

# Climatology of the United States

No. 20

1971-2000

Station: QUINCY BALDWIN AP, IL

COOP ID: 117072

Climate Division: IL 3

NWS Call Sign: UIN

Elevation: 763 Feet

Lat: 39° 57N

Lon: 91° 12W

## 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	32.7	16.7	24.7	73	1950	24	37.5	1990	-21+	1985	20	11.7	1977	1249	0	.0	.0	2.9	15.0	28.3	4.4
Feb	38.7	22.0	30.4	76	1972	29	39.8	1976	-18	1996	3	16.9	1978	971	0	.0	.0	5.8	9.5	22.2	2.4
Mar	50.9	32.3	41.6	85	1986	29	48.1	1973	-13	1960	5	33.8	1978	724	0	.0	.0	15.8	2.3	15.9	.2
Apr	63.1	42.8	53.0	92	1986	25	58.9	1977	16	1957	12	46.5	1983	370	8	.0	.1	25.7	.1	3.8	.0
May	72.8	53.0	62.9	93	1956	12	68.7	1987	28	1966	10	57.6	1981	150	84	.0	.3	30.9	.0	.1	.0
Jun	81.8	62.2	72.0	101+	1988	25	76.8	1971	42+	1993	5	66.2	1982	13	223	.1	4.5	30.0	.0	.0	.0
Jul	86.0	66.6	76.3	112	1954	14	83.2	1980	47	1950	14	71.2	1971	1	353	.8	10.1	31.0	.0	.0	.0
Aug	84.0	64.3	74.2	103	1984	29	81.6	1983	42+	1986	28	68.6	1992	13	297	.5	7.0	31.0	.0	.0	.0
Sep	77.1	55.9	66.5	100+	1984	1	72.0	1978	32	1984	29	60.5	1974	74	119	@	2.5	30.0	.0	@	.0
Oct	65.5	44.6	55.1	93	1953	2	60.4	1971	18	1952	29	49.6	1987	318	10	.0	@	28.9	.0	3.0	.0
Nov	50.2	33.2	41.7	81	1950	1	49.0	1999	-11	1964	30	34.8	1996	700	0	.0	.0	15.0	2.1	14.9	@
Dec	37.2	21.9	29.6	71	1970	3	37.8	1982	-22	1989	22	15.8	2000	1098	0	.0	.0	4.8	10.5	26.0	2.0
Ann	61.7	43.0	52.3	112	Jul 1954	14	83.2	Jul 1980	-22	Dec 1989	22	11.7	Jan 1977	5681	1094	1.4	24.5	251.8	39.5	114.2	9.0

+ 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/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

070-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: QUINCY BALDWIN AP, IL**

**COOP ID: 117072**

**Climate Division: IL 3**

**NWS Call Sign: UIN**

**Elevation: 763 Feet**

**Lat: 39°57N**

**Lon: 91°12W**

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	1.36	1.25	3.38	1965	1	3.67	1982	.10	1986	8.3	3.4	.6	.2	.18	.28	.48	.67	.87	1.09	1.34	1.66	2.09	2.79	3.47
Feb	1.84	1.43	1.91	1997	20	5.15	1997	.40	1988	8.2	3.8	1.0	.4	.43	.60	.87	1.11	1.35	1.60	1.88	2.22	2.67	3.38	4.05
Mar	3.04	2.66	2.27	1977	28	11.45	1973	.85	1986	10.6	6.2	2.0	.6	.77	1.06	1.50	1.89	2.28	2.68	3.14	3.68	4.38	5.50	6.54
Apr	3.79	4.00	2.86	1973	21	8.99	1994	.99	2000	11.0	6.9	2.7	.7	1.11	1.47	2.01	2.48	2.94	3.41	3.94	4.56	5.36	6.61	7.77
May	4.86	4.02	2.75+	1986	17	13.26	1991	.45	1992	11.6	7.7	3.3	1.7	1.15	1.60	2.31	2.95	3.58	4.25	5.00	5.89	7.06	8.91	10.66
Jun	3.61	3.27	5.84	1950	14	8.45	1973	.95	1989	9.6	6.1	2.6	.8	.91	1.25	1.78	2.24	2.70	3.18	3.72	4.36	5.20	6.52	7.76
Jul	3.84	3.09	4.62	1951	22	13.21	1981	.10	1988	8.9	6.0	2.6	.9	.56	.88	1.44	1.97	2.52	3.13	3.84	4.70	5.85	7.74	9.55
Aug	3.44	2.76	3.39	1987	13	10.15	1977	.27	1992	8.8	5.6	2.2	1.0	.59	.89	1.39	1.86	2.34	2.87	3.47	4.19	5.16	6.74	8.24
Sep	3.85	2.99	4.12	1961	13	10.51	1977	.37	1979	8.2	5.6	2.5	1.3	.76	1.11	1.67	2.19	2.72	3.28	3.92	4.69	5.71	7.35	8.90
Oct	3.21	2.54	4.46	1969	12	7.61	1991	.63	1988	8.7	5.5	2.0	.8	.74	1.04	1.51	1.93	2.35	2.80	3.30	3.89	4.68	5.93	7.10
Nov	3.23	2.84	3.47	1985	18	11.17	1985	.29	1999	9.7	5.8	2.3	.8	.54	.82	1.29	1.74	2.19	2.69	3.25	3.94	4.86	6.35	7.77
Dec	2.37	2.10	4.60	1982	2	8.62	1982	.16	1976	9.2	4.5	1.2	.6	.35	.54	.89	1.21	1.56	1.93	2.37	2.90	3.61	4.77	5.89
Ann	38.44	37.64	5.84	Jun 1950	14	13.26	May 1991	.10+	Jul 1988	112.8	67.1	25.0	9.8	23.68	26.38	29.93	32.68	35.16	37.59	40.13	42.97	46.46	51.60	56.12

+ 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:  
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Lon: 91°12W

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	7.4	6.6	2	1	9.6	1999	1	22.2	1987	17+	1979	15	11	1979	5.1	2.3	.7	.4	.0	14.3	7.3	4.5	1.3
Feb	5.9	4.9	2	2	10.9	1993	25	20.8	1993	14+	1979	3	8	1979	4.3	2.0	.5	.2	@	11.4	7.0	3.4	.6
Mar	2.7	1.9	#	1	6.6	1999	8	12.8	1978	11+	1978	9	4	1978	2.1	.9	.3	.1	.0	3.2	1.5	.6	.2
Apr	.8	.0	#	0	3.7	1999	16	4.4	1980	2+	1982	9	#	1997	.6	.3	.1	.0	.0	.3	.0	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1994	.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	0	0	.3	1993	30	.3	1993	#	1980	28	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	2.3	1.0	#	0	7.9	1975	26	8.9+	1975	8+	1975	28	1+	1977	1.7	.7	.3	.1	.0	1.2	.5	.1	.0
Dec	4.7	2.9	1	0	6.4	1978	31	16.7	1973	9+	1987	16	3+	1983	3.5	1.7	.4	.2	.0	6.8	3.3	1.7	.0
Ann	23.8	17.3	N/A	N/A	10.9	Feb 1993	25	22.2	Jan 1987	17+	Jan 1979	15	11	Jan 1979	17.3	7.9	2.3	1.0	@	37.2	19.6	10.3	2.1

+ 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:

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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	5/07	5/02	4/29	4/26	4/24	4/21	4/18	4/15	4/10
32	4/24	4/19	4/16	4/13	4/10	4/07	4/05	4/01	3/28
28	4/15	4/11	4/08	4/06	4/03	4/01	3/29	3/26	3/22
24	4/08	4/03	3/31	3/28	3/25	3/23	3/20	3/16	3/12
20	3/31	3/25	3/20	3/16	3/12	3/08	3/04	2/28	2/21
16	3/23	3/15	3/09	3/05	2/28	2/24	2/19	2/14	2/06
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	9/23	9/27	10/01	10/04	10/07	10/09	10/12	10/16	10/20
32	10/03	10/09	10/13	10/17	10/20	10/23	10/27	10/31	11/06
28	10/13	10/19	10/23	10/27	10/31	11/04	11/08	11/12	11/19
24	10/26	11/01	11/05	11/08	11/11	11/14	11/18	11/22	11/27
20	11/02	11/09	11/14	11/18	11/22	11/25	11/30	12/04	12/11
16	11/12	11/18	11/23	11/26	11/30	12/03	12/07	12/11	12/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	186	179	174	169	165	161	157	152	145
32	214	207	201	197	192	188	183	178	170
28	229	222	218	214	210	207	203	198	191
24	252	245	239	234	230	226	221	215	208
20	281	271	265	259	254	248	243	236	227
16	305	294	286	280	274	268	261	253	242

\* 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	1249	971	724	370	150	13	1	13	74	318	700	1098	5681
60	1094	831	571	242	76	2	0	2	25	192	551	943	4529
57	1001	753	486	176	45	1	0	0	11	131	467	850	3921
55	939	701	429	139	30	0	0	0	5	97	412	793	3545
50	795	571	298	66	9	0	0	0	0	40	284	649	2712
32	329	207	39	0	0	0	0	0	0	0	34	229	838

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	103	160	338	628	957	1200	1374	1307	1035	715	324	154	8295
55	0	10	15	76	274	510	661	594	350	99	12	5	2606
57	0	6	10	54	227	450	599	532	296	71	7	0	2252
60	0	0	2	29	165	362	506	441	220	39	1	0	1765
65	0	0	0	8	84	223	353	297	119	10	0	0	1094
70	0	0	0	1	33	111	212	174	51	2	0	0	584

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	12	49	161	401	719	973	1139	1071	804	479	159	32	12	61	222	623	1342	2315	3454	4525	5329	5808	5967	5999
45	3	21	93	275	564	823	984	916	654	335	91	11	3	24	117	392	956	1779	2763	3679	4333	4668	4759	4770
50	0	7	50	169	412	673	829	761	508	211	45	4	0	7	57	226	638	1311	2140	2901	3409	3620	3665	3669
55	0	0	26	88	277	523	674	606	364	119	17	0	0	0	26	114	391	914	1588	2194	2558	2677	2694	2694
60	0	0	7	41	154	373	519	451	237	57	3	0	0	0	7	48	202	575	1094	1545	1782	1839	1842	1842
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	5	27	95	229	441	660	785	732	519	279	84	18	5	32	127	356	797	1457	2242	2974	3493	3772	3856	3874

(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](http://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](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)