

Climatology of the United States

No. 20

1971-2000

Station: MOUNT VERNON, TX

COOP ID: 416119

Climate Division: TX 4

NWS Call Sign:

Elevation: 480 Feet Lat: 33° 12N Lon: 95° 13W

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	53.4	32.2	42.8	81	1975	28	49.8	1990	2+	1982	12	32.5	1978	688	0	.0	.0	19.3	2.0	17.0	.0
Feb	59.3	36.7	48.0	90	1996	22	55.6	1976	4	1985	2	36.6	1978	482	6	.0	@	21.1	1.1	10.4	.0
Mar	66.8	44.2	55.5	87+	1995	24	61.4	1974	11	1980	3	51.1	1996	306	10	.0	.0	28.8	@	3.5	.0
Apr	74.3	51.6	63.0	94	1987	19	69.3	1981	27	1987	1	57.8	1983	120	58	.0	.3	29.9	.0	.4	.0
May	81.3	60.7	71.0	97	1998	31	75.6	1996	40	1981	11	66.4	1976	19	204	.0	1.9	31.0	.0	.0	.0
Jun	88.4	68.3	78.4	100+	1998	30	83.4	1998	50+	1988	13	74.6	1983	0	401	.2	13.5	30.0	.0	.0	.0
Jul	92.8	72.2	82.5	106+	1998	31	89.6	1998	56+	1971	31	78.7	1976	0	542	3.0	24.4	31.0	.0	.0	.0
Aug	92.8	70.9	81.9	108+	1998	3	86.5	2000	49	1967	13	76.1	1992	0	522	3.6	24.0	31.0	.0	.0	.0
Sep	86.3	64.2	75.3	108	2000	5	80.3	1998	38	1967	29	68.0	1974	8	315	.7	12.6	30.0	.0	.0	.0
Oct	76.5	53.3	64.9	95	1977	2	68.8	1971	23	1993	31	58.3	1976	83	80	.0	1.6	30.9	.0	.2	.0
Nov	64.5	43.2	53.9	85+	1980	7	60.1	1999	13	1976	29	46.9	1976	349	14	.0	.0	26.9	@	5.1	.0
Dec	56.1	35.3	45.7	81+	1982	2	53.2	1984	-1	1989	24	34.3	1983	599	1	.0	.0	21.5	.9	13.0	@
Ann	74.4	52.7	63.6	108+	Sep 2000	5	89.6	Jul 1998	-1	Dec 1989	24	32.5	Jan 1978	2654	2153	7.5	78.3	331.4	4.0	49.6	@

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1966-2001

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

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: MOUNT VERNON, TX

COOP ID: 416119

Climate Division: TX 4

NWS Call Sign:

Elevation: 480 Feet Lat: 33°12N

Lon: 95°13W

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	2.83	2.88	2.02	1979	20	6.12	1980	.16	1986	8.5	5.2	2.0	.7	.50	.75	1.17	1.55	1.94	2.37	2.86	3.45	4.23	5.49	6.70
Feb	3.41	3.32	4.22	2001	16	8.71	1997	.28	1996	7.5	5.1	2.1	1.0	.71	1.02	1.52	1.97	2.43	2.92	3.48	4.15	5.03	6.43	7.77
Mar	4.23	4.21	4.36	1990	8	10.83	1990	.91	1986	8.6	5.8	3.2	1.3	1.26	1.67	2.27	2.79	3.29	3.82	4.39	5.07	5.95	7.33	8.60
Apr	3.56	3.34	3.89	1977	16	7.74	1997	.27	1987	8.4	5.3	2.3	1.1	.68	1.00	1.52	2.00	2.49	3.02	3.62	4.34	5.29	6.83	8.29
May	4.71	4.53	3.52	2000	19	10.24	1989	1.10	1988	9.4	6.8	3.2	1.5	1.22	1.67	2.35	2.95	3.54	4.17	4.86	5.68	6.76	8.45	10.03
Jun	4.79	3.97	4.89	1992	29	16.50	2000	.56	1988	8.0	5.7	2.7	1.5	.70	1.10	1.79	2.45	3.14	3.90	4.78	5.85	7.29	9.63	11.89
Jul	3.82	2.95	6.10	1990	23	13.03	1992	.07	1993	5.8	4.2	2.4	1.4	.43	.72	1.25	1.79	2.35	2.99	3.74	4.66	5.92	8.00	10.02
Aug	2.19	1.54	4.85	1997	8	6.73	1997	.13	1999	5.8	3.9	1.4	.5	.14	.27	.54	.83	1.17	1.56	2.04	2.65	3.50	4.94	6.37
Sep	3.75	3.09	4.82	1973	6	11.17	1974	.49	1982	7.3	4.7	2.4	1.2	.46	.75	1.28	1.80	2.36	2.97	3.69	4.58	5.79	7.77	9.69
Oct	4.77	3.73	4.38	1991	29	17.41	1984	.18	1995	7.8	5.3	2.9	1.8	.44	.77	1.41	2.08	2.80	3.62	4.60	5.82	7.49	10.29	13.03
Nov	5.10	4.62	5.76	1977	1	12.65	1988	.71	1989	8.2	5.4	3.2	1.9	.90	1.35	2.10	2.80	3.51	4.28	5.16	6.22	7.64	9.93	12.12
Dec	4.49	3.58	4.70	1982	3	11.84	1971	.26	1981	8.3	5.6	3.1	1.5	1.08	1.50	2.15	2.74	3.32	3.93	4.62	5.44	6.51	8.22	9.82
Ann	47.65	45.69	6.10	Jul 1990	23	17.41	Oct 1984	.07	Jul 1993	93.6	63.0	30.9	15.4	32.90	35.72	39.35	42.12	44.59	46.98	49.45	52.20	55.53	60.39	64.60

+ 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: 1966-2001

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

Complete documentation available from:
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Climatography of the United States

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151 Patton Avenue
Asheville, North Carolina 28801
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Station: MOUNT VERNON, TX

COOP ID: 416119

Climate Division: TX 4

NWS Call Sign:

Elevation: 480 Feet

Lat: 33° 12N

Lon: 95° 13W

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	1.1	.0	#	0	5.8	1997	7	7.3	1978	5+	1997	7	3	1977	.7	.4	.1	@	.0	.4	.1	@	.0
Feb	.7	.0	#	0	3.1	1978	18	6.1	1978	6	1985	3	1	1985	.4	.2	.1	.0	.0	.5	.2	.0	.0
Mar	.1	.0	#	0	2.3	1971	3	2.3	1971	2	1971	3	#+	1989	.1	@	.0	.0	.0	.1	.0	.0	.0
Apr	.1	.0	0	0	2.0	1980	14	2.0	1980	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	.1	.0	#	0	.8	1976	13	1.6	1976	#	1971	23	#	1971	.1	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.5	.0	#	0	8.5	1983	16	9.2	1983	9	1983	17	2	1983	.4	.2	@	@	.0	.7	.2	.1	.0
Ann	2.6	.0	N/A	N/A	8.5	Dec 1983	16	9.2	Dec 1983	9	Dec 1983	17	3	Jan 1977	1.7	.8	.2	@	.0	1.7	.5	.1	.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:

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Station: MOUNT VERNON, TX

COOP ID: 416119

Climate Division: TX 4

NWS Call Sign:

Elevation: 480 Feet

Lat: 33° 12N

Lon: 95° 13W

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	4/15	4/10	4/08	4/05	4/03	3/31	3/29	3/26	3/22
32	4/11	4/04	3/30	3/26	3/22	3/18	3/14	3/09	3/02
28	3/25	3/18	3/12	3/08	3/04	2/28	2/24	2/18	2/11
24	3/17	3/08	3/02	2/25	2/20	2/15	2/09	2/03	1/25
20	3/01	2/20	2/13	2/07	2/01	1/26	1/19	1/08	0/00
16	2/20	2/10	2/01	1/25	1/17	1/09	12/27	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	10/16	10/21	10/24	10/27	10/30	11/02	11/05	11/09	11/13
32	10/25	10/31	11/05	11/09	11/12	11/16	11/19	11/24	11/30
28	11/06	11/13	11/18	11/23	11/27	12/01	12/05	12/10	12/18
24	11/12	11/21	11/28	12/04	12/10	12/15	12/21	12/28	1/06
20	11/29	12/08	12/14	12/20	12/25	12/31	1/06	1/17	0/00
16	12/12	12/21	12/27	1/03	1/09	1/17	1/31	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	227	221	217	213	210	206	203	198	192
32	261	252	245	240	235	230	224	218	209
28	295	285	278	272	267	261	256	249	239
24	331	316	306	298	291	283	276	267	254
20	>365	>365	>365	342	324	314	306	297	286
16	>365	>365	>365	>365	>365	347	334	323	310

* 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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Climate Division: TX 4 NWS Call Sign: Elevation: 480 Feet Lat: 33°12N Lon: 95°13W

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	688	482	306	120	19	0	0	0	8	83	349	599	2654
60	542	354	179	48	3	0	0	0	0	29	227	453	1835
57	456	283	122	23	1	0	0	0	0	12	168	369	1434
55	401	241	90	13	0	0	0	0	0	6	134	316	1201
50	277	154	35	2	0	0	0	0	0	1	68	202	739
32	29	9	0	0	0	0	0	0	0	0	0	11	49

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	365	457	728	928	1208	1391	1565	1545	1297	1020	655	436	11595
55	23	45	104	251	495	701	852	832	607	313	99	27	4349
57	16	32	74	201	434	641	790	770	547	257	73	18	3853
60	9	18	39	136	343	551	697	677	457	181	42	10	3160
65	0	6	10	58	204	401	542	522	315	80	14	1	2153
70	0	0	0	16	96	254	387	370	189	25	2	0	1339

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	181	288	488	689	958	1154	1322	1311	1067	775	428	235	181	469	957	1646	2604	3758	5080	6391	7458	8233	8661	8896
45	100	186	351	539	803	1004	1167	1156	917	620	301	133	100	286	637	1176	1979	2983	4150	5306	6223	6843	7144	7277
50	50	105	230	397	648	854	1012	1001	767	471	193	68	50	155	385	782	1430	2284	3296	4297	5064	5535	5728	5796
55	20	52	130	259	494	704	857	846	617	329	106	28	20	72	202	461	955	1659	2516	3362	3979	4308	4414	4442
60	5	21	61	147	341	554	702	691	472	202	53	7	5	26	87	234	575	1129	1831	2522	2994	3196	3249	3256
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	122	180	298	433	642	801	902	883	718	495	258	144	122	302	600	1033	1675	2476	3378	4261	4979	5474	5732	5876

(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

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
- 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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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