

# Climatology of the United States

No. 20

1971-2000

Station: NIXON, TX

COOP ID: 416368

Climate Division: TX 7

NWS Call Sign:

Elevation: 400 Feet Lat: 29°16N Lon: 97°45W

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	62.2	38.8	50.5	90+	1975	26	57.2	1971	3	1949	31	42.6	1978	463	12	.0	.1	26.5	.2	6.2	.0
Feb	66.1	42.3	54.2	95+	1986	20	61.7	1999	5	1951	2	44.2	1978	316	14	.0	.3	26.0	.3	3.4	.0
Mar	73.0	49.4	61.2	100	1971	28	67.1	1974	24	1989	7	56.1	1987	159	41	@	.7	30.7	.0	1.0	.0
Apr	79.4	56.6	68.0	101	1951	19	72.4	1972	32	1987	3	63.8	1973	35	124	.0	2.0	30.0	.0	@	.0
May	85.2	64.5	74.9	103+	1967	8	79.8	1998	39	1953	5	70.5	1976	5	309	.0	8.6	31.0	.0	.0	.0
Jun	90.7	69.9	80.3	109	1998	15	86.7	1998	54	1984	1	77.7	1973	0	458	1.1	21.7	30.0	.0	.0	.0
Jul	94.0	71.9	83.0	113	1954	26	87.3	1998	60	1967	16	79.2	1976	0	557	4.0	28.4	31.0	.0	.0	.0
Aug	94.7	71.6	83.2	109	1962	9	85.6	1999	58+	1992	30	79.7	1992	0	563	3.7	29.0	31.0	.0	.0	.0
Sep	89.9	67.5	78.7	112	2000	6	81.9	1986	45	2000	27	73.3	1974	0	410	.8	19.9	30.0	.0	.0	.0
Oct	81.9	58.2	70.1	97+	1991	13	72.2	1984	27	1993	31	61.7	1976	21	178	.0	6.4	30.9	.0	@	.0
Nov	71.3	48.6	60.0	92+	1988	4	66.7	1973	22	1993	27	52.0	1976	203	52	.0	@	29.5	.0	1.2	.0
Dec	63.9	41.3	52.6	88	1977	5	61.4	1984	5	1989	23	42.6	1989	398	13	.0	.0	27.9	.2	5.0	.0
Ann	79.4	56.7	68.1	113	Jul 1954	26	87.3	Jul 1998	3	Jan 1949	31	42.6+	Dec 1989	1600	2731	9.6	117.1	354.5	.7	16.8	.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: 1921-2001

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

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## No. 20 1971-2000

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

**Station: NIXON, TX**

**COOP ID: 416368**

**Climate Division: TX 7**

**NWS Call Sign:**

**Elevation: 400 Feet Lat: 29°16N**

**Lon: 97°45W**

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	2.00	1.57	4.91	1965	21	6.16	1992	.04	1971	8.6	4.1	1.3	.4	.21	.36	.64	.92	1.22	1.55	1.95	2.44	3.11	4.23	5.31
Feb	2.21	1.78	3.20	1991	4	9.19	1992	.06	1974	6.9	3.5	1.5	.4	.16	.30	.58	.88	1.22	1.61	2.09	2.69	3.52	4.92	6.31
Mar	2.01	2.04	4.51	1946	12	4.66	1983	.11	1971	7.1	3.4	1.3	.5	.33	.51	.80	1.08	1.36	1.67	2.03	2.46	3.03	3.97	4.86
Apr	2.91	2.11	8.17	1946	22	9.84	1979	.07	1983	6.7	3.8	2.0	.9	.23	.42	.80	1.20	1.65	2.16	2.77	3.54	4.61	6.40	8.17
May	4.95	4.76	7.70	1993	23	14.32	1972	.00	1996	7.9	5.2	2.9	1.6	.43	.98	1.79	2.52	3.26	4.07	5.00	6.12	7.62	10.06	12.39
Jun	4.05	2.73	6.08	1940	29	12.40	1987	.21	1980	6.7	4.9	2.6	1.3	.36	.64	1.18	1.75	2.36	3.06	3.89	4.93	6.36	8.75	11.10
Jul	1.79	1.53	7.78	1936	1	4.87	1979	.00+	2000	5.0	3.3	1.3	.3	.00	.00	.35	.69	1.02	1.38	1.78	2.28	2.96	4.02	5.07
Aug	2.98	1.68	6.98	1946	29	12.37	1998	.08	1985	6.2	3.8	1.7	.9	.11	.24	.56	.94	1.39	1.95	2.64	3.54	4.84	7.09	9.37
Sep	3.56	2.89	7.93	1952	11	8.95	1976	.23	1999	7.4	4.9	2.3	1.0	.48	.77	1.28	1.78	2.30	2.87	3.53	4.35	5.45	7.25	8.98
Oct	3.35	2.47	5.90	1926	29	10.82	1973	.34	1999	6.5	4.5	2.3	.9	.33	.57	1.03	1.49	2.00	2.57	3.24	4.08	5.24	7.16	9.03
Nov	2.59	2.58	5.12	1992	19	9.47	2000	.20	1988	6.6	4.1	1.6	.8	.32	.53	.89	1.25	1.64	2.06	2.55	3.16	3.99	5.34	6.66
Dec	2.12	1.29	4.00	1991	21	12.06	1991	.28	1973	7.4	3.7	1.2	.4	.17	.31	.59	.88	1.21	1.58	2.02	2.58	3.35	4.65	5.93
Ann	34.52	34.09	8.17	Apr 1946	22	14.32	May 1972	.00+	Jul 2000	83.0	49.2	22.0	9.4	20.80	23.29	26.57	29.12	31.42	33.69	36.06	38.72	41.99	46.81	51.06

+ 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: 1921-2001

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Complete documentation available from:  
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**Station: NIXON, TX**

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**Climate Division: TX 7**

**NWS Call Sign:**

**Elevation: 400 Feet**

**Lat: 29° 16N**

**Lon: 97° 45W**

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	.5	.0	#	0	6.0	1985	12	9.0	1985	8	1985	13	#	1985	.2	.2	.1	.1	.0	.0	.0	.0	.0
Feb	#	.0	#	0	#	1994	1	#+	1994	#	1994	1	#	1994	.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	#	1976	28	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.5	.0	N/A	N/A	6.0	Jan 1985	12	9.0	Jan 1985	8	Jan 1985	13	#+	Feb 1994	.2	.2	.1	.1	.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	4/02	3/26	3/21	3/16	3/12	3/08	3/03	2/26	2/18
32	3/19	3/10	3/04	2/27	2/22	2/17	2/11	2/05	1/27
28	3/08	2/26	2/18	2/12	2/05	1/30	1/24	1/15	1/03
24	2/22	2/11	2/03	1/27	1/20	1/11	12/29	0/00	0/00
20	2/03	1/22	1/13	1/02	12/15	0/00	0/00	0/00	0/00
16	1/09	12/22	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	10/27	11/03	11/08	11/13	11/17	11/21	11/25	12/01	12/08
32	11/10	11/17	11/22	11/27	12/01	12/05	12/10	12/15	12/22
28	11/19	11/27	12/04	12/09	12/14	12/19	12/24	12/31	1/10
24	12/06	12/16	12/24	12/30	1/07	1/15	1/31	0/00	0/00
20	12/22	1/03	1/14	1/25	2/13	0/00	0/00	0/00	0/00
16	12/31	1/16	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	276	267	260	255	249	244	238	231	222
32	316	304	295	288	281	275	267	259	247
28	>365	342	329	319	311	303	294	284	271
24	>365	>365	>365	>365	351	338	328	319	307
20	>365	>365	>365	>365	>365	>365	>365	>365	342
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	463	316	159	35	5	0	0	0	0	21	203	398	1600
60	327	203	74	6	0	0	0	0	0	4	117	266	997
57	256	150	40	1	0	0	0	0	0	1	77	201	726
55	215	119	25	0	0	0	0	0	0	1	56	164	580
50	131	57	6	0	0	0	0	0	0	0	21	87	302
32	4	0	0	0	0	0	0	0	0	0	0	0	4

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	576	622	905	1079	1327	1448	1580	1586	1400	1180	839	639	13181
55	75	97	217	389	614	758	867	873	710	467	205	90	5362
57	54	72	170	330	552	698	805	811	650	406	166	65	4779
60	31	41	111	245	459	608	712	718	560	316	115	37	3953
65	12	14	41	124	309	458	557	563	410	178	52	13	2731
70	0	3	10	45	176	309	402	408	263	72	18	2	1708

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	404	493	728	883	1117	1242	1362	1366	1188	977	654	458	404	897	1625	2508	3625	4867	6229	7595	8783	9760	10414	10872
45	277	359	575	733	962	1092	1207	1211	1038	822	507	320	277	636	1211	1944	2906	3998	5205	6416	7454	8276	8783	9103
50	168	243	427	584	807	942	1052	1056	888	667	369	200	168	411	838	1422	2229	3171	4223	5279	6167	6834	7203	7403
55	91	143	291	435	652	792	897	901	738	516	246	114	91	234	525	960	1612	2404	3301	4202	4940	5456	5702	5816
60	39	74	168	294	497	642	742	746	588	366	148	54	39	113	281	575	1072	1714	2456	3202	3790	4156	4304	4358
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	255	309	470	590	775	855	906	902	805	654	419	284	255	564	1034	1624	2399	3254	4160	5062	5867	6521	6940	7224

(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:  
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## 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)