U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: PITTSBURGH INTL AP, PA **COOP ID: 366993**

Climate Division: PA 9 **NWS Call Sign: PIT** **Elevation: 1,150 Feet** **Lat: 40˚30N** **Lon: 80˚14W**

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	35.1	19.9	27.5	69+	1985	1	37.1	1998	-22	1994	19	11.4	1977	1163	0	.0	.0	4.0	12.9	26.7	2.0
Feb	38.8	22.3	30.5	76	2000	26	38.5	1998	-12	1979	11	18.0	1979	979	0	.0	.0	5.5	9.4	22.9	1.2
Mar	49.5	30.1	39.8	82+	1986	30	48.3	1973	-1+	1960	9	32.2	1984	788	2	.0	.0	14.8	3.0	19.2	.1
Apr	60.7	39.1	49.9	89	1990	27	55.0	1985	14	1982	8	44.3	1975	462	8	.0	.0	24.4	.1	7.8	.0
May	70.8	49.2	60.0	91+	1962	18	68.7	1991	26+	1963	2	54.3	1997	200	41	.0	.2	30.5	.0	.5	.0
Jun	79.1	57.7	68.4	98+	1988	22	72.9	1994	34	1972	11	63.7	1982	43	143	.0	1.5	30.0	.0	.0	.0
Jul	82.7	62.4	72.6	103	1988	16	76.9	1988	42	1963	9	67.4	1976	6	244	.1	3.9	31.0	.0	.0	.0
Aug	81.1	61.0	71.0	100	1988	17	77.8	1995	39	1982	29	65.3	1976	13	203	@	2.2	31.0	.0	.0	.0
Sep	74.2	53.9	64.0	97+	1953	1	68.5	1971	31	1959	19	58.8	1975	105	78	.0	.6	30.0	.0	.0	.0
Oct	62.5	42.5	52.5	87	1959	6	59.5	1971	16	1965	29	45.9	1976	397	6	.0	.0	27.8	.0	3.8	.0
Nov	50.5	34.2	42.3	82	1961	3	47.7	1994	-1	1958	30	33.1	1976	677	1	.0	.0	15.5	1.2	14.0	@
Dec	39.8	25.3	32.5	74	1982	3	39.9	1982	-12+	1983	25	19.2	1989	996	0	.0	.0	6.3	8.4	23.9	.6
Ann	60.4	41.5	50.9	103	Jul 1988	16	77.8	Aug 1995	-22	Jan 1994	19	11.4	Jan 1977	5829	726	.1	8.4	250.8	35.0	118.8	3.9

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1952-2001

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

Issue Date: February 2004

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Climate Division: PA 9 **NWS Call Sign: PIT** **Elevation: 1,150 Feet** **Lat: 40˚30N** **Lon: 80˚14W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	2.70	2.26	1.34	1998	7	6.25	1978	.77	1981
Feb	2.37	2.12	2.29	1975	23	4.64	1975	.54	1978
Mar	3.17	3.30	1.82	1964	9	5.65	1980	1.24	1999
Apr	3.01	3.16	1.57	1957	4	5.30	1987	.48	1971
May	3.80	3.80	2.48	1997	25	6.56	1989	1.38	1972
Jun	4.12	3.89	3.11	1996	24	10.29	1989	.64	1992
Jul	3.96	3.35	3.48	1999	28	8.71	1992	1.62	1989
Aug	3.38	2.99	3.06	1956	5	7.86	1987	.98	1981
Sep	3.21	3.22	2.09	1958	4	6.00	1990	.28	1985
Oct	2.25	2.27	3.56	1954	15	4.45	1973	.40	1982
Nov	3.02	2.70	1.86	1997	7	11.05	1985	.90	1976
Dec	2.86	2.53	2.76	1990	30	8.51	1990	1.29	1997
Ann	37.85	38.02	3.56	Oct 1954	15	11.05	Nov 1985	.28	Sep 1985

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	16.5	7.3	1.3	.3
Feb	13.6	5.8	1.4	.2
Mar	14.9	8.2	1.8	.2
Apr	13.6	8.0	1.7	.3
May	13.1	7.9	2.5	.7
Jun	12.0	7.7	2.7	1.0
Jul	10.4	7.4	2.7	1.0
Aug	10.0	6.2	2.4	.8
Sep	10.7	6.6	2.3	.5
Oct	10.2	5.8	1.2	.2
Nov	12.9	7.0	2.1	.4
Dec	15.4	7.0	1.5	.4
Ann	153.3	84.9	23.6	6.0

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	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.98	1.24	1.60	1.91	2.20	2.50	2.82	3.20	3.68	4.42	5.10
Feb	.82	1.04	1.37	1.64	1.90	2.17	2.47	2.81	3.25	3.94	4.56
Mar	1.28	1.57	1.98	2.32	2.64	2.97	3.32	3.72	4.24	5.02	5.73
Apr	1.04	1.33	1.74	2.09	2.43	2.77	3.15	3.58	4.14	5.01	5.81
May	1.53	1.88	2.37	2.78	3.17	3.56	3.98	4.47	5.09	6.04	6.90
Jun	1.14	1.54	2.13	2.65	3.15	3.68	4.27	4.96	5.87	7.28	8.60
Jul	1.57	1.94	2.45	2.88	3.29	3.70	4.14	4.66	5.31	6.31	7.21
Aug	.92	1.24	1.73	2.15	2.57	3.01	3.49	4.07	4.81	5.99	7.08
Sep	.96	1.27	1.72	2.12	2.50	2.90	3.33	3.85	4.51	5.55	6.52
Oct	.64	.86	1.18	1.46	1.74	2.02	2.34	2.71	3.19	3.95	4.65
Nov	.96	1.24	1.67	2.03	2.38	2.74	3.14	3.61	4.21	5.14	6.01
Dec	1.21	1.47	1.84	2.13	2.41	2.70	3.00	3.35	3.79	4.46	5.07
Ann	29.38	31.07	33.21	34.81	36.22	37.57	38.96	40.48	42.30	44.92	47.17

+ 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: 1952-2001
(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	11.9	11.0	2	1	12.4	1994	4	40.2	1978	26	1978	22	9+	1978	11.5	3.8	.8	.3	.1	14.0	8.3	5.1	1.7
Feb	8.5	6.7	2	1	7.6	1971	13	24.2	1972	15	1979	19	8	1979	8.1	2.5	.8	.2	.0	11.0	5.3	3.5	.8
Mar	8.1	7.4	1	1	23.6	1993	13	34.1	1993	25	1993	14	3	1993	6.8	2.4	.7	.2	@	5.5	2.6	.8	.1
Apr	1.5	.9	#	0	5.4	1987	4	8.1	1987	7	1987	4	#	1996	2.2	.5	.1	@	.0	.7	.1	@	.0
May	#	.0	#	0	#	1989	7	#+	1989	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	.4	.0	#	0	6.6	1993	31	8.5	1993	1	1992	19	#	1992	.2	.1	@	@	.0	@	.0	.0	.0
Nov	3.1	2.0	#	0	8.7	1980	17	13.9	1995	8	1980	17	1+	1995	3.8	.8	.1	.1	.0	1.8	.6	.3	.0
Dec	6.8	5.6	1	0	8.5	1974	1	21.2	1974	13	1974	2	2+	1995	7.8	1.9	.4	.1	.0	7.3	3.1	1.5	.1
Ann	40.3	33.6	N/A	N/A	23.6	Mar 1993	13	40.2	Jan 1978	26	Jan 1978	22	9+	Jan 1978	40.4	12.0	2.9	.9	.1	40.3	20.0	11.2	2.7

+ 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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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	5/30	5/24	5/20	5/16	5/13	5/09	5/06	5/01	4/25
32	5/10	5/06	5/04	5/01	4/29	4/27	4/24	4/22	4/18
28	4/26	4/21	4/18	4/15	4/12	4/09	4/06	4/02	3/28
24	4/17	4/13	4/10	4/07	4/04	4/01	3/30	3/26	3/22
20	4/10	4/05	4/01	3/29	3/26	3/23	3/20	3/16	3/11
16	3/31	3/26	3/21	3/18	3/14	3/11	3/07	3/03	2/25

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	9/26	9/29	10/02	10/05	10/08	10/11	10/15	10/19
32	10/03	10/08	10/12	10/14	10/17	10/20	10/23	10/26	10/31
28	10/18	10/22	10/25	10/28	10/30	11/02	11/04	11/07	11/12
24	10/26	10/31	11/04	11/07	11/10	11/13	11/16	11/19	11/24
20	11/06	11/12	11/17	11/21	11/24	11/28	12/02	12/07	12/13
16	11/15	11/23	11/28	12/03	12/08	12/12	12/17	12/22	12/30

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	164	158	153	149	145	141	137	132	126
32	188	182	178	174	170	167	163	159	152
28	219	213	208	204	201	197	193	188	182
24	240	233	228	223	219	215	210	205	198
20	270	260	254	248	243	237	232	225	216
16	292	283	277	272	268	263	258	252	244

***** 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

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Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1163	979	788	462	200	43	6	13	105	397	677	996	5829
60	1008	826	626	309	112	11	0	5	29	262	531	852	4571
57	915	742	536	230	70	4	0	0	11	195	444	759	3906
55	853	686	478	183	49	2	0	0	6	155	389	702	3503
50	710	551	339	88	16	0	0	0	1	80	259	558	2602
32	264	158	43	0	0	0	0	0	0	0	18	163	646

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	83	111	289	539	867	1092	1257	1210	961	635	327	140	7511
55	1	1	18	62	196	405	544	498	283	70	17	3	2098
57	0	1	13	45	155	347	482	436	233	49	11	2	1774
60	0	0	7	26	103	265	389	344	166	26	5	0	1331
65	0	0	2	8	41	143	244	203	78	6	1	0	726
70	0	0	0	1	11	58	112	85	25	0	0	0	292

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	31	40	142	325	630	861	1018	971	731	401	164	51	31	71	213	538	1168	2029	3047	4018	4749	5150	5314	5365
45	9	15	83	208	475	711	863	816	581	263	93	28	9	24	107	315	790	1501	2364	3180	3761	4024	4117	4145
50	2	4	44	125	328	561	708	661	432	153	45	5	2	6	50	175	503	1064	1772	2433	2865	3018	3063	3068
55	0	0	24	64	202	413	553	506	293	75	17	2	0	0	24	88	290	703	1256	1762	2055	2130	2147	2149
60	0	0	4	29	112	270	399	353	174	27	5	0	0	0	4	33	145	415	814	1167	1341	1368	1373	1373
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	15	24	91	194	375	564	691	652	456	224	86	29	15	39	130	324	699	1263	1954	2606	3062	3286	3372	3401

(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:
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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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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