

# Climatography of the United States No. 20

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

Station: ARKADELPHIA 2 N, AR

1971-2000

COOP ID: 030220

Climate Division: AR 8

NWS Call Sign:

Elevation: 196 Feet

Lat: 34°09N

Lon: 93°04W

## Temperature (°F)

Mean (1)				Extremes										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	54.6	30.6	42.6	89	1938	19	48.7	1990	-2+	1962	12	32.5	1979	694	0	.0	.0	18.1	1.4	18.8	.0
Feb	61.2	34.5	47.9	87	1986	20	55.3	1976	-6	1951	2	37.2	1978	481	2	.0	.0	21.7	.7	13.2	.0
Mar	70.0	42.0	56.0	92	1974	31	62.7	1974	9+	1943	3	50.2	1996	295	16	.0	@	29.6	.0	5.5	.0
Apr	77.8	49.2	63.5	95	1987	20	69.6	1981	25	1987	4	58.0	1983	102	57	.0	.2	30.0	.0	1.1	.0
May	83.8	58.3	71.1	99+	1951	29	75.3	1987	38+	1976	4	66.9	1976	16	203	.0	2.5	31.0	.0	.0	.0
Jun	90.1	65.8	78.0	106+	1952	28	81.2	1971	46	1988	11	74.0	1974	0	389	.2	15.3	30.0	.0	.0	.0
Jul	94.0	69.5	81.8	112	1954	16	86.0	1980	40	1944	5	79.2	1984	0	518	2.5	24.9	31.0	.0	.0	.0
Aug	93.9	68.0	81.0	111	1954	29	84.9	1980	48	1986	30	77.7	1994	0	494	2.8	22.9	31.0	.0	.0	.0
Sep	87.9	61.3	74.6	109	1954	3	79.8	1980	20	1946	30	68.9	1974	7	297	.7	10.2	30.0	.0	.0	.0
Oct	78.5	49.1	63.8	102	1938	2	68.6	1971	25	1952	29	58.0	1976	100	63	.0	.5	30.9	.0	1.0	.0
Nov	65.9	40.3	53.1	86+	1938	1	58.0	1985	13	1976	29	45.9	1976	362	5	.0	.0	27.3	.0	7.7	.0
Dec	57.1	33.2	45.2	82+	1938	2	54.8	1984	0	1989	23	34.5	1983	615	0	.0	.0	21.5	.8	15.4	@
Ann	76.2	50.2	63.2	112	Jul 1954	16	86.0	Jul 1980	-6	Feb 1951	2	32.5	Jan 1979	2672	2044	6.2	76.5	332.1	2.9	62.7	@

+ Also occurred on an earlier date(s)

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

Complete documentation available from: [www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1930-2001

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

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Precipitation (inches)																									
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount											
	Means/ Medians(1)		Extremes							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	3.99	3.59	4.02	1999	1	10.50	1999	.20	1986	9.2	6.4	2.7	1.1	.69	1.04	1.62	2.16	2.72	3.33	4.02	4.87	5.99	7.80	9.54	
Feb	3.63	3.15	3.76	1962	27	9.46	1989	.56	1999	7.5	5.6	2.6	1.2	1.10	1.44	1.96	2.40	2.83	3.28	3.78	4.36	5.11	6.28	7.37	
Mar	4.99	4.66	7.02	1990	8	11.46	1990	1.11	1982	8.9	6.5	3.5	1.7	1.52	2.00	2.71	3.31	3.90	4.52	5.19	5.98	7.01	8.60	10.08	
Apr	4.75	4.91	5.55	1957	3	10.30	1973	.75	1987	8.1	5.7	3.1	1.7	1.14	1.58	2.28	2.90	3.51	4.16	4.88	5.75	6.88	8.68	10.36	
May	5.95	5.77	6.25	1958	2	11.32	1979	2.16	1988	9.4	7.7	3.9	1.9	2.04	2.60	3.42	4.11	4.78	5.46	6.21	7.08	8.19	9.92	11.51	
Jun	4.33	4.00	5.50	1945	12	10.83	1974	1.13	1988	7.6	6.3	2.9	1.3	1.11	1.52	2.15	2.70	3.25	3.83	4.47	5.23	6.22	7.78	9.25	
Jul	4.03	3.34	4.95+	1971	24	11.50	1989	.00	1993	7.1	5.7	2.7	1.3	.32	.76	1.42	2.01	2.62	3.28	4.04	4.98	6.22	8.25	10.20	
Aug	2.81	2.38	4.02	1993	6	9.26	1974	.01	2000	5.4	4.0	2.0	1.0	.22	.41	.78	1.16	1.59	2.09	2.68	3.42	4.45	6.18	7.88	
Sep	3.57	2.76	5.65	1964	16	11.45	1980	.30	1982	6.9	4.7	2.3	1.1	.60	.91	1.43	1.92	2.42	2.97	3.59	4.35	5.36	7.00	8.57	
Oct	4.68	4.89	5.83	1990	9	11.61	1990	.32	1977	6.9	5.4	2.9	1.5	.76	1.16	1.84	2.49	3.15	3.87	4.70	5.71	7.06	9.25	11.35	
Nov	5.94	5.47	6.60	1957	13	14.73	1988	.87	1999	8.1	6.4	3.6	2.0	1.22	1.77	2.64	3.43	4.23	5.09	6.06	7.22	8.76	11.22	13.54	
Dec	4.94	4.52	5.18	1993	3	12.62	1987	.73	1981	8.1	6.5	3.2	1.5	1.50	1.97	2.67	3.27	3.86	4.47	5.14	5.93	6.95	8.54	10.01	
Ann	53.61	51.32	7.02	Mar 1990	8	14.73	Nov 1988	.00	Jul 1993	93.2	70.9	35.4	17.3	39.97	42.66	46.08	48.65	50.93	53.12	55.37	57.85	60.84	65.16	68.87	

+ Also occurred on an earlier date(s)

# 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: 1930-2001

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

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Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					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	1.0	.0	#	0	15.0	2000	27	15.0	2000	10	1982	12	3	1988	.6	.3	.2	.1	@	.6	@	.0	.0
Feb	.9	.0	#	0	5.0	1979	7	5.0	1985	5+	1985	3	1	1985	.4	.4	.1	@	.0	.8	.3	.1	.0
Mar	.1	.0	#	0	1.5	1975	14	1.5	1975	2	1975	14	#+	1980	.1	@	.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	.1	.0	#	0	1.2	1976	14	1.2	1976	1	1976	14	#+	1980	.1	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.3	.0	#	0	6.0	1983	16	6.0	1983	6	1983	16	1	1983	.2	.2	@	@	.0	.5	.1	@	.0
Ann	2.4	.0	N/A	N/A	15.0	Jan 2000	27	15.0	Jan 2000	10	Jan 1982	12	3	Jan 1988	1.4	1.0	.3	.1	@	2.0	.4	.1	.0

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

@ 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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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/19	4/16	4/13	4/11	4/10	4/08	4/06	4/03	3/31
32	4/15	4/10	4/07	4/04	4/01	3/30	3/27	3/24	3/19
28	4/04	3/28	3/23	3/18	3/14	3/10	3/05	2/28	2/21
24	3/18	3/10	3/05	3/01	2/25	2/21	2/16	2/11	2/04
20	3/07	2/26	2/20	2/15	2/10	2/05	1/31	1/25	1/17
16	2/21	2/12	2/04	1/29	1/21	1/13	12/28	0/00	0/00
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/06	10/11	10/14	10/18	10/21	10/23	10/27	10/30	11/04
32	10/13	10/19	10/23	10/27	10/31	11/03	11/07	11/11	11/18
28	10/26	11/02	11/06	11/10	11/14	11/17	11/21	11/25	12/02
24	11/11	11/17	11/22	11/25	11/29	12/02	12/06	12/10	12/16
20	11/15	11/26	12/04	12/11	12/17	12/23	12/30	1/07	1/18
16	12/12	12/19	12/23	12/28	1/02	1/07	1/18	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	212	206	201	197	193	189	185	181	174
32	234	226	221	216	211	207	202	197	189
28	272	262	255	249	244	238	232	225	215
24	302	293	287	281	276	271	266	259	250
20	345	331	321	313	306	299	292	283	271
16	>365	>365	>365	>365	>365	345	331	320	306

\* 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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:  
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Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	694	481	295	102	16	0	0	0	7	100	362	615	2672
60	545	351	176	36	2	0	0	0	1	35	230	471	1847
57	457	277	121	15	0	0	0	0	0	14	164	387	1435
55	401	232	91	8	0	0	0	0	0	7	127	335	1201
50	272	141	36	1	0	0	0	0	0	1	59	221	731
32	24	4	0	0	0	0	0	0	0	0	0	17	45

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	353	449	744	945	1210	1379	1541	1517	1279	986	633	425	11461
55	17	33	122	263	497	689	828	804	589	279	70	30	4221
57	11	22	90	210	435	629	766	742	529	225	47	20	3726
60	6	11	52	141	345	539	673	649	440	152	22	11	3041
65	0	2	16	57	203	389	518	494	297	63	5	0	2044
70	0	0	3	14	94	241	363	340	173	18	0	0	1246

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	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	152	254	477	686	947	1135	1293	1265	1023	716	382	200	152	406	883	1569	2516	3651	4944	6209	7232	7948	8330	8530
45	79	153	334	538	792	985	1138	1110	873	562	250	110	79	232	566	1104	1896	2881	4019	5129	6002	6564	6814	6924
50	36	81	210	391	637	835	983	955	723	412	149	57	36	117	327	718	1355	2190	3173	4128	4851	5263	5412	5469
55	13	31	118	255	482	685	828	800	573	268	79	26	13	44	162	417	899	1584	2412	3212	3785	4053	4132	4158
60	0	8	51	140	330	535	673	645	425	155	31	8	0	8	59	199	529	1064	1737	2382	2807	2962	2993	3001
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	104	172	311	448	638	774	870	844	691	470	237	125	104	276	587	1035	1673	2447	3317	4161	4852	5322	5559	5684

(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

Complete documentation available from:  
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## 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.  
Complete documentation for the 1971-2000 Normals is available on the internet from:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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 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.

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)