Climate Division: IN 5

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: 124272

Lon: 86°04W

Station: INDIANAPOLIS SE SIDE, IN

NWS Call Sign:

Temperature (°F)

Elevation: 845 Feet Lat: 39°43N

									ŗ	Гетр	eratui	re (°F)									
	Mea	n (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	33.3	18.0	25.7	70	1952	1	36.1	1990	-22	1985	20	9.8	1977	1221	0	.0	.0	3.5	13.9	27.9	3.6
Feb	38.7	21.5	30.1	74	2000	26	38.4	1998	-12+	1982	11	16.2	1978	977	0	.0	.0	6.1	8.9	23.6	1.8
Mar	49.6	30.7	40.2	83	1986	31	48.0	1973	0	1978	6	32.0	1984	770	0	.0	.0	15.4	2.6	18.8	@
Apr	61.3	40.8	51.1	87+	1960	25	56.2	1985	18+	1982	8	46.2	1997	422	2	.0	.0	25.3	@	5.5	.0
May	72.0	51.6	61.8	92+	1952	6	69.3	1991	29	1994	2	56.6	1997	179	81	.0	.3	30.8	.0	.2	.0
Jun	80.6	61.1	70.9	104	1988	26	75.4	1971	35	1992	22	65.8	1982	23	198	@	3.3	30.0	.0	.0	.0
Jul	84.0	65.3	74.7	103+	1954	15	78.9	1983	44	2001	14	71.5	1996	1	299	.2	6.9	31.0	.0	.0	.0
Aug	82.3	63.0	72.7	100+	1983	21	78.9	1983	45+	1965	29	68.5	1992	14	250	.1	4.3	31.0	.0	.0	.0
Sep	76.3	55.1	65.7	100+	1953	3	69.5	1978	30	1995	23	60.4	1993	77	98	.0	1.5	30.0	.0	.1	.0
Oct	64.5	43.2	53.9	90	1954	4	62.4	1971	20	1981	25	47.4	1988	361	14	.0	.0	29.0	@	3.8	.0
Nov	50.8	33.8	42.3	82	1986	1	47.9	1999	0	1958	30	34.9	1996	681	0	.0	.0	16.2	1.3	15.1	.0
Dec	38.5	23.3	30.9	73	1982	3	40.6	1982	-20	1989	22	17.9	1989	1057	0	.0	.0	5.7	7.9	25.0	1.6
Ann	61.0	42.3	51.7	104	Jun 1988	26	78.9+	Aug 1983	-22	Jan 1985	20	9.8	Jan 1977	5783	942	.3	16.3	254.0	34.6	120.0	7.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 028-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1951-2001
- (3) Derived from 1971-2000 serially complete daily data

[@] Denotes mean number of days greater than 0 but less than .05

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: 124272

Station: INDIANAPOLIS SE SIDE, IN

Climate Division: IN 5 NWS Call Sign: Elevation: 845 Feet Lat: 39°43N Lon: 86°04W

										Pı	recipi	tation	(incl	nes)										
	Mea	ans/	P	recip	itatio	n Total						ays (3)	Proba	ability th		nonthly/	annual j	precipita ated am	nount	ies (1)		less tha	n the
	Medi	ans(1)				Extremes	3			D	aily Pre	cipitatio	n		Th	ese value	s were det	ermined	from the	incomplet	te gamma	distributi	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	2.05	1.60	2.62	1959	21	5.06	1982	.16	1981	9.6	5.2	1.4	.3	.41	.60	.90	1.18	1.46	1.75	2.09	2.50	3.03	3.89	4.70
Feb	2.10	1.86	2.17	1975	23	5.87	1990	.21	1978	8.1	4.9	1.4	.3	.36	.54	.85	1.13	1.43	1.75	2.12	2.57	3.16	4.13	5.05
Mar	3.06	2.93	2.66	1964	9	6.41	1991	.87	1994	10.1	7.0	2.4	.5	1.27	1.55	1.94	2.27	2.57	2.88	3.21	3.59	4.07	4.81	5.47
Apr	3.79	3.80	2.80	1996	29	7.13	1996	.77	1976	12.1	7.8	2.5	.8	1.43	1.78	2.29	2.71	3.11	3.52	3.96	4.48	5.14	6.15	7.07
May	4.61	4.49	2.82	1956	28	10.11	1981	.76	1988	11.3	8.2	3.5	1.2	1.32	1.76	2.42	2.99	3.55	4.13	4.78	5.54	6.53	8.07	9.51
Jun	4.14	4.16	3.85	1978	26	11.18	1998	.37	1988	9.5	6.6	2.9	1.2	1.17	1.56	2.16	2.68	3.18	3.71	4.30	4.99	5.88	7.28	8.59
Jul	4.78	4.46	4.16	1987	2	14.55	1992	1.60	1999	9.2	6.6	3.2	1.4	1.48	1.93	2.61	3.19	3.75	4.33	4.98	5.73	6.70	8.21	9.62
Aug	3.86	3.34	3.08	1976	13	8.27	1985	.72	1987	8.4	5.7	2.7	1.1	.97	1.34	1.90	2.39	2.89	3.40	3.98	4.66	5.56	6.97	8.29
Sep	2.56	2.14	2.44	1996	17	5.99	1972	.36	1979	7.0	4.5	2.0	.6	.51	.74	1.12	1.46	1.81	2.19	2.61	3.12	3.80	4.88	5.91
Oct	2.85	2.48	3.04	1986	4	8.36	1986	.82	1994	8.3	5.3	1.7	.6	.85	1.12	1.52	1.88	2.22	2.57	2.96	3.42	4.02	4.95	5.82
Nov	3.66	3.20	3.11	1993	14	9.77	1985	.89	1981	10.1	6.2	2.7	.9	.79	1.13	1.67	2.15	2.64	3.16	3.74	4.44	5.37	6.84	8.23
Dec	2.78	2.75	2.73	1990	30	7.84	1990	.46	1976	9.9	6.3	1.9	.4	.75	1.02	1.42	1.77	2.11	2.47	2.88	3.35	3.97	4.94	5.84
Ann	40.24	41.53	4.16	Jul 1987	2	14.55	Jul 1992	.16	Jan 1981	113.6	74.3	28.3	9.3	29.15	31.31	34.08	36.17	38.02	39.81	41.66	43.70	46.16	49.73	52.81

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1951-2001

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

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: 124272

Station: INDIANAPOLIS SE SIDE, IN

Climate Division: IN 5 NWS Call Sign: Elevation: 845 Feet Lat: 39°43N Lon: 86°04W

										Snov	w (incl	hes)											
			Median Mean Median Snow Fall Snow Pall Snow Depth Snow Depth														Mea	n Nui	mber	of Day	VS (1)		
	Mean	s/Medi	ians (1))					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean		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	2.0	.8	2	1	10.4	1999	3	10.4	1999	20	1978	28	7	1978	2.1	1.1	.4	.1	.1	3.6	2.4	1.3	.8
Feb	3.4	1.0	1	#	7.0	1993	16	18.7	1993	16	1978	2	6	1978	1.2	.7	.2	.1	.0	1.8	1.0	.8	.0
Mar	.7	.1	#	#	5.0	1999	9	5.0	1999	9	1984	1	1	1999	.6	.3	.1	@	.0	.6	.2	.1	.0
Apr	.1	.0	#	0	1.0	1994	7	1.0	1994	1	1994	7	#+	2000	.2	@	.0	.0	.0	.1	.0	.0	.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	.2	.0	#	0	3.0	1989	20	4.7	1989	3	1989	20	1	1989	.1	@	@	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	2.6	1997	14	2.6	1997	3	1997	14	#+	2000	.2	.1	.0	.0	.0	@	@	.0	.0
Dec	1.7	.4	1	#	5.5	2000	14	10.5	2000	12	1973	23	3	1977	1.2	.6	.2	.1	.0	2.7	1.5	.2	.0
Ann	8.2	2.3	N/A	N/A	10.4	Jan 1999	3	18.7	Feb 1993	20	Jan 1978	28	7	Jan 1978	5.6	2.8	.9	.3	.1	8.8	5.1	2.4	.8

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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

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: 124272

Station: INDIANAPOLIS SE SIDE, IN

Climate Division: IN 5

Lat: 39°43N **NWS Call Sign: Elevation: 845 Feet** Lon: 86°04W

				Freez	ze 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((*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/18	5/12	5/07	5/04	4/30	4/26	4/23	4/18	4/12
32	5/01	4/27	4/23	4/21	4/18	4/16	4/13	4/10	4/05
28	4/20	4/15	4/12	4/09	4/06	4/04	4/01	3/29	3/24
24	4/12	4/07	4/03	3/31	3/28	3/25	3/22	3/18	3/13
20	4/04	3/30	3/26	3/23	3/20	3/17	3/14	3/10	3/05
16	3/21	3/14	3/09	3/05	3/01	2/25	2/21	2/16	2/09
1		1	Fal	l Freeze Da	tes (Month/D	ay)	1	1	•
Town (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/24	9/28	10/02	10/04	10/07	10/10	10/12	10/16	10/20
32	10/01	10/07	10/11	10/15	10/18	10/21	10/25	10/29	11/04
28	10/15	10/21	10/25	10/29	11/01	11/05	11/08	11/12	11/18
24	10/24	10/30	11/03	11/07	11/11	11/14	11/18	11/22	11/28
20	11/07	11/13	11/18	11/22	11/26	11/29	12/03	12/08	12/14
16	11/18	11/25	11/30	12/04	12/08	12/12	12/17	12/21	12/28
		1	•	Freeze F	ree Period		1	1	•
Tomn (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	183	175	169	164	159	154	149	144	135
32	205	197	191	187	182	178	173	167	159
28	228	221	216	212	208	204	200	195	188
24	248	241	236	231	227	223	218	213	206
20	274	266	260	255	250	245	240	234	226
16	305	297	291	286	282	277	273	267	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

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: INDIANAPOLIS SE SIDE, IN

COOP ID: 124272

Climate Division: IN 5 NWS Call Sign: Elevation: 845 Feet Lat: 39°43N Lon: 86°04W

				Deg	ree Days to	o Selected	Base Tem	peratures	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)															
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann										
65	1221	977	770	422	179	23	1	14	77	361	681	1057	5783										
60	1066	837	615	281	97	5	0	2	27	236	532	902	4600										
57	973	753	529	207	61	2	0	0	12	173	446	809	3965										
55	911	699	471	163	43	1	0	0	6	137	392	754	3577										
50	765	568	335	76	15	0	0	0	1	68	263	610	2701										
32	299	185	49	0	0	0	0	0	0	0	22	204	759										

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	101	131	302	570	925	1166	1322	1259	1011	676	331	171	7965
55	0	1	11	43	255	476	609	546	327	100	10	7	2385
57	0	0	8	27	211	418	547	484	273	74	5	0	2047
60	0	0	0	12	154	331	454	393	198	44	1	0	1587
65	0	0	0	2	81	198	299	250	98	14	0	0	942
70	0	0	0	0	34	95	158	134	36	3	0	0	460

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec														Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	21	43	147	362	695	947	1097	1034	793	452	173	39	21	64	211	573	1268	2215	3312	4346	5139	5591	5764	5803
45													5	20	107	347	887	1684	2626	3505	4148	4461	4561	4580
50													0	4	49	192	584	1232	2019	2743	3236	3429	3480	3487
55	0	0	22	73	257	499	632	569	351	105	21	0	0	0	22	95	352	851	1483	2052	2403	2508	2529	2529
60	0	0	5	33	148	350	477	414	225	48	5	0	0	0	5	38	186	536	1013	1427	1652	1700	1705	1705
Base	se Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0/86 6 27 89 211 426 635 758 709 507 268 96 26												6	33	122	333	759	1394	2152	2861	3368	3636	3732	3758

(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

- 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