## 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

**COOP ID: 124662** 

Lon: 86°10W

Station: KOKOMO 3 WSW, IN

**Climate Division: IN 5** 

**NWS Call Sign:** 

Temperature (°F)

Degree Days (1)

Moon Number of Days (2)

Elevation: 820 Feet Lat: 40°28N

										Гетр	eratur	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes		Degree Base To	Days (1) emp 65		Mean	Numb	er of I	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	30.5	15.0	22.8	72	1950	25	33.6	1990	-26+	1985	20	6.6	1977	1309	0	.0	.0	2.1	16.5	28.9	6.3
Feb	35.5	18.5	27.0	74+	1999	12	37.9	1998	-20+	1905	13	10.2	1978	1064	0	.0	.0	3.9	11.7	25.4	4.0
Mar	47.2	28.4	37.8	85	1910	24	45.5	1973	-10+	1943	8	27.0	1984	843	0	.0	.0	12.3	4.3	21.9	.3
Apr	59.9	37.9	48.9	94	1942	30	54.2	1977	8+	1982	7	43.1	1982	485	2	.0	.0	23.7	.2	9.7	.0
May	71.3	48.8	60.1	100	1934	31	67.5	1977	27	1974	7	54.8	1984	221	68	.0	.5	30.5	.0	.8	.0
Jun	80.7	58.4	69.6	107	1934	1	73.9	1971	34	1992	22	64.3	1982	32	168	.1	3.6	30.0	.0	.0	.0
Jul	84.1	61.8	73.0	110	1936	14	77.5	1999	41	1908	8	67.6	1984	8	254	.3	6.5	31.0	.0	.0	.0
Aug	81.8	59.5	70.7	106+	1918	6	77.4	1995	37	1986	29	66.7	1992	30	205	@	3.3	31.0	.0	.0	.0
Sep	76.0	51.7	63.9	103+	1939	14	68.5	1998	27	1995	23	59.2	1975	101	66	.0	1.6	29.9	.0	.5	.0
Oct	63.8	40.7	52.3	91	1954	3	59.8	1971	17+	1981	24	46.0	1988	403	8	.0	.0	27.9	@	7.2	.0
Nov	49.0	31.7	40.4	81+	1950	1	46.1	1999	-5	1950	25	32.8	1976	739	0	.0	.0	13.4	1.9	18.0	.0
Dec	35.8	21.1	28.5	71	1998	7	38.0	1982	-24+	1989	22	14.9	1989	1133	0	.0	.0	4.1	11.2	26.9	2.5
Ann	59.6	39.5	49.6	110	Jul 1936	14	77.5	Jul 1999	-26+	Jan 1985	20	6.6	Jan 1977	6368	771	.4	15.5	239.8	45.8	139.3	13.1

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 030-A

- (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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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**COOP ID: 124662** 

Station: KOKOMO 3 WSW, IN

Climate Division: IN 5 NWS Call Sign: Elevation: 820 Feet Lat: 40°28N Lon: 86°10W

										Pı	recipit	tation	(incl	nes)										
	Mea	ans/	P	recipi	itatio	on Total					ean N of D	ays (3	)	Proba	ibility th		nonthly/	annual j	precipita ated an	babilit ation winount	ll be equ		less tha	ın the
	Medi	ians(1)				Lati enie.	,			"	any 11c	cipitatio	••		Th	ese value	s were de	termined	from the	incomplet	te gamma	distribut	on	
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	2.51	2.04	3.30	1902	21	7.35	1982	.33	1986	11.6	6.8	1.4	.4	.63	.87	1.23	1.55	1.87	2.21	2.58	3.03	3.61	4.53	5.40
Feb	2.29	2.32	2.66	1997	27	6.02	1990	.42	1987	10.1	6.1	1.2	.2	.58	.79	1.12	1.42	1.71	2.02	2.36	2.77	3.30	4.15	4.94
Mar	3.30	3.34	2.40	1939	12	6.61	1973	.58	1981	12.0	8.0	2.3	.5	1.05	1.37	1.83	2.23	2.61	3.00	3.44	3.94	4.60	5.62	6.56
Apr	3.74	4.08	2.50	1952	23	7.74	1972	.99	1997	12.3	8.2	2.5	.7	1.35	1.70	2.21	2.63	3.04	3.45	3.91	4.43	5.10	6.14	7.09
May	4.13	3.96	4.95	1943	17	7.55	1990	.46	1988	11.1	8.0	2.9	.7	1.43	1.82	2.38	2.86	3.32	3.79	4.31	4.91	5.68	6.86	7.96
Jun	3.98	3.67	4.90	1998	12	11.80	1998	.31	1988	10.1	7.5	2.8	1.0	.93	1.30	1.88	2.40	2.92	3.47	4.09	4.82	5.79	7.32	8.76
Jul	4.37	3.93	4.33	1996	18	11.86	1992	1.01	1975	8.7	6.6	3.1	1.4	1.20	1.61	2.24	2.79	3.33	3.90	4.53	5.27	6.23	7.75	9.17
Aug	4.22	3.86	3.56	1982	25	9.54	1977	1.06	1971	8.7	6.5	2.7	1.4	1.07	1.47	2.09	2.63	3.16	3.73	4.36	5.10	6.08	7.61	9.05
Sep	3.14	2.24	6.75	1950	1	8.90	1989	.17	1978	8.0	5.4	1.9	.9	.36	.60	1.04	1.47	1.94	2.46	3.08	3.84	4.87	6.58	8.24
Oct	3.04	2.72	6.40	1917	18	7.69	1991	1.33	1974	9.1	6.0	2.2	.5	1.15	1.43	1.84	2.18	2.50	2.83	3.18	3.60	4.13	4.94	5.68
Nov	3.63	3.43	2.83	1983	11	10.60	1985	.45	1976	11.2	7.2	2.5	1.0	.74	1.07	1.60	2.09	2.58	3.11	3.70	4.42	5.36	6.87	8.31
Dec	3.19	3.03	3.00	1990	30	8.35	1990	1.07	1976	13.5	7.6	1.8	.6	.96	1.26	1.71	2.10	2.48	2.88	3.31	3.83	4.49	5.52	6.48
Ann	41.54	39.59	6.75	Sep 1950	1	11.86	Jul 1992	.17	Sep 1978	126.4	83.9	27.3	9.3	30.94	33.03	35.69	37.69	39.46	41.16	42.91	44.84	47.16	50.52	53.41

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1901-2001

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**COOP ID: 124662** 

Station: KOKOMO 3 WSW, IN

Climate Division: IN 5 NWS Call Sign: Elevation: 820 Feet Lat: 40°28N Lon: 86°10W

										Snov	w (incl	hes)											
	Snow Fall Mean         Snow Fall Median         Snow Depth Median         Snow Depth Median         Year Fall Median         Day Snow Fall         Year Monthly Snow Pall         Year Snow Depth Snow Pall         Year Snow Pall         <																Mea	ın Nu	mber	of Day	<b>ys</b> (1)		
	Mean	Extremes (2)   Snow Fall   Snow Depth Median   Median															ow Fa					Depth eshold	
Month	Fall	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	12.4	11.2	3	2	15.0	1982	31	40.8	1978	24	1978	29	9+	1999	7.5	4.6	1.3	.6	.1	15.6	8.8	5.2	1.4
Feb	9.7	8.9	3	1	12.0	1984	28	26.5	1985	24	1982	6	17	1978	6.0	3.3	1.2	.5	@	12.4	7.4	5.1	2.7
Mar	5.9	6.0	1	#	10.9	1999	9	17.6	1984	16	1978	9	9	1978	3.7	1.9	.7	.3	.1	5.3	2.6	1.3	.6
Apr	1.4	.3	#	#	7.5	1982	9	15.4	1982	8	1982	9	1	1982	.9	.4	.1	.1	.0	.6	.1	.1	.0
May	#	.0	0	0	#	1989	7	#+	1989	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	.4	.0	#	0	5.5	1989	20	10.5	1989	7	1989	20	1	1989	.2	.1	.1	@	.0	.1	.1	@	.0
Nov	1.9	1.1	#	#	5.2	1975	27	7.6	1975	4	1975	27	#+	2000	2.3	.9	.1	@	.0	1.2	.2	.0	.0
Dec	9.7	6.1	1	1	14.0	1973	20	35.8	1973	18	1977	11	7	1977	6.4	3.8	.9	.4	@	8.8	4.0	2.2	.5
Ann	41.4	33.6	N/A	N/A	15.0	Jan 1982	31	40.8	Jan 1978	24+	Feb 1982	6	17	Feb 1978	27.0	15.0	4.4	1.9	.2	44.0	23.2	13.9	5.2

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**NWS Call Sign:** 

Lat: 40°28N Lon: 86°10W Elevation: 820 Feet

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(	(*)	
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/25	5/20	5/16	5/12	5/09	5/05	5/02	4/28	4/22
32	5/11	5/07	5/03	4/30	4/28	4/25	4/22	4/19	4/14
28	4/30	4/26	4/22	4/19	4/17	4/14	4/11	4/07	4/03
24	4/18	4/14	4/11	4/08	4/06	4/03	3/31	3/28	3/24
20	4/10	4/04	3/31	3/28	3/25	3/22	3/18	3/14	3/09
16	4/04	3/29	3/24	3/20	3/16	3/13	3/09	3/04	2/25
		•	Fal	l Freeze Dat	tes (Month/D	ay)			
Tomp (F)		Pro	bability of ea	arlier date ii	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/16	9/20	9/23	9/26	9/28	9/30	10/03	10/06	10/10
32	9/25	9/30	10/03	10/06	10/08	10/11	10/14	10/17	10/22
28	10/02	10/09	10/13	10/17	10/20	10/24	10/28	11/01	11/07
24	10/16	10/22	10/27	10/31	11/03	11/07	11/11	11/15	11/22
20	10/27	11/03	11/09	11/13	11/18	11/22	11/27	12/02	12/09
16	11/10	11/17	11/22	11/26	11/30	12/04	12/08	12/13	12/19
		•	•	Freeze F	ree Period		•		
Tomp (E)			Probability	of longer tha	an indicated	freeze free p	eriod (Days)	1	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	161	154	150	145	142	138	134	129	122
32	180	174	170	166	163	159	156	151	145
28	210	202	196	191	186	181	176	170	162
24	231	224	219	215	211	207	203	198	191
20	262	254	247	242	237	232	227	220	212
16	285	275	269	263	258	252	247	240	231

<sup>\*</sup> 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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Climate Division: IN 5 NWS Call Sign: Elevation: 820 Feet Lat: 40°28N Lon: 86°10W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1309	1064	843	485	221	32	8	30	101	403	739	1133	6368
60	1154	924	688	343	131	8	0	8	38	269	589	978	5130
57	1061	840	601	264	90	3	0	2	17	201	501	885	4465
55	999	787	542	216	67	2	0	0	9	161	444	827	4054
50	848	657	402	117	28	0	0	0	1	84	311	683	3131
32	368	257	78	1	0	0	0	0	0	0	35	253	992

Base	Cooling Degree Days (1)  Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Ann  Oct Nov Dec Ann														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	82	118	258	508	870	1126	1269	1198	954	629	286	143	7441		
55	0	3	9	33	223	438	556	485	273	77	5	4	2106		
57	0	0	6	21	184	379	494	425	221	55	2	0	1787		
60	0	0	0	9	133	294	401	338	152	30	0	0	1357		
65	0	0	0	2	68	168	254	205	66	8	0	0	771		
70	0	0	0	0	28	75	130	107	19	1	0	0	360		

	Growing Degree Unit (Monthly)																							
Base					Growin	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan   Feb   Mar   Apr   May   Jun   Jul   Aug   Sep   Oct   Nov   Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	8	23	109	301	626	892	1028	959	718	386	135	28	8	31	140	441	1067	1959	2987	3946	4664	5050	5185	5213
45												9	2	9	73	262	735	1477	2350	3154	3723	3983	4056	4065
50	0 1 30 106 332 592 718 649 426 156 33											3	0	1	31	137	469	1061	1779	2428	2854	3010	3043	3046
55	0	0	10	54	211	445	563	494	288	82	14	0	0	0	10	64	275	720	1283	1777	2065	2147	2161	2161
60	0	0	2	22	116	303	408	339	175	37	3	0	0	0	2	24	140	443	851	1190	1365	1402	1405	1405
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	/ <b>86</b> 1 14 69 186 381 588 694 639 457 241 77 1											11	1	15	84	270	651	1239	1933	2572	3029	3270	3347	3358

(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

#### 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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### 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