

# Climatology of the United States

No. 20

1971-2000

Station: LINCOLNTON 4 W, NC

COOP ID: 314996

Climate Division: NC 5

NWS Call Sign:

Elevation: 900 Feet

Lat: 35°28N

Lon: 81°20W

## 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	50.0	29.4	39.7	78	1966	3	50.6	1974	-6	1985	21	29.0	1977	786	0	.0	.0	15.5	1.2	19.1	.1
Feb	55.0	31.6	43.3	80	1996	27	50.4	1976	0	1958	18	35.5	1978	608	0	.0	.0	18.7	.5	15.7	.0
Mar	63.4	38.8	51.1	86+	1995	23	55.7	1974	6	1993	15	46.5	1996	432	2	.0	.0	28.0	.1	8.4	.0
Apr	72.2	45.7	59.0	91+	1980	23	62.9	1981	23	1992	3	55.2	1983	194	13	.0	.1	29.8	.0	2.3	.0
May	78.7	54.8	66.8	96+	1953	31	70.5	1982	28	1989	8	63.1	1997	56	110	.0	.5	30.9	.0	@	.0
Jun	85.1	62.8	74.0	103	1952	27	79.0	1986	41	1984	1	70.5+	1997	3	272	@	6.3	30.0	.0	.0	.0
Jul	88.5	66.9	77.7	105	1952	29	82.0	1986	50	1988	2	74.7	1979	0	393	.5	12.5	31.0	.0	.0	.0
Aug	86.8	65.7	76.3	105	1983	21	79.6	1987	47	1986	30	73.4	1992	0	348	.2	8.6	31.0	.0	.0	.0
Sep	81.1	59.4	70.3	104	1954	7	74.4	1973	34	1967	30	67.5	1974	18	174	.0	2.9	30.0	.0	.0	.0
Oct	71.8	47.3	59.6	98	1954	6	67.1	1984	23	2001	28	53.5	1988	206	37	.0	.1	30.9	.0	2.0	.0
Nov	61.5	38.7	50.1	89	1964	18	58.1	1985	11	1970	25	44.2	1976	447	1	.0	.0	26.7	.0	9.1	.0
Dec	52.5	31.7	42.1	80	1965	31	50.3	1984	-1	1962	13	33.2	2000	709	0	.0	.0	18.6	.3	17.3	.0
Ann	70.6	47.7	59.2	105+	Aug 1983	21	82.0	Jul 1986	-6	Jan 1985	21	29.0	Jan 1977	3459	1350	.7	31.0	321.1	2.1	73.9	.1

+ 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: 1952-2001

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

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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: LINCOLNTON 4 W, NC**

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**Climate Division: NC 5**

**NWS Call Sign:**

**Elevation: 900 Feet Lat: 35°28N**

**Lon: 81°20W**

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	4.30	4.37	2.66	1974	21	8.50	1978	.43	1981	9.5	7.1	2.9	1.3	1.21	1.62	2.24	2.77	3.30	3.85	4.46	5.17	6.10	7.56	8.92
Feb	3.79	4.23	3.48	1995	16	6.58	1995	.62	1978	8.2	6.1	2.9	1.0	1.09	1.45	1.99	2.47	2.92	3.40	3.93	4.56	5.37	6.64	7.82
Mar	4.83	4.67	3.20	1991	29	9.57	1993	1.18	1985	10.1	7.6	3.1	1.5	1.90	2.34	2.98	3.50	4.00	4.51	5.06	5.69	6.49	7.73	8.85
Apr	3.39	3.05	4.16	1975	29	7.40	2000	.21	1976	8.5	5.8	2.8	.9	.68	.99	1.49	1.94	2.41	2.90	3.46	4.13	5.02	6.45	7.80
May	4.57	4.23	3.32	1976	15	9.19	1984	1.22+	1988	9.9	7.5	3.1	1.3	1.31	1.74	2.40	2.97	3.52	4.10	4.74	5.49	6.47	8.00	9.43
Jun	3.98	3.64	3.74	1980	25	9.25	1995	.64	1986	9.5	6.7	2.8	1.0	1.18	1.56	2.12	2.61	3.09	3.59	4.13	4.78	5.61	6.91	8.12
Jul	3.94	3.98	3.78	1965	11	7.68	1984	.55	1983	10.1	6.8	2.5	1.0	1.04	1.42	1.99	2.49	2.98	3.50	4.07	4.75	5.64	7.04	8.34
Aug	3.82	3.09	3.92	1970	10	9.65	1994	.57	1997	8.9	6.1	2.3	1.1	.79	1.14	1.70	2.21	2.73	3.28	3.90	4.65	5.64	7.21	8.71
Sep	3.96	3.79	4.14	1959	30	8.65	1977	.24	1985	7.6	5.6	2.5	1.1	.77	1.13	1.71	2.25	2.79	3.37	4.03	4.82	5.87	7.56	9.16
Oct	4.20	3.86	3.67	1971	16	12.01	1990	.00	2000	6.4	5.0	2.7	1.6	.25	.65	1.30	1.92	2.57	3.30	4.14	5.18	6.58	8.90	11.15
Nov	3.64	3.57	2.98	1957	19	7.55	1992	.59	1981	8.5	6.1	2.6	.9	1.20	1.54	2.05	2.48	2.90	3.32	3.79	4.34	5.04	6.13	7.14
Dec	3.74	3.86	3.84	1958	28	7.75	1983	.71	1980	9.3	6.7	2.7	1.1	1.11	1.47	2.00	2.46	2.91	3.37	3.89	4.49	5.27	6.49	7.63
Ann	48.16	48.38	4.16	Apr 1975	29	12.01	Oct 1990	.00	Oct 2000	106.5	77.1	32.9	13.8	37.06	39.27	42.07	44.17	46.02	47.80	49.62	51.62	54.02	57.48	60.44

+ 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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**NWS Call Sign:**

**Elevation: 900 Feet**

**Lat: 35°28N**

**Lon: 81°20W**

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	2.8	.0	#	#	14.5	1987	22	20.0	1987	14	1987	22	2	1988	1.1	.8	.3	.1	@	2.1	1.2	.6	@
Feb	1.9	.4	#	0	10.0	1979	18	11.4	1979	10	1979	18	1	1979	.9	.6	.2	.1	@	.8	.2	.1	@
Mar	1.4	.0	#	0	9.2	1993	13	9.2	1993	9	1993	14	1	1993	.4	.4	.3	.1	.0	.6	.4	.2	.0
Apr	#	.0	0	0	#	1989	8	#+	1989	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	.1	.0	#	0	2.5	2000	19	2.5	2000	2	2000	19	#	2000	@	@	.0	.0	.0	@	.0	.0	.0
Dec	.7	.0	#	0	13.0	1971	3	13.0	1971	13	1971	3	1	1971	.2	.1	.1	@	@	.3	.1	@	@
Ann	6.9	.4	N/A	N/A	14.5	Jan 1987	22	20.0	Jan 1987	14	Jan 1987	22	2	Jan 1988	2.6	1.9	.9	.3	@	3.8	1.9	.9	@

+ 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	5/07	5/03	4/29	4/27	4/24	4/21	4/18	4/15	4/10
32	4/27	4/22	4/18	4/15	4/11	4/08	4/05	4/01	3/27
28	4/15	4/09	4/05	4/01	3/29	3/25	3/21	3/17	3/11
24	3/28	3/22	3/18	3/14	3/11	3/08	3/04	2/28	2/22
20	3/16	3/09	3/04	2/28	2/25	2/21	2/17	2/12	2/05
16	3/06	2/26	2/20	2/15	2/10	2/05	1/30	1/24	1/14
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	10/02	10/07	10/10	10/13	10/16	10/19	10/22	10/25	10/30
32	10/09	10/15	10/19	10/22	10/26	10/29	11/01	11/06	11/11
28	10/18	10/25	10/29	11/02	11/06	11/09	11/13	11/18	11/24
24	11/07	11/12	11/15	11/18	11/21	11/23	11/26	11/29	12/04
20	11/16	11/23	11/29	12/03	12/08	12/12	12/17	12/22	12/30
16	11/30	12/09	12/16	12/21	12/27	1/01	1/07	1/14	1/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	194	187	182	178	174	170	166	161	154
32	215	209	204	200	196	193	189	184	178
28	246	238	232	226	221	217	211	205	196
24	273	267	262	258	254	250	246	241	235
20	312	303	296	291	285	280	274	268	258
16	>365	346	333	324	317	310	303	295	284

\* 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)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	786	608	432	194	56	3	0	0	18	206	447	709	3459
60	633	468	288	87	14	0	0	0	3	110	307	560	2470
57	547	386	212	46	4	0	0	0	1	68	230	472	1966
55	489	335	167	27	1	0	0	0	0	47	185	415	1666
50	353	213	82	4	0	0	0	0	0	15	95	285	1047
32	51	9	0	0	0	0	0	0	0	0	0	29	89

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	289	325	593	809	1077	1259	1416	1371	1146	855	544	343	10027
55	13	7	47	146	366	569	703	658	456	189	39	16	3209
57	9	2	29	105	306	509	641	596	397	148	24	11	2777
60	2	0	13	57	223	419	548	503	309	96	11	6	2187
65	0	0	2	13	110	272	393	348	174	37	1	0	1350
70	0	0	0	1	39	143	241	198	70	10	0	0	702

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	114	173	359	573	837	1022	1180	1132	914	613	324	154	114	287	646	1219	2056	3078	4258	5390	6304	6917	7241	7395
45	54	94	233	426	682	872	1025	977	764	460	200	81	54	148	381	807	1489	2361	3386	4363	5127	5587	5787	5868
50	25	42	130	285	527	722	870	822	614	314	111	35	25	67	197	482	1009	1731	2601	3423	4037	4351	4462	4497
55	2	13	62	168	373	572	715	667	465	187	49	13	2	15	77	245	618	1190	1905	2572	3037	3224	3273	3286
60	0	1	24	85	230	422	560	512	321	95	13	0	0	1	25	110	340	762	1322	1834	2155	2250	2263	2263
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	71	120	228	361	540	702	814	785	610	387	198	95	71	191	419	780	1320	2022	2836	3621	4231	4618	4816	4911

(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)