

Climatography of the United States

No. 20

1971-2000

Station: HARRISBURG, IL

COOP ID: 113879

Climate Division: IL 9

NWS Call Sign:

Elevation: 365 Feet

Lat: 37°44N

Lon: 88°31W

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	40.0	21.7	30.9	78	1943	24	41.4	1990	-22	1977	17	15.6	1977	1060	0	.0	.0	7.8	8.3	24.4	1.3
Feb	45.9	25.2	35.6	80+	1962	13	43.8	1976	-23	1951	2	20.0	1978	825	0	.0	.0	12.1	4.2	18.8	.7
Mar	56.6	34.8	45.7	94	1929	24	52.5	1976	-8	1960	6	38.6	1996	599	1	.0	.0	23.0	.8	12.4	@
Apr	67.5	44.7	56.1	96	1901	28	62.7	1981	22+	1982	11	49.2	1983	285	18	.0	.1	28.6	.0	3.1	.0
May	76.9	54.2	65.6	100	1911	28	71.7	1991	29	1963	1	60.7	1997	99	117	.0	2.0	30.9	.0	@	.0
Jun	85.3	63.3	74.3	106+	1936	28	78.0	1971	40+	1945	4	69.3	1992	5	284	.4	9.9	30.0	.0	.0	.0
Jul	89.3	67.6	78.5	113	1936	13	83.0	1980	45	1997	6	75.1	2000	0	416	.8	17.2	31.0	.0	.0	.0
Aug	88.0	65.1	76.6	111+	1930	9	83.5	1980	43	1986	29	71.5	1992	3	360	.8	13.5	31.0	.0	.0	.0
Sep	81.1	56.6	68.9	109+	1925	5	73.9	1986	29	1942	28	63.6	1974	45	160	.1	5.4	30.0	.0	.1	.0
Oct	70.4	44.4	57.4	98	1953	2	63.5	1971	18	1981	24	51.6	1988	258	23	.0	.1	30.7	.0	3.1	.0
Nov	56.4	35.5	46.0	87	1909	5	53.9	1999	-3	1929	30	37.5	1976	572	0	.0	.0	21.4	.2	11.2	.0
Dec	44.7	26.3	35.5	78	1982	2	43.2	1971	-11	1917	12	22.8	1989	915	0	.0	.0	11.5	4.1	20.7	.5
Ann	66.8	45.0	55.9	113	Jul 1936	13	83.5	Aug 1980	-23	Feb 1951	2	15.6	Jan 1977	4666	1379	2.1	48.2	288.0	17.6	93.8	2.5

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1901-2001

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

034-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: HARRISBURG, IL

COOP ID: 113879

Climate Division: IL 9

NWS Call Sign:

Elevation: 365 Feet

Lat: 37°44N

Lon: 88°31W

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	3.20	3.25	3.84	1937	14	11.66	1982	.01	1986	8.5	5.8	2.1	.7	.39	.65	1.10	1.54	2.02	2.54	3.15	3.91	4.93	6.62	8.25
Feb	3.07	2.82	3.06	1945	26	6.59	1989	.87	1983	8.0	5.9	2.3	.8	1.02	1.31	1.74	2.10	2.45	2.81	3.20	3.66	4.26	5.18	6.02
Mar	4.44	4.28	5.53	1964	9	9.17	1989	1.50	1986	10.9	8.0	3.1	.9	1.55	1.97	2.58	3.09	3.58	4.08	4.63	5.27	6.09	7.36	8.53
Apr	4.64	4.25	5.75	1996	29	13.05	1983	2.16	1981	11.4	8.1	3.3	1.4	1.72	2.15	2.78	3.30	3.79	4.30	4.85	5.49	6.31	7.57	8.72
May	4.98	4.26	7.38	1957	22	14.29	1981	1.05	1977	10.7	7.5	3.5	1.5	1.25	1.72	2.44	3.08	3.72	4.39	5.13	6.02	7.17	9.00	10.72
Jun	4.47	3.74	4.24	2000	17	12.71	1998	1.19	1978	8.8	6.3	2.9	1.2	1.25	1.68	2.32	2.88	3.42	4.00	4.63	5.38	6.35	7.87	9.29
Jul	3.94	3.75	4.30	1905	21	8.25	1976	.30	1994	8.2	5.7	2.9	1.2	.97	1.34	1.91	2.42	2.93	3.46	4.06	4.77	5.70	7.17	8.55
Aug	3.23	2.79	6.75	1959	17	9.44	1985	.37	1996	7.2	5.2	2.1	.8	.53	.81	1.28	1.72	2.18	2.68	3.25	3.95	4.88	6.38	7.83
Sep	3.04	2.67	3.05	1904	18	7.46	1993	.40	1981	7.2	5.2	2.1	.8	.63	.91	1.35	1.76	2.17	2.61	3.10	3.70	4.48	5.74	6.93
Oct	3.04	2.64	5.47	1910	5	7.54	1984	1.06	1987	6.9	5.0	2.2	.7	1.00	1.29	1.71	2.07	2.42	2.78	3.17	3.63	4.22	5.14	5.98
Nov	4.20	4.17	4.50	1921	17	7.47	1985	.45	1999	9.2	6.7	2.9	1.3	1.13	1.52	2.13	2.66	3.18	3.73	4.34	5.06	6.00	7.47	8.85
Dec	3.90	3.53	5.32	1982	3	13.10	1982	.68	1976	9.2	6.8	2.7	.9	.97	1.33	1.90	2.41	2.91	3.43	4.02	4.72	5.63	7.08	8.44
Ann	46.15	46.62	7.38	May 1957	22	14.29	May 1981	.01	Jan 1986	106.2	76.2	32.1	12.2	33.86	36.27	39.33	41.65	43.71	45.68	47.72	49.97	52.69	56.61	59.99

+ 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: 1901-2001

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

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

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: HARRISBURG, IL

COOP ID: 113879

Climate Division: IL 9

NWS Call Sign:

Elevation: 365 Feet

Lat: 37°44N

Lon: 88°31W

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	5.8	1.5	1	#	8.0	1978	16	25.1	1978	16	1978	17	9	1977	2.2	1.7	.6	.2	.0	6.7	4.1	3.3	2.1
Feb	4.4	2.0	1	#	11.0	1979	25	18.0	1979	12	1979	26	5	1984	1.7	1.5	.6	.2	@	4.6	3.2	2.1	.1
Mar	2.2	.0	#	0	8.0	1975	10	12.0	1975	6	1994	9	1	1978	.8	.7	.3	.1	.0	.7	.4	.1	.0
Apr	.5	.0	#	0	11.0	1971	6	11.0	1971	7	1971	6	#	1971	.1	@	@	@	@	@	@	@	.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	.0	.0	#	0	1.0	1993	30	1.0	1993	#	1993	30	#	1993	@	@	.0	.0	.0	.0	.0	.0	.0
Nov	.7	.0	#	0	6.0	1977	27	6.0	1977	5	1977	28	1	1977	.3	.3	.1	@	.0	.4	.2	.1	.0
Dec	2.1	1.0	#	0	8.0	1973	20	13.0	1973	8	1973	21	1	1973	.7	.7	.3	@	.0	1.5	.5	.2	.0
Ann	15.7	4.5	N/A	N/A	11.0+	Feb 1979	25	25.1	Jan 1978	16	Jan 1978	17	9	Jan 1977	5.8	4.9	1.9	.5	@	13.9	8.4	5.8	2.2

+ 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

Complete documentation available from:

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

Climatography of the United States

No. 20 1971-2000

Station: HARRISBURG, IL

COOP ID: 113879

Climate Division: IL 9

NWS Call Sign:

Elevation: 365 Feet

Lat: 37° 44N

Lon: 88° 31W

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	5/09	5/03	4/29	4/25	4/22	4/19	4/15	4/11	4/05
32	4/24	4/19	4/16	4/13	4/11	4/08	4/06	4/02	3/29
28	4/14	4/09	4/06	4/03	3/31	3/28	3/25	3/22	3/17
24	4/07	4/01	3/27	3/23	3/19	3/15	3/10	3/06	2/27
20	3/21	3/14	3/10	3/06	3/02	2/27	2/23	2/18	2/12
16	3/11	3/04	2/27	2/22	2/18	2/14	2/09	2/04	1/28
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	9/27	10/01	10/03	10/06	10/08	10/10	10/12	10/15	10/19
32	10/02	10/07	10/11	10/14	10/17	10/20	10/23	10/27	11/02
28	10/14	10/19	10/23	10/26	10/30	11/02	11/05	11/09	11/14
24	10/26	11/02	11/06	11/10	11/14	11/18	11/22	11/27	12/03
20	11/05	11/12	11/18	11/23	11/27	12/01	12/06	12/11	12/19
16	11/22	11/29	12/04	12/08	12/12	12/16	12/20	12/25	1/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	187	180	176	172	168	165	161	156	150
32	210	203	197	193	189	184	180	175	167
28	234	227	221	216	212	207	203	197	189
24	269	259	252	245	240	234	228	221	211
20	292	284	279	274	269	264	259	254	246
16	321	313	307	301	296	291	286	280	271

* 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/normal/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: HARRISBURG, IL

COOP ID: 113879

Climate Division: IL 9

NWS Call Sign:

Elevation: 365 Feet

Lat: 37°44N

Lon: 88°31W

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	1060	825	599	285	99	5	0	3	45	258	572	915	4666
60	905	688	455	170	42	0	0	0	12	147	429	760	3608
57	814	610	371	117	22	0	0	0	5	96	347	674	3056
55	760	558	319	87	13	0	0	0	2	70	296	616	2721
50	614	432	209	34	3	0	0	0	0	25	186	475	1978
32	210	115	17	0	0	0	0	0	0	0	10	120	472

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	173	215	441	723	1041	1270	1439	1381	1106	788	428	228	9233
55	10	13	31	120	341	580	726	668	418	145	24	11	3087
57	2	10	20	89	288	520	664	606	360	109	15	7	2690
60	0	3	11	53	215	430	571	513	278	67	7	0	2148
65	0	0	1	18	117	284	416	360	160	23	0	0	1379
70	0	0	0	4	51	154	262	219	75	5	0	0	770

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	51	112	276	519	824	1054	1202	1147	893	574	266	86	51	163	439	958	1782	2836	4038	5185	6078	6652	6918	7004
45	28	57	174	381	669	904	1047	992	743	423	166	46	28	85	259	640	1309	2213	3260	4252	4995	5418	5584	5630
50	7	25	102	254	514	754	892	837	593	284	95	19	7	32	134	388	902	1656	2548	3385	3978	4262	4357	4376
55	1	8	51	152	364	604	737	682	448	174	48	7	1	9	60	212	576	1180	1917	2599	3047	3221	3269	3276
60	0	1	22	82	227	454	582	527	312	88	16	0	0	1	23	105	332	786	1368	1895	2207	2295	2311	2311
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	35	70	174	324	533	717	818	778	594	370	154	50	35	105	279	603	1136	1853	2671	3449	4043	4413	4567	4617

(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.

- 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/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