

# 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: EUREKA SPRINGS 3 WNW, AR

1971-2000

COOP ID: 032356

Climate Division: AR 1

NWS Call Sign:

Elevation: 1,420 Feet Lat: 36°25N

Lon: 93°47W

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	45.5	25.6	35.6	78	1986	20	44.8	1990	-14	1985	20	23.0	1979	913	0	.0	.0	12.6	5.1	21.5	.9
Feb	51.8	30.2	41.0	84	1962	12	51.4	1976	-8	1981	11	28.8	1978	672	0	.0	.0	16.3	2.9	15.4	.4
Mar	61.6	38.3	50.0	88+	1963	28	53.8	1982	-1+	1948	11	43.2	1996	469	2	.0	.0	25.8	.4	9.1	.0
Apr	71.7	47.3	59.5	96	1987	19	67.1	1981	18	1957	13	52.9	1983	197	31	.0	.4	29.0	.0	1.9	.0
May	77.7	55.3	66.5	94	1977	30	71.3	1998	29	1960	1	62.1	1976	70	117	.0	.5	31.0	.0	.0	.0
Jun	84.8	63.2	74.0	102	1953	21	77.8	1977	41+	1956	1	69.8	1974	7	278	.1	6.4	30.0	.0	.0	.0
Jul	90.2	68.0	79.1	111+	1954	14	87.3	1980	47+	1971	31	75.0	1989	0	438	1.8	17.6	31.0	.0	.0	.0
Aug	89.9	66.4	78.2	108	1980	2	86.5	1980	46	1964	12	70.1	1992	5	413	1.9	17.1	31.0	.0	.0	.0
Sep	81.3	59.4	70.4	105	1998	4	77.0	1980	34+	1984	30	62.7	1974	42	202	.5	5.1	30.0	.0	.0	.0
Oct	71.6	49.6	60.6	95	1953	1	65.0	1971	19	1993	31	55.4	1976	171	35	.0	.3	30.4	@	1.1	.0
Nov	58.2	39.0	48.6	85	1980	8	57.3	1999	5	1959	17	42.4	1972	496	4	.0	.0	22.6	.5	8.1	.0
Dec	48.5	29.3	38.9	80	1955	24	45.9	1984	-15	1989	23	24.4	1983	809	0	.0	.0	15.0	3.1	18.2	.4
Ann	69.4	47.6	58.5	111+	Jul 1954	14	87.3	Jul 1980	-15	Dec 1989	23	23.0	Jan 1979	3851	1520	4.3	47.4	304.7	12.0	75.3	1.7

+ 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: 1948-2001

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

028-A

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### 1971-2000

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**Elevation: 1,420 Feet Lat: 36°25N**

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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	2.40	2.38	3.85	1969	29	5.84	1990	.00	1986	7.7	4.6	1.4	.5	.29	.59	.99	1.34	1.68	2.05	2.46	2.96	3.61	4.66	5.65
Feb	2.78	2.53	3.05	1974	21	6.61	1990	.55	1996	7.7	4.7	1.8	.8	.65	.90	1.31	1.68	2.04	2.42	2.86	3.37	4.05	5.12	6.13
Mar	4.54	3.93	3.04	1978	24	9.38	1973	.62	1971	9.9	7.2	3.5	1.2	1.26	1.69	2.34	2.91	3.47	4.05	4.70	5.46	6.46	8.01	9.47
Apr	4.27	4.24	3.17	1976	20	7.89	1995	.69	1989	10.5	7.0	3.4	1.2	1.34	1.74	2.34	2.86	3.36	3.87	4.44	5.11	5.96	7.30	8.54
May	4.89	4.86	5.47	1950	10	11.30	1990	1.14	1994	12.0	8.1	3.7	1.3	1.78	2.24	2.90	3.46	3.98	4.53	5.12	5.80	6.68	8.02	9.26
Jun	4.55	4.66	3.64	1976	24	8.79	2000	.43	1991	9.7	7.3	2.9	1.0	.98	1.39	2.06	2.67	3.28	3.92	4.66	5.53	6.69	8.53	10.27
Jul	3.64	3.56	4.15	1968	1	6.49	1976	.28	1980	7.9	5.3	2.1	1.1	.67	.99	1.53	2.02	2.53	3.07	3.69	4.44	5.43	7.04	8.56
Aug	3.32	2.97	5.77	1985	5	10.04	1985	.00	2000	7.6	4.6	2.3	1.0	.40	.81	1.37	1.85	2.33	2.84	3.41	4.10	5.01	6.46	7.84
Sep	4.44	4.65	4.33	1990	21	8.93	1992	.58	1979	8.9	6.2	2.9	1.6	1.01	1.42	2.07	2.66	3.24	3.86	4.55	5.38	6.47	8.21	9.84
Oct	3.46	3.32	3.44+	1967	30	8.41	1984	.44	1989	8.0	5.2	2.3	1.0	1.07	1.40	1.88	2.30	2.71	3.13	3.60	4.14	4.84	5.94	6.95
Nov	4.66	4.53	3.93	1994	5	11.27	1996	.34	1989	8.8	6.0	3.2	1.7	1.02	1.45	2.13	2.75	3.37	4.03	4.77	5.65	6.82	8.68	10.44
Dec	3.42	2.93	4.68	1984	21	10.31	1984	.65	1989	7.9	5.3	2.3	1.0	.66	.96	1.46	1.93	2.39	2.90	3.47	4.16	5.07	6.54	7.94
Ann	46.37	45.65	5.77	Aug 1985	5	11.30	May 1990	.00+	Aug 2000	106.6	71.5	31.8	13.4	33.89	36.33	39.44	41.79	43.88	45.88	47.95	50.23	52.99	56.98	60.42

+ 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 1**

**NWS Call Sign:**

**Elevation: 1,420 Feet**

**Lat: 36°25N**

**Lon: 93°47W**

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	5.1	4.0	1	#	10.0	1995	19	17.6	1977	13	1996	3	5	1977	2.9	1.5	.5	.2	@	6.1	3.3	1.6	.1
Feb	3.5	2.3	1	#	12.0	1984	27	12.0	1984	12	1984	28	3	1993	2.1	1.0	.3	.1	@	4.3	2.5	.9	.2
Mar	2.5	.0	#	#	17.0	1999	14	18.3	1994	18	1994	9	2	1994	.8	.5	.2	.2	.1	1.0	.6	.5	.1
Apr	.4	.0	#	0	6.0	1971	5	6.0	1971	6	1971	5	#+	1994	.1	.1	.1	@	.0	.1	@	@	.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	.1	.0	#	0	1.5	1993	30	1.5	1993	1	1993	31	#	1993	@	@	.0	.0	.0	.1	.0	.0	.0
Nov	1.2	.0	#	0	5.0	1980	18	8.8	1980	4	1975	26	#+	2000	.6	.4	.2	@	.0	.5	@	.0	.0
Dec	2.2	1.3	#	#	5.3	1985	13	8.9	2000	7	2000	14	2	2000	1.7	.9	.2	.1	.0	3.0	.8	.2	.0
Ann	15.0	7.6	N/A	N/A	17.0	Mar 1999	14	18.3	Mar 1994	18	Mar 1994	9	5	Jan 1977	8.2	4.4	1.5	.6	.1	15.1	7.2	3.2	.4

+ 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	5/01	4/26	4/23	4/20	4/17	4/14	4/11	4/07	4/02
32	4/21	4/17	4/14	4/11	4/09	4/06	4/04	4/01	3/28
28	4/09	4/04	3/31	3/28	3/25	3/22	3/19	3/15	3/10
24	3/29	3/22	3/17	3/13	3/09	3/05	3/01	2/24	2/18
20	3/21	3/13	3/08	3/03	2/27	2/23	2/18	2/12	2/05
16	3/16	3/06	2/28	2/22	2/16	2/11	2/05	1/29	1/20
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	10/02	10/07	10/10	10/14	10/17	10/20	10/23	10/26	11/01
32	10/16	10/21	10/24	10/27	10/30	11/02	11/04	11/08	11/13
28	10/26	11/01	11/05	11/09	11/12	11/16	11/19	11/24	11/30
24	11/06	11/12	11/16	11/20	11/24	11/27	12/01	12/05	12/11
20	11/11	11/18	11/23	11/28	12/02	12/06	12/10	12/15	12/22
16	11/14	11/24	12/01	12/06	12/12	12/17	12/23	12/30	1/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	205	197	191	186	182	177	173	167	159
32	222	216	211	207	203	200	196	191	184
28	255	247	241	236	232	227	223	217	209
24	286	277	270	264	259	253	247	240	231
20	305	296	289	283	277	271	265	258	249
16	334	319	310	302	295	288	281	272	260

\* 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	913	672	469	197	70	7	0	5	42	171	496	809	3851
60	760	542	327	102	22	1	0	0	13	78	359	660	2864
57	674	465	250	61	9	0	0	0	5	43	284	574	2365
55	616	415	204	40	4	0	0	0	2	27	240	517	2065
50	476	302	114	11	0	0	0	0	0	6	147	383	1439
32	122	53	3	0	0	0	0	0	0	0	8	74	260

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	232	305	559	824	1071	1261	1461	1431	1151	886	505	288	9974
55	13	24	47	174	362	571	748	718	463	201	47	18	3386
57	10	17	31	135	305	511	686	656	406	155	32	13	2957
60	2	11	15	86	224	421	593	564	324	97	17	6	2360
65	0	0	2	31	117	278	438	413	202	35	4	0	1520
70	0	0	0	8	46	155	289	274	112	8	0	0	892

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	96	177	359	599	841	1032	1228	1199	925	642	307	126	96	273	632	1231	2072	3104	4332	5531	6456	7098	7405	7531
45	49	106	242	455	686	882	1073	1044	775	489	194	65	49	155	397	852	1538	2420	3493	4537	5312	5801	5995	6060
50	20	55	151	319	531	732	918	889	625	345	118	31	20	75	226	545	1076	1808	2726	3615	4240	4585	4703	4734
55	2	22	79	203	380	582	763	734	477	219	59	11	2	24	103	306	686	1268	2031	2765	3242	3461	3520	3531
60	0	4	36	112	237	432	608	579	338	113	20	0	0	4	40	152	389	821	1429	2008	2346	2459	2479	2479
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	55	110	223	376	540	707	836	807	610	390	171	73	55	165	388	764	1304	2011	2847	3654	4264	4654	4825	4898

(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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/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.

- |   |   |
|---|---|
| <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)