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: 099466

Station: WINDER 1 SSE, GA

Climate Division: GA 2

NWS Call Sign:

Elevation: 960 Feet Lat: 33°59N Lon: 83°43W

	Month Daily Max Daily Min Mean Highest Daily(2) Year Day Mean Month(1) Mean Year Day Month(1) Mean Year Day Month(1) Mean Year Day Month(1) Mean Year Mean Heating Cooling Series Series Series Series Series Series Series Series Day Month(1) Mean Year Mean Heating Mean Cooling Series Series																				
	Mea	n (1)						Extr	emes						•		Mean	Numb	er of I	Days (3)	
Month		Daily Min Mean Highest Daily(2) Year Day Month(1) Mean Year Lowest Daily(2) Year Day					Day	Month(1)	Year	Heating	Cooling	>=	>=	>=	<=	<=	Min <= 0				
Jan	49.7	30.7	40.2	78+	1975	31	51.4	1974	-8	1985	21	29.3	1977	769	0	.0	.0	19.5	.6	16.8	.1
Feb	55.2	32.3	43.8	79	1989	16	50.3	1990	1	1958	17	36.5	1978	596	0	.0	.0	20.8	.4	12.9	.0
Mar	63.2	38.8	51.0	87	1974	10	58.9	1997	5	1980	3	44.6	1971	440	6	.0	.0	29.2	@	6.7	.0
Apr	71.6	45.2	58.4	94	1986	27	63.2	1981	24	1982	7	53.5	1983	210	12	.0	.1	29.9	.0	1.4	.0
May	78.6	54.1	66.4	97	1962	22	70.6	1975	33+	1963	2	62.6	1997	62	105	.0	1.3	30.9	.0	.0	.0
Jun	85.1	62.5	73.8	101	1964	21	77.9	1981	40	1972	1	69.7	1997	4	267	.1	8.7	30.0	.0	.0	.0
Jul	88.0	66.7	77.4	104	1983	23	81.3	1986	51	1980	1	73.4	1984	0	383	.8	15.9	31.0	.0	.0	.0
Aug	86.7	66.1	76.4	103	1983	22	80.5	1999	52+	1964	14	73.5	1981	0	354	.4	11.1	31.0	.0	.0	.0
Sep	80.6	60.4	70.5	100	1957	1	74.3	1998	34	1967	30	65.1	1983	19	184	.0	3.4	30.0	.0	.0	.0
Oct	71.1	49.0	60.1	89+	1986	4	66.8	1984	24+	1962	27	55.1	1988	189	35	.0	.0	30.9	.0	.6	.0
Nov	61.7	40.0	50.9	87	1961	2	59.0	1985	13	1970	24	45.3	1976	428	2	.0	.0	28.2	.0	6.8	.0
Dec	52.5	33.2	42.9	76+	1991	1	51.7	1984	-4	1962	13	35.5	2000	687	0	.0	.0	22.2	.2	14.3	@
Ann	70.3	48.3	59.3	104	Jul 1983	23	81.3	Jul 1986	-8	Jan 1985	21	29.3	Jan 1977	3404	1348	1.3	40.5	333.6	1.2	59.5	.1

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 080-A

- (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

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

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Climate Division: GA 2 NWS Call Sign: Elevation: 960 Feet Lat: 33°59N Lon: 83°43W

										Pı	ecipi	tation	(incl	nes)										
	Mea	ans/	P	recip	itatio	on Total						ays (3)	Proba	ability th		nonthly/	annual j	precipita ated am	nount	ies (1)		less tha	ın the
	Medi	ans(1)				Extremes	3			D	aily Pre	cipitatio	n		Th	ese value	s were det	termined	from the	incomplet	e gamma	distributi	on	
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	5.32	5.41	3.01	1987	19	10.26	1996	.83	1981	10.0	7.9	3.9	2.0	1.93	2.43	3.15	3.75	4.33	4.92	5.56	6.31	7.26	8.73	10.07
Feb	4.39	3.91	3.54	1961	25	9.83	1990	.75	1978	7.6	6.1	3.3	1.4	1.32	1.74	2.36	2.90	3.42	3.97	4.56	5.27	6.18	7.60	8.91
Mar	5.48	4.65	4.80	1990	17	12.76	1980	1.19	1985	9.0	7.5	3.8	1.8	1.62	2.14	2.92	3.60	4.26	4.94	5.69	6.58	7.73	9.53	11.20
Apr	3.87	3.48	4.30	1998	9	10.55	1998	.57	1992	7.2	5.4	2.8	1.2	.88	1.24	1.81	2.32	2.83	3.36	3.97	4.69	5.64	7.15	8.57
May	3.94	3.66	5.73	1966	27	9.93	1976	.94	1988	7.8	5.8	2.5	1.3	1.05	1.42	1.99	2.49	2.98	3.50	4.07	4.75	5.64	7.04	8.34
Jun	3.78	3.33	3.70	1963	27	10.67	1989	.83	1988	7.8	5.9	2.7	1.1	.87	1.22	1.77	2.27	2.77	3.29	3.88	4.59	5.51	6.98	8.37
Jul	4.02	3.85	3.98	1956	16	10.75	1984	.70	1986	9.0	7.2	3.0	1.2	.64	.98	1.57	2.12	2.69	3.32	4.03	4.90	6.07	7.96	9.78
Aug	3.71	2.98	5.05	1969	23	8.73	1992	.75	1980	8.1	5.9	2.5	1.0	.89	1.23	1.77	2.26	2.74	3.24	3.81	4.49	5.38	6.78	8.10
Sep	3.98	3.50	4.32	1956	26	8.58	1997	.23	1984	6.9	5.8	2.8	1.1	.73	1.08	1.67	2.21	2.76	3.35	4.03	4.85	5.93	7.68	9.35
Oct	3.74	3.59	4.35	1995	5	10.09	1995	.19	1991	5.5	4.6	2.5	1.3	.41	.70	1.22	1.74	2.30	2.92	3.66	4.57	5.81	7.87	9.87
Nov	3.63	3.42	3.57	1948	28	7.49	1977	1.10	1981	6.7	5.4	2.6	1.4	1.51	1.84	2.31	2.69	3.05	3.42	3.81	4.26	4.83	5.71	6.50
Dec	3.77	3.10	2.98	1972	15	9.13	1972	.61	1985	8.2	6.2	2.5	1.1	.91	1.26	1.81	2.30	2.79	3.30	3.88	4.56	5.46	6.88	8.22
Ann	49.63	52.05	5.73	May 1966	27	12.76	Mar 1980	.19	Oct 1991	93.8	73.7	34.9	15.9	36.01	38.67	42.06	44.63	46.90	49.10	51.36	53.86	56.88	61.26	65.03

⁺ 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: 099466

Lon: 83°43W

Station: WINDER 1 SSE, GA

Climate Division: GA 2 NWS Call Sign: Elevation: 960 Feet

		II Fall Depth Depth Depth Snow Snow Snow Snow Snow Snow Snow Snow																					
		Same Same															Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa				Snow Depth = Thresholds		
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	.5	.0	#	0	3.5	1988	7	5.5	1987	2	1988	6	#+	1996	.2	.2	.2	.0	.0	.0	.0	.0	.0
Feb	#	.0	0	0	#	1984	28	#	1984	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.2	.0	#	0	2.0	1971	26	2.0	1971	2	1971	26	#	1971	.1	.1	.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	2.0	2000	19	2.0	2000	2	2000	19	#+	2000	.1	.1	.0	.0	.0	@	.0	.0	.0
Ann	.9	.0	N/A	N/A	3.5	Jan 1988	7	5.5	Jan 1987	2+	Dec 2000	19	#+	Dec 2000	.4	.4	.2	.0	.0	@	.0	.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

Lat: 33°59N

[@] 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

NWS Call Sign:

Climate Division: GA 2

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Lon: 83°43W

Lat: 33°59N

Station: WINDER 1 SSE, GA 1971-2000

Elevation: 960 Feet

				Freez	e Data				•				
			Spri	ng Freeze D	ates (Month/	Day)							
Probability of later date in spring (thru Jul 31) than indicated(*) 10													
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	5/05	4/29	4/25	4/22	4/19	4/16	4/12	4/08	4/03				
32	4/19	4/14	4/10	4/06	4/03	3/30	3/27	3/23	3/17				
28	4/10	4/04	3/30	3/26	3/22	3/18	3/14	3/09	3/03				
24	3/24	3/16	3/10	3/04	2/27	2/22	2/17	2/11	2/02				
20	3/11	3/02	2/24	2/19	2/14	2/10	2/04	1/29	1/21				
16	3/02	2/21	2/14	2/08	2/03	1/28	1/22	1/13	12/29				
•			Fal	l Freeze Da	tes (Month/D	ay)		•	•				
To (E)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)					
temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	10/07	10/11	10/15	10/17	10/20	10/23	10/26	10/29	11/03				
32	10/13	10/20	10/24	10/28	11/01	11/05	11/09	11/13	11/20				
28	10/29	11/05	11/09	11/13	11/16	11/20	11/24	11/28	12/05				
24	11/12	11/20	11/26	12/01	12/06	12/11	12/16	12/22	12/30				
20	12/02	12/10	12/17	12/22	12/27	12/31	1/06	1/12	1/20				
16	12/04	12/14	12/21	12/27	1/01	1/07	1/14	1/22	2/07				
			•	Freeze F	ree Period	•		•	•				
Tomn (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)						
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	205	197	192	188	184	179	175	170	162				
32	234	226	221	216	212	207	203	197	189				
28	267	257	250	244	239	233	227	220	211				
24	313	302	294	287	281	275	268	260	249				
20	349	336	327	320	314	307	300	292	281				
16	>365	>365	346	332	323	317	310	303	294				

^{*} 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 do

Complete documentation available from:

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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	769	596	440	210	62	4	0	0	19	189	428	687	3404					
60	620	456	302	102	17	0	0	0	3	94	290	533	2417					
57	532	375	229	57	6	0	0	0	1	56	216	448	1920					
55	475	324	187	36	2	0	0	0	0	37	173	391	1625					
50	342	203	102	8	0	0	0	0	0	10	89	261	1015					
32	50	7	0	0	0	0	0	0	0	0	0	21	78					

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	304	335	589	792	1065	1253	1406	1377	1155	869	565	357	10067
55	16	8	63	139	354	563	693	664	465	192	48	14	3219
57	11	3	43	100	296	503	631	602	406	149	31	9	2784
60	6	0	22	54	214	413	538	509	318	95	15	2	2186
65	0	0	6	12	105	267	383	354	184	35	2	0	1348
70	0	0	0	1	37	139	232	203	81	8	0	0	701

			Growing Degree Units (2) Base Growing Degree Units (Monthly) Growing Degree Units (Accumulated Monthly)																					
Base					Growing	g Degree	Units (N	(Ionthly)					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	160	226	421	611	870	1046	1189	1157	955	670	387	205	160	386	807	1418	2288	3334	4523	5680	6635	7305	7692	7897
45	81 132 285 463 715 896 1034 1002 805 515 261											111	81	213	498	961	1676	2572	3606	4608	5413	5928	6189	6300
50	33 66 171 321 560 746 879 847 655 364 151											53	33	99	270	591	1151	1897	2776	3623	4278	4642	4793	4846
55	6	22	83	193	406	596	724	692	505	229	73	24	6	28	111	304	710	1306	2030	2722	3227	3456	3529	3553
60	0 0 1 32 97 258 446 569 537 358 119 22										0	0	1	33	130	388	834	1403	1940	2298	2417	2439	2439	
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0/86 89 150 269 396 568 707 812 798 645 422 234 1											119	89	239	508	904	1472	2179	2991	3789	4434	4856	5090	5209

(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