

Climatography of the United States

No. 20

1971-2000

Station: MARSHALL, AR

COOP ID: 034666

Climate Division: AR 2

NWS Call Sign:

Elevation: 1,013 Feet Lat: 35°55N

Lon: 92°38W

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	44.9	25.7	35.3	79+	1950	25	43.3	1990	-12	1985	21	21.8	1977	922	0	.0	.0	12.5	5.1	23.6	.7
Feb	51.3	30.2	40.8	85+	1962	12	50.3	1976	-11	1951	2	25.6	1978	682	2	.0	.0	16.9	2.4	16.9	.2
Mar	60.2	39.2	49.7	90	1967	12	55.0	1973	5	1948	12	42.4	1975	480	5	.0	.0	25.8	.3	9.4	.0
Apr	69.6	46.7	58.2	93	1987	21	62.4	1977	20	1975	4	52.8	1983	221	16	.0	.1	29.3	.0	2.0	.0
May	77.1	55.5	66.3	93+	1951	31	71.4	1987	31+	1954	4	62.1	1976	73	113	.0	.5	31.0	.0	.0	.0
Jun	84.7	63.9	74.3	103+	1952	28	80.6	1977	42	1956	2	70.3	1983	6	285	@	7.3	30.0	.0	.0	.0
Jul	90.4	68.8	79.6	113	1954	13	85.3	1980	47	1970	22	75.8	1989	0	452	1.4	19.3	31.0	.0	.0	.0
Aug	89.5	67.0	78.3	108	1956	17	86.4	1980	44	1986	29	73.0	1992	2	413	1.2	16.2	31.0	.0	.0	.0
Sep	81.7	59.6	70.7	101+	1954	3	76.3	1998	32+	1949	30	64.3	1974	36	205	.1	5.4	30.0	.0	@	.0
Oct	71.7	48.5	60.1	95	1953	1	65.9	1971	19	1952	21	54.9	1987	187	34	.0	.1	30.6	@	1.9	.0
Nov	59.0	38.9	49.0	86	1978	5	56.9	1982	8+	1970	24	41.4	1976	489	8	.0	.0	23.4	.2	9.8	.0
Dec	48.9	29.6	39.3	79	1955	24	48.6	1982	-10+	1989	23	27.1	1983	799	0	.0	.0	16.2	2.8	19.9	.4
Ann	69.1	47.8	58.5	113	Jul 1954	13	86.4	Aug 1980	-12	Jan 1985	21	21.8	Jan 1977	3897	1533	2.7	48.9	307.7	10.8	83.5	1.3

+ 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/normals/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

051-A

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

Station: MARSHALL, AR

COOP ID: 034666

Climate Division: AR 2

NWS Call Sign:

Elevation: 1,013 Feet Lat: 35°55N

Lon: 92°38W

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	2.39	2.00	7.62	1949	24	7.07	1982	.34	1986	7.0	5.1	1.4	.6	.43	.64	.99	1.31	1.65	2.01	2.41	2.91	3.57	4.63	5.64
Feb	2.97	2.61	4.14	1966	9	7.91	1989	.85	1991	6.3	4.7	2.2	.9	.77	1.05	1.48	1.86	2.24	2.63	3.07	3.59	4.27	5.34	6.35
Mar	4.77	4.47	4.70	1977	28	9.48	1975	1.28	1983	9.0	6.9	3.3	1.1	1.48	1.93	2.61	3.18	3.74	4.32	4.96	5.71	6.67	8.18	9.57
Apr	4.09	3.92	4.00	1973	22	10.12	1973	.27	1989	7.6	6.1	2.8	1.1	1.01	1.39	1.99	2.52	3.04	3.60	4.22	4.95	5.92	7.44	8.87
May	4.96	4.51	4.84	1954	2	12.02	1979	.59	1994	9.5	7.9	3.3	1.6	1.35	1.82	2.54	3.16	3.78	4.42	5.13	5.97	7.07	8.79	10.40
Jun	3.48	3.32	3.35	1997	29	6.80	1997	.88	1988	6.9	5.4	2.4	1.1	1.17	1.50	1.98	2.39	2.78	3.19	3.63	4.15	4.82	5.85	6.80
Jul	2.54	2.67	3.75	1955	18	5.28	1981	.25	1980	7.3	5.1	1.7	.6	.64	.88	1.25	1.57	1.90	2.24	2.62	3.07	3.67	4.60	5.48
Aug	2.39	1.95	5.42	1957	13	6.55	1977	.00	1980	6.7	4.8	1.3	.5	.31	.61	1.01	1.35	1.69	2.05	2.46	2.94	3.58	4.60	5.56
Sep	3.86	3.78	4.98	1996	27	11.47	1996	.25	1982	7.0	5.7	2.3	1.2	.69	1.03	1.59	2.12	2.66	3.24	3.90	4.70	5.77	7.50	9.15
Oct	3.47	3.26	5.56	1990	8	11.64	1984	.08	1989	6.3	4.8	2.0	1.0	.61	.92	1.43	1.90	2.38	2.91	3.51	4.23	5.20	6.76	8.25
Nov	4.89	4.00	5.03	1994	5	13.18	1994	.37	1989	7.4	5.8	3.4	1.7	.93	1.37	2.09	2.75	3.42	4.15	4.97	5.96	7.27	9.37	11.38
Dec	3.87	3.26	6.30	1982	3	9.08	1984	.44	1989	7.4	5.4	2.7	1.0	.81	1.16	1.73	2.24	2.76	3.32	3.95	4.70	5.70	7.29	8.79
Ann	43.68	43.35	7.62	Jan 1949	24	13.18	Nov 1994	.00	Aug 1980	88.4	67.7	28.8	12.4	30.84	33.32	36.50	38.91	41.06	43.13	45.28	47.65	50.53	54.71	58.33

+ 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

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1971-2000

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Station: MARSHALL, AR

COOP ID: 034666

Climate Division: AR 2

NWS Call Sign:

Elevation: 1,013 Feet

Lat: 35°55N

Lon: 92°38W

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	3.5	.0	1	#	7.0	1977	9	16.0	1977	12	1977	10	4	1978	.8	.7	.3	.2	.0	.3	.2	.2	.0
Feb	.5	.0	#	0	6.0	1997	13	6.0	1997	8	1979	26	3	1979	.5	.3	.1	.1	.0	.4	.0	.0	.0
Mar	1.4	.0	#	0	6.8	1975	14	9.9	1975	12	1994	10	7	1994	.4	.4	.3	.2	.0	.3	.2	.1	.0
Apr	.1	.0	0	0	1.0	1971	5	1.0	1971	0	0	0	0	0	.1	.1	.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	.1	.0	#	0	1.0	1993	30	1.0	1993	1	1993	31	#	1993	.1	.1	.0	.0	.0	.0	.0	.0	.0
Nov	1.0	.0	#	0	8.0	1971	24	9.0	1976	8	1971	24	1	1976	.2	.2	.2	.1	.0	.4	.3	.1	.0
Dec	.9	.0	#	0	4.5	1975	26	8.5	1975	9	1975	26	1	1975	.4	.3	.2	.0	.0	.3	.2	.1	.0
Ann	7.5	.0	N/A	N/A	8.0	Nov 1971	24	16.0	Jan 1977	12+	Mar 1994	10	7	Mar 1994	2.5	2.1	1.1	.6	.0	1.7	.9	.5	.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

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

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No. 20 1971-2000

Station: MARSHALL, AR

COOP ID: 034666

Climate Division: AR 2

NWS Call Sign:

Elevation: 1,013 Feet

Lat: 35° 55N

Lon: 92° 38W

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	5/04	4/29	4/25	4/21	4/18	4/15	4/12	4/08	4/02
32	4/26	4/20	4/16	4/12	4/09	4/05	4/02	3/29	3/23
28	4/23	4/11	4/03	3/27	3/21	3/14	3/07	2/27	2/15
24	4/12	4/01	3/24	3/17	3/11	3/04	2/25	2/17	2/06
20	3/20	3/13	3/08	3/03	2/27	2/22	2/17	2/12	2/03
16	3/08	2/28	2/22	2/17	2/12	2/07	2/01	1/25	1/15
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	9/23	9/29	10/03	10/06	10/09	10/12	10/16	10/20	10/25
32	10/07	10/12	10/16	10/19	10/22	10/25	10/28	10/31	11/05
28	10/21	10/28	11/02	11/06	11/10	11/14	11/18	11/23	11/29
24	11/02	11/08	11/12	11/16	11/19	11/23	11/26	12/01	12/07
20	11/06	11/14	11/19	11/24	11/28	12/03	12/07	12/13	12/22
16	11/18	11/27	12/04	12/10	12/15	12/21	12/27	1/03	1/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	196	188	183	178	173	169	164	158	150
32	216	209	204	199	195	191	187	181	174
28	273	260	250	241	234	226	217	208	194
24	283	270	262	256	250	244	237	230	220
20	312	295	286	279	273	267	260	253	242
16	>365	332	318	310	302	295	288	280	269

* 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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Station: MARSHALL, AR

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Climate Division: AR 2 NWS Call Sign: Elevation: 1,013 Feet Lat: 35°55N Lon: 92°38W

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	922	682	480	221	73	6	0	2	36	187	489	799	3897
60	770	552	337	114	23	0	0	0	10	91	355	649	2901
57	685	475	260	67	9	0	0	0	3	54	282	563	2398
55	627	426	215	44	5	0	0	0	1	35	239	506	2098
50	487	314	125	11	0	0	0	0	0	10	150	372	1469
32	133	61	5	0	0	0	0	0	0	0	9	67	275

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	235	306	553	785	1063	1268	1475	1434	1159	871	517	291	9957
55	15	27	50	139	355	578	762	721	470	193	57	17	3384
57	11	20	33	103	298	518	700	659	413	149	40	12	2956
60	3	13	17	59	218	429	607	566	329	94	23	5	2363
65	0	2	5	16	113	285	452	413	205	34	8	0	1533
70	0	0	0	2	44	159	301	270	111	7	0	0	894

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	80	159	331	551	801	1029	1229	1188	920	621	305	117	80	239	570	1121	1922	2951	4180	5368	6288	6909	7214	7331
45	36	86	213	405	646	879	1074	1033	770	467	198	56	36	122	335	740	1386	2265	3339	4372	5142	5609	5807	5863
50	14	41	121	272	491	729	919	878	620	324	109	26	14	55	176	448	939	1668	2587	3465	4085	4409	4518	4544
55	1	16	58	155	343	579	764	723	471	202	53	4	1	17	75	230	573	1152	1916	2639	3110	3312	3365	3369
60	0	0	23	75	205	429	609	568	333	105	21	0	0	0	23	98	303	732	1341	1909	2242	2347	2368	2368
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	55	104	207	344	514	703	837	807	610	393	186	75	55	159	366	710	1224	1927	2764	3571	4181	4574	4760	4835

(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

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