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Seasonal Forecast: October to December (OND) 2023

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What are the usual OND conditions?

October-November-December		
RAINFALL CLIMATOLOGICAL NORMAL (30YEARS)		
	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal Accumulation	325.5 to 580.7mm	635.6 to 946.0mm
Number of Wet Days	38 to 53 days	55 to 70 days
Number of 7-day Wet Spells	2 to 5	3 to 6
Number of 7-day Dry Spells	-	-
TEMPERATURE (15YRS AVERAGES)		
Average Maximum	31.2°C to 31.6°C	29.9°C to 30.2°C
Average Mean	27.0°C to 27.4°C	26.5°C to 26.8°C
Average Minimum	22.8°C to 23.2°C	23.1°C to 23.5°C

What is the forecast for this OND season?

Rainfall

- Rainfall totals are likely to be normal to above normal (low confidence);
- A slight decrease in the frequency of wet days is likely, however, an increase in the number of 7-day very wet spells is possible (low confidence).
- Up to two 3-day extreme wet spells are possible (medium confidence).
- There is a high to extremely high potential for long-term flooding, flash floods and related hazards;
- From December, the usual transition from the wet/ hurricane season to the dry season is likely and is marked by a decrease in rainfall frequency and intensity.
- There is some concern for drought conditions.

Temperature

- October is officially the last month of this year's record-breaking Caribbean Heat Season.
- Warmer than usual and more humid conditions are likely to persist well into November with intense nighttime and daytime heating.
- The possibility of heatwaves is likely to extend into early November.
- Heat stress should steadily decrease in November as we transition into the cool season.

What factors are influencing this forecast?

1. El Niño Southern Oscillation (ENSO)

Recent observations: An El Niño event has been declared, with Sea Surface Temperatures (SSTs) in the eastern equatorial Pacific exceeding 1°C by the end of August, indicative of moderate El Niño conditions.

Model forecast and guidance: The forecast models indicate a likely further anomalous warming of the eastern Pacific to exceed 1.5°C, with virtually certainly El Niño conditions in OND and JFM (>95% confidence).

Expected impacts on rainfall and temperatures: El Niño more often than not is marked by a warmer end to the heat season and reduced activity toward the end of the hurricane season. Rainfall tends to be lower than usual in the southeastern half of the region, but higher than usual in the far north.

2. Climate conditions in the Tropical North Atlantic (TNA) and the Caribbean Sea

Recent observations: SSTs have hovered around 1°C to 2°C above average in much of the Tropical North Atlantic (TNA), reaching record high values across vast ocean areas.

Expected conditions: Models are confidently forecasting increasingly warm SST anomalies of 0.5°C to 2°C (or more) above average across the Caribbean Sea and the TNA.

Expected impacts: Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures with above-average humidity and an increased frequency of heatwaves, but also higher hurricane season activity, seasonal rainfall totals and an increased frequency of extreme rainfall through the end of the year.