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: 031838

Lon: 93°10W

Station: DARDANELLE, AR

Climate Division: AR 4 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 49.7 28.3 39.0 82 1950 25 46.3 1990 -9 1962 11 27.5 1979 807 0 .0 .0 15.8 2.2 20.8 .1 Jan 32.4 44.5 86 1962 13 51.7 1976 -14 1951 2 32.8 1978 575 0 .0 .0 20.8 1.0 14.4 @ Feb 56.6 Mar 65.6 40.7 53.2 92 1974 31 58.3 1974 13 +1965 20 47.2 1996 375 7 .0 @ 28.9 .0 6.5 0. 48.5 24 1983 Apr 74.8 61.7 94 +1987 20 67.6 1981 1989 11 56.6 137 36 .0. .4 30.0 .0 1.2 0. May 81.3 57.6 69.5 98 1951 30 74.1 1987 34 1960 1 65.4 1976 33 172 .0 2.0 31.0 .0 .0 .0 77.0 1953 3 73.1 14.2 Jun 88.6 65.3 103 19 80.2 1998 47+ 1969 1974 1 359 .3 30.0 .0 .0 .0 Jul 93.5 69.4 81.5 110+ 1954 13 86.9 1980 53 1990 15 78.5 1994 511 3.3 24.7 31.0 .0 .0 0 .0 47 1992 92.9 67.9 80.4 109 +1964 4 85.6 1980 1986 29 74.9 0 477 4.0 22.8 31.0 .0 .0 .0 Aug 35 12 Sep 85.6 61.1 73.4 108 +1954 4 79.3 1998 1967 29 67.6 1974 264 1.0 9.6 30.0 .0 .0 .0 75.8 49.4 24 57.3 127 54 Oct 62.6 99 1963 8 67.7 1971 1952 30 1976 .0 .6 30.9 .0 .9 .0 39.6 50.7 88 1952 2 56.2 1973 14+ 1959 29 44.1 1976 431 2 .0 .0 26.0 @ 7.7 .0 Nov 61.8 Dec 51.9 31.5 41.7 81 1955 24 50.4 1984 -3 1989 23 31.2 1983 723 0 .0 .0 18.7 1.3 17.8 .1 Jul Jul Feb Jan 73.2 49.3 61.3 110 +1954 13 86.9 1980 -14 1951 2 27.5 1979 3221 1882 8.6 74.3 324.1 4.5 69.3 .2 Ann

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

Issue Date: February 2004 021-A

(1) From the 1971-2000 Monthly Normals

Elevation: 370 Feet Lat: 35°14N

- (2) Derived from station's available digital record: 1948-2001
- (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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Station: DARDANELLE, AR

Climate Division: AR 4 NWS Call Sign: Elevation: 370 Feet Lat: 35°14N Lon: 93°10W

										Pı	recipi	tation	(incl	nes)										
		Precipitation Totals Means/ Medians(1) Extremes									ean N of D	ays (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 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	3.15	2.55	4.73	1998	5	7.84	1998	1.05	1986	8.0	5.7	1.9	.6	.84	1.13	1.59	1.99	2.38	2.79	3.25	3.80	4.50	5.62	6.66
Feb	3.19	3.04	3.02	1998	11	7.79	1989	.58	1972	6.8	4.9	2.4	1.0	.72	1.02	1.49	1.91	2.32	2.77	3.27	3.87	4.65	5.90	7.07
Mar	4.60	4.06	4.70	1977	28	9.94	1973	1.71	1993	8.4	6.7	3.6	1.3	1.59	2.02	2.65	3.19	3.70	4.23	4.81	5.48	6.34	7.67	8.89
Apr	4.24	4.09	4.31	1957	3	10.45	1991	.87	1987	8.0	6.1	2.8	1.4	1.23	1.63	2.24	2.76	3.28	3.81	4.40	5.09	5.99	7.40	8.71
May	5.67	5.51	4.96	1978	8	13.15	1990	.87	1977	10.5	8.0	3.9	1.8	1.79	2.33	3.12	3.81	4.47	5.15	5.90	6.78	7.92	9.69	11.32
Jun	4.26	4.37	4.85	1977	27	8.62	1987	.13	1984	8.3	6.8	2.8	1.3	.84	1.23	1.85	2.42	3.00	3.63	4.33	5.18	6.30	8.11	9.82
Jul	3.31	3.12	3.93	1989	13	8.15	1989	.69	1980	6.7	5.3	2.3	.9	.91	1.22	1.70	2.11	2.52	2.95	3.43	3.99	4.72	5.86	6.93
Aug	2.76	2.72	6.38	1957	13	6.64	1974	.00	2000	6.1	4.2	1.7	.8	.41	.78	1.25	1.63	2.01	2.41	2.86	3.39	4.09	5.19	6.23
Sep	3.56	3.40	3.73	1965	22	7.57	1977	.77	1999	7.7	5.7	2.6	.9	.97	1.31	1.82	2.27	2.71	3.17	3.69	4.29	5.08	6.32	7.48
Oct	4.19	3.45	7.15	1998	6	18.53	1984	.71	1989	6.9	5.2	2.7	1.3	.65	1.01	1.62	2.20	2.80	3.45	4.20	5.12	6.35	8.36	10.28
Nov	5.36	5.23	5.04	1994	5	11.01	1996	.64	1989	7.6	5.9	3.6	1.8	1.39	1.89	2.67	3.35	4.03	4.74	5.53	6.47	7.69	9.63	11.43
Dec	4.30	4.01	5.53	1971	10	10.54	1982	.93	1989	7.6	5.8	2.8	1.2	1.13	1.54	2.16	2.71	3.25	3.81	4.44	5.19	6.16	7.69	9.13
Ann	48.59	47.48	7.15	Oct 1998	6	18.53	Oct 1984	.00	Aug 2000	92.6	70.3	33.1	14.3	35.30	37.89	41.20	43.71	45.93	48.07	50.27	52.71	55.66	59.92	63.60

⁺ 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: 1948-2001

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

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COOP ID: 031838

Station: DARDANELLE, AR

Climate Division: AR 4 NWS Call Sign: Eleva

Elevation: 370 Feet Lat: 35°14N Lon: 93°10W

Snow (inches)

										Snov	w (incl	hes)											
		Fall Median Med															Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (1)	1		Extremes (2)												all olds	Snow Depth >= Thresholds				
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	2.4	1.0	#	#	12.0	1988	7	14.0	1988	14	1988	7	3	1977	1.3	.7	.3	.2	@	2.4	1.3	.5	.1
Feb	1.1	.0	#	#	5.0	1997	13	6.3+	1985	5	1997	13	1	1985	.8	.4	.1	@	.0	.7	.1	.1	.0
Mar	.4	.0	#	0	4.2	1975	14	4.2	1975	4	1975	14	#+	1999	.3	.2	@	.0	.0	.1	@	.0	.0
Apr	#	.0	0	0	#	1983	20	#+	1983	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	#	1993	30	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.4	.0	#	0	5.8	1971	23	5.8	1971	6	1971	23	#+	2000	.2	.1	.1	@	.0	.1	.1	@	.0
Dec	.4	.0	#	0	3.0	1975	25	4.0	1975	3	1990	27	#+	2000	.7	.2	@	.0	.0	.8	.1	.0	.0
Ann	4.7	1.0	N/A	N/A	12.0	Jan 1988	7	14.0	Jan 1988	14	Jan 1988	7	3	Jan 1977	3.3	1.6	.5	.2	@	4.1	1.6	.6	.1

⁺ 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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Station: DARDANELLE, AR

Climate Division: AR 4 NWS Call Sign:

NWS Call Sign: Elevation: 370 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(*)								
icmp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	4/26	4/22	4/19	4/17	4/14	4/12	4/09	4/07	4/02							
32	4/15	4/11	4/08	4/05	4/02	3/31	3/28	3/25	3/21							
28	4/05	3/30	3/26	3/22	3/18	3/14	3/11	3/06	2/28							
24	3/26	3/18	3/11	3/06	3/01	2/24	2/19	2/13	2/05							
20	3/09	3/01	2/22	2/17	2/12	2/07	2/01	1/26	1/17							
16	3/04	2/22	2/15	2/08	2/02	1/27	1/19	1/09	0/00							
1		•	Fal	l Freeze Da	tes (Month/D	ay)		•	•							
Tomar (E)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	10/02	10/07	10/11	10/14	10/17	10/19	10/22	10/26	10/31							
32	10/19	10/24	10/27	10/30	11/02	11/05	11/08	11/11	11/16							
28	10/27	11/02	11/07	11/11	11/14	11/17	11/21	11/26	12/02							
24	11/05	11/13	11/19	11/23	11/28	12/02	12/07	12/13	12/21							
20	11/15	11/24	11/30	12/05	12/10	12/15	12/20	12/26	1/04							
16	11/25	12/06	12/15	12/22	12/29	1/06	1/14	1/26	0/00							
1				Freeze F	ree Period			•								
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	202	196	192	188	185	181	177	173	167							
32	232	225	221	217	213	209	205	200	194							
28	267	258	251	245	240	235	229	223	214							
24	301	289	281	274	268	262	256	248	238							
20	339	321	311	304	297	290	283	275	264							
16	>365	>365	>365	338	325	315	305	295	282							

^{*} 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.

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Climate Division: AR 4 NWS Call Sign: Elevation: 370 Feet Lat: 35°14N Lon: 93°10W

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	807	575	375	137	33	1	0	0	12	127	431	723	3221		
60	654	444	240	55	7	0	0	0	1	52	294	571	2318		
57	568	368	174	26	2	0	0	0	0	26	220	485	1869		
55	509	320	136	14	0	0	0	0	0	14	178	428	1599		
50	372	215	65	2	0	0	0	0	0	2	94	297	1047		
32	58	19	0	0	0	0	0	0	0	0	1	32	110		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	273	368	655	889	1162	1348	1534	1500	1242	949	562	333	10815
55	12	25	78	213	449	658	821	787	552	251	49	16	3911
57	8	17	54	165	389	598	759	725	492	200	32	11	3450
60	1	10	27	104	301	508	666	632	403	133	15	4	2804
65	0	0	7	36	172	359	511	477	264	54	2	0	1882
70	0	0	0	7	78	215	356	329	147	14	0	0	1146

	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													Nov	Dec									
40	112	211	419	658	923	1123	1301	1266	1014	711	344	141	112	323	742	1400	2323	3446	4747	6013	7027	7738	8082	8223
45	53	120	288	508	768	973	1146	1111	864	557	222	68	53	173	461	969	1737	2710	3856	4967	5831	6388	6610	6678
50	24	60	176	363	613	823	991	956	714	407	125	32	24	84	260	623	1236	2059	3050	4006	4720	5127	5252	5284
55	5	25	88	234	459	673	836	801	564	269	62	13	5	30	118	352	811	1484	2320	3121	3685	3954	4016	4029
60	0	3	38	126	306	523	681	646	421	151	22	0	0	3	41	167	473	996	1677	2323	2744	2895	2917	2917
Base		•		Gro	wing De	gree Unit	s for Co	rn (Mont	thly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	78	146	271	424	614	768	870	842	679	465	210	87	78	224	495	919	1533	2301	3171	4013	4692	5157	5367	5454

(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