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: LA PORTE, IN 1971-2000 COOP ID: 124837

Climate Division: IN 1 NWS Call Sign: Elevation: 810 Feet Lat: 41°37N Lon: 86°44W

									r	Гетр	eratur	re (°F)											
	Mea	n (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	29.9	15.8	22.9	69	1950	25	34.0	1990	-23+	1985	20	10.2	1977	1307	0	.0	.0	1.3	17.6	28.9	4.3		
Feb	34.6	20.0	27.3	71+	1999	11	37.9	1998	-23	1951	2	14.6	1979	1055	0	.0	.0	2.8	12.2	24.5	2.2		
Mar	46.0	29.3	37.7	82+	1981	31	45.2	1973	-3	1950	3	29.7	1984	848	0	.0	.0	11.0	3.9	20.8	@		
Apr	58.0	39.2	48.6	90	1986	26	55.1	1977	16+	1972	8	44.1	1975	494	2	.0	@	22.3	.1	6.5	.0		
May	70.1	50.2	60.2	95+	1953	30	68.7	1977	25	1966	10	53.8	1997	220	69	.0	.5	30.3	.0	.2	.0		
Jun	79.1	59.7	69.4	102	1953	20	74.5	1971	36	1972	11	63.5	1982	31	164	@	2.7	30.0	.0	.0	.0		
Jul	82.7	64.5	73.6	101+	1949	4	77.9	1999	43+	1950	1	69.4	1992	5	272	.1	4.8	31.0	.0	.0	.0		
Aug	80.4	62.8	71.6	103	1953	31	77.4	1995	38	1950	21	67.1	1992	17	221	@	2.5	31.0	.0	.0	.0		
Sep	73.6	55.0	64.3	104	1953	1	69.0	1998	28	1951	29	59.0	1993	86	65	.0	.7	30.0	.0	.0	.0		
Oct	61.8	43.5	52.7	92	1953	3	60.0	1971	19	1952	21	46.5	1988	391	8	.0	.0	27.4	.0	2.3	.0		
Nov	47.1	33.0	40.1	84	1950	1	46.1	1999	-7	1950	25	32.7	1976	749	0	.0	.0	12.2	1.9	15.3	.0		
Dec	34.8	22.0	28.4	72	1982	2	37.8	1982	-22	1960	23	17.1	1983	1135	0	.0	.0	2.9	11.4	26.4	1.8		
Ann	58.2	41.3	49.7	104	Sep 1953	1	77.9	Jul 1999	-23+	Jan 1985	20	10.2	Jan 1977	6338	801	.1	11.2	232.2	47.1	124.9	8.3		

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 033-A

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

⁽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

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Climate Division: IN 1 NWS Call Sign: Elevation: 810 Feet Lat: 41°37N Lon: 86°44W

										Pı	recipit	tation	(incl	nes)										
		Precipitation Totals Means/ Medians(1) Extremes									ean N of D	ays (3)	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	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	2.30	2.22	2.52	1960	12	4.27	1999	.94	1984	14.7	7.1	.9	.2	.90	1.11	1.41	1.67	1.91	2.15	2.41	2.72	3.10	3.70	4.24
Feb	1.91	1.68	2.53	1954	15	4.78	1985	.50	1987	11.2	5.6	.7	.1	.65	.83	1.09	1.32	1.53	1.75	1.99	2.28	2.64	3.20	3.72
Mar	3.05	3.01	2.22	1954	25	7.02	1976	.85	1981	11.9	7.2	1.9	.5	1.00	1.29	1.72	2.08	2.43	2.78	3.18	3.64	4.22	5.14	5.98
Apr	3.54	3.29	3.40	1954	25	7.82	1981	.37	1971	12.5	8.1	2.4	.7	1.20	1.53	2.02	2.44	2.84	3.25	3.70	4.22	4.89	5.94	6.90
May	3.48	3.41	3.23	1996	9	7.42	1990	.51	1992	10.8	7.3	2.3	.6	.95	1.28	1.78	2.22	2.65	3.10	3.60	4.20	4.97	6.18	7.31
Jun	4.44	4.00	3.72	1968	25	9.55	1993	.98	1972	9.5	7.2	2.9	1.3	1.44	1.86	2.48	3.01	3.52	4.05	4.62	5.30	6.17	7.52	8.76
Jul	3.79	3.73	5.21	1959	23	8.52	1996	.72	1975	9.0	6.7	2.7	1.0	1.17	1.53	2.06	2.52	2.97	3.43	3.94	4.53	5.30	6.50	7.62
Aug	4.18	3.98	6.00	1978	28	8.63	1990	.91	1973	9.7	6.7	2.8	1.3	1.30	1.69	2.28	2.79	3.28	3.79	4.35	5.01	5.85	7.17	8.40
Sep	3.88	3.50	3.55	1972	14	10.03	1972	.00	1979	9.6	6.3	2.6	1.0	.62	1.14	1.81	2.34	2.87	3.42	4.04	4.77	5.72	7.22	8.62
Oct	3.23	2.86	5.52	1954	10	10.13	1991	.98	1975	10.7	6.6	2.0	.5	1.03	1.34	1.79	2.18	2.55	2.94	3.36	3.86	4.49	5.49	6.40
Nov	3.79	3.50	5.00	1990	27	9.00	1985	1.14	1980	12.8	7.7	2.2	.7	1.22	1.58	2.11	2.56	3.00	3.45	3.94	4.52	5.27	6.43	7.50
Dec	3.24	2.95	2.81	1965	24	6.02	1972	.66	1995	14.8	7.5	1.8	.7	1.29	1.59	2.01	2.36	2.69	3.03	3.39	3.81	4.34	5.15	5.89
Ann	40.83	38.94	6.00	Aug 1978	28	10.13	Oct 1991	.00	Sep 1979	137.2	84.0	25.2	8.6	31.11	33.04	35.49	37.32	38.94	40.50	42.10	43.85	45.96	49.00	51.61

⁺ 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: 1901-2001

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COOP ID: 124837

Lon: 86°44W

Station: LA PORTE, IN

Climate Division: IN 1 NWS Call Sign: Elevation: 810 Feet

Snow (inches) **Snow Totals** Mean Number of Days (1) **Snow Fall Snow Depth** Means/Medians (1) Extremes (2) >= Thresholds >= Thresholds Highest Highest Highest Highest Monthly Snow Snow Snow Snow Monthly Daily **Daily** Fall Fall Depth Depth Year Year Year Day Year 0.1 1.0 3.0 5.0 10.0 1 3 5 10 Month Day Mean Snow Snow Snow Median Median Mean Mean Snow Fall Fall Depth Depth Jan 21.5 18.3 4 3 19.5 1978 26 59.1 1978 31 1978 28 13 1979 11.6 6.8 2.3 1.1 .2 18.8 14.5 11.4 4.0 11.8 11.3 4 2 15 22.5 5 18 1.3 .7 10.7 8.4 Feb 8.8 1991 1988 30 1978 1979 7.3 4.4 .0 14.4 3.8 6.7 9.9 1973 17 23.0 14 1978 5 5 1978 4.4 2.2 .8 .2 5.7 3.7 2.0 Mar 5.3 1 1993 .0 .3 1.4 .2 0 7.0 3 10.5 1982 1982 1982 1.3 .2 .0 .2 .1 Apr # 1975 6 6 .5 .1 .4 .0 May .0 0. 0 0 .2 1997 .2 1997 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 .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 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 .3 1989 19 1989 1993 1997 Oct .0 # 0 4.8 5.0 31 #+ .3 .1 @ 0. .0 @ .0 0. .0 3.3 4.9 3.7 # 12.0 1976 21.9 1976 10 1997 15 1997 1.5 .5 2.6 @ Nov 4 .1 .1 1.1 .4 Dec 15.3 12.0 2 12.8 2000 11 48.4 2000 14+2000 30 9 2000 9.2 4.8 1.8 .6 @ 12.7 6.6 3.7 1.2 Jan Jan Jan Feb Ann 61.9 19.5 6.9 2.8 .3 9.3 50.8 26 59.1 28 18 37.4 20.3 36.8 26.0 N/A N/A 31 54.6 1978 1978 1978 1979

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

Lat: 41°37N

⁺ 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

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COOP ID: 124837

Station: LA PORTE, IN

Climate Division: IN 1 NWS Call Sign:

Elevation: 810 Feet Lat: 41°37N Lon: 86°44W

				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 (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	5/17	5/12	5/07	5/04	4/30	4/27	4/23	4/19	4/13			
32	5/06	5/01	4/27	4/24	4/21	4/18	4/14	4/11	4/05			
28	4/17	4/14	4/11	4/09	4/07	4/05	4/03	3/31	3/28			
24	4/12	4/07	4/04	4/01	3/30	3/27	3/25	3/21	3/17			
20	4/03	3/29	3/24	3/21	3/18	3/14	3/11	3/07	3/01			
16	3/29	3/22	3/17	3/13	3/09	3/05	3/01	2/24	2/17			
			Fal	l Freeze Da	tes (Month/D	ay)	1	II.	J			
To (E)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)											
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	9/28	10/03	10/06	10/09	10/12	10/15	10/17	10/21	10/26			
32	10/12	10/16	10/19	10/22	10/25	10/27	10/30	11/02	11/06			
28	10/22	10/27	10/31	11/03	11/06	11/09	11/12	11/16	11/21			
24	11/02	11/07	11/11	11/15	11/18	11/21	11/24	11/28	12/04			
20	11/08	11/14	11/19	11/23	11/26	11/30	12/04	12/08	12/15			
16	11/17	11/24	11/29	12/03	12/06	12/10	12/14	12/19	12/25			
		1		Freeze F	ree Period		1	II.				
To (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)					
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	185	178	172	168	164	160	155	150	143			
32	210	202	196	191	186	181	176	170	162			
28	231	225	220	216	212	208	204	200	193			
24	255	247	242	237	232	228	223	217	209			
20	279	270	264	258	253	248	242	236	227			
16	295	287	281	276	272	267	262	256	248			

^{*} 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.

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COOP ID: 124837

Lon: 86°44W

Station: LA PORTE, IN

Climate Division: IN 1

Elevation: 810 Feet Lat: 41°37N

	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	1307	1055	848	494	220	31	5	17	86	391	749	1135	6338		
60	1152	915	693	351	131	8	0	2	29	259	599	980	5119		
57	1059	831	600	273	89	3	0	0	11	192	511	887	4456		
55	997	775	542	224	67	1	0	0	6	153	453	825	4043		
50	842	640	400	123	28	0	0	0	1	78	319	680	3111		
32	352	226	67	1	0	0	0	0	0	0	35	240	921		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	69	96	242	499	872	1122	1290	1227	969	640	276	128	7430		
55	0	0	4	32	226	434	577	514	285	79	4	0	2155		
57	0	0	0	20	186	375	515	452	230	56	2	0	1836		
60	0	0	0	9	135	290	422	361	157	31	0	0	1405		
65	0	0	0	2	69	164	272	221	65	8	0	0	801		
70	0	0	0	0	28	71	141	112	17	1	0	0	370		

										Gro	wing l	Degre	e Uni	ts (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	5	18	106	294	635	888	1048	987	740	409	121	24	5	23	129	423	1058	1946	2994	3981	4721	5130	5251	5275
45	0	4	58	183	481	738	893	832	590	271	63	8	0	4	62	245	726	1464	2357	3189	3779	4050	4113	4121
50	0	0	31	104	335	589	738	677	443	161	26	4	0	0	31	135	470	1059	1797	2474	2917	3078	3104	3108
55	0	0	11	51	212	440	583	522	300	82	10	0	0	0	11	62	274	714	1297	1819	2119	2201	2211	2211
60	0	0	2	22	119	301	428	368	180	32	2	0	0	0	2	24	143	444	872	1240	1420	1452	1454	1454
Base		•		Gro	wing Deg	gree Unit	s for Co	rn (Mont	thly)						Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0	12	64	163	377	580	717	670	454	218	59	7	0	12	76	239	616	1196	1913	2583	3037	3255	3314	3321

(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

NWS Call Sign:

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