

Climatology of the United States

No. 20

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

Station: ROCKPORT, TX

1971-2000

COOP ID: 417704

Climate Division: TX 7

NWS Call Sign:

Elevation: 9 Feet

Lat: 28°02N

Lon: 97°03W

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	63.0	44.9	54.0	87	1983	31	61.2	2000	14	1962	12	46.7	1977	366	16	.0	.0	28.4	.0	2.7	.0
Feb	65.5	48.4	57.0	90	1986	19	64.3	2000	22	1985	2	48.6	1978	248	22	.0	@	26.8	.0	1.3	.0
Mar	71.2	55.6	63.4	91+	1986	19	69.5	2000	23	1980	2	58.0	1996	106	56	.0	.2	30.9	.0	.2	.0
Apr	76.8	63.3	70.1	96	1986	9	73.9	1999	38	1987	3	65.4	1973	17	169	.0	.4	30.0	.0	.0	.0
May	82.5	70.9	76.7	100	1984	4	80.5	1989	52+	1970	5	72.5	1976	1	363	@	.9	31.0	.0	.0	.0
Jun	87.8	76.2	82.0	99+	1989	29	84.9	1990	58	1975	1	78.1	1974	0	509	.0	9.9	30.0	.0	.0	.0
Jul	90.1	77.5	83.8	100	1980	14	86.0	1996	64	1978	30	80.3	1974	0	583	@	22.4	31.0	.0	.0	.0
Aug	90.3	77.2	83.8	98+	1994	1	85.6+	1988	64	1970	28	80.8	1973	0	581	.0	24.9	31.0	.0	.0	.0
Sep	88.1	73.2	80.7	105	2000	6	85.3	1986	50	1995	22	74.6	1974	0	470	@	14.4	30.0	.0	.0	.0
Oct	81.6	65.3	73.5	97	1982	4	76.5	1984	29	1993	31	65.7	1976	9	271	.0	1.2	31.0	.0	@	.0
Nov	72.7	55.1	63.9	96	1988	4	71.4	1988	27	1992	27	54.3	1976	148	114	.0	.1	29.7	.0	.4	.0
Dec	65.6	47.1	56.4	87+	1988	23	63.8	1984	12	1983	25	46.5	1989	297	28	.0	.0	29.0	.1	1.9	.0
Ann	77.9	62.9	70.4	105	Sep 2000	6	86.0	Jul 1996	12	Dec 1983	25	46.5	Dec 1989	1192	3182	@	74.4	358.8	.1	6.5	.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: 1959-2001

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

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Climate Division: TX 7

NWS Call Sign:

Elevation: 9 Feet

Lat: 28°02N

Lon: 97°03W

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	2.40	2.03	4.61	1980	21	6.81	1992	.03	1996	8.1	4.3	1.3	.6	.18	.33	.64	.97	1.34	1.76	2.27	2.91	3.80	5.30	6.78
Feb	2.18	1.83	3.81	1961	5	5.55	1982	.00	1976	6.7	3.5	1.3	.7	.11	.31	.64	.96	1.31	1.69	2.13	2.68	3.44	4.68	5.89
Mar	2.36	1.77	6.69	2000	15	7.81	2000	.00	1971	5.4	2.4	1.2	.8	.01	.08	.29	.57	.92	1.38	1.96	2.75	3.91	5.95	8.04
Apr	2.07	1.56	4.27	1972	27	6.25	1976	.00+	1984	5.3	3.1	1.2	.7	.00	.14	.46	.78	1.13	1.52	1.99	2.56	3.36	4.69	6.00
May	3.66	2.65	4.06	1972	7	9.80	1981	.00	1998	5.9	3.7	2.3	1.2	.08	.30	.77	1.28	1.86	2.55	3.38	4.44	5.93	8.46	10.99
Jun	3.50	3.31	4.58	1961	10	13.07	1991	.00+	1998	6.1	4.2	2.1	1.2	.00	.00	.51	1.05	1.65	2.36	3.22	4.31	5.82	8.41	10.98
Jul	2.43	1.20	4.75	1983	15	11.25	1979	.00+	2000	5.2	3.4	1.4	.7	.00	.01	.14	.36	.70	1.16	1.80	2.69	4.05	6.55	9.18
Aug	3.13	2.46	4.80	1980	10	8.39	1980	.27	1993	6.8	4.3	1.7	1.0	.41	.66	1.11	1.54	2.00	2.51	3.10	3.82	4.80	6.40	7.95
Sep	5.53	4.30	8.15	1979	19	19.48	1971	.18	1982	9.0	6.4	3.0	1.7	.77	1.23	2.02	2.79	3.60	4.48	5.51	6.76	8.46	11.22	13.89
Oct	4.23	3.18	7.65	1991	30	13.00	1997	.70	1992	6.7	4.9	2.3	1.1	.55	.88	1.49	2.08	2.70	3.39	4.19	5.17	6.51	8.69	10.81
Nov	2.56	2.14	5.71	2000	5	8.95	2000	.05	1994	6.4	4.1	1.6	.7	.25	.43	.78	1.14	1.52	1.96	2.48	3.12	4.01	5.48	6.93
Dec	1.91	1.19	4.08	1991	22	7.57	1971	.17	1972	6.9	3.7	1.0	.4	.15	.28	.53	.79	1.08	1.42	1.82	2.32	3.02	4.20	5.36
Ann	35.96	35.29	8.15	Sep 1979	19	19.48	Sep 1971	.00+	Jul 2000	78.5	48.0	20.4	10.8	19.72	22.56	26.36	29.36	32.09	34.80	37.66	40.89	44.89	50.86	56.15

+ 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: 1959-2001

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

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Station: ROCKPORT, TX

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Climate Division: TX 7

NWS Call Sign:

Elevation: 9 Feet

Lat: 28°02N

Lon: 97°03W

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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.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	#	1976	28	#	1976	#	1976	28	#	1976	.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	#	.0	N/A	N/A	#	Nov 1976	28	#	Nov 1976	#	Nov 1976	28	#	Nov 1976	.0	.0	.0	.0	.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

Complete documentation available from:

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Station: ROCKPORT, TX

COOP ID: 417704

Climate Division: TX 7

NWS Call Sign:

Elevation: 9 Feet

Lat: 28°02N

Lon: 97°03W

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	3/14	3/06	2/28	2/22	2/18	2/13	2/07	2/01	1/24
32	3/02	2/20	2/14	2/08	2/02	1/28	1/21	1/12	0/00
28	2/15	2/04	1/27	1/19	1/12	1/03	12/21	0/00	0/00
24	2/02	1/21	1/11	1/01	12/14	0/00	0/00	0/00	0/00
20	12/28	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	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	11/15	11/22	11/26	12/01	12/05	12/09	12/13	12/18	12/25
32	11/24	12/03	12/09	12/14	12/20	12/25	12/31	1/09	0/00
28	11/30	12/11	12/20	12/28	1/05	1/16	2/03	0/00	0/00
24	12/20	1/02	1/13	1/24	2/12	0/00	0/00	0/00	0/00
20	12/26	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	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	318	308	301	295	289	284	278	271	261
32	>365	>365	341	327	318	310	302	293	281
28	>365	>365	>365	>365	355	345	336	328	318
24	>365	>365	>365	>365	>365	>365	>365	>365	348
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
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: Elevation: 9 Feet Lat: 28°02N Lon: 97°03W

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	366	248	106	17	1	0	0	0	0	9	148	297	1192
60	245	149	38	2	0	0	0	0	0	2	80	186	702
57	187	104	17	0	0	0	0	0	0	1	51	133	493
55	154	78	9	0	0	0	0	0	0	0	36	103	380
50	81	31	1	0	0	0	0	0	0	0	14	44	171
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	681	699	973	1142	1385	1499	1606	1604	1460	1285	956	754	14044
55	122	132	269	452	672	809	893	891	770	572	302	143	6027
57	93	103	215	392	610	749	831	829	710	511	257	112	5412
60	58	64	143	304	517	659	738	736	620	419	197	71	4526
65	16	22	56	169	363	509	583	581	470	271	114	28	3182
70	9	7	13	71	216	359	428	426	321	142	55	10	2057

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	499	564	797	938	1169	1278	1373	1373	1237	1058	764	558	499	1063	1860	2798	3967	5245	6618	7991	9228	10286	11050	11608
45	354	424	642	788	1014	1128	1218	1218	1087	903	614	414	354	778	1420	2208	3222	4350	5568	6786	7873	8776	9390	9804
50	230	294	490	638	859	978	1063	1063	937	750	471	280	230	524	1014	1652	2511	3489	4552	5615	6552	7302	7773	8053
55	128	175	344	489	704	828	908	908	787	596	332	169	128	303	647	1136	1840	2668	3576	4484	5271	5867	6199	6368
60	57	88	209	340	549	678	753	753	637	441	215	87	57	145	354	694	1243	1921	2674	3427	4064	4505	4720	4807
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	285	330	507	639	852	939	996	988	890	744	495	326	285	615	1122	1761	2613	3552	4548	5536	6426	7170	7665	7991

(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