

Climatography of the United States

No. 20

1971-2000

Station: MADISONVILLE, TX

COOP ID: 415477

Climate Division: TX 5

NWS Call Sign:

Elevation: 252 Feet Lat: 30° 57N Lon: 95° 55W

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	60.2	35.8	48.0	90	1943	23	55.0	1989	-2	1949	31	38.2	1978	538	3	.0	.0	25.2	.3	9.4	.0
Feb	64.8	39.1	52.0	94	1986	20	58.7	1999	3	1949	1	41.5	1978	374	8	.0	.2	25.2	.3	5.5	.0
Mar	72.2	45.8	59.0	96	1946	30	64.2	1974	19	1980	2	54.3	1996	204	18	.0	.1	30.5	@	1.8	.0
Apr	78.8	53.5	66.2	95+	1987	28	70.6	1981	29	1987	3	60.8	1997	62	96	.0	.8	30.0	.0	.2	.0
May	85.8	62.5	74.2	100	1996	30	78.7	1996	39	1954	4	70.2	1976	5	289	@	7.5	31.0	.0	.0	.0
Jun	91.8	68.9	80.4	105+	1998	15	86.0	1998	51	1984	1	77.1	1973	0	460	.9	22.5	30.0	.0	.0	.0
Jul	96.0	71.2	83.6	110	1954	25	87.8	1998	55	1967	15	79.6	1972	0	576	6.1	28.7	31.0	.0	.0	.0
Aug	96.5	70.2	83.4	109+	1969	11	86.6	1999	53+	1949	24	79.8	1973	0	569	7.0	28.3	31.0	.0	.0	.0
Sep	90.8	65.1	78.0	112	2000	5	82.6	1998	40	1942	27	71.4	1974	0	389	1.1	19.2	30.0	.0	.0	.0
Oct	81.8	54.9	68.4	98+	1991	13	70.4	1998	27	1993	31	60.1	1976	36	140	.0	4.7	31.0	.0	.2	.0
Nov	70.1	44.6	57.4	91	1955	1	63.8	1973	18	1976	29	49.3	1976	265	34	.0	@	29.1	.0	2.5	.0
Dec	62.3	37.7	50.0	86	1995	3	59.1	1984	3	1989	23	41.9	1989	469	4	.0	.0	27.1	.3	7.7	.0
Ann	79.3	54.1	66.7	112	Sep 2000	5	87.8	Jul 1998	-2	Jan 1949	31	38.2	Jan 1978	1953	2586	15.1	112.0	351.1	.9	27.3	.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: 1918-2001

(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: MADISONVILLE, TX

COOP ID: 415477

Climate Division: TX 5

NWS Call Sign:

Elevation: 252 Feet Lat: 30°57N

Lon: 95°55W

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	3.81	3.34	6.27	1991	10	15.17	1991	.03	1971	6.9	5.5	2.5	1.1	.29	.54	1.03	1.56	2.14	2.81	3.62	4.63	6.04	8.41	10.74
Feb	2.83	2.41	3.40	1931	1	9.40	1992	.00	1996	5.8	4.8	1.8	.9	.23	.55	1.01	1.42	1.85	2.31	2.85	3.50	4.36	5.78	7.13
Mar	3.24	2.88	6.00	1989	29	9.03	1989	.57	1971	7.1	5.3	2.1	.8	.70	1.00	1.47	1.90	2.34	2.80	3.32	3.94	4.76	6.07	7.31
Apr	3.26	3.27	6.00	1968	9	9.32	1991	.01	1984	5.6	4.5	2.2	1.2	.33	.57	1.02	1.47	1.96	2.52	3.17	3.98	5.10	6.94	8.75
May	5.06	5.08	4.50	1982	13	9.23+	1983	.11	1998	7.4	6.3	3.7	1.7	.74	1.16	1.89	2.59	3.32	4.12	5.05	6.18	7.70	10.18	12.56
Jun	3.89	3.03	4.50	2001	8	12.52	1993	.08	1980	6.6	5.4	2.6	1.1	.37	.64	1.17	1.71	2.30	2.97	3.76	4.75	6.10	8.36	10.58
Jul	2.72	2.17	5.15	1995	31	8.92	1979	.20	2000	5.5	4.4	1.8	.6	.33	.54	.92	1.30	1.70	2.15	2.68	3.32	4.20	5.64	7.05
Aug	2.95	1.88	8.00	1945	28	10.17	1974	.00	1999	5.3	4.2	1.9	1.1	.15	.42	.87	1.31	1.77	2.29	2.89	3.64	4.66	6.34	7.98
Sep	4.20	4.18	6.50	1974	13	10.83	1974	.44	1999	6.0	5.2	2.5	1.3	.72	1.09	1.70	2.28	2.87	3.51	4.24	5.12	6.31	8.22	10.05
Oct	4.41	3.04	7.52	1957	14	23.24	1984	.44	1996	5.7	5.1	2.5	1.6	.45	.78	1.38	2.00	2.66	3.41	4.28	5.38	6.87	9.36	11.78
Nov	4.01	3.41	4.20	1998	13	8.44	1978	.97	1999	6.7	5.7	2.7	1.4	1.04	1.42	2.00	2.52	3.02	3.55	4.14	4.84	5.75	7.18	8.53
Dec	3.62	3.53	5.02	1994	16	9.11	1991	.54+	1989	6.7	5.4	2.4	1.1	.88	1.21	1.74	2.21	2.68	3.17	3.72	4.38	5.24	6.60	7.88
Ann	44.00	44.48	8.00	Aug 1945	28	23.24	Oct 1984	.00+	Aug 1999	75.3	61.8	28.7	13.9	29.63	32.35	35.87	38.57	40.98	43.32	45.75	48.44	51.73	56.52	60.69

+ 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: 1918-2001

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

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: MADISONVILLE, TX

COOP ID: 415477

Climate Division: TX 5

NWS Call Sign:

Elevation: 252 Feet

Lat: 30°57N

Lon: 95°55W

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	4.0	1973	11	5.0	1973	4	1973	12	#	1973	.2	.2	.1	.0	.0	.1	.1	.0	.0
Feb	.1	.0	#	0	1.0	1973	9	1.0	1973	1+	1980	2	#+	1980	.1	.1	.0	.0	.0	.1	.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	.2	1976	29	.2	1976	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Dec	#	.0	0	0	#	1989	22	#	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.6	.0	N/A	N/A	4.0	Jan 1973	11	5.0	Jan 1973	4	Jan 1973	12	#+	Feb 1980	.4	.3	.1	.0	.0	.2	.1	.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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COOP ID: 415477

Climate Division: TX 5

NWS Call Sign:

Elevation: 252 Feet

Lat: 30° 57N

Lon: 95° 55W

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	4/14	4/07	4/02	3/29	3/25	3/21	3/17	3/12	3/06
32	3/30	3/22	3/16	3/11	3/07	3/02	2/25	2/19	2/11
28	3/15	3/07	3/01	2/23	2/18	2/13	2/08	2/02	1/24
24	3/02	2/19	2/11	2/04	1/28	1/21	1/14	1/04	12/18
20	2/19	2/06	1/28	1/19	1/10	12/30	12/11	0/00	0/00
16	1/20	1/09	12/29	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	10/23	10/29	11/03	11/06	11/10	11/13	11/17	11/21	11/27
32	10/28	11/04	11/09	11/13	11/18	11/22	11/26	12/01	12/08
28	11/17	11/23	11/28	12/02	12/06	12/09	12/13	12/18	12/24
24	11/24	12/02	12/08	12/14	12/19	12/24	12/30	1/06	1/20
20	12/06	12/19	12/28	1/06	1/15	1/27	0/00	0/00	0/00
16	12/26	1/06	1/17	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	252	244	238	233	229	224	219	214	206
32	283	273	266	261	255	250	244	237	228
28	318	308	301	295	290	284	278	271	261
24	>365	>365	349	333	323	314	306	296	283
20	>365	>365	>365	>365	>365	355	341	328	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 5 NWS Call Sign: Elevation: 252 Feet Lat: 30° 57N Lon: 95° 55W

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	538	374	204	62	5	0	0	0	0	36	265	469	1953
60	398	250	99	16	0	0	0	0	0	9	164	329	1265
57	322	188	56	5	0	0	0	0	0	3	117	252	943
55	276	152	35	2	0	0	0	0	0	2	90	207	764
50	182	81	8	0	0	0	0	0	0	0	40	118	429
32	13	1	0	0	0	0	0	0	0	0	0	1	15

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	508	558	836	1024	1308	1450	1599	1592	1379	1127	759	559	12699
55	58	66	158	336	595	760	886	879	689	416	159	52	5054
57	42	45	117	279	533	700	824	817	629	356	126	35	4503
60	25	24	67	200	440	610	731	724	539	268	84	19	3731
65	3	8	18	96	289	460	576	569	389	140	34	4	2586
70	0	0	2	32	156	310	421	414	247	50	12	0	1644

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	349	435	672	833	1093	1236	1378	1372	1171	918	591	395	349	784	1456	2289	3382	4618	5996	7368	8539	9457	10048	10443
45	232	315	519	683	938	1086	1223	1217	1021	763	448	262	232	547	1066	1749	2687	3773	4996	6213	7234	7997	8445	8707
50	139	203	372	534	783	936	1068	1062	871	609	314	160	139	342	714	1248	2031	2967	4035	5097	5968	6577	6891	7051
55	72	113	243	387	628	786	913	907	721	461	202	87	72	185	428	815	1443	2229	3142	4049	4770	5231	5433	5520
60	30	56	134	256	473	636	758	752	571	317	116	43	30	86	220	476	949	1585	2343	3095	3666	3983	4099	4142
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	220	279	427	557	754	848	916	901	789	613	377	250	220	499	926	1483	2237	3085	4001	4902	5691	6304	6681	6931

(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