# 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: 014226** 

Lon: 87°19W

Station: JASPER, 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 51.4 30.1 40.8 76+ 1975 30 50.4 1974 -10 1985 21 29.7 1977 753 0 .0 .0 18.4 1.7 20.5 .2 Jan 56.3 32.8 44.6 84+ 1996 24 51.9 1990 2 1996 4 35.4 1978 573 0 .0 .0 19.7 .9 16.4 0. Feb Mar 65.7 40.4 53.1 90 1967 12 59.2 1973 6 1980 3 46.5 1971 380 9 .0 .0 28.7 .1 9.9 0. 9 25+7 1997 Apr 73.5 46.7 60.1 94 1965 65.2 1981 1990 56.4 169 .0. .1 29.8 .0 3.3 0. May 79.8 56.6 68.2 96+ 1962 28 72.5 2000 31 1971 4 62.6 1976 43 143 .0 1.4 31.0 .0 @ .0 64.9 75.9 22 79.6 40 72.0 @ 9.5 Jun 86.8 102 +1964 1998 1966 1974 1 326 30.0 .0 .0 .0 Jul 90.2 69.3 79.8 17 83.9 1980 49 1967 15 77.1 1994 457 .7 17.8 31.0 0. 108 1980 0 .0 .0 1992 90.0 67.9 79.0 103 1980 8 83.3 1995 51 1968 31 74.5 0 432 1.2 16.7 31.0 .0 .0 .0 Aug 32 9 Sep 84.4 61.6 73.0 100 +1990 6 77.2 1998 1967 30 70.1 1975 249 .1 7.3 30.0 .0 .0 .0 74.4 48.2 22+ 54.8 1987 55 Oct 61.3 92 +1981 1 67.6 1984 1962 26 171 .0 .3 30.9 .0 2.2 .0 63.9 39.7 51.8 85+ 2000 2 59.6 1985 10 1970 24 43.5 1976 403 .0 .0 27.2 @ 11.2 .0 Nov 6 Dec 54.6 32.7 43.7 78 1964 24 51.4 1984 -2 1962 13 34.5 2000 663 0 .0 .0 21.5 .7 18.6 .1 Jul Jul Jan Jan 49.2 60.9 108 1980 17 83.9 1980 -10 1985 21 29.7 1977 3165 1699 2.0 53.1 329.2 3.4 82.1 .3 72.6 Ann

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

Issue Date: February 2004 040-A

(1) From the 1971-2000 Monthly Normals

Elevation: 486 Feet Lat: 33°54N

- (2) Derived from station's available digital record: 1960-2001
- (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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**COOP ID: 014226** 

Station: JASPER, AL

**Climate Division: AL 3** 

Elevation: 486 Feet Lat: 33°54N Lon: 87°19W

										Pı	recipit	tation	(incl	ies)											
		Precipitation Totals  Means/ Medians(1)  Extremes									Mean Number of Days (3)  Daily Precipitation				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										
	Medi	Med-	TT: 1	1	1			1	1	\			l	These values were determined from the incomplete gamma distribution											
Month	Mean	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	6.22	6.33	3.74	1994	28	10.05	1989	.86	1986	12.5	8.8	4.2	1.8	2.07	2.66	3.53	4.26	4.96	5.69	6.48	7.41	8.60	10.45	12.16	
Feb	5.31	5.04	4.22	1961	22	9.63	1990	1.21	1978	10.1	7.1	3.5	2.1	2.01	2.50	3.21	3.80	4.37	4.94	5.56	6.28	7.20	8.61	9.90	
Mar	6.49	5.83	5.27	1994	28	15.30	1980	2.09	1985	11.2	8.5	4.4	2.2	2.35	2.96	3.84	4.58	5.28	6.00	6.78	7.69	8.85	10.64	12.28	
Apr	5.07	4.49	5.85	1979	13	11.30	1979	.85	1986	8.4	6.2	3.1	1.6	1.19	1.67	2.41	3.07	3.73	4.43	5.22	6.15	7.37	9.32	11.15	
May	5.06	4.42	6.09	1997	3	11.92	1991	1.53	1998	9.1	6.5	3.1	1.4	1.53	2.01	2.73	3.35	3.95	4.57	5.26	6.07	7.11	8.74	10.24	
Jun	4.62	4.52	2.77	1995	12	11.58	1997	.53	1988	10.3	7.8	3.1	1.4	1.41	1.85	2.51	3.07	3.62	4.18	4.81	5.54	6.49	7.96	9.33	
Jul	4.90	4.80	3.60	1985	27	11.26	1979	.60	1993	11.2	7.9	3.4	1.5	1.12	1.58	2.30	2.94	3.58	4.26	5.03	5.94	7.14	9.05	10.84	
Aug	2.88	2.44	3.60	1966	3	6.35	1985	.00	1999	9.1	5.8	2.1	.6	.67	1.08	1.56	1.93	2.29	2.65	3.05	3.51	4.09	5.01	5.85	
Sep	4.13	3.76	4.22	1996	17	10.62	1988	.07	1984	8.8	6.0	2.3	1.3	.56	.90	1.49	2.06	2.67	3.33	4.10	5.05	6.33	8.42	10.44	
Oct	3.63	2.58	4.35	1975	8	9.10	1975	.39	1978	6.6	4.6	2.3	1.1	.56	.87	1.40	1.90	2.42	2.98	3.63	4.43	5.50	7.23	8.89	
Nov	4.69	4.57	3.20	2000	9	9.87	2000	1.22	1971	10.1	7.1	3.5	1.4	1.60	2.04	2.69	3.24	3.76	4.31	4.90	5.59	6.48	7.85	9.12	
Dec	5.72	5.19	8.10	1973	26	11.85	1973	1.42	1980	11.3	8.2	3.9	1.5	1.92	2.46	3.26	3.93	4.57	5.24	5.97	6.82	7.91	9.60	11.16	
Ann	58.72	59.30	8.10	Dec 1973	26	15.30	Mar 1980	.00	Aug 1999	118.7	84.5	38.9	17.9	42.73	45.86	49.84	52.86	55.53	58.11	60.76	63.69	67.24	72.37	76.79	

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

**NWS Call Sign:** 

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: 1960-2001

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**Station: JASPER, AL** 

Climate Division: AL 3 NWS Call Sign:

**Elevation:** 

**486 Feet** 

Lat: 33°54N

Lon: 87°19W

**COOP ID: 014226** 

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Da	<b>ys</b> (1)		
	Mean	s/Medi	ans (1)	)		Extremes (2)												Snow Fall >= 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	.4	.0	#	0	3.0	1978	20	3.0	1978	3	1982	14	#+	1997	.4	.3	.1	.0	.0	.2	.0	.0	.0
Feb	.2	.0	#	0	2.5	1996	3	2.5	1996	3	1996	3	1	1985	.3	.1	.0	.0	.0	.1	.0	.0	.0
Mar	.1	.0	#	0	1.5	1983	24	1.5	1983	1	1980	2	#	1980	.1	.1	.0	.0	.0	@	.0	.0	.0
Apr	#	.0	0	0	#	1971	7	#	1971	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	#	1983	19	#+	1983	#	1974	1	#	1974	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.7	.0	N/A	N/A	3.0	Jan 1978	20	3.0	Jan 1978	3+	Feb 1996	3	1	Feb 1985	.8	.5	.1	.0	.0	.3	.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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Elevation: 486 Feet Lat: 33°54N

				Freez	e Data											
			Spri	ng Freeze D	ates (Month/	(Day)										
Tomn (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated	(*)								
Temp (F)  36 32 28 24 20 16  Temp (F)  36 32 28 24 20 16  Temp (F)  36 32 28 24 20 16	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	5/08	5/03	4/29	4/25	4/22	4/19	4/15	4/11	4/05							
32	4/24	4/19	4/16	4/13	4/10	4/07	4/04	4/01	3/27							
28	4/11	4/05	4/02	3/29	3/26	3/23	3/20	3/16	3/11							
24	3/23	3/16	3/10	3/05	3/01	2/25	2/20	2/14	2/07							
20	3/15	3/07	3/01	2/23	2/19	2/14	2/09	2/03	1/25							
16	3/04	2/23	2/17	2/12	2/06	2/01	1/26	1/17	0/00							
_			Fal	l Freeze Da	tes (Month/D	ay)										
Tomp (F)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	9/29	10/04	10/07	10/10	10/12	10/15	10/17	10/21	10/25							
32	10/08	10/14	10/19	10/22	10/26	10/29	11/02	11/06	11/12							
28	10/24	10/29	11/02	11/05	11/08	11/11	11/14	11/18	11/23							
24	11/05	11/11	11/16	11/19	11/23	11/26	11/30	12/04	12/10							
20	11/14	11/23	11/30	12/06	12/11	12/17	12/22	12/29	1/07							
16	12/03	12/12	12/18	12/23	12/29	1/03	1/09	1/18	0/00							
_				Freeze F	ree Period											
Tomn (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	)								
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	195	187	182	177	172	168	163	158	150							
32	219	212	207	202	198	194	189	184	177							
28	246	239	234	230	226	222	218	213	206							
24	295	285	278	272	266	260	254	247	237							
20	327	316	308	301	295	288	281	273	262							
16	>365	>365	343	330	322	314	307	299	288							

<sup>\*</sup> 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.

Complete documentation available from:

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Lon: 87°19W

Station: JASPER, AL

**Climate Division: AL 3** 

Elevation: 486 Feet Lat: 33°54N

				Deg	ree Days to	o Selected	Base Tem	peratures	( <b>°F</b> )							
Base		Heating Degree Days (1)														
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann			
65	753	573	380	169	43	1	0	0	9	171	403	663	3165			
60	606	434	247	75	10	0	0	0	1	87	270	517	2247			
57	519	356	182	39	3	0	0	0	0	53	201	430	1783			
55	463	305	145	22	1	0	0	0	0	35	161	376	1508			
50	332	190	71	4	0	0	0	0	0	10	83	254	944			
32	49	7	0	0	0	0	0	0	0	0	0	24	80			

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	319	358	653	843	1123	1315	1480	1455	1231	907	593	384	10661
55	19	12	84	175	411	625	767	742	541	229	64	23	3692
57	14	7	60	132	351	565	705	680	481	184	44	16	3239
60	8	1	32	78	265	475	612	587	392	126	23	9	2608
65	0	0	9	22	143	326	457	432	249	55	6	0	1699
70	0	0	0	3	60	185	302	279	129	17	0	0	975

										Gro	wing	Degre	e Uni	ts (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	135	192	394	589	863	1057	1211	1189	976	640	346	175	135	327	721	1310	2173	3230	4441	5630	6606	7246	7592	7767
45	66	109	264	443	708	907	1056	1034	826	487	224	103	66	175	439	882	1590	2497	3553	4587	5413	5900	6124	6227
50	35	54	160	305	553	757	901	879	676	339	131	51	35	89	249	554	1107	1864	2765	3644	4320	4659	4790	4841
55	12	23	79	182	400	607	746	724	526	211	64	23	12	35	114	296	696	1303	2049	2773	3299	3510	3574	3597
60	0	5	30	94	253	457	591	569	377	108	20	1	0	5	35	129	382	839	1430	1999	2376	2484	2504	2505
Base		•	•	Gro	wing De	gree Unit	s for Co	rn (Mont	thly)	•					Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	89	141	271	390	567	718	829	806	651	423	233	121	89	230	501	891	1458	2176	3005	3811	4462	4885	5118	5239

(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

**NWS Call Sign:** 

#### 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