

Climatology of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: JACKSON EXP STA, TN

1971-2000

COOP ID: 404561

Climate Division: TN 4

NWS Call Sign:

Elevation: 400 Feet

Lat: 35° 37N

Lon: 88° 50W

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	46.0	28.2	37.1	79+	1911	27	44.9	1989	-18	1963	24	24.4	1977	866	0	.0	.0	12.0	4.9	20.7	.3
Feb	51.5	31.7	41.6	83	1911	15	49.5	1990	-21	1951	2	28.6	1978	655	0	.0	.0	15.3	3.1	15.7	.1
Mar	61.0	40.5	50.8	92	1910	24	56.5	1973	9+	1943	3	45.1	1978	447	5	.0	.0	24.9	.3	7.9	.0
Apr	70.5	48.2	59.4	91	1925	24	65.1	1981	20	1919	4	53.4	1983	199	29	.0	@	29.1	.0	1.7	.0
May	78.0	57.6	67.8	102	1911	27	73.8	1987	30	1928	12	61.6	1976	63	151	.0	.7	31.0	.0	.0	.0
Jun	85.8	65.6	75.7	104+	1911	16	79.5	1998	40	1904	18	71.0	1974	2	323	@	8.6	30.0	.0	.0	.0
Jul	89.4	69.8	79.6	107	1930	29	83.2	1980	36	1911	17	76.7	1972	0	451	.2	17.0	31.0	.0	.0	.0
Aug	88.7	67.8	78.3	110	1930	9	82.9	1983	44	1946	31	74.4	1992	0	412	.3	14.1	31.0	.0	.0	.0
Sep	82.9	60.7	71.8	106+	1925	5	77.1	1998	30+	1942	28	66.0	1974	22	224	@	6.2	30.0	.0	.0	.0
Oct	72.8	48.1	60.5	99	1953	1	66.9	1971	19	1952	29	54.4	1976	191	49	.0	.1	30.8	.0	1.6	.0
Nov	60.5	39.5	50.0	92	1941	28	56.0	1985	0	1950	25	40.6	1976	455	4	.0	.0	23.5	.1	8.5	.0
Dec	50.3	31.4	40.9	80	1951	31	50.1	1984	-21	1917	9	30.7	1989	749	0	.0	.0	16.2	2.3	17.2	.2
Ann	69.8	49.1	59.5	110	Aug 1930	9	83.2	Jul 1980	-21+	Feb 1951	2	24.4	Jan 1977	3649	1648	.5	46.7	304.8	10.7	73.3	.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: 1900-2001

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

030-A

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No. 20
1971-2000**

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NWS Call Sign:

Elevation: 400 Feet Lat: 35°37N

Lon: 88°50W

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	4.32	4.10	6.30	1935	20	8.78	1989	.56	1986	10.7	7.0	3.2	1.1	1.06	1.47	2.10	2.66	3.21	3.80	4.45	5.23	6.25	7.87	9.38
Feb	4.17	3.66	3.67	1989	14	10.33	1990	.97	1978	9.5	6.4	3.0	1.1	1.30	1.69	2.28	2.79	3.27	3.78	4.34	4.99	5.83	7.14	8.36
Mar	5.39	4.72	4.80	1919	16	13.29	1997	2.10	1982	11.0	8.4	3.5	1.7	1.94	2.45	3.18	3.80	4.38	4.98	5.63	6.39	7.36	8.85	10.22
Apr	4.79	4.65	5.10	1942	9	11.44	1973	1.57	1976	10.1	7.2	3.3	1.4	1.57	2.03	2.70	3.27	3.81	4.38	5.00	5.72	6.65	8.10	9.43
May	5.78	4.70	5.50	1974	10	14.54	1983	1.92	1980	10.4	7.7	4.0	1.7	1.67	2.22	3.05	3.76	4.46	5.19	6.00	6.95	8.18	10.10	11.89
Jun	4.99	4.59	4.15	1949	15	11.16	1992	.21	1988	9.6	6.8	3.4	1.4	1.40	1.87	2.59	3.21	3.82	4.46	5.17	6.00	7.09	8.79	10.37
Jul	4.74	4.43	4.46	1936	3	10.27	1998	1.10	1993	8.9	6.2	3.3	1.4	1.50	1.95	2.62	3.19	3.74	4.31	4.93	5.67	6.61	8.08	9.44
Aug	2.92	2.58	3.44	1950	25	9.40	1974	.16	1980	7.1	4.6	2.0	.9	.54	.80	1.23	1.62	2.03	2.47	2.96	3.56	4.36	5.64	6.86
Sep	3.91	3.40	3.98	1936	3	10.82	1977	.47	1999	8.2	5.4	2.7	1.4	.75	1.10	1.68	2.20	2.74	3.32	3.97	4.76	5.81	7.48	9.08
Oct	3.39	2.88	3.15	1925	24	7.45	1984	.86	2000	7.2	4.9	2.5	1.0	.83	1.15	1.65	2.09	2.52	2.98	3.49	4.10	4.90	6.16	7.34
Nov	5.11	4.36	6.15	1945	3	10.45	1988	.95	1998	10.0	7.0	3.8	1.6	1.53	2.01	2.74	3.37	3.98	4.61	5.31	6.14	7.20	8.87	10.41
Dec	5.35	4.52	7.86	1987	25	12.62	1987	.96	1976	10.8	7.3	3.4	1.6	1.30	1.80	2.58	3.28	3.96	4.69	5.50	6.47	7.74	9.74	11.63
Ann	54.86	55.15	7.86	Dec 1987	25	14.54	May 1983	.16	Aug 1980	113.5	78.9	38.1	16.3	40.05	42.95	46.64	49.43	51.91	54.29	56.75	59.46	62.74	67.48	71.57

+ 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: 1900-2001

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

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Station: JACKSON EXP STA, TN

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Climate Division: TN 4

NWS Call Sign:

Elevation: 400 Feet

Lat: 35°37N

Lon: 88°50W

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	1.2	#	#	#	6.0	1985	4	7.8	1985	6	1988	7	1	1988	1.2	.5	.2	.1	.0	1.7	.6	.2	.0
Feb	1.8	.0	#	#	6.2	1979	7	12.3	1979	6	1985	12	2	1979	1.1	.6	.3	.1	.0	1.4	.6	.3	.0
Mar	.4	.0	#	0	3.0	1987	31	3.5	1971	3	1987	31	#+	1999	.3	.2	@	.0	.0	.2	.1	.0	.0
Apr	#	.0	#	0	#	1993	17	#+	1993	#	1987	4	#	1987	.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	#	1993	31	#+	1993	#	1996	18	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	#	0	.5	1971	23	.5	1971	#+	1996	10	#+	1996	@	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.1	.0	#	0	1.0	1988	9	1.0+	1997	1+	2000	18	#+	2000	.3	.1	.0	.0	.0	.1	.0	.0	.0
Ann	3.5	#	N/A	N/A	6.2	Feb 1979	7	12.3	Feb 1979	6+	Jan 1988	7	2	Feb 1979	2.9	1.4	.5	.2	.0	3.4	1.3	.5	.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: JACKSON EXP STA, TN

COOP ID: 404561

Climate Division: TN 4

NWS Call Sign:

Elevation: 400 Feet

Lat: 35°37N

Lon: 88°50W

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	5/01	4/26	4/22	4/19	4/17	4/14	4/11	4/07	4/02
32	4/19	4/15	4/11	4/09	4/06	4/04	4/01	3/29	3/25
28	4/05	3/31	3/27	3/24	3/21	3/18	3/14	3/10	3/05
24	3/18	3/13	3/09	3/06	3/03	2/28	2/25	2/21	2/15
20	3/08	3/01	2/24	2/20	2/15	2/11	2/07	2/02	1/26
16	3/03	2/23	2/17	2/11	2/07	2/02	1/27	1/21	1/11
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	10/01	10/06	10/09	10/12	10/14	10/17	10/20	10/23	10/27
32	10/09	10/15	10/20	10/23	10/27	10/30	11/03	11/07	11/13
28	10/27	11/02	11/05	11/09	11/12	11/15	11/18	11/22	11/27
24	11/06	11/12	11/17	11/21	11/24	11/28	12/01	12/06	12/12
20	11/15	11/24	11/30	12/05	12/10	12/14	12/19	12/25	1/03
16	12/01	12/12	12/19	12/26	1/01	1/07	1/14	1/22	2/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	197	191	187	183	180	177	173	169	163
32	222	215	210	206	202	198	194	189	183
28	261	252	246	241	235	230	225	218	209
24	291	282	276	271	266	260	255	249	240
20	329	316	308	301	295	288	282	274	264
16	>365	>365	342	331	323	316	309	301	290

* 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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COOP ID: 404561

Climate Division: TN 4 NWS Call Sign: Elevation: 400 Feet Lat: 35° 37N Lon: 88° 50W

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	866	655	447	199	63	2	0	0	22	191	455	749	3649
60	713	523	308	103	21	0	0	0	5	100	319	601	2693
57	628	444	234	61	9	0	0	0	1	62	246	514	2199
55	570	394	191	40	5	0	0	0	0	43	203	458	1904
50	432	280	106	11	0	0	0	0	0	13	115	328	1285
32	95	38	2	0	0	0	0	0	0	0	3	49	187

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	252	308	583	820	1111	1311	1474	1435	1193	881	542	323	10233
55	14	19	59	170	403	621	761	722	503	211	52	19	3554
57	10	14	40	131	345	561	699	660	444	168	35	13	3120
60	1	8	20	83	264	471	606	567	357	113	18	7	2515
65	0	0	5	29	151	323	451	412	224	49	4	0	1648
70	0	0	0	7	70	184	296	262	118	15	0	0	952

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	102	170	364	587	876	1081	1236	1193	959	643	333	154	102	272	636	1223	2099	3180	4416	5609	6568	7211	7544	7698
45	51	99	247	446	721	931	1081	1038	809	490	224	83	51	150	397	843	1564	2495	3576	4614	5423	5913	6137	6220
50	24	52	150	315	566	781	926	883	660	346	132	41	24	76	226	541	1107	1888	2814	3697	4357	4703	4835	4876
55	4	19	80	199	414	631	771	728	512	225	68	14	4	23	103	302	716	1347	2118	2846	3358	3583	3651	3665
60	0	2	36	108	269	481	616	573	370	124	31	2	0	2	38	146	415	896	1512	2085	2455	2579	2610	2612
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	57	104	217	367	570	750	862	831	644	410	197	85	57	161	378	745	1315	2065	2927	3758	4402	4812	5009	5094

(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