

# Climatology of the United States

No. 20

1971-2000

Station: CERRO MARAVILLA, PR

COOP ID: 662336

Climate Division: PR 6

NWS Call Sign:

Elevation: 4,002 Feet Lat: 18°09N

Lon: 66°34W

## 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 >= 90	Max >= 70	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	68.2	55.9	62.1	85	1984	1	64.6	1981	48	2000	17	59.3	1991	106	14	.0	11.8	31.0	.0	.0	.0
Feb	68.3	55.3	61.8	81+	1981	14	64.3	1979	46	1990	16	58.2	1990	100	9	.0	11.0	28.3	.0	.0	.0
Mar	68.8	55.6	62.2	81	1981	3	65.2	1983	48+	1995	28	59.2+	1993	94	20	.0	13.7	31.0	.0	.0	.0
Apr	69.6	57.2	63.4	80+	1982	24	65.9	1987	41	1986	5	61.0	1990	74	26	.0	14.4	30.0	.0	.0	.0
May	70.4	59.1	64.8	82+	1982	2	66.7+	1983	45	1985	18	62.2	1990	47	39	.0	17.2	31.0	.0	.0	.0
Jun	72.5	60.8	66.7	84+	1985	9	68.6	1983	51	1985	7	64.6	1993	14	64	.0	22.0	30.0	.0	.0	.0
Jul	73.2	61.3	67.3	87	1983	4	69.6	1983	47	1970	17	64.3	1991	13	82	.0	23.9	31.0	.0	.0	.0
Aug	73.0	61.5	67.3	85	1981	31	69.5	1980	52	1985	11	64.1	1991	18	87	.0	22.7	31.0	.0	.0	.0
Sep	73.7	60.9	67.3	84+	1983	19	69.4	1987	52	1985	13	64.8	1992	14	83	.0	21.6	30.0	.0	.0	.0
Oct	72.6	61.0	66.8	85+	1980	13	68.8	1980	52	1986	5	64.0	1992	20	75	.0	21.7	31.0	.0	.0	.0
Nov	71.3	59.3	65.3	83+	1983	14	67.2	1980	51	1984	29	62.7	1993	40	47	.0	19.1	30.0	.0	.0	.0
Dec	69.6	56.9	63.3	83	1982	14	66.7	1997	48+	1980	8	59.8	1991	84	30	.0	15.8	31.0	.0	.0	.0
Ann	70.9	58.7	64.9	87	Jul 1983	4	69.6	Jul 1983	41	Apr 1986	5	58.2	Feb 1990	624	576	.0	214.9	365.3	.0	.0	.0

+ 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](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: May 2005

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1969-2001

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

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## No. 20 1971-2000

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

**Station: CERRO MARAVILLA, PR**

**COOP ID: 662336**

**Climate Division: PR 6**

**NWS Call Sign:**

**Elevation: 4,002 Feet Lat: 18°09N**

**Lon: 66°34W**

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	4.02	3.35	12.00	1992	6	21.42	1992	.82	1985	14.5	8.6	1.9	.8	.75	1.11	1.70	2.25	2.80	3.40	4.08	4.90	5.99	7.74	9.41
Feb	3.58	3.43	3.28	1981	15	9.10	1996	.97	1975	13.0	8.1	1.7	.6	1.20	1.53	2.03	2.45	2.86	3.27	3.73	4.26	4.95	6.01	6.99
Mar	4.34	3.66	4.00	1991	27	12.60	1972	1.55	1990	13.6	8.2	2.3	1.0	1.25	1.67	2.29	2.82	3.35	3.90	4.50	5.21	6.14	7.58	8.93
Apr	6.99	7.53	5.22	1983	21	14.61	1992	.71	1997	13.7	10.2	4.4	1.9	1.41	2.05	3.08	4.02	4.96	5.98	7.13	8.51	10.34	13.26	16.04
May	11.12	10.00	10.00	1985	18	31.26	1985	2.50	1990	18.4	13.9	6.6	3.0	2.70	3.74	5.37	6.81	8.24	9.76	11.45	13.47	16.11	20.29	24.21
Jun	6.65	5.75	6.00	1983	16	14.20	1999	1.09	1977	12.8	9.0	4.0	1.9	1.66	2.28	3.25	4.11	4.96	5.85	6.85	8.04	9.59	12.05	14.35
Jul	5.79	5.72	6.42	1986	25	11.74	1991	1.02	1992	12.5	9.2	3.4	1.5	1.50	2.05	2.89	3.63	4.36	5.13	5.98	7.00	8.32	10.41	12.36
Aug	9.58	8.88	6.60	1988	25	22.16	1979	3.89	1984	16.6	13.2	5.7	2.6	4.26	5.12	6.30	7.27	8.17	9.07	10.05	11.16	12.56	14.69	16.61
Sep	14.01	13.58	16.00	1975	16	32.35	1975	3.60	1986	19.4	15.7	8.1	4.7	4.84	6.16	8.09	9.72	11.28	12.88	14.63	16.67	19.29	23.33	27.06
Oct	14.67	12.34	22.90	1985	7	46.22	1985	6.66	1975	21.6	17.3	9.4	4.8	6.04	7.38	9.27	10.83	12.29	13.78	15.38	17.22	19.56	23.13	26.37
Nov	8.16	8.01	8.30	1987	28	17.92	1987	1.16	1976	17.5	12.1	5.0	2.4	1.60	2.33	3.53	4.63	5.75	6.94	8.30	9.94	12.10	15.58	18.88
Dec	3.80	3.51	3.54	1975	11	9.50	1975	.69	1997	15.4	8.7	2.1	.6	1.06	1.42	1.96	2.44	2.90	3.39	3.93	4.57	5.40	6.70	7.91
Ann	92.71	89.26	22.90	Oct 1985	7	46.22	Oct 1985	.69	Dec 1997	189.0	134.2	54.6	25.8	62.47	68.20	75.62	81.29	86.36	91.28	96.39	102.06	108.97	119.06	127.84

+ 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: 1969-2001

(3) Derived from 1971-2000 daily data

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**Climate Division: PR 6**

**NWS Call Sign:**

**Elevation: 4,002 Feet**

**Lat: 18°09N**

**Lon: 66°34W**

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	.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

@ 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	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
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	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 Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

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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	106	100	94	74	47	14	13	18	14	20	40	84	624
60	22	20	25	11	3	0	0	0	0	0	3	16	100
57	5	4	7	2	0	0	0	0	0	0	0	4	22
55	0	0	2	0	0	0	0	0	0	0	0	0	2
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	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	931	833	936	942	1015	1040	1092	1092	1059	1078	998	969	11985
55	218	189	225	252	302	350	379	379	369	365	308	256	3592
57	161	137	168	194	240	290	317	317	309	303	248	198	2882
60	85	69	93	113	150	200	224	224	219	210	160	117	1864
65	14	9	20	26	39	64	82	87	83	75	47	30	576
70	0	0	0	1	2	4	9	14	11	9	4	3	57

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	690	640	694	706	774	806	850	851	813	833	759	722	690	1330	2024	2730	3504	4310	5160	6011	6824	7657	8416	9138
45	535	495	539	556	619	656	695	696	663	678	609	567	535	1030	1569	2125	2744	3400	4095	4791	5454	6132	6741	7308
50	380	350	384	406	464	506	540	541	513	523	459	412	380	730	1114	1520	1984	2490	3030	3571	4084	4607	5066	5478
55	225	206	229	256	309	356	385	386	363	368	309	257	225	431	660	916	1225	1581	1966	2352	2715	3083	3392	3649
60	79	66	88	110	155	206	230	231	213	213	160	111	79	145	233	343	498	704	934	1165	1378	1591	1751	1862
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	380	350	384	406	464	506	540	541	513	523	459	412	380	730	1114	1520	1984	2490	3030	3571	4084	4607	5066	5478

(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](http://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/normals/usnormals.html](http://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 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](http://www.ncdc.noaa.gov/normals.html)

U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html)

Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html)