

Climatography of the United States

No. 20

1971-2000

Station: JACKSON CO AP, MI

COOP ID: 204150

Climate Division: MI 9

NWS Call Sign: JXN

Elevation: 998 Feet Lat: 42° 16N Lon: 84° 28W

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	29.6	14.7	22.2	67	1950	25	32.3	1990	-20+	1976	18	9.4	1977	1329	0	.0	.0	1.4	18.7	29.0	4.3
Feb	33.2	16.7	25.0	69	1999	11	35.7	1998	-17+	1967	7	11.4	1978	1122	0	.0	.0	2.5	13.6	24.9	3.2
Mar	44.4	25.6	35.0	79+	1981	31	42.4	2000	-7	1978	9	27.0	1984	930	0	.0	.0	9.9	5.3	22.5	.4
Apr	57.4	35.8	46.6	88+	1977	18	53.4	1985	3	1982	7	39.5	1975	554	1	.0	.0	21.8	.4	10.5	.0
May	69.7	46.1	57.9	94+	1977	28	66.3	1977	21	1966	10	50.1	1997	268	48	.0	.4	30.3	.0	1.5	.0
Jun	79.1	55.3	67.2	101+	1971	27	70.5	1987	34+	1966	1	62.7	1972	48	114	.1	2.4	30.0	.0	.0	.0
Jul	82.7	59.8	71.3	103	1977	15	74.9	1999	37	2001	2	66.7	1992	11	203	.1	4.4	31.0	.0	.0	.0
Aug	80.3	57.8	69.1	102	1964	2	75.5	1995	37+	1950	21	64.7	1992	35	162	.0	2.1	31.0	.0	.0	.0
Sep	72.7	50.1	61.4	100	1978	8	67.5	1978	27	1991	28	56.0	1975	147	39	@	.9	30.0	.0	.3	.0
Oct	60.3	39.4	49.9	90	1951	4	55.8	1971	16+	1965	29	43.9	1988	472	3	.0	.0	26.3	.0	5.9	.0
Nov	46.8	30.5	38.7	79	1950	1	44.8	1975	-5+	1949	26	31.0	1976	790	0	.0	.0	11.9	2.8	17.5	.0
Dec	34.4	20.3	27.4	69	2001	5	36.0	1982	-14+	1983	24	15.7	2000	1167	0	.0	.0	2.6	12.3	26.9	1.8
Ann	57.6	37.7	47.6	103	Jul 1977	15	75.5	Aug 1995	-20+	Jan 1976	18	9.4	Jan 1977	6873	570	.2	10.2	228.7	53.1	139.0	9.7

+ 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

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

058-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: JACKSON CO AP, MI

COOP ID: 204150

Climate Division: MI 9

NWS Call Sign: JXN

Elevation: 998 Feet Lat: 42°16N

Lon: 84°28W

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	1.41	1.21	1.80	1960	12	3.08	1998	.33	1984	13.2	4.3	.5	.1	.45	.59	.78	.95	1.12	1.28	1.47	1.69	1.97	2.40	2.80
Feb	1.23	.97	2.27	1954	16	2.73	1990	.05	1987	10.1	3.7	.4	.0	.25	.36	.55	.71	.88	1.06	1.26	1.50	1.82	2.34	2.82
Mar	2.04	1.86	1.98	1974	4	5.24	1974	.32	1981	11.2	5.3	1.1	.1	.42	.61	.91	1.18	1.46	1.75	2.08	2.49	3.01	3.86	4.66
Apr	2.74	2.73	2.46	2000	20	5.44	1981	.56	1971	12.0	7.0	1.5	.3	1.11	1.36	1.72	2.01	2.28	2.57	2.87	3.22	3.66	4.34	4.95
May	2.90	2.91	3.06	2000	18	6.92	2000	.68	1988	9.9	6.1	1.8	.5	.92	1.19	1.60	1.95	2.29	2.64	3.02	3.47	4.05	4.95	5.78
Jun	3.26	3.27	2.64	2000	24	5.92	2000	.47	1984	9.5	6.6	2.4	.8	.96	1.27	1.74	2.14	2.53	2.94	3.38	3.91	4.60	5.67	6.66
Jul	3.25	3.20	2.78	1971	5	6.48	1992	.62	1974	9.0	6.2	2.6	.5	1.07	1.38	1.83	2.22	2.59	2.97	3.39	3.88	4.51	5.49	6.39
Aug	3.48	3.36	2.60	1973	9	9.28	1975	.23	1976	8.9	6.1	2.5	1.1	.81	1.13	1.64	2.10	2.55	3.03	3.57	4.21	5.06	6.40	7.66
Sep	3.44	3.31	2.70	1988	23	8.19	1988	.43	1979	9.6	6.6	2.6	.8	.96	1.29	1.78	2.21	2.64	3.08	3.57	4.15	4.90	6.07	7.17
Oct	2.32	2.21	2.58	1951	23	5.91	1991	.65	1974	10.0	5.9	1.3	.3	.73	.95	1.28	1.56	1.83	2.11	2.42	2.78	3.25	3.97	4.65
Nov	2.54	2.41	2.67	1996	7	5.53	1988	.62	1980	11.2	5.8	1.6	.4	.92	1.16	1.50	1.79	2.07	2.35	2.66	3.01	3.47	4.18	4.82
Dec	2.06	2.13	2.03+	1965	24	3.69	1990	.45	1998	13.0	5.6	.9	.2	.74	.94	1.21	1.45	1.67	1.90	2.15	2.44	2.81	3.38	3.90
Ann	30.67	30.46	3.06	May 2000	18	9.28	Aug 1975	.05	Feb 1987	127.6	69.2	19.2	5.1	24.79	25.99	27.49	28.61	29.59	30.52	31.48	32.52	33.77	35.56	37.08

+ 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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COOP ID: 204150

Climate Division: MI 9

NWS Call Sign: JXN

Elevation: 998 Feet

Lat: 42°16N

Lon: 84°28W

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	11.0	10.4	4	3	14.1	1978	26	33.7	1978	25+	1999	16	12	1999	9.0	4.0	.8	.3	.1	22.3	14.8	10.1	3.5
Feb	7.6	8.0	4	3	7.0	1994	25	16.5	1986	27+	1978	7	17+	1982	6.2	2.7	.8	.2	.0	17.6	11.4	7.9	3.2
Mar	5.9	4.4	1	2	16.0	1973	17	19.0	1973	19+	1973	19	5	1978	3.4	1.9	.6	.2	@	8.1	4.2	2.4	.5
Apr	1.4	.7	#	0	4.0	1975	3	6.8	1975	7+	1982	6	1+	1982	1.2	.5	.2	.0	.0	1.2	.4	.3	.0
May	#	.0	#	0	#	1994	1	#+	1994	0	0	0	#	2000	.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	.2	.0	#	0	3.4	1989	19	3.6	1989	2	1997	27	#	1997	.2	.0	@	.0	.0	.1	.0	.0	.0
Nov	2.2	1.7	#	0	5.0	1971	27	8.0	1971	11	1993	29	1+	1975	2.0	1.0	.1	@	.0	2.6	.8	.1	@
Dec	9.3	8.8	2	2	8.7	1974	1	20.5	1974	12+	1997	14	4	1974	7.2	3.5	.9	.2	.0	15.0	7.1	3.3	.2
Ann	37.6	34.0	N/A	N/A	16.0	Mar 1973	17	33.7	Jan 1978	27+	Feb 1978	7	17+	Feb 1982	29.2	13.6	3.4	.9	.1	66.9	38.7	24.1	7.4

+ 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

Complete documentation available from:

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NWS Call Sign: JXN

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Lat: 42° 16N

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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	6/11	6/03	5/29	5/24	5/20	5/15	5/11	5/05	4/28
32	5/19	5/14	5/11	5/08	5/05	5/02	4/29	4/26	4/21
28	5/04	4/30	4/27	4/25	4/23	4/20	4/18	4/15	4/11
24	4/22	4/17	4/14	4/12	4/09	4/06	4/04	4/01	3/27
20	4/13	4/09	4/06	4/04	4/01	3/30	3/28	3/25	3/21
16	4/05	3/31	3/28	3/26	3/23	3/21	3/18	3/15	3/11
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	9/14	9/18	9/21	9/23	9/25	9/28	9/30	10/03	10/07
32	9/26	9/30	10/03	10/05	10/08	10/10	10/13	10/16	10/20
28	10/03	10/09	10/13	10/16	10/20	10/23	10/26	10/30	11/05
24	10/18	10/25	10/29	11/02	11/06	11/10	11/14	11/18	11/25
20	10/29	11/04	11/09	11/14	11/18	11/21	11/26	12/01	12/07
16	11/11	11/17	11/22	11/25	11/29	12/02	12/06	12/10	12/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	148	141	136	132	128	124	120	115	108
32	174	167	163	159	155	151	147	143	136
28	203	195	189	184	179	175	170	164	156
24	233	225	220	215	210	206	201	195	187
20	255	246	240	234	229	224	219	213	204
16	273	265	259	254	250	245	240	235	227

* 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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Climate Division: MI 9 NWS Call Sign: JXN Elevation: 998 Feet Lat: 42°16N Lon: 84°28W

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	1329	1122	930	554	268	48	11	35	147	472	790	1167	6873
60	1174	982	775	409	169	13	0	8	64	328	640	1012	5574
57	1081	898	682	328	121	5	0	2	34	251	550	919	4871
55	1019	842	622	277	94	3	0	0	20	205	492	857	4431
50	864	704	479	167	44	0	0	0	4	111	352	708	3433
32	364	273	105	4	0	0	0	0	0	1	41	254	1042

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	59	75	198	442	803	1056	1215	1150	881	554	241	110	6784
55	0	0	2	25	184	369	502	437	211	45	2	0	1777
57	0	0	0	15	149	311	440	377	165	29	0	0	1486
60	0	0	0	7	104	229	347	290	105	14	0	0	1096
65	0	0	0	1	48	114	203	162	39	3	0	0	570
70	0	0	0	0	18	38	92	73	8	0	0	0	229

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	7	16	85	255	579	841	997	931	668	346	112	21	7	23	108	363	942	1783	2780	3711	4379	4725	4837	4858
45	1	3	46	157	427	691	842	776	519	219	57	6	1	4	50	207	634	1325	2167	2943	3462	3681	3738	3744
50	0	0	23	86	285	542	687	621	375	124	25	4	0	0	23	109	394	936	1623	2244	2619	2743	2768	2772
55	0	0	8	44	171	396	532	467	245	61	9	0	0	0	8	52	223	619	1151	1618	1863	1924	1933	1933
60	0	0	1	19	93	259	378	316	144	23	1	0	0	0	1	20	113	372	750	1066	1210	1233	1234	1234
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	6	54	157	351	546	667	618	409	193	58	6	0	6	60	217	568	1114	1781	2399	2808	3001	3059	3065

(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