

Climatology of the United States

No. 20

1971-2000

Station: WEST MEMPHIS, AR

COOP ID: 037712

Climate Division: AR 6

NWS Call Sign:

Elevation: 215 Feet

Lat: 35°07N

Lon: 90°11W

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	46.4	28.5	37.5	76	1972	24	45.6	1990	-9+	1985	20	26.3	1977	853	0	.0	.0	13.9	3.5	19.0	.2
Feb	52.4	32.6	42.5	78+	1981	27	50.9	1976	-8	1985	4	30.6	1978	630	0	.0	.0	18.0	1.5	12.8	.1
Mar	61.6	41.7	51.7	85+	1963	30	56.9+	1977	10+	1996	9	45.4	1996	419	6	.0	.0	27.3	.1	5.3	.0
Apr	71.0	50.1	60.6	94+	1964	20	66.0	1981	26	1985	9	55.7	1983	172	38	.0	.2	29.7	.0	.8	.0
May	79.6	59.7	69.7	106	1977	31	76.5	1987	37	1989	2	64.9	1976	40	185	.1	2.2	31.0	.0	.0	.0
Jun	87.3	68.1	77.7	101	1988	29	81.3	1998	46	1966	1	72.8	1974	1	382	.2	13.7	30.0	.0	.0	.0
Jul	90.9	72.0	81.5	105+	1980	13	86.1	1980	54	1970	2	79.0	1989	0	510	.8	21.4	31.0	.0	.0	.0
Aug	89.6	69.6	79.6	103+	1964	4	83.4	1983	48	1989	14	74.9	1992	0	452	.4	17.7	31.0	.0	.0	.0
Sep	83.6	62.6	73.1	100+	2000	1	80.0	1998	36	1983	22	66.2	1974	17	260	.1	7.1	30.0	.0	.0	.0
Oct	74.5	50.8	62.7	95	1998	1	69.4	1971	29+	1982	25	57.6	1976	139	66	.0	.4	30.9	.0	.4	.0
Nov	60.4	41.0	50.7	85	2000	1	56.6	1990	11	1976	29	42.7	1976	433	4	.0	.0	25.1	@	5.9	.0
Dec	50.8	33.3	42.1	79+	1982	2	51.2	1984	-5+	1989	22	31.5	2000	713	0	.0	.0	18.2	1.7	13.5	.1
Ann	70.7	50.8	60.8	106	May 1977	31	86.1	Jul 1980	-9+	Jan 1985	20	26.3	Jan 1977	3417	1903	1.6	62.7	316.1	6.8	57.7	.4

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1962-2001

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

075-A

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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

Station: WEST MEMPHIS, AR

COOP ID: 037712

Climate Division: AR 6

NWS Call Sign:

Elevation: 215 Feet Lat: 35°07N

Lon: 90°11W

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	4.07	3.97	3.20	1988	19	8.20	1978	.60	1986	10.8	7.4	2.8	.9	1.12	1.50	2.09	2.60	3.11	3.63	4.21	4.90	5.80	7.21	8.52
Feb	4.21	3.77	3.71	1966	10	10.86	1990	1.30	1980	8.8	6.7	3.2	1.4	1.35	1.75	2.34	2.84	3.33	3.83	4.39	5.03	5.87	7.16	8.36
Mar	5.53	5.34	5.36	1975	12	15.83	1975	1.51	1986	11.4	8.0	3.7	1.7	1.64	2.16	2.95	3.63	4.29	4.98	5.75	6.64	7.80	9.61	11.30
Apr	5.46	4.45	4.11	1974	22	16.63	1991	1.37	1976	9.7	7.3	3.8	1.6	1.67	2.18	2.96	3.62	4.27	4.94	5.67	6.54	7.66	9.40	11.02
May	5.06	5.04	3.60	1963	26	10.68	1984	.16	1977	9.6	7.4	3.4	1.6	1.21	1.68	2.42	3.08	3.74	4.43	5.21	6.13	7.34	9.26	11.07
Jun	4.45	4.21	3.10	1974	7	8.61	1974	.73	1980	8.2	6.4	2.9	1.3	1.44	1.86	2.48	3.02	3.53	4.06	4.63	5.31	6.19	7.54	8.80
Jul	3.32	3.08	2.39	1972	3	8.52	1995	.12	1993	7.2	5.2	2.5	1.0	.63	.93	1.41	1.86	2.32	2.81	3.37	4.04	4.93	6.37	7.73
Aug	2.90	2.83	3.15	1969	21	6.76	1974	.32	1989	5.7	4.5	2.3	1.0	.52	.77	1.19	1.59	1.99	2.43	2.93	3.54	4.34	5.64	6.88
Sep	3.26	3.24	2.95	1973	6	8.44	1989	.25	1998	7.4	5.6	2.3	1.0	.54	.83	1.30	1.75	2.21	2.71	3.28	3.98	4.91	6.41	7.85
Oct	3.44	3.41	4.54	1996	28	8.85	1996	.63	1977	6.3	4.8	2.4	1.1	.77	1.09	1.59	2.05	2.50	2.98	3.53	4.18	5.03	6.39	7.67
Nov	5.63	5.48	6.44	2001	29	11.86	1987	1.19	1998	9.4	6.9	3.8	1.9	1.88	2.42	3.20	3.86	4.50	5.15	5.87	6.71	7.78	9.45	10.99
Dec	5.47	4.94	7.25	1987	25	16.45	1982	1.11	1981	9.9	7.0	3.4	1.7	1.42	1.93	2.73	3.43	4.12	4.84	5.65	6.61	7.85	9.82	11.66
Ann	52.80	49.00	7.25	Dec 1987	25	16.63	Apr 1991	.12	Jul 1993	104.4	77.2	36.5	16.2	36.28	39.43	43.49	46.59	49.36	52.04	54.82	57.90	61.64	67.09	71.83

+ 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: 1962-2001

(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	.7	.0	#	0	3.0	2000	28	3.5	2000	3	2000	28	#+	2000	.3	.2	.1	.0	.0	.2	.1	.0	.0
Feb	.2	.0	#	0	2.5	1979	7	2.5	1979	2	1971	8	#+	1996	.2	.1	.0	.0	.0	.1	.0	.0	.0
Mar	.1	.0	#	0	.8	1980	1	.8	1980	1	1982	6	#	1982	.1	.0	.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	2.0	1971	23	2.0	1971	#	1971	23	#	1971	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	#	0	.1	1973	16	.1	1973	1	1983	19	#+	1983	.1	.0	.0	.0	.0	.0	.0	.0	.0
Ann	1.1	.0	N/A	N/A	3.0	Jan 2000	28	3.5	Jan 2000	3	Jan 2000	28	#+	Jan 2000	.8	.4	.1	.0	.0	.3	.1	.0	.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	4/23	4/19	4/15	4/12	4/09	4/07	4/04	3/31	3/27
32	4/13	4/07	4/03	3/30	3/27	3/24	3/20	3/16	3/11
28	3/29	3/22	3/18	3/13	3/10	3/06	3/02	2/25	2/18
24	3/18	3/10	3/04	2/28	2/23	2/19	2/14	2/09	2/01
20	3/09	3/01	2/23	2/17	2/12	2/07	2/02	1/27	1/19
16	2/26	2/16	2/09	2/02	1/27	1/21	1/13	1/02	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	10/04	10/09	10/13	10/17	10/20	10/23	10/27	10/31	11/06
32	10/20	10/26	10/30	11/03	11/06	11/09	11/13	11/17	11/23
28	11/04	11/09	11/14	11/17	11/21	11/24	11/28	12/02	12/08
24	11/07	11/16	11/23	11/29	12/04	12/09	12/14	12/21	12/30
20	11/14	11/26	12/05	12/13	12/20	12/27	1/03	1/12	1/25
16	12/02	12/12	12/20	12/26	1/02	1/08	1/16	1/29	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	213	206	201	197	193	189	185	180	173
32	247	239	233	228	223	218	213	207	199
28	279	271	265	260	255	251	246	240	231
24	321	308	298	290	283	275	267	257	244
20	>365	332	319	310	302	295	288	280	268
16	>365	>365	>365	>365	342	329	319	308	296

* 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

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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	853	630	419	172	40	1	0	0	17	139	433	713	3417
60	698	497	281	83	11	0	0	0	3	63	299	567	2502
57	613	420	210	46	4	0	0	0	1	34	228	481	2037
55	554	370	169	29	2	0	0	0	0	21	186	426	1757
50	415	257	89	7	0	0	0	0	0	5	103	301	1177
32	80	30	1	0	0	0	0	0	0	0	2	40	153

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	250	324	611	856	1168	1371	1533	1475	1233	950	563	351	10685
55	12	20	66	195	457	681	820	762	543	258	57	23	3894
57	8	14	45	152	397	621	758	700	484	209	39	17	3444
60	0	7	23	99	311	531	665	607	396	144	20	10	2813
65	0	0	6	38	185	382	510	452	260	66	4	0	1903
70	0	0	0	9	91	238	355	301	148	22	0	0	1164

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	118	206	415	642	948	1149	1298	1245	1014	725	372	179	118	324	739	1381	2329	3478	4776	6021	7035	7760	8132	8311
45	58	119	282	494	793	999	1143	1090	864	570	254	98	58	177	459	953	1746	2745	3888	4978	5842	6412	6666	6764
50	25	60	175	352	638	849	988	935	714	422	156	47	25	85	260	612	1250	2099	3087	4022	4736	5158	5314	5361
55	4	23	91	230	483	699	833	780	565	280	83	20	4	27	118	348	831	1530	2363	3143	3708	3988	4071	4091
60	0	2	37	128	333	549	678	625	419	166	37	2	0	2	39	167	500	1049	1727	2352	2771	2937	2974	2976
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	67	118	241	398	630	799	899	861	691	468	213	91	67	185	426	824	1454	2253	3152	4013	4704	5172	5385	5476

(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

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
- 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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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