

# Climatography of the United States No. 20

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

Station: DILLEY, TX

1971-2000

COOP ID: 412458

Climate Division: TX 9

NWS Call Sign:

Elevation: 550 Feet Lat: 28°41N Lon: 99°11W

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	63.8	40.2	52.0	94+	1971	4	58.9	1998	9+	1962	13	44.7	1979	418	10	.0	.1	26.9	.2	5.3	.0
Feb	68.6	44.6	56.6	99+	1996	22	64.3	2000	9	1951	2	47.9	1978	258	21	.0	.4	26.2	.1	2.5	.0
Mar	76.9	52.2	64.6	104	1950	27	69.3	2000	22	1980	2	58.4	1987	94	80	.1	2.5	30.6	.0	.7	.0
Apr	83.7	58.6	71.2	109	1984	21	76.1	1986	31	1973	10	65.8	1997	17	201	.5	7.1	30.0	.0	.1	.0
May	88.9	66.9	77.9	110	1927	29	83.1	1996	43	1925	1	72.4	1976	2	402	1.7	15.7	31.0	.0	.0	.0
Jun	93.8	71.4	82.6	110+	1942	12	88.1	1998	52	1919	3	79.4	1987	0	529	4.8	25.1	30.0	.0	.0	.0
Jul	96.8	72.8	84.8	111	1939	9	88.8	1998	60+	1985	3	79.5	1976	0	614	11.4	29.5	31.0	.0	.0	.0
Aug	96.5	73.1	84.8	110+	1962	14	87.5	1985	61+	1967	14	79.5	1971	0	614	9.6	29.5	31.0	.0	.0	.0
Sep	91.5	69.4	80.5	110	2000	6	85.2	1977	42	1942	27	74.3	1974	0	463	2.2	22.0	30.0	.0	.0	.0
Oct	83.3	60.5	71.9	104	1979	4	75.3	1979	28	1993	31	63.2	1976	13	227	.2	8.3	30.9	.0	@	.0
Nov	73.0	50.7	61.9	95	1949	30	66.9	1973	24+	1976	29	53.5	1976	159	64	.0	.5	29.2	.0	1.0	.0
Dec	65.3	42.6	54.0	95	1951	7	61.0	1984	12	1983	25	45.0	1989	356	13	.0	.1	28.6	.2	4.1	.0
Ann	81.8	58.6	70.2	111	Jul 1939	9	88.8	Jul 1998	9+	Jan 1962	13	44.7	Jan 1979	1317	3238	30.5	140.8	355.4	.5	13.7	.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](http://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: 1910-2001

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

090-A

# 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

**Station: DILLEY, TX**

**COOP ID: 412458**

**Climate Division: TX 9**

**NWS Call Sign:**

**Elevation: 550 Feet Lat: 28°41N**

**Lon: 99°11W**

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	1.18	.95	3.10	1958	5	5.20	1992	.00	1996	7.2	3.0	.7	.2	.05	.14	.31	.48	.67	.88	1.13	1.45	1.88	2.60	3.31
Feb	1.23	.79	2.90	1932	19	5.44	1992	.01	1976	6.5	2.6	.7	.3	.04	.09	.21	.36	.55	.78	1.07	1.46	2.01	2.99	3.98
Mar	1.36	.92	2.98	1922	29	4.65	1999	.00	1971	6.0	2.5	1.0	.4	.06	.17	.37	.57	.79	1.03	1.32	1.67	2.16	2.98	3.78
Apr	1.73	1.31	4.00	1949	25	5.41	1997	.00	1983	6.1	3.7	1.3	.6	.05	.16	.39	.64	.92	1.24	1.62	2.11	2.80	3.95	5.09
May	3.57	2.81	4.90	1980	16	10.94	1980	.04	1998	7.4	4.4	2.2	1.1	.23	.45	.90	1.39	1.93	2.57	3.34	4.32	5.69	8.01	10.31
Jun	3.27	2.22	5.40	1981	14	10.57	1987	.00	1980	5.9	4.3	1.9	.9	.19	.50	1.01	1.49	2.00	2.56	3.22	4.04	5.14	6.96	8.73
Jul	1.40	1.00	4.04	1931	17	6.77	1976	.00+	2000	4.9	2.9	.9	.4	.00	.06	.24	.44	.67	.94	1.28	1.70	2.31	3.34	4.38
Aug	2.41	1.57	5.91	1946	29	13.32	1998	.02	1993	4.7	3.1	1.0	.6	.04	.11	.31	.58	.94	1.39	1.98	2.78	3.96	6.07	8.24
Sep	2.61	1.98	6.86	1973	27	11.24	1973	.04	1979	7.1	4.3	1.6	.5	.22	.40	.74	1.10	1.50	1.95	2.49	3.17	4.11	5.69	7.24
Oct	3.25	1.91	10.20	1981	7	11.44	1986	.03	1979	6.1	3.9	1.8	1.0	.12	.26	.61	1.03	1.53	2.13	2.88	3.87	5.28	7.72	10.19
Nov	1.53	1.24	2.85	1932	5	5.97	2000	.00	1975	5.9	2.8	1.0	.4	.02	.09	.26	.46	.70	.99	1.36	1.83	2.50	3.67	4.84
Dec	1.19	.94	5.62	1937	29	4.52	1986	.02	1973	6.6	2.4	.6	.2	.09	.17	.33	.49	.67	.88	1.13	1.44	1.88	2.61	3.33
Ann	24.73	23.45	10.20	Oct 1981	7	13.32	Aug 1998	.00+	Jul 2000	74.4	39.9	14.7	6.6	13.85	15.77	18.33	20.34	22.17	23.98	25.89	28.04	30.70	34.66	38.17

+ 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: 1910-2001

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

Complete documentation available from:  
[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

# 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](http://www.ncdc.noaa.gov)

**Station: DILLEY, TX**

**COOP ID: 412458**

**Climate Division: TX 9**

**NWS Call Sign:**

**Elevation: 550 Feet**

**Lat: 28°41N**

**Lon: 99°11W**

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	#	.0	#	0	#	1987	22	#	1987	6	1985	13	#	1985	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	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	#	1993	31	#	1993	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	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	#+	Oct 1993	31	#+	Oct 1993	6	Jan 1985	13	#	Jan 1985	.0	.0	.0	.0	.0	.0	.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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

# Climatography of the United States

## No. 20 1971-2000

**Station: DILLEY, TX**

**COOP ID: 412458**

**Climate Division: TX 9**

**NWS Call Sign:**

**Elevation: 550 Feet**

**Lat: 28° 41N**

**Lon: 99° 11W**

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	3/26	3/17	3/11	3/05	2/28	2/23	2/17	2/11	2/02
32	3/17	3/07	2/28	2/22	2/16	2/10	2/04	1/27	1/17
28	2/26	2/16	2/08	2/02	1/26	1/19	1/10	12/24	0/00
24	2/13	2/01	1/23	1/14	1/05	12/22	0/00	0/00	0/00
20	1/18	1/08	12/29	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
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	11/02	11/09	11/14	11/18	11/22	11/26	11/30	12/04	12/11
32	11/09	11/19	11/27	12/03	12/09	12/15	12/21	12/28	1/08
28	11/24	12/05	12/13	12/21	12/28	1/05	1/16	0/00	0/00
24	12/08	12/21	12/30	1/09	1/20	2/08	0/00	0/00	0/00
20	12/28	1/06	1/16	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 Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	294	285	278	272	266	260	254	247	237
32	344	325	313	303	294	285	275	264	249
28	>365	>365	>365	>365	338	325	315	304	291
24	>365	>365	>365	>365	>365	357	339	327	314
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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: DILLEY, TX**

**COOP ID: 412458**

**Climate Division: TX 9      NWS Call Sign:      Elevation: 550 Feet    Lat: 28°41N    Lon: 99°11W**

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	418	258	94	17	2	0	0	0	0	13	159	356	1317
60	287	157	34	2	0	0	0	0	0	2	82	227	791
57	221	110	15	0	0	0	0	0	0	1	49	166	562
55	183	83	8	0	0	0	0	0	0	0	33	131	438
50	104	35	1	0	0	0	0	0	0	0	10	61	211
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	620	688	1009	1174	1423	1519	1637	1637	1453	1237	895	680	13972
55	90	127	305	484	710	829	924	924	763	524	238	98	6016
57	65	98	250	424	648	769	862	862	703	462	194	71	5408
60	38	60	175	336	555	679	769	769	613	371	137	40	4542
65	10	21	80	201	402	529	614	614	463	227	64	13	3238
70	3	7	24	97	258	379	459	459	315	109	22	2	2134

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	403	503	768	939	1182	1290	1410	1404	1229	1004	663	452	403	906	1674	2613	3795	5085	6495	7899	9128	10132	10795	11247
45	275	369	616	789	1027	1140	1255	1249	1079	850	517	312	275	644	1260	2049	3076	4216	5471	6720	7799	8649	9166	9478
50	163	241	465	639	872	990	1100	1094	929	695	377	191	163	404	869	1508	2380	3370	4470	5564	6493	7188	7565	7756
55	81	143	322	491	717	840	945	939	779	542	252	96	81	224	546	1037	1754	2594	3539	4478	5257	5799	6051	6147
60	34	69	194	349	562	690	790	784	629	394	144	45	34	103	297	646	1208	1898	2688	3472	4101	4495	4639	4684
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	257	314	488	621	804	864	925	922	821	667	421	281	257	571	1059	1680	2484	3348	4273	5195	6016	6683	7104	7385

(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](http://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](http://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.

- 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
- 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
- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table  
1971-2000 serially complete daily data

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)