

Climatography of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: WILKES BRE SCTN AP AVOCA, PA

1971-2000

COOP ID: 369705

Climate Division: PA 1

NWS Call Sign: AVP

Elevation: 930 Feet Lat: 41° 20N Lon: 75° 44W

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	34.1	18.5	26.3	67	1967	25	36.0	1990	-21	1994	21	15.7	1977	1214	0	.0	.0	2.3	14.6	27.7	1.8
Feb	37.3	20.4	28.9	71	1985	24	36.8	1984	-16	1979	18	16.8	1979	1027	0	.0	.0	3.5	10.9	24.0	1.1
Mar	47.3	28.4	37.9	85	1998	31	42.8	1973	-4	1967	19	31.7	1984	857	1	.0	.0	11.8	3.3	20.5	.1
Apr	59.2	38.1	48.7	92	1976	18	52.2+	1994	14	1982	7	44.3	1972	510	5	.0	.1	22.8	.2	8.4	.0
May	70.8	48.4	59.6	91+	1964	23	65.7	1991	27	1974	5	54.1	1973	219	36	.0	.3	30.5	.0	.5	.0
Jun	78.2	56.7	67.5	97	1964	30	71.0	1976	34	1972	11	63.6	1972	53	114	.0	1.0	30.0	.0	.0	.0
Jul	82.6	61.5	72.1	101+	1966	3	76.4	1988	43	1979	6	67.2	2000	9	220	.1	3.6	31.0	.0	.0	.0
Aug	80.5	60.1	70.3	98	2001	9	75.7	1980	38	1982	29	66.6	1982	18	174	.0	2.0	31.0	.0	.0	.0
Sep	72.4	52.6	62.5	95+	1980	2	66.4	1980	29	2000	29	60.0	2000	138	57	.0	.4	30.0	.0	.1	.0
Oct	61.2	41.7	51.5	83	1979	22	58.3	1984	19	1972	20	45.6	1972	431	4	.0	.0	27.3	.0	4.4	.0
Nov	49.3	33.7	41.5	80	1982	2	48.2	1975	9+	1976	30	35.7	1995	711	0	.0	.0	13.3	1.4	13.7	.0
Dec	38.6	24.2	31.4	69+	1998	4	37.9	1984	-9	1989	24	19.2	1989	1047	0	.0	.0	3.6	8.7	24.6	.5
Ann	59.3	40.4	49.9	101+	Jul 1966	3	76.4	Jul 1988	-21	Jan 1994	21	15.7	Jan 1977	6234	611	.1	7.4	237.1	39.1	123.9	3.5

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1964-2001

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

065-A

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NWS Call Sign: AVP

Elevation: 930 Feet Lat: 41°20N

Lon: 75°44W

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	2.46	2.11	2.06	1996	19	6.48	1979	.39	1980	12.5	5.8	1.6	.3	.52	.74	1.10	1.43	1.76	2.11	2.51	2.99	3.62	4.63	5.58
Feb	2.08	1.66	2.86	1981	11	8.06	1981	.68	1987	10.8	5.5	1.0	.3	.61	.81	1.11	1.37	1.62	1.88	2.16	2.50	2.94	3.62	4.25
Mar	2.69	2.55	2.22	1986	14	4.83	1977	.49	1981	12.4	6.5	1.7	.2	1.09	1.34	1.69	1.97	2.24	2.52	2.82	3.16	3.59	4.25	4.85
Apr	3.28	2.81	2.83	1983	15	9.56	1983	.96	1997	12.4	7.2	2.1	.6	.96	1.27	1.74	2.14	2.54	2.95	3.41	3.95	4.64	5.73	6.74
May	3.69	3.33	2.30	1972	31	8.02	1989	1.38	1993	13.0	7.8	2.2	.8	1.41	1.76	2.25	2.66	3.04	3.43	3.86	4.35	4.98	5.95	6.83
Jun	3.97	3.88	2.85	1982	1	7.22	1982	.82	1988	12.7	8.2	2.4	.6	1.35	1.72	2.27	2.74	3.18	3.64	4.14	4.72	5.47	6.63	7.70
Jul	3.74	3.38	2.82	2000	30	7.25	1986	1.04	1993	11.0	7.2	2.5	.8	1.34	1.69	2.20	2.63	3.04	3.46	3.91	4.44	5.12	6.16	7.12
Aug	3.10	2.80	3.18	1966	16	6.78	1994	.95	1995	10.9	6.5	2.0	.6	1.14	1.43	1.85	2.20	2.53	2.88	3.25	3.68	4.23	5.07	5.85
Sep	3.86	3.07	5.98	1985	27	9.76	1999	1.10	1982	10.3	6.6	2.6	1.1	1.04	1.40	1.96	2.45	2.93	3.43	3.99	4.66	5.52	6.87	8.14
Oct	3.02	2.75	4.01	1995	21	8.12	1976	.76	1994	10.1	5.4	2.0	.7	.86	1.15	1.58	1.96	2.32	2.71	3.13	3.63	4.28	5.30	6.25
Nov	3.12	3.33	3.37	1996	8	7.69	1972	.80	1976	11.6	6.2	1.8	.6	1.14	1.43	1.85	2.21	2.54	2.89	3.27	3.70	4.26	5.12	5.91
Dec	2.55	2.19	2.16	1983	13	6.58	1983	.86	1998	12.2	5.9	1.8	.3	.75	.99	1.36	1.67	1.98	2.30	2.65	3.07	3.61	4.45	5.23
Ann	37.56	38.54	5.98	Sep 1985	27	9.76	Sep 1999	.39	Jan 1980	139.9	78.8	23.7	6.9	28.45	30.26	32.56	34.28	35.80	37.27	38.77	40.42	42.41	45.28	47.74

+ 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: 1964-2001

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Climate Division: PA 1

NWS Call Sign: AVP

Elevation: 930 Feet

Lat: 41°20N

Lon: 75°44W

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	13.5	11.2	2	2	16.4	1994	17	42.3	1994	29	1996	13	13	1994	10.8	3.6	1.2	.5	.1	16.7	8.3	5.4	2.0
Feb	10.2	9.4	2	2	11.8	1972	19	19.7	1972	17	1994	12	9	1994	8.4	2.9	.9	.4	@	14.7	8.2	4.5	1.1
Mar	8.7	6.6	1	1	18.7	1993	13	32.0	1993	21	1993	14	5	1994	6.3	2.7	.7	.3	@	6.2	3.5	2.1	.3
Apr	2.8	1.1	#	0	9.1	1983	19	26.7	1983	14	1983	20	1	1983	2.3	.6	.3	.2	.0	.8	.4	.2	.1
May	.1	.0	#	0	2.0	1977	9	2.4	1977	#+	1977	9	#	1996	.1	.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	.1	.0	0	0	1.9	1993	31	1.9	1993	#+	1977	17	0	0	.2	.0	.0	.0	.0	.0	.0	.0	.0
Nov	4.3	2.2	#	0	18.5	1971	25	22.5	1971	17	1971	26	2	1971	3.4	1.0	.3	.2	@	2.1	1.0	.5	.2
Dec	7.4	7.7	1	1	9.4	1995	19	16.0+	1995	10+	1995	21	3	1995	7.7	2.2	.6	.2	.0	8.0	3.5	1.3	.1
Ann	47.1	38.2	N/A	N/A	18.7	Mar 1993	13	42.3	Jan 1994	29	Jan 1996	13	13	Jan 1994	39.2	13.0	4.0	1.8	.1	48.5	24.9	14.0	3.8

+ 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 1

NWS Call Sign: AVP

Elevation: 930 Feet

Lat: 41°20N

Lon: 75°44W

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	5/27	5/21	5/17	5/13	5/10	5/06	5/03	4/28	4/23
32	5/10	5/05	5/01	4/28	4/26	4/23	4/20	4/16	4/12
28	4/26	4/22	4/19	4/17	4/15	4/12	4/10	4/07	4/03
24	4/13	4/09	4/06	4/04	4/02	3/31	3/28	3/25	3/22
20	4/04	3/31	3/28	3/26	3/24	3/21	3/19	3/16	3/12
16	3/26	3/22	3/19	3/17	3/15	3/12	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	9/20	9/24	9/26	9/29	10/01	10/03	10/06	10/08	10/12
32	9/30	10/05	10/09	10/13	10/16	10/19	10/22	10/26	11/01
28	10/13	10/18	10/21	10/25	10/28	10/31	11/03	11/07	11/12
24	10/28	11/02	11/07	11/10	11/14	11/17	11/20	11/25	11/30
20	11/07	11/14	11/19	11/22	11/26	11/30	12/04	12/09	12/15
16	11/22	11/28	12/03	12/07	12/10	12/14	12/17	12/22	12/28
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	165	157	152	148	143	139	135	129	122
32	192	185	181	176	172	169	164	160	153
28	216	209	204	200	195	191	187	182	175
24	246	239	233	229	225	221	217	212	205
20	269	261	256	251	247	242	238	232	225
16	291	283	278	274	270	265	261	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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

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COOP ID: 369705

Climate Division: PA 1 NWS Call Sign: AVP Elevation: 930 Feet Lat: 41° 20N Lon: 75° 44W

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	1214	1027	857	510	219	53	9	18	138	431	711	1047	6234
60	1044	873	687	344	109	7	0	1	31	283	555	888	4822
57	951	789	594	261	67	2	0	0	12	210	468	795	4149
55	889	733	532	210	45	1	0	0	6	168	411	733	3728
50	734	594	385	104	13	0	0	0	1	86	278	586	2781
32	259	182	47	0	0	0	0	0	0	0	20	163	671

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	57	76	220	486	840	1050	1230	1177	907	597	295	102	7037
55	1	0	9	40	172	363	517	464	235	56	10	1	1868
57	0	0	6	29	134	306	455	402	187	38	6	0	1563
60	0	0	3	16	86	226	363	312	127	20	3	0	1156
65	0	0	1	5	36	114	220	174	57	4	0	0	611
70	0	0	0	1	9	39	98	68	17	0	0	0	232

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	15	21	90	273	603	820	989	939	676	365	133	28	15	36	126	399	1002	1822	2811	3750	4426	4791	4924	4952
45	2	9	47	165	448	670	834	784	526	227	68	9	2	11	58	223	671	1341	2175	2959	3485	3712	3780	3789
50	0	1	20	85	303	520	679	629	379	128	28	3	0	1	21	106	409	929	1608	2237	2616	2744	2772	2775
55	0	0	7	41	179	373	524	474	247	59	10	0	0	0	7	48	227	600	1124	1598	1845	1904	1914	1914
60	0	0	4	16	92	232	369	322	135	19	3	0	0	0	4	20	112	344	713	1035	1170	1189	1192	1192
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	1	12	54	155	354	527	666	625	408	195	65	7	1	13	67	222	576	1103	1769	2394	2802	2997	3062	3069

(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