U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: ALTON MELVIN PRICE L&D, IL **COOP ID: 110137**

Climate Division: IL 6 **NWS Call Sign:** **Elevation: 430 Feet** **Lat: 38˚49N** **Lon: 90˚09W**

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	36.0	19.4	27.7	72+	1950	25	39.6	1990	-16+	1982	11	13.6	1977	1156	0	.0	.0	4.1	11.4	27.3	2.0
Feb	41.8	24.0	32.9	76	2000	25	42.3	1998	-15+	1996	5	20.0	1979	900	0	.0	.0	7.5	7.0	22.3	1.1
Mar	52.5	33.7	43.1	85+	1986	31	49.0	1973	-1	1960	5	34.9	1984	680	0	.0	.0	18.0	1.4	14.4	.0
Apr	64.1	44.6	54.4	92	1952	29	61.7	1981	20	1982	6	48.4	1983	333	14	.0	.1	27.0	.0	2.7	.0
May	74.6	55.0	64.8	98	1953	26	71.7	1987	32	1966	10	60.3	1981	122	115	.0	.7	30.9	.0	.0	.0
Jun	83.7	64.3	74.0	107+	1952	28	78.2	1987	44	1998	5	68.9	1982	8	278	@	5.9	30.0	.0	.0	.0
Jul	88.1	68.7	78.4	111	1954	14	82.8	1980	50	1972	6	74.1	1971	0	416	.5	13.3	31.0	.0	.0	.0
Aug	86.3	66.4	76.4	106+	1953	1	82.4	1983	46	1986	29	71.1	1985	7	359	.5	9.3	31.0	.0	.0	.0
Sep	79.1	58.0	68.6	103+	1954	5	74.8	1998	37+	1974	23	61.5	1974	48	154	@	3.3	30.0	.0	.0	.0
Oct	67.5	46.2	56.9	93	1953	2	62.6	1971	25+	1981	24	49.9	1976	270	18	.0	@	30.0	.0	1.3	.0
Nov	53.2	35.4	44.3	84	1950	1	53.1	1999	4	1964	30	35.1	1976	622	0	.0	.0	17.5	.8	11.9	.0
Dec	40.7	24.6	32.7	73+	1984	29	39.5	1982	-16+	1989	23	19.3	1983	1003	0	.0	.0	7.1	6.6	23.7	.9
Ann	64.0	45.0	54.5	111	Jul 1954	14	82.8	Jul 1980	-16+	Dec 1989	23	13.6	Jan 1977	5149	1354	1.0	32.6	264.1	27.2	103.6	4.0

\+ 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/normals/usnormals.html

(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

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: ALTON MELVIN PRICE L&D, IL **COOP ID: 110137**

Climate Division: IL 6 **NWS Call Sign:** **Elevation: 430 Feet** **Lat: 38˚49N** **Lon: 90˚09W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.99	1.76	3.58	1950	4	5.16	1975	.09	1986
Feb	2.30	1.85	2.28	1988	1	4.53	1986	.23	1991
Mar	3.47	3.14	4.12	1977	28	8.12	1977	.95	1994
Apr	4.16	3.42	7.70	1996	23	17.54	1996	.82	1988
May	4.24	3.98	4.70	1995	17	10.15	1995	1.02	1992
Jun	3.22	2.97	3.38	1957	15	8.11	1998	.41	1991
Jul	3.49	3.56	4.68	1952	16	7.04	1981	.27	1983
Aug	3.17	3.00	3.16	1961	10	6.73	1985	.67	1978
Sep	3.14	2.74	3.46	1969	17	11.47	1993	.30	1979
Oct	2.70	2.19	3.50	1986	4	7.14	1986	.61	1975
Nov	3.75	3.52	3.00	1985	19	10.74	1985	.39	1999
Dec	2.91	2.27	2.73	1971	10	8.10	1971	.49	1980
Ann	38.54	38.09	7.70	Apr 1996	23	17.54	Apr 1996	.09	Jan 1986

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	7.4	4.6	1.2	.4
Feb	7.7	4.7	1.3	.5
Mar	10.2	7.0	2.4	.6
Apr	10.5	7.0	2.8	.9
May	10.3	7.3	3.0	1.1
Jun	7.3	5.1	2.2	.9
Jul	8.1	5.6	2.3	.9
Aug	7.3	5.5	2.2	.8
Sep	7.2	4.8	2.1	.9
Oct	8.2	5.5	1.6	.7
Nov	9.3	6.6	2.6	.9
Dec	8.2	5.5	1.9	.8
Ann	101.7	69.2	25.6	9.4

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.27	.43	.72	.99	1.28	1.61	1.98	2.44	3.06	4.07	5.04
Feb	.42	.62	.96	1.27	1.59	1.93	2.33	2.80	3.43	4.44	5.41
Mar	1.26	1.59	2.06	2.45	2.83	3.21	3.63	4.12	4.74	5.69	6.57
Apr	.84	1.22	1.83	2.39	2.95	3.56	4.24	5.06	6.15	7.90	9.56
May	1.05	1.45	2.07	2.62	3.16	3.73	4.37	5.13	6.13	7.70	9.18
Jun	.69	.99	1.46	1.89	2.32	2.78	3.29	3.91	4.73	6.03	7.26
Jul	.87	1.20	1.71	2.16	2.60	3.07	3.60	4.22	5.04	6.33	7.55
Aug	1.03	1.33	1.77	2.15	2.51	2.89	3.30	3.78	4.40	5.37	6.26
Sep	.41	.66	1.11	1.55	2.01	2.52	3.11	3.84	4.82	6.44	8.00
Oct	.65	.91	1.30	1.65	2.00	2.37	2.78	3.27	3.92	4.94	5.89
Nov	.73	1.07	1.62	2.13	2.64	3.19	3.82	4.57	5.57	7.17	8.69
Dec	.58	.85	1.27	1.66	2.06	2.48	2.96	3.54	4.30	5.52	6.68
Ann	26.87	29.11	32.00	34.19	36.15	38.04	40.00	42.17	44.81	48.64	51.96

\+ 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: 1948-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: ALTON MELVIN PRICE L&D, IL **COOP ID: 110137**

Climate Division: IL 6 **NWS Call Sign:** **Elevation: 430 Feet** **Lat: 38°49N** **Lon: 90°09W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	2.7	.7	1	#
Feb	1.9	.0	1	#
Mar	3.0	.0	#	0
Apr	.5	.0	#	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	#	.0	0	0
Nov	.3	.0	#	0
Dec	.7	.0	#	#
Ann	9.1	.7	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	10.0	1987	10	18.5	1987	19	1977	30	11	1977
Feb	12.0	1993	26	12.0	1993	21	1982	10	11	1982
Mar	13.0	1978	8	21.8	1978	18	1978	9	4	1978
Apr	5.5	1971	6	5.5	1971	6	1971	6	#+	1983
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	#	1989	19	#	1989	0	0	0	0	0
Nov	6.0	1977	27	6.0	1977	8	1975	27	1	1980
Dec	2.5	1981	17	3.0	1975	14	1973	21	2	1973
Ann	13.0	Mar 1978	8	21.8	Mar 1978	21	Feb 1982	10	11+	Feb 1982

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	1.0	.7	.3	.1	.1
Feb	1.3	.9	.4	.2	.1
Mar	.5	.5	.3	.2	@
Apr	.1	.1	.1	.1	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.1	@	@	@	.0
Dec	.4	.2	.0	.0	.0
Ann	3.4	2.4	1.1	.6	.2

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	1.9	1.5	.9	.1
Feb	1.5	.7	.2	.0
Mar	.5	.4	.3	.0
Apr	.1	.1	.1	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.2	.1	@	.0
Dec	.7	.2	.0	.0
Ann	4.9	3.0	1.5	.1

+ 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: ALTON MELVIN PRICE L&D, IL **COOP ID: 110137**

Climate Division: IL 6 **NWS Call Sign:** **Elevation: 430 Feet** **Lat: 38˚49N** **Lon: 90˚09W**

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	4/25	4/20	4/17	4/15	4/12	4/09	4/07	4/04	3/30
32	4/17	4/13	4/11	4/09	4/06	4/04	4/02	3/31	3/27
28	4/13	4/07	4/02	3/29	3/26	3/22	3/19	3/14	3/08
24	4/04	3/29	3/25	3/21	3/17	3/13	3/10	3/05	2/27
20	3/26	3/19	3/14	3/09	3/05	3/01	2/25	2/20	2/13
16	3/14	3/07	3/01	2/24	2/20	2/16	2/11	2/05	1/29

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	10/05	10/10	10/14	10/17	10/20	10/23	10/26	10/30	11/04
32	10/15	10/21	10/25	10/28	11/01	11/04	11/08	11/12	11/18
28	10/25	11/01	11/06	11/10	11/14	11/17	11/22	11/26	12/03
24	11/04	11/10	11/15	11/19	11/23	11/27	12/01	12/05	12/12
20	11/12	11/19	11/23	11/27	12/01	12/04	12/08	12/13	12/19
16	11/19	11/26	12/01	12/06	12/10	12/14	12/18	12/23	12/30

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	212	204	199	194	190	186	181	176	168
32	229	221	216	212	208	204	199	194	187
28	262	251	244	238	232	226	220	213	202
24	277	268	261	255	250	245	239	232	223
20	300	290	282	276	270	264	258	250	240
16	325	314	306	299	292	286	279	270	259

***** 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: ALTON MELVIN PRICE L&D, IL **COOP ID: 110137**

Climate Division: IL 6 **NWS Call Sign:** **Elevation: 430 Feet** **Lat: 38˚49N** **Lon: 90˚09W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1156	900	680	333	122	8	0	7	48	270	622	1003	5149
60	1001	760	532	212	58	1	0	0	14	154	478	848	4058
57	908	683	444	152	33	0	0	0	5	101	396	760	3482
55	847	631	389	118	21	0	0	0	2	74	344	702	3128
50	703	503	265	54	6	0	0	0	0	28	230	559	2348
32	260	160	29	0	0	0	0	0	0	0	21	171	641

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	127	183	372	671	1016	1261	1439	1375	1097	771	390	191	8893
55	1	11	19	98	324	571	726	662	409	132	23	8	2984
57	0	7	13	73	274	511	664	600	351	97	15	4	2609
60	0	0	7	42	206	422	571	507	270	57	7	0	2089
65	0	0	0	14	115	278	416	359	154	18	0	0	1354
70	0	0	0	3	52	153	265	224	73	3	0	0	773

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	23	60	192	445	775	1029	1196	1137	867	531	200	49	23	83	275	720	1495	2524	3720	4857	5724	6255	6455	6504
45	5	25	111	313	620	879	1041	982	717	381	119	19	5	30	141	454	1074	1953	2994	3976	4693	5074	5193	5212
50	1	9	56	198	466	729	886	827	567	247	60	4	1	10	66	264	730	1459	2345	3172	3739	3986	4046	4050
55	0	2	28	108	320	579	731	672	420	139	22	1	0	2	30	138	458	1037	1768	2440	2860	2999	3021	3022
60	0	0	6	53	193	430	576	517	284	63	6	0	0	0	6	59	252	682	1258	1775	2059	2122	2128	2128
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	13	39	113	248	482	705	833	786	567	307	111	29	13	52	165	413	895	1600	2433	3219	3786	4093	4204	4233

(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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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