

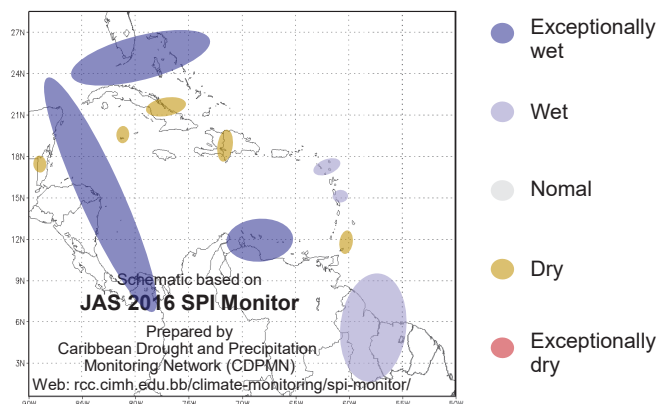
## BRIEF SUMMARY: JULY 2016 TO JANUARY 2017

July to September 2016 was warmer than usual throughout the Caribbean for that period. Given that humidity was high and winds were relatively quiet, August and September were uncomfortably hot at times. Most areas were at least reasonably wet (in some areas because of hurricane Matthew), bringing further drought relief.

**November to January 2016-'17:** We forecast above- to normal temperatures across the region. However, from November onwards, we no longer expect to feel exceedingly hot. Moreover, we are soon transitioning between wet season and dry season. This means above-normal to normal forecast rainfall for much of the region (except Bahamas, Belize, Cuba, and Lesser Antilles) may initially increase the potential for flooding and, during extreme wet spells, flash floods. This rainfall may in turn delay soil dryness in the upcoming dry season.

### LOOKING BACK:

#### July-August-September 2016 (JAS)



### Observations

- ♦ **RAINFALL: September:** Cayman and W Dom. Republic very dry; Barbados, E Guyana, St. Lucia, W Suriname very wet.
- ♦ **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.
- ♦ **Temperatures: JAS:** 0.25-1.5 °C warmer than average, except slightly below-avg. in Georgetown, Guyana.

### Notable Climate Records:

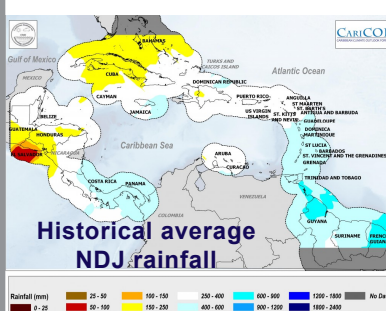
- ♦ **WET - JAS:** 1 location in Dom. Rep. (350% of avg.), 1 in Guyana (185% of avg.) **September:** Martinique had a location recording their highest rainfall.
- ♦ **DRY - JAS:** 1 location in French Guiana and 1 in Trinidad recorded their lowest rainfall (40-50% of avg.) **September:** 3 territ. had record dry locations.
- ♦ **HOT - JAS:** 7, 3 & 1 territories had locations recording their highest min., mean or max. temp., resp. Notably, Crown Point, Tobago broke all three records.

### Notable Impacts

- ♦ Tobago saw the return of water restrictions after extremely dry June to August period. Return of drought concern in Grand Cayman after 7 months of below-avg. rainfall.

### WHAT NEXT?

#### Rainfall patterns November-December-January (NDJ)



#### Guianas:

Nov to Jan - wet season. Frequent, heavy showers.

#### Belize:

Nov to Dec - wet season. Frequent heavy showers. January - dry season. Few heavy showers in some years.

#### C'bean Islands north of 16°N:

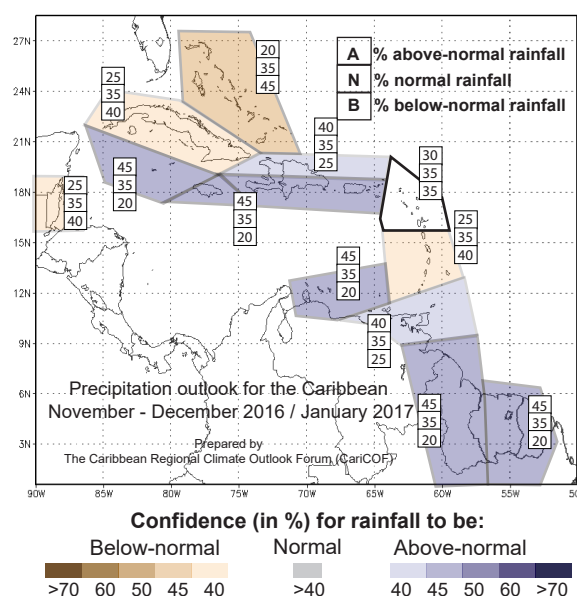
Nov to Dec - transition to dry season. Decreasing shower frequency & intensity. January - sunny days and some days with showers.

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

Nov - wet season. Frequent heavy showers. Dec to Jan - transition to dry season. Decreasing shower frequency & intensity.

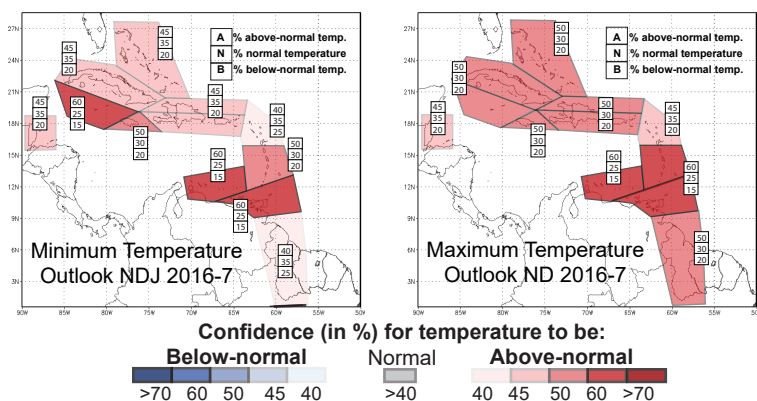
ABC Islands: wet season. Frequent heavy showers in most years.

#### NDJ 2016-'17 Rainfall Outlook



NDJ rainfall is likely to be above- to normal in the ABC Islands, Cayman, Guianas, Hispaniola, Jamaica, U.S. C'bean Territories and Trinidad & Tobago, but below- to normal in Bahamas, Barbados, Belize, Cuba, Windwards and Turks & Caicos. There is low predictability in the Leewards at this time.

## Min. and max. temperatures up to January



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

## Wet days and wet spells up to January

### What usually happens from November to January?

- Number of wet days: roughly 30 to 50.
- Number of wet spells: roughly 2 to 5 (ABC Is: 3-8), of which 1 to 3 (ABC Is: 1-6) are very wet.
- Number of extremely wet spells: up to 2 (ABC Is up to 3).

### Forecast and Implications:

- Less wet days in ABC Is., Barbados, Grenada, Guyana, Trinidad & Tobago; some rain disruptions.
- Several wet spells: effective recharge of large water reservoirs, especially while in the wet season.
- Up to 2 extremely wet spells: some flash flood potential developing, especially in ABC Is. & Guianas.

## Drought conditions up to January

**Currently:** Most islands are seeing short- and long-term drought relief, but long-term drought is once more a concern in Tobago.  
**(as of October 30)**  
**Alert levels:** **Drought watch:** south-western Belize, southern Haïti.  
**Long-term Concern:** **Drought warning:** Cayman Is. and Tobago. **Drought watch:** ABC Is., Anguilla, west-central Belize, French Guiana, Grenada, St. Maarten and Trinidad.

## BRIEF CLIMATE OUTLOOK - February to April 2017

Temperatures across the Caribbean are forecast to be much more comfortable than we experienced in recent months. FMA is usually the middle of the dry season in most Caribbean locations. There are indications (*medium confidence*) that the peak of the dry season will be wetter than normal in the ABC Islands, Lesser Antilles and Guianas, but drier in the Bahamas and Greater Antilles. Rains may delay surface dryness during early 2017.

For detailed temperature and precipitation outlooks for FMA 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 majority of models suggest either borderline La Niña to remain (50-60% confidence) by December, but return to ENSO neutral conditions by FMA (with 50% - 75%) confidence of ENSO.  
**Expected impacts on rainfall and temperatures:** Atmospheric circulation patterns during La Niña periods may contribute to increased frequency of developing storms and cyclones. This, in turn, can contribute to higher rainfall totals, both in the wet and dry season around the end of a calendar year and the start of the next calendar year. However, the opposite can be expected in the Bahamas and Cuba.

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

**Recent observations:** SSTs up to 0.5°C above-average within the C'bean and the Tropical North Atlantic east of the islands, but 1°C warmer north of the Greater Antilles; trade winds were at their usual strength.  
**Expected conditions:** Near normal SST are expected to return to the Caribbean Sea and further east by FMA; strength of trade winds is hardly predictable at seasonal time scales.  
**Expected impacts:** A probability shift towards above- to normal rainfall is noted for much of the C'bean for NDJ 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. This influence will tend to subside by FMA.

## 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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