

Climatography of the United States

No. 20

1971-2000

Station: GATESVILLE 4 SSE, TX

COOP ID: 413485

Climate Division: TX 3

NWS Call Sign:

Elevation: 760 Feet

Lat: 31° 23N

Lon: 97° 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	61.2	33.5	47.4	95	1943	23	54.4	1990	-6	1949	31	38.4	1979	555	3	.0	.0	23.3	.8	14.8	.0
Feb	66.1	37.9	52.0	100	1996	22	59.1	1976	0	1951	2	42.0	1978	372	8	@	.2	23.6	.6	9.2	.0
Mar	73.8	45.7	59.8	98+	1946	30	66.8	1974	13	1980	2	55.0	1987	194	32	.0	.3	30.1	@	3.4	.0
Apr	80.1	52.9	66.5	102	1904	7	70.8	1972	27	1940	13	61.6	1997	52	98	.0	1.5	30.0	.0	.6	.0
May	85.7	61.9	73.8	102	1959	31	80.3	1996	33	1903	1	69.4	1976	8	281	.1	5.1	31.0	.0	.0	.0
Jun	91.7	68.0	79.9	108	1936	21	84.4	1998	48	1964	1	77.1	1995	0	446	.7	18.2	30.0	.0	.0	.0
Jul	96.4	70.5	83.5	111+	1954	25	88.0	1998	56	1968	6	79.3	1976	0	571	6.3	28.0	31.0	.0	.0	.0
Aug	96.4	69.2	82.8	112+	1962	12	86.3	2000	53+	1992	28	77.6	1971	0	551	5.9	27.2	31.0	.0	.0	.0
Sep	90.5	63.4	77.0	112	2000	5	82.4	1977	36	1942	27	69.1	1974	2	360	1.0	16.2	30.0	.0	.0	.0
Oct	81.9	53.6	67.8	104	1938	2	70.6	1979	21+	1993	31	59.5	1976	41	125	@	3.5	30.8	.0	.2	.0
Nov	70.6	43.3	57.0	93+	1980	8	63.4	1973	13	1976	29	50.3	1976	268	27	.0	.1	28.4	.0	4.9	.0
Dec	62.7	35.2	49.0	90	1951	30	54.4	1984	-4	1989	23	39.1	1983	499	2	.0	.0	25.6	.6	12.3	@
Ann	79.8	52.9	66.4	112+	Sep 2000	5	88.0	Jul 1998	-6	Jan 1949	31	38.4	Jan 1979	1991	2504	14.0	100.3	344.8	2.0	45.4	@

+ 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: 1900-2001

(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

Station: GATESVILLE 4 SSE, TX

COOP ID: 413485

Climate Division: TX 3

NWS Call Sign:

Elevation: 760 Feet Lat: 31°23N

Lon: 97°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	1.65	1.40	2.65	1961	7	3.64	1992	.05	1976	5.6	3.8	1.0	.3	.21	.34	.57	.80	1.05	1.32	1.63	2.02	2.54	3.40	4.23
Feb	2.35	2.25	3.07	1928	21	6.79	1997	.00	1999	5.5	4.0	1.7	.7	.17	.41	.79	1.13	1.49	1.89	2.34	2.90	3.65	4.87	6.06
Mar	2.57	2.62	3.43	1946	14	5.29	1981	.02	1971	5.9	4.3	2.0	.7	.30	.50	.86	1.22	1.60	2.02	2.52	3.14	3.98	5.37	6.71
Apr	2.90	2.57	5.25	1900	7	7.75	1976	.33	1983	5.9	4.3	2.2	1.1	.63	.90	1.32	1.71	2.09	2.50	2.96	3.52	4.25	5.41	6.50
May	4.38	4.02	7.13	1956	1	9.44	1990	1.23	1988	7.9	6.1	2.9	1.5	1.47	1.89	2.50	3.01	3.50	4.01	4.57	5.22	6.05	7.34	8.53
Jun	3.66	3.10	8.35	1964	16	9.11	1981	.69	1990	5.9	5.0	2.4	1.1	.82	1.16	1.70	2.18	2.66	3.18	3.75	4.45	5.35	6.80	8.16
Jul	2.36	1.35	5.78	1971	25	10.52	1971	.00+	2000	3.5	2.7	1.2	.6	.00	.00	.30	.64	1.04	1.52	2.11	2.87	3.94	5.78	7.63
Aug	2.53	1.71	7.70	1920	6	12.02	1996	.00	2000	4.8	4.0	1.6	.6	.05	.19	.50	.85	1.25	1.73	2.31	3.07	4.13	5.93	7.74
Sep	2.87	2.41	6.50	1966	9	7.05	1980	.02	1982	5.4	4.2	1.9	.9	.29	.50	.89	1.29	1.72	2.21	2.78	3.50	4.48	6.11	7.70
Oct	3.30	2.98	5.90	1959	4	8.22	1985	.27	1980	5.5	4.1	2.1	1.1	.54	.82	1.30	1.76	2.22	2.73	3.31	4.02	4.97	6.51	7.98
Nov	2.51	2.34	4.48	1940	23	6.96	2000	.10	1979	5.2	4.3	1.8	.6	.44	.66	1.02	1.37	1.72	2.10	2.54	3.07	3.77	4.91	6.00
Dec	2.35	1.97	4.90	1997	21	8.38	1991	.24	1977	5.4	3.9	1.6	.5	.24	.41	.73	1.06	1.41	1.81	2.28	2.86	3.66	4.99	6.29
Ann	33.43	34.24	8.35	Jun 1964	16	12.02	Aug 1996	.00+	Aug 2000	66.5	50.7	22.4	9.7	23.13	25.10	27.64	29.58	31.30	32.97	34.70	36.61	38.94	42.33	45.27

+ 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: 1900-2001

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

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Station: GATESVILLE 4 SSE, TX

COOP ID: 413485

Climate Division: TX 3

NWS Call Sign:

Elevation: 760 Feet

Lat: 31°23N

Lon: 97°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	.6	.0	#	0	4.5	1973	11	4.5	1973	8	1982	14	1	1982	.2	.2	.1	.0	.0	.1	.1	.1	.0
Feb	.3	.0	#	0	2.1	1973	17	2.1	1973	2+	1975	23	#+	1975	.1	.1	.0	.0	.0	.1	.0	.0	.0
Mar	#	.0	0	0	#	1982	6	#	1982	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	#	.0	0	0	#	1987	3	#	1987	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	.2	.0	#	0	4.0	1976	13	4.0	1976	#	1996	25	#	1996	.1	.1	.1	.0	.0	.0	.0	.0	.0
Dec	.2	.0	0	0	2.5	1996	15	2.5	1996	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Ann	1.3	.0	N/A	N/A	4.5	Jan 1973	11	4.5	Jan 1973	8	Jan 1982	14	1	Jan 1982	.5	.5	.2	.0	.0	.2	.1	.1	.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: 760 Feet

Lat: 31°23N

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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	4/19	4/14	4/11	4/08	4/05	4/02	3/30	3/27	3/22
32	4/14	4/07	4/02	3/28	3/24	3/20	3/16	3/11	3/04
28	4/01	3/23	3/16	3/10	3/05	2/27	2/21	2/14	2/05
24	3/12	3/04	2/26	2/21	2/17	2/12	2/07	2/01	1/24
20	3/04	2/21	2/12	2/05	1/29	1/22	1/14	1/04	12/16
16	2/19	2/09	2/02	1/26	1/19	1/11	1/01	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	10/17	10/23	10/27	10/30	11/02	11/06	11/09	11/13	11/19
32	10/29	11/03	11/07	11/10	11/13	11/16	11/20	11/23	11/29
28	11/03	11/08	11/12	11/16	11/19	11/22	11/25	11/29	12/05
24	11/18	11/25	11/30	12/04	12/08	12/11	12/16	12/20	12/27
20	11/24	12/02	12/08	12/14	12/19	12/24	12/30	1/06	1/20
16	12/06	12/16	12/24	12/31	1/07	1/15	1/27	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	231	224	219	215	211	207	202	197	190
32	260	251	245	239	234	228	222	216	207
28	291	280	272	265	258	252	245	237	226
24	323	313	305	299	293	287	281	273	263
20	>365	>365	342	329	321	313	306	298	288
16	>365	>365	>365	>365	>365	351	336	322	306

* 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: 760 Feet Lat: 31°23N Lon: 97°43W

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	555	372	194	52	8	0	0	0	2	41	268	499	1991
60	412	249	99	12	0	0	0	0	0	10	163	356	1301
57	333	187	59	3	0	0	0	0	0	3	114	277	976
55	284	152	39	1	0	0	0	0	0	2	87	229	794
50	185	80	11	0	0	0	0	0	0	0	37	134	447
32	12	0	0	0	0	0	0	0	0	0	0	2	14

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	487	560	861	1036	1296	1436	1594	1574	1348	1107	748	528	12575
55	46	67	187	347	583	746	881	861	658	396	145	43	4960
57	33	47	145	289	521	686	819	799	598	336	112	28	4413
60	19	25	92	208	428	596	726	706	508	249	72	15	3644
65	3	8	32	98	281	446	571	551	360	125	27	2	2504
70	0	0	8	31	155	298	416	396	224	43	8	0	1579

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	262	354	587	775	1034	1190	1350	1340	1119	865	508	300	262	616	1203	1978	3012	4202	5552	6892	8011	8876	9384	9684
45	159	240	435	625	879	1040	1195	1185	969	710	370	190	159	399	834	1459	2338	3378	4573	5758	6727	7437	7807	7997
50	84	146	300	477	724	890	1040	1030	819	557	247	100	84	230	530	1007	1731	2621	3661	4691	5510	6067	6314	6414
55	37	78	183	335	569	740	885	875	669	404	150	48	37	115	298	633	1202	1942	2827	3702	4371	4775	4925	4973
60	15	35	94	208	415	590	730	720	522	268	76	19	15	50	144	352	767	1357	2087	2807	3329	3597	3673	3692
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	188	241	379	508	702	814	896	882	756	572	326	210	188	429	808	1316	2018	2832	3728	4610	5366	5938	6264	6474

(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