

Climatology of the United States

No. 20

1971-2000

Station: SINTON, TX

COOP ID: 418354

Climate Division: TX 8

NWS Call Sign:

Elevation: 51 Feet

Lat: 28°02N

Lon: 97°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	64.0	44.2	54.1	91	1971	30	61.2	2000	11+	1962	13	45.6	1977	366	21	.0	.1	27.7	.1	3.5	.0
Feb	67.5	47.3	57.4	94	1962	10	65.5	2000	21	1985	2	48.2	1978	241	28	.0	.3	26.5	.1	1.9	.0
Mar	74.0	54.5	64.3	103	1984	28	69.3	2000	18+	1980	3	58.4	1996	98	74	.1	1.1	30.7	.0	.4	.0
Apr	79.0	60.6	69.8	105	1958	23	74.4	1972	32	1971	7	66.1	1997	24	167	@	2.0	30.0	.0	@	.0
May	83.9	68.0	76.0	104	1984	4	81.9	2000	44	1996	1	70.8	1976	5	343	.1	5.8	31.0	.0	.0	.0
Jun	89.0	73.7	81.4	107	1998	15	85.7	1998	58	1979	12	78.7	1973	0	491	.2	20.8	30.0	.0	.0	.0
Jul	91.7	75.0	83.4	105+	1975	31	87.7	2000	63	1967	16	79.7	1976	0	569	1.6	27.6	31.0	.0	.0	.0
Aug	92.5	74.4	83.5	107	1962	11	86.1	1998	62	1967	13	80.4	1971	0	572	1.4	28.2	31.0	.0	.0	.0
Sep	89.0	70.2	79.6	109	2000	6	82.6	1977	50+	1984	30	75.7	1979	0	438	.5	20.3	30.0	.0	.0	.0
Oct	82.4	61.9	72.2	98+	1977	8	74.4	1998	31	1993	31	64.0	1976	13	234	.0	4.9	31.0	.0	@	.0
Nov	73.1	53.1	63.1	93+	1965	26	69.8	1973	25+	1979	30	53.8	1976	149	92	.0	.2	29.5	.0	.6	.0
Dec	66.3	45.7	56.0	90+	1977	5	64.1	1984	10	1989	23	46.3	1989	308	27	.0	.1	28.9	.2	2.6	.0
Ann	79.4	60.7	70.1	109	Sep 2000	6	87.7	Jul 2000	10	Dec 1989	23	45.6	Jan 1977	1204	3056	3.9	111.4	357.3	.4	9.0	.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: 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

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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	1.91	1.64	4.64	1984	9	6.37	1984	.00+	1996	6.7	4.0	1.0	.3	.00	.00	.59	.93	1.25	1.59	1.97	2.44	3.02	3.99	4.91
Feb	2.02	1.57	5.31	1982	26	8.87	1982	.00+	1996	5.7	3.3	1.2	.5	.00	.00	.55	.91	1.25	1.62	2.05	2.57	3.24	4.35	5.41
Mar	1.91	1.44	3.92	1983	24	5.60	1997	.00	1971	5.3	2.7	1.0	.7	.02	.11	.32	.58	.88	1.24	1.70	2.29	3.13	4.58	6.05
Apr	1.99	1.43	12.35	1930	28	9.53	1985	.00+	1984	5.0	3.0	1.1	.5	.00	.19	.54	.85	1.18	1.54	1.96	2.47	3.17	4.32	5.44
May	4.07	3.69	5.50	1945	22	11.21	1993	.00	1998	6.0	4.7	2.3	1.2	.15	.47	1.05	1.64	2.29	3.02	3.90	4.99	6.50	9.03	11.51
Jun	3.97	3.12	4.20	1993	14	12.31	1973	.00+	1998	6.6	4.7	2.5	1.1	.00	.33	.99	1.62	2.28	3.02	3.88	4.93	6.39	8.81	11.16
Jul	2.98	1.86	5.45	1990	25	12.00	1979	.00+	1997	4.5	3.5	1.6	.8	.00	.11	.47	.89	1.38	1.96	2.68	3.60	4.92	7.16	9.42
Aug	3.16	1.99	8.33	1953	29	11.32	1980	.10	1983	6.3	3.9	1.6	.7	.24	.44	.85	1.28	1.76	2.32	2.99	3.84	5.01	6.98	8.94
Sep	5.61	4.56	11.84	1952	11	19.24	1971	.88	1982	8.0	5.8	2.9	1.7	1.34	1.87	2.69	3.42	4.14	4.91	5.77	6.80	8.14	10.27	12.28
Oct	4.61	3.13	9.20	1984	20	16.87	1997	.39	1989	6.2	4.5	2.2	1.3	.35	.66	1.25	1.89	2.59	3.40	4.37	5.60	7.30	10.15	12.97
Nov	2.04	1.79	5.24	1934	15	6.97	1992	.24	1988	5.7	3.5	1.3	.6	.20	.35	.63	.92	1.22	1.57	1.98	2.49	3.19	4.34	5.48
Dec	1.27	.94	4.10	1937	29	4.29	1994	.00	1977	6.4	3.0	.8	.3	.04	.14	.32	.50	.70	.93	1.21	1.56	2.04	2.84	3.64
Ann	35.54	35.34	12.35	Apr 1930	28	19.24	Sep 1971	.00+	Jun 1998	72.4	46.6	19.5	9.7	20.07	22.80	26.45	29.31	31.91	34.49	37.20	40.25	44.02	49.63	54.59

+ 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

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

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Station: SINTON, TX

COOP ID: 418354

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NWS Call Sign:

Elevation: 51 Feet

Lat: 28°02N

Lon: 97°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	#	.0	0	0	#	1973	11	#	1973	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.1	.0	#	0	2.0	1973	9	2.0	1973	2	1973	9	#	1973	.1	.1	.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	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.1	.0	N/A	N/A	2.0	Feb 1973	9	2.0	Feb 1973	2	Feb 1973	9	#	Feb 1973	.1	.1	.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

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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	3/26	3/16	3/09	3/02	2/25	2/19	2/13	2/05	1/26
32	3/11	2/28	2/20	2/13	2/07	1/31	1/24	1/15	1/02
28	2/26	2/15	2/06	1/30	1/23	1/15	1/05	12/19	0/00
24	1/31	1/20	1/10	1/01	12/18	0/00	0/00	0/00	0/00
20	1/21	1/03	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	11/10	11/17	11/21	11/25	11/29	12/03	12/07	12/12	12/19
32	11/21	11/28	12/04	12/09	12/13	12/18	12/23	12/29	1/07
28	12/05	12/14	12/21	12/28	1/03	1/10	1/20	0/00	0/00
24	12/15	12/28	1/07	1/17	2/01	0/00	0/00	0/00	0/00
20	12/29	1/19	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	313	300	292	284	277	270	262	253	241
32	>365	339	326	316	308	300	292	283	270
28	>365	>365	>365	>365	345	333	323	312	299
24	>365	>365	>365	>365	>365	>365	>365	351	334
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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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	241	98	24	5	0	0	0	0	13	149	308	1204
60	249	146	35	4	0	0	0	0	0	2	78	195	709
57	193	102	16	0	0	0	0	0	0	1	48	142	502
55	160	77	8	0	0	0	0	0	0	0	33	111	389
50	87	31	1	0	0	0	0	0	0	0	12	50	181
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	686	711	999	1133	1361	1481	1592	1595	1428	1245	933	743	13907
55	132	144	295	443	648	791	879	882	738	532	276	141	5901
57	104	113	240	383	586	731	817	820	678	470	231	110	5283
60	67	73	167	297	493	641	724	727	588	379	171	70	4397
65	21	28	74	167	343	491	569	572	438	234	92	27	3056
70	12	9	21	75	206	341	414	417	290	114	38	10	1947

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	489	556	800	933	1155	1278	1382	1379	1225	1023	732	544	489	1045	1845	2778	3933	5211	6593	7972	9197	10220	10952	11496
45	348	418	645	783	1000	1128	1227	1224	1075	868	583	400	348	766	1411	2194	3194	4322	5549	6773	7848	8716	9299	9699
50	230	289	496	633	845	978	1072	1069	925	714	440	271	230	519	1015	1648	2493	3471	4543	5612	6537	7251	7691	7962
55	134	179	351	483	690	828	917	914	775	561	313	163	134	313	664	1147	1837	2665	3582	4496	5271	5832	6145	6308
60	66	97	215	343	535	678	762	759	625	410	192	90	66	163	378	721	1256	1934	2696	3455	4080	4490	4682	4772
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	297	343	520	634	818	900	957	946	845	697	472	338	297	640	1160	1794	2612	3512	4469	5415	6260	6957	7429	7767

(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