Rainfall frequency and extreme forecasts

Wet days and Wet spells Outlooks August to October 2025

Coordination: Caribbean Institute for Meteorology & Hydrology

Dr. Cédric J. Van Meerbeeck - Climatologist

Dr. Teddy Allen — Asst. Climatologist

caricof@cimh.edu.bb

Participating territories

Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haïti, Jamaica, Aprtinique, Puerto Rico, St. Barth's, St. Kitts & Nevis, St. Lucia, St. Maarten/St. Aprtin, St. Vincent & the Grenadines, Suriname, Trinidad & Tobago and the US Virgin Islands





CIMH

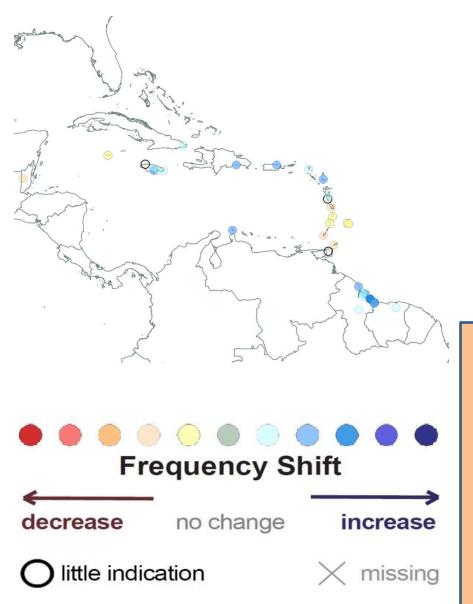
Wet day frequency shifts

Forecast for: August to October 2025

Precipitation outlook



ASO 2025 Frequency of wet days



USUALLY: Out of 92 days in Aug-Sep-Oct, there are about 35 to 50 wet days in relatively flat areas of Belize and the islands, but around 45 to 60 in mountainous areas and 15 to 30 in coastal Guianas (ABC Islands: 10-20).

FORECAST: ASO may be drier than usual in The Bahamas, Barbados, Belize and along the Windward Islands, but at least as wet as usual elsewhere.

 Fewer wet days than usual may be expected in Barbados, Belize, Cayman, Tobago, the Windward Islands (low to medium confidence), but more than usual expected elsewhere (low to medium confidence).

IMPLICATIONS:

- Possibly fewer wet days during the second half of the wet season.
- Surface wetness with consecutive wet days could make environmental conditions more conducive to moisture related pests but, at the same time, largely prevent wildfires.

Wet spells frequency shifts

Forecast for: August to October 2025

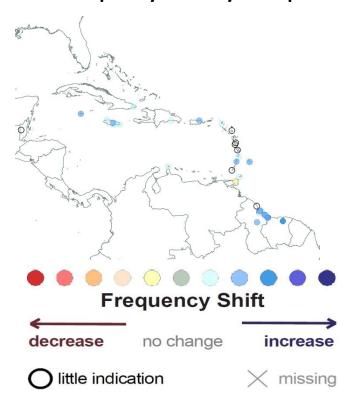
Precipitation outlook







ASO 2025 frequency of 7-day wet spells



ASO 2025 frequency of 7-day very wet spells



USUALLY: Between 3 to 6 wet spells (coastal Guianas: 1-3) occur from August to October, with 1 to 4 of them ending up very wet (coastal Guianas: up to 2).

FORECAST: ASO may be drier than usual in The Bahamas, Belize and along the windward islands, but at least as wet as usual elsewhere.

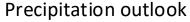
• An increase from the usual numbers of wet spells and very wet spells is expected across most of the region (medium to high confidence).

IMPLICATIONS:

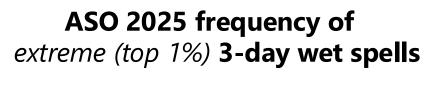
- Recharge rates of large water reservoirs and soil moisture may be even faster than usual in the Lesser Antilles and coastal Guianas in view of the recurrence of wet spells.
- The chance of recurrent very wet spells translates to flood potential (1) being *high* in Belize and the islands; (2) *moderate* in the Guianas.

Extreme wet spells frequency shifts

Forecast for: August to October 2025



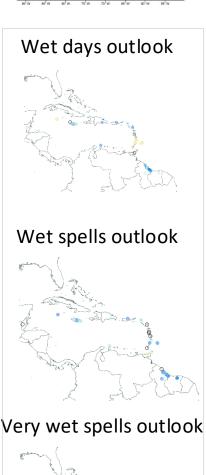




USUALLY: Up to 2 extreme wet spell occur between August to October, except in the Guianas where it is the dry season.

FORECAST: ASO may be drier than usual in The Bahamas, Belize and along the windward islands, but at least as wet as usual elsewhere.

 An increase from the usual numbers of extreme wet spells is expected in Aruba, Barbados, Belize, Grand Cayman, Grenada, Puerto Rico, Saint Lucia and Tobago (low to medium confidence). Low confidence of a change in extreme wet spells is expected elsewhere.



Frequency Shift no change decrease increase little indication missing

IMPLICATIONS:

- The chance for one or more extreme wet spells in Belize and the islands translates to *high* potential for flash floods and associated hazards.
- Limited to moderate flash flood potential in the Guianas which enter their long dry season in August.





Regional climate data, information, tools, experimental and operational products are available at

https://rcc.cimh.edu.bb

Coordination: Caribbean Institute for Meteorology & Hydrology

Contact: <u>caricof@cimh.edu.bb</u>

Author(s): Dr. Teddy Allen – Asst. Climatologist

Dr. Cédric J. Van Meerbeeck – Climatologist

(cmeerbeeck@cimh.edu.bb)

The prototype for this product was developed in 2022 with the generous support of (1) the American People through the USAID funded SDCR Programme, (2) the European Union through the Intra-ACP GCCA+ Programme, and (3) the Climate Risk and Early Warning Systems (CREWS) Initiative.

