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

COOP ID: 667292

Station: PONCE 4 E, PR

Climate Division: PR 2 NWS Call Sign:

Elevation: 70 Feet Lat: 18°02N Lon: 66°32W

									r	Tempe	eratui	re (°F)									
	Mea	n (1)						Extr	emes					J	Days (1) emp 65		Mean	Numb	er of I	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 >= 90	Max >= 70	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	87.7	66.2	77.0	92+	1999	24	79.8	1998	55+	1988	25	75.0	1985	0	370	1.2	31.0	31.0	.0	.0	.0
Feb	87.5	66.2	76.9	93	1964	3	78.7	1997	54	1989	12	75.1	1976	0	332	.9	28.3	28.3	.0	.0	.0
Mar	87.4	66.5	77.0	93+	1998	14	79.3	1981	55+	1993	3	74.9	2000	0	370	1.6	31.0	31.0	.0	.0	.0
Apr	88.1	68.7	78.4	96	1996	13	80.4	1987	53	1995	2	76.4	1989	0	402	4.0	30.0	30.0	.0	.0	.0
May	88.6	71.7	80.2	96	1998	26	82.0	1998	62+	1974	2	78.8	1974	0	469	8.7	31.0	31.0	.0	.0	.0
Jun	89.9	73.3	81.6	99	1993	14	84.0	1997	64+	1988	29	80.3	1973	0	499	17.2	30.0	30.0	.0	.0	.0
Jul	90.9	73.3	82.1	98	1972	27	83.9	1995	64+	1994	16	80.6	1984	0	531	24.1	31.0	31.0	.0	.0	.0
Aug	91.2	73.2	82.2	99	1966	25	83.7	1999	66+	1994	13	79.6	1971	0	532	23.5	31.0	31.0	.0	.0	.0
Sep	90.9	72.6	81.8	97	1967	5	83.5	1997	64	1964	10	79.5	1979	0	502	18.4	30.0	30.0	.0	.0	.0
Oct	90.3	71.8	81.1	95+	2001	22	83.1	1980	61	1990	9	79.7	1984	0	498	13.6	31.0	31.0	.0	.0	.0
Nov	89.8	69.9	79.9	97	1994	6	81.6	1980	59	2001	30	77.9	1971	0	445	7.6	30.0	30.0	.0	.0	.0
Dec	88.5	67.1	77.8	94	1966	4	80.5	1998	58+	1982	31	75.6	1973	0	396	2.3	31.0	31.0	.0	.0	.0
Ann	89.2	70.0	79.7	99+	Jun 1993	14	84.0	Jun 1997	53	Apr 1995	2	74.9	Mar 2000	0	5346	123.1	365.3	365.3	.0	.0	.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: May 2005 040-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1954-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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Climate Division: PR 2 NWS Call Sign: Elevation: 70 Feet Lat: 18°02N Lon: 66°32W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total					ean N of D	ays (3	5)	Proba	ability th		nonthly/	annual j	precipita ated an		ll be equ		· less tha	an the
	Medi	ans(1)				Extreme	•			"	any Fie	стриацо	11		Th	ese value	s were de	termined	from the	incomplet	e gamma	distribut	ion	
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	.99	.58	8.30	1992	6	9.09	1992	.09	1975	6.7	2.3	.2	.1	.06	.12	.24	.38	.53	.71	.92	1.20	1.58	2.24	2.89
Feb	1.07	.73	2.72	1995	26	5.34	1995	.11	1972	6.6	2.3	.5	.2	.09	.16	.31	.46	.62	.81	1.03	1.31	1.69	2.34	2.97
Mar	1.51	1.10	1.97	1989	13	7.36	1989	.20	1986	7.0	3.3	.8	.3	.19	.31	.52	.73	.95	1.20	1.48	1.84	2.32	3.11	3.87
Apr	1.95	1.67	3.76	1983	21	7.90	1983	.26	1979	6.8	3.7	1.2	.4	.36	.53	.82	1.09	1.36	1.65	1.98	2.38	2.92	3.77	4.59
May	4.02	2.38	6.75	1992	26	18.58	1992	.10+	1997	10.1	5.2	1.9	1.1	.09	.23	.60	1.07	1.68	2.43	3.40	4.69	6.58	9.92	13.33
Jun	1.98	1.23	4.71	1956	17	7.98	1987	.03	1975	6.9	3.7	1.4	.4	.08	.17	.39	.64	.95	1.31	1.77	2.36	3.21	4.67	6.15
Jul	2.48	2.19	6.50	1979	19	9.69	1979	.08	1976	7.8	4.6	1.3	.6	.31	.50	.85	1.20	1.57	1.97	2.45	3.04	3.83	5.14	6.41
Aug	3.91	3.42	8.99	2001	23	12.46	1988	.77	1987	10.2	5.5	2.3	1.0	.87	1.24	1.81	2.32	2.84	3.39	4.01	4.74	5.71	7.26	8.71
Sep	5.92	4.87	12.87	2000	18	17.20	2000	.91+	1986	11.4	7.0	3.1	1.3	.80	1.28	2.13	2.95	3.81	4.77	5.87	7.23	9.06	12.06	14.96
Oct	6.40	4.06	18.20	1985	7	28.31	1985	.76	1982	12.9	7.9	3.5	1.8	.82	1.34	2.25	3.14	4.08	5.12	6.33	7.82	9.84	13.14	16.35
Nov	4.12	3.02	4.70	1987	28	13.74	1987	.04	1973	10.5	6.4	2.5	1.0	.22	.44	.93	1.49	2.12	2.87	3.79	4.96	6.62	9.45	12.28
Dec	1.13	.85	4.79	1960	3	6.10	1981	.02	1989	6.9	2.6	.6	.2	.07	.14	.29	.44	.61	.81	1.05	1.36	1.79	2.52	3.24
Ann	35.48	34.68	18.20	Oct 1985	7	28.31	Oct 1985	.02	Dec 1989	103.8	54.5	19.3	8.4	20.96	23.57	27.02	29.72	32.16	34.56	37.08	39.90	43.39	48.54	53.08

⁺ 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: 1954-2001

⁽³⁾ Derived from 1971-2000 daily data

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COOP ID: 667292

Station: PONCE 4 E, PR

Climate Division: PR 2 NWS Call Sign: Elevation: 70 Feet Lat: 18°02N Lon: 66°32W

										Snov	w (inc	hes)											
						Sn	ow To	tals									Mea	ın Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa					Depth resholds	
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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.0	.0	N/A	N/A	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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: 667292

Station: PONCE 4 E, PR

Climate Division: PR 2 NWS Call Sign:

Elevation:

70 Feet

Lat: 18°02N Lon: 66°32W

				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 (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
32	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
28	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
			Fal	l Freeze Da	tes (Month/D	Day)			
Temp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
32	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
28	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
•		•	•	Freeze F	ree Period		•		
Town (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	>365	>365	>365	>365	>365	>365	>365	>365	>365
32	>365	>365	>365	>365	>365	>365	>365	>365	>365
28	>365	>365	>365	>365	>365	>365	>365	>365	>365
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

^{*} 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.

Complete documentation available from:

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COOP ID: 667292

Lon: 66°32W

Station: PONCE 4 E, PR

Climate Division: PR 2

70 Feet

Elevation:

Lat: 18°02N

				Deg	ree Days to	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree I	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	1393	1256	1393	1392	1492	1489	1554	1555	1492	1521	1435	1419	17391
55	680	612	680	702	779	799	841	842	802	808	745	706	8996
57	618	556	618	642	717	739	779	780	742	746	685	644	8266
60	525	472	525	552	624	649	686	687	652	653	595	551	7171
65	370	332	370	402	469	499	531	532	502	498	445	396	5346
70	215	192	215	252	314	349	376	377	352	343	295	241	3521

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Deg 40 1130 1057 1143 1151 1245 1250 1311 1310 1248 1258 1182 11													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	1130 1057 1143 1151 1245 1250 1311 1310 1248 1258 1182													2187	3330	4481	5726	6976	8287	9597	10845	12103	13285	14440
45	975	912	988	1001	1090	1100	1156	1155	1098	1103	1032	1000	975	1887	2875	3876	4966	6066	7222	8377	9475	10578	11610	12610
50	820	767	833	851	935	950	1001	1000	948	948	882	845	820	1587	2420	3271	4206	5156	6157	7157	8105	9053	9935	10780
55	665	622	678	701	780	800	846	845	798	793	732	690	665	1287	1965	2666	3446	4246	5092	5937	6735	7528	8260	8950
60	510	477	523	551	625	650	691	690	648	638	582	535	510	987	1510	2061	2686	3336	4027	4717	5365	6003	6585	7120
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	N/86 806 755 813 826 900 899 930 928 884 902 845 83												806	1561	2374	3200	4100	4999	5929	6857	7741	8643	9488	10309

(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 were calculated from a serially complete daily data set. A serial dataset was not available for precipitation,

To ensure that a station's data was adequate to estimate these statistics, the following criteria were used:

- 1. A station must have 80% of its data for the 1971-2000 time period.
- 2. Only months with at least 21 days are used.
- 3. There must be a least 21 months (meeting criteria 2.) in the sample.
- g. Snowfall and snow depth statistics were derived daily values quality controlled to be consistent with 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 differences 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. Other inconsistencies may appear from comparing statistically modeled values such as degree days to observed temperatures.

- 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. 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