

# Climatology of the United States

No. 20

1971-2000

Station: JACKSONVILLE 2 E, IL

COOP ID: 114442

Climate Division: IL 6

NWS Call Sign:

Elevation: 610 Feet

Lat: 39°44N

Lon: 90°13W

## 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	34.4	15.0	24.7	75	1950	24	37.8	1990	-24+	1927	15	10.5	1977	1251	0	.0	.0	3.5	14.3	29.0	4.4
Feb	40.3	19.2	29.8	80+	1932	10	39.7	1998	-28	1934	27	15.4	1979	988	0	.0	.0	6.5	8.9	23.9	3.1
Mar	52.1	28.6	40.4	91	1907	21	47.5	1973	-14	1948	12	32.0	1978	765	0	.0	.0	16.0	2.5	19.8	.1
Apr	64.2	38.7	51.5	94	1930	10	57.6	1981	10	1920	5	46.3	1997	413	5	.0	@	26.2	.0	6.4	.0
May	74.4	49.1	61.8	103	1934	31	68.7	1977	26	1966	10	57.0	1981	181	80	.0	.5	30.8	.0	.3	.0
Jun	83.3	58.5	70.9	107	1931	30	75.5	1971	36	1993	5	66.2	1982	19	196	@	5.0	30.0	.0	.0	.0
Jul	87.0	62.7	74.9	114	1954	14	78.9	1983	43+	1930	15	70.8	1971	1	306	.2	9.6	31.0	.0	.0	.0
Aug	85.0	60.1	72.6	112	1934	9	78.7	1983	39+	1986	30	67.3	1992	18	253	.3	6.6	31.0	.0	.0	.0
Sep	79.3	51.8	65.6	103+	1913	3	71.1	1998	25	1942	28	59.9	1974	78	95	.0	2.9	30.0	.0	.4	.0
Oct	67.6	40.7	54.2	95	1922	3	60.6	1971	9	1925	30	47.8	1976	345	10	.0	@	29.4	.0	6.4	.0
Nov	52.4	30.7	41.6	84+	1950	1	48.8	1999	-5	1929	30	34.3	1976	704	0	.0	.0	16.3	1.4	17.6	.1
Dec	39.4	20.3	29.9	74	1998	5	38.6	1982	-24	1944	26	16.4	1983	1090	0	.0	.0	5.8	8.9	27.0	2.2
Ann	63.3	39.6	51.5	114	Jul 1954	14	78.9	Jul 1983	-28	Feb 1934	27	10.5	Jan 1977	5853	945	.5	24.6	256.5	36.0	130.8	9.9

+ 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: 1901-2001

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

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## No. 20

### 1971-2000

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

Station: JACKSONVILLE 2 E, IL

COOP ID: 114442

Climate Division: IL 6

NWS Call Sign:

Elevation: 610 Feet

Lat: 39°44N

Lon: 90°13W

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	1.35	1.05	1.96	1993	4	4.03	1993	.03	1986	6.9	3.7	.6	.1	.14	.24	.42	.61	.81	1.04	1.31	1.65	2.11	2.88	3.63
Feb	1.69	1.31	1.81	1909	14	4.86	1990	.10	1987	6.8	3.5	1.2	.4	.31	.46	.71	.94	1.17	1.43	1.72	2.07	2.53	3.28	3.99
Mar	3.18	3.17	4.58	1917	13	6.46	1976	.90	1986	9.9	6.6	2.1	.5	1.16	1.46	1.89	2.25	2.59	2.94	3.32	3.76	4.33	5.20	6.00
Apr	3.77	3.50	4.79	1994	12	9.96	1994	.58	1971	11.4	7.2	2.6	.9	1.11	1.47	2.00	2.47	2.92	3.39	3.91	4.53	5.32	6.56	7.71
May	4.86	4.74	4.75	1970	1	10.55	1990	.90	1979	11.1	7.7	3.1	1.3	1.30	1.76	2.46	3.08	3.68	4.32	5.02	5.86	6.95	8.66	10.25
Jun	4.36	3.76	4.19	1973	19	11.67	1998	.63	1992	9.3	6.3	2.9	1.5	.94	1.34	1.98	2.56	3.14	3.76	4.46	5.29	6.39	8.15	9.81
Jul	3.85	3.61	3.65	1973	21	10.64	1973	1.03	1998	8.4	6.0	2.7	1.0	.87	1.23	1.79	2.30	2.81	3.34	3.95	4.67	5.63	7.14	8.57
Aug	3.35	3.17	3.41	1912	26	7.80	1995	.61	1998	8.4	5.5	2.7	1.0	.86	1.17	1.66	2.09	2.52	2.96	3.46	4.05	4.82	6.04	7.18
Sep	3.46	2.82	5.02	1993	23	15.98	1993	.00	1979	7.7	5.6	2.3	.9	.48	.93	1.51	2.00	2.49	3.00	3.57	4.26	5.15	6.58	7.93
Oct	2.61	2.40	3.82	1969	12	4.84+	1977	1.00	1992	8.7	5.6	1.8	.6	.86	1.11	1.47	1.78	2.08	2.38	2.72	3.11	3.62	4.41	5.13
Nov	3.45	3.07	2.94	1994	6	10.92	1985	.33	1999	9.8	6.3	2.3	.9	.56	.86	1.36	1.83	2.32	2.86	3.47	4.21	5.21	6.82	8.37
Dec	2.54	2.07	4.80	1982	3	9.65	1982	.25	1976	8.2	4.8	1.6	.6	.39	.61	.97	1.33	1.69	2.09	2.55	3.11	3.86	5.08	6.25
Ann	38.47	37.76	5.02	Sep 1993	23	15.98	Sep 1993	.00	Sep 1979	106.6	68.8	25.9	9.7	23.83	26.52	30.04	32.76	35.22	37.63	40.15	42.96	46.41	51.50	55.96

+ 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: 1901-2001

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

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**Climate Division: IL 6**

**NWS Call Sign:**

**Elevation: 610 Feet**

**Lat: 39°44N**

**Lon: 90°13W**

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	6.7	6.0	2	1	10.0	1999	2	23.8	1977	17	1999	3	7	1999	3.9	2.6	.8	.2	@	10.9	6.1	3.6	.4
Feb	4.9	3.5	1	1	7.0	1988	11	13.3	1988	14	1982	11	6	1982	2.7	1.9	.6	.2	.0	8.9	5.0	2.3	.2
Mar	2.2	1.0	#	#	7.0	1978	8	11.3	1980	18	1978	9	5	1978	1.3	.9	.4	.1	.0	2.0	.7	.2	.0
Apr	.4	.0	#	0	2.0	1980	14	3.5	1980	3	1980	15	#+	2000	.3	.3	.0	.0	.0	.3	.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	#	2000	7	#+	2000	#	2000	7	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.4	.0	#	0	9.0	1975	27	10.5	1975	10	1975	27	1	1977	.7	.5	.1	.1	.0	1.0	.4	.2	@
Dec	4.9	2.2	1	#	8.5	1981	23	23.5	1973	14	1973	21	4+	2000	2.8	1.9	.5	.3	.0	5.8	2.8	1.8	.3
Ann	20.5	12.7	N/A	N/A	10.0	Jan 1999	2	23.8	Jan 1977	18	Mar 1978	9	7	Jan 1999	11.7	8.1	2.4	.9	@	28.9	15.0	8.1	.9

+ 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	5/21	5/16	5/12	5/08	5/05	5/02	4/29	4/25	4/19
32	5/07	5/02	4/28	4/24	4/21	4/18	4/15	4/11	4/06
28	4/17	4/14	4/11	4/09	4/07	4/05	4/03	4/01	3/29
24	4/15	4/10	4/06	4/03	3/31	3/28	3/25	3/22	3/17
20	4/06	3/30	3/25	3/21	3/17	3/13	3/09	3/04	2/26
16	3/23	3/17	3/13	3/09	3/06	3/02	2/26	2/22	2/16
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	9/17	9/22	9/26	9/29	10/02	10/05	10/08	10/11	10/16
32	9/25	9/30	10/04	10/06	10/09	10/12	10/15	10/18	10/23
28	10/07	10/13	10/17	10/20	10/24	10/27	10/30	11/03	11/09
24	10/18	10/24	10/28	11/01	11/04	11/08	11/12	11/16	11/22
20	10/30	11/05	11/09	11/13	11/17	11/20	11/24	11/28	12/04
16	11/12	11/17	11/21	11/25	11/28	12/01	12/05	12/09	12/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	169	162	157	153	149	145	141	136	129
32	188	182	177	174	170	166	163	158	152
28	215	210	205	202	198	195	192	187	182
24	242	234	228	222	218	213	208	202	193
20	272	262	255	249	244	238	232	226	216
16	290	282	276	271	267	262	257	251	243

\* 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	1251	988	765	413	181	19	1	18	78	345	704	1090	5853
60	1096	848	610	278	100	4	0	3	26	217	554	935	4671
57	1003	770	525	207	64	1	0	0	11	153	468	842	4044
55	941	717	467	166	46	1	0	0	5	118	414	784	3659
50	796	587	332	83	17	0	0	0	0	53	284	640	2792
32	326	219	50	0	0	0	0	0	0	0	30	221	846

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	99	155	309	583	923	1167	1328	1258	1007	688	317	153	7987
55	0	9	12	58	255	478	615	545	322	92	10	4	2400
57	0	6	8	40	212	419	553	483	268	66	5	0	2060
60	0	0	0	21	155	331	460	393	193	37	1	0	1591
65	0	0	0	5	80	196	306	253	95	10	0	0	945
70	0	0	0	1	33	91	164	139	35	1	0	0	464

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	11	45	146	369	690	942	1095	1019	778	455	160	32	11	56	202	571	1261	2203	3298	4317	5095	5550	5710	5742
45	3	16	85	250	535	792	940	864	630	317	91	15	3	19	104	354	889	1681	2621	3485	4115	4432	4523	4538
50	0	4	46	144	387	642	785	709	483	198	46	4	0	4	50	194	581	1223	2008	2717	3200	3398	3444	3448
55	0	0	21	78	251	495	630	554	341	112	19	0	0	0	21	99	350	845	1475	2029	2370	2482	2501	2501
60	0	0	6	34	142	349	475	400	220	55	4	0	0	0	6	40	182	531	1006	1406	1626	1681	1685	1685
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	10	34	101	232	432	628	746	684	509	293	97	22	10	44	145	377	809	1437	2183	2867	3376	3669	3766	3788

(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:

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## 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)