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: 413262

Lon: 103°53W

Station: FORT DAVIS, TX

Climate Division: TX 5

NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 61.1 28.4 44.8 81 +2000 19 49.1 1982 2 1997 39.1 1985 629 0 .0 .0 28.0 25.2 Jan 65.8 31.3 48.6 85 1904 24 54.5 2000 0 1985 2 44.7 1973 461 0 .0 .0 27.0 .3 15.4 @ Feb Mar 71.8 36.2 54.0 90 1998 25 58.5 1974 12 1987 30 48.8 1987 343 2 .0 @ 30.7 .0 8.7 0. 42.9 20 1987 42 Apr 79.3 61.1 92 +2000 18 65.7 1986 1987 3 55.6 159 0. .6 29.8 .0 2.3 0. May 85.8 51.7 68.8 102 1998 31 76.0 1996 36 1988 3 63.1 1987 52 168 .2 7.9 31.0 .0 @ .0 58.5 74.9 27 2 71.4+ Jun 91.2 107 +1998 81.4 1990 42+ 1907 1987 4 299 1.4 16.8 30.0 .0 .0 .0 Jul 89.5 75.3 103+ 1999 79.3 47 1905 10 71.4 1976 320 1.0 15.6 31.0 .0 61.1 1 1980 0 .0 .0 3 87.5 59.3 73.4 101 +1994 8 76.9 1994 51+1992 21 69.0 1971 263 .1 8.0 31.0 .0 .0 .0 Aug 3 37 Sep 83.8 54.0 68.9 101 2001 74.1 1977 36+ 1996 28 63.2 1974 154 @ 3.8 29.9 .0 .0 .0 78.4 64.7 144 27 Oct 44.1 61.3 100 2000 1 1998 18 1993 31 54.6 1976 (a) .6 30.8 .0 1.3 .0 68.5 34.5 51.5 85+ 1999 9 55.6 1994 8 2001 29 44.6 1976 407 2 .0 29.1 @ 10.0 @ Nov .0 Dec 62.4 29.1 45.8 78 1995 5 50.6 1977 0 1983 29 41.7 1997 596 0 .0 .0 28.4 @ 21.6 @ Jun Jun Feb Jan 77.1 44.3 60.7 107 +1998 27 81.4 1990 0+1985 2 39.1 1985 2835 1277 2.7 53.3 356.7 .5 84.5 @ Ann

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

Issue Date: February 2004 109-A

(1) From the 1971-2000 Monthly Normals

Elevation: 4,880 Feet Lat: 30°40N

- (2) Derived from station's available digital record: 1902-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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NWS Call Sign: Elevation: 4,880 Feet Lat: 30°40N Lon: 103°53W

										Pı	ecipi	tation	(incl	ies)												
		Precipitation Totals Means/ Medians(1) Extremes									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 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	.43	.39	1.29	1944	1	1.08+	1992	.00+	2000	3.9	1.4	.1	.0	.00	.02	.07	.13	.20	.28	.39	.52	.71	1.04	1.37		
Feb	.35	.21	1.64	1989	16	2.04	1989	.00+	1999	2.8	1.2	.1	@	.00	.00	.03	.08	.14	.22	.31	.42	.58	.86	1.14		
Mar	.34	.27	1.19	1970	20	1.08	1990	.00+	2000	2.7	1.2	.0	.0	.00	.00	.10	.17	.23	.29	.36	.44	.54	.70	.86		
Apr	.50	.20	1.80	1941	27	3.98	1987	.00+	1998	3.3	1.5	.3	.1	.00	.00	.02	.08	.16	.27	.40	.58	.86	1.33	1.82		
May	1.46	1.06	3.00+	1984	16	4.63	1994	.02	1996	6.3	3.0	.9	.2	.07	.15	.32	.51	.73	1.00	1.33	1.75	2.35	3.37	4.39		
Jun	1.79	1.38	2.38	1952	26	6.98	1984	.00	1974	8.9	4.6	1.0	.2	.06	.19	.44	.70	.98	1.31	1.70	2.19	2.86	4.00	5.12		
Jul	2.95	2.30	4.45	1945	2	9.05	1990	.55	1980	9.2	5.1	1.8	.4	.65	.93	1.36	1.75	2.14	2.55	3.02	3.58	4.31	5.48	6.59		
Aug	2.97	2.62	5.30	1932	29	7.15	1981	.37	1983	10.4	6.8	2.5	.6	.82	1.10	1.53	1.90	2.27	2.65	3.07	3.58	4.23	5.25	6.21		
Sep	2.76	2.53	2.44	1919	15	8.60	1980	.09	2000	9.7	5.6	1.6	.6	.29	.50	.88	1.27	1.68	2.14	2.69	3.37	4.29	5.82	7.31		
Oct	1.29	.80	2.40	1954	6	4.10	1984	.00	1991	5.6	2.8	.9	.1	.01	.06	.19	.35	.55	.79	1.11	1.52	2.12	3.17	4.23		
Nov	.49	.29	1.40	1968	26	1.80	1984	.00+	1999	2.9	1.4	.1	.0	.00	.00	.00	.07	.18	.30	.44	.62	.86	1.27	1.68		
Dec	.53	.23	2.12	1993	21	2.94	1986	.00+	2000	3.2	1.5	.4	.1	.00	.00	.02	.07	.15	.26	.40	.60	.90	1.43	1.99		
Ann	15.86	15.08	5.30	Aug 1932	29	9.05	Jul 1990	.00+	Dec 2000	68.9	36.1	9.7	2.3	9.46	10.61	12.13	13.32	14.39	15.45	16.55	17.79	19.32	21.57	23.56		

⁺ 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: 1902-2001

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

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COOP ID: 413262

Station: FORT DAVIS, TX

Climate Division: TX 5 NWS Call Sign: Elevation: 4,880 Feet Lat: 30°40N Lon: 103°53W

										Snov	v (incl	nes)															
						Sno	ow To	tals							Mean Number of Days (1)												
	Mean	s/Medi	ians (1)	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	.3	.0	#	0	3.5	1996	2	3.5	1996	6	1985	12	#+	1992	.2	.1	.1	.0	.0	.1	.0	.0	.0				
Feb	.2	.0	0	0	3.5	1973	8	3.5	1973	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	1	1989	10	#	1989	.0	.0	.0	.0	.0	.0	.0	.0	.0				
Oct	#	.0	0	0	#	1991	31	#	1991	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0				
Nov	.0	.0	0	0	.1	2000	7	.1	2000	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0				
Dec	.7	.0	#	0	6.0	1982	31	6.0	1982	2	1989	22	#	1989	.2	.2	.1	.1	.0	.0	.0	.0	.0				
Ann	1.2	.0	N/A	N/A	6.0	Dec 1982	31	6.0	Dec 1982	6	Jan 1985	12	#+	Jan 1992	.5	.3	.2	.1	.0	.1	.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

16

>365

>365

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Station: FORT DAVIS, TX

Climate Division: TX 5 NWS Call Sign:

> 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 5/03 4/28 4/25 4/22 4/20 4/17 4/14 4/11 4/06 32 4/23 4/18 4/15 4/12 4/09 4/06 4/03 3/30 3/25 28 4/13 4/07 4/02 3/29 3/26 3/22 3/18 3/14 3/08 24 4/14 4/02 3/24 3/17 3/10 3/03 2/23 2/15 2/02 20 3/28 3/16 3/07 2/27 2/20 2/12 2/04 1/24 1/04 2/23 2/04 1/27 16 3/09 2/13 1/17 1/05 12/14 0/00 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 10/03 10/09 10/14 10/18 10/22 10/25 10/29 11/03 11/10 32 10/13 10/20 10/25 10/29 11/02 11/06 11/10 11/15 11/21 28 10/18 10/27 11/02 11/07 11/12 11/17 11/23 11/29 12/08 24 10/27 11/04 11/11 11/16 11/21 11/26 12/02 12/08 12/17 20 10/26 11/12 11/25 12/06 12/16 12/27 1/08 1/23 2/21 12/11 12/18 12/25 1/03 16 11/16 11/26 12/04 1/20 0/00 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 209 195 189 184 179 174 159 36 201 168 32 234 225 218 212 206 201 195 188 178 28 254 245 238 231 224 217 266 208 196 24 299 284 273 264 256 247 238 228 213 323 259 242 20 >365 351 307 295 284 272

334

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

356

311

301

290

276

Elevation: 4.880 Feet

321

^{*} 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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				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	629	461	343	159	52	4	0	3	37	144	407	596	2835
60	474	323	202	73	16	0	0	0	9	54	269	441	1861
57	382	245	132	38	7	0	0	0	3	25	196	349	1377
55	323	196	94	23	3	0	0	0	0	13	153	289	1094
50	187	99	30	4	0	0	0	0	0	2	72	153	547
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	394	463	683	873	1139	1285	1343	1283	1107	906	585	427	10488
55	5	15	64	206	429	595	630	570	417	206	48	3	3188
57	1	8	39	161	370	535	568	508	359	156	30	1	2736
60	0	2	16	106	287	445	475	415	275	92	13	0	2126
65	0	0	2	42	168	299	320	263	154	27	2	0	1277
70	0	0	0	11	82	168	179	128	70	4	0	0	642

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													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
40	177	267	440	637	906	1058	1118	1055	883	666	356	190	177	444	884	1521	2427	3485	4603	5658	6541	7207	7563	7753				
45	70	140	297	489	751	908	963	900	733	512	218	84	70	210	507	996	1747	2655	3618	4518	5251	5763	5981	6065				
50	22	57	165	346	596	758	808	745	586	362	106	30	22	79	244	590	1186	1944	2752	3497	4083	4445	4551	4581				
55	1	16	69	208	441	608	653	590	437	216	34	4	1	17	86	294	735	1343	1996	2586	3023	3239	3273	3277				
60	0	1	18	96	292	458	498	435	289	97	3	0	0	1	19	115	407	865	1363	1798	2087	2184	2187	2187				
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)	•					
50/86	186	236	341	441	586	680	734	712	578	444	274	186	186	422	763	1204	1790	2470	3204	3916	4494	4938	5212	5398				

(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