



BMS MONTHLY CLIMATE OUTLOOK NEWSLETTER

August 2025 | Issue No.67

Key Messages: Below average rainfall is expected through the forecast period, with a low probability of being above-average in October.

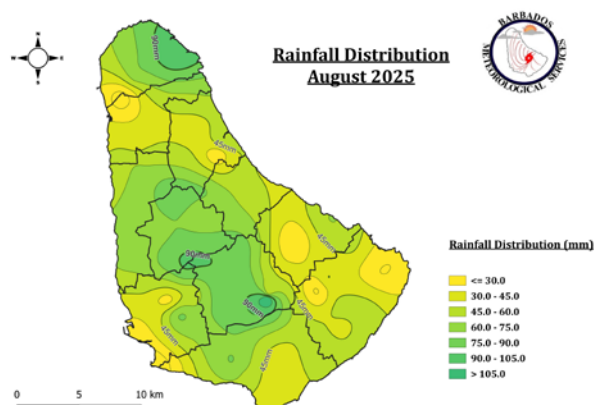
Agricultural Drought and Hydrological Drought Watches during the late Wet season. **Warmer-than-normal temperatures** are will persist until the end of the Heat Season, although not as warm as 2023 and 2024. ENSO neutral conditions are present and are likely to persist through to October.

Slightly above-average tropical cyclone activity is expected for the rest of the 2025 Atlantic Hurricane season. Persons are, however are urged to continue monitoring the BMS seasonal outlooks for updates.

AUGUST IN REVIEW

Precipitation

Figure 1: August Rainfall Distribution



54.5mm of rainfall was recorded for the month of August; 96.1mm below the climatological norm of 150.6mm. Similarly, the rainfall for 2025 thus far is 65.9 mm below the climatological norm of 654.2 mm. The ridge pattern was the dominant feature for the month, with perturbations within the ridge flow being the major source of rainfall. The highest daily source of rainfall occurred on the 9th, due to activity associated with the ITCZ and on the 25th when a strong tropical wave affected the island. This tropical wave prompted the BMS to publish the only Flash Flood and Thunderstorm Watches issued for the month.

From the 24th -26th, High-Surf Advisories were issued due to Hurricane Erin in the North Atlantic.

Temperature

Figure 2: August Average Temperature Distribution

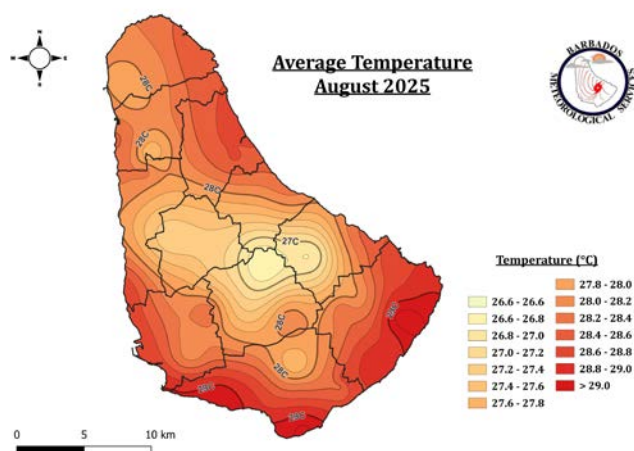
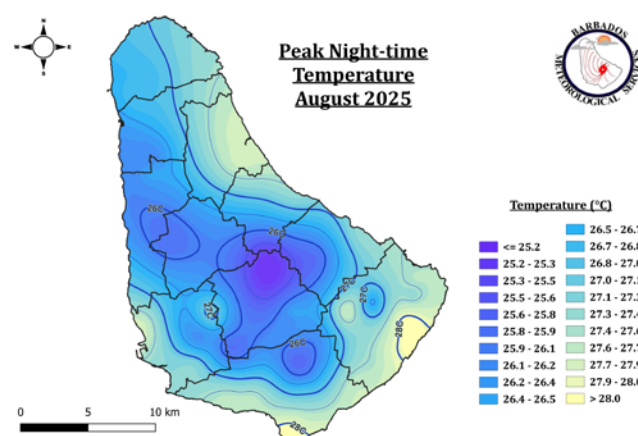


Figure 3: August Peak Night-time Temperature Distribution



Temperatures were uncomfortable as the heat season began to peak; being above average as compared the climatological record at the BMS in Charnocks. The average temperature was 0.5°C higher at 28.4°C, the average maximum higher by 0.5°C at 31.4°C, average minimum higher by 1.6°C at 26.4°C and the night-time temperature peaking 0.2°C higher at 27.6°C. Across the island, average maximum temperatures ranged between 30.3°C and 34.0°C, while the average temperatures ranged between 26.6°C and 29.3°C. The minimum temperatures ranged between 24.1°C and 26.7°C, peaking between 25.0°C and 28.2°C for August. Although the temperatures were higher than average, there were no heat waves this month.

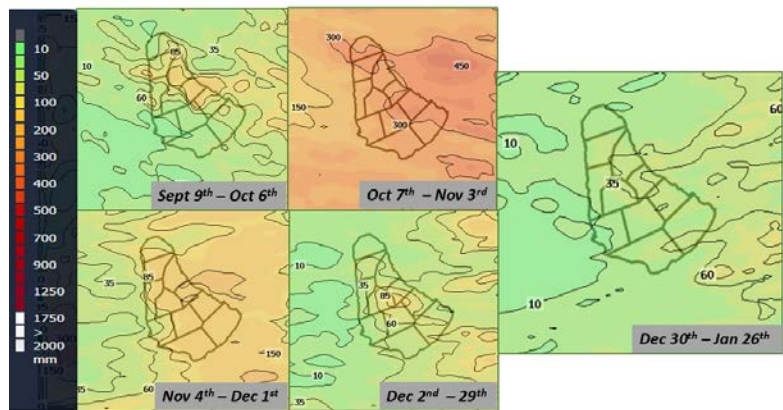


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PRECIPITATION OUTLOOK

Figure 4: BMS Experimental rainfall forecast from Sept 2025 to Jan 2026



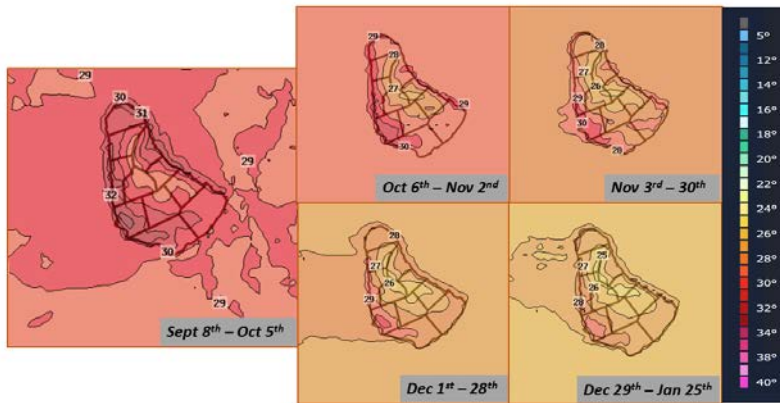
The BMS seasonal rainfall forecast indicates below-average rainfall for Barbados in September. October remains the outlier where above average rainfall is projected with the latter wet season into early dry season months indicating below to near-average rainfall. Regional forecasts also indicate below-average rainfall through November. Confidence for October's above average rainfall remains low with the higher resolution model possibly resolving systems passing to the north of the region. Periodic intrusions of Saharan dust, which are difficult to predict on a seasonal timescale, are likely to reduce rainfall accumulations. This forecast is likely to be adjusted in subsequent newsletters and as a result, all forecast should be monitored for updates.

Table 1: Rainfall Projections for September 2025 to January 2026

Month	Projections (mm)	Deviation from 30-yr Average at Charnocks
September	60 - 85	Below Average
October	150 - 300	Average to Above Average
November	85-150	Below Average
December	60 - 85	Near Average
January	35 - 60	Near Average

TEMPERATURE OUTLOOK

Figure 5: BMS Experimental peak temperature forecast from Sept 2025 to Jan 2026



Seasonal forecasts for Barbados Heat Season continue to project above normal temperatures. The latest probabilistic and dynamic model forecasts and the BMS experimental WRF model (figure 5) continue to project above-normal minimum and mean temperatures for Barbados' heat season (Table 2). As for the maximum temperature, the probabilistic forecast is leaning towards normal to above-normal temperatures. Daytime temperatures will continue to be uncomfortable and are expected to peak between 30°C and 32°C. The BMS urges members of the public to continue monitoring the temperature outlook for updates in the coming months and adhere to any recommendations coming from the Ministry of Health and Wellness during the heat season.

Table 2: Temperature Outlook for September 2025 to January 2026

Temperature	Season	Forecast Probability (%)		
		Below	Normal	Above
Minimum Temperature	SON	18	28	54
	DJF	36	22	42
Maximum Temperature	SON	20	42	38
	DJF	27	25	48
Mean Temperature	SON	15	24	60
	DJF	20	36	44

DROUGHT OUTLOOK

Rainfall for the year thus far is below average, with the outlook for the rest of the forecast period also indicating below average rainfall. While current outlooks suggest that October will be above average, there is currently low confidence in this prediction. Given that the BWA has also began to notice a rise in the salinity levels; the alert levels for **Agricultural and Hydrological Drought have been elevated to Drought Watch through December** and a tentative **Drought Warning for January**. Persons in the agricultural sector are urged to continue monitoring the Ministry of Agriculture, Food and Nutritional Security for updates and the BMS for updates to the seasonal drought outlook. Members of the public are urged to take responsibility and continue to conserve water, regardless of the drought alert level and to continue monitoring the BWA and the BMS for updates. Below is a table of the forecast drought alert levels based on the forecast rainfall accumulations (Table 1).

Table 3: Drought Outlooks for September 2025 to January 2026

MONTH	AGRICULTURAL	HYDROLOGICAL
SEPTEMBER	Be Aware	Be Aware
OCTOBER	Be Aware	Drought Watch
NOVEMBER	Drought Watch	Drought Watch
DECEMBER	Drought Watch	Drought Watch
JANUARY	Drought Warning	Drought Warning



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Agricultural Drought Watch

Responses to the predicted Drought Alert Level.

Key Messages:

- *Protect resources*
- *Conserve and recycle water*
- *Repair and upgrade infrastructure*
- *Prepare for increased irrigation during periods of extensive dryness*
- *Report Impacts*
- ✓ *Continue to monitor for updates from the Barbados Water Authority and Ministry of Agriculture, Food and Nutritional Security.*
- ✓ *Continue to monitor the BMS Climate Outlook for monthly updates.*

Hydrological Drought Watch

Responses to the predicted Drought Alert Level.

Key Messages:

- *Encourage water conservation through public awareness campaigns*
- *Last minute infrastructural repairs and upgrades*
- *Implement drought management plans*
- ✓ *Continue to monitor for updates from the Barbados Water Authority.*
- ✓ *Continue to monitor the BMS Climate Outlook for monthly updates.*

Likely Impacts for the September 2025 to January 2026 Period

**What do these forecasts mean
for Barbados?**

- Conserve and recycle water.
- Unchanged/ falling reservoir/aquifer levels.
- Employ rainwater harvesting techniques for rain feed crops during dry periods.
- Increased likelihood of flooding during intense rainfall events.
- Increase in soil moisture content and possible saturation during excess rainfall events.
- Uncomfortable temperatures which may lead to an increased need for cooling and hydration.
- Heat stress in farm animals and pets.
- Air quality may be impacted by periodic intrusions of Saharan dust.
- Keep updated with daily weather as well as seasonal forecasts issued by the BMS.

CLIMATE OUTLOOK

ENSO (El Niño Southern Oscillation)

ENSO is the interaction between the ocean and atmosphere in the equatorial Pacific which results in periodic departures from the expected sea surface temperatures. There are two phases of ENSO, the cold phase of sea surface temperatures, La Niña and the warm phase, El Niño. La Niña conditions usually results in higher rainfall for Barbados. El Niño conditions usually result in lower rainfall for the island. Neutral conditions which are close to average or what is normally expected. These are the general conditions associated with each phase however, there are other factors which influence the rainfall patterns across Barbados which may result in a deviation from the norm.

Current state

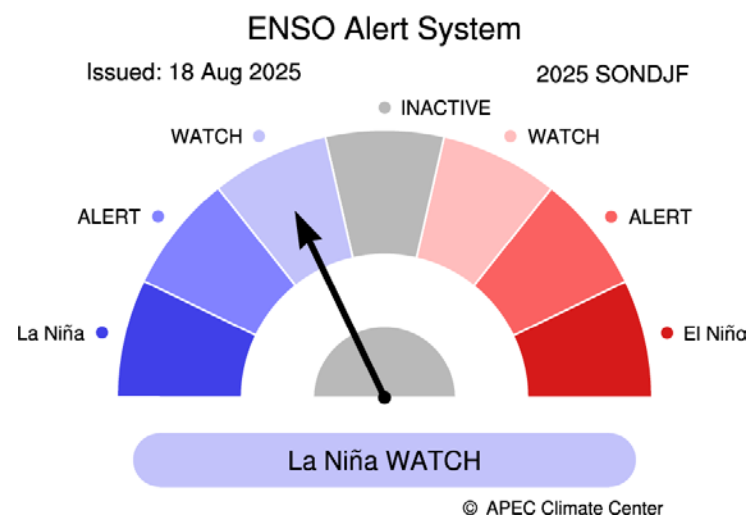
ENSO Neutral conditions remain present across most of the Pacific Ocean.

What's the Outlook?

ENSO-neutral to weak La Niña conditions are expected for much of the forecast period.

Impact to the Upcoming Seasons

During ENSO-neutral events there is typically no significant predictability on rainfall or temperature patterns in Barbados.



(Source: APCC/ Climate Information Services)

CLIMATE OUTLOOK

Sea Surface Temperatures (SSTs)

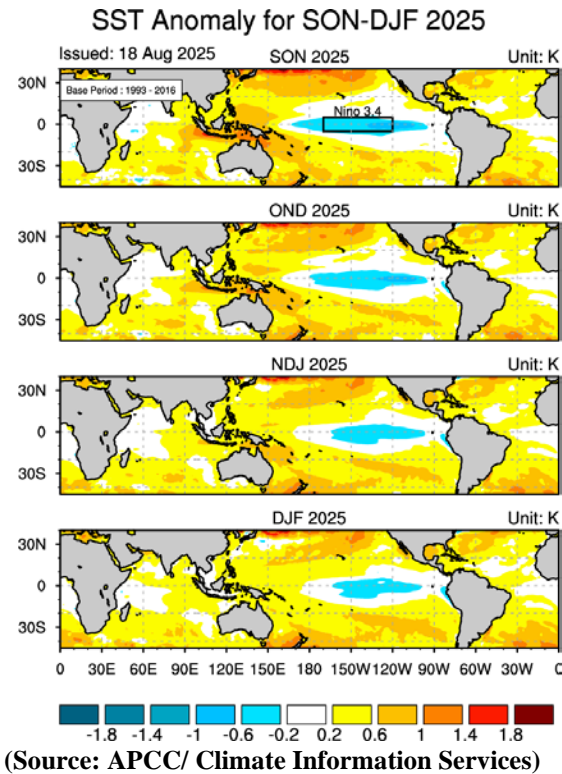
The Multi-Model Ensemble continues to forecast above-normal sea surface temperatures (SSTs) across the tropical Atlantic. SSTs are forecast to remain above normal by 0.2°C through to the start of 2026. Across the eastern and central equatorial Pacific, SSTs are expected to be 0.2 to 1 °C cooler than normal, consistent with the ENSO-neutral to weak La Niña conditions.

Impact on Rainfall

Warmer than normal SSTs in the Atlantic may favour periods of increased rainfall characterized by intense rainfall events; this may result in flash flooding across the island.

Impact on Temperatures

Warmer-than-normal SSTs across the tropical Atlantic will result in warmer-than-normal temperatures and humid conditions, although not as warm as 2023 and 2024. Barbados is now into the Heat Season and recurrent episodes of heat stress are likely, but not to the degree of the previous two years.



(Source: APCC/ Climate Information Services)

2025 ATLANTIC HURRICANE SEASON OUTLOOK

Forecasts for the 2025 Atlantic Hurricane season from Colorado State University, Tropical Storm Risk and the National Oceanic and Atmospheric Administration indicate slightly above-normal activity for the remainder Hurricane Season. With all centres leaning towards ENSO- neutral to weak La Niña and warm sea surface temperatures making conditions more conducive as we enter the peak of the Hurricane Season. The Barbados Meteorological Services has also produced a forecast, a hybrid statistical and deterministic product to predict the activity in the Eastern Atlantic (bounded by 10°W – 65°W, 5°N – 20°N). The table below summarizes these forecasts as compared to Atlantic hurricane season Climatology.

Table 3: 2025 Atlantic Hurricane Season Forecast compared to Atlantic Hurricane Season

	Atlantic Basin Climatology (1991-2020)	Cumulative Forecast Ranges for 2025 Hurricane Season	BMS 2025 Eastern Atlantic Outlook	Observed Tropical Cyclones in the Atlantic (31 st August)	Observed Tropical Cyclones in the Eastern Atlantic (31 st August)
Named Storms	14	12-19	5-8	5	1
Hurricanes	7	6-10	2-5	1	1
Major Hurricanes (Category 3 and above)	3	3-5	0-2	1	1

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