



A Joint Bulletin of the CTO, the CHTA and the CIMH

CARIBBEAN TOURISM CLIMATIC BULLETIN

for Tourism Businesses and Policymakers

Sept-Oct-Nov 2019 | Vol 3 | Issue 3





Purpose

This Bulletin is a joint effort between the Caribbean Tourism Organization (CTO), the Caribbean Hotel & Tourism Association (CHTA) and the Caribbean Institute for Meteorology and Hydrology (CIMH) to help tourism businesses and policymakers identify and prepare for favourable or inclement climate conditions in the Caribbean and source markets, before they occur. It is recommended that industry stakeholders use the seasonal climate forecast information for the upcoming period (September-November 2019) presented in this Bulletin in tandem with weather forecasts (1-7 days). This suite of information can inform strategic and operational decisions related to the use of environmental resources, marketing, and enhancement of the visitor experience.

Table of Contents

Looking back: May-July 2019	Page 3
Climate advisories: Caribbean	Page 4
Climate advisories: Caribbean source markets	Page 7
Climate outlook for the Caribbean	Page 8
Climate outlook for Caribbean source markets	Page 9
Upcoming events and contact information	Page 10
Glossary	Page 11

Looking back: May - July 2019



Short term drought has developed across the ABC Islands, Belize, parts of Hispaniola, Trinidad, Turks & Caicos. At the same time, Aruba, southern Belize, easternmost Cuba, southern- and easternmost Dominican Republic, parts of French Guiana, Haiti, the northern Leewards, Martinique, northern Trinidad, and the US Caribbean Territories are in **long term drought**. By contrast, the northwestern Bahamas and western Guyana have been very wet.



With the period forming the first half of the Caribbean heat season, **temperatures** have remained high. The Bahamas, Belize, Cayman, western & central Cuba, western Jamaica, Martinique and Trinidad were significantly warmer than average, with all-time high temperature records broken in June in Cuba and Jamaica, each nearing 40 °C. By contrast, Antigua, parts of Dominica and Guadeloupe were significantly cooler than average.

Climate Advisories: Caribbean

September through November marks: 1) the late wet season in Belize and the Caribbean Islands, 2) the transition to the wet season in the ABC Islands, and 3) the dry season in the Guianas. What should you do?



The **2019 Atlantic Hurricane Season officially lasts until November 30th**, with the peak of tropical cyclone activity typically lasting until around mid-October, but storms and hurricanes have occurred after the official end date. Severe weather systems, which can come with a range of hazards, including high winds, landslides, flash floods, coastal flooding, storm surge among others, are expected to affect Caribbean territories. It should be noted that **the second half of the Atlantic Hurricane Season may end up being more active than average** in view of warmer than usual water temperatures in the tropical North Atlantic Ocean and Caribbean Sea.



According to the US National Oceanic and Atmospheric Administration, the 2019 Atlantic Hurricane Season is predicted to produce 10-17 named storms, of which 5-9 are expected to become hurricanes, and 2-4 of those are expected to become major hurricanes (medium to high confidence). By September 1st, 5 named storms, including 1 major hurricane have already occurred. Tourism operators are advised to keenly monitor weather advisories issued by the National Meteorological Services and other information provided by the Caribbean Disaster Emergency Management Agency (<http://cdema.org/>) and the US National Hurricane Center (<https://www.nhc.noaa.gov/>). At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities which may result in air and sea port closures or evacuations.

Climate Advisories: Caribbean Cont'd



Heat and humidity in the Caribbean are forecast to be at least as high as usual for the **heat season** - which starts in May, peaks in September and ends in October - and are expected to be considerably higher than in 2017 and 2018. A number of **heat waves** are expected to occur in most locations in September and, in Barbados, the Windward Islands, Trinidad and Tobago and, in the Guianas, through October. In view of high temperatures and air humidity, and especially with a forecasted increase in the number of heat waves, heat exposure - likely leading to **heat stress** - is expected to be a significant concern (medium to high confidence) lasting through October across the entire region. Tourism practitioners should expect an increase in demand for cooling/hydration services (e.g. AC use and drinking water) in the upcoming period as compared to the same period in the previous two years. Persons (i.e. both staff and visitors) should be sensitised to the importance of staying cool and properly hydrated.



Climatically, September to November forms the **second half of the Caribbean Wet Season**. The intensity and frequency of heavy showers tend to be high and clustered in **wet spells** and **very wet spells** throughout the period. Consequently, there is potential for flooding at any location within the region (high confidence), although slightly reduced compared to 2017 and 2018. In the coastal Guianas, flooding potential should be relatively low up until the onset of their secondary wet season in mid- to late-November (high confidence). **Extreme wet spells**, of which usually up to two occur during these three months (up to one in the coastal Guianas), may coincide with thunderstorms and high winds, and often result in **flash floods**, land slippage, power outages and possible contamination of food and water supplies. It should be emphasised that, while tropical cyclones typically produce extreme wet spells, a majority of extreme wet spells occurs during the passage of other weather systems. Therefore, proper planning / contingencies for these scenarios is imperative for tourism operators, especially those operating outdoors. Tourism facilities should clear their drainage and clean catchment systems as soon as possible.

Climate Advisories: Caribbean Cont'd



Long term drought (on a 12 months timescale), which may affect water availability across a multitude of socio-economic sectors in a country, is evolving in Belize, Dominica, French Guiana, Martinique, St. Kitts, Saint Lucia, St. Vincent, and Suriname (medium to high confidence). Tourism facilities should enhance/upgrade their water conservation practices (e.g. rainwater harvesting and repairs to leaky pipes) to maximise the storage of wet season rains, and advise staff and guests of the need for water conservation on an ongoing basis. By comparison, there is less concern for **short term drought** (on a 3-6 months timescale), with only limited and localised impacts (primarily on food production) expected by the end of November.



The noon time **UV index** on sunny days will decrease from extremely high (11-12) initially to very high (8-10) by the end of November (on a scale from 1 to 12, with details available here: <https://www.epa.gov/sunsafety/uv-index-scale-1>). There is a high risk of skin damage due to intense UV radiation. Visitors should be encouraged to apply high SPF sunscreen lotion regularly (preferably reef safe), and seek shaded areas between the hours of 10 AM and 3 PM. Outdoor tourism operators and staff should also be mindful to minimise skin exposure during these times, and to wear sunscreen when working outdoors.



Ocean temperatures will peak in September and are forecast to remain warm enough to trigger **coral bleaching** during October and November across most of the islands. Bleaching Alert Level 1 conditions (i.e. bleaching is likely) currently exist around Bermuda and Southern Belize. Alert level 1 is forecasted for the Greater and Lesser Antilles in October and November (with the exception of Grenada) and for the Bahamas in October. This is a good season to minimise runoff of pollutants into coastal waters and to encourage the use of reef-safe sunscreen by guests and locals alike, which can increase the survival chances of coral reefs.



Climate Outlook for the Caribbean

We are moving into the wettest time of the year. What do we expect for the Caribbean?

How wet?

Regionally, **rainfall totals** from September to November are forecast to likely be less than the usual or, at best, the usual across Barbados, Belize, eastern Guianas, Trinidad & Tobago and the Windward Islands, but are likely to be at least as wet as usual in Cayman Islands (medium confidence).

How hot?

Night-time and day-time temperatures are forecast to be at least as warm as usual (medium to high confidence). In view of high air humidity, the heat will feel uncomfortable through early October in the Bahamas, Belize and the Greater Antilles, through late October in the Lesser Antilles and through early November in the coastal Guianas.

Heat waves tend to become most frequent in September in Barbados, the Windward Islands, Tobago and the coastal Guianas, but other areas still tend to experience a few during this month. In view of the ongoing drought and associated dry spells, which increases the chance of heat waves, heat stress is expected to be of particular concern at this time and a greater concern than in 2017 and 2018 (medium to high confidence).

How dry?

Short term drought (on a 3-6 months timescale) will possibly continue in much of Belize and Trinidad, and might develop in Dominica, Martinique and Suriname (medium confidence).

Long term drought (on a 12 months timescale), is evolving in Belize, Dominica, French Guiana, Martinique, St. Kitts, Saint Lucia, St. Vincent, and Suriname (medium to high confidence), and may possibly persist in ABC Islands, Antigua, Barbados, the Dominican Republic, Grenada, Guyana, Trinidad & Tobago (medium confidence).

Surf's Up

Surfers, divers, fishers and marine craft operators should consult the 7-day wave forecast before planning activities.

Click here to access this product: <http://ww3.cimh.edu.bb/>

Sargassum Outlook

Tourism operators may consult the University of South Florida/NASA Sargassum Outlook Bulletin before planning activities. Click here to access this product:

<https://optics.marine.usf.edu/projects/SaWS.html>. Additionally, a Sargassum resource guide is available from the Caribbean Alliance for Sustainable Tourism (CAST) and can be accessed here:

<https://www.onecaribbean.org/wp-content/uploads/SargassumResourceGuideFinal.pdf>

Climate Advisories: Caribbean Source Markets

**September to November marks the Autumn season in the source markets.
What should you do?**



Less sunny and cooler weather in the coming Autumn season in most northern source markets is likely to create a climate driven increase in demand for Caribbean vacations. Tourism practitioners are advised to continue their marketing efforts in source markets, particularly targeting demographics that prefer to take advantage of a shoulder season vacation at an affordable rate.

Climate Outlook for the Caribbean's Source Markets

What do we expect in the source markets?

With the beginning of the Autumn season in September, based on historical information, we expect less sunny and cooler weather in most northern source markets. The current temperature and rainfall forecasts provide no specific indication of seasonal climate beyond these historical expectations.

Contact Us



Amanda Charles
Sustainable Tourism Specialist, CTO
Email: acharles@caribtourism.com



Kennedy Pemberton
Sustainable Tourism Consultant, CTO
Email: pembertonk@caribtourism.com



Loreto Duffy-Mayers
CHTA
Email: loreto.duffy-mayers@un.org



Dr. Roché Mahon
Social Scientist, CIMH
Email: rmahon@cimh.edu.bb



Dr. Cédric Van Meerbeeck
Climatologist, CIMH
Email: cmeerbeeck@cimh.edu.bb

Upcoming Events

CTO Business Meetings - Tourism Outlook Forum and Youth Congress: October 2-4 2019, Antigua and Barbuda

2019/2020 Dry Season Caribbean Climate Outlook Forum: November 2019, Trinidad and Tobago



Photo Credit: St. Vincent and the Grenadines Tourism Authority

Websites

Caribbean Tourism Organization:
www.onecaribbean.org

Caribbean Hotel and Tourism Association:
www.caribbeanhotelassociation.com

Regional Climate Centre:
<http://rcc.cimh.edu.bb>

Disclaimer

This Bulletin provides a broad overview of climate conditions up to 3 months in advance. It is based on insights drawn from CIMH's suite of technical climate information products and industry insights from the CTO and the CHTA. The information contained herein is provided with the understanding that the CTO, the CHTA, and the CIMH make no warranties, either expressed or implied, concerning the accuracy, completeness, reliability or suitability of said information. The Bulletin may be freely used and distributed by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material.

Glossary

Definition of technical terms

Seasonal climate forecast - the guidance offered by a forecaster or forecast centre on the climate conditions during the coming months.

NB: This forecast information pertains to the 3 months highlighted in the Issue.

Short-term drought – A rainfall deficit over a total period of 6 months.

Long-term drought – A rainfall deficit over a total period of 12 months.

Wet Day – A 24 hour period during which the rainfall total is at least 1 mm.

Wet Spell – A multi-day period during which the rainfall total is large enough to cross a certain threshold.

Extreme wet spell – 3 consecutive days of which the total rainfall is extremely high, with increased flash flood potential.

The Guianas – French Guiana, Guyana and Suriname.

US Caribbean Territories – Puerto Rico, U.S. Virgin Islands.

Leeward Islands – Anguilla, Antigua and Barbuda, British Virgin Islands, Guadeloupe, Montserrat, Saba, St. Barthélemy, St. Eustatius, St. Kitts and Nevis, St. Maarten and St. Martin.

Windward Islands – Dominica, Grenada, Martinique, St. Lucia and St. Vincent and the Grenadines.

Lesser Antilles – Leeward and Windward Islands along with, Barbados and Trinidad and Tobago.

Greater Antilles – Cayman Islands, Cuba, Dominican Republic, Haiti, Jamaica and Puerto Rico.

ABC Islands – Aruba, Bonaire, Curacao

Lucayan Islands – The Bahamas, Turks and Caicos Islands.

For more technical climate terms:
<https://rcc.cimh.edu.bb/glossary-of-terms/>