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: 417677

Station: ROBSTOWN, TX

Climate Division: TX 7 NWS Call Sign:

Elevation: 85 Feet Lat: 27°47N Lon: 97°40W

									,	Гетр	eratui	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	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	65.9	45.1	55.5	92	1971	31	62.3	1998	16	1962	12	46.9	1977	336	28	.0	.2	27.4	.1	2.8	.0
Feb	70.0	48.2	59.1	95+	1996	22	66.5	2000	20	1985	2	50.0	1978	204	38	.0	.5	26.2	.1	1.7	.0
Mar	77.0	55.6	66.3	104	1989	31	70.8	2000	23	1980	2	60.8	1996	58	98	.1	1.2	30.7	.0	.2	.0
Apr	82.4	62.1	72.3	106	1963	10	76.1	1981	37	1987	3	67.9	1997	8	225	.1	3.7	30.0	.0	.0	.0
May	86.8	69.2	78.0	104	1984	4	82.7	1989	46	1954	4	73.8	1976	0	403	.1	9.4	31.0	.0	.0	.0
Jun	92.0	73.5	82.8	108	1998	15	86.3	1998	58	1955	11	80.5	1973	0	532	.6	23.7	30.0	.0	.0	.0
Jul	95.0	74.8	84.9	107	1960	31	87.1	1998	63+	1985	1	81.4	1976	0	618	2.2	29.3	31.0	.0	.0	.0
Aug	95.1	75.0	85.1	113	1983	31	87.4	1977	64	1967	13	82.8	1971	0	623	3.2	28.8	31.0	.0	.0	.0
Sep	91.4	71.5	81.5	109	1983	2	85.7	1977	50	1972	30	77.0	1979	0	493	1.2	21.0	30.0	.0	.0	.0
Oct	84.3	63.7	74.0	100	1977	8	76.2	1981	32	1993	31	66.4	1976	5	284	@	6.8	30.9	.0	@	.0
Nov	75.7	55.0	65.4	98	1988	7	71.3	1973	25	1970	25	56.7	1976	118	128	.0	.6	29.4	.0	.3	.0
Dec	68.0	47.2	57.6	91	1987	12	64.6	1984	12	1989	23	48.4	1983	267	37	.0	.1	28.4	.1	1.8	.0
Ann	82.0	61.7	71.9	113	Aug 1983	31	87.4	Aug 1977	12	Dec 1989	23	46.9	Jan 1977	996	3507	7.5	125.3	356.0	.3	6.8	.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 249-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: 1922-2001

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

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Climate Division: TX 7 NWS Call Sign: Elevation: 85 Feet Lat: 27°47N Lon: 97°40W

										Pı	ecipi	tation	(incl	nes)										
	Mea	ans/	P	recipi	itatio	n Total					ean N of D	ays (3)	Proba	ability th		nonthly/	annual j indic	precipita ated am	ount	ies (1)		less tha	ın the
	Medi	ans(1)				Extremes	•			D	any Free	приано	11		Th	ese value	s were det	ermined	from the i	incomplet	te 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	1.81	1.65	5.00	1984	9	6.92	1984	.00+	1996	7.2	3.9	1.0	.3	.00	.21	.54	.83	1.13	1.45	1.82	2.25	2.85	3.83	4.77
Feb	1.87	1.22	4.00	1923	22	7.59	1982	.02	1976	6.0	3.1	1.1	.5	.06	.14	.34	.57	.86	1.20	1.64	2.22	3.04	4.47	5.93
Mar	1.73	1.36	3.15	1995	7	5.70	1990	.00	1971	5.7	2.7	1.0	.5	.04	.16	.39	.63	.91	1.23	1.62	2.11	2.79	3.95	5.10
Apr	1.92	1.31	3.78	1969	12	7.48	1979	.00	1983	4.9	2.7	1.0	.6	.02	.10	.31	.56	.86	1.23	1.69	2.30	3.16	4.67	6.19
May	3.41	3.20	5.86	1968	10	7.75	1993	.00	1998	6.3	4.2	2.1	1.4	.25	.60	1.15	1.65	2.17	2.74	3.40	4.21	5.29	7.07	8.78
Jun	3.60	2.71	7.10	1928	2	13.00	1973	.07	1980	6.3	4.3	2.1	1.3	.28	.52	.98	1.48	2.03	2.66	3.42	4.37	5.70	7.92	10.11
Jul	2.30	1.70	7.35	1961	11	10.49	1976	.00	1997	4.7	3.3	1.5	.7	.03	.15	.41	.72	1.09	1.52	2.06	2.77	3.76	5.48	7.21
Aug	3.56	2.58	11.00	1971	3	17.62	1971	.07	1977	6.0	4.3	1.7	.8	.14	.30	.69	1.15	1.70	2.36	3.18	4.25	5.78	8.42	11.09
Sep	4.87	4.71	10.25	1971	11	20.48	1971	.44	1986	8.4	5.8	2.6	1.4	.65	1.05	1.74	2.42	3.13	3.92	4.83	5.95	7.46	9.94	12.33
Oct	4.01	3.19	6.37	1960	17	13.79	1997	.20	1989	6.2	4.0	2.1	1.2	.25	.49	.99	1.53	2.15	2.87	3.74	4.85	6.41	9.05	11.67
Nov	2.19	1.91	6.80	2000	4	8.74	2000	.00	1999	6.0	3.0	1.2	.8	.08	.26	.58	.89	1.24	1.64	2.10	2.69	3.50	4.84	6.16
Dec	1.52	1.10	5.10	1991	22	8.09	1991	.07	1973	6.4	3.1	.6	.3	.09	.17	.36	.56	.80	1.07	1.40	1.83	2.44	3.46	4.48
Ann	32.79	32.96	11.00	Aug 1971	3	20.48	Sep 1971	.00+	Nov 1999	74.1	44.4	18.0	9.8	20.43	22.70	25.68	27.98	30.05	32.08	34.20	36.57	39.48	43.75	47.50

⁺ 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: 1922-2001

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COOP ID: 417677

Station: ROBSTOWN, TX

Climate Division: TX 7 NWS Call Sign: Elevation: 85 Feet Lat: 27°47N Lon: 97°40W

										Snov	w (inc	hes)											
						Sne	ow To	tals									Mea	n Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ians (1)	ı					Extre	mes (2)							ow Fa					Depth esholo	
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	#	1973	11	#	1973	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	#	.0	0	0	#	1989	7	#+	1989	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	#	1976	28	#	1976	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	#+	Feb 1989	7	#+	Feb 1989	0	0	0	0	0	.0	.0	.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

[@] 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: 417677

Lon: 97°40W

Lat: 27°47N

Station: ROBSTOWN, TX

Climate Division: TX 7 NWS Call Sign:

Sign: Elevation: 85 Feet

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	/Day)			
Temp (F)		P	robability of	f later date i	n spring (thr	ru Jul 31) tha	n indicated((*)	
temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	3/20	3/10	3/03	2/25	2/19	2/13	2/07	1/31	1/21
32	3/03	2/21	2/13	2/06	1/31	1/23	1/14	12/29	0/00
28	2/16	2/04	1/27	1/19	1/12	1/02	12/20	0/00	0/00
24	1/27	1/07	12/12	0/00	0/00	0/00	0/00	0/00	0/00
20	1/07	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
			Fa	ll Freeze Dat	tes (Month/D	Day)		•	
Temp (F)		Pro	bability of e	arlier date ii	n fall (beginn	ning Aug 1) t	han indicate	ed(*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	11/16	11/22	11/27	12/01	12/05	12/08	12/12	12/17	12/23
32	11/27	12/05	12/12	12/17	12/23	12/29	1/06	1/20	0/00
28	12/11	12/21	12/29	1/04	1/12	1/20	2/05	0/00	0/00
24	12/24	1/15	2/12	0/00	0/00	0/00	0/00	0/00	0/00
20	1/13	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				
Tomp (E)			Probability	of longer tha	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	323	311	302	295	288	281	274	265	253
32	>365	>365	>365	349	332	320	310	298	284
28	>365	>365	>365	>365	>365	354	340	330	318
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.

Complete documentation available from:

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Lon: 97°40W

Station: ROBSTOWN, TX

Climate Division: TX 7

COOP ID: 417677

Elevation: 85 Feet Lat: 27°47N

				Deg	ree Days t	o Selected	Rase Tem	peratures	(°F)				
Base					100 Dujs t		g Degree l	•	(-)				
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
(-	226	20.4		0	0	0	0	0	0	-	110	267	006

Dasc						Headin	g Degree i	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	336	204	58	8	0	0	0	0	0	5	118	267	996
60	228	119	15	0	0	0	0	0	0	1	58	164	585
57	177	79	6	0	0	0	0	0	0	0	35	116	413
55	144	57	3	0	0	0	0	0	0	0	23	87	314
50	77	22	0	0	0	0	0	0	0	0	8	36	143
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	728	759	1063	1208	1426	1522	1641	1646	1483	1302	1000	794	14572
55	160	172	353	518	713	832	928	933	793	589	334	168	6493
57	130	138	294	458	651	772	866	871	733	527	285	135	5860
60	88	93	210	368	558	682	773	778	643	434	219	90	4936
65	28	38	98	225	403	532	618	623	493	284	128	37	3507
70	18	13	29	109	254	382	463	468	343	148	62	13	2302

	Growing Degree Units (2)																							
Base	Growing Degree Units (Monthly)															Growi	ng Degre	ee Units (Accumu	lated Mo	onthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	500	568	825	976	1188	1287	1400	1406	1253	1065	765	560	500	1068	1893	2869	4057	5344	6744	8150	9403	10468	11233	11793
45	359	432	671	826	1033	1137	1245	1251	1103	910	615	417	359	791	1462	2288	3321	4458	5703	6954	8057	8967	9582	9999
50	241	305	518	676	878	987	1090	1096	953	755	472	286	241	546	1064	1740	2618	3605	4695	5791	6744	7499	7971	8257
55	142	192	372	527	723	837	935	941	803	600	339	176	142	334	706	1233	1956	2793	3728	4669	5472	6072	6411	6587
60	70	105	236	380	568	687	780	786	653	445	219	95	70	175	411	791	1359	2046	2826	3612	4265	4710	4929	5024
Base		•	•	Gro	wing De	gree Unit	s for Co	rn (Mont	thly)	•					Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	297	349	534	663	841	894	954	959	864	729	495	341	297	646	1180	1843	2684	3578	4532	5491	6355	7084	7579	7920

(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