

Climatography of the United States

No. 20

1971-2000

Station: TAZEWELL, TN

COOP ID: 408868

Climate Division: TN 1

NWS Call Sign:

Elevation: 1,365 Feet Lat: 36° 28N

Lon: 83° 34W

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	43.3	23.0	33.2	75	1999	23	43.5	1974	-24	1985	21	20.5	1977	989	0	.0	.0	10.6	4.8	25.0	1.5
Feb	48.4	24.5	36.5	79	1977	27	44.3	1990	-22	1996	5	25.8	1978	799	0	.0	.0	14.4	2.9	21.7	.8
Mar	57.5	31.6	44.6	83	1998	30	49.8	1989	-10	1980	3	38.4	1971	634	0	.0	.0	23.5	.5	18.3	.1
Apr	67.1	38.9	53.0	90	1986	28	57.6	1991	18+	1982	7	48.8	1983	362	3	.0	@	27.9	.0	9.2	.0
May	75.1	49.2	62.2	90+	1991	27	68.7	1987	25	1971	4	56.8	1973	160	73	.0	.1	31.0	.0	1.4	.0
Jun	82.5	58.2	70.4	97+	1988	24	73.7	1994	28	1984	1	65.3	1974	17	177	.0	2.2	30.0	.0	@	.0
Jul	86.0	63.1	74.6	99	1988	9	78.2	1993	41	1988	2	71.1	1976	0	297	.0	8.0	31.0	.0	.0	.0
Aug	85.1	61.7	73.4	102	1983	22	78.3	1995	42+	1968	29	69.8	1976	2	261	.1	5.1	31.0	.0	.0	.0
Sep	79.7	54.6	67.2	96	1975	6	72.0	1978	29	1983	24	62.9	1976	51	115	.0	2.0	30.0	.0	.2	.0
Oct	68.9	40.3	54.6	88	1998	6	62.2	1984	18+	1976	28	48.0	1987	343	22	.0	.0	30.5	.0	8.4	.0
Nov	57.5	32.1	44.8	81	1984	1	54.6	1985	6	1970	25	36.1	1976	606	0	.0	.0	22.7	.1	17.3	.0
Dec	47.3	25.7	36.5	78	1982	5	44.5	1984	-8+	1983	25	27.3	1989	883	0	.0	.0	14.5	2.6	24.3	.3
Ann	66.5	41.9	54.3	102	Aug 1983	22	78.3	Aug 1995	-24	Jan 1985	21	20.5	Jan 1977	4846	948	.1	17.4	297.1	10.9	125.8	2.7

+ 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

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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: TAZEWELL, TN

COOP ID: 408868

Climate Division: TN 1

NWS Call Sign:

Elevation: 1,365 Feet Lat: 36°28N

Lon: 83°34W

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	4.97	4.76	3.54	1974	11	10.28	1974	1.44	1986	14.2	8.8	3.8	1.3	1.72	2.19	2.87	3.45	4.00	4.57	5.19	5.91	6.83	8.27	9.58
Feb	4.31	4.06	2.94	1994	11	9.69	1994	1.22	1978	12.7	8.2	2.7	1.0	1.77	2.16	2.72	3.18	3.61	4.05	4.52	5.06	5.75	6.81	7.76
Mar	5.22	4.36	3.26	1973	16	13.62	1975	1.55	1983	14.2	9.5	3.6	1.1	1.66	2.15	2.89	3.51	4.12	4.74	5.43	6.24	7.27	8.89	10.38
Apr	4.46	3.61	6.32	1998	17	15.32	1998	.65	1976	12.1	7.9	2.9	.8	1.17	1.59	2.23	2.80	3.36	3.95	4.61	5.38	6.39	7.98	9.47
May	5.24	4.71	3.82	1984	7	11.24	1984	2.30	1985	12.3	8.2	3.8	1.6	2.35	2.82	3.46	3.99	4.47	4.97	5.49	6.10	6.86	8.01	9.05
Jun	4.17	4.20	2.80	1999	25	9.19	1989	.58	1988	12.0	8.0	3.0	.8	1.09	1.49	2.09	2.62	3.15	3.70	4.31	5.04	5.98	7.47	8.87
Jul	4.57	4.84	4.08	1979	22	11.81	1979	1.59	1995	11.2	8.0	3.2	1.2	1.81	2.24	2.84	3.33	3.80	4.28	4.79	5.38	6.14	7.30	8.35
Aug	3.86	3.90	3.13	1990	22	7.45	1993	.76	1972	10.2	6.5	2.8	1.2	1.31	1.67	2.20	2.66	3.09	3.54	4.02	4.59	5.32	6.46	7.50
Sep	3.22	3.01	2.32	1982	2	6.33	1987	.32	1985	9.0	6.0	2.2	.7	.71	1.00	1.48	1.90	2.33	2.78	3.29	3.90	4.71	5.99	7.20
Oct	3.04	2.72	2.48	1977	9	6.14	1976	.16	2000	8.5	5.5	2.1	.8	.65	.93	1.38	1.78	2.19	2.62	3.10	3.69	4.46	5.68	6.84
Nov	4.25	4.01	4.74	1973	27	9.77	1973	1.59	1987	11.0	7.7	3.0	1.0	1.63	2.02	2.59	3.06	3.50	3.95	4.45	5.01	5.74	6.85	7.87
Dec	4.78	4.00	3.41	1993	5	11.02	1991	1.23	1980	13.7	8.7	2.8	1.3	1.47	1.92	2.60	3.18	3.74	4.32	4.97	5.72	6.70	8.22	9.62
Ann	52.09	52.05	6.32	Apr 1998	17	15.32	Apr 1998	.16	Oct 2000	141.1	93.0	35.9	12.8	37.71	40.51	44.08	46.79	49.19	51.51	53.89	56.53	59.72	64.34	68.33

+ 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

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Station: TAZEWELL, TN

COOP ID: 408868

Climate Division: TN 1

NWS Call Sign:

Elevation: 1,365 Feet

Lat: 36°28N

Lon: 83°34W

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	5.1	3.8	1	#	8.4	1985	20	16.6	1978	8	1985	20	2	1985	3.3	1.5	.8	.2	.0	3.9	1.8	.5	.0
Feb	5.0	2.6	1	#	10.0	1985	12	20.9	1979	13	1996	5	4	1979	3.0	1.5	.6	.2	@	2.9	1.4	.6	.0
Mar	3.0	1.0	#	#	9.0	1993	13	18.0	1993	18	1993	14	1	1993	1.5	.7	.3	.2	.0	.6	.2	@	.0
Apr	.5	.0	#	0	5.0	1971	7	5.0	1971	8	1987	5	1	1987	.3	.2	.1	@	.0	.1	.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	.2	1993	31	.2	1993	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.7	.0	#	0	5.9	1977	28	7.3	1977	5	1977	28	#+	1997	.3	.2	.1	@	.0	.3	.1	@	.0
Dec	2.7	1.0	#	#	10.0	1982	12	11.2	1981	6	1982	12	1	1982	1.9	.9	.1	.1	@	1.0	.2	.1	.0
Ann	17.0	8.4	N/A	N/A	10.0+	Feb 1985	12	20.9	Feb 1979	18	Mar 1993	14	4	Feb 1979	10.3	5.0	2.0	.7	@	8.8	3.7	1.2	.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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Climate Division: TN 1

NWS Call Sign:

Elevation: 1,365 Feet

Lat: 36°28N

Lon: 83°34W

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	5/28	5/22	5/17	5/13	5/10	5/06	5/02	4/28	4/22
32	5/18	5/13	5/09	5/05	5/02	4/29	4/26	4/22	4/16
28	5/07	4/30	4/25	4/21	4/17	4/13	4/09	4/04	3/28
24	4/19	4/14	4/10	4/07	4/04	4/01	3/29	3/25	3/20
20	4/07	4/01	3/27	3/24	3/20	3/17	3/13	3/09	3/03
16	3/24	3/17	3/11	3/07	3/03	2/26	2/22	2/16	2/09
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	9/20	9/24	9/27	9/30	10/02	10/05	10/07	10/11	10/15
32	9/29	10/04	10/07	10/10	10/12	10/15	10/18	10/21	10/25
28	10/10	10/14	10/17	10/20	10/22	10/25	10/28	10/31	11/04
24	10/14	10/20	10/25	10/29	11/01	11/05	11/09	11/13	11/19
20	10/29	11/03	11/07	11/11	11/14	11/17	11/20	11/24	11/29
16	11/11	11/18	11/23	11/27	12/01	12/05	12/09	12/14	12/21
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	166	159	154	149	145	141	136	131	123
32	187	179	173	167	162	158	152	146	138
28	209	202	197	192	188	183	179	173	166
24	233	225	220	215	211	206	201	196	188
20	258	251	246	242	238	234	229	224	217
16	298	289	283	278	273	268	263	257	248

* 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: TN 1 NWS Call Sign: Elevation: 1,365 Feet Lat: 36° 28N Lon: 83° 34W

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	989	799	634	362	160	17	0	2	51	343	606	883	4846
60	834	659	483	225	81	3	0	0	16	224	460	728	3713
57	746	575	396	154	47	1	0	0	7	166	377	635	3104
55	688	521	340	115	31	0	0	0	4	133	324	577	2733
50	544	393	218	43	9	0	0	0	1	68	206	433	1915
32	162	71	13	0	0	0	0	0	0	0	9	79	334

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	196	195	402	630	936	1150	1320	1282	1054	702	393	219	8479
55	10	2	17	55	254	460	607	569	367	122	18	4	2485
57	5	0	11	35	208	401	545	507	310	93	11	0	2126
60	0	0	4	15	148	313	452	414	229	58	4	0	1637
65	0	0	0	3	73	177	297	261	115	22	0	0	948
70	0	0	0	0	27	73	155	127	39	6	0	0	427

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	51	81	219	409	685	912	1072	1039	818	465	210	79	51	132	351	760	1445	2357	3429	4468	5286	5751	5961	6040
45	21	36	119	277	533	762	917	884	668	323	118	36	21	57	176	453	986	1748	2665	3549	4217	4540	4658	4694
50	4	11	57	167	382	612	762	729	518	199	60	9	4	15	72	239	621	1233	1995	2724	3242	3441	3501	3510
55	0	0	21	85	243	462	607	574	370	101	21	0	0	0	21	106	349	811	1418	1992	2362	2463	2484	2484
60	0	0	2	35	130	314	452	419	234	46	4	0	0	0	2	37	167	481	933	1352	1586	1632	1636	1636
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	39	73	163	284	443	608	731	708	535	324	157	59	39	112	275	559	1002	1610	2341	3049	3584	3908	4065	4124

(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

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