

Climatography of the United States No. 20

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

Station: SILVERTON, TX

1971-2000

COOP ID: 418323

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,280 Feet Lat: 34° 28N

Lon: 101° 18W

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	49.9	21.6	35.8	80	1986	21	42.0	1986	-9	1963	13	27.2	1979	907	0	.0	.0	17.6	4.3	28.8	.3
Feb	55.0	26.0	40.5	87+	1996	23	47.8	1976	-7	1985	1	30.1	1978	686	0	.0	.0	18.9	2.8	22.8	.4
Mar	62.9	32.3	47.6	94+	1989	13	52.3	1972	4+	1978	4	42.7	1999	540	0	.0	.2	26.3	.7	15.3	.0
Apr	71.4	40.4	55.9	98	1989	23	61.3	1978	19+	1997	12	49.6	1973	290	17	.0	.8	28.4	@	5.3	.0
May	79.0	51.1	65.1	107	2000	25	73.0	1996	28	1967	1	60.2	1999	100	103	.5	4.3	30.8	.0	.1	.0
Jun	87.2	60.8	74.0	109+	1994	28	79.5	1980	43	1983	7	69.3	1982	11	281	1.9	12.4	30.0	.0	.0	.0
Jul	90.9	65.2	78.1	106	1995	28	83.5	1980	53	1971	31	73.4	1976	0	405	1.9	19.7	31.0	.0	.0	.0
Aug	88.8	63.6	76.2	102+	1986	1	80.1	1999	50	1979	12	72.0	1971	1	348	.5	16.2	31.0	.0	.0	.0
Sep	82.2	55.9	69.1	103	2000	11	75.2	1998	30	1983	22	61.5	1974	42	164	.3	7.7	29.8	.0	.1	.0
Oct	73.1	44.2	58.7	100	2000	4	61.4	1973	16	1993	31	51.2	1976	212	15	@	1.0	30.1	@	2.8	.0
Nov	60.0	31.3	45.7	88	1980	9	53.7	1999	1	1991	4	38.4	1972	580	0	.0	.0	23.3	.8	16.7	.0
Dec	51.4	23.6	37.5	80	1995	3	42.1	1994	-6+	1989	23	26.2	1983	853	0	.0	.0	18.0	3.1	27.1	.4
Ann	71.0	43.0	57.0	109+	Jun 1994	28	83.5	Jul 1980	-9	Jan 1963	13	26.2	Dec 1983	4222	1333	5.1	62.3	315.2	11.7	119.0	1.1

+ 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: 1946-2001

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

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Climate Division: TX 1

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Lon: 101°18W

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	.57	.48	1.39	2001	28	2.27	1999	.00+	1998	3.3	1.8	.2	@	.00	.00	.12	.23	.33	.45	.57	.72	.93	1.26	1.58
Feb	.78	.60	1.01	1997	21	2.69	1998	.00+	2000	4.0	2.4	.3	@	.00	.00	.09	.21	.34	.49	.69	.94	1.29	1.91	2.52
Mar	1.17	.75	1.74	2001	9	5.32	1973	.03	1997	4.5	2.6	.7	.3	.07	.13	.27	.43	.61	.82	1.08	1.41	1.88	2.68	3.47
Apr	1.59	1.41	2.30	1968	3	6.40	1997	.00+	1996	5.4	3.9	1.0	.3	.00	.12	.38	.62	.89	1.19	1.54	1.97	2.56	3.56	4.53
May	3.22	3.01	4.15	1956	27	6.93	1978	.54	1984	7.9	5.9	2.3	.8	.71	1.01	1.48	1.91	2.34	2.79	3.30	3.91	4.72	6.00	7.20
Jun	3.96	3.27	5.25	1979	24	11.14	1979	.72	1973	8.3	6.0	2.9	1.0	.75	1.11	1.69	2.22	2.77	3.36	4.02	4.82	5.89	7.60	9.23
Jul	2.30	2.39	3.27	1951	23	7.56	1996	.10	1974	6.1	4.3	1.6	.7	.21	.37	.67	.99	1.34	1.74	2.21	2.80	3.61	4.97	6.30
Aug	2.76	2.82	2.92	1953	17	7.35	1986	.00	2000	7.6	5.6	1.6	.8	.31	.65	1.11	1.51	1.91	2.33	2.82	3.40	4.17	5.40	6.58
Sep	2.67	2.45	2.75	1973	7	5.87	1974	.01	2000	6.3	4.2	1.8	.7	.16	.32	.65	1.01	1.42	1.90	2.49	3.23	4.27	6.04	7.81
Oct	1.68	1.22	2.85	1985	10	6.00	1983	.00+	1992	5.1	3.2	1.0	.4	.00	.08	.32	.57	.85	1.17	1.56	2.06	2.75	3.92	5.08
Nov	.90	.67	2.01	1986	4	2.30	1986	.00+	1999	4.2	2.2	.4	.1	.00	.00	.25	.41	.56	.72	.91	1.14	1.43	1.92	2.38
Dec	.74	.63	3.34	1959	14	2.41	1991	.00+	1977	3.8	2.4	.4	@	.00	.00	.15	.28	.41	.55	.72	.93	1.22	1.70	2.16
Ann	22.34	21.17	5.25	Jun 1979	24	11.14	Jun 1979	.00+	Aug 2000	66.5	44.5	14.2	5.1	15.39	16.71	18.42	19.73	20.89	22.01	23.18	24.47	26.05	28.33	30.32

+ 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: 1946-2001

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

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Station: SILVERTON, TX

COOP ID: 418323

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,280 Feet

Lat: 34° 28N

Lon: 101° 18W

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	3.8	2.5	#	0	15.0	1994	31	16.0	1994	3+	1992	13	#+	2000	1.3	1.3	.4	.2	@	.3	.2	.0	.0
Feb	3.5	1.5	#	0	6.0	1980	16	13.0	1978	2	1972	11	#+	1995	1.3	1.3	.5	.2	.0	.1	.0	.0	.0
Mar	1.2	.0	#	0	4.0	1976	9	5.0	1994	2	1971	3	#	1971	.6	.6	.1	.0	.0	.1	.0	.0	.0
Apr	.4	.0	0	0	3.0	1973	8	3.0+	1993	0	0	0	0	0	.1	.1	.1	.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	.2	.0	#	0	4.0	1976	29	4.0	1976	4	1976	29	#+	1991	.1	.1	@	.0	.0	.2	.1	.0	.0
Nov	1.4	.0	#	0	7.0	2000	8	10.0	1992	6	1992	22	#+	1996	.5	.4	.2	.1	.0	-9.9	-9.9	-9.9	-9.9
Dec	2.8	2.0	#	0	7.0	1987	14	16.0	1987	8	2000	27	1	1999	1.4	1.2	.2	.1	.0	.3	.0	.0	.0
Ann	13.3	6.0	N/A	N/A	15.0	Jan 1994	31	16.0+	Jan 1994	8	Dec 2000	27	1	Dec 1999	5.3	5.0	1.5	.6	@	-9.9	-9.9	-9.9	-9.9

+ 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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No. 20 1971-2000

Station: SILVERTON, TX

COOP ID: 418323

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,280 Feet

Lat: 34°28N

Lon: 101°18W

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	5/12	5/07	5/03	4/30	4/27	4/24	4/21	4/17	4/12
32	4/27	4/22	4/19	4/17	4/14	4/11	4/09	4/06	4/01
28	4/15	4/11	4/08	4/05	4/03	3/31	3/29	3/26	3/21
24	4/08	4/02	3/29	3/25	3/22	3/18	3/14	3/10	3/04
20	4/03	3/26	3/20	3/15	3/10	3/05	2/28	2/22	2/13
16	3/22	3/15	3/09	3/05	2/28	2/24	2/19	2/14	2/06
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	9/28	10/02	10/06	10/09	10/11	10/14	10/17	10/20	10/25
32	10/07	10/12	10/16	10/19	10/22	10/25	10/28	10/31	11/06
28	10/22	10/26	10/29	11/01	11/04	11/06	11/09	11/12	11/17
24	11/02	11/07	11/10	11/13	11/16	11/18	11/21	11/25	11/29
20	11/05	11/11	11/15	11/18	11/21	11/25	11/28	12/02	12/08
16	11/08	11/17	11/23	11/28	12/03	12/08	12/13	12/19	12/28
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	183	178	173	170	167	164	160	156	150
32	207	201	197	193	190	187	183	179	173
28	231	225	221	218	214	211	208	203	198
24	259	252	247	243	239	234	230	225	218
20	285	275	268	262	256	250	244	237	227
16	308	297	290	283	277	271	265	257	247

* 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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Station: SILVERTON, TX

COOP ID: 418323

Climate Division: TX 1 NWS Call Sign: Elevation: 3,280 Feet Lat: 34° 28N Lon: 101° 18W

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	907	686	540	290	100	11	0	1	42	212	580	853	4222
60	752	546	387	175	41	1	0	0	11	101	435	698	3147
57	659	466	301	120	21	0	0	0	4	56	353	605	2585
55	597	413	246	90	12	0	0	0	1	36	301	544	2240
50	449	288	133	34	2	0	0	0	0	9	189	398	1502
32	67	28	1	0	0	0	0	0	0	0	10	45	151

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	183	266	485	717	1025	1261	1428	1370	1112	825	420	215	9307
55	0	7	17	116	324	571	715	657	423	148	21	1	3000
57	0	4	9	87	271	511	653	595	366	106	13	0	2615
60	0	0	2	52	198	422	560	502	283	58	5	0	2082
65	0	0	0	17	103	281	405	348	164	15	0	0	1333
70	0	0	0	4	41	161	256	204	79	2	0	0	747

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	70	140	283	498	789	1027	1180	1123	879	587	237	86	70	210	493	991	1780	2807	3987	5110	5989	6576	6813	6899
45	27	74	174	362	634	877	1025	968	730	439	142	38	27	101	275	637	1271	2148	3173	4141	4871	5310	5452	5490
50	1	31	90	235	483	727	870	813	582	299	70	9	1	32	122	357	840	1567	2437	3250	3832	4131	4201	4210
55	0	5	36	136	334	577	715	658	440	179	28	0	0	5	41	177	511	1088	1803	2461	2901	3080	3108	3108
60	0	0	8	62	204	428	560	504	304	88	4	0	0	0	8	70	274	702	1262	1766	2070	2158	2162	2162
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	99	141	232	336	491	669	783	748	566	384	189	104	99	240	472	808	1299	1968	2751	3499	4065	4449	4638	4742

(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