

# Climatology of the United States

No. 20

1971-2000

Station: GREENVILLE, AL

COOP ID: 013519

Climate Division: AL 7

NWS Call Sign:

Elevation: 470 Feet Lat: 31° 51N Lon: 86° 39W

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	58.9	37.5	48.2	83	1949	12	60.4	1974	-1	1985	21	38.1	1977	534	0	.0	.0	25.4	.3	11.4	@
Feb	63.7	39.7	51.7	86+	1962	27	58.0	1990	9	1996	5	42.2	1978	378	6	.0	.0	24.5	.1	8.9	.0
Mar	71.9	46.4	59.2	89+	1995	23	65.8	1997	15+	1993	14	54.1	1971	213	31	.0	.0	30.3	.0	2.9	.0
Apr	78.2	51.5	64.9	96	1987	22	69.2	1999	28	1987	3	60.1	1983	74	69	.0	.5	30.0	.0	.4	.0
May	84.8	60.0	72.4	100	1953	27	76.0	1998	38	1971	4	67.3	1976	13	242	.0	5.8	31.0	.0	.0	.0
Jun	90.1	66.9	78.5	108	1954	28	82.1	1998	48	1956	3	75.6	1976	0	404	.3	18.1	30.0	.0	.0	.0
Jul	92.3	70.0	81.2	106+	1952	25	84.1	2000	56	1967	15	78.7	1994	0	500	1.1	24.0	31.0	.0	.0	.0
Aug	91.6	69.3	80.5	105+	2000	17	83.0	1995	50	1992	29	77.1	1992	0	479	.8	22.5	31.0	.0	.0	.0
Sep	87.1	65.2	76.2	103+	1954	10	79.7	1980	38	1967	29	72.0	1975	2	336	.1	12.6	30.0	.0	.0	.0
Oct	78.5	54.2	66.4	100	1954	6	72.3	1984	29+	2001	29	59.8	1976	78	119	.0	1.4	31.0	.0	.1	.0
Nov	69.1	45.8	57.5	91	1987	3	64.8	1985	11	1970	25	49.3	1976	253	27	.0	@	29.3	.0	3.8	.0
Dec	61.4	39.5	50.5	86	1951	8	60.1	1984	5+	1989	24	42.8	2000	464	13	.0	.0	26.5	.2	9.8	.0
Ann	77.3	53.8	65.6	108	Jun 1954	28	84.1	Jul 2000	-1	Jan 1985	21	38.1	Jan 1977	2009	2226	2.3	84.9	350.0	.6	37.3	@

+ 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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1920-2001

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

031-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: GREENVILLE, AL**

**COOP ID: 013519**

**Climate Division: AL 7**

**NWS Call Sign:**

**Elevation: 470 Feet Lat: 31°51N**

**Lon: 86°39W**

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	5.97	6.08	6.90	1946	6	9.94	1992	.91	1981	10.7	8.1	4.1	1.8	2.26	2.81	3.61	4.27	4.91	5.55	6.25	7.06	8.09	9.67	11.12
Feb	5.08	4.38	8.32	1961	25	9.04	1975	1.31	1999	8.5	6.5	3.7	2.0	1.61	2.09	2.81	3.42	4.01	4.62	5.29	6.08	7.09	8.67	10.13
Mar	6.75	6.13	8.40	1938	16	14.85	1973	2.34	1982	9.6	7.3	4.4	2.4	2.72	3.34	4.22	4.94	5.63	6.32	7.07	7.93	9.03	10.70	12.23
Apr	4.19	3.98	8.38	1964	27	8.79	1980	.70	1987	8.0	5.5	3.0	1.4	1.05	1.44	2.05	2.59	3.12	3.69	4.32	5.06	6.04	7.58	9.02
May	4.12	3.92	3.85	1978	4	8.61	1991	.70	2000	8.6	6.1	3.0	1.1	1.27	1.66	2.24	2.74	3.23	3.73	4.28	4.93	5.77	7.08	8.29
Jun	4.88	3.98	4.94	1928	5	13.60	1999	1.61	1977	9.8	7.3	3.0	1.6	1.26	1.72	2.43	3.05	3.67	4.31	5.03	5.89	7.00	8.76	10.41
Jul	5.51	5.06	8.75	1994	7	21.44	1994	.71	2000	12.2	8.4	3.4	1.4	1.09	1.59	2.39	3.14	3.89	4.69	5.61	6.71	8.16	10.50	12.71
Aug	4.30	3.62	3.81	1981	8	12.45	1974	.83	1989	10.0	6.8	2.5	1.0	.87	1.26	1.89	2.47	3.05	3.67	4.38	5.23	6.35	8.15	9.86
Sep	4.56	4.24	15.36	1998	29	20.68	1998	.60	1995	8.2	5.4	2.5	1.3	.64	1.01	1.67	2.30	2.96	3.69	4.54	5.58	6.97	9.26	11.46
Oct	2.69	2.02	7.20	1995	5	12.86	1995	.09	1971	5.3	3.6	1.9	.5	.22	.41	.76	1.13	1.54	2.01	2.57	3.27	4.25	5.87	7.47
Nov	4.67	4.36	5.82	1948	27	13.04	1992	1.38	1980	8.3	6.1	3.4	1.5	1.46	1.90	2.56	3.13	3.67	4.24	4.86	5.59	6.54	8.00	9.36
Dec	4.90	4.78	4.57	1953	4	10.43	1971	1.15	1980	9.6	6.3	3.1	1.7	1.82	2.28	2.94	3.49	4.01	4.55	5.13	5.80	6.66	7.99	9.20
Ann	57.62	56.02	15.36	Sep 1998	29	21.44	Jul 1994	.09	Oct 1971	108.8	77.4	38.0	17.7	43.78	46.53	50.01	52.63	54.93	57.15	59.43	61.93	64.95	69.29	73.01

+ 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: 1920-2001

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

Complete documentation available from:  
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**Climate Division: AL 7**

**NWS Call Sign:**

**Elevation: 470 Feet**

**Lat: 31°51N**

**Lon: 86°39W**

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	#	1978	12	#	1978	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.3	.0	#	0	6.0	1973	10	6.0	1973	#	1996	4	#	1996	@	@	@	@	.0	.0	.0	.0	.0
Mar	.2	.0	0	0	4.0	1993	13	4.0	1993	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	.1	.0	0	0	3.0	1993	23	3.0	1993	0	0	0	0	0	@	@	@	.0	.0	.0	.0	.0	.0
Ann	.6	.0	N/A	N/A	6.0	Feb 1973	10	6.0	Feb 1973	#	Feb 1996	4	#	Feb 1996	@	@	@	@	.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

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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	4/17	4/12	4/08	4/05	4/02	3/30	3/27	3/23	3/18
32	4/09	4/02	3/28	3/24	3/20	3/16	3/12	3/07	2/28
28	3/24	3/16	3/11	3/06	3/02	2/25	2/21	2/15	2/07
24	3/10	3/01	2/23	2/18	2/13	2/08	2/03	1/28	1/19
20	3/01	2/20	2/13	2/07	2/02	1/27	1/20	1/11	0/00
16	2/16	2/05	1/28	1/19	1/10	12/24	0/00	0/00	0/00
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	10/20	10/25	10/29	11/02	11/05	11/08	11/12	11/16	11/21
32	10/28	11/03	11/08	11/11	11/15	11/19	11/22	11/27	12/03
28	11/09	11/17	11/22	11/27	12/02	12/06	12/11	12/16	12/24
24	11/20	12/01	12/09	12/15	12/22	12/28	1/04	1/12	1/23
20	11/30	12/12	12/21	12/29	1/05	1/13	1/22	2/03	0/00
16	12/19	1/01	1/11	1/21	2/01	2/21	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	237	230	225	220	216	212	207	202	195
32	264	256	249	244	239	234	229	223	215
28	301	291	285	279	274	269	263	257	248
24	356	336	324	316	308	300	292	283	270
20	>365	>365	>365	352	337	326	315	303	288
16	>365	>365	>365	>365	>365	>365	>365	340	323

\* 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	534	378	213	74	13	0	0	0	2	78	253	464	2009
60	396	252	115	20	2	0	0	0	0	29	150	329	1293
57	322	187	71	7	0	0	0	0	0	13	103	258	961
55	277	150	49	3	0	0	0	0	0	7	76	218	780
50	186	78	15	0	0	0	0	0	0	1	30	133	443
32	15	0	0	0	0	0	0	0	0	0	0	5	20

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	517	552	841	985	1252	1394	1523	1502	1324	1064	764	576	12294
55	67	58	176	298	539	704	810	789	634	359	150	76	4660
57	49	39	137	241	477	644	748	727	574	302	116	55	4109
60	30	20	88	165	386	554	655	634	484	225	74	32	3347
65	0	6	31	69	242	404	500	479	336	119	27	13	2226
70	0	0	8	17	126	256	345	324	197	49	8	0	1330

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	294	357	587	746	1010	1158	1283	1266	1096	828	534	350	294	651	1238	1984	2994	4152	5435	6701	7797	8625	9159	9509
45	184	243	439	596	855	1008	1128	1111	946	673	389	228	184	427	866	1462	2317	3325	4453	5564	6510	7183	7572	7800
50	96	149	299	450	700	858	973	956	796	519	264	138	96	245	544	994	1694	2552	3525	4481	5277	5796	6060	6198
55	42	78	182	307	545	708	818	801	646	367	161	76	42	120	302	609	1154	1862	2680	3481	4127	4494	4655	4731
60	16	30	93	180	390	558	663	646	497	234	81	34	16	46	139	319	709	1267	1930	2576	3073	3307	3388	3422
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	178	229	372	486	679	792	870	863	747	545	338	218	178	407	779	1265	1944	2736	3606	4469	5216	5761	6099	6317

(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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)