

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: PROCTOR RESERVOIR, TX

1971-2000

COOP ID: 417300

Climate Division: TX 3

NWS Call Sign:

Elevation: 1,221 Feet Lat: 31° 58N

Lon: 98° 30W

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	57.1	30.6	43.9	89	1969	9	49.0	2000	3+	1973	13	34.8	1979	655	0	.0	.0	21.6	1.5	18.6	.0
Feb	62.1	35.2	48.7	96	1996	23	56.2	1976	3	1985	2	38.0	1978	462	4	.0	.2	22.4	1.1	11.2	.0
Mar	70.2	43.3	56.8	95+	1995	23	62.1	1974	12	1980	2	50.8	1996	271	14	.0	.5	29.2	.1	3.6	.0
Apr	77.5	51.2	64.4	98+	1984	21	69.5	1972	28	1989	11	58.2	1997	96	77	.0	2.2	29.9	.0	.5	.0
May	84.1	60.4	72.3	105	1984	6	77.7	2000	41+	1994	1	68.0	1976	14	238	.3	7.2	31.0	.0	.0	.0
Jun	90.9	67.7	79.3	107	1980	28	84.1	1990	48	1964	1	75.3	1983	0	428	1.4	19.3	30.0	.0	.0	.0
Jul	95.5	70.4	83.0	108	2000	16	87.3	1978	57	1989	21	79.4	1976	0	556	6.1	27.6	31.0	.0	.0	.0
Aug	95.3	69.4	82.4	113	2000	3	87.2	1999	53	1992	28	77.0	1971	0	537	7.4	25.8	31.0	.0	.0	.0
Sep	88.8	63.0	75.9	112	2000	6	82.5	1977	37	2000	26	68.4	1974	6	333	1.4	15.4	30.0	.0	.0	.0
Oct	80.0	52.5	66.3	100	1977	1	70.6	1979	26+	1993	31	58.3	1976	61	99	@	3.7	30.8	.0	.3	.0
Nov	67.8	42.0	54.9	92	1980	9	60.9	1973	16+	1991	4	47.7	1976	321	17	.0	@	27.3	.1	5.1	.0
Dec	59.5	33.3	46.4	84+	1995	14	52.8	1984	-8	1989	23	35.7	1983	578	2	.0	.0	23.8	1.0	14.7	.1
Ann	77.4	51.6	64.5	113	Aug 2000	3	87.3	Jul 1978	-8	Dec 1989	23	34.8	Jan 1979	2464	2305	16.6	101.9	338.0	3.8	54.0	.1

+ 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: 1963-2001

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

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NWS Call Sign:

Elevation: 1,221 Feet Lat: 31°58N

Lon: 98°30W

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	1.34	1.22	2.44	1968	20	3.99	1979	.00	1986	5.4	3.0	.7	.4	.03	.11	.29	.47	.69	.94	1.24	1.62	2.16	3.08	3.99
Feb	2.02	1.36	2.94	1992	25	7.53	1997	.00	1999	5.1	3.5	1.5	.5	.09	.27	.57	.86	1.18	1.54	1.96	2.48	3.19	4.38	5.54
Mar	2.13	1.72	4.25	1977	27	5.14	1998	.03	1971	6.1	3.6	1.5	.5	.20	.35	.63	.93	1.25	1.62	2.05	2.60	3.35	4.59	5.81
Apr	2.81	2.23	6.75	1990	26	10.26	1990	.24	1991	5.9	4.1	1.7	.9	.39	.62	1.02	1.41	1.82	2.27	2.80	3.44	4.30	5.71	7.08
May	4.75	4.22	4.13	1978	12	12.37	1994	1.01	1977	8.0	5.9	3.0	1.6	1.05	1.49	2.19	2.82	3.44	4.11	4.86	5.76	6.95	8.83	10.61
Jun	3.98	3.10	8.37	1988	1	10.76	1986	.42	1994	6.2	4.7	2.5	1.2	.74	1.10	1.68	2.22	2.77	3.36	4.03	4.84	5.92	7.66	9.32
Jul	1.70	1.55	2.63	1994	10	5.91	1994	.00+	2000	4.2	2.5	1.3	.6	.00	.00	.26	.52	.82	1.16	1.57	2.09	2.82	4.05	5.28
Aug	2.22	1.83	4.88	1995	1	9.25	1996	.00	2000	5.1	3.4	1.3	.7	.02	.10	.33	.61	.95	1.38	1.92	2.63	3.66	5.46	7.29
Sep	3.01	2.62	4.90	1964	20	11.44	1986	.00	1977	6.1	4.4	2.1	1.0	.18	.47	.94	1.39	1.85	2.37	2.97	3.71	4.72	6.37	7.97
Oct	3.32	2.89	5.85	1996	28	7.85	1991	.17	1987	6.1	4.1	2.3	1.0	.21	.40	.81	1.26	1.77	2.37	3.09	4.02	5.31	7.50	9.68
Nov	2.07	1.47	2.76	1963	9	6.15	2000	.01	1999	5.7	3.7	1.4	.6	.14	.27	.54	.82	1.14	1.51	1.95	2.51	3.29	4.61	5.92
Dec	1.77	1.43	3.55	1991	20	8.50	1991	.00	1973	5.1	3.3	1.1	.5	.04	.15	.37	.62	.90	1.23	1.63	2.15	2.86	4.09	5.31
Ann	31.12	29.29	8.37	Jun 1988	1	12.37	May 1994	.00+	Aug 2000	69.0	46.2	20.4	9.5	20.72	22.68	25.22	27.16	28.90	30.60	32.35	34.30	36.69	40.17	43.20

+ 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: 1963-2001

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

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Station: PROCTOR RESERVOIR, TX

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Climate Division: TX 3

NWS Call Sign:

Elevation: 1,221 Feet

Lat: 31°58N

Lon: 98°30W

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	.2	.0	0	0	2.5	1973	11	2.5	1973	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Feb	.1	.0	0	0	1.0	1988	6	1.0	1988	0	0	0	0	0	.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	#	2000	12	#	2000	#	2000	12	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.3	.0	N/A	N/A	2.5	Jan 1973	11	2.5	Jan 1973	#	Dec 2000	12	#	Dec 2000	.2	.2	.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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Climate Division: TX 3

NWS Call Sign:

Elevation: 1,221 Feet

Lat: 31° 58N

Lon: 98° 30W

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	4/16	4/11	4/07	4/03	3/31	3/28	3/24	3/21	3/15
32	4/08	4/02	3/28	3/24	3/20	3/17	3/13	3/08	3/02
28	3/27	3/19	3/14	3/09	3/05	2/28	2/23	2/18	2/10
24	3/12	3/04	2/26	2/21	2/16	2/11	2/06	1/31	1/23
20	2/28	2/19	2/12	2/06	1/31	1/25	1/18	1/08	0/00
16	2/14	2/04	1/28	1/21	1/14	1/06	12/21	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	10/21	10/26	10/30	11/02	11/05	11/09	11/12	11/16	11/21
32	10/28	11/03	11/07	11/11	11/15	11/18	11/22	11/26	12/03
28	11/02	11/10	11/15	11/20	11/25	11/29	12/04	12/09	12/17
24	11/13	11/20	11/26	11/30	12/05	12/09	12/14	12/19	12/27
20	11/26	12/05	12/11	12/17	12/22	12/28	1/04	1/15	0/00
16	12/07	12/18	12/26	1/03	1/11	1/22	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	240	232	227	223	219	215	210	205	198
32	262	254	248	243	238	234	229	223	215
28	296	285	277	271	264	258	251	243	232
24	320	310	303	297	291	285	279	272	262
20	>365	>365	>365	341	328	317	308	298	284
16	>365	>365	>365	>365	>365	352	337	324	309

* 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 3 NWS Call Sign: Elevation: 1,221 Feet Lat: 31°58N Lon: 98°30W

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	655	462	271	96	14	0	0	0	6	61	321	578	2464
60	508	333	152	35	2	0	0	0	0	18	205	433	1686
57	421	262	99	15	0	0	0	0	0	7	149	350	1303
55	366	220	71	8	0	0	0	0	0	3	118	299	1085
50	242	133	25	1	0	0	0	0	0	0	58	190	649
32	17	5	0	0	0	0	0	0	0	0	0	10	32

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	385	470	766	971	1247	1418	1579	1560	1317	1061	686	457	11917
55	20	41	124	288	534	728	866	847	627	351	114	33	4573
57	14	28	90	236	472	668	804	785	567	293	85	22	4064
60	7	15	50	165	381	578	711	692	477	210	51	12	3349
65	0	4	14	77	238	428	556	537	333	99	17	2	2305
70	0	0	1	25	122	281	401	384	204	32	4	0	1454

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	201	305	533	742	1011	1187	1343	1319	1081	814	460	251	201	506	1039	1781	2792	3979	5322	6641	7722	8536	8996	9247
45	113	197	389	593	856	1037	1188	1164	931	660	325	145	113	310	699	1292	2148	3185	4373	5537	6468	7128	7453	7598
50	53	111	263	448	701	887	1033	1009	781	509	211	76	53	164	427	875	1576	2463	3496	4505	5286	5795	6006	6082
55	21	55	158	310	546	737	878	854	631	363	124	33	21	76	234	544	1090	1827	2705	3559	4190	4553	4677	4710
60	1	21	75	187	395	587	723	699	484	229	60	7	1	22	97	284	679	1266	1989	2688	3172	3401	3461	3468
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	160	212	338	471	674	807	886	864	719	524	290	179	160	372	710	1181	1855	2662	3548	4412	5131	5655	5945	6124

(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