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: 098740

Station: TOCCOA, GA

Climate Division: GA 3

NWS Call Sign:

Elevation: 1,012 Feet Lat: 34°34N Lon: 83°20W

									r	Temp	eratu	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max	Daily Min				Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0				
Jan	51.2	31.1	41.2	82	1949	12	50.8	1974	-5	1966	30	30.3	1977	740	0	.0	.0	18.7	.5	15.8	.1
Feb	55.5	32.9	44.2	80+	1951	26	49.7	1990	1	1958	17	37.4	1978	583	0	.0	.0	20.5	.4	12.1	.0
Mar	63.7	39.5	51.6	88	1974	10	56.8+	2000	9	1943	4	43.6	1971	421	5	.0	.0	28.9	.1	5.9	.0
Apr	72.0	46.6	59.3	93	1965	23	64.7	1999	25+	1987	1	54.7	1983	190	19	.0	.2	29.9	.0	1.5	.0
May	78.7	54.9	66.8	99	1941	29	72.1	2000	33	1976	21	62.5	1976	60	115	.0	1.1	30.9	.0	.0	.0
Jun	85.2	63.2	74.2	104	1936	29	78.3	1981	39	1972	1	69.5	1972	3	278	.0	7.7	30.0	.0	.0	.0
Jul	88.3	67.6	78.0	106	1930	12	82.7	1993	51	1933	5	74.4	1972	0	401	.4	15.3	31.0	.0	.0	.0
Aug	86.8	66.9	76.9	104+	1983	22	81.3	1999	50	1976	10	74.0	1992	0	368	.4	10.1	31.0	.0	.0	.0
Sep	81.6	61.6	71.6	100	1954	4	76.8	1998	34	1967	30	68.8	1974	9	207	.0	4.0	30.0	.0	.0	.0
Oct	72.3	50.4	61.4	96+	1954	5	68.2	1984	26+	1962	27	55.1	1988	169	56	.0	@	30.9	.0	.5	.0
Nov	62.7	41.7	52.2	88+	1998	1	60.1	1985	9	1950	25	45.6	1976	393	8	.0	.0	27.8	.0	5.8	.0
Dec	53.6	34.4	44.0	80+	1998	2	52.5	1984	1	1962	13	37.7	1989	651	0	.0	.0	21.4	.3	13.3	.0
Ann	71.0	49.2	60.1	106	Jul 1930	12	82.7	Jul 1993	-5	Jan 1966	30	30.3	Jan 1977	3219	1457	.8	38.4	331.0	1.3	54.9	.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 073-A

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

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1930-2001

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

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COOP ID: 098740

Climate Division: GA 3 NWS Call Sign: Elevation: 1,012 Feet Lat: 34°34N Lon: 83°20W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	n Total						ays (3)	Proba	ability th		nonthly/	annual j indic	precipita ated am	nount	ies (1)		less tha	in the
	Medi	ans(1)				Extremes	i			P	aily Pre	приано	n		Th	ese value	s were det	ermined	from the i	incomplet	te gamma	distributi	ion	
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	6.27	5.69	7.25	1982	4	10.61	1982	.74	1981	11.9	8.5	4.3	2.2	2.34	2.93	3.77	4.47	5.14	5.82	6.56	7.42	8.52	10.20	11.75
Feb	5.36	5.22	4.17	1942	17	11.60	1998	.60	1978	9.1	7.1	3.7	2.0	1.59	2.10	2.87	3.53	4.17	4.83	5.57	6.43	7.55	9.29	10.92
Mar	6.29	5.81	4.53	1952	4	17.60	1980	1.69	1985	10.7	8.1	4.0	2.3	1.90	2.50	3.39	4.16	4.91	5.68	6.54	7.54	8.84	10.87	12.74
Apr	4.36	3.64	4.25	1979	4	14.52	1979	.72	1986	8.9	6.7	2.9	1.2	1.15	1.56	2.19	2.75	3.29	3.87	4.50	5.26	6.25	7.80	9.25
May	5.04	4.27	7.08	1976	29	15.34	1976	.75	1988	10.5	7.4	3.2	1.7	1.04	1.50	2.24	2.91	3.59	4.32	5.14	6.13	7.44	9.53	11.51
Jun	4.75	3.80	5.00	1967	4	10.25	1989	.33	1990	10.9	7.3	3.3	1.4	1.04	1.48	2.17	2.80	3.44	4.11	4.86	5.77	6.96	8.86	10.66
Jul	5.03	4.45	3.92	1984	29	20.50	1984	.98	1995	10.9	7.1	3.5	1.5	.96	1.41	2.15	2.83	3.52	4.26	5.11	6.12	7.48	9.65	11.71
Aug	5.10	4.61	8.60	1994	17	14.12	1991	.74	1997	10.4	7.1	3.2	1.6	.86	1.30	2.05	2.75	3.47	4.25	5.14	6.23	7.67	10.02	12.26
Sep	4.26	4.19	7.08	1936	30	10.78	1975	.04	1984	8.9	6.1	2.8	1.2	.58	.93	1.54	2.14	2.76	3.44	4.23	5.21	6.52	8.67	10.74
Oct	4.54	4.11	5.86	1950	20	9.25	1995	.12	2000	7.1	5.3	2.9	1.5	.58	.95	1.59	2.22	2.89	3.63	4.49	5.55	6.99	9.34	11.62
Nov	4.73	3.94	6.87	1948	3	10.24	1979	1.55	1981	9.6	7.0	3.6	1.4	1.78	2.22	2.86	3.38	3.88	4.40	4.95	5.59	6.41	7.67	8.82
Dec	5.08	5.05	4.80	1932	17	9.91	1983	.94	1980	11.2	7.9	3.8	1.4	1.56	2.04	2.76	3.38	3.98	4.60	5.28	6.08	7.12	8.74	10.24
Ann	60.81	62.82	8.60	Aug 1994	17	20.50	Jul 1984	.04	Sep 1984	120.1	85.6	41.2	19.4	42.97	46.42	50.84	54.19	57.18	60.07	63.05	66.35	70.35	76.17	81.20

⁺ 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: 1930-2001

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Station: TOCCOA, GA

Climate Division: GA 3 NWS Call Sign:

Elevation: 1,012 Feet Lat: 34°34N Lon: 83°20W

		Fall Depth Depth Snow Snow Fall Pally Year Snow Fall Day Fall Day Snow Pear Snow Snow Snow Snow Snow Snow Snow Snow																					
						Sn	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily	Year	Day	Monthly Mean	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	.7	.0	#	0	8.0	1988	8	8.0	1988	#	1974	14	#	1974	.3	.3	.2	.1	.0	.0	.0	.0	.0
Feb	1.1	.0	0	0	7.0	1979	19	12.0	1979	0	0	0	0	0	.4	.4	.3	.1	.0	.0	.0	.0	.0
Mar	1.0	.0	#	0	8.0	1971	26	8.0+	1983	8	1971	26	#+	1996	.3	.2	.1	.1	.0	.1	.1	.1	.0
Apr	#	.0	0	0	#	1987	4	#	1987	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	0	2.0	1975	23	2.0	1975	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.4	.0	0	0	6.5	1971	3	6.5	1971	0	0	0	0	0	.1	.1	.1	.1	.0	.0	.0	.0	.0
Ann	3.3	.0	N/A	N/A	8.0+	Jan 1988	8	12.0	Feb 1979	8	Mar 1971	26	#+	Mar 1996	1.2	1.1	.7	.4	.0	.1	.1	.1	.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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COOP ID: 098740

Lon: 83°20W

Lat: 34°34N

Station: TOCCOA, GA **Climate Division: GA 3**

NWS Call Sign:

Elevation: 1,012 Feet

				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((*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/07	4/30	4/25	4/21	4/17	4/13	4/09	4/04	3/28
32	4/18	4/13	4/08	4/05	4/01	3/29	3/25	3/21	3/15
28	4/10	4/02	3/28	3/23	3/18	3/14	3/09	3/03	2/23
24	3/19	3/11	3/05	2/28	2/23	2/18	2/13	2/08	1/31
20	3/07	2/26	2/20	2/14	2/09	2/04	1/30	1/24	1/15
16	2/27	2/18	2/11	2/04	1/29	1/22	1/12	0/00	0/00
			Fal	l Freeze Da	tes (Month/D	ay)			
Tomp (E)		Pro	bability of ea	arlier date ii	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/07	10/13	10/18	10/21	10/25	10/28	11/01	11/05	11/11
32	10/17	10/24	10/29	11/02	11/06	11/11	11/15	11/20	11/27
28	11/02	11/08	11/12	11/16	11/19	11/22	11/26	11/30	12/06
24	11/20	11/27	12/02	12/06	12/10	12/14	12/18	12/23	12/30
20	12/04	12/12	12/18	12/23	12/28	1/02	1/07	1/13	1/21
16	12/05	12/17	12/26	1/03	1/11	1/20	2/02	0/00	0/00
		•	•	Freeze F	ree Period				
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	219	209	202	196	190	184	178	171	161
32	247	237	230	224	218	213	207	200	190
28	277	266	258	251	245	239	232	224	213
24	318	308	301	295	289	283	277	270	260
20	359	342	332	325	318	311	304	296	286
16	>365	>365	>365	>365	>365	331	320	311	301

^{*} 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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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	740	583	421	190	60	3	0	0	9	169	393	651	3219
60	593	444	282	90	16	0	0	0	1	86	263	501	2276
57	505	365	209	50	6	0	0	0	0	52	197	414	1798
55	449	313	168	30	2	0	0	0	0	35	159	359	1515
50	319	196	86	6	0	0	0	0	0	11	82	234	934
32	42	7	0	0	0	0	0	0	0	0	0	15	64

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	325	348	608	819	1079	1265	1424	1391	1188	910	605	387	10349
55	19	10	63	159	368	575	711	678	498	233	74	17	3405
57	13	6	42	118	309	515	649	616	438	188	52	11	2957
60	8	1	21	69	227	425	556	523	349	129	28	4	2340
65	0	0	5	19	115	278	401	368	207	56	8	0	1457
70	0	0	0	2	43	148	252	219	90	17	1	0	772

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	nthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	151	216	423	620	868	1048	1202	1161	956	677	385	204	151	367	790	1410	2278	3326	4528	5689	6645	7322	7707	7911
45	76	123	284	471	713	898	1047	1006	806	522	255	108	76	199	483	954	1667	2565	3612	4618	5424	5946	6201	6309
50												52	29	85	251	575	1133	1881	2773	3624	4280	4651	4798	4850
55	7	16	85	201	404	598	737	696	506	233	74	21	7	23	108	309	713	1311	2048	2744	3250	3483	3557	3578
60	0	1	31	104	260	448	582	541	356	122	27	3	0	1	32	136	396	844	1426	1967	2323	2445	2472	2475
Base	ase Growing Degree Units for Corn (Monthly)												•	Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)			
50/86	86	136	260	393	568	716	50/86 86 136 260 393 568 716 832 805 641 425 228 11											2159	2991	3796	4437	4862	5090	5204

(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