



Caribbean climate outlook May to July 2014

CariCOF - The Caribbean Climate Outlook Forum

WHAT HAPPENED?

January to March 2014 (JFM)

Wet in Bahamas, Cuba, Cayman, Grenada, Jamaica and Guianas; dry in ABC Islands and Leeward Islands

+ impacts

little heat stress on humans, plants & animals, drought relief in Grenada

- impacts

little sun for Bahamas tourists, local water shortages

Notable climate events

- None reported.

Summary

- January wet in Bahamas, Barbados, Belize, Grenada, St. Lucia, Trinidad and parts of Guianas, dry in ABC Islands & SW Leewards; February wet in Cuba and Grenada, dry in Antigua, Guadeloupe and St. Kitts; March wet in Grand Cayman and Jamaica, dry in Leeward Islands.

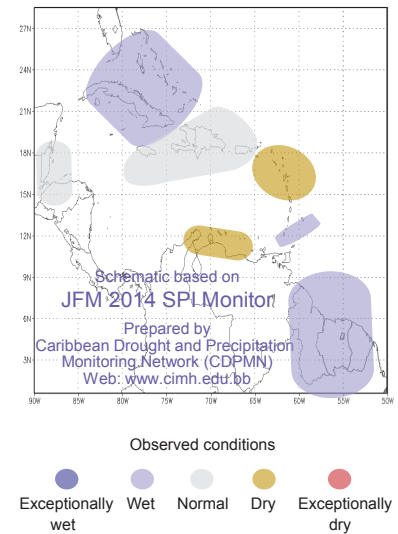
- Mild throughout, above-average temperature in north-west.

Headline Impacts

- Dry conditions in Antigua contributed to very low water levels in the country's largest freshwater reservoir.

- Dry conditions in St. Lucia resulted in the John Compton Dam running at half its capacity.

JFM 2014 Precipitation



WHAT NEXT?

May - June - July (MJJ) 2014

Consensus Outlook

Possible delayed start of wet season in E Caribbean, wet in NW, dry in ABC Islands; hot across the region

+ impacts

risk of flooding in E Caribbean not high

- impacts

increasing heat stress, risk of flooding, pests and diseases in NW; potential water shortages in ABC Islands

Our typical MJJ rainfall patterns

1. Belize:

MAY transition to wet season, heavy rainfall in some years;

JUN+ wet season, frequent heavy rainfall.
JUL

2. Islands north of 16°N:

MAY start of wet season, some heavy rainfall in most years;

JUN wet season, frequent heavy rainfall;
JUL wet, but usually drier than June.

3. Islands south of 16°N:

MAY dry season; alternation of sunny and showery days, heavy rainfall in some years; high elevations wetter;

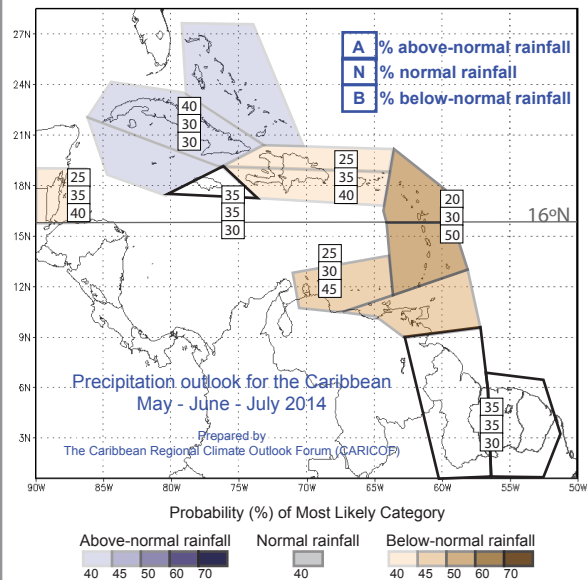
JUN+ wet season, some heavy rainfall in most years.
JUL

Note ABC Islands mostly dry.

4. Guianas:

MAY+ Wet season in North; frequent heavy
JUN+ rainfall;
JUL

MJJ 2014 Precipitation Outlook



MJJ rainfall in the Caribbean islands is likely to be below-normal from Hispaniola south- and eastward, but above-normal to the west and north; below-normal in Belize; but hardly predictable in the Guianas.

<<< see outlook discussion on page 2 >>>

Climate outlook

May - June - July

Rainfall **Barbados, Leeward Islands, Windward Islands:** below- to normal; confidence 80%. **ABC Islands, Trinidad and Tobago:** below- to normal; confidence 75%. **Belize, Hispaniola, Puerto Rico, Virgin Islands:** below- to normal; confidence 75%. **Bahamas, Cayman, Turks and Caicos:** above- to normal; confidence 70%. **Jamaica, Guianas:** above- or normal; confidence 70%.

Temperature **Belize, Guianas:** above-normal; confidence 60%. **Antilles:** above- to normal; confidence 80%. Bahamas: above- to normal; confidence 75%.

August - September - October

(ASO precipitation outlook map available at www.cimh.edu.bb/?p=precipoutlook)

Rainfall **Guianas:** below- to normal; confidence 80%. **ABC Islands, Barbados, Windward Islands:** below- to normal; confidence 75%. **Leeward Islands:** below- to normal; confidence 75%. **Greater Antilles:** below- to normal; confidence 70%. **Bahamas, Belize, Turks and Caicos:** below- or normal; confidence 70%.

Temperature **Guianas:** above-normal; confidence 70%. **Antilles, Belize:** above-normal; confidence 60%. **Bahamas:** above- to normal; confidence 80%.

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: ENSO neutral; sea-surface temperatures (SSTs) warming to above average in the equatorial eastern Pacific (NINO3.4).

Model guidance: a majority indicate upward trend to 0.5-1.5°C above average in ASO, initiating an El Niño event potentially as early as MJJ.

Forecast: neutral ENSO conditions for MJJ with 53% confidence and 45% for El Niño, >50% confidence in El Niño onset by JJA.

Expected impacts on rainfall and temperatures: real chance for a shift to below-normal rainfall south of 20°N for MJJ, including a delay of onset of wet season, increasing substantially into ASO; a small shift to above-normal rainfall is suggested further north.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs 0.5-1.5°C above average (that is near-record warm) around the northern islands, below-average to the east of the Antilles; trade winds slightly above average strength; atmospheric moisture below average.

Expected conditions: above average SSTs forecasted to remain in the north; rise in SST to slightly below-average expected to the east of the islands by ASO; atmosphere expected to contain little moisture during dry season, gradually increasing into June-July, which marks the usual onset of the wet season (except in the ABC Islands); trade winds expected to possibly remain stronger than average, especially over the ABC Islands in ASO.

Expected impacts: warm SSTs from around the Cayman Islands to far north-east of the Bahamas expected to shift rainfall somewhat to above-normal there. The cool Atlantic temperatures slow down strong convection, thus potentially reducing the severity of storm-related property damage. The signal is for decreased precipitation especially in the E Caribbean.

Precipitation outlook - 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.

This consensus outlook is produced by combining global, regional and national forecasts and expert interpretation. National and region-wide forecasts produced using the Climate Prediction Tool (CPT) are considered together with global dynamical climate models. Global forecasts that are examined include those from the IRI, the U.K. Met Office, ECMWF, Météo-France, the WMO LRF-MME and the APCC.

Probabilities for three-month rainfall totals are estimated for sub-regions based on the model outputs, the level of agreement between the different models and expert knowledge of the regional setting.

The Precipitation Outlook is issued in the form of a map, which shows regions where the forecast rainfall has the same probabilities to be:

- Above-normal (A) - within the wettest third of the historical record
- Near-normal (N) - within the middle third of the historical record
- Below-normal (B) - within the driest third of the historical record

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