













# **Caribbean Climate Outlook Newsletter**

April to June 2018

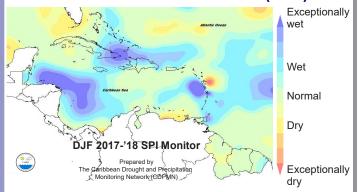
# BRIEF SUMMARY: December 2017 to June 2018

December 2017 to February 2018: Most areas observed at least the usual rainfall totals, which were extremely high in eastern Cuba, western Dominica, northern Hispaniola and southern Martinique. As a result, long-term drought is presently only of concern at few locations. This cool season was the coolest in many years for many.

April to June 2018: During the transition from the dry season to the wet season, the northwestern Caribbean may be wetter than usual, but the ABC Islands and the Lesser Antilles drier than usual. While drought should not be a major concern in the region by the end of the dry season (except in southeastern Haiti), dry spells may form a risk for farmers throughout the islands and Belize. From May onwards, heat discomfort will gradually increase in the islands, with the possibility of heatwaves. Frequent incursions of Sahara dust may be noted.

## **LOOKING BACK:**

# Dec. - Jan. - Feb. 2017-'18 (DJF)



## Observations

#### RAINFALL:

February: Aruba, W Bezlie, Curacao, Grenada, northern Dom. Republic, and southern Martinique; N Bahamas and S Jamaica very dry. January: Much of the Bahamas, Eastern and Central Cuba, Dominica, Dom. Republic, Grenada, Haïti, Tobago very wet. **December:** W Cuba, Guadeloupe, W Guyana very dry; Dominica, portions of French Guiana, S Jamaica, Martinique, St Lucia, Trinidad, Tobago very wet.

## **TEMPERATURES**:

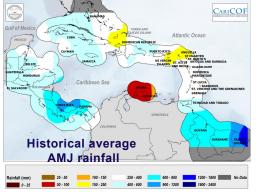
**DJF:** warmer than average in most places, especially in central Bahamas and St. Maarten (>1.5°C above avg.); slightly cooler than average in parts of Barbados, southern Belize, Grenada, St. Vincent and the Grenadines, and parts of eastern Suriname.

#### Notable Climate Records:

- WET DJF: 2 locations in Belize recorded their highest rainfall totals on record (~160-193% of avg.), 7 in Dom. Republic (~210-415% of avg.), 3 in Martinique (~190-215% of avg.). February: 1 in Belize, 1 in Dominica, 4 in Dom. Republic, 2 in Martinique.
- DRY February: 1 location in Jamaica (~15% of avg.)
- HOT DJF: 1 location in Belize recorded its highest minimum temperature. Haiti recorded its highest maximum temp. (incl. also a record warmest month of February).

## **WHAT NEXT?**

# Rainfall patterns April-May-June (AMJ)



ABC Islands: Apr to Jun - mostly dry.

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

Apr - end of the dry season. Limited spatial extent and duration of heavy

May & Jun - usually frequent heavy showers.

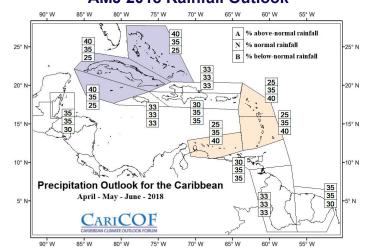
#### C'bean Islands south of 16°N (except ABC Islands):

Apr to May - end of dry season. Limited spatial extent and duration of heavy showers; occasionally very

Jun - onset of wet season. Increasingly heavy showers.

Guianas: Apr to Jun - transition to wet season; heavy showers more and more frequent.

# **AMJ 2018 Rainfall Outlook**



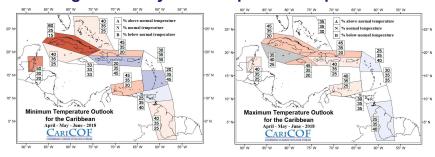
#### Confidence (in %) for rainfall to be:



AMJ rainfall is likely to be above- to normal in The Bahamas, Cayman, Cuba, but below- to normal in the ABC Islands, and the Lesser Antilles. White areas indicate where the current forecast indicates little information on total rainfall.

## More on the climate outlook

## Night- and day-time temperatures up to June



Confidence (in %) for temperature to be:

| Normal | Above-normal | >70 60 50 45 40 | >40 45 50 60 >70

AMJ night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be above- to normal; but below- to normal in C'bean Terr. & Lesser Antilles at night, and Guyana & Leewards in the day.

# **April to June 2018**

## Wet days and wet spells up to June

## What usually happens from April to June?

- Number of wet days: roughly 25 to 40, (ABC Is. 10 or less; Guianas: 45-60).
- # of wet spells: 1 to 4 (ABC Is. up to 2; Guianas: 3 to 6), of which 1 or 2 are very wet (ABC Is. up to 1; Guianas: 1 to 4).
- # of extreme wet spells: up to 1 in most locations (Guianas: up to 2).

## **Forecast and Implications:**

- Flash flood and long-term flooding potential from very wet and extreme spells becoming a concern, esp. in May (Greater Antilles and Guianas) and June.
- Surface dryness increasing as usual along the dry season, with relatively few rain disruptions.
- Limited recharge of large water reservoirs up until April (Greater Antilles and Guianas) or May due the usual small # of wet spells during the dry season.

## **Drought conditions up to June**

Drought situation: Southeastern Haïti is under a long term drought, while short term drought is seen in northwestern Guyana.

(as of 1 March, 2018) Shorter term outlook:

Shorter term drought is evolving in coastal Suriname, and might possibly develop in other portions of the Guianas.

Long term concern: (by 31 May, 2018)

Long term drought is evolving in southeastern Haiti, and may possibly develop in ABC Is., Antigua, W Cuba, northern &

southeastern Belize, coastal portions of French Guiana, St. Maarten and portions of eastern Suriname.

# **BRIEF CLIMATE OUTLOOK - July to September 2018**

The period is expected to be accompanied by uncomfortable heat for many, with the likely occurrence of heatwaves across the region. However, first indications are that much of the Greater Antilles may face less extreme summer heat than in previous years.

The precipitation outlook trends to a usual or a drier than usual period in Barbados, Belize, Trinidad and Tobago and the Windwards, but at least as wet as usual in the Greater Antilles and the Guianas (which are set to enter their long dry season in August).

For detailed temperature and precipitation outlooks for MAM 2018, please visit rcc.cimh.edu.bb/climate-outlooks/

#### What influences the next season?

#### El Niño Southern Oscillation (ENSO)

Recent observations: Cooler than usual sea-surface temperatures (SSTs) of around 0.8°C below average have been in place in the equatorial eastern Pacific (NINO3.4), meaning weak La Niña conditions are in place.

Model forecast and guidance: A majority of models suggest a return of ENSO neutral conditions for AMJ (~60-75% confidence), and those neutral conditions would remain for JAS (~50% confidence).

Expected impacts on rainfall and temperatures: In some years following a La Niña, the wet season in the islands may start late, thus slightly increasing chances of drier than usual conditions in AMJ.

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

Recent observations: SSTs Tropical North Atlantic (TNA) and Caribbean Sea SSTs have very recently hovered around average in most areas, but warmer still to the north of the islands and, by contrast, significantly cooler than average off the coast of West Africa..

Expected conditions: Most models indicate a continuation of near-average SSTs east of the Caribbean and in the Caribbean Sea, but below average offshore West Africa. However, unusual and persistent warmth to the extreme north of the region is forecast for AMJ and JAS.

Expected impacts: With near average SSTs around the region and below-average SSTs off of West Africa, slightly below-average humidity and atmospheric instability is expected, tilting the odds towards usual or slightly drier conditions, particularly in the Lesser Antilles.

## 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.

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

#### **DISCLAIMER**

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