## Rainfall frequency and extreme forecasts

# Wet days and Wet spells Outlooks May to July 2018

**Dr. Cedric VAN MEERBEECK**<sup>1</sup>, **Wazita Scott**<sup>1</sup>, Dr. Simon MASON<sup>2</sup>, Ángel MUÑOZ<sup>2</sup>, Dr. Teddy ALLEN<sup>2</sup>, Dale Destin<sup>3</sup>

<sup>1</sup>Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados <sup>2</sup>International Research Institute for Climate and Society (IRI), USA <sup>3</sup>Antigua and Barbuda Meteorological Services















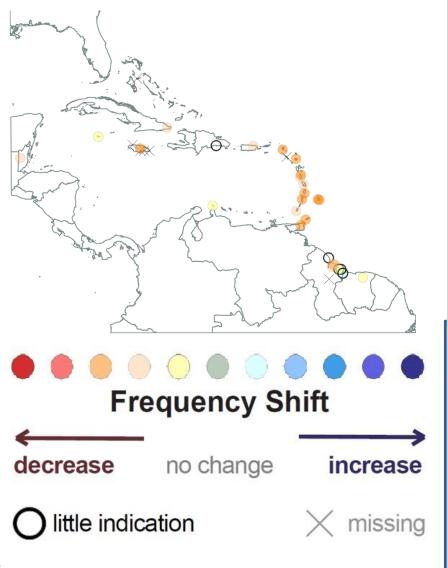
#### Precipitation outlook



## Wet day frequency shifts

Forecast for: May to July 2018

## MJJ 2018 Frequency of wet days



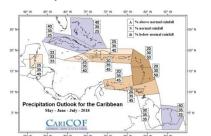
USUALLY: During May-June-July, about 25 to 40 days out of a total of 92 days are wet days in relatively flat areas in the islands, and 45 to 65 in mountainous areas and in coastal Guianas (ABC Islands: 5-15).

FORECAST: MJJ rainfall is likely to be above- to normal in the Bahamas, Cuba and eastern Guianas, but below- to normal in the ABC Islands, Belize, and most of the Antilles. The forecast indicates fewer wet days than usual (medium confidence).

#### **IMPLICATIONS:**

- Possible delay in the onset of the wet season in much of the islands.
- Surface wetness increasing slower than usual in the early wet season.
- Increasing frequency of rainfall disruptions of outdoor activities into the wet season.

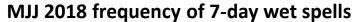
#### Precipitation outlook

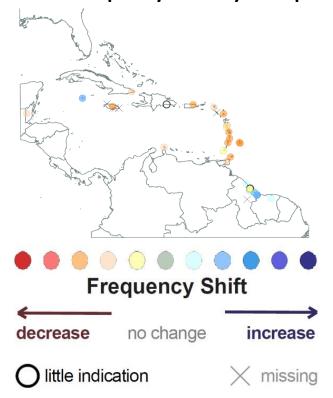




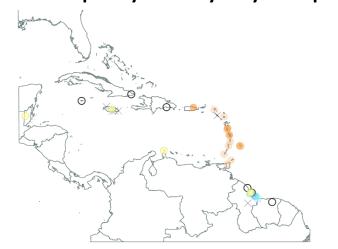
## Wet spells frequency shifts

Forecast for: May to July 2018





MJJ 2018 frequency of 7-day very wet spells



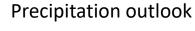
USUALLY: 1 to 5 wet spells (coastal Guianas: 4 to 7) occur from May to July, with 2 or 3 of them ending up very wet (ABC Islands: up to 1; coastal Guianas: 1 to 5).

FORECAST: MJJ rainfall is likely to be above- to normal in the Bahamas, Cuba and eastern Guianas, but below- to normal in the ABC Islands, Belize, and most of the Antilles. The forecast indicates fewer wet days, wet spells and very wet spells for much of the islands (mid confidence).

#### **IMPLICATIONS:**

- Recharge rates of large water reservoirs associated with the wet season potentially slower than usual.
- Flooding potential in Guianas in May & June associated with many very wet spells.

caricof@cimh.edu.bb





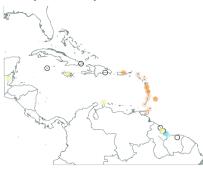
#### Wet days outlook



Wet spells outlook



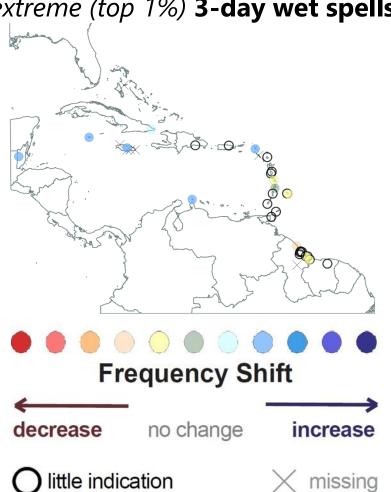
Very wet spells outlook



## **Extreme wet spells frequency shifts**

Forecast for: May to July 2018

MJJ 2018 frequency of extreme (top 1%) 3-day wet spells



USUALLY: Up to 1 extreme wet spell occur between May to July (Guianas: up to 2).

FORECAST: MJJ rainfall is likely to be aboveto normal in the Bahamas, Cuba and eastern Guianas, but below- to normal in the ABC Islands, Belize, and most of the Antilles. The forecast indicates fewer wet days, wet spells and very wet spells for much of the islands (mid confidence), as well as extreme wet spells in Barbados, Martinique and St. Lucia (low to medium confid.).

By contrast, an increase in the number of extreme wet spells is forecast in Aruba, Belize, parts of the Greater Antilles and the northern Leewards (low to medium confid.).

IMPLICATION: Flash flood potential is becoming a concern across the region, especially in Belize, Jamaica and St. Maarten.



caricof@cimh.edu.bb
rcc.cimh.edu.bb
Caribbean Institute for Meteorology and Hydrology
TEL: (246) 425-1362/3 | FAX: (246) 424-4733