

# Climatography of the United States

No. 20

1971-2000

Station: WARREN 2 WSW, AR

COOP ID: 037582

Climate Division: AR 8

NWS Call Sign:

Elevation: 210 Feet Lat: 33°36N Lon: 92°06W

## 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	50.8	30.8	40.8	83	1972	25	47.2	1990	-3	1966	30	30.7	1977	750	0	.0	.0	17.6	1.9	18.4	@
Feb	56.5	34.4	45.5	84+	1957	9	53.6	1976	5+	1951	2	33.0	1978	548	0	.0	.0	20.6	1.0	12.8	.0
Mar	65.0	41.7	53.4	89	1955	12	58.8	1974	12	1980	2	47.3	1978	366	6	.0	.0	28.6	@	5.6	.0
Apr	73.0	49.1	61.1	91+	1952	30	66.8	1981	26	1989	11	55.2	1983	156	36	.0	.2	29.7	.0	.6	.0
May	80.0	58.7	69.4	97	1951	31	74.0	1996	39	1954	4	63.4	1976	37	171	.0	1.5	31.0	.0	.0	.0
Jun	87.3	66.7	77.0	102+	1952	26	82.4	1998	46	1984	1	73.2	1974	1	360	.1	12.4	30.0	.0	.0	.0
Jul	91.7	70.5	81.1	112	1964	6	85.1	1980	53+	1967	15	78.1	1989	0	498	1.2	22.8	31.0	.0	.0	.0
Aug	91.6	68.8	80.2	108+	1954	11	84.6	2000	48+	1986	29	75.3	1992	0	470	1.6	21.5	31.0	.0	.0	.0
Sep	85.2	62.3	73.8	107	1951	1	78.8	1998	36	1967	30	68.2	1974	9	272	.5	10.6	30.0	.0	.0	.0
Oct	75.3	50.4	62.9	98+	1953	1	68.0	1971	25	1993	31	56.6	1976	126	58	.0	.6	30.9	.0	.5	.0
Nov	63.2	41.4	52.3	89	1964	2	58.0	1985	13	1976	29	44.4	1976	387	6	.0	.0	27.1	.1	6.4	.0
Dec	53.9	34.0	44.0	83	1982	3	54.3	1984	0	1963	24	33.8	1983	652	0	.0	.0	20.9	1.0	15.8	.0
Ann	72.8	50.7	61.8	112	Jul 1964	6	85.1	Jul 1980	-3	Jan 1966	30	30.7	Jan 1977	3032	1877	3.4	69.6	328.4	4.0	60.1	@

+ 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: 1948-2001

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

074-A

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## No. 20 1971-2000

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

**Station: WARREN 2 WSW, AR**

**COOP ID: 037582**

**Climate Division: AR 8**

**NWS Call Sign:**

**Elevation: 210 Feet Lat: 33°36N**

**Lon: 92°06W**

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	5.06	4.57	4.09	1999	29	13.16	1999	.40	1986	11.8	7.3	3.4	1.6	1.10	1.57	2.31	2.99	3.66	4.37	5.18	6.15	7.42	9.45	11.36
Feb	4.44	4.03	5.01	1966	10	9.91	1990	.79	1972	8.7	6.1	3.0	1.6	1.26	1.68	2.32	2.87	3.41	3.98	4.60	5.34	6.29	7.79	9.19
Mar	5.98	5.57	5.15	1997	2	12.21	1973	1.59	1982	10.7	7.5	4.0	2.1	2.35	2.91	3.69	4.35	4.96	5.59	6.27	7.05	8.05	9.57	10.97
Apr	5.13	4.60	6.93	1997	5	18.01	1991	1.20	1981	9.2	6.1	3.2	1.6	1.18	1.65	2.41	3.08	3.75	4.47	5.27	6.22	7.48	9.48	11.36
May	4.67	4.41	5.01	1953	4	10.13	1979	.64	1998	10.6	7.0	3.3	1.5	1.27	1.71	2.38	2.97	3.55	4.16	4.83	5.62	6.66	8.29	9.80
Jun	4.31	3.37	6.90	1992	3	13.58	1992	.41	1980	9.4	6.2	2.5	1.3	.95	1.35	1.98	2.55	3.12	3.73	4.41	5.23	6.30	8.02	9.63
Jul	4.04	3.41	4.06	1971	24	13.26	1971	.54	2000	8.6	5.9	2.4	1.3	.64	.98	1.57	2.13	2.70	3.33	4.05	4.93	6.10	8.01	9.84
Aug	3.05	2.60	4.16	1969	17	12.77	1984	.16	1980	7.6	4.6	2.1	1.0	.38	.62	1.05	1.48	1.93	2.43	3.01	3.73	4.70	6.30	7.85
Sep	3.71	3.38	5.15	1968	16	7.69	1980	1.05	1982	7.6	5.3	2.3	1.2	1.28	1.63	2.14	2.57	2.98	3.41	3.87	4.41	5.10	6.18	7.16
Oct	4.53	3.06	6.73	1985	20	16.89	1985	.69	2000	7.5	5.0	2.7	1.5	.56	.91	1.55	2.18	2.85	3.60	4.47	5.54	6.99	9.38	11.70
Nov	5.26	4.20	5.37	2000	24	13.79	1986	1.64	1981	9.8	6.8	3.4	1.7	1.35	1.85	2.61	3.29	3.95	4.65	5.43	6.35	7.56	9.46	11.24
Dec	5.42	5.23	3.98	1983	3	15.34	1982	.58	1980	11.0	7.3	3.5	1.7	1.21	1.71	2.51	3.22	3.94	4.70	5.55	6.57	7.92	10.06	12.08
Ann	55.60	53.42	6.93	Apr 1997	5	18.01	Apr 1991	.16	Aug 1980	112.5	75.1	35.8	18.1	41.90	44.61	48.05	50.64	52.92	55.12	57.38	59.86	62.85	67.16	70.86

+ 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: 1948-2001

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

Complete documentation available from:  
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**Climate Division: AR 8**

**NWS Call Sign:**

**Elevation: 210 Feet**

**Lat: 33°36N**

**Lon: 92°06W**

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	1.9	.0	#	0	10.0	2000	28	10.0	2000	10	2000	28	#+	2000	.7	.5	.2	.1	.1	.5	.2	.1	.1
Feb	.1	.0	#	0	1.3	1971	8	1.3	1971	4	1985	2	#+	1995	.2	.1	.0	.0	.0	.1	.0	.0	.0
Mar	.1	.0	#	0	2.5	1971	3	2.5	1971	1	1987	30	#	1987	.1	.1	.0	.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	.1	.0	#	0	2.0	1980	27	2.0	1980	#	1975	23	#	1975	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.4	.0	#	0	6.5	1983	17	6.5	1983	6	1983	17	#+	1995	.1	.1	.1	.1	.0	.0	.0	.0	.0
Ann	2.6	.0	N/A	N/A	10.0	Jan 2000	28	10.0	Jan 2000	10	Jan 2000	28	#+	Jan 2000	1.2	.9	.3	.2	.1	.6	.2	.1	.1

+ 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	4/16	4/12	4/09	4/06	4/04	4/02	3/30	3/27	3/23
32	4/10	4/05	4/01	3/29	3/26	3/23	3/20	3/16	3/11
28	3/27	3/20	3/15	3/11	3/07	3/03	2/26	2/21	2/14
24	3/13	3/06	2/28	2/24	2/19	2/15	2/10	2/05	1/28
20	3/07	2/24	2/16	2/10	2/03	1/28	1/21	1/11	12/25
16	2/21	2/11	2/04	1/28	1/22	1/14	1/02	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	10/12	10/17	10/21	10/24	10/27	10/29	11/02	11/05	11/10
32	10/23	10/28	11/01	11/04	11/08	11/11	11/14	11/18	11/23
28	11/01	11/07	11/11	11/15	11/19	11/22	11/26	11/30	12/07
24	11/16	11/23	11/27	12/01	12/05	12/09	12/12	12/17	12/23
20	11/22	12/03	12/11	12/18	12/24	12/31	1/07	1/17	2/04
16	12/09	12/17	12/23	12/29	1/03	1/10	1/19	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	223	217	212	208	205	201	197	193	187
32	248	241	235	230	226	222	217	211	204
28	287	276	269	262	256	250	244	236	226
24	316	307	300	294	288	282	276	269	260
20	>365	>365	348	329	318	310	301	292	280
16	>365	>365	>365	>365	>365	344	329	317	303

\* 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	750	548	366	156	37	1	0	0	9	126	387	652	3032
60	598	418	229	69	9	0	0	0	1	52	255	507	2138
57	512	342	162	35	3	0	0	0	0	26	188	421	1689
55	455	295	125	21	1	0	0	0	0	15	150	367	1429
50	322	193	55	3	0	0	0	0	0	3	75	247	898
32	40	14	0	0	0	0	0	0	0	0	0	22	76

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	313	390	662	871	1157	1349	1521	1493	1253	955	609	392	10965
55	15	27	74	201	445	659	808	780	563	257	68	24	3921
57	11	18	49	156	385	599	746	718	503	206	46	17	3454
60	3	10	23	100	298	509	653	625	413	139	23	9	2805
65	0	0	6	36	171	360	498	470	272	58	6	0	1877
70	0	0	0	8	78	216	343	317	152	16	0	0	1130

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	155	245	450	654	932	1118	1276	1244	1014	714	393	208	155	400	850	1504	2436	3554	4830	6074	7088	7802	8195	8403
45	88	154	315	507	777	968	1121	1089	864	559	268	122	88	242	557	1064	1841	2809	3930	5019	5883	6442	6710	6832
50	43	80	198	367	622	818	966	934	714	409	165	62	43	123	321	688	1310	2128	3094	4028	4742	5151	5316	5378
55	19	37	104	233	469	668	811	779	564	274	85	31	19	56	160	393	862	1530	2341	3120	3684	3958	4043	4074
60	1	11	47	128	318	518	656	624	417	158	43	9	1	12	59	187	505	1023	1679	2303	2720	2878	2921	2930
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	107	162	284	414	618	773	867	837	679	466	243	137	107	269	553	967	1585	2358	3225	4062	4741	5207	5450	5587

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

## 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.

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                     |
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| <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> |
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## 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)