## 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: 013620

Station: HALEYVILLE, AL

**Climate Division: AL 3** 

**NWS Call Sign:** 

Elevation: 920 Feet Lat: 34°14N Lon: 87°38W

									ŗ	Tempe	eratui	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes			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	48.6	28.8	38.7	80	1949	11	47.7	1974	-19	1966	30	26.8	1977	816	0	.0	.0	15.2	2.8	19.7	.3
Feb	53.9	32.0	43.0	81	1962	14	49.7	2000	-12	1958	17	32.1	1978	618	0	.0	.0	18.5	1.5	14.1	@
Mar	62.7	40.2	51.5	87	1967	13	56.7	1974	8	1980	3	44.3	1996	426	6	.0	.0	27.3	.2	7.4	.0
Apr	71.3	47.6	59.5	90	1971	20	65.7	1999	25+	1987	1	54.7	1983	197	30	.0	@	29.5	.0	1.6	.0
May	78.3	56.4	67.4	93+	1970	24	73.4	1998	36	1960	13	61.7	1976	59	131	.0	.3	31.0	.0	.0	.0
Jun	85.1	63.8	74.5	101	1952	29	79.0	1998	40+	1966	2	69.5	1974	3	286	@	5.8	30.0	.0	.0	.0
Jul	88.5	67.7	78.1	105+	1952	30	82.5	1980	49	1967	15	75.4	1976	0	406	.5	13.9	31.0	.0	.0	.0
Aug	88.3	66.6	77.5	105	2000	30	82.6	2000	50+	1974	5	73.2	1992	1	386	.3	13.4	31.0	.0	.0	.0
Sep	82.7	60.6	71.7	101+	1954	6	78.0	1998	33+	1967	30	64.9	1974	26	226	.0	5.3	30.0	.0	.0	.0
Oct	72.5	48.7	60.6	93	1954	6	67.4	1984	25	1978	18	53.9	1976	198	61	.0	.1	30.8	.0	.9	.0
Nov	61.5	40.1	50.8	85	1984	1	57.4	1985	0	1950	25	41.3	1976	433	7	.0	.0	26.1	@	7.4	.0
Dec	52.1	32.0	42.1	78+	1956	9	51.4	1984	-7	1989	23	32.1	1989	711	0	.0	.0	19.1	1.4	16.1	.2
Ann	70.5	48.7	59.6	105+	Aug 2000	30	82.6	Aug 2000	-19	Jan 1966	30	26.8	Jan 1977	3488	1539	.8	38.8	319.5	5.9	67.2	.5

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 033-A

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

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Climate Division: AL 3 NWS Call Sign: Elevation: 920 Feet Lat: 34°14N Lon: 87°38W

										Pı	recipi	tation	(incl	nes)												
	Mea	ans/	P	recipi	itatio	on Total					ean N of D	ays (3	)	Precipitation Probabilities (1)  Probability that the monthly/annual precipitation will be equal to or less than the indicated amount  Monthly/Annual Precipitation vs Probability Levels  These values were determined from the incomplete gamma distribution												
	Medi	ans(1)				Extremes	•			"	any Free	приано	11													
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	6.01	5.66	5.14	1950	6	11.58	1999	1.09	1986	11.8	8.1	4.4	2.1	1.92	2.49	3.33	4.05	4.75	5.47	6.26	7.18	8.38	10.23	11.94		
Feb	5.33	5.04	4.61	1994	11	10.39	1991	.96	1978	9.8	7.0	3.7	1.8	1.72	2.23	2.97	3.61	4.22	4.86	5.55	6.37	7.42	9.04	10.55		
Mar	6.78	5.76	8.27	1973	16	18.12	1973	1.96	1982	11.4	9.0	4.5	2.0	2.24	2.89	3.83	4.63	5.41	6.20	7.07	8.09	9.40	11.44	13.31		
Apr	5.28	4.18	5.50	2001	4	12.04	1991	.40	1986	9.1	6.8	3.7	1.9	1.12	1.60	2.38	3.08	3.79	4.54	5.40	6.42	7.77	9.92	11.96		
May	5.93	5.08	5.50	1983	19	13.62	1978	1.73	1977	10.3	7.5	3.5	1.5	1.54	2.10	2.96	3.72	4.47	5.25	6.13	7.16	8.52	10.65	12.64		
Jun	4.85	4.53	3.12	1949	21	14.90	1997	.39	1988	10.1	7.3	3.0	1.6	1.31	1.77	2.47	3.08	3.69	4.32	5.02	5.85	6.93	8.62	10.21		
Jul	4.88	4.79	4.00	1966	17	9.47	1998	1.08	1983	11.1	8.4	3.3	1.4	1.81	2.26	2.92	3.47	3.99	4.52	5.10	5.78	6.63	7.95	9.16		
Aug	3.55	2.92	3.70	1969	19	7.34	1979	.03	1999	8.2	5.1	2.6	1.1	.50	.79	1.30	1.79	2.31	2.88	3.53	4.34	5.42	7.19	8.90		
Sep	4.67	3.89	3.77	1997	25	11.04	1980	.22	1984	9.2	6.3	3.0	1.5	.76	1.16	1.84	2.48	3.15	3.87	4.69	5.70	7.04	9.23	11.31		
Oct	3.63	3.06	5.58	1975	17	12.66	1975	.55	2000	7.2	4.9	2.4	1.2	.76	1.09	1.62	2.10	2.59	3.11	3.70	4.41	5.35	6.84	8.25		
Nov	5.72	5.22	3.85	1984	28	10.86	1986	1.86	1971	10.1	7.6	3.9	2.0	2.17	2.71	3.47	4.10	4.71	5.32	5.99	6.76	7.74	9.25	10.63		
Dec	5.87	4.78	6.72	1954	29	17.04	1990	1.93	1980	11.0	7.6	4.1	1.8	1.86	2.42	3.25	3.95	4.63	5.34	6.11	7.02	8.19	10.01	11.70		
Ann	62.50	61.22	8.27	Mar 1973	16	18.12	Mar 1973	.03	Aug 1999	119.3	85.6	42.1	19.9	45.95	49.20	53.33	56.46	59.22	61.89	64.63	67.66	71.31	76.60	81.15		

<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: 1948-2001

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

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**COOP ID: 013620** 

**Station: HALEYVILLE, AL** 

Climate Division: AL 3 NWS Call Sign: Elevation: 920 Feet Lat: 34°14N Lon: 87°38W

										Snov	v (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ians (1)	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	5.0	1988	7	5.0	1988	2	1975	12	#+	1999	.3	.1	@	@	.0	.1	.0	.0	.0		
Feb	.1	.0	#	0	2.0	1985	12	2.0	1985	1	1997	10	#+	1999	.3	.1	.0	.0	.0	.1	.0	.0	.0		
Mar	.3	.0	0	0	6.0	1993	13	6.0+	1993	0	0	0	0	0	.1	.1	@	@	.0	.0	.0	.0	.0		
Apr	.1	.0	0	0	2.0	1987	3	2.0	1987	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	#	1993	31	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Nov	#	.0	0	0	#	1991	8	#	1991	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Dec	.1	.0	#	0	1.0	1989	9	1.0	1989	3	1997	29	#+	1997	.1	@	.0	.0	.0	.0	.0	.0	.0		
Ann	1.1	.0	N/A	N/A	6.0	Mar 1993	13	6.0+	Mar 1993	3	Dec 1997	29	#+	Feb 1999	.8	.3	@	@	.0	.2	.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: 013620** 

Lon: 87°38W

Lat: 34°14N

Elevation: 920 Feet

**Station: HALEYVILLE, 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 4/23 4/19 4/16 4/13 4/11 4/08 4/05 4/02 3/29 32 4/09 4/16 4/12 4/06 4/04 4/01 3/30 3/27 3/22 28 4/09 4/02 3/29 3/25 3/22 3/18 3/14 3/10 3/04 2/12 24 3/18 3/12 3/08 3/04 3/01 2/26 2/22 2/18 20 3/17 3/08 3/02 2/24 2/19 2/14 2/08 2/02 1/24 2/27 16 3/08 2/21 2/16 2/11 2/06 1/31 1/24 1/10 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 10/03 10/09 10/13 10/16 10/19 10/22 10/26 10/30 11/04 32 10/13 10/19 10/24 10/28 11/01 11/04 11/08 11/13 11/20 28 10/25 11/01 11/06 11/10 11/14 11/17 11/21 11/26 12/03 24 11/04 11/13 11/19 11/24 11/29 12/04 12/10 12/16 12/24 20 11/12 11/23 12/02 12/09 12/16 12/23 12/31 1/08 1/20 11/29 12/25 1/01 1/15 16 12/10 12/18 1/08 1/25 2/12 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 210 203 199 195 191 187 183 178 172 36 32 234 226 220 215 210 205 200 194 186 28 266 256 249 242 236 230 224 217 206 24 301 291 284 278 273 267 261 254 245 347 325 304 279 256 20 313 296 288 269 303 16 >365 >365 341 329 320 311 294 282

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:

<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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Climate Division: AL 3 NWS Call Sign: Elevation: 920 Feet Lat: 34°14N Lon: 87°38W

	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	816	618	426	197	59	3	0	1	26	198	433	711	3488		
60	670	479	288	102	17	0	0	0	7	110	300	566	2539		
57	582	401	216	61	7	0	0	0	2	71	230	479	2049		
55	525	349	175	40	3	0	0	0	1	51	190	424	1758		
50	391	230	92	11	0	0	0	0	0	18	107	299	1148		
32	78	16	0	0	0	0	0	0	0	0	2	40	136		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	285	322	603	823	1096	1273	1429	1408	1190	887	566	352	10234		
55	19	11	65	173	386	583	716	695	501	224	64	23	3460		
57	14	7	44	134	327	523	654	633	442	183	45	16	3022		
60	8	1	23	85	245	433	561	540	356	129	24	10	2415		
65	0	0	6	30	131	286	406	386	226	61	7	0	1539		
70	0	0	0	7	54	153	252	240	122	23	1	0	852		

	Growing Degree Units																												
Base		Growing Degree Units (Monthly)														Growing Degree Units (Accumulated Monthly)													
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec J													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
40	122	197	396	599	867	1046	1191	1175	963	656	355	175	122	319	715	1314	2181	3227	4418	5593	6556	7212	7567	7742					
45	63	115	268	454	712	896	1036	1020	813	502	235	95	63	178	446	900	1612	2508	3544	4564	5377	5879	6114	6209					
50	28	56	161	316	557	746	881	865	663	355	137	48	28	84	245	561	1118	1864	2745	3610	4273	4628	4765	4813					
55	6	20	82	196	402	596	726	710	514	222	73	17	6	26	108	304	706	1302	2028	2738	3252	3474	3547	3564					
60	0	1	33	103	256	446	571	555	369	117	26	1	0	1	34	137	393	839	1410	1965	2334	2451	2477	2478					
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)																
50/86	<b>86</b> 75 124 238 375 567 723 828 808 646 411 208 10											100	75	199	437	812	1379	2102	2930	3738	4384	4795	5003	5103					

(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