

Climatography of the United States

No. 20

1971-2000

Station: PIKEVILLE, TN

COOP ID: 407184

Climate Division: TN 2

NWS Call Sign:

Elevation: 878 Feet Lat: 35° 37N Lon: 85° 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	48.3	27.3	37.8	74+	1967	25	47.7	1974	-20	1985	20	25.1	1977	843	0	.0	.0	14.7	2.0	19.6	.5
Feb	53.7	29.7	41.7	79	1977	26	49.8	1990	-11	1996	5	31.9	1978	652	0	.0	.0	18.4	1.0	16.4	.1
Mar	62.8	37.1	50.0	87	1963	31	55.1	1973	1	1993	15	44.2	1971	470	2	.0	.0	27.4	.2	10.2	.0
Apr	71.9	43.6	57.8	92	1965	23	62.8	1981	18	1970	3	53.6	1983	229	11	.0	@	29.5	.0	3.9	.0
May	78.5	52.3	65.4	97+	1962	12	70.5	1991	30	1971	4	61.1	1997	89	102	.0	.4	31.0	.0	.1	.0
Jun	85.1	60.2	72.7	100+	1988	24	76.6	1981	37	1966	1	67.8	1974	4	235	.1	6.1	30.0	.0	.0	.0
Jul	88.4	64.7	76.6	107	1980	16	81.1	1980	47	1972	7	73.4	1984	0	358	.5	13.1	31.0	.0	.0	.0
Aug	87.6	63.1	75.4	103	1983	21	79.7	1980	48+	1965	4	72.4	1992	0	322	.3	10.3	31.0	.0	.0	.0
Sep	82.3	57.0	69.7	98+	1975	3	74.1	1980	32	1967	30	66.0	1975	26	166	.0	4.1	30.0	.0	.0	.0
Oct	72.6	44.5	58.6	92	1963	21	66.0	1984	21	1987	22	51.9	1988	234	33	.0	.0	30.9	.0	3.6	.0
Nov	60.9	36.3	48.6	83	1974	2	56.6	1985	9	1976	30	40.4	1976	493	2	.0	.0	25.7	.0	11.3	.0
Dec	51.6	29.6	40.6	78	1970	2	48.5	1971	-10	1962	13	31.3	1989	756	0	.0	.0	19.1	1.1	18.3	.2
Ann	70.3	45.5	57.9	107	Jul 1980	16	81.1	Jul 1980	-20	Jan 1985	20	25.1	Jan 1977	3796	1231	.9	34.0	318.7	4.3	83.4	.8

+ 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: 1962-2001

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

059-A

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: PIKEVILLE, TN

COOP ID: 407184

Climate Division: TN 2

NWS Call Sign:

Elevation: 878 Feet

Lat: 35°37N

Lon: 85°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	5.16	5.36	3.65	1998	7	11.11	1974	.85	1986	11.2	8.3	3.6	1.5	1.75	2.23	2.95	3.55	4.13	4.73	5.38	6.14	7.12	8.63	10.03
Feb	4.52	4.17	4.84	1994	11	10.87	1994	.91	1978	9.4	7.1	3.2	1.1	1.56	1.99	2.61	3.14	3.64	4.16	4.72	5.38	6.22	7.53	8.73
Mar	5.85	5.26	5.56	1973	16	11.59+	1980	1.95	1988	11.1	8.8	3.9	1.6	2.08	2.63	3.43	4.10	4.74	5.40	6.11	6.95	8.01	9.65	11.16
Apr	4.34	3.94	6.10	1970	28	10.92	1998	.87	1976	9.8	7.4	3.2	1.0	1.33	1.75	2.36	2.89	3.40	3.93	4.51	5.19	6.08	7.46	8.73
May	5.12	5.01	4.74	1973	27	12.17	1984	1.87	1988	10.4	8.2	3.7	1.6	2.11	2.58	3.24	3.78	4.29	4.81	5.37	6.01	6.83	8.07	9.20
Jun	4.31	3.99	3.37	1992	4	10.88	1989	.92	1979	10.1	7.6	2.9	.9	1.08	1.49	2.12	2.67	3.22	3.80	4.44	5.21	6.21	7.79	9.27
Jul	4.24	3.87	3.46	2001	29	9.30	1989	.61	1980	10.6	7.6	2.9	1.0	1.22	1.62	2.23	2.76	3.27	3.81	4.40	5.10	6.01	7.43	8.75
Aug	3.66	3.04	2.64	1987	17	7.27	1982	1.00	1973	8.7	6.5	2.5	1.0	1.05	1.40	1.93	2.38	2.82	3.29	3.80	4.40	5.18	6.40	7.54
Sep	4.08	3.32	3.82	1977	16	10.72	1989	.43	1978	8.2	6.1	2.7	1.2	.70	1.06	1.66	2.22	2.79	3.41	4.12	4.98	6.13	7.99	9.76
Oct	3.27	3.22	3.92	1995	5	6.81	1995	.29	1987	7.0	5.1	2.2	1.0	.74	1.04	1.52	1.95	2.38	2.84	3.36	3.97	4.78	6.06	7.28
Nov	4.79	4.78	3.75	1983	27	9.72	1973	1.78	1971	8.7	7.1	3.6	1.4	2.16	2.59	3.18	3.65	4.10	4.54	5.02	5.57	6.26	7.31	8.25
Dec	5.20	4.09	4.71	1990	22	16.38	1990	1.38	1980	10.7	8.0	3.6	1.3	1.40	1.89	2.65	3.30	3.95	4.63	5.38	6.27	7.44	9.26	10.96
Ann	54.54	55.48	6.10	Apr 1970	28	16.38	Dec 1990	.29	Oct 1987	115.9	87.8	38.0	14.6	40.13	42.96	46.56	49.28	51.69	54.01	56.40	59.04	62.22	66.82	70.78

+ 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: 1962-2001

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

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1971-2000

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Station: PIKEVILLE, TN

COOP ID: 407184

Climate Division: TN 2

NWS Call Sign:

Elevation: 878 Feet

Lat: 35°37N

Lon: 85°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	1.6	.8	#	0	7.0	1988	7	7.3	1988	7	1988	8	1	1988	1.1	.6	.1	.1	.0	.9	.4	.3	.0
Feb	1.7	.5	#	#	4.0	1985	12	7.0	1985	5	1996	5	1	1996	.8	.6	.3	.0	.0	.6	.4	.2	.0
Mar	.8	.0	#	0	14.0	1993	13	15.0	1993	14	1993	13	1	1993	.4	.2	@	@	@	.2	.2	.1	.1
Apr	.1	.0	#	0	2.5	1987	3	2.5	1987	#+	2000	8	#+	2000	@	@	.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	#	1993	31	#+	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	#	#	0	.8	1996	10	.8	1996	#+	1997	16	#+	1997	@	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.5	.0	#	0	4.1	1997	30	6.4	1997	3	1997	30	#+	2000	.4	.1	@	.0	.0	.2	@	.0	.0
Ann	4.7	1.3	N/A	N/A	14.0	Mar 1993	13	15.0	Mar 1993	14	Mar 1993	13	1+	Feb 1996	2.7	1.5	.4	.1	@	1.9	1.0	.6	.1

+ 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: PIKEVILLE, TN

COOP ID: 407184

Climate Division: TN 2

NWS Call Sign:

Elevation: 878 Feet

Lat: 35°37N

Lon: 85°12W

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	5/06	5/02	4/29	4/26	4/23	4/19	4/14
32	5/04	4/28	4/25	4/21	4/18	4/15	4/12	4/08	4/03
28	4/20	4/15	4/11	4/09	4/06	4/03	3/31	3/27	3/23
24	4/08	4/02	3/29	3/25	3/21	3/18	3/14	3/10	3/04
20	3/21	3/14	3/10	3/06	3/02	2/26	2/22	2/17	2/10
16	3/12	3/04	2/27	2/22	2/18	2/14	2/09	2/04	1/27
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	9/28	10/02	10/05	10/07	10/10	10/12	10/15	10/18	10/22
32	10/04	10/09	10/12	10/15	10/18	10/21	10/24	10/27	11/01
28	10/11	10/17	10/22	10/25	10/29	11/01	11/05	11/09	11/15
24	10/31	11/05	11/08	11/11	11/14	11/17	11/20	11/23	11/28
20	11/10	11/16	11/20	11/24	11/28	12/02	12/05	12/10	12/16
16	11/23	12/01	12/07	12/11	12/16	12/21	12/26	12/31	1/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	182	176	171	167	163	159	155	150	144
32	200	194	190	186	182	179	175	170	164
28	229	221	215	210	205	201	196	190	182
24	260	252	246	241	237	232	227	221	213
20	295	286	280	275	271	266	261	255	247
16	330	320	312	306	300	295	288	281	271

* 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 2 NWS Call Sign: Elevation: 878 Feet Lat: 35° 37N Lon: 85° 12W

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	843	652	470	229	89	4	0	0	26	234	493	756	3796
60	694	512	326	115	32	0	0	0	6	132	352	601	2770
57	607	433	248	66	15	0	0	0	2	86	273	516	2246
55	549	380	202	42	8	0	0	0	1	62	226	458	1928
50	413	257	110	9	0	0	0	0	0	22	129	322	1262
32	87	21	1	0	0	0	0	0	0	0	2	39	150

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	267	293	557	771	1035	1221	1381	1345	1130	823	501	307	9631
55	16	9	44	123	330	531	668	632	441	172	35	12	3013
57	12	6	28	87	275	471	606	570	382	134	22	8	2601
60	6	0	13	46	200	381	513	477	295	86	11	0	2028
65	0	0	2	11	102	235	358	322	166	33	2	0	1231
70	0	0	0	1	38	109	209	176	70	9	0	0	612

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	104	161	345	554	809	1008	1160	1126	917	600	305	143	104	265	610	1164	1973	2981	4141	5267	6184	6784	7089	7232
45	48	83	225	410	654	858	1005	971	767	446	194	74	48	131	356	766	1420	2278	3283	4254	5021	5467	5661	5735
50	21	37	124	274	499	708	850	816	617	303	106	34	21	58	182	456	955	1663	2513	3329	3946	4249	4355	4389
55	2	12	58	164	349	558	695	661	467	179	50	9	2	14	72	236	585	1143	1838	2499	2966	3145	3195	3204
60	0	0	20	77	214	409	540	506	323	89	13	0	0	0	20	97	311	720	1260	1766	2089	2178	2191	2191
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	63	112	226	363	532	684	796	771	611	396	196	85	63	175	401	764	1296	1980	2776	3547	4158	4554	4750	4835

(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