

# Climatography of the United States No. 20

Station: STOCKTON 3 NNE, IL

1971-2000

COOP ID: 118293

Climate Division: IL 1

NWS Call Sign:

Elevation: 970 Feet

Lat: 42° 24N

Lon: 90° 00W

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	26.2	9.5	17.9	57+	1997	4	30.1	1990	-28+	1985	21	4.9	1977	1461	0	.0	.0	.5	21.4	30.4	9.3
Feb	32.1	15.7	23.9	66	2000	25	35.7	1998	-30	1996	3	12.2	1979	1152	0	.0	.0	1.6	14.3	26.3	5.6
Mar	44.1	25.9	35.0	84	1986	30	42.8	2000	-18	1962	1	27.1	1975	930	0	.0	.0	9.0	5.1	24.0	.5
Apr	58.2	36.3	47.3	91+	1986	26	53.7	1977	7	1982	7	42.1	1975	534	2	.0	.1	22.6	.3	10.1	.0
May	70.3	47.7	59.0	93+	1991	29	65.8	1977	24	1978	3	53.8	1997	234	48	.0	.3	30.5	.0	.9	.0
Jun	79.0	56.7	67.9	99+	1988	22	72.0	1971	37+	1993	1	62.7	1982	39	124	.0	1.4	30.0	.0	.0	.0
Jul	81.9	60.8	71.4	99+	1989	11	75.9	1999	40	1988	1	66.8	1992	10	207	.0	3.4	31.0	.0	.0	.0
Aug	80.0	58.6	69.3	99	1988	18	74.7	1995	39	1979	15	64.2	1992	34	166	.0	1.9	31.0	.0	.0	.0
Sep	72.7	50.2	61.5	98	1953	1	67.8	1978	26	1949	29	56.4	1993	149	41	.0	.6	29.9	.0	.8	.0
Oct	61.3	38.9	50.1	89	1953	2	57.5	1971	13	1988	30	44.5	1987	464	3	.0	.0	26.5	.0	7.8	.0
Nov	44.6	28.1	36.4	77	2000	1	42.9	1999	-10	1950	24	28.2	1995	860	0	.0	.0	9.9	4.3	21.0	.2
Dec	31.0	15.4	23.2	66	1998	4	32.0	1982	-24+	1983	24	10.8	1983	1295	0	.0	.0	1.4	16.2	29.5	5.0
Ann	56.8	37.0	46.9	99+	Jul 1989	11	75.9	Jul 1999	-30	Feb 1996	3	4.9	Jan 1977	7162	591	.0	7.7	223.9	61.6	150.8	20.6

+ 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: 1948-2001

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

079-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: STOCKTON 3 NNE, IL**

**COOP ID: 118293**

**Climate Division: IL 1**

**NWS Call Sign:**

**Elevation: 970 Feet**

**Lat: 42°24N**

**Lon: 90°00W**

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	1.15	1.18	2.90	1960	12	2.96	1974	.03	1981	7.5	3.2	.7	.1	.16	.25	.42	.58	.75	.93	1.14	1.41	1.76	2.34	2.89
Feb	1.40	1.10	1.83	1997	21	4.07	1974	.00	1995	6.3	3.6	.9	.2	.06	.17	.37	.58	.80	1.05	1.35	1.72	2.24	3.09	3.94
Mar	2.35	1.98	1.74	1998	30	6.31	1990	.51	1981	8.3	5.2	1.7	.4	.35	.55	.89	1.21	1.55	1.92	2.35	2.87	3.57	4.71	5.81
Apr	3.52	3.23	3.00	1972	16	8.38	1973	1.26	1989	10.9	7.2	2.5	.9	1.35	1.68	2.15	2.54	2.90	3.28	3.68	4.15	4.75	5.67	6.51
May	3.81	3.54	3.50	1978	13	9.69	1974	.51	1992	11.2	7.5	2.6	.9	.78	1.13	1.69	2.20	2.71	3.27	3.89	4.64	5.63	7.22	8.72
Jun	4.65	4.17	4.10	1993	25	13.62	1993	.21	1988	10.2	7.2	3.2	1.5	1.15	1.58	2.26	2.86	3.46	4.09	4.79	5.63	6.72	8.45	10.08
Jul	3.17	3.02	4.55	1962	2	6.20	1992	.55	1991	9.4	6.2	2.4	.7	1.12	1.42	1.85	2.21	2.56	2.92	3.31	3.77	4.35	5.25	6.07
Aug	4.35	3.58	3.00	1981	28	10.85	1981	.79	1978	9.9	7.0	3.2	1.3	1.17	1.58	2.21	2.76	3.30	3.87	4.50	5.25	6.22	7.74	9.16
Sep	3.80	3.91	4.36	1961	13	11.46	1986	.19	1979	9.0	6.3	2.3	1.1	.58	.91	1.46	1.98	2.52	3.12	3.80	4.64	5.76	7.59	9.34
Oct	2.70	2.30	2.80	1984	19	9.28	1984	.61	1987	8.9	5.9	1.8	.6	.59	.83	1.23	1.59	1.95	2.33	2.76	3.27	3.95	5.04	6.06
Nov	2.69	2.48	2.40	1961	16	6.28	1985	.23	1976	8.9	5.5	2.0	.6	.52	.77	1.16	1.52	1.89	2.29	2.74	3.28	4.00	5.15	6.24
Dec	1.61	1.26	2.01	1971	15	5.57	1973	.24	1975	8.0	3.8	1.0	.2	.28	.43	.66	.88	1.11	1.35	1.63	1.96	2.41	3.13	3.82
Ann	35.20	35.64	4.55	Jul 1962	2	13.62	Jun 1993	.00	Feb 1995	108.5	68.6	24.3	8.5	23.65	25.84	28.67	30.84	32.77	34.66	36.61	38.78	41.42	45.28	48.64

+ 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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Station: STOCKTON 3 NNE, IL

COOP ID: 118293

Climate Division: IL 1

NWS Call Sign:

Elevation: 970 Feet

Lat: 42°24N

Lon: 90°00W

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	7.5	5.1	4	3	10.0	1971	3	16.2	2000	25	1986	9	16	1982	4.9	2.9	1.1	.5	.1	18.8	13.5	8.2	1.6
Feb	6.9	8.0	3	3	7.0	2000	18	16.5	1997	15	1985	12	10	1986	3.8	2.5	.8	.2	.0	14.5	11.5	7.7	2.9
Mar	4.7	4.0	1	#	11.0	1972	29	18.6	1972	13	1986	1	5	1982	2.2	1.5	.5	.2	@	3.1	1.7	1.1	.1
Apr	1.5	.0	#	0	12.0	1973	10	12.0	1973	12	1973	11	2	1973	.7	.5	.2	@	@	.6	.4	.2	.1
May	.1	.0	#	0	2.5	1994	1	2.5	1994	#	1997	15	#	1997	@	@	.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	.3	.0	#	0	3.3	1997	26	3.3	1997	3	1997	26	#+	1997	.2	.1	@	.0	.0	.1	@	.0	.0
Nov	2.6	1.0	#	#	4.1	1993	26	10.0	1986	10	1986	21	2	1995	1.7	1.0	.4	.0	.0	1.9	.8	.0	.0
Dec	7.8	6.0	2	1	9.2	2000	11	29.0	2000	20	1985	30	12	1985	4.7	2.9	.9	.2	.0	10.6	6.0	2.6	1.2
Ann	31.4	24.1	N/A	N/A	12.0	Apr 1973	10	29.0	Dec 2000	25	Jan 1986	9	16	Jan 1982	18.2	11.4	3.9	1.1	.1	49.6	33.9	19.8	5.9

+ 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	5/24	5/20	5/17	5/14	5/11	5/09	5/06	5/03	4/28
32	5/12	5/09	5/06	5/04	5/01	4/29	4/27	4/24	4/20
28	5/02	4/28	4/24	4/21	4/18	4/16	4/13	4/09	4/04
24	4/21	4/17	4/14	4/12	4/10	4/08	4/06	4/03	3/31
20	4/13	4/08	4/04	4/01	3/29	3/26	3/23	3/20	3/14
16	4/07	4/01	3/28	3/24	3/20	3/17	3/13	3/09	3/02
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	9/13	9/18	9/21	9/24	9/27	9/30	10/03	10/06	10/11
32	9/21	9/25	9/28	10/01	10/04	10/06	10/09	10/12	10/16
28	9/27	10/03	10/07	10/11	10/14	10/18	10/21	10/26	11/01
24	10/14	10/19	10/23	10/27	10/30	11/02	11/05	11/09	11/15
20	10/19	10/25	10/29	11/02	11/05	11/09	11/12	11/16	11/22
16	11/05	11/10	11/13	11/16	11/19	11/22	11/25	11/28	12/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	159	152	147	142	138	134	130	124	117
32	173	167	162	158	155	151	147	142	136
28	201	193	187	183	178	174	169	163	155
24	221	215	210	206	202	198	194	189	183
20	245	236	230	225	220	215	210	204	195
16	269	260	253	248	243	238	233	226	218

\* 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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**Lat: 42°24N**

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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	1461	1152	930	534	234	39	10	34	149	464	860	1295	7162
60	1306	1012	775	391	138	9	0	8	65	321	710	1140	5875
57	1213	928	682	310	93	3	0	2	34	245	621	1047	5178
55	1151	872	621	261	69	2	0	0	21	200	562	985	4744
50	996	737	476	154	28	0	0	0	4	109	422	831	3757
32	488	308	99	3	0	0	0	0	0	2	76	349	1325

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	49	80	191	460	838	1076	1220	1156	883	564	206	77	6800
55	0	0	0	28	194	387	507	443	213	49	2	0	1823
57	0	0	0	17	156	329	445	382	167	32	1	0	1529
60	0	0	0	8	107	244	352	295	108	15	0	0	1129
65	0	0	0	2	48	124	207	166	41	3	0	0	591
70	0	0	0	0	17	44	94	76	10	0	0	0	241

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	0	7	72	254	599	851	993	928	657	343	78	5	0	7	79	333	932	1783	2776	3704	4361	4704	4782	4787
45	0	1	37	153	445	701	838	773	511	218	34	4	0	1	38	191	636	1337	2175	2948	3459	3677	3711	3715
50	0	0	12	79	302	551	683	618	365	126	14	1	0	0	12	91	393	944	1627	2245	2610	2736	2750	2751
55	0	0	5	36	184	405	528	464	237	60	5	0	0	0	5	41	225	630	1158	1622	1859	1919	1924	1924
60	0	0	1	15	101	264	376	313	133	27	0	0	0	0	1	16	117	381	757	1070	1203	1230	1230	1230
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	44	158	360	553	671	615	401	198	40	2	0	1	45	203	563	1116	1787	2402	2803	3001	3041	3043

(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](http://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](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> |
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## 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)