

Climatology of the United States

No. 20

1971-2000

Station: CARROLLTON, GA

COOP ID: 091640

Climate Division: GA 4

NWS Call Sign:

Elevation: 995 Feet

Lat: 33°36N

Lon: 85°05W

Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	51.8	29.1	40.5	81	1949	12	51.8	1974	-9	1985	21	31.8	1977	761	0	.0	.0	20.1	.6	17.4	.1
Feb	56.6	31.3	44.0	80+	1962	27	50.6	1990	3	1958	17	35.8	1978	589	0	.0	.0	21.7	.3	13.4	.0
Mar	64.5	37.6	51.1	93	1955	12	59.0	1997	9+	1993	15	45.7	1971	435	3	.0	.0	29.4	.1	7.2	.0
Apr	72.4	44.0	58.2	92	1965	24	63.5	1981	24	1987	1	54.2	1983	216	12	.0	.1	29.9	.0	2.0	.0
May	79.2	53.1	66.2	96+	1962	28	70.8	1998	30	1984	9	62.1	1976	67	102	.0	.7	31.0	.0	@	.0
Jun	85.4	61.4	73.4	100+	1985	5	77.9	1998	36	1974	6	69.3	1974	2	255	@	7.5	30.0	.0	.0	.0
Jul	88.3	65.7	77.0	103+	1980	17	80.2	1993	49	1999	19	73.9	1984	0	371	.2	14.7	31.0	.0	.0	.0
Aug	87.2	64.9	76.1	102	1983	21	79.9	1983	48+	1968	30	72.9	1984	0	344	.1	10.9	31.0	.0	.0	.0
Sep	81.8	58.7	70.3	100+	1954	4	73.9	1973	32	1967	30	64.9	1984	21	179	.0	3.3	30.0	.0	.0	.0
Oct	72.7	45.9	59.3	97	1954	5	64.1	1971	23	1954	31	53.0	1987	206	30	.0	.0	31.0	.0	1.4	.0
Nov	63.9	38.1	51.0	86	1974	2	58.5	1985	2	1950	25	43.0	1976	421	2	.0	.0	28.5	.0	7.3	.0
Dec	54.5	31.4	43.0	81	1971	21	51.0	1984	0	1962	13	35.7	2000	683	0	.0	.0	23.1	.3	15.4	.0
Ann	71.5	46.8	59.2	103+	Jul 1980	17	80.2	Jul 1993	-9	Jan 1985	21	31.8	Jan 1977	3401	1298	.3	37.2	336.7	1.3	64.1	.1

+ Also occurred on an earlier date(s)

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

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

Issue Date: February 2004

(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

015-A

**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

Station: CARROLLTON, GA

COOP ID: 091640

Climate Division: GA 4

NWS Call Sign:

Elevation: 995 Feet Lat: 33°36N

Lon: 85°05W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							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	5.53	5.46	3.96	1996	27	13.11	1972	1.10	1981	11.8	7.9	4.1	1.6	2.13	2.64	3.38	3.99	4.57	5.15	5.79	6.53	7.47	8.91	10.22
Feb	5.07	5.25	5.65	1982	3	9.69	1982	.73	1978	9.3	6.8	3.7	1.9	1.62	2.10	2.81	3.42	4.01	4.62	5.29	6.07	7.07	8.64	10.09
Mar	6.22	5.19	5.34	1956	16	14.00	1976	1.89	1986	10.6	8.1	4.1	2.1	1.93	2.52	3.40	4.15	4.88	5.64	6.47	7.45	8.71	10.68	12.50
Apr	4.38	3.76	4.55	1957	5	13.71	1979	.14	1986	8.1	6.1	3.0	1.3	.81	1.20	1.84	2.43	3.04	3.69	4.44	5.34	6.53	8.46	10.29
May	4.16	4.17	6.23	1981	27	9.23	1973	.85	1988	8.2	5.9	3.1	1.2	1.12	1.51	2.11	2.64	3.16	3.70	4.30	5.02	5.95	7.41	8.78
Jun	3.86	3.63	4.65	1979	1	8.24+	1989	.82	2000	9.5	6.7	2.7	.9	1.22	1.59	2.13	2.59	3.04	3.51	4.01	4.61	5.38	6.58	7.68
Jul	4.53	3.82	4.80	1958	21	10.35	1971	1.21	1993	10.5	7.1	3.2	1.3	1.01	1.43	2.10	2.69	3.29	3.93	4.64	5.49	6.62	8.40	10.09
Aug	3.70	4.01	3.55	1960	9	7.17	1978	.39	1999	8.6	6.3	2.8	.9	1.10	1.45	1.98	2.43	2.88	3.34	3.84	4.44	5.21	6.42	7.55
Sep	3.21	3.16	3.71	1953	27	6.59	1979	.06	1984	8.0	5.2	2.1	.9	.50	.77	1.24	1.68	2.14	2.64	3.22	3.92	4.86	6.39	7.86
Oct	3.36	2.94	4.52	1995	5	11.04	1995	.21	1978	6.2	4.3	2.3	1.0	.58	.87	1.36	1.82	2.29	2.80	3.39	4.10	5.05	6.58	8.04
Nov	4.55	4.60	3.70	1948	29	11.16	1992	1.03	1981	9.4	6.2	3.1	1.4	1.59	2.02	2.64	3.17	3.67	4.19	4.75	5.40	6.24	7.54	8.73
Dec	4.44	3.92	3.47	1973	31	11.67	1983	.80	1979	10.0	6.9	3.5	1.2	1.28	1.70	2.34	2.89	3.43	3.99	4.61	5.34	6.28	7.76	9.14
Ann	53.01	55.52	6.23	May 1981	27	14.00	Mar 1976	.06	Sep 1984	110.2	77.5	37.7	15.7	37.05	40.12	44.06	47.06	49.73	52.32	54.99	57.95	61.55	66.78	71.30

+ Also occurred on an earlier date(s)

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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Station: CARROLLTON, GA

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NWS Call Sign:

Elevation: 995 Feet

Lat: 33°36N

Lon: 85°05W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (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	#	1986	27	#+	1986	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	#	.0	#	0	#	1991	15	#+	1991	#	1996	16	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	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	#	.0	#	0	#	2000	22	#+	2000	#	2000	22	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	#	.0	N/A	N/A	#+	Dec 2000	22	#+	Dec 2000	#+	Dec 2000	22	#+	Dec 2000	.0	.0	.0	.0	.0	.0	.0	.0	.0

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

@ 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

Complete documentation available from:

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

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NWS Call Sign:

Elevation: 995 Feet

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/12	5/06	5/01	4/27	4/24	4/20	4/17	4/12	4/06
32	4/26	4/20	4/15	4/12	4/08	4/04	4/01	3/27	3/21
28	4/10	4/02	3/27	3/22	3/17	3/13	3/08	3/02	2/22
24	3/25	3/17	3/11	3/06	3/01	2/25	2/20	2/14	2/06
20	3/09	3/01	2/23	2/18	2/13	2/08	2/03	1/28	1/20
16	3/03	2/22	2/15	2/09	2/03	1/29	1/22	1/14	12/30
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/04	10/09	10/12	10/14	10/17	10/20	10/22	10/25	10/30
32	10/10	10/17	10/22	10/26	10/30	11/02	11/07	11/11	11/18
28	10/24	10/31	11/05	11/09	11/13	11/16	11/20	11/25	12/02
24	11/05	11/14	11/20	11/25	11/30	12/05	12/10	12/16	12/24
20	11/26	12/05	12/11	12/16	12/22	12/27	1/01	1/07	1/16
16	12/02	12/13	12/20	12/27	1/03	1/09	1/17	1/26	2/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	198	190	185	180	175	171	166	160	153
32	231	222	215	209	204	199	193	186	177
28	273	261	253	246	240	233	226	218	206
24	307	295	287	279	273	266	258	250	238
20	347	330	321	314	308	301	295	287	276
16	>365	>365	349	335	326	318	311	302	291

* 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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Degree Days to Selected Base Temperatures (° F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	761	589	435	216	67	2	0	0	21	206	421	683	3401
60	614	449	293	106	19	0	0	0	4	105	282	532	2404
57	527	370	218	60	7	0	0	0	1	63	208	446	1900
55	470	318	174	37	3	0	0	0	0	42	165	389	1598
50	339	200	89	8	0	0	0	0	0	11	81	260	988
32	52	8	0	0	0	0	0	0	0	0	0	22	82

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	314	343	591	786	1059	1243	1394	1367	1148	847	571	362	10025
55	19	9	52	133	349	553	681	654	458	176	45	15	3144
57	14	6	34	95	291	493	619	592	399	136	28	10	2717
60	8	0	16	51	210	403	526	499	311	84	13	3	2124
65	0	0	3	12	102	255	371	344	179	30	2	0	1298
70	0	0	0	1	35	124	220	194	78	7	0	0	659

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	161	225	426	608	866	1040	1182	1150	947	650	383	205	161	386	812	1420	2286	3326	4508	5658	6605	7255	7638	7843
45	82	131	286	459	711	890	1027	995	797	495	249	111	82	213	499	958	1669	2559	3586	4581	5378	5873	6122	6233
50	36	61	168	317	556	740	872	840	647	345	144	57	36	97	265	582	1138	1878	2750	3590	4237	4582	4726	4783
55	9	20	81	188	404	590	717	685	497	206	64	25	9	29	110	298	702	1292	2009	2694	3191	3397	3461	3486
60	0	2	31	92	257	440	562	530	351	102	18	2	0	2	33	125	382	822	1384	1914	2265	2367	2385	2387
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	99	153	280	399	571	709	814	798	641	419	244	129	99	252	532	931	1502	2211	3025	3823	4464	4883	5127	5256

(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

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

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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/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 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

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