

Climatography of the United States

No. 20

1971-2000

Station: MCALLEN, TX

COOP ID: 415701

Climate Division: TX10

NWS Call Sign:

Elevation: 100 Feet Lat: 26° 12N Lon: 98° 15W

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	69.1	48.2	58.7	93+	1971	31	65.5	2000	17	1962	12	51.3+	1985	257	48	.0	.3	28.5	.0	1.5	.0
Feb	73.1	51.5	62.3	99	1962	9	69.8+	2000	19	1951	3	53.8	1978	140	63	.0	1.0	27.1	.0	.7	.0
Mar	80.6	58.0	69.3	104	1984	28	74.3	2000	31+	1980	3	64.0	1996	32	165	.1	3.9	30.9	.0	.1	.0
Apr	85.2	63.8	74.5	105+	1984	27	78.4	1999	39	1987	1	69.7	1997	3	288	.3	8.2	30.0	.0	.0	.0
May	89.2	70.3	79.8	109	1999	5	83.4	2000	50+	1970	6	75.7	1992	0	457	.3	16.3	31.0	.0	.0	.0
Jun	93.6	73.9	83.8	108+	1998	16	88.3	1998	59	1984	1	81.1	1979	0	562	.9	26.1	30.0	.0	.0	.0
Jul	95.5	74.7	85.1	106	1979	29	88.7	1998	62	1974	20	80.3	1976	0	623	3.5	28.9	31.0	.0	.0	.0
Aug	96.2	75.1	85.7	105+	1997	10	88.7	1997	63	1967	14	82.9	1973	0	639	4.6	29.3	31.0	.0	.0	.0
Sep	92.3	72.1	82.2	108	2000	6	85.4	1985	50	1942	28	78.6	1979	0	515	1.1	22.7	30.0	.0	.0	.0
Oct	86.3	64.9	75.6	101	1977	3	78.2	1972	42	1957	28	66.8	1976	3	331	@	10.2	31.0	.0	.0	.0
Nov	78.0	56.9	67.5	97+	1988	5	74.3	1973	30	1959	29	60.5	1976	78	152	.0	1.8	29.7	.0	.0	.0
Dec	70.6	49.7	60.2	95	1950	1	65.9	1984	18+	1989	24	49.5	1989	206	55	.0	.4	28.9	.1	.9	.0
Ann	84.1	63.3	73.7	109	May 1999	5	88.7+	Jul 1998	17	Jan 1962	12	49.5	Dec 1989	719	3898	10.8	149.1	359.1	.1	3.2	.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: 1941-2001

(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: MCALLEN, TX

COOP ID: 415701

Climate Division: TX10

NWS Call Sign:

Elevation: 100 Feet Lat: 26°12N

Lon: 98°15W

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	1.20	.59	4.22	1958	5	5.30	1984	.00+	1999	5.5	3.0	.5	.2	.00	.02	.13	.28	.47	.71	1.02	1.42	2.00	3.03	4.08
Feb	1.37	1.06	5.25	1983	25	6.76	1983	.00+	1999	5.4	2.5	.6	.3	.00	.00	.21	.43	.67	.94	1.27	1.69	2.27	3.25	4.22
Mar	.95	.48	3.32	1972	14	5.95	1997	.00+	1996	3.3	1.4	.5	.2	.00	.00	.04	.13	.27	.45	.71	1.06	1.60	2.58	3.61
Apr	1.36	.97	6.10	1954	9	5.54	1992	.00+	1998	4.3	2.3	.8	.4	.00	.02	.15	.31	.53	.80	1.14	1.60	2.27	3.45	4.66
May	2.51	1.47	4.48	1981	4	8.67	1992	.00+	1998	4.6	3.0	1.5	.7	.00	.06	.33	.66	1.07	1.56	2.18	2.99	4.16	6.19	8.24
Jun	2.49	1.75	4.75	1942	23	9.59	1993	.03	1998	5.3	3.6	1.6	.8	.07	.18	.43	.74	1.12	1.58	2.17	2.95	4.07	6.03	8.01
Jul	1.70	.86	3.89	1975	13	9.98	1975	.00+	1998	4.0	2.3	1.1	.5	.00	.00	.05	.28	.57	.94	1.41	2.03	2.92	4.45	6.05
Aug	2.31	1.86	7.81	1980	10	12.62	1980	.00	1997	5.2	3.4	1.2	.6	.03	.15	.41	.72	1.09	1.53	2.07	2.77	3.77	5.50	7.23
Sep	4.00	3.68	6.06	1967	22	9.73	1998	.09	1989	7.5	5.4	2.4	1.1	.56	.88	1.46	2.01	2.59	3.23	3.97	4.88	6.11	8.11	10.04
Oct	2.76	2.59	5.00	1966	15	6.97	1976	.10	1979	5.7	4.0	1.8	1.0	.45	.69	1.09	1.47	1.86	2.28	2.77	3.37	4.16	5.45	6.69
Nov	.95	.55	1.95	1990	7	4.03	1976	.00+	1999	4.0	2.3	.6	.2	.00	.00	.12	.26	.42	.62	.86	1.16	1.59	2.33	3.07
Dec	1.01	.65	2.18	1957	31	3.70	1986	.00+	1994	4.9	2.4	.5	.2	.00	.06	.21	.36	.53	.72	.95	1.24	1.64	2.32	2.99
Ann	22.61	21.68	7.81	Aug 1980	10	12.62	Aug 1980	.00+	Nov 1999	59.7	35.6	13.1	6.2	12.47	14.25	16.62	18.49	20.20	21.89	23.67	25.68	28.17	31.88	35.17

+ 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: 1941-2001

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

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

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: MCALLEN, TX

COOP ID: 415701

Climate Division: TX10

NWS Call Sign:

Elevation: 100 Feet

Lat: 26° 12N

Lon: 98° 15W

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	#	1985	14	#	1985	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.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	#	Jan 1985	14	#	Jan 1985	0	0	0	0	0	.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:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Climatography of the United States

No. 20 1971-2000

Station: MCALLEN, TX

COOP ID: 415701

Climate Division: TX10

NWS Call Sign:

Elevation: 100 Feet

Lat: 26° 12N

Lon: 98° 15W

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	3/10	2/25	2/15	2/07	1/30	1/21	1/11	12/26	0/00
32	2/14	2/02	1/24	1/15	1/05	12/17	0/00	0/00	0/00
28	1/16	1/03	12/18	0/00	0/00	0/00	0/00	0/00	0/00
24	12/28	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	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	11/26	12/04	12/10	12/15	12/20	12/25	12/31	1/09	0/00
32	12/16	12/29	1/08	1/17	1/30	0/00	0/00	0/00	0/00
28	12/24	1/04	1/18	0/00	0/00	0/00	0/00	0/00	0/00
24	1/11	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	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	>365	>365	>365	345	329	317	305	293	277
32	>365	>365	>365	>365	>365	>365	355	335	316
28	>365	>365	>365	>365	>365	>365	>365	>365	>365
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
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:

www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: MCALLEN, TX

COOP ID: 415701

Climate Division: TX10

NWS Call Sign:

Elevation: 100 Feet Lat: 26°12N Lon: 98°15W

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	257	140	32	3	0	0	0	0	0	3	78	206	719
60	165	70	7	0	0	0	0	0	0	0	31	118	391
57	119	41	2	0	0	0	0	0	0	0	16	75	253
55	91	27	1	0	0	0	0	0	0	0	10	53	182
50	41	8	0	0	0	0	0	0	0	0	2	19	70
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	825	847	1156	1275	1480	1552	1646	1662	1505	1351	1064	872	15235
55	203	230	444	585	767	862	933	949	815	638	384	212	7022
57	169	188	383	525	705	802	871	887	755	576	330	172	6363
60	123	133	295	435	612	712	778	794	665	483	255	122	5407
65	48	63	165	288	457	562	623	639	515	331	152	55	3898
70	25	21	72	156	305	412	468	484	365	191	76	20	2595

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	589	660	914	1045	1244	1314	1406	1423	1274	1104	831	639	589	1249	2163	3208	4452	5766	7172	8595	9869	10973	11804	12443
45	448	522	759	895	1089	1164	1251	1268	1124	949	682	488	448	970	1729	2624	3713	4877	6128	7396	8520	9469	10151	10639
50	317	387	607	745	934	1014	1096	1113	974	795	534	344	317	704	1311	2056	2990	4004	5100	6213	7187	7982	8516	8860
55	200	264	459	596	779	864	941	958	824	640	392	229	200	464	923	1519	2298	3162	4103	5061	5885	6525	6917	7146
60	112	157	318	447	624	714	786	803	674	486	272	134	112	269	587	1034	1658	2372	3158	3961	4635	5121	5393	5527
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	360	411	606	711	870	899	955	958	873	757	546	389	360	771	1377	2088	2958	3857	4812	5770	6643	7400	7946	8335

(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/normal/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