Rainfall frequency and extreme forecasts

Wet days and Wet spells Outlooks
May to July 2025

Dr. Cedric VAN MEERBEECK¹, **Dr. Teddy ALLEN**¹, Dr. Simon MASON², Dr. Ángel MUÑOZ², Wazita Scott¹, Dale Destin³

¹Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados ²International Research Institute for Climate and Society (IRI), USA ³Antigua and Barbuda Meteorological Services











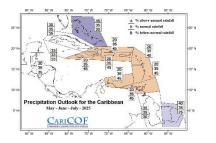




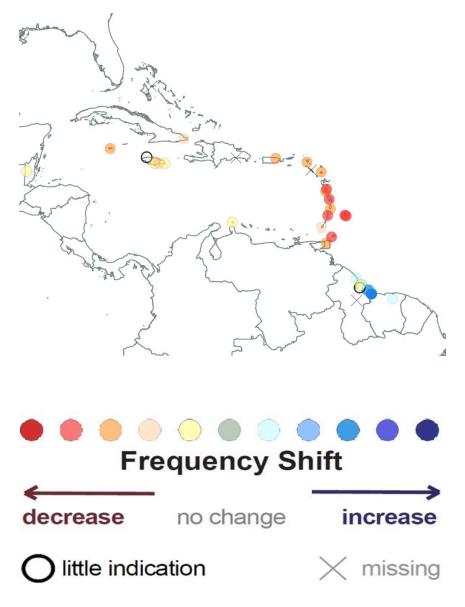
Wet day frequency shifts

Forecast for: May to July 2025

Precipitation outlook



MJJ 2025 Frequency of wet days



USUALLY: During May-June-July, about 25 to 40 days out of a total of 92 days are wet days in relatively flat areas in the islands, and 45 to 65 in mountainous areas and in coastal Guianas (ABC Islands: 5-15).

SEASONAL RAINFALL FORECAST:

• The usual amount of rainfall or less across the Lesser Antilles and most of the Greater Antilles; at least the usual amounts in The Bahamas and eastern Guianas.

WET DAY (= day with rainfall exceeding 1mm**) FORECAST:**

• A decrease in the number of wet days compared to the usual number across most of the region is expected except in the Guianas (*medium to high confidence*).

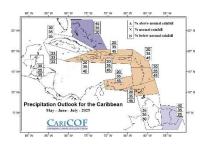
IMPLICATIONS:

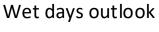
- Frequency of outdoor activity disruptions due to rainfall should be increasing (at a somewhat slower than usual rate in the Antilles) while the region transitions to the wet season.
- Decreasing surface dryness could make environmental conditions more conducive to moisture related pests, particularly in Belize and the Guianas.

Wet spells frequency shifts

Forecast for: May to July 2025

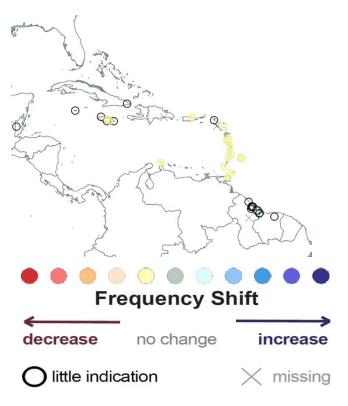
Precipitation outlook







MJJ 2025 frequency of 7-day wet spells



MJJ 2025 frequency of 7-day very wet spells



USUALLY: 1 to 5 wet spells (coastal Guianas: 4 to 7) occur from May to July, with 2 or 3 of them ending up very wet (ABC Islands: up to 1; coastal Guianas: 1 to 5).

WET SPELLS (=7-day spells with rainfall totals among top 20%) **FORECAST:**

 A slightly slower than usual increase in the number of wet spells may be expected across the Lesser Antilles and Jamaica (low confidence).

VERY WET SPELLS (=7-day spells with rainfall totals among top 10%) **FORECAST:**

• A slightly faster than usual increase in the number of very wet spells may be expected across the Guianas, Grenada, Trinidad, and Sint Maarten (*low confidence*).

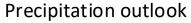
IMPLICATIONS:

- Accelerating recharge rates of large water reservoirs and soil moisture throughout the region, though possibly slower than usual in the islands where fewer wet spells than usual occur.
- Moderate to high flood potential in Belize and most Caribbean Islands (except the ABC Islands), high potential in the Guianas.

Extreme wet spells frequency shifts

Forecast for: May to July 2025

missing





MJJ 2025 frequency of extreme (top 1%) 3-day wet spells

USUALLY: Up to 1 extreme wet spell occur between May to July (Guianas: up to 2).

EXTREME WET SPELLS (= 3-day spells with rainfall totals among top 1%) **FORECAST:**

• Little change from the usual number of 3-day extremely wet spells is expected across most of the region (low to medium confid.) except in the ABC islands, Cayman Island and Sint Maarten (low to medium confid.).

Wet days outlook



Wet spells outlook



Very wet spells outlook



Frequency Shift decrease no change increase

little indication

IMPLICATIONS:

 High potential for flash floods, associated hazards and cascading impacts is a concern in view of the possible occurrence of extreme wet spells.



caricof@cimh.edu.bb rcc.cimh.edu.bb Caribbean Institute for Meteorology and Hydrology TEL: (246) 425-1362/3 | FAX: (246) 424-4733