

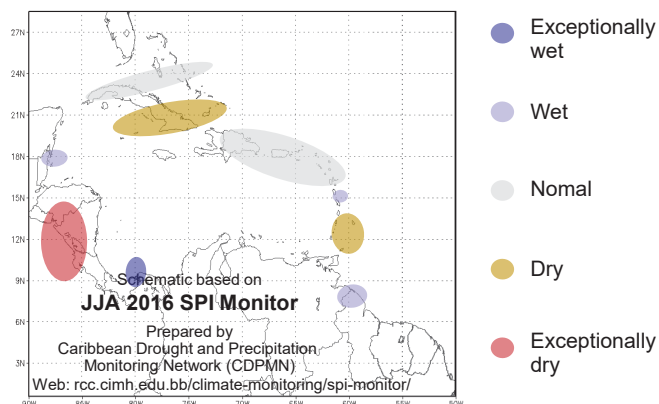
### BRIEF SUMMARY: JUNE TO DECEMBER 2016

June to August 2016 was warmer than usual throughout the Caribbean for that period. Given that humidity was higher and winds were quieter than earlier in the year, August in particular was uncomfortably hot at times. Most parts of the C'bean were at least reasonably wet in either June, July or August, bringing drought relief.

**October to December 2016:** We forecast above- to normal temperatures across the region. This, along with high humidity, means it may feel exceedingly hot until the end of October, especially during dry spells. Rainfall totals are likely to be above-normal or normal in much of the Antilles (albeit with much uncertainty in the Lesser Antilles), in Belize and in Guyana. With at least two months being in the wet season in all places, a particular concern is the real chance of experiencing extremely wet spells, with potential for flash flooding.

### LOOKING BACK:

#### June-July-August 2016 (JJA)



### Observations

- ♦ **RAINFALL:** **August:** Barbados, S Belize, Tobago very dry; E Dom. Republic, W Jamaica very wet. **July:** Haïti, Martinique, N. St. Lucia, Tobago very dry; W & Central Cuba, N Dom. Republic, Guyana very wet. **June:** Aruba, E & W Cuba, St. Maarten very dry; W Dom. Rep. very wet.
- ♦ **Temperatures:** **JJA:** 0.25-1.5 °C warmer than average.

### Notable Climate Records:

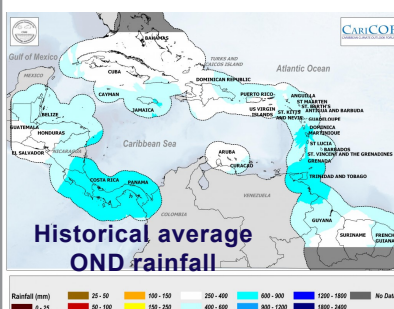
- ♦ **WET - JJA:** 1 location in Dom. Rep. (430% of avg., incl. record high rainfall in July), 1 in Guyana (175% of avg.)  
**August:** 2 territories had locations recording their highest rainfall.
- ♦ **DRY - August:** 4 territories had locations recording their lowest rainfall (20-45% of avg.), notably 3 locations in Barbados.
- ♦ **HOT - JJA:** 6, 4 & 2 territories had locations recording their highest min., mean or max. temp., resp.. Notably, Crown Point, Tobago broke all three records, as well as their max. temp. for June and mean temp. for July.

### Notable Impacts

- ♦ Tobago saw the return of water restrictions after extremely dry June to August period. Similarly, St. Lucy, Barbados saw signs of drying soils after an exceptionally dry month of August.

### WHAT NEXT?

#### Rainfall patterns October-November-December (OND)



#### Belize:

Oct to Dec - wet season. Frequent heavy showers.

#### C'bean Islands north of 16°N:

Oct - wet season. Frequent heavy showers.

Nov to Dec - transition to dry season. Decreasing shower frequency & intensity.

#### C'bean Islands south of 16°N (except ABC Islands):

Oct to Nov - wet season. Frequent heavy showers.

December - transition to dry season. Decreasing shower frequency & intensity.

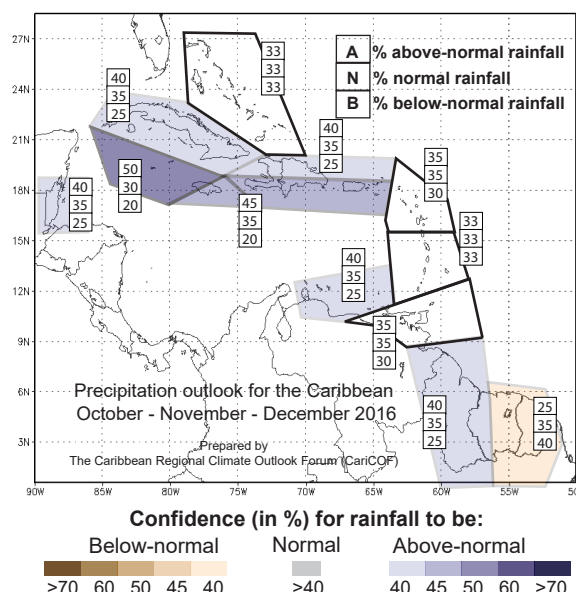
ABC Islands: frequent showers, occasionally heavy.

#### Guianas:

Oct - Dry season with heavy showers at times.

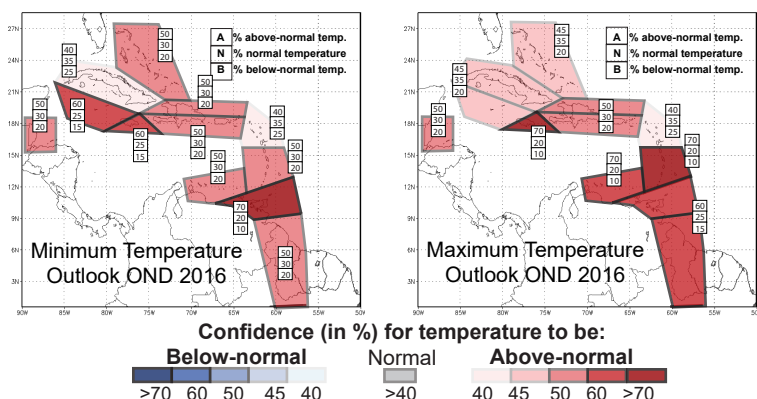
Nov to Dec - transition to wet season. Increase in showers.

### OND 2016 Rainfall Outlook



OND rainfall is likely to be above- to normal in the ABC Islands, Belize, the Greater Antilles and W Guianas, but below- to normal in E Guianas. There is low predictability elsewhere at this time.

## Min. and max. temperatures up to December



OND min. & max. temp. in the Caribbean are likely to be above- to normal.

## Wet days and wet spells up to December

### What usually happens from October to December?

- Number of wet days: roughly 30 to 50.
- Number of wet spells: roughly 3 to 5 (ABC Is: 3-9), of which 1 to 4 (ABC Is: 1-7) are very wet.
- Number of extremely wet spells: up to 2 (ABC Is up to 3).

### Forecast and Implications:

- More wet days in Greater Antilles & Leeward Islands: frequent rain disruptions in the wet season.
- Several wet spells: effective recharge of large water reservoirs.
- Up to 2 extremely wet spells: some flash flood potential developing.

## Drought conditions up to December

**Currently:** Most islands are seeing short- and long-term drought relief, but long-term drought is once more a concern in Tobago.

**(as of September 30)**

**Alert levels:** **Drought watch:** Central Bahamas.

**Long-term Concern:** **Drought warning:** Tobago. **Drought watch:** Barbados, St. Lucia, St. Vincent and Trinidad.

## BRIEF CLIMATE OUTLOOK - January to March 2017

Temperatures across the Caribbean are forecast to be much more comfortable than we experienced in recent months. There are indications (*medium confidence*) that the early dry season will be wetter than normal in the ABC Islands, Lesser Antilles and Guianas, but drier in the Bahamas, Cayman, Cuba and Jamaica. Rains may thereby delay surface dryness during the next dry season going into 2017.

For detailed temperature and precipitation outlooks for JFM 2017, please visit [rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/](http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/)

## What influences the next season?

### El Niño Southern Oscillation (ENSO)

**Recent observations:** In recent months, sea-surface temperatures (SSTs) in the equatorial eastern Pacific (NINO3.4) have decreased to 0.5°C below-average, which equates to borderline La Niña conditions.

**Model forecast and guidance:** A large majority of models suggest either borderline La Niña to remain or a slight transition to ENSO neutral conditions by October, with 50% confidence of ENSO neutral conditions in place for OND and JFM.

**Expected impacts on rainfall and temperatures:** Average circulation patterns during La Niña periods may also contribute to increased frequency of developing tropical storms. This, in turn, can contribute to higher rainfall totals.

### Climate conditions in the Tropical North Atlantic and Caribbean

**Recent observations:** SSTs 0.5°C above-average within the C'bean and the Tropical North Atlantic; trade winds were calmer than usual.

**Expected conditions:** Near normal SST anomalies are expected throughout the tropical N Atlantic by JFM; strength of trade winds is hardly predictable at seasonal time scales.

**Expected impacts:** A shift towards above- to normal rainfall is noted for much of the C'bean for JFM due to positive SST anomalies in the Caribbean Sea and Tropical North Atlantic. Those warmer temperatures enhance humidity in the region, which in turn can lead to increased rainfall. With Atlantic temperature forecast to return to normal as of JFM 2017, they will have minimal impact evaporation and local deep atmospheric convection, thus contributing to near normal rainfall totals.

## Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Regional Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre in demonstration phase, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region. For more information on how the outlooks are produced, please visit [rcc.cimh.edu.bb](http://rcc.cimh.edu.bb).

The Precipitation and Temperature Outlooks are issued in the form of a map, which shows regions where the forecast rainfall or temperatures have the same probabilities to be:

- |                  |   |
|------------------|---|
| Above-normal (A) | - within the wettest/hottest third of the historical record |
| Near-normal (N)  | - within the middle third of the historical record          |
| Below-normal (B) | - within the driest/coldest third of the historical record  |

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