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: 017025

Lon: 85°17W

Station: ROCK MILLS, AL

Climate Division: AL 5 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 54.8 29.9 42.4 83 1949 12 54.0 1974 0 +1966 31 33.0 1977 703 0 .0 .0 23.1 .6 22.3 @ Jan 59.3 32.1 45.7 82+ 1989 16 53.3 1990 6 38.2 1978 540 0 .0 .0 22.1 .5 15.6 0. Feb 1966 1 Mar 67.8 38.7 53.3 87 1982 18 59.8 1997 11 1943 4 46.5 1971 373 9 .0 .0 29.9 @ 7.5 0. 44.9 24 1983 Apr 76.7 60.8 92 +1989 23 65.4 1981 2000 9 56.2 155 30 .0. .5 29.9 .0 2.2 0. May 83.5 53.8 68.7 98+ 1962 19 72.6 1987 32+ 1971 5 64.5 1997 38 150 .0 2.6 31.0 .0 .1 .0 1954 79.7 30 22 72.6 15.0 Jun 90.3 62.0 76.2 103 28 1981 1954 1997 1 336 .3 30.0 .0 .0 .0 Jul 92.5 66.5 79.5 107 1952 25 82.7 52+ 1967 16 77.1 1994 450 .7 21.7 31.0 0. .0 1980 0 .0 1992 91.3 65.2 78.3 104 1947 4 81.2 1980 49 1992 29 74.2 0 411 .5 22.5 31.0 .0 .0 .0 Aug 32 11 Sep 85.9 59.3 72.6 100 +1990 8 77.2 1980 1967 30 69.1 2000 239 @ 8.1 30.0 .0 .0 .0 45.5 1954 5 67.7 21 +55.6 1987 Oct 76.8 61.2 99 1984 1954 31 168 49 .0 .5 31.0 .0 2.4 .0 37.5 52.2 2000 60.7 1985 6 1950 25 45.6 1976 393 8 .0 .0 29.2 .0 9.9 .0 Nov 66.8 86+ 1 Dec 57.7 31.5 44.6 80 +1971 16 52.4 1984 -1 1962 13 35.7 2000 633 0 .0 .0 25.7 .2 17.5 .0 Jul Jul Dec Jan 75.3 47.2 61.3 107 1952 25 82.7 1980 -1 1962 13 33.0 1977 3015 1682 1.5 70.9 343.9 1.3 77.5 @ Ann

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

Issue Date: February 2004 052-A

(1) From the 1971-2000 Monthly Normals

Elevation: 745 Feet Lat: 33°10N

- (2) Derived from station's available digital record: 1938-2001
- (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: 017025

Station: ROCK MILLS, AL

Climate Division: AL 5 NWS Call Sign: Elevation: 745 Feet Lat: 33°10N Lon: 85°17W

										Pı	recipi	tation	(incl	nes)										
	Ma	ans/	P	recip	itatio	on Total	S			М	ean N	Numb Pays (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										
		ans(1)				Extremes	8			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	5.91	5.88	4.23	1972	11	11.00	1972	1.34	1981	11.8	8.2	3.8	1.4	2.23	2.78	3.57	4.23	4.85	5.49	6.18	6.99	8.01	9.58	11.01
Feb	5.11	4.72	7.04	1961	25	11.06	1990	1.26	2000	9.3	6.8	3.8	1.8	1.81	2.30	2.99	3.58	4.14	4.71	5.34	6.07	7.00	8.43	9.75
Mar	6.05	5.08	5.32	1990	16	14.10	1976	1.48	1982	10.4	7.8	3.9	1.8	1.87	2.44	3.30	4.03	4.74	5.48	6.29	7.24	8.47	10.39	12.16
Apr	4.42	4.09	4.55	1945	25	12.52	1979	1.06	1986	8.9	6.1	2.9	1.2	1.28	1.70	2.34	2.88	3.42	3.97	4.59	5.31	6.24	7.71	9.07
May	3.65	3.41	2.92	2001	28	7.72	1980	.86	2000	9.3	6.5	2.1	.8	1.43	1.77	2.25	2.65	3.02	3.41	3.82	4.30	4.91	5.84	6.69
Jun	4.21	3.47	5.79	1999	17	11.21	1999	.48	1988	10.9	6.7	1.9	.8	.79	1.17	1.78	2.35	2.94	3.56	4.27	5.13	6.27	8.11	9.85
Jul	4.64	4.03	4.04	1948	10	9.32	1994	1.35	1990	10.6	8.5	3.5	1.6	1.60	2.04	2.68	3.22	3.73	4.27	4.85	5.52	6.39	7.73	8.97
Aug	3.63	3.39	4.00	1945	13	8.38	1992	.92	1972	7.1	5.0	1.5	.7	1.29	1.64	2.13	2.54	2.94	3.35	3.79	4.30	4.96	5.98	6.91
Sep	3.69	3.62	4.83	1988	16	12.08	1988	.20	1984	8.2	5.5	2.4	1.0	.71	1.04	1.58	2.08	2.59	3.13	3.75	4.49	5.48	7.06	8.56
Oct	2.69	2.63	4.75	1965	1	7.67	1975	.15	1978	6.8	4.4	1.7	.8	.41	.63	1.02	1.39	1.78	2.20	2.69	3.28	4.08	5.38	6.63
Nov	4.60	3.90	4.69	1948	27	11.78	1992	1.62	1981	5.9	4.3	2.1	1.1	1.54	1.98	2.61	3.16	3.68	4.21	4.80	5.48	6.36	7.73	8.98
Dec	4.68	4.03	4.24	1972	21	11.17	1972	.38	1988	10.6	6.9	3.0	1.1	1.16	1.60	2.28	2.88	3.48	4.11	4.82	5.66	6.76	8.49	10.12
Ann	53.28	53.20	7.04	Feb 1961	25	14.10	Mar 1976	.15	Oct 1978	109.8	76.7	32.6	14.1	39.90	42.54	45.89	48.42	50.65	52.79	55.00	57.43	60.36	64.58	68.21

⁺ 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: 1938-2001

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

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Station: ROCK MILLS, AL

COOP ID: 017025 Climate Division: AL 5 Elevation: 745 Feet Lat: 33°10N Lon: 85°17W **NWS Call Sign:**

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Means/Medians (1)					Extremes (2)											Snow Fall >= Thresholds						n ds		
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	6.0	1992	19	6.0	1992	1	2000	28	#	2000	.1	.1	.1	.1	.0	.0	.0	.0	.0		
Feb	#	.0	0	0	#	1980	6	#+	1980	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Mar	.4	.0	0	0	6.0	1983	23	6.0	1983	0	0	0	0	0	.1	.1	.1	.1	.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	1.0	2000	19	1.0	2000	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Ann	1.0	.0	N/A	N/A	6.0+	Jan 1992	19	6.0+	Jan 1992	1	Jan 2000	28	#	Jan 2000	.3	.3	.2	.2	.0	.0	.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: 017025 Lon: 85°17W

Lat: 33°10N

Station: ROCK MILLS, AL

Climate Division: AL 5 NWS Call Sign:

VS Call Sign: Elevation: 745 Feet

				Freez	e Data										
			Spri	ng Freeze D	ates (Month/	Day)									
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	4/30	4/25	4/22	4/19	4/16	4/14	4/11	4/08	4/03						
32	4/26	4/18	4/13	4/09	4/05	4/01	3/27	3/22	3/15						
28	4/08	4/01	3/27	3/22	3/18	3/13	3/09	3/03	2/24						
24	3/22	3/14	3/09	3/04	2/28	2/24	2/19	2/13	2/04						
20	3/06	2/26	2/20	2/15	2/09	2/04	1/29	1/21	0/00						
16	2/25	2/16	2/09	2/03	1/28	1/22	1/14	12/30	0/00						
		•	Fal	l Freeze Da	tes (Month/D	ay)	•	1	1						
To (E)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	10/01	10/06	10/10	10/13	10/16	10/19	10/22	10/25	10/30						
32	10/08	10/15	10/19	10/23	10/27	10/31	11/04	11/09	11/15						
28	10/24	10/31	11/05	11/10	11/14	11/18	11/23	11/28	12/05						
24	10/31	11/10	11/18	11/24	11/30	12/06	12/13	12/21	1/03						
20	11/19	11/28	12/05	12/11	12/17	12/23	12/30	1/08	0/00						
16	12/03	12/14	12/22	12/29	1/05	1/13	1/22	2/08	0/00						
		1		Freeze F	ree Period		•	1	1						
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	201	194	190	186	182	178	174	169	162						
32	235	225	217	211	205	199	192	185	174						
28	274	263	255	247	241	234	227	219	207						
24	311	294	285	278	271	265	259	251	241						
20	>365	338	322	313	306	299	292	285	275						
16	>365	>365	>365	347	333	323	314	305	294						

^{*} 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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COOP ID: 017025

Station: ROCK MILLS, AL

Climate Division: AL 5 NWS Call Sign: Elevation: 745 Feet Lat: 33°10N Lon: 85°17W

				Deg	ree Days to	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	703	540	373	155	38	1	0	0	11	168	393	633	3015
60	557	401	241	68	8	0	0	0	2	82	262	487	2108
57	471	323	176	35	2	0	0	0	0	48	195	402	1652
55	416	272	138	20	1	0	0	0	0	31	157	348	1383
50	291	162	66	4	0	0	0	0	0	8	81	230	842
32	35	4	0	0	0	0	0	0	0	0	0	17	56

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	355	388	659	865	1136	1325	1473	1434	1218	904	605	407	10769
55	23	12	84	195	423	635	760	721	528	222	71	24	3698
57	16	7	59	150	363	575	698	659	468	177	50	16	3238
60	10	1	32	93	276	485	605	566	379	119	26	9	2601
65	0	0	9	30	150	336	450	411	239	49	8	0	1682
70	0	0	0	6	63	194	295	257	122	14	0	0	951

	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 Jul											Jun	Jul	Aug	Sep	Oct	Nov	Dec							
40	146	221	432	638	882	1068	1225	1186	985	667	389	196	146	367	799	1437	2319	3387	4612	5798	6783	7450	7839	8035
45	62	125	288	490	727	918	1070	1031	835	513	253	99	62	187	475	965	1692	2610	3680	4711	5546	6059	6312	6411
50	27	57	168	346	572	768	915	876	685	361	143	47	27	84	252	598	1170	1938	2853	3729	4414	4775	4918	4965
55	7	19	81	212	417	618	760	721	535	225	69	22	7	26	107	319	736	1354	2114	2835	3370	3595	3664	3686
60	0	1	32	108	268	468	605	566	387	110	27	2	0	1	33	141	409	877	1482	2048	2435	2545	2572	2574
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	110	166	297	427	585	707	826	797	663	452	275	143	110	276	573	1000	1585	2292	3118	3915	4578	5030	5305	5448

(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