## 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: 097808

Lon: 81°17W

Station: SAPELO ISLAND, GA

Climate Division: GA 9 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 60.1 41.9 51.0 82 1975 30 63.8 1974 3 1985 21 42.3 1977 453 4 .0 .0 27.8 @ 6.6 Jan 4.3 62.1 43.7 52.9 86 1962 28 60.5 1990 10 1995 9 43.9 1978 348 9 .0 .0 26.2 .1 0. Feb Mar 68.0 49.9 59.0 88+ 1967 12 66.4 1997 20 1980 3 53.8 1981 221 33 .0 .0 30.6 .0 1.0 0. 29 33 62.2 1987 Apr 74.5 56.2 65.4 95 1989 70.5 1999 1987 62 73 .0. .4 30.0 .0 .0 .0 May 81.0 64.7 72.9 99 1962 21 77.5 1991 45 1992 8 69.5 1981 7 250 .0 2.6 31.0 .0 .0 .0 71.1 30 84.2 51 75.1 9.4 Jun 86.4 78.8 101 +1998 1998 1984 1972 0 413 .2 30.0 .0 .0 .0 Jul 89.8 73.7 81.8 105 20 84.2 1993 1977 5 78.9 1975 .5 17.3 31.0 0. 1986 60 0 520 .0 .0 88.3 73.3 80.8 102 +1999 2 83.7 1999 58 1978 21 78.1 1976 0 490 .1 12.5 31.0 .0 .0 .0 Aug 0 Sep 84.5 70.3 77.4 97+ 1999 6 79.6 1998 48 1967 30 74.0 1984 373 .0 4.4 30.0 .0 .0 .0 77.2 5 74.4 37+ 63.4 1987 Oct 60.9 69.1 94 +1986 1985 1989 21 39 164 .0 .4 31.0 .0 .0 .0 69.7 51.5 89 68.1 1985 26 1959 30 51.6 1976 187 55 .0 .0 29.9 .0 .0 Nov 60.6 1961 1 .6 Dec 61.7 44.1 52.9 84 1972 16 59.9 1971 9 1983 25 45.2 1989 387 12 .0 .0 28.9 .1 4.2 0. Jul Jun Jan Jan 75.3 58.4 66.9 105 1986 20 84.2+ 1998 3 1985 21 42.3 1977 1704 2396 .8 47.0 357.4 .2 16.7 .0 Ann

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

Issue Date: February 2004 064-A

(1) From the 1971-2000 Monthly Normals

10 Feet

**Elevation:** 

Lat: 31°24N

- (2) Derived from station's available digital record: 1957-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>+</sup> Also occurred on an earlier date(s)

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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Station: SAPELO ISLAND, GA

Climate Division: GA 9 NWS Call Sign: Elevation: 10 Feet Lat: 31°24N Lon: 81°17W

										Pı	ecipi	tation	(incl	nes)										
	Me	ans/	P	recipi	tatio	on Total					of D	Jumbo	)	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										
	Medi	ans(1)				Extremes	•			Daily Precipitation				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	4.07	3.56	5.04	1983	21	12.74	1987	.98	1989	9.6	6.7	2.8	1.2	.98	1.36	1.95	2.48	3.01	3.57	4.19	4.93	5.90	7.44	8.89
Feb	3.53	2.99	4.26	1998	17	9.10	1998	.70	1989	8.3	5.6	2.6	1.1	.91	1.24	1.75	2.21	2.65	3.12	3.65	4.27	5.08	6.36	7.56
Mar	3.97	3.31	3.86	1980	13	9.50	1980	.72	1999	8.4	5.6	2.7	1.2	1.06	1.44	2.01	2.52	3.01	3.53	4.11	4.79	5.68	7.07	8.38
Apr	3.01	2.57	3.13	1982	26	8.33	1982	.42+	1986	6.2	4.4	2.4	.9	.47	.72	1.16	1.58	2.01	2.48	3.02	3.68	4.56	6.00	7.37
May	2.81	2.56	3.51	1981	27	6.86	1991	.00	1987	7.3	4.6	2.0	.8	.22	.52	.98	1.39	1.82	2.28	2.82	3.47	4.35	5.77	7.15
Jun	4.98	4.88	8.07	1984	23	12.04	1982	.58	1990	10.1	7.4	2.9	1.5	1.24	1.71	2.44	3.08	3.71	4.38	5.13	6.02	7.18	9.02	10.74
Jul	4.98	4.68	4.52	1967	17	10.14	1971	.59	1993	11.8	7.6	2.7	1.3	1.30	1.77	2.49	3.13	3.76	4.42	5.15	6.02	7.15	8.93	10.60
Aug	7.48	8.01	6.40	1960	25	15.61	1976	.80	1994	12.2	9.0	4.4	2.4	1.90	2.61	3.70	4.66	5.61	6.61	7.72	9.04	10.77	13.50	16.05
Sep	7.30	6.47	4.70+	1984	28	19.45	1989	1.13	1980	11.7	8.4	4.2	2.3	1.54	2.21	3.29	4.26	5.24	6.28	7.46	8.87	10.74	13.72	16.54
Oct	3.85	2.71	6.80	1992	4	12.94	1994	.11	2000	7.2	4.7	2.2	1.1	.37	.64	1.17	1.70	2.28	2.94	3.72	4.70	6.04	8.26	10.44
Nov	2.87	2.50	4.37	1986	17	7.66	1986	.21	1998	7.2	4.0	1.7	.9	.43	.67	1.08	1.48	1.89	2.34	2.87	3.50	4.36	5.76	7.10
Dec	2.99	2.53	3.01	1962	1	7.46	1997	.29	1984	8.4	5.0	2.2	.8	.47	.72	1.15	1.57	1.99	2.46	3.00	3.65	4.53	5.96	7.32
Ann	51.84	51.58	8.07	Jun 1984	23	19.45	Sep 1989	.00	May 1987	108.4	73.0	32.8	15.5	37.82	40.56	44.06	46.71	49.05	51.32	53.65	56.22	59.33	63.82	67.70

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1957-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 097808** 

Station: SAPELO ISLAND, GA

Climate Division: GA 9 NWS Call Sign: Elevation: 10 Feet Lat: 31°24N Lon: 81°17W

										Snov	w (incl	hes)													
						Sno	ow To	tals									Mea	ın Nu	mber	of Da	<b>ys</b> (1)				
	Mean	s/Medi	ians (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	#	1977	31	#	1977	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Feb	.0	.0	#	0	.5	1973	10	.5	1973	1	1973	10	#	1973	@	.0	.0	.0	.0	@	.0	.0	.0		
Mar	.0	.0	0	0	.7	1986	1	.7	1986	0	0	0	0	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	.2	.0	0	0	2.9	1989	23	4.7	1989	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Ann	.2	.0	N/A	N/A	2.9	Dec 1989	23	4.7	Dec 1989	1	Feb 1973	10	#	Feb 1973	.1	.1	.0	.0	.0	@	.0	.0	.0		

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**Climate Division: GA 9** 

**Elevation:** Lat: 31°24N **NWS Call Sign:** 10 Feet Lon: 81°17W

				Freez	e Data									
			Spri	ng Freeze D	ates (Month	/Day)								
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated(	(*)						
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	4/01	3/25	3/19	3/15	3/11	3/07	3/03	2/26	2/19					
32	3/18	3/10	3/05	2/28	2/24	2/19	2/14	2/09	2/01					
28	3/06	2/26	2/20	2/15	2/10	2/05	1/31	1/24	1/10					
24	2/25	2/15	2/07	1/31	1/24	1/16	1/04	0/00	0/00					
20	2/03	1/21	1/07	0/00	0/00	0/00	0/00	0/00	0/00					
16	1/19	12/29	0/00	0/00	0/00	0/00	0/00	0/00	0/00					
1		1	Fa	ll Freeze Da	tes (Month/I	Day)	•	1						
To (E)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)													
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	11/05	11/11	11/15	11/19	11/22	11/26	11/30	12/04	12/10					
32	11/14	11/23	11/29	12/04	12/09	12/14	12/20	12/26	1/03					
28	12/01	12/11	12/19	12/26	1/01	1/07	1/14	1/24	2/10					
24	12/17	12/29	1/07	1/15	1/23	2/01	2/15	0/00	0/00					
20	1/03	1/19	2/06	0/00	0/00	0/00	0/00	0/00	0/00					
16	1/12	2/03	0/00	0/00	0/00	0/00	0/00	0/00	0/00					
		-		Freeze F	ree Period									
Toman (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	)						
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	282	273	267	261	256	250	245	238	229					
32	323	311	302	295	288	281	274	265	253					
28	>365	>365	339	327	318	311	304	296	286					
24	>365	>365	>365	>365	>365	>365	339	326	314					
20	>365	>365	>365	>365	>365	>365	>365	>365	358					
16	>365	>365	>365	>365	>365	>365	>365	>365	>365					

<sup>\*</sup> 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.

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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	453	348	221	62	7	0	0	0	0	39	187	387	1704		
60	330	228	123	15	0	0	0	0	0	11	103	256	1066		
57	265	168	79	5	0	0	0	0	0	4	64	191	776		
55	227	135	55	2	0	0	0	0	0	2	45	154	620		
50	146	67	19	0	0	0	0	0	0	0	15	80	327		
32	10	0	0	0	0	0	0	0	0	0	0	0	10		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	599	585	835	1001	1266	1403	1543	1513	1363	1149	858	648	12763
55	103	77	177	313	553	713	830	800	673	438	213	89	4979
57	78	54	138	256	491	653	768	738	613	378	172	64	4403
60	51	29	90	176	398	563	675	645	523	291	121	35	3597
65	4	9	33	73	250	413	520	490	373	164	55	12	2396
70	3	0	9	17	127	265	365	335	225	71	19	1	1437

	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	367	405	615	775	1027	1169	1302	1271	1133	907	640	432	367	772	1387	2162	3189	4358	5660	6931	8064	8971	9611	10043
45	238	272	465	625	872	1019	1147	1116	983	752	491	294	238	510	975	1600	2472	3491	4638	5754	6737	7489	7980	8274
50	137	161	321	475	717	869	992	961	833	598	347	178	137	298	619	1094	1811	2680	3672	4633	5466	6064	6411	6589
55	64	80	192	329	562	719	837	806	683	443	221	95	64	144	336	665	1227	1946	2783	3589	4272	4715	4936	5031
60	27	26	88	196	408	569	682	651	533	296	117	41	27	53	141	337	745	1314	1996	2647	3180	3476	3593	3634
Base		•		Gro	wing De	gree Unit	s for Co	rn (Mont	thly)	•					Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	204	226	364	494	708	830	922	912	815	605	393	243	204	430	794	1288	1996	2826	3748	4660	5475	6080	6473	6716

(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