

# Climatology of the United States

No. 20

1971-2000

Station: HENRIETTA, TX

COOP ID: 414093

Climate Division: TX 3

NWS Call Sign:

Elevation: 930 Feet

Lat: 33°49N

Lon: 98°12W

## 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	51.1	26.8	39.0	91	1911	31	45.6	1990	-6	1930	18	29.1	1979	807	0	.0	.0	18.5	2.6	23.4	.0
Feb	56.8	31.6	44.2	95	1996	23	54.7	1976	-7	1985	2	32.7	1978	584	2	.0	.1	20.1	1.5	14.9	.1
Mar	65.6	39.8	52.7	100	1940	31	57.8	1974	6+	1989	7	46.7	1998	384	2	.0	.4	28.2	.2	6.9	.0
Apr	73.9	48.2	61.1	103	1925	18	67.3	1981	23	1916	9	55.4	1998	168	50	@	1.3	29.8	.0	1.2	.0
May	81.4	58.0	69.7	105+	1953	23	77.4	1996	32+	1909	1	65.9	1976	34	179	.3	6.1	31.0	.0	.0	.0
Jun	89.0	66.4	77.7	116	1907	28	84.1	1980	42	1903	1	73.0	1983	3	383	2.1	17.3	30.0	.0	.0	.0
Jul	95.0	70.7	82.9	115	1946	28	89.6	1980	54	1924	5	79.0	1999	0	553	10.1	27.3	31.0	.0	.0	.0
Aug	94.4	69.4	81.9	116+	1951	7	87.2	1980	50	1915	31	76.2	1992	0	524	10.0	26.3	31.0	.0	.0	.0
Sep	86.5	62.1	74.3	113+	1947	7	80.8	1998	37+	2000	27	67.2	1974	16	294	2.5	15.2	30.0	.0	.0	.0
Oct	76.6	50.4	63.5	106	1977	1	66.9	1998	19	1917	30	56.5	1976	107	61	.2	3.0	30.8	.0	.7	.0
Nov	63.5	38.6	51.1	93	1910	6	56.6	1973	7	1906	21	44.9	2000	421	3	.0	@	26.3	.1	8.5	.0
Dec	54.2	29.9	42.1	89	1948	14	46.6	1984	-8+	1989	24	28.9	1983	712	0	.0	.0	21.1	1.6	20.0	.2
Ann	74.0	49.3	61.7	116+	Aug 1951	7	89.6	Jul 1980	-8+	Dec 1989	24	28.9	Dec 1983	3236	2051	25.2	97.0	327.8	6.0	75.6	.3

+ 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

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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: HENRIETTA, TX**

**COOP ID: 414093**

**Climate Division: TX 3**

**NWS Call Sign:**

**Elevation: 930 Feet Lat: 33°49N**

**Lon: 98°12W**

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	1.53	1.33	2.70	1951	14	3.46	1998	.00+	1986	5.5	3.2	1.1	.2	.00	.23	.53	.77	1.01	1.27	1.57	1.91	2.38	3.13	3.85
Feb	2.08	1.60	4.56	1981	28	5.53	1985	.00	1976	5.3	3.8	1.4	.5	.04	.17	.43	.73	1.06	1.45	1.92	2.53	3.38	4.82	6.26
Mar	2.45	2.18	2.80	1935	22	6.17	1985	.29	1972	6.7	4.3	1.7	.7	.62	.85	1.21	1.52	1.84	2.16	2.53	2.97	3.54	4.44	5.28
Apr	2.71	2.68	4.00	1966	24	9.94	1990	.35	1991	6.4	4.2	1.8	.9	.48	.72	1.11	1.48	1.86	2.27	2.73	3.30	4.05	5.27	6.43
May	4.39	4.22	5.25	1975	23	12.15	1982	.08	1988	7.7	5.1	3.0	1.4	.50	.83	1.44	2.06	2.71	3.44	4.30	5.36	6.81	9.19	11.52
Jun	3.72	3.14	6.07	1959	23	11.59	1982	1.07	1994	6.7	4.8	2.7	1.4	1.01	1.36	1.90	2.37	2.83	3.32	3.85	4.49	5.32	6.62	7.84
Jul	1.74	1.41	3.99	1973	29	7.30	1973	.00	1980	4.6	3.0	1.1	.4	.04	.16	.39	.64	.91	1.24	1.63	2.12	2.82	3.99	5.16
Aug	2.40	2.12	3.83	1940	16	9.82	1971	.00+	2000	5.7	3.7	1.5	.7	.00	.16	.53	.89	1.30	1.75	2.29	2.96	3.90	5.46	7.00
Sep	3.35	2.65	4.50	1936	17	11.05	1974	.12	2000	6.5	4.3	2.2	1.1	.27	.50	.94	1.40	1.91	2.50	3.20	4.08	5.30	7.34	9.35
Oct	3.35	2.78	4.76	1941	30	11.62	1981	.10	1992	6.8	5.0	2.1	1.1	.23	.43	.86	1.32	1.83	2.43	3.15	4.06	5.34	7.49	9.62
Nov	1.77	1.23	3.59	1902	3	5.93	1996	.05	1999	5.2	3.3	1.1	.5	.21	.35	.60	.85	1.11	1.40	1.74	2.17	2.74	3.68	4.60
Dec	2.17	1.45	5.39	1997	26	11.07	1997	.00	1973	5.7	3.5	1.5	.6	.03	.13	.38	.67	1.01	1.43	1.94	2.60	3.55	5.18	6.82
Ann	31.66	31.07	6.07	Jun 1959	23	12.15	May 1982	.00+	Aug 2000	72.8	48.2	21.2	9.5	22.12	23.95	26.31	28.11	29.71	31.26	32.86	34.63	36.79	39.92	42.63

+ 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

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

Complete documentation available from:

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**Climate Division: TX 3**

**NWS Call Sign:**

**Elevation: 930 Feet**

**Lat: 33°49N**

**Lon: 98°12W**

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	.5	.0	#	0	1.5	1992	18	3.0	1997	2	1992	18	#+	2000	.5	.3	.0	.0	.0	@	.0	.0	.0
Feb	.2	.0	#	0	1.0	1988	11	1.9	1988	1	1988	11	#+	1996	.2	.1	.0	.0	.0	.1	.0	.0	.0
Mar	.2	.0	#	0	3.0	1971	3	3.0	1971	7	1989	5	#+	1989	.1	.1	.1	.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	.1	1993	30	.1	1993	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	#	0	.1	1997	15	.1	1997	#	1996	25	#	1996	.1	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.2	.0	#	0	2.0	1997	26	2.0	1997	1	1990	27	#	1990	.5	.2	.0	.0	.0	@	.0	.0	.0
Ann	1.1	.0	N/A	N/A	3.0	Mar 1971	3	3.0+	Jan 1997	7	Mar 1989	5	#+	Jan 2000	1.5	.7	.1	.0	.0	.1	@	.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	4/23	4/18	4/15	4/12	4/10	4/07	4/05	4/01	3/28
32	4/13	4/08	4/04	4/01	3/30	3/27	3/24	3/20	3/15
28	4/04	3/28	3/23	3/18	3/14	3/10	3/06	3/01	2/21
24	3/22	3/14	3/08	3/03	2/27	2/22	2/17	2/12	2/04
20	3/07	3/01	2/24	2/20	2/16	2/12	2/08	2/03	1/27
16	3/04	2/22	2/15	2/08	2/02	1/27	1/20	1/11	12/25
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	10/11	10/16	10/20	10/23	10/26	10/28	11/01	11/04	11/09
32	10/18	10/24	10/29	11/02	11/05	11/09	11/13	11/17	11/23
28	11/02	11/07	11/11	11/14	11/17	11/20	11/24	11/27	12/03
24	11/09	11/16	11/20	11/25	11/29	12/02	12/07	12/12	12/18
20	11/17	11/25	12/01	12/06	12/10	12/15	12/20	12/25	1/02
16	11/23	12/06	12/15	12/23	12/30	1/07	1/16	1/28	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	219	212	207	202	198	194	189	184	176
32	241	234	228	224	220	216	211	206	199
28	275	265	258	253	247	242	236	229	220
24	305	294	287	280	274	268	261	254	243
20	325	315	308	302	297	291	285	279	269
16	>365	>365	359	337	326	316	307	296	283

\* 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	807	584	384	168	34	3	0	0	16	107	421	712	3236
60	652	453	245	83	8	0	0	0	4	38	285	560	2328
57	561	378	174	48	3	0	0	0	0	17	214	472	1867
55	501	330	134	31	1	0	0	0	0	8	172	416	1593
50	359	225	60	8	0	0	0	0	0	1	91	284	1028
32	38	23	0	0	0	0	0	0	0	0	1	24	86

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	254	364	642	872	1168	1370	1576	1547	1268	977	573	335	10946
55	4	28	63	213	456	680	863	834	578	272	53	14	4058
57	2	19	41	170	395	620	801	772	518	218	35	8	3599
60	0	11	19	116	307	530	708	679	432	147	17	3	2969
65	0	2	2	50	179	383	553	524	294	61	3	0	2051
70	0	0	0	15	84	247	400	370	179	18	0	0	1313

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	125	232	442	658	948	1161	1359	1329	1053	754	373	172	125	357	799	1457	2405	3566	4925	6254	7307	8061	8434	8606
45	60	142	309	510	793	1011	1204	1174	903	599	247	94	60	202	511	1021	1814	2825	4029	5203	6106	6705	6952	7046
50	22	77	193	371	638	861	1049	1019	753	450	153	44	22	99	292	663	1301	2162	3211	4230	4983	5433	5586	5630
55	2	34	107	242	486	711	894	864	604	310	77	15	2	36	143	385	871	1582	2476	3340	3944	4254	4331	4346
60	0	8	46	140	334	561	739	709	463	190	30	2	0	8	54	194	528	1089	1828	2537	3000	3190	3220	3222
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	116	174	291	424	623	780	888	865	690	487	245	141	116	290	581	1005	1628	2408	3296	4161	4851	5338	5583	5724

(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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/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.

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## 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)