

Climatography of the United States

No. 20

1971-2000

Station: ROCKSPRINGS, TX

COOP ID: 417706

Climate Division: TX 7

NWS Call Sign:

Elevation: 2,400 Feet Lat: 30°01N

Lon: 100°13W

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	58.9	34.3	46.6	87	1943	23	52.8	1971	5	1982	11	37.9	1979	574	0	.0	.0	25.4	.4	11.2	.0
Feb	63.9	37.9	50.9	96	1996	23	58.4	2000	3+	1951	1	42.4	1978	401	6	.0	.1	25.4	.2	6.4	.0
Mar	70.4	44.2	57.3	98	1971	28	64.3	1974	10	1980	2	52.2	1987	257	18	.0	.7	30.1	.0	2.5	.0
Apr	77.9	51.9	64.9	100+	1984	20	69.5	1972	25+	1938	8	59.8	1997	77	75	@	2.4	29.9	.0	.4	.0
May	83.9	60.0	72.0	104	1984	6	77.9	1998	38	1979	5	68.8	1976	16	231	.3	6.5	31.0	.0	.0	.0
Jun	88.3	65.7	77.0	108	1980	28	81.7	1998	48+	1970	4	74.3+	1983	0	360	1.2	13.7	30.0	.0	.0	.0
Jul	91.6	68.1	79.9	107	1980	2	84.5	1998	58	1990	14	74.0	1976	0	459	1.7	22.6	31.0	.0	.0	.0
Aug	91.3	67.6	79.5	108	1970	10	83.0	1999	54	1952	30	74.1	1971	0	448	1.0	22.6	31.0	.0	.0	.0
Sep	86.3	63.3	74.8	106	2000	5	80.5	1977	38	1942	27	68.5	1974	4	298	.3	10.9	30.0	.0	.0	.0
Oct	77.7	54.4	66.1	100	1979	3	70.6	1979	19	1990	22	58.7	1976	65	96	@	1.4	30.8	.0	.4	.0
Nov	66.7	43.8	55.3	93	1981	15	60.5	1973	14	1976	29	48.6	1976	304	11	.0	.2	28.5	@	3.5	.0
Dec	59.7	35.8	47.8	81+	1995	5	54.0	1984	5	1983	25	39.5	1989	534	0	.0	.0	27.0	.3	9.5	.0
Ann	76.4	52.3	64.3	108+	Jun 1980	28	84.5	Jul 1998	3+	Feb 1951	1	37.9	Jan 1979	2232	2002	4.5	81.1	350.1	.9	33.9	.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: 1932-2001

(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: ROCKSPRINGS, TX

COOP ID: 417706

Climate Division: TX 7

NWS Call Sign:

Elevation: 2,400 Feet Lat: 30°01N

Lon: 100°13W

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	.77	.67	2.03	1968	18	2.03	1980	.00+	1996	4.0	1.8	.4	.2	.00	.00	.18	.33	.47	.62	.79	.98	1.25	1.66	2.06
Feb	1.31	.98	3.94	1949	23	3.75	1973	.00+	1974	3.6	2.3	1.0	.3	.00	.11	.33	.53	.75	.99	1.27	1.62	2.10	2.89	3.67
Mar	1.36	1.13	2.40	1977	27	3.59	1981	.18+	1996	5.2	2.8	.9	.3	.18	.29	.48	.67	.87	1.09	1.34	1.66	2.08	2.77	3.44
Apr	1.75	1.43	3.03	1967	17	5.43	1977	.00+	1998	4.4	3.0	1.2	.5	.00	.16	.46	.74	1.03	1.35	1.73	2.18	2.81	3.84	4.84
May	3.23	2.93	3.51	1979	21	10.15	1975	.46	1977	5.7	4.5	1.9	1.0	.56	.84	1.32	1.76	2.21	2.70	3.26	3.94	4.84	6.30	7.70
Jun	3.07	2.73	9.50	1935	14	9.06	1981	.00+	1990	5.3	4.2	2.1	.9	.00	.50	1.10	1.60	2.08	2.59	3.17	3.84	4.76	6.22	7.62
Jul	2.05	1.22	3.34	1990	16	10.15	1976	.00+	1998	4.7	3.3	1.3	.5	.00	.03	.19	.43	.74	1.14	1.67	2.37	3.42	5.27	7.18
Aug	2.84	1.69	5.06	1932	31	13.12	1998	.10	1973	5.5	3.9	1.6	.8	.15	.30	.64	1.02	1.46	1.98	2.61	3.42	4.57	6.54	8.50
Sep	2.44	2.13	6.03	1958	16	7.55	1991	.29	1999	4.6	3.5	1.7	.7	.36	.57	.92	1.26	1.61	2.00	2.44	2.98	3.71	4.90	6.04
Oct	3.41	2.67	6.79	2000	24	14.50	2000	.11	1979	4.7	3.3	1.9	1.0	.10	.24	.58	1.00	1.52	2.16	2.96	4.03	5.57	8.25	10.98
Nov	1.50	1.31	3.87	2000	4	7.00	2000	.00	1999	4.2	2.6	1.0	.3	.09	.24	.48	.70	.93	1.18	1.48	1.84	2.34	3.15	3.93
Dec	1.03	.68	4.35	1984	31	5.77	1984	.00+	1990	2.8	1.6	.4	.3	.00	.00	.05	.21	.40	.63	.90	1.26	1.77	2.62	3.50
Ann	24.76	22.79	9.50	Jun 1935	14	14.50	Oct 2000	.00+	Nov 1999	54.7	36.8	15.4	6.8	14.46	16.31	18.75	20.66	22.39	24.09	25.88	27.89	30.37	34.03	37.27

+ 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: 1932-2001

(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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Station: ROCKSPRINGS, TX

COOP ID: 417706

Climate Division: TX 7

NWS Call Sign:

Elevation: 2,400 Feet

Lat: 30°01N

Lon: 100°13W

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	.0	#	0	4.5	1973	25	4.5	1973	5	1973	25	#	1973	.1	.1	.1	.0	.0	@	@	@	.0
Feb	.8	.0	0	0	12.0	1973	8	12.0	1973	0	0	0	0	0	.1	.1	.1	.1	.1	.0	.0	.0	.0
Mar	#	.0	0	0	#	1984	6	#	1984	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	.5	.0	0	0	6.0	1996	25	6.0	1996	0	0	0	0	0	.1	.1	.1	.1	.0	.0	.0	.0	.0
Dec	#	.0	0	0	#	1974	27	#	1974	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	1.6	.0	N/A	N/A	12.0	Feb 1973	8	12.0	Feb 1973	5	Jan 1973	25	#	Jan 1973	.3	.3	.3	.2	.1	@	@	@	.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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Climate Division: TX 7

NWS Call Sign:

Elevation: 2,400 Feet

Lat: 30° 01N

Lon: 100° 13W

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	4/15	4/09	4/05	4/01	3/29	3/26	3/22	3/18	3/12
32	4/13	4/04	3/29	3/23	3/18	3/13	3/07	3/01	2/20
28	3/26	3/16	3/09	3/03	2/26	2/20	2/14	2/07	1/29
24	3/12	3/02	2/22	2/16	2/10	2/03	1/28	1/20	1/10
20	3/01	2/17	2/08	1/31	1/23	1/15	1/03	0/00	0/00
16	2/09	1/29	1/20	1/12	1/03	12/21	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	10/15	10/23	10/29	11/03	11/07	11/12	11/17	11/23	12/01
32	10/25	11/01	11/07	11/12	11/17	11/21	11/26	12/02	12/10
28	10/30	11/10	11/17	11/23	11/29	12/05	12/12	12/19	12/30
24	11/05	11/19	11/29	12/08	12/16	12/24	1/02	1/12	1/26
20	11/18	12/02	12/12	12/21	12/30	1/10	1/25	0/00	0/00
16	12/11	12/23	1/02	1/11	1/22	2/10	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	252	242	235	229	223	217	211	204	194
32	278	266	257	250	243	236	229	220	208
28	321	306	294	285	276	267	257	246	230
24	>365	343	325	313	303	293	283	272	257
20	>365	>365	>365	365	339	324	311	298	281
16	>365	>365	>365	>365	>365	>365	357	338	324

* 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: 2,400 Feet Lat: 30°01N Lon: 100°13W

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	574	401	257	77	16	0	0	0	4	65	304	534	2232
60	430	274	144	23	2	0	0	0	0	19	184	386	1462
57	348	207	94	8	0	0	0	0	0	7	126	301	1091
55	298	169	67	4	0	0	0	0	0	3	95	248	884
50	193	93	23	0	0	0	0	0	0	0	39	142	490
32	12	1	0	0	0	0	0	0	0	0	0	2	15

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	464	530	784	988	1238	1350	1482	1471	1284	1055	697	491	11834
55	38	54	138	301	525	660	769	758	594	345	102	25	4309
57	26	36	103	246	463	600	707	696	534	287	73	15	3786
60	15	19	61	170	373	510	614	603	444	206	41	7	3063
65	0	6	18	75	231	360	459	448	298	96	11	0	2002
70	0	0	3	21	118	216	308	295	168	31	1	0	1161

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	296	384	606	781	1025	1139	1255	1250	1064	843	512	319	296	680	1286	2067	3092	4231	5486	6736	7800	8643	9155	9474
45	179	258	457	631	870	989	1100	1095	914	688	373	197	179	437	894	1525	2395	3384	4484	5579	6493	7181	7554	7751
50	96	152	316	485	715	839	945	940	764	538	243	102	96	248	564	1049	1764	2603	3548	4488	5252	5790	6033	6135
55	36	75	189	342	560	689	790	785	614	388	136	42	36	111	300	642	1202	1891	2681	3466	4080	4468	4604	4646
60	10	28	94	209	407	539	635	630	466	248	61	5	10	38	132	341	748	1287	1922	2552	3018	3266	3327	3332
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	196	249	388	505	688	778	848	840	721	552	317	210	196	445	833	1338	2026	2804	3652	4492	5213	5765	6082	6292

(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.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data
- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data
- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. 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