	3/24	3/19	3/14	3/10	3/06	3/01	2/24	2/17
16	3/25	3/14	3/05	2/26	2/19	2/12	2/05	1/27	1/16
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	9/25	9/30	10/03	10/06	10/09	10/11	10/14	10/18	10/22
32	10/02	10/07	10/10	10/13	10/16	10/19	10/22	10/25	10/30
28	10/10	10/17	10/22	10/26	10/30	11/02	11/06	11/11	11/18
24	10/28	11/02	11/06	11/09	11/12	11/15	11/18	11/22	11/27
20	11/01	11/07	11/11	11/15	11/19	11/22	11/26	11/30	12/06
16	11/10	11/17	11/22	11/26	11/30	12/04	12/08	12/13	12/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	186	179	175	171	168	164	160	156	150
32	208	201	196	192	188	184	179	174	167
28	235	227	221	216	212	207	202	196	188
24	259	251	246	241	236	232	227	221	214
20	281	271	264	258	253	247	241	234	224
16	312	300	293	286	281	275	269	262	253

* 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 1 NWS Call Sign: Elevation: 2,300 Feet Lat: 35°55N Lon: 100°23W

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	989	746	578	289	101	12	0	1	33	219	614	938	4520
60	834	610	425	174	42	2	0	0	8	110	467	783	3455
57	741	532	339	119	21	0	0	0	3	65	383	690	2893
55	681	480	284	88	12	0	0	0	1	43	330	628	2547
50	535	357	166	34	2	0	0	0	0	12	211	482	1799
32	133	70	5	0	0	0	0	0	0	0	13	94	315

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	168	248	450	718	1031	1288	1485	1448	1154	824	389	179	9382
55	2	14	16	116	330	598	772	735	465	154	16	1	3219
57	1	10	9	87	277	538	710	673	406	114	9	0	2834
60	0	4	2	51	205	450	617	580	322	66	3	0	2300
65	0	0	0	17	109	309	462	426	197	20	0	0	1540
70	0	0	0	4	46	188	308	277	102	4	0	0	929

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	81	164	347	568	856	1095	1289	1241	969	646	261	91	81	245	592	1160	2016	3111	4400	5641	6610	7256	7517	7608
45	35	91	223	430	701	945	1134	1086	819	496	157	39	35	126	349	779	1480	2425	3559	4645	5464	5960	6117	6156
50	8	36	126	294	548	795	979	931	672	353	83	11	8	44	170	464	1012	1807	2786	3717	4389	4742	4825	4836
55	0	12	62	180	398	645	824	776	523	225	31	0	0	12	74	254	652	1297	2121	2897	3420	3645	3676	3676
60	0	0	23	92	256	495	669	621	383	120	7	0	0	0	23	115	371	866	1535	2156	2539	2659	2666	2666
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	106	155	261	384	547	717	831	802	625	427	207	109	106	261	522	906	1453	2170	3001	3803	4428	4855	5062	5171

(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