

Climatography of the United States

No. 20

1971-2000

Station: CASTOLON, TX

COOP ID: 411524

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,169 Feet Lat: 29°08N

Lon: 103°31W

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	67.7	33.6	50.7	90	1996	18	56.5	2000	7	1962	12	44.7	1979	445	0	.0	@	28.8	.1	18.0	.0
Feb	74.7	39.6	57.2	97	1996	23	63.1	2000	15	1989	6	53.1	1978	230	10	.0	.9	25.5	.2	5.1	.0
Mar	83.3	47.6	65.5	105+	1998	27	71.1	1974	22	1947	14	59.9	1987	76	91	.2	5.4	30.9	.0	1.0	.0
Apr	91.0	55.8	73.4	109	1996	28	78.7	1986	28	1947	6	67.1	1987	13	266	3.2	14.8	29.9	.0	.3	.0
May	99.1	65.6	82.4	114+	2001	29	88.7	1996	44	1982	6	77.4	1976	0	538	12.5	25.5	31.0	.0	.0	.0
Jun	103.4	71.8	87.6	117	1992	17	92.8	1980	42	1964	1	84.5	1979	0	678	18.8	28.4	30.0	.0	.0	.0
Jul	102.3	73.8	88.1	115+	1994	2	92.3	1980	60	1985	2	83.7	1990	0	714	17.0	26.5	31.0	.0	.0	.0
Aug	100.4	72.5	86.5	114	1980	4	90.5	1993	64	1963	11	80.0	1990	0	665	15.0	24.1	31.0	.0	.0	.0
Sep	95.9	67.5	81.7	110+	2000	7	87.8	1977	47	1989	25	75.6	1974	0	501	8.1	21.4	30.0	.0	.0	.0
Oct	87.8	56.5	72.2	105+	2000	4	76.2	1998	29	1993	31	65.5	1976	18	240	1.2	11.5	30.9	.0	.2	.0
Nov	76.9	43.4	60.2	99	1996	7	65.9	1994	21	1992	28	52.8	1976	192	47	.0	1.7	29.5	@	2.3	.0
Dec	68.4	35.3	51.9	90+	1993	13	58.2	1984	7	1989	23	44.7	1989	410	2	.0	.1	29.0	@	10.3	.0
Ann	87.6	55.3	71.5	117	Jun 1992	17	92.8	Jun 1980	7+	Dec 1989	23	44.7+	Dec 1989	1384	3752	76.0	160.3	357.5	.3	37.2	.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: 1947-2001

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

055-A

Climatology 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: CASTOLON, TX

COOP ID: 411524

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,169 Feet Lat: 29°08N

Lon: 103°31W

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	.30	.20	.68	1985	13	1.19	1992	.00+	2000	2.3	.8	.1	.0	.00	.00	.02	.06	.11	.17	.25	.35	.50	.76	1.03
Feb	.33	.23	1.14	1992	4	1.95	1992	.00+	1996	2.3	.9	.2	.1	.00	.01	.03	.07	.13	.19	.27	.38	.54	.83	1.12
Mar	.19	.04	.64	1994	15	1.26	1997	.00+	1996	1.5	.6	.1	.0	.00	.00	.00	.00	.02	.06	.11	.19	.32	.55	.79
Apr	.43	.31	1.53	1999	13	1.55	1981	.00+	1998	1.9	1.0	.2	.1	.00	.00	.05	.12	.20	.29	.39	.53	.72	1.03	1.34
May	.88	.70	1.66	1987	23	2.76	1982	.00+	2000	5.1	3.0	.6	.1	.00	.08	.24	.38	.52	.68	.87	1.10	1.41	1.93	2.43
Jun	1.39	1.10	2.75	1963	24	4.93	1982	.10	1989	5.8	3.4	1.1	.3	.23	.35	.55	.74	.94	1.15	1.40	1.70	2.10	2.75	3.37
Jul	1.40	1.24	1.80	1964	30	4.12	1988	.18	1995	6.8	3.5	1.2	.3	.26	.39	.59	.78	.98	1.18	1.42	1.71	2.08	2.69	3.27
Aug	1.51	1.36	1.50	1961	15	3.30	1980	.14	1997	5.6	2.6	.7	.1	.35	.49	.71	.91	1.11	1.31	1.55	1.83	2.20	2.78	3.33
Sep	1.50	1.37	1.93	1962	5	4.51	1991	.07	1998	6.7	3.8	1.2	.4	.10	.19	.38	.59	.82	1.08	1.41	1.82	2.40	3.37	4.33
Oct	1.16	.69	3.95	1986	5	6.63	1986	.00+	1999	4.5	2.6	.8	.2	.00	.00	.14	.30	.50	.74	1.03	1.41	1.94	2.87	3.79
Nov	.40	.25	.75	1986	4	1.24	1986	.00+	1999	2.3	1.2	.2	@	.00	.00	.00	.08	.16	.25	.36	.49	.69	1.01	1.33
Dec	.31	.18	.63	1986	22	2.00	1991	.00+	1999	2.8	1.1	.1	.0	.00	.00	.00	.03	.09	.15	.24	.36	.54	.85	1.17
Ann	9.80	8.80	3.95	Oct 1986	5	6.63	Oct 1986	.00+	May 2000	47.6	24.5	6.5	1.6	5.43	6.20	7.22	8.02	8.76	9.48	10.25	11.11	12.18	13.77	15.18

+ 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: 1947-2001

(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: CASTOLON, TX

COOP ID: 411524

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,169 Feet

Lat: 29°08N

Lon: 103°31W

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	.1	.0	#	0	1.5	1986	8	1.5	1986	3	1985	13	#+	1986	.1	.1	.0	.0	.0	.1	.0	.0	.0
Feb	#	.0	0	0	#	1985	2	#	1985	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	#	.0	0	0	#	1989	5	#	1989	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	#	1986	12	#	1986	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.1	.0	N/A	N/A	1.5	Jan 1986	8	1.5	Jan 1986	3	Jan 1985	13	#+	Jan 1986	.1	.1	.0	.0	.0	.1	.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:

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No. 20 1971-2000

Station: CASTOLON, TX

COOP ID: 411524

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,169 Feet

Lat: 29° 08N

Lon: 103° 31W

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	4/05	3/28	3/23	3/18	3/14	3/09	3/04	2/27	2/19
32	3/30	3/19	3/12	3/05	2/27	2/21	2/15	2/07	1/28
28	3/09	2/26	2/17	2/10	2/03	1/27	1/20	1/12	12/31
24	2/20	2/10	2/03	1/28	1/22	1/16	1/10	1/01	12/17
20	2/15	2/04	1/26	1/18	1/09	12/27	0/00	0/00	0/00
16	2/05	1/26	1/18	1/08	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	10/30	11/05	11/09	11/13	11/16	11/20	11/23	11/28	12/04
32	11/05	11/12	11/17	11/22	11/26	11/30	12/04	12/09	12/17
28	11/14	11/21	11/27	12/01	12/05	12/10	12/14	12/19	12/27
24	11/30	12/08	12/14	12/20	12/25	12/30	1/05	1/13	0/00
20	12/13	12/19	12/24	12/29	1/04	1/13	0/00	0/00	0/00
16	12/18	12/27	1/04	1/15	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	275	266	258	252	247	241	235	228	218
32	309	296	286	278	271	263	255	245	232
28	346	332	322	313	305	296	287	277	263
24	>365	>365	>365	344	333	324	316	308	296
20	>365	>365	>365	>365	>365	344	328	318	307
16	>365	>365	>365	>365	>365	>365	344	333	323

* 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: 411524

Climate Division: TX 5 NWS Call Sign: Elevation: 2,169 Feet Lat: 29°08N Lon: 103°31W

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	445	230	76	13	0	0	0	0	0	18	192	410	1384
60	300	122	23	2	0	0	0	0	0	4	104	267	822
57	220	75	9	0	0	0	0	0	0	1	65	191	561
55	174	51	4	0	0	0	0	0	0	0	45	147	421
50	85	14	0	0	0	0	0	0	0	0	15	65	179
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	578	704	1038	1243	1561	1668	1737	1688	1491	1245	845	615	14413
55	39	111	328	553	848	978	1024	975	801	532	200	49	6438
57	23	79	271	493	786	918	962	913	741	471	160	31	5848
60	10	43	193	404	693	828	869	820	651	381	108	14	5014
65	0	10	91	266	538	678	714	665	501	240	47	2	3752
70	0	1	30	150	387	528	559	510	356	126	15	0	2662

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	273	420	740	945	1257	1377	1410	1364	1191	945	602	376	273	693	1433	2378	3635	5012	6422	7786	8977	9922	10524	10900
45	162	288	587	795	1102	1227	1255	1209	1041	791	454	236	162	450	1037	1832	2934	4161	5416	6625	7666	8457	8911	9147
50	80	178	436	647	947	1077	1100	1054	891	637	316	127	80	258	694	1341	2288	3365	4465	5519	6410	7047	7363	7490
55	26	96	294	499	792	927	945	899	741	484	197	53	26	122	416	915	1707	2634	3579	4478	5219	5703	5900	5953
60	0	41	170	360	637	777	790	744	595	340	100	11	0	41	211	571	1208	1985	2775	3519	4114	4454	4554	4565
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	276	284	485	591	775	850	897	876	761	598	400	281	276	560	1045	1636	2411	3261	4158	5034	5795	6393	6793	7074

(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