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: 384197

Lon: 80°25W

Station: HOLLY HILL, SC

Climate Division: SC 6 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 58.5 35.5 47.0 81 +2000 4 58.7 1974 3 1985 21 36.4 1977 569 0 .0 .0 25.4 11.5 Jan 41.5 62.1 37.2 49.7 1997 28 57.9 1990 9 1973 12 1978 431 1 .0 .0 24.6 .2 9.1 0. Feb 86+ Mar 69.6 43.7 56.7 90 1982 20 65.0 1997 9 1980 3 52.0 1996 276 17 .0 @ 30.3 @ 3.0 0. 51.4 22 59.2 1983 Apr 77.0 64.2 94 +1988 68.2 1999 28 +1987 85 61 .0 1.1 30.0 .0 .4 .0 May 83.7 59.8 71.8 101 2000 25 76.2 2000 35 1963 2 67.8 1976 10 218 (a) 5.5 31.0 .0 0. .0 78.0 1977 12 48 74.0 .5 13.8 Jun 88.9 67.0 103+ 81.5 1981 1984 1972 0 389 30.0 .0 .0 .0 Jul 92.2 70.9 81.6 20 86.0 55+ 1975 77.6 1975 512 1.5 17.0 31.0 .0 .0 106 +1986 1986 0 .0 1974 90.4 70.1 80.3 104 1980 1 84.3 1987 54 1999 31 77.9 0 474 .7 17.6 31.0 .0 .0 .0 Aug 37 Sep 85.9 65.7 75.8 101 1980 16 80.3 1980 1967 30 72.9 1976 1 325 .1 7.3 30.0 .0 .0 .0 54.5 27 +1976 Oct 77.8 66.2 93+ 1986 5 71.6 1984 1967 30 61.1 80 116 .0 .3 31.0 .0 .2 .0 69.2 44.3 91 2 64.5 1985 18+ 1970 25 50.3 1976 268 20 .0 .0 29.6 .0 3.7 .0 Nov 56.8 1961 Dec 61.1 37.5 49.3 82 1984 30 58.7 1971 1 2000 31 38.8 1989 496 10 .0 .0 27.1 .1 10.4 .0 Jul Jul Dec Jan 53.1 64.8 106 +1986 20 86.0 1986 2000 31 36.4 1977 2216 2143 2.8 62.6 351.0 .5 38.3 .0 76.4 Ann

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

Issue Date: February 2004 031-A

(1) From the 1971-2000 Monthly Normals

Elevation: 100 Feet Lat: 33°20N

- (2) Derived from station's available digital record: 1957-2001
- (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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Station: HOLLY HILL, SC

COOP ID: 384197

Climate Division: SC 6 NWS Call Sign: Elevation: 100 Feet Lat: 33°20N Lon: 80°25W

										Pı	recipi	tation	(incl	nes)										
	Mo	Precipitation Totals Means/									ean N	Jumbo Pays (3		Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels										
		ans(1)				Extremes	S		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	4.01	3.73	2.75	2000	24	6.65	1993	.92	1990	9.9	7.5	2.6	1.1	1.38	1.76	2.31	2.78	3.23	3.69	4.19	4.78	5.53	6.69	7.76
Feb	3.58	3.26	4.03	1973	2	7.38	1998	1.40	1989	8.7	5.8	2.5	1.0	1.20	1.54	2.03	2.46	2.86	3.28	3.74	4.27	4.96	6.02	7.00
Mar	4.23	3.93	4.75	1959	6	10.96	1983	1.14	1985	9.4	6.7	3.2	1.2	1.36	1.77	2.36	2.86	3.35	3.86	4.41	5.06	5.89	7.18	8.38
Apr	3.19	3.31	2.98	1997	28	6.85	1998	.04	1972	7.5	5.3	2.1	.8	.42	.68	1.13	1.58	2.05	2.56	3.16	3.90	4.90	6.53	8.12
May	3.96	3.18	4.60	1969	19	10.04	1976	.65	2000	9.9	6.9	2.4	.9	1.01	1.39	1.96	2.47	2.97	3.50	4.08	4.78	5.69	7.13	8.47
Jun	5.51	4.67	5.08	1973	11	16.92	1973	1.39	1984	11.0	7.7	3.0	1.5	1.58	2.10	2.89	3.58	4.24	4.94	5.71	6.62	7.80	9.65	11.37
Jul	5.12	4.56	3.67	1982	14	9.62	1984	1.41+	1988	11.2	8.1	3.4	1.4	1.59	2.08	2.80	3.42	4.03	4.65	5.33	6.13	7.17	8.78	10.28
Aug	5.79	5.59	4.35	1964	29	10.89	1995	1.25	1997	10.4	7.7	3.3	1.3	1.91	2.46	3.26	3.95	4.61	5.29	6.04	6.91	8.03	9.77	11.38
Sep	4.49	4.11	5.15	1959	29	11.41	1987	1.01	1985	10.0	6.6	2.9	1.2	.89	1.29	1.95	2.56	3.17	3.83	4.57	5.46	6.65	8.55	10.35
Oct	3.30	2.46	4.96	1990	11	13.90	1990	.00	2000	7.0	4.6	2.0	1.0	.16	.45	.94	1.42	1.94	2.52	3.21	4.06	5.22	7.15	9.04
Nov	2.38	1.94	3.22	1985	22	6.48	1985	.60	1988	7.5	4.6	1.7	.6	.57	.79	1.14	1.45	1.76	2.08	2.45	2.88	3.45	4.34	5.19
Dec	3.75	3.53	4.56	1985	13	7.16	1994	.48	1984	8.7	5.8	2.4	1.2	1.01	1.37	1.91	2.38	2.85	3.34	3.88	4.53	5.37	6.68	7.91
Ann	49.31	49.94	5.15	Sep 1959	29	16.92	Jun 1973	.00	Oct 2000	111.2	77.3	31.5	13.2	38.87	40.97	43.62	45.61	47.34	49.01	50.71	52.58	54.82	58.04	60.78

⁺ 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: 1957-2001

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

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Station: HOLLY HILL, SC

Climate Division: SC 6 NWS Call Sign:

COOP ID: 384197 Elevation: 100 Feet Lat: 33°20N Lon: 80°25W

										Snov	w (incl	hes)													
						Sno	ow To	tals									Mea	n Nu	mber	of Da	ys (1)				
	Mean	s/Medi	ians (1)	ı	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	.0	#	0	2.6	2000	24	2.8	2000	#	1983	21	#	1983	.2	.1	.0	.0	.0	.0	.0	.0	.0		
Feb	.2	.0	0	0	1.9	1973	10	1.9	1973	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Mar	.0	.0	#	0	.0	0	0	.0	0	2	1980	2	#	1980	.0	.0	.0	.0	.0	.0	.0	.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	.1	.0	0	0	1.0	1980	27	1.0	1980	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Ann	.5	.0	N/A	N/A	2.6	Jan 2000	24	2.8	Jan 2000	2	Mar 1980	2	#+	Jan 1983	.4	.3	.0	.0	.0	.0	.0	.0	.0		

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

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[@] 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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				Freez	e Data							
			Spri	ng Freeze D	ates (Month/	Day)						
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)				
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	4/18	4/12	4/08	4/04	4/01	3/28	3/24	3/20	3/14			
32	4/10	4/03	3/29	3/25	3/21	3/17	3/13	3/08	3/01			
28	3/27	3/18	3/12	3/06	3/01	2/24	2/18	2/12	2/02			
24	3/07	2/27	2/21	2/16	2/12	2/07	2/02	1/28	1/20			
20	2/28	2/19	2/12	2/06	2/01	1/26	1/18	1/04	0/00			
16	2/13	2/02	1/23	1/11	0/00	0/00	0/00	0/00	0/00			
1		1	Fal	l Freeze Da	tes (Month/D	ay)	1	1	•			
Tomm (F)	Probability of earlier date in fall (heginning Aug 1) than indicated(*)											
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	10/18	10/24	10/29	11/02	11/05	11/09	11/13	11/18	11/24			
32	11/01	11/05	11/09	11/12	11/15	11/18	11/21	11/24	11/29			
28	11/10	11/17	11/23	11/27	12/01	12/05	12/10	12/15	12/22			
24	11/24	12/03	12/10	12/16	12/21	12/27	1/01	1/08	1/17			
20	12/09	12/20	12/29	1/05	1/13	1/21	1/31	2/18	0/00			
16	12/26	1/09	1/20	2/02	2/23	0/00	0/00	0/00	0/00			
				Freeze F	ree Period			1				
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)					
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	245	235	229	223	218	213	207	201	192			
32	263	254	248	243	238	233	228	222	213			
28	308	297	288	281	274	268	261	252	241			
24	351	333	324	316	309	303	296	288	277			
20	>365	>365	>365	>365	346	331	322	314	304			
16	>365	>365	>365	>365	>365	>365	>365	>365	336			

^{*} 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

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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	569	431	276	85	10	0	0	0	1	80	268	496	2216		
60	429	302	160	26	1	0	0	0	0	30	158	358	1464		
57	352	230	107	10	0	0	0	0	0	14	107	284	1104		
55	305	188	78	5	0	0	0	0	0	8	80	240	904		
50	207	105	28	0	0	0	0	0	0	1	31	151	523		
32	19	1	0	0	0	0	0	0	0	0	0	8	28		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	484	496	764	966	1231	1379	1535	1497	1314	1059	742	545	12012
55	57	38	129	280	518	689	822	784	624	354	132	64	4491
57	42	25	96	226	456	629	760	722	564	298	99	46	3963
60	26	12	56	152	364	539	667	629	474	221	60	27	3227
65	0	1	17	61	218	389	512	474	325	116	20	10	2143
70	0	0	3	14	102	244	357	319	184	46	4	0	1273

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (N	Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec										Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
40	276	331	567	748	992	1147	1262	1254	1072	810	533	325	276	607	1174	1922	2914	4061	5323	6577	7649	8459	8992	9317
45	165	217	416	599	837	997	1107	1099	922	655	388	206	165	382	798	1397	2234	3231	4338	5437	6359	7014	7402	7608
50	84	124	278	450	682	847	952	944	772	503	259	120	84	208	486	936	1618	2465	3417	4361	5133	5636	5895	6015
55	35	58	162	308	527	697	797	789	622	353	152	60	35	93	255	563	1090	1787	2584	3373	3995	4348	4500	4560
60	7	23	82	182	373	547	642	634	472	214	69	27	7	30	112	294	667	1214	1856	2490	2962	3176	3245	3272
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	thly)			l .			Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	169	215	361	482	668	792	878	868	745	528	333	206	169	384	745	1227	1895	2687	3565	4433	5178	5706	6039	6245

(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