

Climatology of the United States

No. 20

1971-2000

Station: FORT WAYNE BAER AP, IN

COOP ID: 123037

Climate Division: IN 3

NWS Call Sign: FWA

Elevation: 791 Feet

Lat: 41°00N

Lon: 85°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	31.0	16.1	23.6	69	1950	25	34.2	1990	-22	1985	20	9.2	1977	1275	0	.0	.0	2.1	16.0	28.2	4.8
Feb	35.4	19.2	27.3	73	2000	25	37.4	1998	-18+	1963	27	11.8	1978	1063	0	.0	.0	3.4	11.5	23.8	3.1
Mar	47.4	28.8	38.1	82	1986	31	45.2	1973	-10	1967	1	28.0	1984	835	1	.0	.0	12.4	3.3	20.1	.2
Apr	59.8	38.2	49.0	88	1986	26	56.4	1985	7	1982	7	43.8	1982	479	7	.0	.0	24.2	.1	7.9	.0
May	71.6	49.1	60.4	94	1988	31	67.7	1977	27+	1963	1	53.6	1997	188	53	.0	.9	30.7	.0	.6	.0
Jun	80.6	58.8	69.7	106	1988	25	74.9	1971	38+	1956	2	64.8	1982	29	183	.1	3.8	30.0	.0	.0	.0
Jul	84.3	62.5	73.4	103	1954	14	78.4	1999	44	1967	14	70.1	1979	3	278	.2	6.4	31.0	.0	.0	.0
Aug	81.8	60.4	71.1	101	1962	20	77.7	1995	38	1965	29	67.0	1992	11	212	.0	3.1	31.0	.0	.0	.0
Sep	75.4	52.8	64.1	100+	1953	1	69.2	1978	29+	1951	29	60.2	1975	105	88	.0	1.2	30.0	.0	.2	.0
Oct	63.0	41.8	52.4	90	1951	4	60.3	1971	19	1988	31	45.3	1988	394	8	.0	.0	28.2	.0	4.6	.0
Nov	48.5	32.7	40.6	79	1950	1	46.6	1975	-1+	1950	24	33.5	1976	722	0	.0	.0	13.8	1.5	15.8	.0
Dec	35.8	22.3	29.0	71	1982	2	38.6	1982	-18	1989	22	16.2	1989	1101	0	.0	.0	3.9	10.7	25.8	1.8
Ann	59.6	40.2	49.9	106	Jun 1988	25	78.4	Jul 1999	-22	Jan 1985	20	9.2	Jan 1977	6205	830	.3	15.4	240.7	43.1	127.0	9.9

+ 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

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

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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: FORT WAYNE BAER AP, IN

COOP ID: 123037

Climate Division: IN 3

NWS Call Sign: FWA

Elevation: 791 Feet Lat: 41°00N

Lon: 85°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	2.05	1.91	2.40	1949	18	5.42	1982	.50	1977	12.4	5.1	1.0	.2	.56	.75	1.05	1.31	1.56	1.83	2.13	2.48	2.93	3.64	4.31
Feb	1.94	1.55	3.03	1990	22	6.84	1990	.30	1978	10.5	4.9	1.2	.2	.43	.60	.89	1.15	1.40	1.68	1.99	2.36	2.84	3.62	4.35
Mar	2.86	3.10	2.13	1953	3	4.98	1998	.74	1981	12.4	7.0	1.9	.3	1.13	1.39	1.77	2.08	2.37	2.67	3.00	3.37	3.85	4.57	5.24
Apr	3.54	3.33	2.57	1998	9	6.37	1999	1.04	1997	13.2	7.5	2.3	.6	1.37	1.70	2.17	2.56	2.93	3.30	3.71	4.18	4.78	5.69	6.53
May	3.75	3.52	4.35	1991	30	8.80	1991	1.04	1977	11.8	7.1	2.4	.9	1.37	1.73	2.23	2.66	3.06	3.48	3.92	4.45	5.11	6.14	7.08
Jun	4.04	3.97	4.40	1989	3	8.55	2000	.77	1988	10.4	6.8	2.8	1.0	1.31	1.69	2.26	2.74	3.20	3.68	4.21	4.83	5.62	6.86	8.00
Jul	3.58	3.06	2.83	1996	18	11.00	1986	.41	1974	9.4	6.2	2.3	1.0	.84	1.17	1.69	2.16	2.63	3.12	3.68	4.34	5.21	6.58	7.88
Aug	3.60	3.47	3.88	1957	9	7.69	1975	1.10	1984	10.0	6.0	2.6	1.3	1.29	1.63	2.12	2.53	2.92	3.33	3.77	4.28	4.93	5.94	6.86
Sep	2.81	2.37	3.51	1950	1	6.75	1972	.34	1979	9.1	5.2	2.1	.7	.57	.82	1.24	1.61	2.00	2.41	2.87	3.42	4.16	5.34	6.46
Oct	2.63	2.27	2.69	1991	25	8.94	1991	.97	1997	9.6	5.7	1.6	.6	.87	1.12	1.48	1.79	2.09	2.40	2.74	3.14	3.65	4.44	5.16
Nov	2.98	2.99	2.40	1992	12	8.01	1992	.62	1976	11.4	6.7	1.9	.5	.84	1.12	1.55	1.92	2.29	2.67	3.09	3.59	4.24	5.25	6.19
Dec	2.77	2.61	2.13	1966	7	7.56	1990	.57	1976	12.8	6.3	1.7	.4	.95	1.21	1.59	1.92	2.23	2.54	2.89	3.29	3.81	4.61	5.35
Ann	36.55	35.70	4.40	Jun 1989	3	11.00	Jul 1986	.30	Feb 1978	133.0	74.5	23.8	7.7	26.83	28.74	31.17	33.01	34.64	36.21	37.82	39.60	41.76	44.87	47.55

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

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Climate Division: IN 3

NWS Call Sign: FWA

Elevation: 791 Feet

Lat: 41°00N

Lon: 85°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	9.8	8.5	2	2	10.8	1982	31	27.0	1982	17+	1978	31	7	1978	9.5	2.9	.8	.3	@	16.0	9.7	5.8	.9
Feb	7.6	6.1	2	2	7.5	1988	11	16.9	1980	20	1982	9	16	1978	6.7	2.3	.7	.2	.0	12.9	8.2	5.2	2.1
Mar	4.7	3.7	#	1	9.5	1973	17	13.3	1984	11	1978	3	4	1978	4.2	1.4	.4	.2	.0	4.5	2.4	1.3	.1
Apr	1.1	.4	#	0	6.0	1994	6	9.8	1982	6+	1994	7	1	1982	1.2	.3	.1	@	.0	.4	.2	.1	.0
May	#	.0	#	0	#	1997	15	#+	1997	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	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	.5	.0	#	0	6.4	1989	19	8.0	1989	3	1989	20	#	1992	.3	.1	@	@	.0	.1	@	.0	.0
Nov	3.0	2.1	#	0	5.0	1974	13	8.1	1996	4+	1997	16	1	1997	3.4	.9	.2	@	.0	1.4	.4	.0	.0
Dec	8.4	9.1	1	1	10.8	1973	19	20.3	1973	15+	1977	11	4	2000	7.3	2.5	.8	.2	@	9.0	4.3	2.3	.3
Ann	35.1	29.9	N/A	N/A	10.8+	Jan 1982	31	27.0	Jan 1982	20	Feb 1982	9	16	Feb 1978	32.6	10.4	3.0	.9	@	44.3	25.2	14.7	3.4

+ 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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NWS Call Sign: FWA

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Lat: 41°00N

Lon: 85°12W

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	5/15	5/11	5/08	5/05	5/03	4/30	4/28	4/25	4/20
32	5/09	5/05	5/01	4/28	4/26	4/23	4/20	4/17	4/12
28	4/25	4/20	4/17	4/14	4/12	4/09	4/06	4/03	3/29
24	4/17	4/12	4/09	4/06	4/03	3/31	3/28	3/24	3/20
20	4/07	4/03	3/30	3/27	3/24	3/21	3/18	3/15	3/10
16	4/02	3/27	3/22	3/17	3/14	3/10	3/05	2/28	2/22
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	9/21	9/25	9/28	10/01	10/03	10/06	10/08	10/11	10/15
32	9/27	10/03	10/06	10/10	10/13	10/16	10/19	10/22	10/28
28	10/12	10/17	10/20	10/23	10/26	10/29	11/01	11/05	11/10
24	10/23	10/29	11/02	11/05	11/09	11/12	11/15	11/19	11/25
20	11/06	11/12	11/17	11/21	11/25	11/29	12/03	12/08	12/15
16	11/14	11/21	11/26	11/30	12/04	12/08	12/12	12/17	12/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	168	163	159	156	153	150	147	143	138
32	189	182	177	173	169	165	161	156	149
28	220	212	206	202	197	192	188	182	174
24	241	234	228	223	219	215	210	204	197
20	269	261	255	250	245	240	235	229	221
16	293	283	276	270	265	259	253	246	236

* 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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COOP ID: 123037

Climate Division: IN 3 NWS Call Sign: FWA Elevation: 791 Feet Lat: 41°00N Lon: 85°12W

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	1275	1063	835	479	188	29	3	11	105	394	722	1101	6205
60	1130	915	680	339	119	8	0	3	33	266	582	960	5035
57	1037	831	589	261	79	3	0	0	14	198	494	867	4373
55	975	775	533	214	57	1	0	0	7	158	436	805	3961
50	821	645	392	116	22	0	0	0	1	81	302	663	3043
32	338	241	70	1	0	0	0	0	0	0	29	231	910

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	48	77	250	521	889	1142	1295	1224	971	640	290	92	7439
55	0	0	13	51	213	453	582	511	294	77	12	2	2208
57	0	0	8	37	171	395	520	449	243	55	7	1	1886
60	0	0	4	22	116	310	427	357	175	31	3	0	1445
65	0	0	1	7	53	183	278	212	88	8	0	0	830
70	0	0	0	1	17	85	142	95	33	1	0	0	374

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	10	23	112	308	652	912	1057	982	741	407	135	31	10	33	145	453	1105	2017	3074	4056	4797	5204	5339	5370
45	1	8	65	191	497	762	902	827	591	273	71	12	1	9	74	265	762	1524	2426	3253	3844	4117	4188	4200
50	0	1	31	112	348	612	747	672	444	159	34	4	0	1	32	144	492	1104	1851	2523	2967	3126	3160	3164
55	0	0	11	55	222	463	592	517	304	81	13	0	0	0	11	66	288	751	1343	1860	2164	2245	2258	2258
60	0	0	3	24	125	319	437	363	183	35	3	0	0	0	3	27	152	471	908	1271	1454	1489	1492	1492
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	1	13	72	183	391	603	720	662	464	238	72	10	1	14	86	269	660	1263	1983	2645	3109	3347	3419	3429

(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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. 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