

Climatography of the United States

No. 20

1971-2000

Station: SAN SABA, TX

COOP ID: 417992

Climate Division: TX 6

NWS Call Sign:

Elevation: 1,195 Feet Lat: 31° 11N

Lon: 98° 43W

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	58.7	33.4	46.1	95	1911	31	52.0+	1998	0	1973	12	37.7	1979	587	0	.0	.0	23.0	.9	15.8	@
Feb	63.3	38.2	50.8	100	1996	23	57.3	1999	4	1985	2	40.9	1978	404	5	@	.2	23.6	.8	8.9	.0
Mar	71.3	46.0	58.7	98+	1916	21	64.4	1974	11	1980	2	52.9	1987	222	25	.0	.7	29.6	.1	2.9	.0
Apr	78.7	53.3	66.0	102	1974	1	71.3	1986	22	1914	9	61.3	1997	67	97	.2	2.9	29.9	.0	.6	.0
May	85.1	62.2	73.7	109	1984	6	80.2	1996	29	1903	1	68.1	1976	11	280	.6	8.7	31.0	.0	.0	.0
Jun	91.4	68.6	80.0	110	1980	28	84.6	1990	45	1903	1	76.3	1973	0	449	1.9	20.5	30.0	.0	.0	.0
Jul	95.8	71.4	83.6	112	1978	17	87.4	1978	54+	1984	31	78.1	1976	0	576	7.4	27.7	31.0	.0	.0	.0
Aug	95.2	70.1	82.7	109+	1984	20	86.5	1999	46	1915	31	76.9	1971	0	547	7.2	26.4	31.0	.0	.0	.0
Sep	89.3	64.7	77.0	106	1983	1	82.0	1977	35	1908	28	68.9	1974	2	362	1.5	17.5	30.0	.0	.0	.0
Oct	80.5	54.3	67.4	100+	1997	1	70.5	1979	23	1980	30	58.7	1976	49	124	.1	4.5	30.8	.0	.3	.0
Nov	68.7	43.9	56.3	94	1980	9	61.7	1981	11	1911	30	48.3	1976	284	23	.0	.2	28.1	@	4.6	.0
Dec	60.5	35.2	47.9	88	1966	7	55.2	1984	-1	1989	23	39.2	1989	533	1	.0	.0	25.2	.6	12.8	@
Ann	78.2	53.4	65.9	112	Jul 1978	17	87.4	Jul 1978	-1	Dec 1989	23	37.7	Jan 1979	2159	2489	18.9	109.3	343.2	2.4	45.9	.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: 1901-2000

(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: SAN SABA, TX

COOP ID: 417992

Climate Division: TX 6

NWS Call Sign:

Elevation: 1,195 Feet Lat: 31°11N

Lon: 98°43W

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	1.09	.80	2.61	1968	20	3.51	1973	.00+	1976	5.2	2.9	.5	.1	.00	.09	.28	.45	.63	.83	1.06	1.35	1.74	2.39	3.03
Feb	1.94	1.46	2.98	1997	20	8.32	1997	.24	1996	5.5	3.5	1.2	.4	.20	.34	.60	.87	1.17	1.49	1.88	2.36	3.02	4.12	5.19
Mar	1.96	1.82	3.12	1998	16	4.47	1981	.00+	1972	5.6	3.3	1.4	.5	.00	.28	.66	.97	1.29	1.62	2.00	2.44	3.05	4.03	4.97
Apr	2.13	1.72	2.86	1969	12	6.93	1977	.19	1984	5.2	3.6	1.6	.6	.27	.44	.74	1.04	1.35	1.70	2.10	2.60	3.28	4.39	5.46
May	3.92	3.98	3.56	1908	24	8.94	1994	.36	1984	8.0	5.8	3.0	1.0	.94	1.30	1.88	2.39	2.89	3.43	4.03	4.74	5.68	7.17	8.56
Jun	3.62	3.44	6.33	1997	23	11.45	1997	.19	1994	6.5	4.8	2.3	1.4	.76	1.09	1.62	2.11	2.59	3.11	3.70	4.40	5.32	6.81	8.21
Jul	1.87	1.50	3.26	1907	2	7.39	1971	.00+	1993	3.7	2.3	1.2	.6	.00	.10	.37	.65	.96	1.32	1.75	2.29	3.05	4.34	5.61
Aug	2.29	1.45	6.00	1979	2	8.14	1979	.00	1973	5.6	3.6	1.3	.6	.02	.10	.33	.62	.98	1.42	1.97	2.71	3.77	5.63	7.52
Sep	2.38	1.85	5.44	1952	11	6.61	1980	.00+	1983	5.3	3.6	1.3	.7	.00	.19	.59	.96	1.36	1.80	2.32	2.96	3.84	5.30	6.72
Oct	2.82	2.27	11.20	1969	5	7.48	1986	.26	1995	5.5	4.0	1.8	.7	.31	.53	.92	1.32	1.74	2.21	2.76	3.45	4.38	5.92	7.43
Nov	2.04	1.59	3.32	1992	19	6.14	2000	.04	1999	5.6	3.6	1.4	.7	.22	.38	.66	.94	1.25	1.59	1.99	2.49	3.17	4.30	5.39
Dec	1.66	1.02	3.88	1991	20	9.81	1991	.02	1985	5.2	3.1	1.1	.4	.05	.11	.27	.48	.73	1.04	1.44	1.96	2.72	4.05	5.40
Ann	27.72	27.61	11.20	Oct 1969	5	11.45	Jun 1997	.00+	Jul 1993	66.9	44.1	18.1	7.7	17.64	19.51	21.94	23.82	25.51	27.16	28.88	30.80	33.15	36.60	39.62

+ 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: 1901-2000

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

Complete documentation available from:
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Station: SAN SABA, TX

COOP ID: 417992

Climate Division: TX 6

NWS Call Sign:

Elevation: 1,195 Feet

Lat: 31° 11N

Lon: 98° 43W

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	3.0	1973	11	3.0	1973	5	1982	14	#+	1997	.5	.3	.1	.0	.0	.2	@	.0	.0
Feb	.5	.0	#	0	4.0	1973	9	4.0	1973	3	1988	7	#+	1996	.3	.2	.1	.0	.0	.1	.0	.0	.0
Mar	#	.0	#	0	#	1998	13	#	1998	#	1998	13	#	1998	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	#	.0	0	0	#	1980	13	#	1980	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	#	1993	30	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	2.5	1996	25	2.5	1996	2	1996	25	#+	1996	.1	.1	.0	.0	.0	@	.0	.0	.0
Dec	.1	.0	#	0	.5	1990	22	.5+	1997	1	1997	26	#+	1998	.3	.0	.0	.0	.0	.1	.0	.0	.0
Ann	1.3	.0	N/A	N/A	4.0	Feb 1973	9	4.0	Feb 1973	5	Jan 1982	14	#+	Dec 1998	1.2	.6	.2	.0	.0	.4	@	.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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Elevation: 1,195 Feet

Lat: 31° 11N

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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	4/17	4/12	4/09	4/06	4/03	3/31	3/28	3/24	3/19
32	4/12	4/04	3/29	3/24	3/20	3/15	3/10	3/05	2/25
28	4/01	3/23	3/16	3/11	3/06	2/28	2/23	2/16	2/07
24	3/13	3/02	2/23	2/17	2/11	2/05	1/30	1/22	1/12
20	3/04	2/20	2/12	2/05	1/29	1/22	1/13	12/31	0/00
16	2/11	1/31	1/23	1/14	1/05	12/23	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	10/12	10/19	10/24	10/28	11/01	11/05	11/09	11/13	11/20
32	10/25	10/31	11/04	11/08	11/11	11/15	11/18	11/22	11/28
28	11/02	11/09	11/13	11/17	11/21	11/25	11/29	12/04	12/11
24	11/10	11/20	11/27	12/03	12/09	12/14	12/20	12/27	1/06
20	11/23	12/02	12/09	12/15	12/21	12/28	1/05	1/20	0/00
16	12/09	12/20	12/29	1/06	1/16	2/02	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	235	227	221	216	211	207	202	196	188
32	265	255	248	242	236	230	224	216	206
28	289	279	272	266	260	254	248	241	231
24	340	325	315	306	299	291	283	274	261
20	>365	>365	>365	336	324	314	305	296	283
16	>365	>365	>365	>365	>365	351	337	327	315

* 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

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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	587	404	222	67	11	0	0	0	2	49	284	533	2159
60	443	277	119	19	1	0	0	0	0	13	175	387	1434
57	360	210	74	7	0	0	0	0	0	5	123	304	1083
55	308	171	51	3	0	0	0	0	0	3	95	253	884
50	198	94	16	0	0	0	0	0	0	0	42	150	500
32	11	1	0	0	0	0	0	0	0	0	0	3	15

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	448	525	826	1021	1292	1439	1599	1570	1350	1097	729	494	12390
55	31	52	164	333	579	749	886	857	660	387	134	32	4864
57	21	35	125	277	517	689	824	795	600	327	103	20	4333
60	12	18	77	200	425	599	731	702	510	243	64	10	3591
65	0	5	25	97	280	449	576	547	362	124	23	1	2489
70	0	0	5	34	158	301	421	392	225	45	6	0	1587

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	249	349	585	789	1050	1205	1357	1329	1117	858	506	288	249	598	1183	1972	3022	4227	5584	6913	8030	8888	9394	9682
45	147	232	441	641	895	1055	1202	1174	967	704	370	176	147	379	820	1461	2356	3411	4613	5787	6754	7458	7828	8004
50	79	137	305	493	740	905	1047	1019	817	553	249	95	79	216	521	1014	1754	2659	3706	4725	5542	6095	6344	6439
55	32	70	189	351	586	755	892	864	668	407	151	41	32	102	291	642	1228	1983	2875	3739	4407	4814	4965	5006
60	8	27	102	225	436	605	737	709	518	264	75	13	8	35	137	362	798	1403	2140	2849	3367	3631	3706	3719
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	182	234	375	513	708	814	893	867	743	568	322	202	182	416	791	1304	2012	2826	3719	4586	5329	5897	6219	6421

(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