# 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: 410394** 

Lon: 100°14W

**Station: ASPERMONT, TX** 

**Climate Division: TX 2** 

**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 54.4 27.2 40.8 87 1969 9 47.7 1990 2+ 1982 11 30.9 1979 751 0 .0 .0 20.4 2.5 22.0 Jan 60.0 31.6 45.8 92 +1996 23 53.5 1976 -4 1985 1 36.4 1978 538 0 .0 .2 21.5 1.5 14.9 .1 Feb Mar 69.1 38.6 53.9 101 1971 28 60.2 1974 9 1962 48.9 1996 353 7 @ .8 28.6 .2 6.4 0. 23 1997 Apr 78.0 46.8 62.4 103 1972 13 68.6 1978 1994 6 55.1 145 66 (a) 4.6 29.5 .0 1.3 .0 May 86.1 57.3 71.7 113 2000 25 78.7 1996 34+ 1979 12 67.2 1997 33 242 2.2 11.8 31.0 .0 .0 .0 1994 85.2 45+ 5 75.5 5.7 Jun 93.3 66.3 79.8 117 28 1980 1970 1997 1 445 21.8 30.0 .0 .0 .0 Jul 97.4 70.0 83.7 114 1978 16 88.4 56+ 1995 78.8 1976 579 12.3 28.0 31.0 .0 1998 0 .0 .0 1971 95.5 68.7 82.1 112 1964 6 86.2 1999 52 1992 28 75.2 0 530 11.3 25.2 31.0 .0 .0 .0 Aug 12 Sep 87.4 61.0 74.2 109 2000 6 80.3 1998 34+ 1983 21 67.0 1974 288 2.3 14.2 30.0 .0 .0 .0 78.0 31 55.3 1976 Oct 49.9 64.0 108 1977 1 68.2 1998 19 1993 108 76 .2 3.5 30.6 (a) .6 .0 36.9 50.9 91 1980 9 58.7 1999 11+1993 26 42.1 1976 432 8 .0 .2 8.8 .0 Nov 64.8 .1 26.0 Dec 56.2 28.8 42.5 85+ 1995 3 47.3 1977 -10 1989 23 30.2 1983 697 0 .0 .0 22.2 1.6 19.6 .2 Jul Dec Dec

48.6

76.7

Ann

62.7

117

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

28

88.4

1998

-10

1989

23

30.2

1983

3070

2241

Issue Date: February 2004 014-A

Jun

1994

(1) From the 1971-2000 Monthly Normals

110.2

34.0

Elevation: 1,670 Feet Lat: 33°09N

(2) Derived from station's available digital record: 1911-2001

331.8

73.6

6.0

.3

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

<sup>+</sup> Also occurred on an earlier date(s)

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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Station: ASPERMONT, TX

COOP ID: 410394

Climate Division: TX 2 NWS Call Sign: Elevation: 1,670 Feet Lat: 33°09N Lon: 100°14W

										Pı	recipi	tation	(incl	nes)										
	Me: Medi		P	recipi	tatio	on Total					ean N of D	ays (3	)	Proba		nat the m	nonthly/ onthly/An	indic	precipita ated am	ntion wi nount vs Probal	ll be equ	els		an the
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	.90	.71	2.15	1925	18	3.62	1983	.00+	1988	3.6	2.2	.7	.0	.00	.00	.09	.28	.45	.65	.87	1.15	1.53	2.13	2.76
Feb	1.31	.82	3.45	1997	20	5.55	1997	.00+	1983	3.6	2.4	.9	.3	.00	.03	.17	.34	.55	.81	1.13	1.56	2.18	3.25	4.34
Mar	1.32	1.01	6.05	2000	23	6.22	2000	.00+	1989	3.7	2.3	.9	.3	.00	.05	.22	.41	.63	.88	1.20	1.60	2.18	3.15	4.13
Apr	1.65	.98	6.92	6.92 1930 28 6.64 1990 .00 1984					1984	4.4	3.3	1.0	.4	.07	.20	.44	.68	.94	1.24	1.59	2.03	2.64	3.64	4.63
May	3.44	3.23	4.20	1914	29	8.70	1982	.75	1996	5.9	4.8	2.5	1.1	.73	1.05	1.55	2.01	2.47	2.96	3.52	4.18	5.06	6.46	7.79
Jun	2.94	2.67	3.51	1963	17	6.50	1989	.05	1994	5.4	4.1	2.3	.9	.28	.49	.89	1.30	1.74	2.25	2.84	3.58	4.60	6.30	7.96
Jul	1.32	1.09	3.54	1961	9	5.32	1975	.00+	1983	4.0	2.5	.8	.3	.00	.14	.37	.58	.80	1.04	1.32	1.65	2.10	2.85	3.58
Aug	2.77	2.34	4.35	1932	30	8.71	1971	.00+	2000	5.4	4.3	1.9	.9	.00	.00	.59	1.13	1.64	2.19	2.80	3.55	4.56	6.14	7.70
Sep	3.04	3.08	5.45	1955	25	7.98	1974	.00+	1983	5.2	4.1	2.2	1.1	.00	.39	.96	1.45	1.94	2.47	3.08	3.79	4.78	6.37	7.91
Oct	2.35	1.30	5.37	1914	11	8.55	1971	.00	1987	4.8	3.5	1.8	.6	.04	.18	.47	.80	1.17	1.61	2.15	2.85	3.83	5.50	7.16
Nov	1.17	.92	2.65	1975	2	3.50	1984	.00+	1999	3.6	2.2	.8	.3	.00	.08	.26	.45	.64	.86	1.13	1.45	1.90	2.66	3.40
Dec	1.03	.79	2.96	1932	22	4.67	1991	.00+	1996	3.2	2.2	.7	.2	.00	.00	.07	.26	.45	.68	.95	1.28	1.75	2.52	3.32
Ann	23 24   23 03   6 92   1   28   8 71   1   00+						Aug 2000	52.8	37.9	16.5	6.4	15.80	17.22	19.05	20.44	21.69	22.90	24.16	25.55	27.25	29.72	31.87		

<sup>+</sup> Also occurred on an earlier date(s)

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1911-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 410394** 

**Station: ASPERMONT, TX** 

Climate Division: TX 2 NWS Call Sign: Elevation: 1,670 Feet Lat: 33°09N Lon: 100°14W

										Snov	w (incl	hes)											
		Median         Mean         Median         Snow Fall         Snow Depth         Snow Depth         Snow Depth           .0         #         0         10.0         1983         1         16.0         1983         5         1992         18         #+         19           .0         #         0         5.0         1973         23         12.8         1973         #         1994         22         #         19           .0         0         0         #         1995         3         #+         1995         0         0         0         0         0           .0         0															Mea	n Nui	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)					Snow Fall Snow De >= Thresholds >= Thresh								
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	2.9	.0	#	0	10.0	1983	1	16.0	1983	5	1992	18	#+	1994	.6	.6	.4	.2	.1	.2	.2	.1	.0
Feb	.8	.0	#	0	5.0	1973	23	12.8	1973	#	1994	22	#	1994	.3	.2	.2	.1	.0	.0	.0	.0	.0
Mar	#	.0	0	0	#	1995	3	#+	1995	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	.9	.0	#	0	7.0	2000	8	7.0	2000	6	1976	13	#+	2000	.3	.3	.1	.1	.0	.2	.1	.1	.0
Dec	.7	.0	#	0	4.0	1997	26	4.0+	1997	3	1993	22	#+	1993	.2	.2	.1	.0	.0	@	@	.0	.0
Ann	5.3	.0	N/A	N/A	10.0	Jan 1983	1	16.0	Jan 1983	6	Nov 1976	13	#+	Nov 2000	1.4	1.3	.8	.4	.1	.4	.3	.2	.0

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**Station: ASPERMONT, TX** 

**Climate Division: TX 2 NWS Call Sign:** 

Elevation: 1,670 Feet Lat: 33°09N Lon: 100°14W Freeze Data Spring Freeze Dates (Month/Day)

			SPII	ng rreeze ze	(1,1011011)	243)			
Temp (F)		P	robability of	later date ir	n spring (thr	u Jul 31) tha	n indicated(	*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/27	4/21	4/18	4/14	4/11	4/08	4/05	4/01	3/27
32	4/12	4/07	4/04	4/01	3/30	3/27	3/24	3/21	3/17
28	4/11	4/03	3/29	3/24	3/20	3/16	3/11	3/05	2/26
24	3/24	3/15	3/09	3/04	2/27	2/22	2/17	2/11	2/02
20	3/15	3/05	2/26	2/20	2/14	2/09	2/03	1/27	1/17
16	2/27	2/18	2/11	2/04	1/29	1/23	1/16	1/06	0/00
		*	ID. 1	I.E. D. 4	(N. f 41. /D)		*	•	•

## Fall Freeze Dates (Month/Day)

Temp (F)		Pro	bability of ea	arlier date ir	ı fall (beginn	ing Aug 1) t	han indicate	<b>d</b> (*)						
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	10/02	10/09	10/14	10/18	10/22	10/26	10/30	11/04	11/11					
32	10/24 10/29 11/02 11/05 11/08 11/11 11/15 11/18 1													
28	10/29	11/04	11/08	11/12	11/15	11/18	11/21	11/25	12/01					
24	11/04	11/11	11/16	11/21	11/25	11/29	12/03	12/08	12/15					
20	11/10	11/20	11/27	12/03	12/08	12/14	12/20	12/26	1/05					
16	11/28	12/06	12/13	12/19	12/24	12/30	1/06	1/17	0/00					

## Freeze Free Period

					200 1 01100				
Temp (F)			<b>Probability</b>	of longer tha	n indicated	freeze free p	eriod (Days)		
Temp (1)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	217	209	203	198	193	188	183	177	169
32	245	237	232	227	223	218	214	208	200
28	268	258	251	245	239	234	228	221	211
24	298	288	281	276	270	265	259	252	242
20	340	325	314	305	296	288	278	268	253
16	>365	>365	>365	346	332	322	312	302	288

<sup>\*</sup> 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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Elevation: 1,670 Feet Lat: 33°09N Lon: 100°14W **Climate Division: TX 2 NWS Call Sign:** 

	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	751	538	353	145	33	1	0	0	12	108	432	697	3070		
60	598	407	219	68	10	0	0	0	2	45	301	543	2193		
57	509	332	153	37	4	0	0	0	0	23	232	454	1744		
55	452	285	117	23	2	0	0	0	0	13	192	397	1481		
50	315	184	50	5	0	0	0	0	0	3	110	263	930		
32	31	11	0	0	0	0	0	0	0	0	3	15	60		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	302	398	677	911	1232	1435	1602	1553	1266	990	569	342	11277		
55	11	27	81	244	521	745	889	840	576	291	68	10	4303		
57	6	18	55	198	461	685	827	778	516	238	48	5	3835		
60	1	10	27	139	374	595	734	685	428	167	27	1	3188		
65	0	0	7	66	242	445	579	530	288	76	8	0	2241		
70	0	0	0	24	138	302	424	379	170	25	1	0	1463		

	Growing Degr													ts (2)										
Base													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													156	408	873	1567	2563	3763	5124	6436	7474	8238	8603	8788
45	5         75         152         324         548         841         1050         1206         1157         888         611         245         9											96	75	227	551	1099	1940	2990	4196	5353	6241	6852	7097	7193
50	29	82	208	405	686	900	1051	1002	739	460	147	44	29	111	319	724	1410	2310	3361	4363	5102	5562	5709	5753
55	6	37	111	273	532	750	896	847	591	319	76	14	6	43	154	427	959	1709	2605	3452	4043	4362	4438	4452
60	0	12	49	164	383	600	741	692	445	194	30	1	0	12	61	225	608	1208	1949	2641	3086	3280	3310	3311
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)			
50/86	<b>0/86</b> 137 195 317 447 641 781 869 847 677 489 250 15										152	137	332	649	1096	1737	2518	3387	4234	4911	5400	5650	5802	

(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