# 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: 010178

Lon: 88°08W

**Station: ALICEVILLE, AL** 

Climate Division: AL 3 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 53.5 31.9 42.7 79+ 1972 14 51.3 1974 -2+ 1985 21 32.3 1977 692 0 .0 .0 20.0 1.1 18.5 @ Jan 58.7 34.9 46.8 87 1996 24 53.9 1990 6 1996 4 37.0 1978 509 0 .0 .0 21.7 13.8 0. Feb .6 Mar 67.4 42.5 55.0 90 1967 13 61.0 1974 12 1980 3 49.3 1971 328 17 .0 .0 29.3 @ 6.6 0. 93 22 23 3 57.5 1993 Apr 74.8 48.3 61.6 1987 67.4 1981 1987 142 38 .0. .1 29.9 .0 1.2 0. May 82.1 57.8 70.0 98+ 1977 31 74.2 1987 34+ 1965 1 64.8 1976 32 185 .0 2.6 31.0 .0 .0 .0 1982 81.1 74.3+ 14.4 Jun 88.9 65.9 77.4 104 +9 1998 46 1966 1992 0 372 .4 30.0 .0 .0 .0 Jul 70.0 80.9 17 84.8 1980 56 1967 15 77.9 1994 492 1.5 22.1 31.0 .0 91.8 108 1980 0 .0 .0 1992 91.4 68.1 79.8 104 1980 22 83.7 1995 52 1999 16 75.4 0 456 .8 21.7 31.0 .0 .0 .0 Aug 38 7 Sep 86.4 62.2 74.3 103 1980 17 79.7 1980 1967 30 69.7 1974 286 .3 10.5 30.0 .0 .0 .0 76.4 25+ 58.3+ 1987 72 Oct 49.6 63.0 95+ 1986 5 69.5 1971 1962 26 135 .0 .8 30.9 .0 .9 .0 65.5 41.0 53.3 88 3 60.3 1985 16+ 1976 30 45.6 1976 364 12 .0 .0 28.4 .0 8.1 .0 Nov 1961 Dec 56.7 34.1 45.4 83 1978 4 56.2 1971 -2 1962 13 37.3 2000 609 1 .0 .0 23.6 .5 16.4 .0 Jul Jul Jan Jan 74.5 50.5 62.5 108 1980 17 84.8 1980 -2+ 1985 21 32.3 1977 2818 1931 3.0 72.2 336.8 2.2 65.5 @ Ann

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

Issue Date: February 2004 002-A

(1) From the 1971-2000 Monthly Normals

Elevation: 240 Feet Lat: 33°08N

- (2) Derived from station's available digital record: 1934-2001
- (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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Climate Division: AL 3 NWS Call Sign: Elevation: 240 Feet Lat: 33°08N Lon: 88°08W

										Pı	ecipi	tation	(incl	nes)												
			P	recipi	itatio	on Total	s			M	ean N	lumbo Pays (3	_	Precipitation Probabilities (1)  Probability that the monthly/annual precipitation will be equal to or less than the indicated amount												
	Mea Medi					Extremes	S			D	aily Pre	cipitatio	n	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	5.76	5.53	6.50	1950	7	11.18	1999	1.02	1986	10.7	7.9	4.0	1.9	1.96	2.51	3.31	3.98	4.62	5.29	6.01	6.86	7.95	9.63	11.17		
Feb	5.18	4.67	4.80	1961	22	14.05	1971	1.22	1978	8.8	6.3	3.4	2.1	1.45	1.95	2.69	3.34	3.97	4.63	5.36	6.23	7.35	9.11	10.75		
Mar	6.26	5.53	6.24	1976	16	20.60	1976	2.01	1992	9.5	7.1	4.2	2.3	1.89	2.48	3.37	4.14	4.88	5.66	6.51	7.51	8.81	10.83	12.70		
Apr	5.97	5.21	8.57	1979	13	15.78	1979	.88	1987	7.7	6.2	3.6	1.9	1.47	2.03	2.90	3.68	4.44	5.25	6.15	7.23	8.63	10.85	12.94		
May	4.37	3.59	3.92	1983	19	12.58	1991	.80	1977	8.7	6.3	3.1	1.2	.98	1.38	2.02	2.60	3.18	3.79	4.48	5.30	6.39	8.11	9.74		
Jun	4.03	4.13	3.91	1962	20	8.42	1999	.10	1988	9.1	6.2	2.7	1.2	.68	1.03	1.61	2.17	2.74	3.35	4.06	4.92	6.06	7.92	9.70		
Jul	4.43	4.36	3.65	1997	22	9.35	1982	1.18	1995	10.6	7.0	2.4	1.0	1.48	1.90	2.52	3.04	3.54	4.05	4.62	5.28	6.12	7.44	8.65		
Aug	3.08	3.28	4.60	1952	7	8.54	1992	.22	1980	7.5	5.2	2.1	.9	.71	1.00	1.45	1.85	2.25	2.68	3.16	3.73	4.49	5.68	6.80		
Sep	3.97	3.46	5.90	1973	30	9.30	1974	.04	1984	7.7	5.3	2.4	1.1	.40	.69	1.24	1.79	2.39	3.06	3.85	4.84	6.20	8.44	10.64		
Oct	3.44	3.24	5.97	1989	1	6.68	1986	.47	1987	5.8	4.3	2.2	1.1	.75	1.07	1.57	2.03	2.49	2.98	3.52	4.18	5.05	6.43	7.73		
Nov	4.82	4.49	5.80	1965	9	8.66	1992	1.61	1975	9.1	6.6	3.6	1.8	1.72	2.17	2.83	3.38	3.91	4.45	5.04	5.72	6.60	7.95	9.19		
Dec	4.88	4.43	5.15	1973	26	11.26	1973	1.51	1984	8.9	6.5	3.6	1.7	1.75	2.21	2.88	3.43	3.97	4.51	5.10	5.79	6.68	8.04	9.28		
Ann	56.19	54.20	8.57	Apr 1979	13	20.60	Mar 1976	.04	Sep 1984	104.1	74.9	37.3	18.2	40.13	43.25	47.23	50.26	52.94	55.54	58.22	61.18	64.77	69.97	74.46		

<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: 1934-2001

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

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**COOP ID: 010178** 

**Station: ALICEVILLE, AL** 

Climate Division: AL 3 NWS Call Sign: Elevation: 240 Feet Lat: 33°08N Lon: 88°08W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ans (1)	)					Extre	mes (2)							ow Fa	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	.5	.0	0	0	5.0	1992	19	5.0	1992	0	0	0	0	0	.2	.1	.1	.1	.0	.0	.0	.0	.0
Feb	#	.0	0	0	#	1989	23	#+	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	#	.0	0	0	#	1983	24	#+	1983	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	#	0	.0	0	0	.0	0	#	1996	19	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.5	.0	N/A	N/A	5.0	Jan 1992	19	5.0	Jan 1992	#	Dec 1996	19	#	Dec 1996	.2	.1	.1	.1	.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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**COOP ID: 010178** 

Lon: 88°08W

Lat: 33°08N

Elevation: 240 Feet

**Station: ALICEVILLE, AL** 

Climate Division: AL 3 NWS Call Sign:

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(\*) Temp (F) .10 .20 .30 .40 .70 .80 .90 36 4/24 4/20 4/16 4/13 4/10 4/08 4/05 4/01 3/27 32 4/08 4/17 4/12 4/04 4/01 3/29 3/25 3/21 3/15 28 3/31 3/24 3/19 3/15 3/11 3/06 3/02 2/25 2/18 3/04 24 3/19 3/10 2/27 2/22 2/17 2/12 2/06 1/28 20 3/04 2/24 2/18 2/13 2/09 2/04 1/30 1/24 1/14 1/25 16 2/28 2/19 2/12 2/06 1/31 1/17 1/02 0/00 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(\*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 10/05 10/10 10/14 10/17 10/19 10/22 10/25 10/29 11/03 32 10/20 10/25 10/29 11/01 11/04 11/06 11/09 11/13 11/18 28 10/30 11/05 11/10 11/14 11/18 11/22 11/26 11/30 12/07 24 11/10 11/17 11/23 11/28 12/02 12/06 12/11 12/16 12/24 20 11/25 12/04 12/11 12/16 12/22 12/27 1/03 1/10 1/21 12/07 12/28 1/04 1/12 16 12/19 1/20 1/31 2/19 0/00 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 208 202 198 195 191 188 184 174 36 180 32 235 229 224 220 216 212 208 203 197 28 277 268 262 257 252 247 241 235 226 24 314 303 295 289 282 276 269 261 250 327 279 20 >365 340 318 311 305 298 290

>365

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

>365

Derived from 1971-2000 serially complete daily data

>365

>365

16

Complete documentation available from:

325

316

305

348

335

<sup>\*</sup> Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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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	692	509	328	142	32	0	0	0	7	135	364	609	2818
60	549	376	206	61	7	0	0	0	1	62	238	465	1965
57	464	299	148	30	2	0	0	0	0	34	176	382	1535
55	410	251	115	17	0	0	0	0	0	21	141	330	1285
50	289	150	52	3	0	0	0	0	0	5	71	219	789
32	37	4	0	0	0	0	0	0	0	0	0	18	59

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	368	419	711	886	1177	1361	1515	1479	1269	960	638	433	11216
55	28	22	114	214	464	671	802	766	579	269	88	33	4050
57	20	14	85	166	404	611	740	704	519	220	64	23	3570
60	12	7	49	107	316	521	647	611	430	154	36	13	2903
65	0	0	17	38	185	372	492	456	286	72	12	1	1931
70	0	0	4	9	89	227	337	303	161	25	1	0	1156

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													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
40	170	246	461	646	928	1129	1266	1239	1031	710	402	223	170	416	877	1523	2451	3580	4846	6085	7116	7826	8228	8451			
45	93	151	320	497	773	979	1111	1084	881	556	273	132	93	244	564	1061	1834	2813	3924	5008	5889	6445	6718	6850			
50	44	84	199	355	618	829	956	929	731	405	167	71	44	128	327	682	1300	2129	3085	4014	4745	5150	5317	5388			
55	19	36	110	226	463	679	801	774	581	266	89	35	19	55	165	391	854	1533	2334	3108	3689	3955	4044	4079			
60	4	11	46	123	316	529	646	619	432	153	39	11	4	15	61	184	500	1029	1675	2294	2726	2879	2918	2929			
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)					
50/86	<b>6</b> 111 167 299 420 618 766 862 837 693 474 263 149											111	278	577	997	1615	2381	3243	4080	4773	5247	5510	5659				

(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