

Climatology of the United States

No. 20

1971-2000

Station: SOMERVILLE DAM, TX

COOP ID: 418446

Climate Division: TX 7

NWS Call Sign:

Elevation: 263 Feet Lat: 30° 20N Lon: 96° 32W

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	60.8	36.4	48.6	84	1971	26	55.1	1990	8	1982	11	39.5	1978	517	8	.0	.0	24.1	.7	10.4	.0
Feb	65.0	40.3	52.7	96	1996	22	59.6	1976	13	1996	4	42.6	1978	355	9	.0	.1	24.0	.4	5.3	.0
Mar	72.3	48.1	60.2	91	1971	23	65.1	1974	19	1980	2	53.8	1996	182	34	.0	.1	29.9	.0	1.6	.0
Apr	79.2	55.7	67.5	94	1996	19	72.2	1981	32+	1987	3	62.3	1997	49	122	.0	.5	30.0	.0	.1	.0
May	86.1	64.2	75.2	100+	1996	31	79.5	1996	43	1971	14	72.0	1976	3	317	.1	5.4	31.0	.0	.0	.0
Jun	92.7	70.8	81.8	106	1998	15	86.0	1998	55	1984	1	79.3	1995	0	501	.7	19.1	30.0	.0	.0	.0
Jul	96.7	73.3	85.0	106+	2000	21	89.2	1980	57+	1995	6	81.9	1999	0	620	4.0	27.7	31.0	.0	.0	.0
Aug	96.9	72.4	84.7	108	1996	2	87.9	1985	56	1967	13	81.0	1992	0	609	4.9	27.9	31.0	.0	.0	.0
Sep	91.5	66.7	79.1	114	2000	5	83.5	1980	42+	2000	28	72.9	1974	0	422	1.1	18.2	30.0	.0	.0	.0
Oct	82.4	56.6	69.5	96+	2000	6	72.6	1979	28	1993	31	62.1	1976	30	170	.0	3.3	30.9	.0	.1	.0
Nov	71.0	46.9	59.0	90	1989	9	64.6	1973	18	1993	27	51.7	1976	230	47	.0	@	28.8	@	2.1	.0
Dec	63.3	38.6	51.0	84	1995	4	60.9	1984	3	1989	23	41.9	1989	445	10	.0	.0	26.2	.4	8.5	.0
Ann	79.8	55.8	67.9	114	Sep 2000	5	89.2	Jul 1980	3	Dec 1989	23	39.5	Jan 1978	1811	2869	10.8	102.3	346.9	1.5	28.1	.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: 1963-2001

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

Climatography of the United States

No. 20 1971-2000

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

Station: SOMERVILLE DAM, TX

COOP ID: 418446

Climate Division: TX 7

NWS Call Sign:

Elevation: 263 Feet Lat: 30°20N

Lon: 96°32W

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	2.93	2.45	2.50	1989	20	11.20	1991	.15	1971	9.9	5.3	1.8	.8	.35	.58	.99	1.40	1.83	2.32	2.88	3.58	4.54	6.10	7.63
Feb	2.53	2.15	2.25	1992	25	8.68	1992	.18	1999	9.0	4.6	1.5	.7	.38	.59	.96	1.31	1.67	2.07	2.52	3.08	3.84	5.06	6.24
Mar	2.62	2.65	3.47	1973	24	5.98	1983	.12	1971	8.9	4.9	1.7	.8	.60	.85	1.23	1.57	1.92	2.28	2.69	3.18	3.82	4.84	5.79
Apr	2.92	2.49	6.65	1969	13	7.55	1977	.09	1984	7.3	4.0	2.1	1.1	.35	.58	.99	1.40	1.84	2.32	2.88	3.57	4.51	6.06	7.57
May	4.39	4.12	3.93	1968	10	8.12	1983	.47	1996	9.0	6.1	3.0	1.5	1.16	1.57	2.21	2.77	3.32	3.90	4.54	5.30	6.30	7.86	9.33
Jun	4.21	3.73	4.90	1968	24	11.04	1986	.54	1998	7.6	5.3	2.3	1.2	.53	.86	1.46	2.04	2.66	3.35	4.15	5.14	6.48	8.68	10.81
Jul	1.78	1.68	3.48	1968	9	5.72	1972	.00+	2000	5.9	3.8	1.2	.5	.00	.11	.37	.64	.94	1.28	1.69	2.19	2.90	4.09	5.26
Aug	2.43	1.81	3.10	1966	13	8.57	1996	.08	1980	6.0	3.8	1.7	.6	.14	.28	.57	.90	1.27	1.71	2.25	2.93	3.89	5.52	7.15
Sep	3.59	3.25	5.00	1974	13	9.75	1973	.22	1988	7.3	4.5	2.2	1.2	.47	.76	1.27	1.77	2.29	2.88	3.55	4.38	5.51	7.35	9.14
Oct	4.33	3.13	15.25	1994	17	18.94	1994	.13	1987	7.3	5.4	2.6	1.4	.36	.66	1.23	1.83	2.49	3.25	4.14	5.27	6.84	9.45	12.02
Nov	3.63	3.18	3.82	1986	11	8.63	2000	.86	1988	8.5	5.3	2.2	1.0	.98	1.33	1.85	2.31	2.76	3.23	3.76	4.38	5.19	6.45	7.64
Dec	3.14	2.59	3.42	1965	3	8.01	1991	.55	1980	9.8	4.9	2.2	.8	.70	.99	1.45	1.87	2.28	2.72	3.21	3.80	4.58	5.82	6.99
Ann	38.50	37.91	15.25	Oct 1994	17	18.94	Oct 1994	.00+	Jul 2000	96.5	57.9	24.5	11.6	24.17	26.81	30.27	32.94	35.35	37.70	40.16	42.90	46.27	51.21	55.54

+ 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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No. 20

1971-2000

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Station: SOMERVILLE DAM, TX

COOP ID: 418446

Climate Division: TX 7

NWS Call Sign:

Elevation: 263 Feet

Lat: 30°20N

Lon: 96°32W

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	#	1996	2	#	1996	#	1996	2	#	1996	.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	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	#	.0	N/A	N/A	#	Feb 1996	2	#	Feb 1996	#	Feb 1996	2	#	Feb 1996	.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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NWS Call Sign:

Elevation: 263 Feet

Lat: 30°20N

Lon: 96°32W

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	4/11	4/04	3/29	3/24	3/20	3/15	3/11	3/05	2/25
32	3/26	3/18	3/13	3/08	3/03	2/27	2/22	2/16	2/08
28	3/13	3/04	2/25	2/20	2/14	2/09	2/04	1/28	1/19
24	2/28	2/17	2/10	2/03	1/27	1/21	1/12	12/31	0/00
20	2/20	2/09	2/01	1/24	1/16	1/05	0/00	0/00	0/00
16	1/22	1/12	1/02	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	10/27	11/01	11/06	11/09	11/13	11/16	11/19	11/24	11/29
32	11/02	11/09	11/14	11/18	11/23	11/27	12/01	12/06	12/13
28	11/11	11/20	11/26	12/01	12/06	12/10	12/15	12/21	12/30
24	11/27	12/06	12/12	12/17	12/22	12/27	1/03	1/13	0/00
20	12/11	12/24	1/03	1/13	1/23	2/07	0/00	0/00	0/00
16	12/28	1/06	1/15	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	266	256	249	243	237	231	225	218	208
32	294	284	276	270	264	257	251	243	233
28	329	317	308	300	293	286	279	270	258
24	>365	>365	>365	340	329	321	313	305	294
20	>365	>365	>365	>365	>365	>365	348	331	314
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: 263 Feet Lat: 30° 20N Lon: 96° 32W

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	517	355	182	49	3	0	0	0	0	30	230	445	1811
60	375	234	89	12	0	0	0	0	0	7	138	309	1164
57	298	175	51	4	0	0	0	0	0	3	95	237	863
55	252	141	33	2	0	0	0	0	0	1	72	196	697
50	159	72	8	0	0	0	0	0	0	0	30	113	382
32	8	0	0	0	0	0	0	0	0	0	0	1	9

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	521	578	875	1063	1337	1491	1643	1632	1412	1163	808	589	13112
55	53	75	195	375	624	801	930	919	722	451	190	71	5406
57	37	53	151	317	562	741	868	857	662	390	153	50	4841
60	21	28	96	235	469	651	775	764	572	302	106	28	4047
65	8	9	34	122	317	501	620	609	422	170	47	10	2869
70	0	0	8	47	178	351	465	454	278	71	17	1	1870

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	304	387	632	810	1075	1229	1372	1368	1159	906	574	362	304	691	1323	2133	3208	4437	5809	7177	8336	9242	9816	10178
45	192	267	483	660	920	1079	1217	1213	1009	751	430	236	192	459	942	1602	2522	3601	4818	6031	7040	7791	8221	8457
50	103	164	342	511	765	929	1062	1058	859	596	299	135	103	267	609	1120	1885	2814	3876	4934	5793	6389	6688	6823
55	49	88	213	366	610	779	907	903	709	443	189	70	49	137	350	716	1326	2105	3012	3915	4624	5067	5256	5326
60	18	39	114	235	456	629	752	748	560	303	103	31	18	57	171	406	862	1491	2243	2991	3551	3854	3957	3988
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	188	238	393	530	740	856	928	916	780	605	355	226	188	426	819	1349	2089	2945	3873	4789	5569	6174	6529	6755

(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