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

COOP ID: 385278

Lon: 83°15W

.1

Station: LONGCREEK, SC

Climate Division: SC 1

NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 49.6 26.6 38.1 77 1949 10 47.1 1974 -8 1985 21 27.9 1977 835 0 .0 .0 17.0 .9 19.1 .1 Jan 53.4 28.7 41.1 78 1981 28 46.4 1976 -5 1958 17 33.6 1978 670 0 .0 .0 19.6 .6 16.1 @ Feb Mar 60.8 35.0 47.9 85 1974 10 52.6 1997 6+ 1993 15 42.8 1971 531 0 .0 .0 28.0 .1 9.4 0. 42.6 1983 7 Apr 69.4 56.0 90 1960 25 60.8 1981 21 1987 51.3 278 .0 .0 29.7 .0 2.7 0. May 76.1 51.7 63.9 95 1953 31 68.1 2000 29 1989 8 59.0 1976 106 70 .0 .3 30.9 .0 .1 .0 100+ 74.9 39+ 3.8 Jun 82.6 59.3 71.0 1964 21 1981 1984 65.0 1972 15 193 .0 30.0 .0 .0 .0 Jul 85.9 63.4 74.7 102+ 1952 29 78.9 1993 38 1957 23 71.7 1979 299 8.7 31.0 .0 .1 .0 .0 77.2 1974 3 84.3 62.3 73.3 101 1983 21 1999 50+ 1979 17 69.2 260 .1 5.7 31.0 .0 .0 .0 Aug 34 Sep 78.9 56.7 67.8 98+ 1954 6 71.8 1998 30 1974 25 63.6 1974 118 .0 1.3 30.0 .0 @ .0 44.2 5 22+ 28 Oct 69.8 57.0 92 1954 63.2 1984 2001 51.6 +1988 268 20 .0 .0 30.9 .0 2.0 .0 35.7 48.4 3 57.1 1985 11+ 1970 25 40.8 1976 500 .0 .0 27.3 .0 .0 Nov 61.1 86+ 1961 1 8.6 Dec 52.3 29.1 40.7 75+ 1971 27 48.2 1984 -2 1962 13 33.3 2000 754 0 .0 .0 20.9 .3 17.8 **(**a) Jul Jul Jan Jan 44.6 56.7 102 +1952 29 78.9 1993 -8 1985 21 27.9 1977 3995 968 .2 19.8 326.3 1.9 75.8

68.7

Ann

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 038-A (1) From the 1971-2000 Monthly Normals

Elevation: 1,660 Feet Lat: 34°48N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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										Pı	ecipi	tation	(incl	nes)												
			P	recip	itatio	on Total	s			M	ean N	lumbo Pays (3	_	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount												
	Medi					Extremes	i.			D	aily Pre	cipitatio	n	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	6.11	5.93	4.55	1996	27	11.37	1978	.90	1981	9.8	7.7	4.4	2.2	1.93	2.51	3.37	4.10	4.82	5.55	6.36	7.31	8.53	10.43	12.19		
Feb	5.26	5.50	4.75	1966	13	8.20	1974	.57	1978	7.1	6.3	3.5	1.7	1.67	2.17	2.90	3.54	4.15	4.78	5.47	6.29	7.34	8.97	10.48		
Mar	6.68	5.87	9.50	1998	9	15.60	1980	1.83	1985	8.5	7.7	4.3	2.3	2.27	2.90	3.83	4.61	5.36	6.13	6.97	7.95	9.21	11.17	12.97		
Apr	4.62	4.01	3.75	1957	5	11.00	1979	1.16	1975	7.1	6.1	3.2	1.5	1.35	1.79	2.45	3.02	3.57	4.15	4.79	5.54	6.52	8.04	9.46		
May	5.46	4.74	6.35	1973	28	17.65	1976	.45	2000	8.8	7.1	3.2	1.6	1.14	1.64	2.44	3.17	3.90	4.69	5.57	6.63	8.04	10.28	12.40		
Jun	5.28	4.83	6.10	1967	4	15.09	1989	.51	1988	9.7	7.7	3.5	1.5	1.18	1.67	2.45	3.14	3.84	4.58	5.41	6.41	7.71	9.80	11.76		
Jul	5.61	5.18	6.00	1948	12	13.50	1985	.00	1986	10.0	7.5	3.9	1.4	1.16	1.95	2.88	3.64	4.36	5.10	5.91	6.86	8.09	10.00	11.78		
Aug	4.81	4.13	4.00	1992	23	12.35	1992	.24	1997	9.4	6.8	2.8	1.4	.82	1.24	1.95	2.61	3.28	4.02	4.85	5.87	7.23	9.42	11.51		
Sep	4.91	4.42	6.00	1977	7	12.94	1975	.00	1984	7.8	5.5	2.3	1.4	.59	1.20	2.03	2.73	3.44	4.19	5.04	6.06	7.40	9.55	11.58		
Oct	4.08	3.87	5.30	1965	1	8.81	1995	.00+	2000	5.7	4.9	2.6	1.4	.00	.95	1.80	2.44	3.03	3.65	4.33	5.08	6.11	7.72	9.22		
Nov	4.84	4.29	4.50	1979	2	10.49	1977	2.00	1984	6.8	5.9	3.3	1.6	1.99	2.44	3.06	3.57	4.06	4.55	5.08	5.68	6.46	7.63	8.70		
Dec	5.29	5.38	4.75	1996	2	11.46	1983	.65	1980	8.8	7.2	3.6	1.5	1.25	1.74	2.52	3.21	3.90	4.62	5.44	6.41	7.68	9.71	11.61		
Ann	62.95	63.53	9.50	Mar 1998	9	17.65	May 1976	.00+	Oct 2000	99.5	80.4	40.6	19.5	43.07	46.86	51.75	55.48	58.81	62.03	65.38	69.09	73.60	80.18	85.89		

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[#] 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: 1948-2001

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

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COOP ID: 385278

Station: LONGCREEK, SC

Climate Division: SC 1 NWS Call Sign:

Elevation: 1,660 Feet Lat: 34°48N Lon: 83°15W

										Snov	w (incl	hes)														
						Sno	ow To	tals							Mean Number of Days (1)											
	Mean	s/Medi	ans (1))					Extre	mes (2)				ow Fa		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	.0	#	0	6.0	1991	25	8.5	1977	#	1992	19	#	1992	.3	.3	.2	.1	.0	.0	.0	.0	.0			
Feb	1.3	.0	#	0	6.0	1980	9	10.5	1980	8	1979	19	#+	1993	.3	.3	.3	.1	.0	.2	.1	.0	.0			
Mar	1.3	.0	#	0	10.0	1971	26	10.0	1971	3	1993	14	#	1993	.2	.2	.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	#	1976	14	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Ann	3.8	.0	N/A	N/A	10.0	Mar 1971	26	10.5	Feb 1980	8	Feb 1979	19	#+	Mar 1993	.8	.8	.6	.3	.1	.3	.1	.0	.0			

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[@] 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) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .70 .80 .90 36 5/19 5/12 5/07 5/03 4/29 4/25 4/21 4/15 4/09 32 4/24 4/19 4/12 4/30 4/16 4/08 4/05 3/31 3/25 28 4/15 4/09 4/04 3/31 3/28 3/24 3/20 3/15 3/09 2/19 24 4/03 3/26 3/21 3/17 3/12 3/08 3/04 2/26 20 3/19 3/10 3/04 2/27 2/22 2/17 2/12 2/05 1/28 3/02 16 3/11 2/24 2/19 2/15 2/10 2/05 1/30 1/21 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 10/02 10/06 10/09 10/11 10/14 10/16 10/19 10/22 10/26 32 10/05 10/12 10/18 10/22 10/26 10/30 11/04 11/09 11/16 28 10/18 10/25 10/30 11/03 11/07 11/11 11/15 11/20 11/26 24 11/05 11/10 11/14 11/18 11/21 11/25 11/28 12/02 12/08 20 11/19 11/26 12/01 12/06 12/10 12/14 12/18 12/24 12/31 12/02 12/24 12/30 1/27 16 12/11 12/18 1/05 1/11 1/18 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 183 177 172 167 162 157 152 143 36 191 32 227 216 209 202 196 190 184 177 166

229

259

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0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

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Derived from 1971-2000 serially complete daily data

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Complete documentation available from:

211

241

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^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	835	670	531	278	106	15	1	3	34	268	500	754	3995		
60	680	530	379	154	39	2	0	0	7	155	359	599	2904		
57	594	446	293	97	17	0	0	0	2	104	280	510	2343		
55	536	391	240	67	9	0	0	0	1	77	232	453	2006		
50	395	262	129	20	1	0	0	0	0	29	134	314	1284		
32	67	13	0	0	0	0	0	0	0	0	2	31	113		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	255	267	492	719	988	1168	1321	1280	1074	775	493	300	9132
55	10	0	19	96	284	478	608	567	385	138	33	9	2627
57	7	0	10	66	230	418	546	505	326	104	21	4	2237
60	0	0	3	33	159	330	453	412	241	62	10	0	1703
65	0	0	0	7	70	193	299	260	118	20	1	0	968
70	0	0	0	0	21	88	158	126	37	4	0	0	434

										Gro	wing l	Degre	e Uni	ts (2)														
Base		Growing Degree Units (Monthly)														Growing Degree Units (Accumulated Monthly)												
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
40	109	164	334	536	782	958	1101	1078	879	582	314	155	109	273	607	1143	1925	2883	3984	5062	5941	6523	6837	6992				
45	50	81	208	388	628	808	946	923	729	427	192	74	50	131	339	727	1355	2163	3109	4032	4761	5188	5380	5454				
50	21	32	109	252	475	658	791	768	579	284	100	31	21	53	162	414	889	1547	2338	3106	3685	3969	4069	4100				
55	0	7	48	141	322	508	636	613	429	161	43	7	0	7	55	196	518	1026	1662	2275	2704	2865	2908	2915				
60	0	0	12	63	186	360	481	459	286	67	5	0	0	0	12	75	261	621	1102	1561	1847	1914	1919	1919				
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)						
50/86	66 112 216 338 503 647 757 745 579 361 194 92												66	178	394	732	1235	1882	2639	3384	3963	4324	4518	4610				

(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

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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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