

# Climatology of the United States

No. 20

1971-2000

Station: SOUTHPORT 5 N, NC

COOP ID: 318113

Climate Division: NC 6

NWS Call Sign:

Elevation: 20 Feet

Lat: 34°00N

Lon: 78°01W

## 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	56.4	33.5	45.0	79	1985	3	56.4	1974	0	1985	21	35.6	1977	627	0	.0	.0	23.8	.5	15.7	@
Feb	58.3	35.1	46.7	81	1982	25	53.9	1990	9+	1996	5	38.3	1978	513	0	.0	.0	22.6	.2	13.1	.0
Mar	64.5	41.6	53.1	90	1974	11	57.9	1997	8	1980	4	47.7	1971	376	4	.0	@	29.7	@	6.2	.0
Apr	71.4	48.7	60.1	94	1985	24	64.2	1991	25+	1982	7	55.9	1971	172	24	.0	.3	29.9	.0	1.0	.0
May	78.1	57.0	67.6	97	1975	29	72.7	1991	36+	1978	3	64.2	1992	42	121	.0	1.0	31.0	.0	.0	.0
Jun	84.3	65.4	74.9	103	1952	26	79.4	1998	45	1972	2	70.1	1972	2	298	.1	5.3	30.0	.0	.0	.0
Jul	88.0	70.1	79.1	102	1986	20	82.6	1993	52+	1988	2	75.9	1971	0	435	.1	12.7	31.0	.0	.0	.0
Aug	87.4	68.5	78.0	102+	1999	3	81.2	1999	53	1979	17	75.5	1976	0	401	.1	9.7	31.0	.0	.0	.0
Sep	83.5	62.9	73.2	96	1983	9	76.0	1977	35	1981	24	68.6	1981	6	252	.0	2.3	30.0	.0	.0	.0
Oct	75.7	50.9	63.3	94	1986	6	69.3	1985	23	1962	27	57.4	1988	135	83	.0	.2	31.0	.0	.6	.0
Nov	68.4	43.3	55.9	88	1986	10	65.4	1985	16	1981	23	48.9	1976	300	24	.0	.0	29.4	.0	6.7	.0
Dec	59.5	35.8	47.7	83	1998	8	55.3	1971	-3	1989	25	37.5	1989	546	8	.0	.0	25.8	.2	13.7	@
Ann	73.0	51.1	62.1	103	Jun 1952	26	82.6	Jul 1993	-3	Dec 1989	25	35.6	Jan 1977	2719	1650	.3	31.5	345.2	.9	57.0	.0

+ 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](http://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: 1948-2001

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

084-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: SOUTHPORT 5 N, NC**

**COOP ID: 318113**

**Climate Division: NC 6**

**NWS Call Sign:**

**Elevation: 20 Feet**

**Lat: 34°00N**

**Lon: 78°01W**

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	5.28	5.74	2.75	1979	3	10.20	1991	1.23	1981	11.8	8.2	4.0	1.3	1.85	2.35	3.07	3.68	4.26	4.86	5.51	6.27	7.25	8.75	10.13
Feb	4.18	3.41	5.00	1998	17	11.13	1983	1.24	1996	9.2	6.1	2.8	1.3	1.08	1.48	2.08	2.62	3.15	3.70	4.32	5.05	6.00	7.50	8.91
Mar	4.47	3.90	5.02	2001	21	7.75	1980	1.69	2000	9.3	6.3	3.2	1.6	2.11	2.50	3.03	3.46	3.86	4.27	4.69	5.18	5.79	6.72	7.55
Apr	3.08	2.80	5.10	1993	6	8.60	1993	.24	1976	6.9	4.4	2.1	1.0	.46	.72	1.17	1.59	2.04	2.52	3.08	3.77	4.69	6.19	7.63
May	4.15	3.68	5.24	1999	2	11.40	1999	.80	1997	10.0	6.6	2.8	.9	1.07	1.47	2.07	2.60	3.12	3.67	4.29	5.01	5.96	7.46	8.86
Jun	5.04	5.04	4.55	1957	9	12.29	1995	.68	1984	8.9	6.3	3.3	1.5	1.12	1.59	2.33	2.99	3.66	4.36	5.16	6.11	7.37	9.36	11.24
Jul	6.69	5.88	5.73	1949	8	16.10	1996	1.52	1993	11.2	8.1	3.9	2.2	2.33	2.96	3.88	4.65	5.39	6.15	6.98	7.95	9.19	11.10	12.86
Aug	7.66	7.81	10.00	1998	27	14.95	1992	1.30	1997	12.9	9.4	4.5	2.5	2.33	3.06	4.14	5.08	5.99	6.93	7.96	9.18	10.75	13.21	15.49
Sep	8.93	5.99	18.30	1999	16	31.00	1999	2.02	1990	11.3	8.2	4.7	3.0	1.63	2.42	3.73	4.95	6.19	7.52	9.05	10.89	13.34	17.28	21.04
Oct	3.87	3.10	8.60	1994	14	11.98	1993	.18	2000	8.0	4.9	2.1	1.2	.39	.67	1.20	1.74	2.33	2.98	3.75	4.72	6.04	8.23	10.37
Nov	3.45	2.50	5.70	1951	7	10.41	1985	1.09	1981	9.0	5.0	2.0	1.1	.86	1.19	1.69	2.14	2.58	3.04	3.56	4.18	4.98	6.26	7.45
Dec	4.19	4.86	3.40	1958	28	7.19	1976	.22	1988	10.3	6.7	2.9	1.3	.86	1.24	1.85	2.42	2.98	3.59	4.28	5.10	6.19	7.93	9.58
Ann	60.99	61.81	18.30	Sep 1999	16	31.00	Sep 1999	.18	Oct 2000	118.8	80.2	38.3	18.9	45.85	48.84	52.65	55.51	58.04	60.47	62.97	65.72	69.03	73.81	77.92

+ 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

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

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Climate Division: NC 6

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Lon: 78°01W

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	#	.0	0	0	#	1976	18	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.4	.0	0	0	3.0	1973	9	6.0	1973	0	0	0	0	0	.1	.1	.1	.0	.0	.0	.0	.0	.0
Mar	.4	.0	#	0	8.0	1980	3	8.0	1980	8	1980	3	#	1980	.1	.1	.1	.1	.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	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.8	.0	0	0	13.0	1989	25	15.0	1989	0	0	0	0	0	.1	.1	.1	.1	.1	.0	.0	.0	.0
Ann	1.6	.0	N/A	N/A	13.0	Dec 1989	25	15.0	Dec 1989	8	Mar 1980	3	#	Mar 1980	.3	.3	.3	.2	.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

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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	4/28	4/23	4/19	4/15	4/12	4/09	4/05	4/01	3/26
32	4/15	4/09	4/05	4/01	3/28	3/25	3/21	3/17	3/11
28	4/07	3/31	3/25	3/21	3/16	3/12	3/07	3/02	2/22
24	3/21	3/13	3/07	3/02	2/26	2/21	2/16	2/11	2/03
20	3/07	2/27	2/21	2/16	2/11	2/07	2/01	1/25	1/12
16	2/19	2/11	2/05	1/31	1/25	1/18	1/06	0/00	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	10/09	10/14	10/19	10/22	10/26	10/29	11/01	11/06	11/11
32	10/19	10/25	10/29	11/02	11/06	11/09	11/13	11/17	11/23
28	11/04	11/09	11/13	11/17	11/20	11/23	11/26	11/30	12/06
24	11/10	11/18	11/25	11/30	12/05	12/09	12/15	12/21	12/29
20	11/26	12/08	12/17	12/25	1/01	1/08	1/17	1/27	2/16
16	12/15	12/25	1/02	1/09	1/16	1/26	0/00	0/00	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	222	213	207	201	196	191	185	179	170
32	242	235	230	226	222	217	213	208	201
28	274	265	258	253	248	243	237	231	222
24	312	301	294	287	281	275	268	261	250
20	>365	>365	340	324	315	307	300	293	283
16	>365	>365	>365	>365	364	346	335	324	312

\* 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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**Degree Days to Selected Base Temperatures (°F)**

<b>Base</b>	<b>Heating Degree Days (1)</b>												
<b>Below</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>65</b>	627	513	376	172	42	2	0	0	6	135	300	546	2719
<b>60</b>	482	378	238	78	9	0	0	0	1	65	190	404	1845
<b>57</b>	400	299	168	41	2	0	0	0	0	37	138	326	1411
<b>55</b>	348	250	130	24	1	0	0	0	0	24	107	279	1163
<b>50</b>	237	147	56	5	0	0	0	0	0	7	49	181	682
<b>32</b>	23	3	0	0	0	0	0	0	0	0	0	12	38

<b>Base</b>	<b>Cooling Degree Days (1)</b>												
<b>Above</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>32</b>	424	415	652	841	1102	1286	1458	1424	1236	971	714	497	11020
<b>55</b>	37	18	68	176	390	596	745	711	546	282	131	51	3751
<b>57</b>	26	11	45	133	329	536	683	649	486	233	102	36	3269
<b>60</b>	16	5	21	80	243	446	590	556	397	168	64	21	2607
<b>65</b>	0	0	4	24	121	298	435	401	252	83	24	8	1650
<b>70</b>	0	0	0	4	43	164	281	246	125	30	7	0	900

**Growing Degree Units (2)**

<b>Base</b>	<b>Growing Degree Units (Monthly)</b>												<b>Growing Degree Units (Accumulated Monthly)</b>											
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>40</b>	211	240	433	639	891	1090	1246	1201	1010	731	473	276	211	451	884	1523	2414	3504	4750	5951	6961	7692	8165	8441
<b>45</b>	117	143	294	489	736	940	1091	1046	860	576	332	166	117	260	554	1043	1779	2719	3810	4856	5716	6292	6624	6790
<b>50</b>	55	73	178	345	582	790	936	891	710	424	216	85	55	128	306	651	1233	2023	2959	3850	4560	4984	5200	5285
<b>55</b>	23	30	86	215	427	640	781	736	560	283	120	43	23	53	139	354	781	1421	2202	2938	3498	3781	3901	3944
<b>60</b>	1	10	38	112	278	490	626	581	412	161	58	17	1	11	49	161	439	929	1555	2136	2548	2709	2767	2784
<b>Base</b>	<b>Growing Degree Units for Corn (Monthly)</b>												<b>Growing Degree Units for Corn (Accumulated Monthly)</b>											
<b>50/86</b>	139	160	271	398	593	763	884	850	704	476	312	180	139	299	570	968	1561	2324	3208	4058	4762	5238	5550	5730

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)