

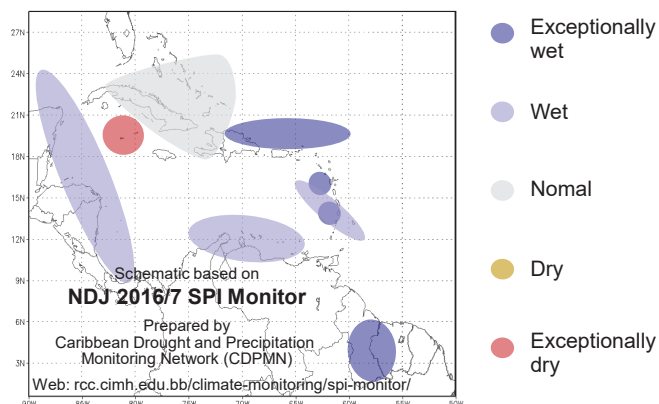
## BRIEF SUMMARY: November 2016 to January 2017

November 2016 to January 2017 was record wet in Dominica, northern Dominican Republic, Puerto Rico and St. Vincent, leading to recurrent flooding. Conversely, Grand Cayman was record dry, with persistent short-term and long-term drought there. Although temperatures were warmer than usual, they were generally comfortable.

**March to May 2017:** We are in the second part of the dry season. Since above-normal or normal rainfall is forecast in most places, the buildup of usual dry season impacts on water availability should be slower than usual, except in areas currently in drought (e.g. Cayman, parts of Cuba and Tobago). There will be limited flash flood potential, apart from a real chance in the Guianas and Greater Antilles in May. Finally, temperatures will be rising. Heat discomfort starts to appear in May, possibly including heat waves in Belize and Trinidad.

### LOOKING BACK:

#### November-Dec.-Jan. 2016-'17 (NDJ)



### Observations

- ♦ **RAINFALL:** *January:* SE Barbados, N Martinique very dry; S Guyana, SW Suriname very wet; *December:* Cayman, Cuba very dry; SE Belize, Dominica, Grenada, S Guyana very wet; *November:* Cayman, NW French Guiana very dry; Barbados, N Dom. Republic, Guyana, S Puerto Rico, St. Lucia, St. Vincent, Suriname very wet.
- ♦ **TEMPERATURES:** *NDJ:* warmer than average in most places, especially in Trinidad.

### Notable Climate Records:

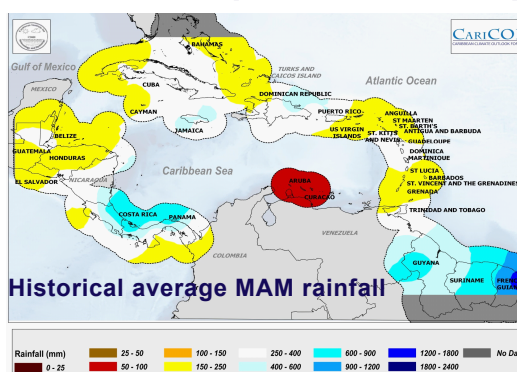
- ♦ **WET** - *NDJ:* 1 location in Dominica (165% of avg.), 11 in Dom. Rep. (180-305% of avg.), 1 in Puerto Rico (215% of avg.), 1 in St. Vincent (175% of avg.). *December:* 1 location in French Guiana.
- ♦ **DRY** - *NDJ:* Cayman (12% of avg.), 2 locations in Jamaica (35% of avg.). *December:* 1 location in Jamaica.
- ♦ **HOT** - *NDJ:* 3 & 2 territories had locations recording their highest min. & mean temp., resp.

### Notable Impacts

- ♦ Persistent long-term drought in Grand Cayman.
- ♦ Repeated flooding in St. Vincent & the Grenadines and Barbados after (near-)record rainfall in November.

### WHAT NEXT?

#### Rainfall patterns March-April-May (MAM)



#### Belize & C'bean Islands north of 16°N:

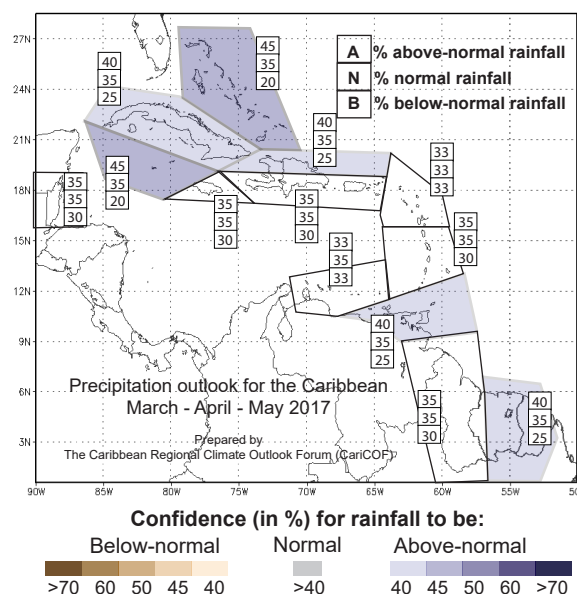
Mar to Apr - latter part of dry season; limited duration and area of heavy showers.  
May - transition to wet season.

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

Mar to May - second half of dry season; limited spatial extent and duration of heavy showers; April & May occasionally very wet.  
*ABC Islands: Mar to May generally dry.*

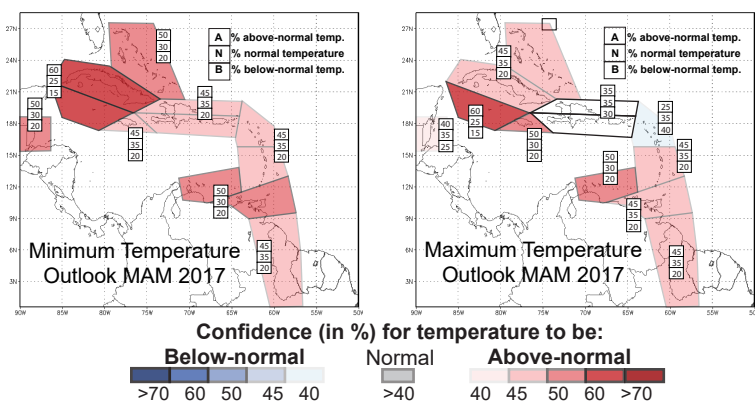
**Guianas:** Mar to May - transition to wet season; heavy showers more and more frequent.

### MAM 2017 Rainfall Outlook



MAM rainfall is likely to be above- to normal in the Bahamas, Cayman, Cuba, eastern Guianas, northern Hispaniola and Trinidad & Tobago. There is low predictability elsewhere at this time.

## Min. and max. temperatures up to May



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

## Wet days and wet spells up to May

### What usually happens from March to May?

- Number of wet days: roughly 15 to 30 (ABC Is: 10 or less; Guianas: 35 to 50).
- Number of wet spells: 1 to 3 (ABC Is: up to 1; Guianas: 2 to 5), of which 1 or 2 are very wet (ABC Is: up to 1; Guianas: 1 to 3).
- Number of extremely wet spells: up to 1.

### Forecast and Implications:

- Few rain disruptions of outdoor activities; increasing surface dryness.
- Few wet spells: little recharge of large water reservoirs.
- A chance of extremely wet spells in Greater Antilles: some flash flood concern there, especially in May.

## Drought conditions up to May

Currently:  
(as of December 31)

Alert levels:

Long-term Concern:

Short-term and long-term drought continues to be a concern in Cayman, long-term drought is also prevalent in N Belize, central Cuba and Tobago.

**Drought warning:** Cayman. **Drought watch:** Bahamas, central Belize, S Dom. Republic, Jamaica & NE Puerto Rico.

**Drought emergency:** Cayman. **Drought warning:** SE Belize, SE Puerto Rico and Tobago. **Drought watch:** N Bahamas, N Belize, E Cuba, Grenada, Jamaica, NW Puerto Rico and Trinidad.

## BRIEF CLIMATE OUTLOOK - July to August 2017

Temperatures across the Caribbean are forecast to gradually become more uncomfortable throughout the period. Heat discomfort will probably grow more slowly in the Windwards than at this time in the past couple of years. As the region enters the wet season, indications are (*low confidence*) that June to August may be slightly wetter than normal across the region. However, if an El Niño appears by then, drier weather may be in store.

For detailed temperature and precipitation outlooks for JJA 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) warmed from 0.5°C below-average, or borderline La Niña conditions, to near average or ENSO neutral.

**Model forecast and guidance:** A majority of models suggest warm-neutral ENSO conditions by MAM (with 65% - 85% confidence), and nearly the same chance of either ENSO neutral or El Niño by JJA.

**Expected impacts on rainfall and temperatures:** However, while ENSO conditions are neutral, little effect on rainfall or temperatures is expected. However, if El Niño manifests by JJA, odds are in favour of drier weather with less extreme rainfall than usual for the first half of the wet season.

### 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. SSTs in the far north-west of the region are far above average. Trade winds have been slightly stronger than usual over the Tropical North Atlantic.

**Expected conditions:** SSTs are expected to return to values closer to average in the Caribbean Sea and further east by JJA; strength of trade winds is hardly predictable at seasonal time scales.

**Expected impacts:** A slight probability shift towards above- to normal rainfall is expected for MAM as positive SST anomalies in the Caribbean Sea and Tropical North Atlantic tend to increase humidity over the region, which in turn can lead to increased rainfall. This influence may subside by JJA.

## 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/colest third of the historical record   |

## DISCLAIMER

The information contained herein is provided with the understanding that The Caribbean Climate Outlook Forum makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the Outlook. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.