

Climatography of the United States

No. 20

1971-2000

Station: ALBION, IL

COOP ID: 110055

Climate Division: IL 9

NWS Call Sign:

Elevation: 530 Feet

Lat: 38°24N

Lon: 88°04W

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	37.4	21.2	29.3	70+	2000	3	40.5	1990	-20	1982	16	14.0	1977	1106	0	.0	.0	6.3	9.3	24.7	1.6
Feb	43.5	24.9	34.2	78	1972	29	42.4	1976	-11	1996	4	19.9	1978	861	0	.0	.0	10.4	5.1	19.0	.6
Mar	54.7	35.4	45.1	85	1986	31	52.1	1973	-2	1960	5	36.9	1984	619	0	.0	.0	21.5	.6	12.2	@
Apr	66.0	45.1	55.6	91	1965	23	62.2	1981	22	1972	8	49.1	1983	299	15	.0	.0	28.5	.0	2.7	.0
May	76.2	55.3	65.8	97	2001	17	72.5	1991	30	1966	10	61.2	1976	106	129	.0	1.9	31.0	.0	@	.0
Jun	85.5	64.2	74.9	105	1954	26	79.2	1984	42	1983	9	70.1	1974	5	301	.2	10.7	30.0	.0	.0	.0
Jul	89.2	67.9	78.6	109	1954	14	82.6	1980	50	1997	5	75.7	1996	0	420	.6	17.5	31.0	.0	.0	.0
Aug	87.5	65.8	76.7	104+	2000	30	82.7	1983	44	1965	29	73.0	1986	3	364	.7	12.6	31.0	.0	.0	.0
Sep	80.9	58.2	69.6	105+	1953	2	74.6	1998	36+	1974	23	63.7	1974	35	171	.1	5.3	30.0	.0	.0	.0
Oct	69.9	46.6	58.3	98	1953	2	64.9	1971	22+	1952	29	51.9+	1988	246	37	.0	.2	30.4	.0	1.6	.0
Nov	54.3	35.8	45.1	83	1955	13	52.1	1999	4	1958	30	37.1	1976	600	1	.0	.0	20.1	.5	10.4	.0
Dec	42.2	25.8	34.0	75	1982	2	42.3	1984	-18	1989	22	22.0	1989	960	0	.0	.0	8.6	5.3	21.2	.7
Ann	65.6	45.5	55.6	109	Jul 1954	14	82.7	Aug 1983	-20	Jan 1982	16	14.0	Jan 1977	4840	1438	1.6	48.2	278.8	20.8	91.8	2.9

+ 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

001-A

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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: ALBION, IL

COOP ID: 110055

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NWS Call Sign:

Elevation: 530 Feet

Lat: 38°24N

Lon: 88°04W

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	2.57	2.38	4.17	1949	24	5.69	1997	.01	1981	6.3	4.8	1.8	.5	.30	.50	.86	1.22	1.60	2.02	2.52	3.13	3.97	5.35	6.69	
Feb	2.72	2.48	3.62	1975	23	8.05	1975	.71	1978	6.9	5.2	1.9	.6	.74	1.00	1.39	1.73	2.07	2.42	2.81	3.28	3.88	4.83	5.71	
Mar	4.29	3.75	3.81	1964	9	8.25	1989	1.31	1994	8.4	6.9	3.3	1.2	1.53	1.93	2.52	3.01	3.48	3.96	4.48	5.09	5.87	7.07	8.18	
Apr	5.13	3.72	4.50	1996	29	13.17	1996	1.38	1971	10.0	7.8	3.4	1.6	1.33	1.82	2.56	3.22	3.86	4.54	5.30	6.19	7.36	9.21	10.94	
May	4.61	4.27	4.78	1961	8	12.26	1981	1.28	1991	10.0	7.5	3.6	1.2	1.44	1.88	2.53	3.09	3.63	4.19	4.80	5.52	6.45	7.91	9.25	
Jun	4.19	4.18	3.39	1989	13	8.87	2000	.44	1984	8.4	6.3	2.6	1.3	.95	1.34	1.95	2.50	3.05	3.64	4.30	5.08	6.12	7.76	9.31	
Jul	3.86	3.33	3.89	1948	20	9.23	1979	.84	1974	6.4	5.2	2.6	1.3	1.04	1.40	1.96	2.45	2.93	3.43	3.99	4.65	5.52	6.87	8.13	
Aug	3.43	2.67	4.10	1985	7	9.45	1985	.54	1987	6.7	5.3	2.5	1.1	.61	.92	1.42	1.89	2.37	2.89	3.47	4.19	5.14	6.67	8.13	
Sep	2.89	2.26	4.50	1991	4	8.10	1993	.49	1995	6.3	4.6	2.0	.8	.54	.79	1.22	1.61	2.01	2.44	2.93	3.52	4.30	5.57	6.77	
Oct	3.36	3.42	3.20	2001	13	7.72	1983	.00	2000	6.5	4.9	2.4	.9	.93	1.41	1.95	2.37	2.76	3.15	3.58	4.07	4.69	5.64	6.52	
Nov	4.28	4.22	4.20	1993	14	10.24	1993	.33	1999	8.2	6.3	3.3	1.4	.97	1.37	2.00	2.56	3.13	3.72	4.39	5.20	6.25	7.93	9.51	
Dec	3.51	3.33	4.90	1982	3	12.74	1982	.52	1976	7.9	6.3	2.5	1.0	.77	1.09	1.61	2.07	2.54	3.03	3.59	4.26	5.14	6.54	7.86	
Ann	44.84	45.37	4.90	Dec 1982	3	13.17	Apr 1996	.00	Oct 2000	92.0	71.1	31.9	12.9	32.27	34.71	37.84	40.21	42.31	44.34	46.43	48.74	51.54	55.60	59.10	

+ 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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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	3.3	.5	1	#	6.0	1979	27	18.9	1977	12	1977	24	7	1977	1.4	1.0	.4	.1	.0	4.2	2.7	2.4	.2
Feb	1.8	.0	1	#	10.0	1993	26	17.0	1993	10	1993	26	4	1978	.7	.6	.2	.1	@	3.1	2.2	.8	.0
Mar	1.8	.0	#	0	9.5	1996	20	12.0	1996	9	1996	20	1	1996	.5	.4	.3	.1	.0	.8	.2	.1	.0
Apr	.1	.0	#	0	4.0	1971	6	4.0	1971	2	1971	6	#	1971	@	@	@	.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	3.0	1993	30	3.0	1993	1	1993	30	#	1993	@	@	@	.0	.0	@	.0	.0	.0
Nov	.4	.0	#	0	3.0	1975	26	3.5	1971	3	1975	26	#+	1991	.1	.1	.1	.0	.0	.2	@	.0	.0
Dec	2.3	.2	#	0	7.0	1973	20	10.5	1973	7	1990	27	1	1990	.7	.7	.3	.2	.0	1.3	.4	.4	.0
Ann	9.8	.7	N/A	N/A	10.0	Feb 1993	26	18.9	Jan 1977	12	Jan 1977	24	7	Jan 1977	3.4	2.8	1.3	.5	@	9.6	5.5	3.7	.2

+ 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	5/02	4/28	4/25	4/22	4/20	4/17	4/14	4/11	4/07
32	4/22	4/18	4/15	4/12	4/09	4/07	4/04	4/01	3/27
28	4/14	4/09	4/05	4/02	3/31	3/28	3/25	3/21	3/16
24	4/05	3/30	3/26	3/23	3/20	3/17	3/14	3/10	3/05
20	3/23	3/17	3/12	3/08	3/05	3/01	2/25	2/21	2/14
16	3/11	3/05	3/01	2/25	2/22	2/18	2/15	2/10	2/04
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	10/04	10/08	10/12	10/15	10/17	10/20	10/23	10/27	10/31
32	10/10	10/16	10/20	10/23	10/27	10/30	11/02	11/06	11/12
28	10/20	10/26	10/30	11/03	11/06	11/09	11/13	11/17	11/23
24	10/29	11/05	11/09	11/13	11/17	11/21	11/25	11/30	12/06
20	11/07	11/14	11/19	11/23	11/26	11/30	12/04	12/09	12/16
16	11/20	11/26	12/01	12/05	12/08	12/12	12/16	12/20	12/27
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	201	194	188	184	180	176	172	167	160
32	222	214	209	204	199	195	190	185	177
28	242	235	229	224	220	215	211	205	197
24	265	257	251	246	241	237	231	225	217
20	294	285	278	272	266	261	255	248	238
16	310	303	298	293	289	285	280	275	268

* 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	1106	861	619	299	106	5	0	3	35	246	600	960	4840
60	951	722	475	180	47	1	0	0	8	144	454	805	3787
57	859	644	391	124	26	0	0	0	3	97	373	715	3232
55	805	592	338	92	16	0	0	0	1	72	321	659	2896
50	658	465	226	37	4	0	0	0	0	29	207	515	2141
32	240	133	21	0	0	0	0	0	0	0	13	141	548

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	157	196	426	706	1047	1286	1443	1384	1126	814	404	203	9192
55	9	11	30	108	350	596	730	671	437	173	22	9	3146
57	1	7	20	79	298	536	668	609	379	136	14	3	2750
60	0	1	11	46	226	447	575	516	294	89	5	0	2210
65	0	0	0	15	129	301	420	364	171	37	1	0	1438
70	0	0	0	3	61	168	265	223	80	11	0	0	811

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	43	94	261	502	820	1066	1219	1158	912	594	249	74	43	137	398	900	1720	2786	4005	5163	6075	6669	6918	6992
45	20	47	158	363	665	916	1064	1003	762	442	156	32	20	67	225	588	1253	2169	3233	4236	4998	5440	5596	5628
50	4	17	89	236	513	766	909	848	613	305	86	11	4	21	110	346	859	1625	2534	3382	3995	4300	4386	4397
55	0	4	45	143	362	616	754	693	468	190	41	1	0	4	49	192	554	1170	1924	2617	3085	3275	3316	3317
60	0	1	18	72	230	466	599	538	328	98	12	0	0	1	19	91	321	787	1386	1924	2252	2350	2362	2362
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	21	52	151	304	525	725	836	796	606	366	140	36	21	73	224	528	1053	1778	2614	3410	4016	4382	4522	4558

(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