

# April 2017 Climate Review for Puerto Rico and U.S. Virgin Islands.

**Synopsis:** April 2017 can be described as a wet month across the area except for Saint Thomas and south Puerto Rico.

## Summary

A typical transitional weather pattern was observed across the region during April. After a mainly fair weather pattern the first week of the month, a fairly active pattern was observed from approximately the 10<sup>th</sup> of the month onwards. Frequent trofiness and abundant low to mid-level moisture created a favorable environment for the generation of showers and thunderstorms across the majority of the islands. These rainfall events produced several days of urban and small stream flooding as well as river flooding across most of Puerto Rico.

Based on the Cooperative Observer Network Data (COOP), 138 % of the normal rainfall was observed across Puerto Rico. Across St. Croix, an average rainfall total of 6.80 inches was observed which is 4.33 inches above normal (Table 1). In terms of temperature, the mean temperature for PR was 76.1°F, which is approximately 0.3°F warmer than the 30-year average from the National Centers for Environmental Information (NCEI).

At the primary climatological data sites, a rainfall total of 7.69 and 1.05 inches was observed at Henry E. Rohlsen Airport in Saint Croix (TISX) and Cyril E King Airport in St Thomas (TIST), respectively. This is 5.56 inches above normal at TISX; but 1.69 inches below normal at TIST. In terms of temperature, the mean temperature at TISX and TIST was 79.2 and 79.4F, which is 0.8 and 1.2°F below normal, respectively.

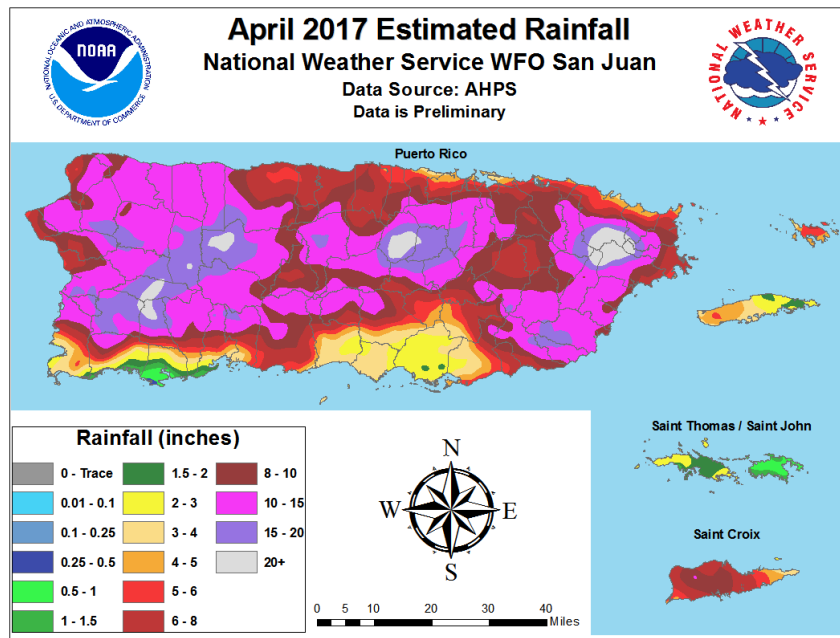
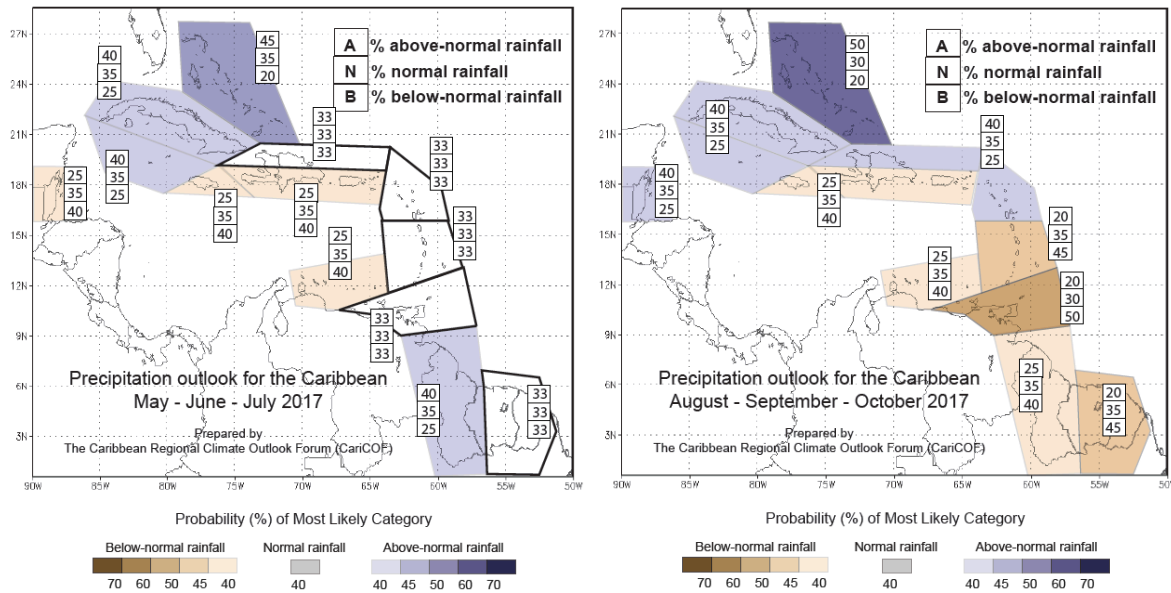


Figure 1. April Rainfall Totals based on AHPS.

## Looking Ahead

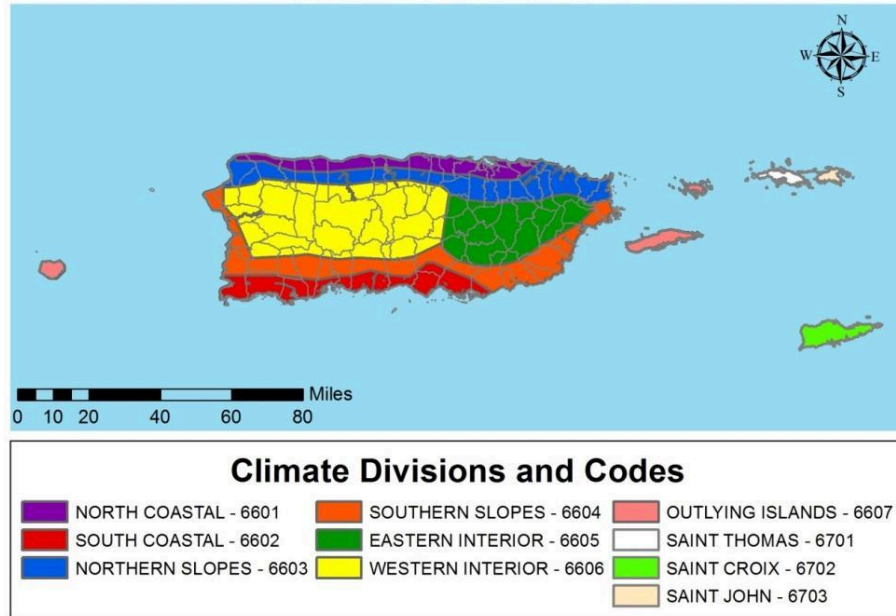
As ENSO conditions are currently neutral, no impact on Caribbean rainfall is expected. However, with a possible El Niño on forecast by Aug-Sep-Oct, there are increased chances for drier than usual conditions. Warm Sea Surface Temperatures (SSTs) across the north Caribbean may lead to above-average humidity and atmospheric instability going into the wet season in the northern islands, which tilts the odds towards a wetter wet season. With SSTs remaining near or slightly above average throughout the region, air temperatures are also expected to be warmer than average.



More Info: <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

## Average Rainfall Accumulation per climate zones based on COOP

### Puerto Rico and U.S. Virgin Islands Climate Divisions



|                                | North Coastal | South Coastal | Northern Slopes | Southern Slopes | Eastern Interior | Western Interior | All PR     | St Thomas / St John | St Croix   |
|--------------------------------|---------------|---------------|-----------------|-----------------|------------------|------------------|------------|---------------------|------------|
| <b>Observed (April)</b>        | 5.52          | 1.87          | 7.80            | 5.04            | 8.88             | 8.73             | 6.44       | 1.23                | 6.80       |
| <b>Normal (April)</b>          | 5.16          | 2.76          | 5.26            | 3.91            | 5.26             | 5.75             | 4.68       | 2.92                | 2.47       |
| <b>% PON (April)</b>           | <b>107</b>    | <b>68</b>     | <b>148</b>      | <b>129</b>      | <b>169</b>       | <b>152</b>       | <b>138</b> | <b>42</b>           | <b>275</b> |
| <b>Accumulated YTD</b>         | 18.55         | 5.90          | 20.81           | 9.86            | 24.78            | 23.18            | 17.59      | 6.47                | 16.85      |
| <b>Normal accumulation YTD</b> | 15.05         | 7.61          | 15.72           | 10.05           | 17.77            | 14.62            | 13.47      | 8.82                | 7.61       |
| <b>% PON accumulated YTD</b>   | <b>123</b>    | <b>78</b>     | <b>132</b>      | <b>98</b>       | <b>139</b>       | <b>159</b>       | <b>131</b> | <b>73</b>           | <b>221</b> |

Table 1. April 2017 and Year to date (YTD) Rainfall (inches). Percent of Normal (PON).

## Historical Rainfall and Temperature

|   | Puerto Rico |       | San Juan Area |       | IST  |       | ISX  |       |
|---|-------------|-------|---------------|-------|------|-------|------|-------|
| 1 | 1997        | 0.89" | 1997          | 0.08" | 1953 | 0.23" | 1988 | T     |
| 2 | 1968        | 1.56" | 1984          | 0.28" | 1985 | 0.48" | 1997 | 0.02" |
| 3 | 1984        | 1.57" | 1935          | 0.42" | 2004 | 0.54" | 1953 | 0.22" |

Table 2. Driest April on record.

|   | Puerto Rico |        | San Juan Area |        | IST  |        | ISX  |       |
|---|-------------|--------|---------------|--------|------|--------|------|-------|
| 1 | 2003        | 12.38" | 2005          | 15.00" | 2003 | 11.20" | 2003 | 8.53" |
| 2 | 1960        | 10.82" | 1915          | 13.17" | 1978 | 6.66"  | 1983 | 8.24" |
| 3 | 2002        | 10.62" | 1988          | 10.37" | 1986 | 6.52"  | 2017 | 7.69" |

Table 3. Wettest April on record.

|   | Puerto Rico** |         | San Juan Area |         | IST  |         | ISX  |         |
|---|---------------|---------|---------------|---------|------|---------|------|---------|
| 1 | 1969          | 77.9 °F | 2014          | 82.5 °F | 1993 | 84.0 °F | 1958 | 82.0 °F |
| 2 | 1987          | 77.9 °F | 1984          | 81.8 °F | 1995 | 83.2 °F | 2000 | 81.3 °F |
| 3 | 1958          | 77.7 °F | 1983          | 81.7 °F | 1994 | 83.2 °F | 1987 | 81.3 °F |

Table 4. Warmest April on record.

|   | Puerto Rico** |         | San Juan Area |         | IST  |         | ISX  |         |
|---|---------------|---------|---------------|---------|------|---------|------|---------|
| 1 | 1941          | 68.9 °F | 1922          | 74.3 °F | 1955 | 77.4 °F | 1982 | 75.7 °F |
| 2 | 1940          | 69.6 °F | 1921          | 74.6 °F | 2008 | 78.2 °F | 1955 | 76.6 °F |
| 3 | 1942          | 73.0 °F | 1938          | 74.7 °F | 1956 | 78.4 °F | 1954 | 77.3 °F |

Table 5. Coolest April on record.

\*\* Following years are not included : 1956, 1957, 1959, 1963, 1967, 1979 and 1980\*\*

|             | Puerto Rico | San Juan Area | IST     | ISX     |
|-------------|-------------|---------------|---------|---------|
| Temperature | 75.8 °F     | 80.3 °F       | 80.6 °F | 80.0 °F |
| Rainfall    | 4.68"       | 4.68"         | 2.74"   | 2.13"   |

Table 6. Normal Values for April

## Monthly Highlights for Primary Climatological Data Sites.

|               | April                   |
|---------------|-------------------------|
| San Juan Area | ---                     |
| IST           | ---                     |
| ISX           | 3 <sup>rd</sup> wettest |

Table 7. April 2017

## Additional Highlights Based on COOP Data

### Wettest Days

| Station             | Inches (inches) | Date      |
|---------------------|-----------------|-----------|
| ARECIBO OBSY        | 5.5             | 4/12/2017 |
| PALMA SOLA          | 5.16            | 4/17/2017 |
| SABANA GRANDE 2 ENE | 4.02            | 4/18/2017 |

### Highest Maximum Temperatures

| Station              | Temperature (°F) | Date      |
|----------------------|------------------|-----------|
| AN JUAN L M MARIN AP | 92               | 4/25/2017 |
| San Juan Area        | 92               | 4/25/2017 |
| AGUIRRE              | 91               | 4/17/2017 |

### Lowest Minimum Temperatures

| Station             | Temperature (°F) | Date      |
|---------------------|------------------|-----------|
| ARECIBO OBSY        | 60               | 4/19/2017 |
| AIBONITO 1 S        | 61               | 4/20/2017 |
| RIO PIEDRAS EXP STN | 63               | 4/6/2017  |

Data is preliminary and has not undergone final quality control by the National Centers for Environmental Information / NCEI/. Therefore, this data is subject to revision. Report based on data received until May 6<sup>th</sup>, 2017.

*Puerto Rico Climate Record Period: 1940 to 2017*

*San Juan Metro Area Climate Record Period: 1898 to 2017 (Primary climatological site)*

*Cyril E. King Airport/St Thomas Climate Record Period: 1953 to 2017 (Primary climatological site)*

*Henry E. Rohlsen Airport/St Croix Climate Record Period: 1951 to 2017 (Primary climatological site)*