

Climatography of the United States

No. 20

1971-2000

Station: MOUNT LOCKE, TX

COOP ID: 416104

Climate Division: TX 5

NWS Call Sign:

Elevation: 6,790 Feet Lat: 30°40N

Lon: 104°31W

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	55.0	32.4	43.7	80	1947	28	50.9	2000	-10	1962	11	36.6	1992	661	0	.0	.0	22.1	1.0	15.4	@
Feb	58.8	34.7	46.8	79	1962	12	53.2	1999	-3	1951	1	43.0	1978	511	0	.0	.0	23.2	.4	11.2	@
Mar	65.2	39.0	52.1	88	1988	25	58.8	1974	4	1955	26	46.8	1987	402	2	.0	.0	29.2	.1	8.7	.0
Apr	72.3	45.0	58.7	94	1972	11	64.5	1986	11	1973	8	52.6	1997	216	25	.0	@	29.2	@	3.2	.0
May	80.0	53.0	66.5	96+	2000	25	74.8	1996	26	1935	5	60.3	1992	85	132	.0	1.9	31.0	.0	.1	.0
Jun	86.0	58.4	72.2	104	1994	28	78.9	1980	36+	1981	16	66.3	1984	17	232	.2	7.1	30.0	.0	.0	.0
Jul	84.5	59.0	71.8	100+	1995	28	77.0	1980	40+	1972	16	66.1	1976	14	223	.1	4.7	31.0	.0	.0	.0
Aug	82.1	58.1	70.1	104	1969	17	75.0	1977	40+	1971	29	64.5	1971	19	178	.0	1.8	31.0	.0	.0	.0
Sep	77.8	54.8	66.3	96	2000	7	72.5	2000	29	1945	29	61.2	1991	75	114	.0	.8	29.9	.0	.1	.0
Oct	71.8	48.2	60.0	94	2000	4	64.3	1979	13	1970	16	52.9	1976	188	33	.0	.1	30.2	@	1.4	.0
Nov	62.4	39.4	50.9	81	1987	5	56.7	1973	8+	1976	29	43.6	1976	431	7	.0	.0	26.3	.4	7.7	.0
Dec	55.8	33.7	44.8	80	1973	3	49.2	1977	-2	1989	22	38.3	1997	628	0	.0	.0	23.4	1.1	13.7	.1
Ann	71.0	46.3	58.7	104+	Jun 1994	28	78.9	Jun 1980	-10	Jan 1962	11	36.6	Jan 1992	3247	946	.3	16.4	336.5	3.0	61.5	.1

+ 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: 1935-2001

(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: MOUNT LOCKE, TX

COOP ID: 416104

Climate Division: TX 5

NWS Call Sign:

Elevation: 6,790 Feet Lat: 30°40N

Lon: 104°31W

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	.53	.53	1.18	1939	11	1.66	1992	.00	1998	3.9	1.8	.1	.0	.01	.04	.10	.18	.26	.36	.48	.64	.86	1.24	1.62
Feb	.49	.26	1.01	1992	4	2.08	1973	.00+	1999	3.3	1.6	.2	@	.00	.00	.06	.14	.22	.32	.44	.60	.82	1.20	1.59
Mar	.33	.23	1.40	1967	22	1.82	1990	.00+	2000	2.4	1.3	.1	.0	.00	.00	.05	.10	.16	.22	.30	.40	.54	.78	1.02
Apr	.60	.33	1.32	1987	22	4.57	1987	.00+	1984	2.8	1.6	.3	.1	.00	.00	.03	.11	.21	.34	.50	.71	1.02	1.57	2.12
May	1.73	1.12	4.13	1984	16	5.36	1972	.13	2000	6.4	3.7	1.1	.2	.14	.26	.49	.73	.99	1.29	1.65	2.10	2.72	3.76	4.78
Jun	2.56	1.75	3.52	1984	19	11.34	1984	.22	1974	8.8	4.8	1.5	.6	.20	.37	.71	1.06	1.45	1.90	2.44	3.11	4.05	5.62	7.17
Jul	3.82	3.17	3.36	1949	25	11.45	1976	.67+	1995	11.5	7.4	2.4	.8	.76	1.10	1.67	2.18	2.70	3.26	3.89	4.65	5.66	7.27	8.81
Aug	4.02	3.76	3.15	1966	22	8.03	1978	.91	1995	11.8	7.9	3.0	.6	1.20	1.59	2.16	2.65	3.13	3.63	4.18	4.83	5.66	6.97	8.18
Sep	3.29	3.00	2.17	1996	11	9.18	1978	.00	2000	9.2	5.9	2.1	.7	.24	.59	1.12	1.60	2.10	2.65	3.29	4.06	5.10	6.80	8.43
Oct	1.71	1.14	2.64	1981	5	5.48	1974	.00	1979	5.7	3.1	1.2	.4	.01	.06	.22	.43	.69	1.02	1.44	2.00	2.82	4.26	5.74
Nov	.56	.48	1.32	2001	15	1.64	1974	.00+	1999	2.7	1.5	.2	@	.00	.00	.04	.11	.21	.33	.48	.67	.96	1.45	1.94
Dec	.73	.52	2.00	1986	22	3.09	1986	.00+	1985	3.2	1.7	.5	@	.00	.01	.08	.17	.29	.43	.61	.86	1.21	1.84	2.47
Ann	20.37	18.21	4.13	May 1984	16	11.45	Jul 1976	.00+	Sep 2000	71.7	42.3	12.7	3.4	11.54	13.10	15.18	16.81	18.30	19.77	21.31	23.05	25.20	28.40	31.22

+ 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: 1935-2001

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

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

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Station: MOUNT LOCKE, TX

COOP ID: 416104

Climate Division: TX 5

NWS Call Sign:

Elevation: 6,790 Feet

Lat: 30° 40N

Lon: 104° 31W

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	.4	#	0	4.0	1996	2	5.7	1996	4	1996	3	#+	1997	.9	.4	.1	.0	.0	.0	.0	.0	.0
Feb	.2	.0	0	0	1.7	2000	2	1.7	2000	0	0	0	0	0	.3	.1	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	#	0	.1	1994	28	.1	1994	#	1998	8	#	1998	.1	.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	.0	.0	0	0	.5	2000	19	.5	2000	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Dec	2.3	1.6	#	0	9.0	1986	22	10.0	1997	9	1986	22	2	1986	1.5	.9	.5	.1	.0	.5	.3	.1	.0
Ann	3.6	2.0	N/A	N/A	9.0	Dec 1986	22	10.0	Dec 1997	9	Dec 1986	22	2	Dec 1986	2.9	1.4	.6	.1	.0	.5	.3	.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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No. 20 1971-2000

Station: MOUNT LOCKE, TX

COOP ID: 416104

Climate Division: TX 5

NWS Call Sign:

Elevation: 6,790 Feet

Lat: 30° 40N

Lon: 104° 31W

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	5/15	5/09	5/05	5/01	4/28	4/25	4/21	4/17	4/11
32	5/03	4/27	4/24	4/20	4/17	4/14	4/11	4/07	4/01
28	4/22	4/16	4/12	4/09	4/06	4/03	3/31	3/27	3/21
24	4/16	4/07	3/31	3/26	3/20	3/15	3/10	3/03	2/22
20	4/13	3/30	3/20	3/12	3/04	2/24	2/16	2/06	1/24
16	3/23	3/09	2/26	2/17	2/09	1/31	1/20	1/06	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	9/22	9/30	10/05	10/10	10/14	10/18	10/23	10/28	11/05
32	10/03	10/11	10/16	10/21	10/26	10/30	11/04	11/10	11/18
28	10/17	10/24	10/29	11/03	11/07	11/11	11/15	11/20	11/27
24	10/25	11/02	11/08	11/13	11/17	11/22	11/27	12/03	12/11
20	11/03	11/13	11/21	11/27	12/03	12/09	12/15	12/22	1/01
16	11/14	11/24	12/01	12/07	12/13	12/19	12/26	1/05	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	192	184	178	173	168	163	158	152	144
32	219	209	202	196	191	185	179	173	163
28	240	231	225	219	214	209	203	197	188
24	277	265	256	248	241	234	226	218	205
20	324	306	294	283	273	263	252	239	221
16	>365	>365	340	319	305	293	282	269	251

* 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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Station: MOUNT LOCKE, TX

COOP ID: 416104

Climate Division: TX 5 NWS Call Sign: Elevation: 6,790 Feet Lat: 30° 40N Lon: 104° 31W

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	661	511	402	216	85	17	14	19	75	188	431	628	3247
60	506	373	261	114	32	3	0	2	25	93	297	474	2180
57	416	295	186	70	16	0	0	0	11	54	227	383	1658
55	359	244	144	46	9	0	0	0	6	35	186	326	1355
50	224	138	64	13	1	0	0	0	0	9	103	194	746
32	7	1	0	0	0	0	0	0	0	0	0	1	9

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	369	414	623	799	1070	1205	1231	1182	1029	868	565	396	9751
55	8	13	54	156	366	515	518	469	344	189	61	8	2701
57	4	8	34	119	311	455	456	407	290	146	42	3	2275
60	0	2	15	74	234	368	363	316	213	93	23	1	1702
65	0	0	2	25	132	232	223	178	114	33	7	0	946
70	0	0	0	6	60	125	112	79	46	8	0	0	436

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	173	229	372	541	804	953	974	925	781	615	335	196	173	402	774	1315	2119	3072	4046	4971	5752	6367	6702	6898
45	83	131	237	397	649	803	819	770	631	464	212	98	83	214	451	848	1497	2300	3119	3889	4520	4984	5196	5294
50	27	59	129	264	496	653	664	615	483	320	116	39	27	86	215	479	975	1628	2292	2907	3390	3710	3826	3865
55	2	19	58	152	344	503	509	460	339	188	45	3	2	21	79	231	575	1078	1587	2047	2386	2574	2619	2622
60	0	0	13	68	206	354	354	307	206	88	7	0	0	0	13	81	287	641	995	1302	1508	1596	1603	1603
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	101	141	239	345	510	624	642	611	491	365	196	114	101	242	481	826	1336	1960	2602	3213	3704	4069	4265	4379

(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