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: 010655

Lon: 86°53W

Station: BELLE MINA 2 N, AL

Climate Division: AL 1 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 Year Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 48.6 29.1 38.9 78+ 1952 2 47.7 1974 -19 1966 30 26.9 1977 811 0 .0 .0 15.6 2.8 19.4 .2 Jan 13 32.7 53.8 31.7 42.8 82 1962 49.7 1990 -4 1958 17 1978 622 0 .0 .0 18.2 1.3 15.0 .1 Feb Mar 62.9 39.4 51.2 85+ 1995 24 57.8 1974 7 1980 3 45.8 1971 436 6 .0 .0 27.2 .2 8.2 0. 47.0 3 1983 27 Apr 72.0 59.5 90+1986 28 65.4 1981 26 +1992 54.1 191 .0. (a) 29.5 .0 1.4 .0 May 0.08 56.4 68.2 99 1962 19 73.1 1987 35+ 1971 4 63.0 1976 51 150 .0 1.6 31.0 .0 .0 .0 64.2 1954 27 79.9 42 1984 72.0 10.2 Jun 87.1 75.7 105 +1998 1 1997 1 320 .1 30.0 .0 .0 .0 Jul 90.3 68.0 79.2 1952 28 82.3 1980 51 1967 15 76.7 1972 0 439 17.9 31.0 0. .0 108 .6 .0 1992 89.7 66.0 77.9 108 1954 16 81.9 1983 50+ 1956 22 73.4 0 397 .8 16.6 31.0 .0 .0 .0 Aug 18 .2 Sep 83.8 59.6 71.7 105 +1954 5 76.6 1998 36+ 1967 30 67.1 1975 218 6.4 30.0 .0 .0 .0 1954 5 24 +54.3 1987 47 Oct 73.6 47.1 60.4 97 66.5 1984 1952 30 191 .0 .1 30.9 .0 1.5 .0 62.3 38.8 2000 57.5 1985 0 1950 25 41.6 1976 438 5 .0 .0 26.1 @ 9.5 .0 Nov 50.6 86 1 Dec 52.4 31.8 42.1 80 +1998 6 50.7 1984 -5 1989 23 31.8 1989 710 0 .0 .0 19.1 1.3 17.3 .2 Aug Jul Jan Jan 48.3 59.9 108 +1954 16 82.3 1980 -19 30 26.9 1977 3469 1609 1.7 52.8 319.6 72.3 .5 71.4 1966 5.6 Ann

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

Issue Date: February 2004 010-A

(1) From the 1971-2000 Monthly Normals

Elevation: 600 Feet Lat: 34°41N

- (2) Derived from station's available digital record: 1950-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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COOP ID: 010655

Station: BELLE MINA 2 N, AL

Climate Division: AL 1 NWS Call Sign: Elevation: 600 Feet Lat: 34°41N Lon: 86°53W

										Pı	recipit	tation	(incl	nes)												
	Me	ans/	P	recipi	itatio	on Total					Mean Number of Days (3) Probability that the monthly/annual precipitation will be equal indicated amount Monthly/Annual Precipitation vs Probability Levels												less tha	in the		
	Medi	ians(1)				Extremes	•			_ D	any Fie	стриацо	11	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	5.43	5.11	4.23	1950	6	10.94	1999	1.04	1986	12.2	8.5	4.0	1.4	1.89	2.40	3.15	3.78	4.38	5.00	5.68	6.46	7.47	9.03	10.46		
Feb	4.57	4.09	4.45	1994	11	9.97	1991	.71	1978	10.1	7.1	2.9	1.5	1.41	1.85	2.49	3.05	3.58	4.14	4.75	5.48	6.40	7.85	9.20		
Mar	6.29	5.42	7.86	1973	16	15.76	1973	2.10	1985	11.9	8.2	4.2	1.8	2.24	2.83	3.69	4.41	5.10	5.81	6.58	7.47	8.62	10.39	12.01		
Apr	4.42	4.01	3.53	1963	28	9.04	1991	.68	1986	10.2	7.2	3.1	1.3	1.27	1.69	2.32	2.87	3.41	3.96	4.58	5.31	6.25	7.73	9.11		
May	4.55	4.12	6.46	1980	17	10.25	1980	.73	2000	10.7	6.6	2.9	1.4	1.19	1.62	2.28	2.86	3.43	4.03	4.70	5.49	6.52	8.15	9.66		
Jun	4.45	3.81	5.14	1992	26	13.46	1989	.13	1988	10.5	7.2	3.1	1.4	.87	1.27	1.93	2.53	3.13	3.78	4.52	5.41	6.59	8.48	10.28		
Jul	4.35	4.24	4.94	1978	3	8.31	1973	.55	1983	10.9	7.4	2.7	1.0	1.34	1.75	2.37	2.90	3.41	3.94	4.52	5.20	6.09	7.46	8.74		
Aug	3.25	3.02	3.00	1952	30	7.17	1982	.19	1999	9.0	5.4	2.2	.9	.73	1.03	1.50	1.93	2.36	2.82	3.33	3.94	4.74	6.02	7.23		
Sep	3.88	4.38	3.91	1997	25	8.07	1996	.56	1999	8.6	5.9	2.7	1.2	.81	1.17	1.74	2.26	2.78	3.34	3.97	4.72	5.72	7.32	8.83		
Oct	3.51	2.70	4.84	1975	8	11.32	1975	.02	2000	7.8	5.2	2.4	.8	.46	.74	1.24	1.73	2.25	2.82	3.48	4.29	5.39	7.19	8.94		
Nov	5.08	4.93	3.65	1957	16	10.58	1977	2.31	1997	10.5	7.0	3.6	1.6	2.15	2.61	3.26	3.79	4.28	4.78	5.32	5.94	6.72	7.92	9.00		
Dec	5.53	4.59	7.38	1990	23	18.92	1990	1.04	1980	11.3	7.9	4.0	1.7	1.42	1.94	2.74	3.45	4.15	4.89	5.71	6.68	7.95	9.95	11.82		
Ann	55.31	55.56	7.86	Mar 1973	16	18.92	Dec 1990	.02	Oct 2000	123.7	83.6	37.8	16.0	42.30	44.89	48.17	50.63	52.80	54.88	57.02	59.36	62.19	66.25	69.74		

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1950-2001

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

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COOP ID: 010655

Station: BELLE MINA 2 N, AL

Climate Division: AL 1 NWS Call Sign: Elevation: 600 Feet Lat: 34°41N Lon: 86°53W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (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	.6	.0	#	0	4.0	1975	12	5.0	1978	1	1997	11	#+	2000	.6	.2	.1	.0	.0	.1	.0	.0	.0
Feb	.4	.0	#	0	3.0	1985	12	3.0+	1979	#+	1997	10	#+	1997	.4	.3	@	.0	.0	.0	.0	.0	.0
Mar	.4	.0	#	0	7.0	1993	13	7.0	1993	#+	1998	12	#+	1998	.2	.1	@	@	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	1.0	1987	3	1.0	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	#	.0	0	0	#	1989	17	#+	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.2	.0	#	0	1.0	1974	1	1.5	1985	2	1997	29	#+	2000	.3	.1	.0	.0	.0	.0	.0	.0	.0
Ann	1.6	.0	N/A	N/A	7.0	Mar 1993	13	7.0	Mar 1993	2	Dec 1997	29	#+	Dec 2000	1.5	.7	.1	@	.0	.1	.0	.0	.0

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

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

[@] 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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COOP ID: 010655

Lon: 86°53W

Lat: 34°41N

Station: BELLE MINA 2 N, AL

Climate Division: AL 1 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 .60 .70 .80 .90 36 4/24 4/21 4/18 4/15 4/13 4/11 4/08 4/06 4/02 32 4/11 4/08 4/16 4/05 4/03 3/31 3/29 3/25 3/21 28 4/04 3/28 3/23 3/18 3/14 3/10 3/06 3/01 2/22 3/05 2/10 24 3/15 3/10 3/02 2/27 2/23 2/20 2/15 20 3/10 3/02 2/24 2/19 2/14 2/09 2/04 1/29 1/21 2/20 2/07 16 3/01 2/13 2/01 1/26 1/20 1/11 12/27 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 10/04 10/09 10/12 10/15 10/18 10/21 10/24 10/27 11/01 32 10/12 10/17 10/21 10/25 10/28 10/31 11/04 11/08 11/14 28 10/24 10/30 11/04 11/07 11/11 11/14 11/18 11/22 11/28 24 11/06 11/14 11/20 11/25 11/29 12/04 12/09 12/15 12/23 20 11/21 11/30 12/06 12/12 12/17 12/22 12/28 1/03 1/12 12/21 12/26 1/01 16 12/05 12/14 1/06 1/12 1/20 2/04 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 201 193 190 187 185 182 178 174 36 196 32 230 222 217 212 208 203 198 193 185 28 265 257 251 245 241 236 231 224 216

280

310

339

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

285

317

352

Derived from 1971-2000 serially complete daily data

300

339

>365

291

326

>365

24

20

16

Complete documentation available from:

265

291

315

Elevation: 600 Feet

259

283

307

251

272

296

275

304

330

270

298

322

^{*} 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	811	622	436	191	51	1	0	0	18	191	438	710	3469
60	663	482	297	95	14	0	0	0	3	101	303	562	2520
57	576	404	225	55	6	0	0	0	1	62	231	475	2035
55	519	352	183	35	3	0	0	0	0	43	189	418	1742
50	385	232	98	9	0	0	0	0	0	13	104	291	1132
32	75	15	1	0	0	0	0	0	0	0	1	34	126

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	287	318	594	826	1121	1308	1462	1420	1190	878	558	347	10309
55	18	10	63	171	411	618	749	707	500	208	55	19	3529
57	13	6	43	131	352	558	687	645	440	166	37	13	3091
60	8	1	22	81	268	468	594	552	353	111	19	7	2484
65	0	0	6	27	150	320	439	397	218	47	5	0	1609
70	0	0	0	5	66	180	284	248	109	14	0	0	906

Growing Degree Units (2) Base Growing Degree Units (Monthly) Growing Degree Units (Accumulated Monthly)																									
Base					Growin	g Degree	Units (M	Ionthly)					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	131	186	384	595	877	1072	1220	1183	960	647	346	168	131	317	701	1296	2173	3245	4465	5648	6608	7255	7601	7769	
45	67	107	255	448	722	922	1065	1028	810	496	227	96	67	174	429	877	1599	2521	3586	4614	5424	5920	6147	6243	
50	32	49	154	313	567	772	910	873	660	348	134	48	32	81	235	548	1115	1887	2797	3670	4330	4678	4812	4860	
55	12	18	76	192	412	622	755	718	510	216	67	19	12	30	106	298	710	1332	2087	2805	3315	3531	3598	3617	
60	0	0	34	103	270	472	600	563	364	116	26	1	0	0	34	137	407	879	1479	2042	2406	2522	2548	2549	
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)	•		
50/86	75	123	237	376	577	734	832	801	643	421	221	103	75	198	435	811	1388	2122	2954	3755	4398	4819	5040	5143	

(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