

Climatography of the United States

No. 20

1971-2000

Station: LAURELTON CENTER, PA

COOP ID: 364853

Climate Division: PA 5

NWS Call Sign:

Elevation: 800 Feet Lat: 40° 54N Lon: 77° 13W

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	37.0	17.4	27.2	71	1967	26	37.0	1990	-22	1994	19	17.0	1977	1172	0	.0	.0	3.2	10.1	29.5	2.2
Feb	41.6	19.5	30.6	76	1997	27	37.7	1998	-15	1979	18	21.5	1979	964	0	.0	.0	6.2	5.3	25.3	1.5
Mar	52.1	26.9	39.5	89	1998	30	46.5	1977	-8+	1993	15	31.2	1984	791	0	.0	.0	16.7	.8	23.0	.1
Apr	65.4	36.5	51.0	95	1976	18	55.2	1985	15	1982	7	46.2	1975	422	1	.0	.5	27.5	.0	10.6	.0
May	76.1	46.3	61.2	98+	1996	19	67.4	1991	24	1978	1	56.3	1994	168	49	.0	2.5	31.0	.0	1.6	.0
Jun	82.9	55.0	69.0	100	1999	8	72.3	1991	32	1972	11	65.3	1992	20	138	@	4.4	30.0	.0	@	.0
Jul	86.8	59.4	73.1	105+	1988	16	78.2	1988	42+	1979	5	69.2	2000	4	256	.4	9.4	31.0	.0	.0	.0
Aug	84.9	58.0	71.5	100	1975	2	76.4	1995	33	1994	6	66.9	1992	12	212	@	6.2	31.0	.0	.0	.0
Sep	76.7	50.9	63.8	97	1983	10	67.9	1980	29	1974	24	60.5	1975	87	51	.0	1.3	30.0	.0	.4	.0
Oct	65.9	39.4	52.7	88	1979	22	59.4	1971	14	1976	28	46.8	1999	390	8	.0	.0	30.2	.0	7.5	.0
Nov	52.4	31.1	41.8	82+	1974	1	47.4	1975	1	1976	30	34.9	1976	698	0	.0	.0	17.7	.3	17.7	.0
Dec	40.8	22.3	31.6	74	2001	5	37.9	1984	-11	1989	24	19.2	1989	1036	0	.0	.0	4.9	5.4	27.1	.6
Ann	63.6	38.6	51.1	105+	Jul 1988	16	78.2	Jul 1988	-22	Jan 1994	19	17.0	Jan 1977	5764	715	.4	24.3	259.4	21.9	142.7	4.4

+ 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

029-A

Climatology 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: LAURELTON CENTER, PA

COOP ID: 364853

Climate Division: PA 5

NWS Call Sign:

Elevation: 800 Feet Lat: 40°54N

Lon: 77°13W

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	3.18	2.44	2.82	1996	19	8.29	1978	.34	1981	9.4	6.3	2.2	.7	.65	.94	1.41	1.83	2.27	2.73	3.25	3.87	4.70	6.02	7.28
Feb	2.90	2.08	3.39	1984	14	9.15	1981	.64	1987	8.8	5.9	1.9	.5	.71	.98	1.40	1.78	2.15	2.55	2.99	3.51	4.20	5.29	6.31
Mar	3.52	3.07	2.26	1965	6	6.49	1977	1.09	1981	10.2	7.1	2.2	.9	1.45	1.78	2.23	2.60	2.95	3.31	3.69	4.13	4.69	5.54	6.32
Apr	3.54	3.54	2.05	1977	24	8.93	1993	.40	1971	11.8	7.8	2.8	.6	.89	1.22	1.74	2.20	2.65	3.12	3.65	4.28	5.11	6.41	7.63
May	4.20	3.91	2.77	1978	14	9.22	1978	.58	1977	12.3	8.5	2.7	.8	1.43	1.83	2.41	2.90	3.37	3.85	4.38	5.00	5.79	7.01	8.14
Jun	4.77	3.85	4.66	1972	22	16.22	1972	1.04	1991	11.9	8.5	3.1	1.1	1.44	1.89	2.57	3.15	3.72	4.31	4.96	5.72	6.70	8.24	9.67
Jul	4.17	4.14	4.40	1989	20	8.28	1989	1.60	1991	11.6	7.4	2.6	1.1	1.67	2.06	2.60	3.05	3.47	3.91	4.37	4.91	5.59	6.63	7.58
Aug	3.76	3.56	4.30	1999	20	7.77	1999	.46	1995	10.0	6.7	2.6	1.0	1.06	1.42	1.96	2.43	2.89	3.36	3.89	4.52	5.33	6.60	7.78
Sep	4.52	4.24	3.80	1973	14	9.63	1979	.51	1984	10.7	7.2	2.9	1.1	1.32	1.75	2.40	2.95	3.50	4.06	4.69	5.42	6.38	7.87	9.26
Oct	3.40	3.02	4.13	1995	21	9.06	1990	.46	1997	9.6	5.5	1.9	.7	.74	1.05	1.55	2.00	2.45	2.93	3.48	4.13	4.98	6.34	7.63
Nov	3.76	3.34	3.75	1950	25	8.27	1985	.77	1976	10.9	6.8	2.4	1.0	1.15	1.50	2.04	2.50	2.94	3.40	3.91	4.51	5.28	6.49	7.60
Dec	3.14	2.79	1.76	1983	13	6.79	1973	.66	1980	9.5	6.2	2.2	.8	.81	1.10	1.56	1.96	2.36	2.78	3.24	3.80	4.52	5.66	6.72
Ann	44.86	45.02	4.66	Jun 1972	22	16.22	Jun 1972	.34	Jan 1981	126.7	83.9	29.5	10.3	32.94	35.28	38.26	40.51	42.50	44.42	46.39	48.57	51.20	55.01	58.29

+ 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:
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Station: LAURELTON CENTER, PA

COOP ID: 364853

Climate Division: PA 5

NWS Call Sign:

Elevation: 800 Feet

Lat: 40° 54N

Lon: 77° 13W

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	8.4	7.6	3	1	18.0	1996	8	30.5	1978	52	1996	12	20	1996	3.1	2.4	1.1	.7	.1	-9.9	-9.9	-9.9	-9.9
Feb	6.1	4.1	3	2	9.0	1979	19	18.0	1978	26	1972	20	17	1978	2.5	1.9	.9	.5	.0	5.4	3.0	.9	.0
Mar	4.6	4.0	1	#	12.0	1994	3	21.5	1994	26	1994	3	9	1994	1.4	1.4	.7	.2	@	1.6	.7	.2	.0
Apr	.6	.0	#	0	7.0	1982	6	13.0	1982	5	1996	9	#+	1996	.1	.1	.1	.1	.0	.2	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.2	.0	#	0	6.3	1972	30	10.1	1972	7	1971	25	1	1995	.6	.4	.1	.1	.0	.9	.2	.1	.0
Dec	1.9	.0	1	#	9.3	1973	17	9.8	1973	11	1995	21	3	1995	.9	.6	.4	.2	.0	2.7	1.7	.9	.1
Ann	22.8	15.7	N/A	N/A	18.0	Jan 1996	8	30.5	Jan 1978	52	Jan 1996	12	20	Jan 1996	8.6	6.8	3.3	1.8	.1	-9.9	-9.9	-9.9	-9.9

+ 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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Climate Division: PA 5

NWS Call Sign:

Elevation: 800 Feet

Lat: 40°54N

Lon: 77°13W

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	6/07	6/01	5/28	5/24	5/21	5/18	5/14	5/10	5/04
32	5/22	5/17	5/13	5/10	5/07	5/04	4/30	4/27	4/21
28	5/04	4/30	4/28	4/25	4/23	4/21	4/18	4/15	4/11
24	4/23	4/18	4/15	4/12	4/09	4/07	4/04	3/31	3/27
20	4/07	4/03	3/31	3/29	3/27	3/25	3/23	3/20	3/16
16	3/28	3/24	3/21	3/18	3/16	3/13	3/10	3/07	3/03
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	9/05	9/11	9/15	9/19	9/22	9/26	9/29	10/03	10/09
32	9/24	9/29	10/02	10/05	10/08	10/10	10/13	10/16	10/21
28	10/04	10/09	10/12	10/15	10/18	10/21	10/24	10/28	11/02
24	10/17	10/23	10/26	10/30	11/02	11/05	11/08	11/12	11/17
20	10/27	11/02	11/07	11/10	11/14	11/17	11/21	11/25	12/01
16	11/12	11/19	11/23	11/27	11/30	12/04	12/07	12/12	12/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	148	140	133	128	123	119	113	107	99
32	171	165	160	157	153	150	146	142	136
28	199	192	186	182	178	174	169	164	156
24	227	219	214	210	206	202	197	192	185
20	254	246	241	236	231	226	221	215	207
16	281	273	268	263	259	255	250	244	237

* 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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NWS Call Sign:

Elevation: 800 Feet Lat: 40° 54N Lon: 77° 13W

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	1172	964	791	422	168	20	4	12	87	390	698	1036	5764
60	1017	824	636	277	81	3	0	0	28	257	548	881	4552
57	924	740	545	199	45	1	0	0	11	190	459	788	3902
55	862	684	487	152	29	0	0	0	6	151	401	726	3498
50	708	545	347	64	7	0	0	0	1	76	266	580	2594
32	241	140	44	0	0	0	0	0	0	0	14	158	597

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	93	100	276	568	905	1108	1274	1223	954	641	306	145	7593
55	0	0	6	30	220	418	561	510	270	79	3	0	2097
57	0	0	2	17	175	359	499	448	215	56	2	0	1773
60	0	0	0	5	117	271	406	355	142	30	0	0	1326
65	0	0	0	1	49	138	256	212	51	8	0	0	715
70	0	0	0	0	14	45	124	100	10	1	0	0	294

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	24	111	342	667	875	1032	984	721	403	134	25	10	34	145	487	1154	2029	3061	4045	4766	5169	5303	5328
45	1	6	56	216	515	725	877	829	571	260	65	6	1	7	63	279	794	1519	2396	3225	3796	4056	4121	4127
50	0	0	23	120	362	575	722	674	422	149	23	2	0	0	23	143	505	1080	1802	2476	2898	3047	3070	3072
55	0	0	7	58	226	426	567	519	282	70	8	0	0	0	7	65	291	717	1284	1803	2085	2155	2163	2163
60	0	0	3	26	121	282	413	364	161	27	1	0	0	0	3	29	150	432	845	1209	1370	1397	1398	1398
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	9	24	96	243	433	574	686	654	459	265	85	15	9	33	129	372	805	1379	2065	2719	3178	3443	3528	3543

(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/normal/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.

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| <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 |
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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