WHAT HAPPENED?

Notable climate events

- May near-record dry in Barbados with 8.1mm and 10.3mm at the two main weather stations.
- No rainfall from June up until mid-July in many places in southern Jamaica.

Summary

- May dry in Grenada, St. Lucia and St. Vincent and very dry in Barbados, eastern Guyana; wet in US territories. June dry in Barbados, Grenada and St. Lucia and very dry in Jamaica and St. Croix; very wet in Western Guyana. July very dry in Belize, Cuba, Jamaica and the Leeward Islands, dry in the southern Caribbean islands; wet in northern Guyana.
- Increasingly hot at night from May to July, near to above-average temperatures across the Caribbean.

Headline Impacts

- Drought severely affected parts of (i) Jamaica, with US$3000/month spent on trucking water to Claredon residents, elevating food prices; (ii) Antigua, where water supplier SembCorp will provide 200,000 additional gallons daily; (iii) St. Lucia, where government declared a water crisis.
- Hundreds of acres of farmland in St. Elizabeth, Jamaica were destroyed by fire which worsened due to severe drought conditions.

WHAT NEXT?

Consensus Outlook

Wet season in most islands possibly drier than usual, ABC Islands dry; hot across the region

+ impacts
little water-bourne diseases outbreaks

- impacts
growing water shortage in Haiti, Jamaica and Eastern Caribbean; increasing heat stress

Our typical SON rainfall patterns

1. Belize:
   SEP + wettest months, most frequent tropical, storms, hurricanes and extreme rainfall events
   OCT wet, less frequent tropical storms and hurricanes
   NOV wet, less frequent tropical storms and hurricanes

2. Islands north of 16°N:
   SEP + wettest months; most frequent tropical storms, hurricanes and extreme rainfall events
   OCT wet, occasional tropical storm or hurricane
   NOV wet, occasional tropical storm or hurricane

3. Islands south of 16°N:
   SEP wet, frequent heavy rainfall; most frequent tropical storms and hurricanes
   OCT wettest month, frequent heavy rainfall, frequent tropical storms and hurricanes
   NOV wet, frequent heavy rainfall, occasional tropical storm or hurricane

Note The ABC Islands are in the latter part of their dry season, very little rainfall

4. Guianas:
   SEP + dry season, frequent dry spells, occasional tropical storm or hurricane
   OCT + heavy rainfall

SON 2014 Precipitation Outlook

SON rainfall in the Caribbean is likely to be below- to normal with the highest confidence in Belize. Note that it is hardly predictable at present in the Bahamas and the Turks and Caicos Islands, Trinidad and Tobago and the Guianas.
### SEPTEMBER 2014 TO FEBRUARY 2015

#### CLIMATE OUTLOOK

**September - October - November**

<table>
<thead>
<tr>
<th>Rainfall</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Islands, Barbados, Cayman, Cuba, Jamaica, Windward Islands: below-normal; confidence 75%.</td>
<td></td>
</tr>
<tr>
<td>Hispaniola, Puerto Rico, US Virgin Islands, Leeward Islands: below-normal; confidence 70%.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Islands, Barbados, Cayman, Jamaica, Trinidad &amp; Tobago, Windward Islands: above-normal; confidence 80%.</td>
<td></td>
</tr>
<tr>
<td>Belize, Guianas, southern Hispaniola, Leeward Islands, Puerto Rico, US Virgin Islands: above-normal; confidence 75%.</td>
<td></td>
</tr>
</tbody>
</table>

**Drought conditions May to October**

- **Drought situation:** Southern Jamaica, Antigua, St. Lucia and Trinidad & Tobago have suffered water shortages.
- **Drought alert levels:**
  - **Drought warning:** drought is evolving over Belize, Jamaica, Antigua, Dominica, Martinique, St. Lucia, St. Vincent, Barbados, Trinidad & Tobago, northern Guyana. Be prepared.  
  - **Drought watch:** nearly all other areas. Keep updated.
- **Long-term concern:** Reduced water availability in the dry season, especially in Belize, Jamaica, Eastern and Southern Caribbean.

**December - January - February**

<table>
<thead>
<tr>
<th>Rainfall</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Islands, Barbados, Guyana, Trinidad &amp; Tobago, Windward Islands: below-normal; confidence 75%.</td>
<td></td>
</tr>
<tr>
<td>Suriname: below-normal; confidence 75%.</td>
<td></td>
</tr>
<tr>
<td>Bahamas, Cuba, northern Hispaniola, Turks &amp; Caicos: above-normal; confidence 70%.</td>
<td></td>
</tr>
<tr>
<td>Leeward Islands: below-normal; confidence 70%.</td>
<td></td>
</tr>
<tr>
<td>Elsewhere: above-normal; confidence 70%.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Islands, Barbados, Belize, Cayman, eastern Guianas, southern Hispaniola, Jamaica, Leeward Islands, Puerto Rico, Trinidad &amp; Tobago, US Virgin Islands, Windward Islands: above-normal; confidence 80%.</td>
<td></td>
</tr>
<tr>
<td>Western Guianas: above-normal; confidence 75%.</td>
<td></td>
</tr>
<tr>
<td>Elsewhere: no forecast issued.</td>
<td></td>
</tr>
</tbody>
</table>

#### WHAT INFLUENCES THE NEXT SEASON?

**El Niño Southern Oscillation (ENSO)**

**Recent observations:** ENSO neutral; sea-surface temperatures (SSTs) were 0-0.5°C above average in equatorial eastern Pacific (NINO3.4).

**Model guidance:** a majority indicate upward trend to 0.5-1.5°C above average for SON and DJF, or a weak to moderate El Niño event.

**Forecast:** 60% confidence in El Niño conditions by SON, 67% confidence in El Niño during DJF.

**Expected impacts on rainfall and temperatures:** a shift to higher probabilities for below-normal rainfall and higher temperatures south of 20°N for SON and, especially, DJF.

#### CLIMATE CONDITIONS IN THE TROPICAL NORTH ATLANTIC AND CARIBBEAN

**Recent observations:** SSTs around to below-normal in the Caribbean Sea and Tropical North Atlantic; trade winds around average since April.

**Expected conditions:** Not much change in SST is expected except slight warming north of the Greater Antilles; trade winds strength is hardly predictable, but might return to stronger than average, especially over the ABC Islands in DJF.

**Expected impacts:** Cooler Atlantic temperatures this wet season (compared to previous years) slow down deep atmospheric convection, potentially reducing the severity of storm-related property damage. The signal is for decreased precipitation especially in the eastern Caribbean.

#### PRECIPITATION AND TEMPERATURE 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 and average temperatures 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/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

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.

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*Aug 2014* find out more at cimh.edu.bb/roc and cimh.edu.bb/?p=precipoutlook or e-mail cmeerbeeck@cimh.edu.bb