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: 411698

 ${\bf Station:\ CHILDRESS\ MUNICIPAL\ AP,\ TX}$

Climate Division: TX 2 NWS Call Sign: CDS Elevation: 1,951 Feet Lat: 34°26N Lon: 100°17W

									r	Гетр	eratur	re (°F)											
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 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	51.9	26.8	39.4	85	1950	24	45.8	1990	-3	1966	23	29.2	1979	796	0	.0	.0	18.8	3.4	24.1	@		
Feb	57.5	31.6	44.6	93+	1996	22	52.4	1976	-5	1986	12	32.7	1978	578	0	.0	.1	20.0	1.9	16.1	.1		
Mar	66.3	39.1	52.7	100+	1989	12	57.1+	1986	2	1948	11	48.2	1998	382	1	.1	.8	27.7	.2	7.4	.0		
Apr	75.4	47.6	61.5	102+	1972	12	66.7	1972	23	1975	3	54.9	1973	158	53	.1	2.8	29.4	.0	1.3	.0		
May	82.8	57.7	70.3	111+	2000	24	77.7	1996	34	1954	3	64.9	1976	35	198	.9	7.3	31.0	.0	.0	.0		
Jun	91.0	66.1	78.6	117	1994	27	84.3	1994	48	1955	10	73.5	1982	3	409	3.8	18.1	30.0	.0	.0	.0		
Jul	95.3	70.8	83.1	109+	1995	28	88.8	1980	57+	1987	14	79.2	1976	0	559	8.1	26.2	31.0	.0	.0	.0		
Aug	93.6	69.1	81.4	111	1964	6	86.8	1983	55+	1987	29	77.2	1971	0	506	5.5	23.4	31.0	.0	.0	.0		
Sep	86.0	61.5	73.8	108	1951	1	80.4	1998	34	1984	30	66.0	1974	18	281	1.7	13.2	29.9	.0	.0	.0		
Oct	75.8	50.2	63.0	103+	2000	3	67.2	1979	21+	1993	31	55.8	1976	117	55	.1	2.4	30.6	.0	.6	.0		
Nov	62.6	37.9	50.3	91	1952	1	57.6	1999	12	1959	17	43.9	1972	446	3	.0	.0	24.9	.3	8.9	.0		
Dec	53.4	29.2	41.3	88	1954	4	45.4	1994	-5	1989	23	28.5	1983	736	0	.0	.0	19.8	2.3	21.0	.1		
Ann	74.3	49.0	61.7	117	Jun 1994	27	88.8	Jul 1980	-5+	Dec 1989	23	28.5	Dec 1983	3269	2065	20.3	94.3	324.1	8.1	79.4	.2		

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 062-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: 1948-2001

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

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Station: CHILDRESS MUNICIPAL AP, TX

Climate Division: TX 2 NWS Call Sign: CDS Elevation: 1,951 Feet Lat: 34°26N Lon: 100°17W

										Pı	recipi	tation	(incl	nes)													
	Mea	ans/	P	recip	itatio	on Total					ean N of D	ays (3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels													
	Medi	ans(1)				Extremes	•			"	any 116	приано	11	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	.57	.54	2.17	1968	21	1.70	1993	.00+	1986	3.6	1.8	.1	@	.00	.02	.09	.18	.27	.38	.52	.70	.95	1.37	1.80			
Feb	.95	.74	1.40	1948	26	3.10	1997	.00	1995	4.0	2.5	.3	@	.01	.04	.13	.25	.39	.58	.81	1.12	1.57	2.36	3.16			
Mar	1.41	1.28	1.84	2000	23	4.95	2000	.00	1971	4.6	2.8	1.0	.3	.06	.18	.39	.60	.82	1.07	1.37	1.73	2.24	3.07	3.89			
Apr	2.01	1.52	2.88	1957	28	7.34	1976	.00	1996	5.8	3.7	1.4	.5	.15	.36	.69	.98	1.29	1.63	2.01	2.49	3.12	4.16	5.15			
May	3.46	3.10	2.79	1999	27	8.16	1991	.35	1988	8.6	5.6	2.4	1.0	.59	.89	1.39	1.87	2.35	2.88	3.49	4.22	5.20	6.79	8.31			
Jun	3.51	2.92	4.46	1995	4	9.84	1995	.23	1998	8.2	5.3	2.4	.9	.59	.89	1.40	1.88	2.38	2.92	3.54	4.29	5.29	6.91	8.46			
Jul	2.05	1.91	4.56	1962	24	6.54	1996	.06	1980	5.5	3.5	1.4	.4	.20	.34	.62	.90	1.21	1.56	1.98	2.49	3.20	4.39	5.54			
Aug	2.19	2.06	4.53	1995	2	7.95	1995	.00	2000	6.3	3.7	1.5	.4	.26	.53	.90	1.21	1.53	1.87	2.25	2.70	3.30	4.27	5.18			
Sep	2.51	2.08	3.09	1964	26	6.94	1995	.00	2000	6.2	3.8	1.5	.8	.07	.24	.57	.93	1.33	1.79	2.35	3.06	4.05	5.72	7.37			
Oct	2.07	1.26	5.32	1983	20	9.91	1983	.03+	1992	5.3	3.3	1.3	.4	.05	.13	.32	.57	.89	1.27	1.77	2.43	3.39	5.08	6.80			
Nov	1.06	1.08	2.28	1992	21	4.29	1992	.00	1999	4.7	2.4	.7	.2	.02	.07	.19	.34	.51	.71	.96	1.28	1.73	2.52	3.30			
Dec	.86	.66	2.04	1959	15	3.70	1991	.00	1976	4.2	2.2	.4	.1	.02	.06	.17	.29	.42	.59	.79	1.04	1.41	2.03	2.65			
Ann	22.65	22.64	5.32	Oct 1983	20	9.91	Oct 1983	.00+	Sep 2000	67.0	40.6	14.4	5.0	15.39	16.77	18.55	19.92	21.14	22.32	23.54	24.90	26.56	28.97	31.07			

⁺ 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: 1948-2001

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Station: CHILDRESS MUNICIPAL AP, TX

Climate Division: TX 2 NWS Call Sign: CDS Elevation: 1,951 Feet Lat: 34°26N Lon: 100°17W

										Snov	w (inc	hes)											$\overline{}$			
						Sn	ow To	tals							Mean Number of Days (1)											
	Mean	s/Medi	ians (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	2.5	1.5	#	0	8.3	1987	18	12.0	1997	9	1987	19	1+	1997	1.8	.9	.3	.1	.0	2.4	1.0	.4	.0			
Feb	1.9	.8	#	0	5.0	1971	21	7.0	1978	7+	1986	12	1+	1986	1.3	.8	.1	@	.0	2.0	.8	.2	.0			
Mar	.4	.0	#	0	1.7	1994	8	3.0	1994	2	1989	21	#	1995	.4	.2	.0	.0	.0	.3	.0	.0	.0			
Apr	.2	.0	#	0	2.4	1993	14	2.4	1993	1+	1983	5	#	1983	.1	.1	.0	.0	.0	.1	.0	.0	.0			
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1996	.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	.1	.0	#	0	1.8	1991	30	3.3	1991	2	1991	31	#	1991	.1	.1	.0	.0	.0	@	.0	.0	.0			
Nov	1.2	.0	#	0	5.5	1992	21	6.7	1980	4	1980	17	#	1992	.5	.4	.2	.1	.0	.4	.1	.0	.0			
Dec	1.5	.6	#	0	11.0	1971	2	11.0	1971	8	1971	3	1	1971	1.1	.6	.2	.1	@	1.8	.4	.1	.0			
Ann	7.8	2.9	N/A	N/A	11.0	Dec 1971	2	12.0	Jan 1997	9	Jan 1987	19	1+	Jan 1997	5.3	3.1	.8	.3	@	7.0	2.3	.7	.0			

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

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[@] 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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1971-2000

Elevation: 1,951 Feet

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COOP ID: 411698

Lon: 100°17W

Lat: 34°26N

Station: CHILDRESS MUNICIPAL AP, TX

Climate Division: TX 2 NWS Call Sign: CDS

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 4/21 4/17 4/13 4/11 4/08 4/06 4/03 3/31 3/27 32 4/09 4/13 4/06 4/04 4/01 3/30 3/27 3/24 3/20 28 4/06 3/30 3/26 3/22 3/18 3/14 3/10 3/05 2/27 24 3/24 3/17 3/12 3/08 3/04 2/28 2/23 2/18 2/11 20 3/15 3/06 2/28 2/22 2/17 2/12 2/06 1/31 1/22 2/25 1/25 16 3/09 2/16 2/08 2/01 1/18 1/08 12/25 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 10/06 10/13 10/17 10/21 10/25 10/28 11/01 11/05 11/12 32 10/20 10/26 10/30 11/02 11/06 11/09 11/12 11/16 11/22 28 11/01 11/06 11/10 11/13 11/16 11/19 11/22 11/26 12/01 24 11/05 11/12 11/17 11/22 11/26 11/30 12/04 12/09 12/16 20 11/14 11/23 11/30 12/05 12/11 12/16 12/21 12/28 1/06 11/23 12/02 12/14 12/19 12/25 16 12/08 12/30 1/07 1/18 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 219 212 207 202 198 194 190 178 36 185 32 236 229 225 221 218 214 210 206 199 28 258 252 247 243 238 233 227 266 219 24 298 287 279 273 266 260 253 246 235 330 317 272 20 308 301 294 287 280 261

325

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

335

Derived from 1971-2000 serially complete daily data

351

>365

16

Complete documentation available from:

301

292

279

317

309

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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Climate Division: TX 2 NWS Call Sign: CDS Elevation: 1,951 Feet Lat: 34°26N Lon: 100°17W

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	796	578	382	158	35	3	0	0	18	117	446	736	3269		
60	643	447	239	76	9	0	0	0	4	44	310	582	2354		
57	553	372	165	42	3	0	0	0	0	21	237	493	1886		
55	497	326	125	26	1	0	0	0	0	11	195	436	1617		
50	357	224	52	6	0	0	0	0	0	2	109	301	1051		
32	47	25	0	0	0	0	0	0	0	0	3	27	102		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	273	375	642	884	1186	1396	1582	1529	1252	961	550	315	10945		
55	10	32	54	220	474	706	869	816	562	259	52	11	4065		
57	5	23	32	176	414	646	807	754	502	206	34	6	3605		
60	2	13	13	120	327	556	714	661	416	137	17	1	2977		
65	0	0	1	53	198	409	559	506	281	55	3	0	2065		
70	0	0	0	17	101	271	405	354	168	15	0	0	1331		

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	122	219	409	645	939	1162	1340	1283	1022	718	330	149	122	341	750	1395	2334	3496	4836	6119	7141	7859	8189	8338				
45	56	128	279	498	784	1012	1185	1128	873	567	217	71	56	184	463	961	1745	2757	3942	5070	5943	6510	6727	6798				
50	21	65	169	358	630	862	1030	973	723	419	123	32	21	86	255	613	1243	2105	3135	4108	4831	5250	5373	5405				
55	1	28	89	233	477	712	875	818	576	276	60	4	1	29	118	351	828	1540	2415	3233	3809	4085	4145	4149				
60	0	7	39	128	327	562	720	663	433	160	18	0	0	7	46	174	501	1063	1783	2446	2879	3039	3057	3057				
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)						
50/86	114	166	274	406	601	765	878	850	668	450	215	121	114	280	554	960	1561	2326	3204	4054	4722	5172	5387	5508				

(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

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