

Climatography of the United States

No. 20

1971-2000

Station: UTUADO, PR

COOP ID: 669608

Climate Division: PR 6

NWS Call Sign:

Elevation: 520 Feet Lat: 18°16N Lon: 66°41W

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	83.9	59.1	71.5	97	1939	17	73.9	1998	49+	1972	8	69.3	1972	0	200	.7	31.0	31.0	.0	.0	.0
Feb	83.6	58.5	71.1	95	1943	24	73.1	1998	48	1955	9	69.3	1975	0	169	.7	28.3	28.3	.0	.0	.0
Mar	84.7	59.0	71.9	96+	1964	24	74.7	1983	45	1946	19	69.5	1976	0	212	2.6	31.0	31.0	.0	.0	.0
Apr	85.5	61.5	73.5	98	1947	24	76.0	1987	50+	1955	11	71.3	1974	0	255	4.2	30.0	30.0	.0	.0	.0
May	86.6	64.5	75.6	99	1954	15	77.4	1998	56	1977	12	73.4	1974	0	327	7.5	31.0	31.0	.0	.0	.0
Jun	88.5	65.6	77.1	99	1966	10	78.5	1997	59+	1977	6	75.3	1971	0	361	16.3	30.0	30.0	.0	.0	.0
Jul	88.8	66.3	77.6	98+	1941	9	79.0	1988	57	1977	26	75.1	1971	0	388	18.1	31.0	31.0	.0	.0	.0
Aug	88.8	66.5	77.7	99+	1939	27	79.9	1987	59+	1990	1	75.8	1972	0	392	20.4	31.0	31.0	.0	.0	.0
Sep	88.2	66.2	77.2	99+	1936	19	78.8	1998	59	1968	23	75.6	1972	0	366	18.0	30.0	30.0	.0	.0	.0
Oct	87.2	65.4	76.3	98	1964	15	78.5	1998	57+	1954	30	74.1	1971	0	350	12.3	31.0	31.0	.0	.0	.0
Nov	85.7	64.1	74.9	96	1936	16	76.7	1994	52	1945	29	72.6	1971	0	296	5.0	30.0	30.0	.0	.0	.0
Dec	84.1	61.4	72.8	94+	1950	28	75.4	1987	49	1945	7	69.6	1971	0	240	1.9	31.0	31.0	.0	.0	.0
Ann	86.3	63.2	74.8	99+	Jun 1966	10	79.9	Aug 1987	45	Mar 1946	19	69.3+	Feb 1975	0	3556	107.7	365.3	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

Issue Date: May 2005

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1931-1998

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

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: UTUADO, PR

COOP ID: 669608

Climate Division: PR 6

NWS Call Sign:

Elevation: 520 Feet Lat: 18°16N

Lon: 66°41W

Precipitation (inches)

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	2.35	2.38	3.25	1997	22	5.71	1997	.12	1983	10.0	5.2	1.0	.5	.41	.61	.96	1.28	1.61	1.97	2.38	2.87	3.53	4.60	5.62
Feb	2.59	2.35	2.56	1998	5	6.92	1996	.31	1994	9.0	4.9	1.6	.8	.55	.79	1.17	1.51	1.86	2.23	2.65	3.15	3.81	4.86	5.85
Mar	3.71	3.31	4.40	1963	26	12.65	1972	.74	1982	10.5	6.0	2.3	.9	.91	1.26	1.80	2.28	2.76	3.26	3.82	4.49	5.37	6.75	8.05
Apr	5.88	5.76	4.70	1945	17	14.49	1986	.90	1997	11.6	8.3	4.1	2.0	1.57	2.12	2.97	3.72	4.45	5.22	6.08	7.09	8.41	10.48	12.41
May	9.34	8.64	6.09	1940	20	16.63	1980	3.28	1974	15.7	11.9	6.2	3.3	3.45	4.32	5.58	6.63	7.63	8.66	9.77	11.06	12.71	15.24	17.56
Jun	5.39	4.96	4.59	1970	10	11.16	1975	1.32	1982	10.6	7.1	3.7	1.7	1.63	2.15	2.91	3.57	4.21	4.88	5.61	6.47	7.58	9.32	10.93
Jul	5.14	5.01	4.00+	1966	11	8.76	1975	.87	1987	12.7	8.8	3.5	1.4	2.05	2.53	3.20	3.75	4.28	4.81	5.39	6.05	6.90	8.19	9.37
Aug	8.06	7.16	6.10	1961	27	16.50	1997	4.25	1973	14.5	10.6	5.4	2.4	3.89	4.58	5.53	6.29	7.00	7.70	8.46	9.31	10.39	12.01	13.46
Sep	9.78	9.30	5.30	1954	7	18.19	1998	4.21	1986	16.8	12.7	5.7	3.1	4.25	5.13	6.36	7.36	8.30	9.24	10.26	11.43	12.90	15.14	17.16
Oct	10.49	9.44	7.10	1985	7	21.95	1990	4.53	1991	17.7	13.2	6.5	3.3	4.13	5.10	6.48	7.62	8.70	9.80	10.98	12.35	14.10	16.76	19.20
Nov	5.26	5.19	4.31	1981	9	14.24	1999	.44	1976	13.9	8.3	2.9	1.3	1.02	1.50	2.27	2.98	3.70	4.47	5.35	6.41	7.81	10.05	12.19
Dec	2.97	2.08	6.20	1965	10	6.97	1998	.19	1988	11.2	5.7	1.7	.7	.37	.60	1.02	1.43	1.87	2.36	2.93	3.63	4.58	6.14	7.66
Ann	70.96	69.41	7.10	Oct 1985	7	21.95	Oct 1990	.12	Jan 1983	154.2	102.7	44.6	21.4	51.15	55.01	59.94	63.68	66.99	70.19	73.49	77.13	81.55	87.94	93.46

+ 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: 1931-1998

(3) Derived from 1971-2000 daily data

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

Climatography of the United States

No. 20 1971-2000

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Station: UTUADO, PR

COOP ID: 669608

Climate Division: PR 6

NWS Call Sign:

Elevation: 520 Feet

Lat: 18°16N

Lon: 66°41W

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

Complete documentation available from:

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No. 20 1971-2000

Station: UTUADO, PR

COOP ID: 669608

Climate Division: PR 6

NWS Call Sign:

Elevation: 520 Feet

Lat: 18° 16N

Lon: 66° 41W

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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Climate Division: PR 6 NWS Call Sign: Elevation: 520 Feet Lat: 18°16N Lon: 66°41W

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	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	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	1223	1093	1235	1245	1350	1351	1411	1415	1356	1373	1286	1263	15601
55	510	449	522	555	637	661	698	702	666	660	596	550	7206
57	448	393	460	495	575	601	636	640	606	598	536	488	6476
60	355	309	367	405	482	511	543	547	516	505	446	395	5381
65	200	169	212	255	327	361	388	392	366	350	296	240	3556
70	59	43	71	108	173	211	233	237	216	195	147	94	1787

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	1002	926	1015	1030	1131	1136	1184	1192	1143	1155	1079	1042	1002	1928	2943	3973	5104	6240	7424	8616	9759	10914	11993	13035
45	847	781	860	880	976	986	1029	1037	993	1000	929	887	847	1628	2488	3368	4344	5330	6359	7396	8389	9389	10318	11205
50	692	636	705	730	821	836	874	882	843	845	779	732	692	1328	2033	2763	3584	4420	5294	6176	7019	7864	8643	9375
55	537	491	550	580	666	686	719	727	693	690	629	577	537	1028	1578	2158	2824	3510	4229	4956	5649	6339	6968	7545
60	382	346	395	430	511	536	564	572	543	535	479	422	382	728	1123	1553	2064	2600	3164	3736	4279	4814	5293	5715
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	682	628	686	705	789	780	810	816	781	806	749	718	682	1310	1996	2701	3490	4270	5080	5896	6677	7483	8232	8950

(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/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

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