

Climatography of the United States

No. 20

1971-2000

Station: WATSEKA 2 NW, IL

COOP ID: 119021

Climate Division: IL 5

NWS Call Sign:

Elevation: 620 Feet

Lat: 40°48N

Lon: 87°45W

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	30.1	14.0	22.1	67+	1950	26	34.6	1990	-28	1999	5	6.9	1977	1331	0	.0	.0	2.0	17.0	28.9	6.2
Feb	35.6	18.1	26.9	73	2000	26	39.0	1998	-27	1982	10	12.0	1978	1069	0	.0	.0	4.1	10.8	24.8	3.9
Mar	47.8	29.2	38.5	80+	2000	8	45.0	1973	-13	1980	2	29.9	1984	822	0	.0	.0	13.3	3.3	20.6	.2
Apr	60.2	38.8	49.5	88	1989	26	55.3	1977	3	1982	7	44.3	1982	468	3	.0	.1	24.4	@	7.9	.0
May	72.0	49.8	60.9	94	2001	17	68.6	1977	26	1971	3	55.7	1997	204	77	.0	1.0	30.6	.0	.7	.0
Jun	81.7	59.4	70.6	104	1988	26	75.0	1971	35	1963	22	65.5	1982	23	189	.1	5.0	30.0	.0	.0	.0
Jul	84.4	63.4	73.9	104	1954	14	78.1	1983	43+	1972	6	69.8	1971	3	279	.1	6.9	31.0	.0	.0	.0
Aug	82.5	60.8	71.7	105	1988	18	78.5	1995	38+	1986	31	67.4	1992	25	232	.2	3.7	31.0	.0	.0	.0
Sep	76.8	52.5	64.7	99+	1953	2	70.0	1998	27+	1995	24	59.0	1974	88	78	.0	1.7	30.0	.0	.4	.0
Oct	64.4	41.4	52.9	91+	1963	6	59.9	1971	18	1981	24	46.5	1987	383	8	.0	.0	28.6	.0	6.8	.0
Nov	48.7	31.6	40.2	81	1950	1	46.8	1999	-9	1950	25	32.0	1976	745	0	.0	.0	14.0	1.9	18.0	.1
Dec	35.5	20.5	28.0	70	1982	3	37.8	1982	-26	1989	22	14.1	1989	1147	0	.0	.0	3.8	10.7	27.2	2.5
Ann	60.0	40.0	50.0	105	Aug 1988	18	78.5	Aug 1995	-28	Jan 1999	5	6.9	Jan 1977	6308	866	.4	18.4	242.8	43.7	135.3	12.9

+ 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

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

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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: WATSEKA 2 NW, IL

COOP ID: 119021

Climate Division: IL 5

NWS Call Sign:

Elevation: 620 Feet

Lat: 40°48N

Lon: 87°45W

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	1.61	1.21	2.24	1950	24	3.90	1974	.23	1981	8.1	4.1	.7	.1	.31	.46	.69	.91	1.13	1.37	1.63	1.96	2.38	3.07	3.71
Feb	1.73	1.41	2.20	1976	17	5.30	1990	.00	1987	7.0	4.2	.9	.2	.16	.35	.64	.89	1.15	1.43	1.75	2.14	2.66	3.50	4.30
Mar	3.36	3.01	4.39	1985	28	8.20	1985	.28	1981	10.3	6.8	2.2	.6	.83	1.14	1.63	2.07	2.50	2.96	3.46	4.07	4.86	6.11	7.29
Apr	3.77	3.37	4.90	1970	19	7.33	1981	1.01	1997	12.3	7.6	2.6	.8	1.43	1.78	2.28	2.70	3.10	3.51	3.95	4.46	5.10	6.10	7.01
May	4.04	4.10	3.75	1970	13	7.37	1981	.73	1992	11.5	7.5	2.8	.9	1.31	1.70	2.26	2.74	3.21	3.69	4.21	4.82	5.61	6.84	7.97
Jun	4.62	4.47	3.64	1980	2	9.78	1993	.29	1988	10.4	7.5	3.2	1.3	1.06	1.49	2.17	2.77	3.38	4.02	4.74	5.60	6.73	8.53	10.22
Jul	4.22	3.88	6.70	1951	9	9.61	1992	.60	1983	9.5	6.8	2.7	1.2	1.01	1.40	2.02	2.57	3.12	3.69	4.34	5.11	6.12	7.72	9.22
Aug	3.65	3.18	3.53	1977	10	9.49	1977	1.05+	2000	8.6	5.7	2.7	.9	.97	1.31	1.84	2.31	2.76	3.24	3.78	4.41	5.23	6.53	7.74
Sep	3.41	2.68	7.15	1989	1	11.20	1989	.10	1979	8.0	5.5	2.1	.8	.36	.61	1.08	1.55	2.06	2.64	3.31	4.16	5.31	7.21	9.07
Oct	2.91	2.22	2.75	1983	22	7.92	1991	.86	1992	9.0	5.5	2.0	.6	.88	1.16	1.57	1.93	2.27	2.63	3.02	3.48	4.08	5.01	5.87
Nov	3.33	3.00	3.88	1982	2	7.43	1985	.61	1999	10.0	6.3	2.2	.7	.83	1.14	1.63	2.06	2.49	2.94	3.44	4.03	4.81	6.04	7.20
Dec	2.57	2.24	2.62	1949	21	7.01	1971	.36	1976	9.5	5.3	1.4	.5	.50	.74	1.11	1.46	1.81	2.19	2.62	3.13	3.82	4.92	5.96
Ann	39.22	37.89	7.15	Sep 1989	1	11.20	Sep 1989	.00	Feb 1987	114.2	72.8	25.5	8.6	27.67	29.90	32.76	34.93	36.87	38.74	40.67	42.81	45.40	49.17	52.43

+ 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: WATSEKA 2 NW, IL

COOP ID: 119021

Climate Division: IL 5

NWS Call Sign:

Elevation: 620 Feet

Lat: 40°48N

Lon: 87°45W

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	7.1	6.5	2	1	8.7	1979	14	19.6	1979	14	1999	16	8	1999	4.2	2.3	.7	.3	.0	12.2	7.6	4.0	1.0
Feb	4.4	3.3	2	1	8.8	1978	14	15.2	1980	14	1979	20	11	1979	2.6	1.6	.6	.1	.0	9.8	7.5	5.0	1.9
Mar	2.1	2.0	#	#	7.8	1983	21	7.8	1983	8	1983	21	3	1978	1.1	.8	.1	.1	.0	2.5	1.1	.6	.0
Apr	.9	.0	#	0	9.0	1982	6	14.5	1982	10	1982	9	1	1982	.4	.3	.1	.1	.0	.4	.1	.1	@
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	#	1997	27	#+	1997	#+	1997	27	#+	1997	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.3	.0	#	#	4.5	1980	27	7.0	1974	6	1980	28	1	1980	.9	.5	.1	.0	.0	1.0	.5	.1	.0
Dec	5.8	3.7	1	1	15.5	1973	19	20.0	1973	16	1973	24	6+	2000	3.2	1.8	.5	.2	@	6.9	4.0	2.4	.8
Ann	21.6	15.5	N/A	N/A	15.5	Dec 1973	19	20.0	Dec 1973	16	Dec 1973	24	11	Feb 1979	12.4	7.3	2.1	.8	@	32.8	20.8	12.2	3.7

+ 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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No. 20 1971-2000

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NWS Call Sign:

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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	5/28	5/22	5/18	5/14	5/10	5/07	5/03	4/28	4/22
32	5/14	5/08	5/03	4/29	4/26	4/22	4/18	4/14	4/08
28	5/03	4/28	4/24	4/20	4/17	4/14	4/10	4/06	4/01
24	4/16	4/11	4/07	4/04	4/01	3/29	3/26	3/22	3/17
20	4/10	4/03	3/30	3/26	3/23	3/19	3/15	3/11	3/05
16	3/30	3/24	3/19	3/15	3/12	3/08	3/04	2/27	2/21
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	9/16	9/21	9/24	9/27	9/29	10/01	10/04	10/07	10/12
32	9/25	9/29	10/02	10/05	10/07	10/09	10/12	10/15	10/19
28	10/02	10/08	10/12	10/16	10/19	10/23	10/27	10/31	11/06
24	10/19	10/24	10/27	10/31	11/03	11/06	11/09	11/12	11/18
20	10/31	11/06	11/10	11/13	11/17	11/20	11/24	11/28	12/04
16	11/11	11/17	11/21	11/25	11/28	12/02	12/05	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	162	155	150	145	141	137	132	127	120
32	186	178	173	168	164	159	155	149	142
28	210	201	195	190	185	180	174	168	160
24	235	228	223	219	215	211	207	202	195
20	263	255	248	243	238	233	228	222	214
16	285	277	271	266	261	256	251	245	236

* 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	1331	1069	822	468	204	23	3	25	88	383	745	1147	6308
60	1176	929	667	328	119	5	0	6	31	251	595	992	5099
57	1083	845	575	251	80	2	0	1	13	184	507	899	4440
55	1021	790	520	205	59	1	0	0	6	145	453	843	4043
50	868	660	378	109	24	0	0	0	1	72	318	698	3128
32	382	258	63	0	0	0	0	0	0	0	40	268	1011

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	73	114	264	525	896	1156	1299	1230	980	648	286	144	7615
55	0	2	7	40	242	467	586	517	296	80	8	6	2251
57	0	0	1	26	201	408	524	456	243	57	2	0	1918
60	0	0	0	12	147	322	431	368	170	31	0	0	1481
65	0	0	0	3	77	189	279	232	78	8	0	0	866
70	0	0	0	0	33	86	143	127	25	1	0	0	415

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	25	122	312	652	918	1047	975	737	412	131	23	7	32	154	466	1118	2036	3083	4058	4795	5207	5338	5361
45	1	8	64	197	500	768	892	820	589	282	72	11	1	9	73	270	770	1538	2430	3250	3839	4121	4193	4204
50	0	2	33	112	352	618	737	665	441	174	34	3	0	2	35	147	499	1117	1854	2519	2960	3134	3168	3171
55	0	0	12	56	228	470	582	510	304	95	11	0	0	0	12	68	296	766	1348	1858	2162	2257	2268	2268
60	0	0	2	24	128	323	427	358	186	42	2	0	0	0	2	26	154	477	904	1262	1448	1490	1492	1492
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	1	16	76	189	407	608	711	655	478	259	74	12	1	17	93	282	689	1297	2008	2663	3141	3400	3474	3486

(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