CARICOF
CARIBBEAN CLIMATE OUTLOOK FORUM

Caribbean Climate Outlook Newsletter

August - October 2017

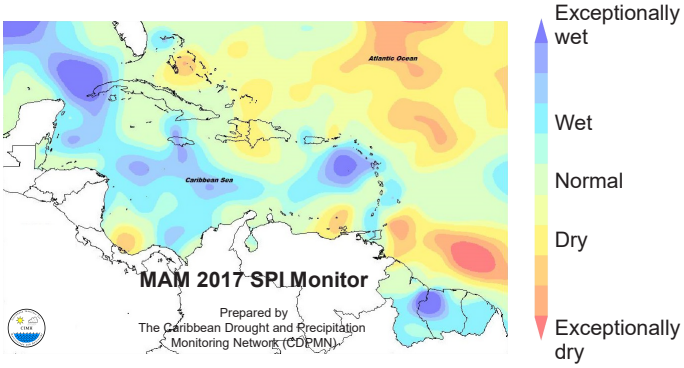
BRIEF SUMMARY: April to October 2017

Throughout much of the region, April to June 2017 marked the usual transition from the dry to the wet season. Temperatures gradually warmed, with humidity rising. At least the usual amount of rainfall was seen in most places, with record rainfall totals in Jamaica, incl. an extreme wet spell, leading to severe flooding. By contrast, drought is becoming a concern in parts of Haiti following the driest and warmest April-May-June on record.

August to October 2017: The wettest time of the year is forecast to be at least as wet as usual in most Caribbean countries with the potential for flash flooding due to extreme wet spells. However, the Guianas are entering their hot, dry season. The entire region is set to face an enhanced health risk due to excessive heat, incl. heatwaves and favourable environmental conditions for mosquito breeding and moisture related pests.

LOOKING BACK:

April-May-June 2017 (AMJ)



Observations

- **RAINFALL**: ***June:*** parts of Barbados, W Cuba, N Dominica, Grenada, Guadeloupe, S Jamaica, W Puerto Rico, St. Kitts, NW Suriname and Trinidad very wet. ***May:*** Cayman and W Dominican Republic very dry; NW Suriname very wet. ***April:*** NW Belize, NE Trinidad, Tobago very dry; east Belize, Cayman, Cuba, Dom. Rep. and St. Croix very wet. ***March:*** Dominica, N Dom. Rep., interior of Guianas, NE Puerto Rico, Tobago and US Virgin Islands very wet.
- **TEMPERATURES**: ***AMJ:*** warmer than average, especially in Bahamas, Jamaica and Windwards (>0.75ºC above avg.). Exceptions are Antigua, parts of the Guianas, and St. Kitts.

Notable Climate Records:

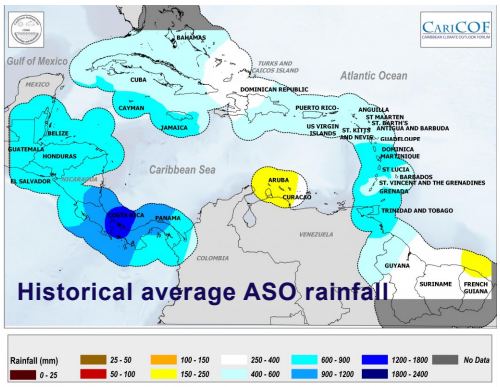
- **WET** - ***AMJ:*** 4 locations Jamaica (230-260% of avg.). ***June:*** 1 location in Grenada, 3 in Guyana, 1 in Trinidad.
- **DRY** - ***AMJ:*** 1 location in Haïti (35% of avg.).
- **HOT** - ***AMJ***: 1 location in Haïti recording its record highest maximum (as well as June max. and min. temperatures), 1 location in The Bahamas recording its record higest mean temperature.

Notable Impacts

- Severe flooding in Jamaica after an extreme wet spell in mid-May, inundating farming communities in Cave Valley and in Clarendon, St. Anne, where 2 persons needed rescuing.

WHAT NEXT?

Rainfall patterns August-September-October (ASO)



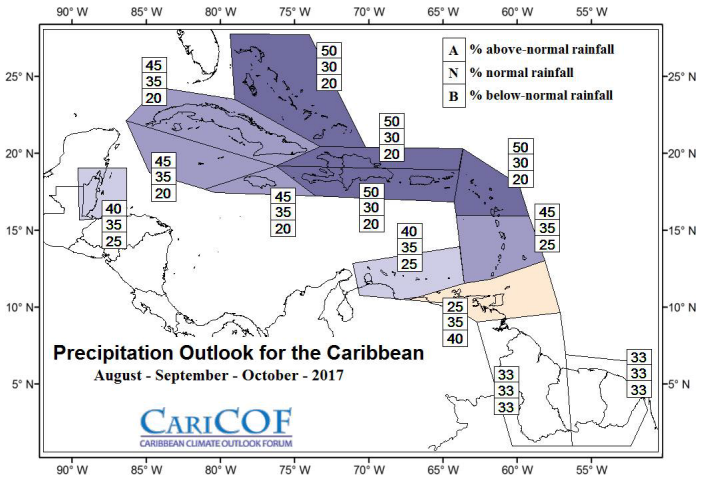
Belize & C'bean Islands north of 16ºN:
Aug - wet season. Often incl. a mid-summer dry spell.
Sep to Oct - wet season. Usually frequent heavy showers.

C'bean Islands south of 16ºN (except ABC Islands):
Aug to Oct - wet season. Usually frequent heavy showers.

ABC Islands: mostly dry with occasional wet spells.

Guianas:
Aug - long wet season. Heavy showers are frequent. Sep to Oct - dry season. Heavy showers at times.

ASO 2017 Rainfall Outlook

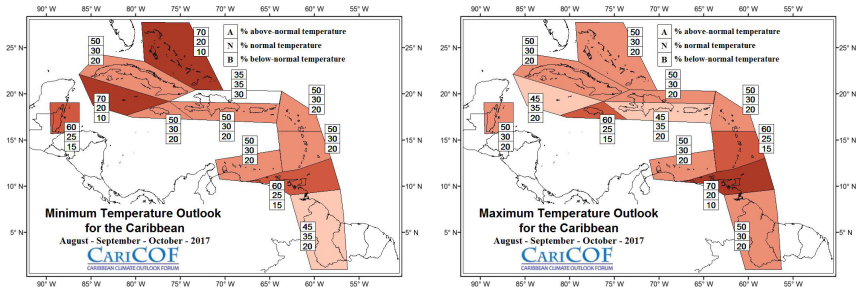


Confidence (in %) for rainfall to be:

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

ASO rainfall is likely to be above- to normal in the Antilles (except Trinidad & Tobago), The Bahamas and Belize, but below-normal in Trinidad & Tobago. There is low predictability in the Guianas at this time.

Night- and day-time temperatures up to October



Confidence (in %) for temperature to be:

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

ASO night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be above- to normal.

Wet days and wet spells up to October

What usually happens from August to October?

- Number of wet days: roughly 35 to 50 (ABC Is: 10 to 20; coastal Guianas: 15 to 30).
- Number of wet spells: 3 to 6 (coastal Guianas: 1 to 3), of which 1 to 4 are very wet (coastal Guianas: up to 2).
- Number of extremely wet spells: up to 2 (Guianas: none).

Forecast and Implications:

- Flash flood concern from possible extremely wet spells.
- Frequent rain distruptions of outdoor activities.
- Wetter surface makes environmental conditions more conducive to mosquitoes & moisture related pests.
- Recharge of large water reservoirs related to wet spells.
- Guianas experiencing their main dry season.

Drought conditions up to October

Drought situation: *(as of July 1)*	Central parts of The Bahamas, extreme S & NW Belize, Grand Cayman, central Cuba and Turks & Caicos Islands are in long term drought. Central & N Bahamas and the TCI are in shorter term drought as well.
Shorter term outlook:	Shorter term drought is evolving in Haïti and might persist in The Bahamas by the end of October.
Long term concern:	Long term drought is evolving in central Bahamas and might develop in N Bahamas.

BRIEF CLIMATE OUTLOOK - November 2017 to January 2018

Night- and day-time temperatures across the Caribbean are forecast to return to comfortable levels for most, although above- to normal temperatures, combined with high humidity might still bring some discomfort in November, especially in the Guianas. Further indications are that November to January may be wetter than usual or usual throughout the Caribbean, and a productive wet season is on forecast for the ABC Islands and the Guianas.

For detailed temperature and precipitation outlooks for NDJ 2017-'18, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: In recent weeks, sea-surface temperatures (SSTs) in the equatorial eastern Pacific (NINO3.4) were at borderline neutral to weak El Niño level (+0.5°C).

Model forecast and guidance: Most models, suggest temperature anomalies to remain slightly positive by ASO and NDJ, favouring neutral (50-60% confidence) over weak El Niño (around 35% confid.)..

Expected impacts on rainfall and temperatures: The ongoing ENSO neutral state will have little effect on rainfall or temperatures. However, in unlikely event that El Niño does manifest, odds are in favour of hotter conditions and less hurricane activity than usual in the later part of the season, as well as drier weather with less extreme rainfall in the south and east of the region.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs Tropical North Atlantic (TNA) SSTs east of the Caribbean have warmed significantly, especially near the west African coast, to 0.5-1°C above average. By comparison, SSTs are now 0-0.5°C above avg. in the Caribbean Sea as well as in the TNA north of the islands.

Expected conditions: Either sustained positive anomalies, or a gradual return to values close to average in the eastern TNA by NDJ.

Expected impacts: Warm SSTs east of the Caribbean may lead to above-average humidity and atmospheric instability in the wet season, which tilts the odds towards a wetter second half of the wet season, a more intense peak of the hurricane season, warmer air temperatures, and more heatwaves, especially during dry spells.

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