

# Climatography of the United States

No. 20

1971-2000

Station: DALLAS LOVE AP, TX

COOP ID: 412244

Climate Division: TX 3

NWS Call Sign: DAL

Elevation: 440 Feet

Lat: 32° 51N

Lon: 96° 51W

## 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	55.4	36.4	45.9	95	1911	31	53.6	1990	2	1949	31	35.1	1978	605	2	.0	.0	20.5	1.4	11.6	.0
Feb	61.0	41.0	51.0	95+	1996	22	59.7	1976	2+	1910	19	38.3	1978	415	9	.0	.1	22.1	.8	6.3	.0
Mar	69.1	48.5	58.8	98	1911	10	64.5	1974	12	1948	11	54.9	1996	238	39	.0	.3	29.4	.1	1.8	.0
Apr	76.5	56.1	66.3	99	1963	10	71.1	1981	29+	1914	10	60.9	1983	75	110	.0	1.1	30.0	.0	@	.0
May	83.8	64.9	74.4	103+	1985	31	80.8	1996	36+	1908	1	69.1	1976	9	290	.1	6.9	31.0	.0	.0	.0
Jun	91.6	72.7	82.2	112+	1980	27	87.2	1998	48	1903	1	78.8	1989	0	511	1.6	20.5	30.0	.0	.0	.0
Jul	96.1	76.8	86.5	111	1954	25	92.1	1998	57	1905	10	82.4	1976	0	659	8.3	27.8	31.0	.0	.0	.0
Aug	95.8	76.4	86.1	115	1909	18	90.5	2000	55+	1906	29	81.0	1992	0	646	8.6	26.9	31.0	.0	.0	.0
Sep	88.5	69.2	78.9	110	2000	4	84.8	1998	40+	1908	29	69.1	1974	7	417	1.7	15.9	30.0	.0	.0	.0
Oct	78.6	58.2	68.4	100+	1979	1	71.9	1998	26	1910	30	61.2	1976	62	162	@	3.3	30.9	.0	.1	.0
Nov	66.0	46.8	56.4	92	1910	24	62.6	1999	15+	1911	30	50.0	1976	281	28	.0	.0	27.7	.0	2.2	.0
Dec	57.4	38.6	48.0	89	1955	24	54.7	1984	1	1989	23	35.8	1983	527	5	.0	.0	23.4	.9	8.2	.0
Ann	76.7	57.1	66.9	115	Aug 1909	18	92.1	Jul 1998	1	Dec 1989	23	35.1	Jan 1978	2219	2878	20.3	102.8	337.0	3.2	30.2	.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: 1897-2001

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

086-A

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## No. 20

### 1971-2000

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

**Station: DALLAS LOVE AP, TX**

**COOP ID: 412244**

**Climate Division: TX 3**

**NWS Call Sign: DAL**

**Elevation: 440 Feet Lat: 32°51N**

**Lon: 96°51W**

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	1.89	1.93	5.14	1949	24	5.49	1998	.00+	1988	7.2	3.7	1.1	.3	.00	.34	.72	1.02	1.32	1.63	1.97	2.37	2.90	3.76	4.58
Feb	2.31	2.09	3.35	1997	12	7.91	1997	.17	1996	6.1	3.8	1.5	.8	.34	.53	.87	1.19	1.52	1.89	2.31	2.83	3.52	4.66	5.75
Mar	3.13	2.65	6.02	1977	27	9.09	1977	.26	1972	7.4	4.7	2.2	.9	.42	.67	1.12	1.56	2.02	2.52	3.11	3.83	4.80	6.40	7.94
Apr	3.46	3.40	5.10	1957	26	8.05	1997	.04	1983	7.2	4.7	2.5	1.1	.34	.59	1.07	1.55	2.07	2.66	3.35	4.22	5.40	7.38	9.30
May	5.30	5.91	5.14	1949	17	10.56	1989	.54	1977	9.3	6.3	3.6	2.0	1.12	1.60	2.38	3.09	3.80	4.56	5.42	6.45	7.80	9.97	12.02
Jun	3.92	2.97	3.64	1989	13	10.87	1989	1.26	1983	7.2	4.8	2.8	1.5	.84	1.20	1.77	2.30	2.82	3.38	4.01	4.77	5.76	7.36	8.86
Jul	2.43	2.06	4.62	1962	27	6.14	1988	.00+	2000	4.7	3.4	1.5	.7	.00	.40	.88	1.27	1.65	2.06	2.52	3.04	3.76	4.91	6.00
Aug	2.17	1.79	4.42	1915	18	5.98	1974	.00+	2000	4.6	3.1	1.6	.6	.00	.12	.43	.76	1.12	1.54	2.04	2.67	3.55	5.04	6.51
Sep	2.65	2.30	4.32	1965	21	7.16	1974	.03	2000	5.8	3.9	1.8	.8	.32	.52	.89	1.26	1.66	2.09	2.60	3.23	4.09	5.50	6.88
Oct	4.65	3.43	6.01	1959	1	16.05	1981	.00	1975	7.1	5.0	2.8	1.6	.13	.45	1.08	1.74	2.49	3.34	4.37	5.68	7.49	10.55	13.58
Nov	2.61	2.14	3.40	1902	4	7.01	2000	.17	1979	6.6	4.2	2.0	.7	.42	.64	1.02	1.38	1.75	2.16	2.62	3.19	3.95	5.18	6.36
Dec	2.53	2.02	3.98	1991	20	9.25	1991	.05	1981	6.4	3.9	1.9	.8	.23	.41	.75	1.10	1.48	1.92	2.43	3.08	3.97	5.45	6.91
Ann	37.05	36.98	6.02	Mar 1977	27	16.05	Oct 1981	.00+	Aug 2000	79.6	51.5	25.3	11.8	23.54	26.04	29.32	31.84	34.11	36.33	38.64	41.22	44.38	49.03	53.09

+ 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: 1897-2001

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Lon: 96°51W

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	.7	.0	#	0	4.5	1977	30	5.5	1977	4	1977	31	#	1988	.6	.4	.1	.0	.0	.5	.2	.0	.0
Feb	.6	.0	#	0	6.0	1978	17	10.1	1978	4	1978	18	1	1978	.5	.3	@	@	.0	.5	.2	.0	.0
Mar	.0	.0	#	0	.8	1971	2	.8	1971	1+	1989	6	#	1989	.1	.0	.0	.0	.0	.1	.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	#	1997	.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	.2	.0	#	0	3.1	1976	13	3.1	1976	3	1976	14	#	1993	.1	.0	@	.0	.0	.2	@	.0	.0
Dec	.2	#	#	0	4.0	1983	16	4.0	1983	2	1983	16	#	1983	.1	.0	@	.0	.0	@	.0	.0	.0
Ann	1.7	#	N/A	N/A	6.0	Feb 1978	17	10.1	Feb 1978	4+	Feb 1978	18	1	Feb 1978	1.4	.7	.1	@	.0	1.3	.4	.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

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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	4/09	4/03	3/29	3/25	3/22	3/18	3/14	3/10	3/03
32	3/28	3/19	3/13	3/08	3/03	2/26	2/21	2/15	2/06
28	3/12	3/03	2/25	2/20	2/15	2/10	2/05	1/29	1/21
24	3/10	2/26	2/18	2/11	2/05	1/29	1/22	1/14	1/03
20	2/21	2/11	2/03	1/28	1/21	1/14	1/04	0/00	0/00
16	2/19	2/07	1/29	1/20	1/07	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	10/30	11/04	11/08	11/11	11/14	11/17	11/20	11/23	11/28
32	11/04	11/11	11/17	11/21	11/25	11/30	12/04	12/09	12/17
28	11/15	11/23	11/29	12/04	12/09	12/14	12/19	12/25	1/03
24	11/20	12/01	12/09	12/16	12/23	12/29	1/05	1/13	1/24
20	12/09	12/17	12/23	12/29	1/04	1/10	1/20	0/00	0/00
16	12/25	1/06	1/16	1/27	2/14	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	256	249	245	240	236	233	228	223	217
32	294	285	278	272	267	261	255	248	239
28	327	317	309	303	297	291	284	276	266
24	>365	347	329	319	311	304	297	288	277
20	>365	>365	>365	>365	364	341	328	315	300
16	>365	>365	>365	>365	>365	>365	363	344	326

\* 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:

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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	605	415	238	75	9	0	0	0	7	62	281	527	2219
60	456	290	107	15	1	0	0	0	0	9	169	388	1435
57	375	229	65	5	0	0	0	0	0	3	118	308	1103
55	325	194	44	2	0	0	0	0	0	1	90	260	916
50	218	120	13	0	0	0	0	0	0	0	40	161	552
32	18	6	0	0	0	0	0	0	0	0	0	6	30

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	433	529	829	1024	1301	1494	1676	1670	1396	1123	728	508	12711
55	32	72	185	345	588	804	963	957	706	418	141	43	5254
57	21	53	146	291	527	744	901	895	646	362	109	30	4725
60	10	31	96	216	435	654	808	802	558	281	71	16	3978
65	2	9	39	110	290	511	659	646	417	162	28	5	2878
70	0	1	10	40	157	355	498	492	279	75	6	1	1914

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	249	354	589	790	1067	1263	1441	1431	1170	887	501	294	249	603	1192	1982	3049	4312	5753	7184	8354	9241	9742	10036
45	150	240	445	640	912	1113	1286	1276	1020	732	362	181	150	390	835	1475	2387	3500	4786	6062	7082	7814	8176	8357
50	81	147	308	491	757	963	1131	1121	870	578	243	96	81	228	536	1027	1784	2747	3878	4999	5869	6447	6690	6786
55	38	78	189	348	602	813	976	966	720	427	146	46	38	116	305	653	1255	2068	3044	4010	4730	5157	5303	5349
60	9	37	100	222	448	663	821	811	571	291	76	15	9	46	146	368	816	1479	2300	3111	3682	3973	4049	4064
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	146	208	355	505	732	875	972	965	797	577	292	168	146	354	709	1214	1946	2821	3793	4758	5555	6132	6424	6592

(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:

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## 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)