

Climatology of the United States

No. 20

1971-2000

Station: FRANKLIN 3 W, NC

COOP ID: 313228

Climate Division: NC 3

NWS Call Sign:

Elevation: 2,170 Feet Lat: 35° 11N

Lon: 83° 25W

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	47.7	24.0	35.9	78	1952	1	48.0	1974	-15	1985	21	23.8	1977	903	0	.0	.0	16.2	1.4	22.4	.5
Feb	52.5	25.6	39.1	78	1996	28	45.9	1990	-5	1958	17	31.7	1978	728	0	.0	.0	18.9	.9	19.2	.1
Mar	60.3	32.5	46.4	85	1967	14	51.7	1997	-5	1993	15	41.1	1996	578	0	.0	.0	27.1	.2	14.2	.1
Apr	68.5	38.9	53.7	91	1986	26	58.3	1981	17	1983	20	49.5	1983	340	1	.0	.1	29.4	.0	7.1	.0
May	75.6	49.0	62.3	91+	1996	19	67.2	1991	25+	1971	4	58.3	1997	138	54	.0	.1	30.9	.0	.8	.0
Jun	81.3	57.0	69.2	97+	1954	27	73.2	1981	34+	1984	1	64.4	1972	16	141	.0	1.8	30.0	.0	.0	.0
Jul	84.5	61.7	73.1	101	1952	29	78.3	1993	45+	1963	11	70.3	1971	2	252	.0	6.7	31.0	.0	.0	.0
Aug	83.2	61.2	72.2	99+	1983	22	75.0	1980	40	1968	29	69.6	1997	0	222	.0	3.7	31.0	.0	.0	.0
Sep	77.9	55.0	66.5	98+	1975	4	70.1	1998	27	1967	30	63.0	1976	48	93	.0	.8	30.0	.0	@	.0
Oct	69.4	41.5	55.5	91	1954	5	61.6	1984	15	1952	30	49.5	1987	308	12	.0	.0	30.8	.0	5.4	.0
Nov	59.5	32.6	46.1	82	1974	2	55.6	1985	3	1950	25	38.2	1976	569	0	.0	.0	26.2	@	14.7	.0
Dec	50.4	26.2	38.3	78	1951	31	45.0	1971	-8	1962	13	31.3	2000	827	0	.0	.0	19.1	.9	21.9	.2
Ann	67.6	42.1	54.9	101	Jul 1952	29	78.3	Jul 1993	-15	Jan 1985	21	23.8	Jan 1977	4457	775	.0	13.2	320.6	3.4	105.7	.9

+ 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: 1949-2001

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

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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: FRANKLIN 3 W, NC

COOP ID: 313228

Climate Division: NC 3

NWS Call Sign:

Elevation: 2,170 Feet Lat: 35°11N

Lon: 83°25W

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	5.39	5.56	4.50	1996	27	11.55	1998	1.35	1986	11.0	8.6	3.8	1.6	2.07	2.57	3.28	3.88	4.44	5.02	5.64	6.36	7.27	8.68	9.97
Feb	4.89	4.71	4.08	1990	16	8.79	1975	.57	1978	9.4	7.3	3.6	1.4	1.37	1.83	2.54	3.15	3.75	4.38	5.07	5.89	6.95	8.62	10.18
Mar	5.76	5.07	3.50+	1994	28	11.59	1980	1.60	1985	11.5	8.8	4.3	1.7	2.08	2.62	3.41	4.06	4.69	5.33	6.03	6.84	7.87	9.47	10.93
Apr	4.09	3.94	3.15	1965	24	7.42	1979	1.10	1975	9.9	7.2	2.8	1.3	1.31	1.69	2.27	2.76	3.23	3.72	4.25	4.88	5.69	6.95	8.12
May	4.90	4.32	4.95	1973	28	11.20	1976	1.76	1988	11.3	8.9	3.2	1.0	1.86	2.31	2.97	3.51	4.03	4.55	5.13	5.79	6.63	7.93	9.11
Jun	4.49	4.15	4.59	1949	16	8.91	1989	1.29	1979	11.6	8.5	3.2	1.2	1.57	2.00	2.61	3.13	3.63	4.14	4.69	5.34	6.17	7.45	8.63
Jul	4.09	3.57	3.31	1990	14	7.91	1971	.86	1983	11.6	8.7	2.8	.8	1.32	1.71	2.28	2.77	3.24	3.73	4.26	4.89	5.70	6.95	8.11
Aug	4.48	4.28	2.70	1967	23	10.45	1992	.85	1998	11.4	8.1	2.8	1.4	1.28	1.70	2.34	2.90	3.45	4.02	4.65	5.39	6.36	7.87	9.27
Sep	3.94	3.42	5.07	1964	29	9.23	1989	.17	1984	9.0	6.8	2.6	.9	.78	1.14	1.72	2.25	2.79	3.36	4.01	4.79	5.83	7.49	9.07
Oct	3.29	2.95	5.84	1964	3	7.56	1995	.05	2000	7.2	5.3	2.4	1.0	.35	.59	1.04	1.50	2.00	2.55	3.21	4.02	5.13	6.97	8.77
Nov	4.58	4.28	2.56	1992	2	9.50	1992	1.83	1990	9.5	7.3	3.1	1.5	2.13	2.53	3.09	3.53	3.95	4.36	4.81	5.31	5.95	6.91	7.78
Dec	4.57	4.65	2.77	1961	12	8.58	1983	1.01	1980	10.4	7.8	3.2	1.4	1.52	1.95	2.58	3.12	3.64	4.18	4.76	5.44	6.32	7.69	8.94
Ann	54.47	55.35	5.84	Oct 1964	3	11.59	Mar 1980	.05	Oct 2000	123.8	93.3	37.8	15.2	39.97	42.81	46.43	49.17	51.59	53.93	56.34	58.99	62.20	66.83	70.83

+ 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: 1949-2001

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

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Station: FRANKLIN 3 W, NC

COOP ID: 313228

Climate Division: NC 3

NWS Call Sign:

Elevation: 2,170 Feet

Lat: 35° 11N

Lon: 83° 25W

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	2.6	.0	#	0	8.0	1988	7	11.0	1977	7	1987	22	1	1987	.8	.7	.4	.2	.0	1.3	.4	@	.0
Feb	2.5	.5	#	0	8.0	1982	27	14.5	1979	11	1979	19	1	1979	.6	.5	.3	.2	.0	1.0	.4	.2	@
Mar	.8	.0	#	0	6.5	1971	26	7.5	1971	7	1971	26	#+	1999	.3	.3	.1	@	.0	.2	.1	@	.0
Apr	.3	.0	#	0	9.5	1987	4	9.5+	1987	10	1987	4	1	1987	@	@	@	@	.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	.2	.0	#	0	3.5	1975	23	3.5	1975	4	1975	23	#+	1997	.1	@	@	.0	.0	@	@	.0	.0
Dec	.5	#	#	0	6.0	1971	4	10.0	1971	6	1971	4	#+	1998	.3	.1	.1	@	.0	.3	.1	@	.0
Ann	6.9	.5	N/A	N/A	9.5	Apr 1987	4	14.5	Feb 1979	11	Feb 1979	19	1+	Apr 1987	2.1	1.6	.9	.4	.0	2.8	1.0	.2	@

+ 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

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Climate Division: NC 3

NWS Call Sign:

Elevation: 2,170 Feet

Lat: 35° 11N

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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	5/29	5/23	5/19	5/16	5/12	5/09	5/05	5/01	4/25
32	5/18	5/12	5/08	5/04	5/01	4/27	4/24	4/19	4/13
28	5/03	4/28	4/24	4/21	4/18	4/15	4/12	4/08	4/03
24	4/16	4/10	4/05	4/01	3/28	3/24	3/20	3/15	3/09
20	4/05	3/29	3/24	3/20	3/16	3/12	3/08	3/03	2/24
16	3/22	3/13	3/07	3/02	2/25	2/20	2/15	2/09	1/31
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	9/25	9/29	10/02	10/04	10/07	10/09	10/12	10/15	10/19
32	9/30	10/05	10/08	10/11	10/13	10/16	10/18	10/21	10/26
28	10/08	10/12	10/16	10/18	10/21	10/24	10/27	10/30	11/04
24	10/19	10/25	10/29	11/01	11/04	11/07	11/10	11/14	11/20
20	11/03	11/09	11/13	11/16	11/19	11/22	11/26	11/30	12/05
16	11/09	11/18	11/25	12/01	12/07	12/12	12/18	12/25	1/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	170	162	156	151	147	142	137	131	123
32	187	179	174	169	165	160	156	150	142
28	204	198	193	189	185	181	177	173	166
24	247	238	231	225	220	215	209	203	194
20	273	264	258	253	248	243	237	231	223
16	317	304	295	288	282	275	269	261	250

* 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: NC 3 NWS Call Sign: Elevation: 2,170 Feet Lat: 35° 11N Lon: 83° 25W

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	903	728	578	340	138	16	2	0	48	308	569	827	4457
60	748	588	426	202	59	2	0	0	12	185	424	672	3318
57	664	504	339	132	30	0	0	0	4	126	342	580	2721
55	606	448	284	94	17	0	0	0	2	95	289	524	2359
50	465	317	167	30	3	0	0	0	0	39	177	381	1579
32	114	28	3	0	0	0	0	0	0	0	6	54	205

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	234	224	449	651	939	1115	1273	1245	1035	727	427	250	8569
55	13	0	17	55	243	425	560	532	346	109	20	7	2327
57	9	0	10	33	193	365	498	470	289	79	13	1	1960
60	0	0	3	13	130	277	405	377	207	44	5	0	1461
65	0	0	0	1	54	141	252	222	93	12	0	0	775
70	0	0	0	0	14	46	116	85	24	1	0	0	286

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	84	127	286	462	721	907	1062	1037	833	531	258	113	84	211	497	959	1680	2587	3649	4686	5519	6050	6308	6421
45	34	58	166	321	567	757	907	882	683	378	153	55	34	92	258	579	1146	1903	2810	3692	4375	4753	4906	4961
50	7	19	79	193	412	607	752	727	533	237	74	26	7	26	105	298	710	1317	2069	2796	3329	3566	3640	3666
55	0	3	31	103	267	457	597	572	384	121	28	2	0	3	34	137	404	861	1458	2030	2414	2535	2563	2565
60	0	0	1	39	142	310	442	417	243	48	2	0	0	0	1	40	182	492	934	1351	1594	1642	1644	1644
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	62	105	203	320	470	605	726	708	548	354	188	86	62	167	370	690	1160	1765	2491	3199	3747	4101	4289	4375

(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