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

COOP ID: 415659

Station: MATAGORDA 2, TX

Climate Division: TX 8

NWS Call Sign:

Elevation: 10 Feet Lat: 28°41N Lon: 95°58W

	h Daily Max Daily Min Mean Highest Daily(2) Year Day Month(1) Mean Year Heating Cooling >= >= >= >= <= <= <= <= <= <= <= <= <= <= <= <= <=																				
	Mea	n (1)						Extr	emes				•		Mean	Numb	er of I	Days (3))		
Month			Mean	-	Year	Day	Month(1)	Year		Year	Day	Month(1)	Year	Heating	Cooling	>=	>=	>=	<=	<=	Min <= 0
Jan	62.3	44.3	53.3	82	1989	3	59.6	1989	11	1930	18	45.1	1978	378	10	.0	.0	28.1	.0	2.8	.0
Feb	64.6	47.3	56.0	84	1935	20	62.6	2000	13+	1951	3	46.4	1978	269	15	.0	.0	26.5	.1	1.5	.0
Mar	70.0	53.8	61.9	88	1938	13	67.7	2000	23	1980	2	57.1	1996	136	41	.0	.0	30.9	.0	.4	.0
Apr	76.1	61.9	69.0	95	1953	30	73.1	1991	35+	1987	3	65.2+	1983	25	144	.0	@	30.0	.0	.0	.0
May	81.9	69.5	75.7	98	1984	3	79.2	1996	44	1954	4	72.2	1976	1	332	.0	1.6	31.0	.0	.0	.0
Jun	87.2	75.3	81.3	101	1934	16	84.0	1990	58	1955	10	78.9	1973	0	487	.0	10.2	30.0	.0	.0	.0
Jul	89.6	77.2	83.4	102+	1932	17	85.8	1996	61	1934	26	81.6	1976	0	571	.0	23.9	31.0	.0	.0	.0
Aug	90.7	76.3	83.5	103	1954	30	86.4	1993	61	1967	13	80.4	1973	0	574	.1	25.8	31.0	.0	.0	.0
Sep	87.9	72.1	80.0	104	2000	6	83.6	1980	45	1967	28	76.0	1979	0	450	@	15.7	30.0	.0	.0	.0
Oct	81.6	63.8	72.7	97	1994	1	75.3	1984	32	1993	31	64.3	1976	10	249	.0	1.8	31.0	.0	@	.0
Nov	72.4	53.8	63.1	89+	1988	4	69.6	1973	26	1976	30	53.7	1976	151	95	.0	.0	29.7	.0	.4	.0
Dec	65.4	46.8	56.1	89	1933	23	64.1	1984	9	1989	23	46.2	1989	302	26	.0	.0	29.2	.1	1.8	.0
Ann	77.5	61.8	69.7	104	Sep 2000	6	86.4	Aug 1993	9	Dec 1989	23	45.1	Jan 1978	1272	2994	.1	79.0	358.4	.2	6.9	.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 182-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1910-2001

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

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Station: MATAGORDA 2, TX

COOP ID: 415659

Climate Division: TX 8 NWS Call Sign: Elevation: 10 Feet Lat: 28°41N Lon: 95°58W

										Pı	recipi	tation	(incl	nes)										
	Mea	ans/	P	recipi	itatio	n Total						ays (3)	Proba	ability th		nonthly/	annual j indic	precipita ated am	nount	ies (1)		less tha	ın the
	Medi	ans(1)				Extremes	8			D	aily Pre	cipitatio	n		Th	ese value	s were det	ermined	from the	incomplet	e gamma	distributi	on	
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	3.63	3.20	5.24	1984	9	10.48	1991	.23	1971	7.8	5.5	2.1	1.0	.54	.85	1.37	1.88	2.40	2.97	3.63	4.44	5.52	7.29	8.98
Feb	2.81	2.01	5.13	1986	4	8.88	1992	.20	1976	6.6	4.0	1.5	.9	.26	.45	.83	1.22	1.65	2.13	2.70	3.42	4.41	6.06	7.68
Mar	2.54	2.23	9.30	1923	27	7.81	1985	.21	1975	5.8	4.1	1.4	.8	.19	.36	.69	1.04	1.43	1.88	2.41	3.09	4.03	5.61	7.18
Apr	2.63	1.98	7.60	1915	23	7.89	1973	.00	1983	4.7	3.3	1.6	.8	.11	.33	.72	1.10	1.52	1.99	2.54	3.23	4.19	5.77	7.32
May	4.53	3.52	15.71	1911	1	14.90	1974	.00	1996	5.9	4.5	2.3	1.4	.11	.40	.99	1.63	2.35	3.19	4.21	5.51	7.32	10.40	13.46
Jun	4.44	4.05	10.10	1921	22	17.78	1981	.00	1984	6.4	5.2	2.3	1.4	.10	.37	.93	1.55	2.26	3.09	4.10	5.39	7.20	10.27	13.33
Jul	3.34	1.66	8.67	1979	26	19.63	1979	.03	1971	5.2	3.9	1.7	.8	.06	.16	.45	.83	1.33	1.96	2.77	3.87	5.49	8.37	11.34
Aug	3.16	2.57	6.04	1932	14	7.71	1975	.22	1990	6.7	4.7	2.1	1.0	.35	.59	1.03	1.47	1.94	2.47	3.08	3.85	4.90	6.64	8.32
Sep	6.19	3.99	11.71	1979	19	20.15	1998	.27	2000	8.9	6.5	3.0	1.7	.62	1.07	1.91	2.77	3.71	4.76	6.00	7.55	9.67	13.19	16.63
Oct	3.72	2.47	10.92	1914	24	20.75	1986	.27	1978	6.3	4.6	2.1	1.1	.26	.49	.96	1.47	2.04	2.70	3.50	4.51	5.92	8.30	10.66
Nov	4.19	3.30	6.75	1972	18	10.85	1992	.00	1999	6.5	5.0	2.2	1.1	.29	.73	1.40	2.01	2.66	3.36	4.18	5.17	6.52	8.72	10.84
Dec	2.57	1.69	4.51	1914	1	7.82	1976	.41	1977	7.2	4.6	1.7	.4	.48	.70	1.08	1.43	1.78	2.17	2.60	3.13	3.82	4.95	6.02
Ann	43.75	41.77	15.71	May 1911	1	20.75	Oct 1986	.00+	Nov 1999	78.0	55.9	24.0	12.4	24.05	27.49	32.10	35.74	39.05	42.34	45.80	49.71	54.56	61.78	68.18

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1910-2001

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COOP ID: 415659

Lon: 95°58W

Station: MATAGORDA 2, TX

Climate Division: TX 8 NWS Call Sign: Elevation: 10 Feet

										Snov	w (incl	hes)												
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)			
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa				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	#	1984	21	#+	1984	#	1973	11	#	1973	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Feb	.1	.0	#	0	2.0	1973	9	2.0	1973	#	1988	7	#	1988	@	@	.0	.0	.0	.0	.0	.0	.0	
Mar	#	.0	#	0	#	1989	5	#	1989	#	1989	5	#	1989	.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	#	1993	26	#+	1993	#	1976	28	#	1976	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Dec	.0	.0	#	0	.5	1989	22	.5	1989	#	1989	23	#	1989	@	.0	.0	.0	.0	.0	.0	.0	.0	
Ann	.1	.0	N/A	N/A	2.0	Feb 1973	9	2.0	Feb 1973	#+	Dec 1989	23	#+	Dec 1989	@	@	.0	.0	.0	.0	.0	.0	.0	

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

Lat: 28°41N

[@] 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

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COOP ID: 415659

Station: MATAGORDA 2, TX

Climate Division: TX 8

Lat: 28°41N **Elevation: NWS Call Sign:** 10 Feet Lon: 95°58W

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	(Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)	
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	3/24	3/14	3/07	3/01	2/23	2/17	2/10	2/03	1/24
32	3/12	3/01	2/20	2/13	2/06	1/30	1/22	1/12	12/24
28	2/22	2/09	1/30	1/21	1/12	12/31	12/10	0/00	0/00
24	2/06	1/26	1/16	1/07	12/24	0/00	0/00	0/00	0/00
20	1/05	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
			Fal	ll Freeze Da	tes (Month/D	Oay)			•
To (E)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	11/10	11/17	11/23	11/27	12/01	12/05	12/10	12/15	12/22
32	11/21	11/30	12/07	12/13	12/18	12/24	12/30	1/07	1/23
28	12/07	12/17	12/25	1/01	1/09	1/19	0/00	0/00	0/00
24	12/20	1/02	1/12	1/23	2/06	0/00	0/00	0/00	0/00
20	1/04	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 F	ree Period				
Town (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	318	303	294	286	279	272	264	255	243
32	>365	>365	349	329	316	304	292	280	263
28	>365	>365	>365	>365	362	342	330	319	305
24	>365	>365	>365	>365	>365	>365	>365	359	336
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:

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COOP ID: 415659

Lon: 95°58W

Station: MATAGORDA 2, TX

Climate Division: TX 8

,

Elevation: 10 Feet Lat: 28°41N

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	378	269	136	25	1	0	0	0	0	10	151	302	1272
60	251	161	56	4	0	0	0	0	0	2	81	189	744
57	190	113	27	1	0	0	0	0	0	1	50	137	519
55	155	85	15	0	0	0	0	0	0	0	35	106	396
50	80	33	3	0	0	0	0	0	0	0	13	45	174
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	662	670	928	1109	1355	1477	1594	1597	1440	1261	934	747	13774
55	104	111	230	419	642	787	881	884	750	548	279	140	5775
57	76	83	180	360	580	727	819	822	690	487	234	109	5167
60	45	47	116	273	487	637	726	729	600	395	175	69	4299
65	10	15	41	144	332	487	571	574	450	249	95	26	2994
70	6	4	9	56	188	337	416	419	301	124	41	9	1910

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	486	537	754	913	1150	1267	1378	1379	1224	1038	747	559	486	1023	1777	2690	3840	5107	6485	7864	9088	10126	10873	11432
45	5 348 397 601 763 995 1117 1223 1224 1074 883 599											410	348	745	1346	2109	3104	4221	5444	6668	7742	8625	9224	9634
50	223 271 450 613 840 967 1068 1069 924 728 453											277	223	494	944	1557	2397	3364	4432	5501	6425	7153	7606	7883
55	122	165	312	464	685	817	913	914	774	573	319	166	122	287	599	1063	1748	2565	3478	4392	5166	5739	6058	6224
60	56	78	180	320	530	667	758	759	624	424	203	90	56	134	314	634	1164	1831	2589	3348	3972	4396	4599	4689
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	/ 86 277 313 477 619 831 924 990 978 868 723 480 3											331	277	590	1067	1686	2517	3441	4431	5409	6277	7000	7480	7811

(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

NWS Call Sign:

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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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