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Weather & Climate

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October 2022

Summary

- Rainfall for September was above normal; wettest September in 14 years.
- The Caribbean 'Heat Season' continues through October. Stay Hydrated!
- The 2022 Atlantic Hurricane Season is predicted to be an above average season, Be Prepared!!

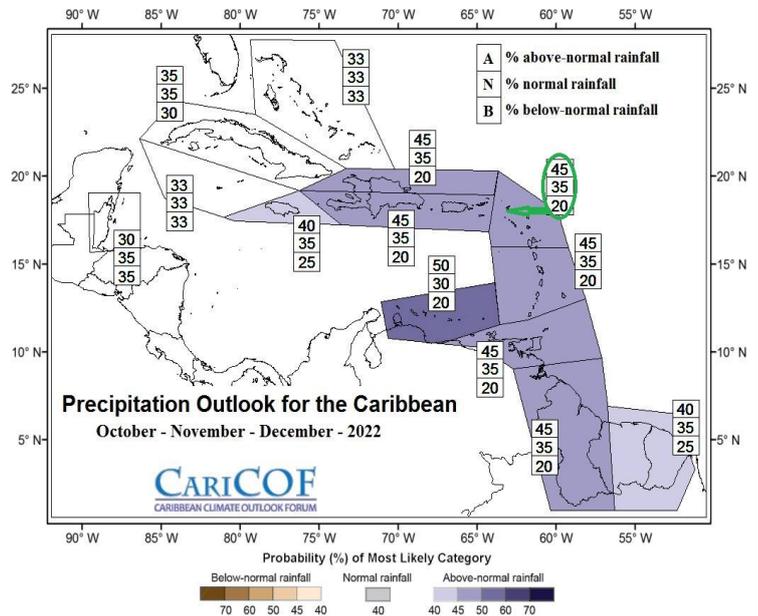
Seasonal Outlook for October to December (OND) 2022

Rainfall Forecast

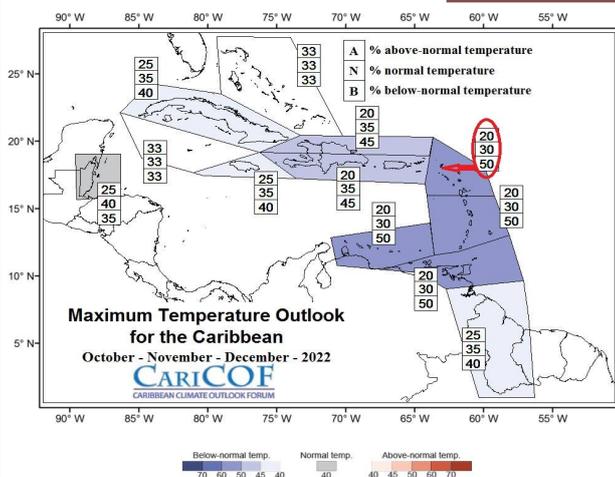
Models are indicating that rainfall totals for the season Oct-Nov-Dec 2022 are likely to be near to or above the normal range in St. Maarten and most of the eastern Caribbean.

Normal rainfall on St. Maarten during the Oct-Nov-Dec season ranges 325mm–415mm/13-16 inches, with 37 to 46 wet days. During Oct-Nov. there is usually frequent heavy showers while in Dec. frequency and intensity of rainfall decreases as we transition to the dry season.

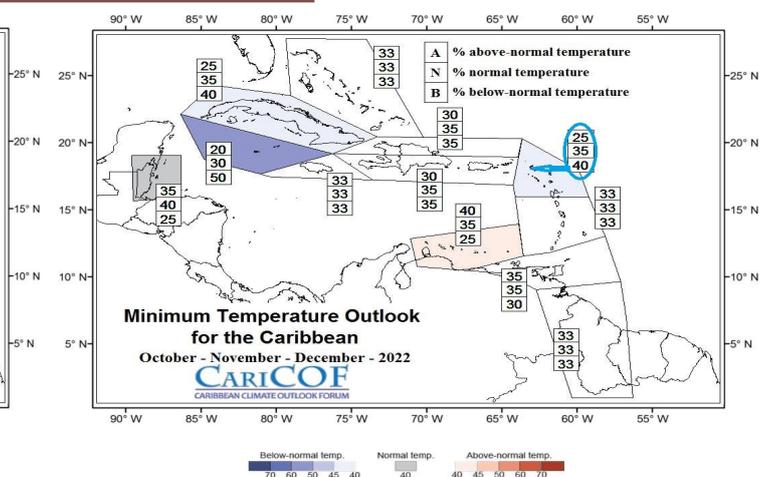
The forecast is for up to 7 (7-day) wet spells, up to 4 very wet spells and about 4 (7-day) dry spells on St. Maarten during this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

Day-time and night-time temperatures are expected to be the usual or lower this season. Heat stress should decrease from October.

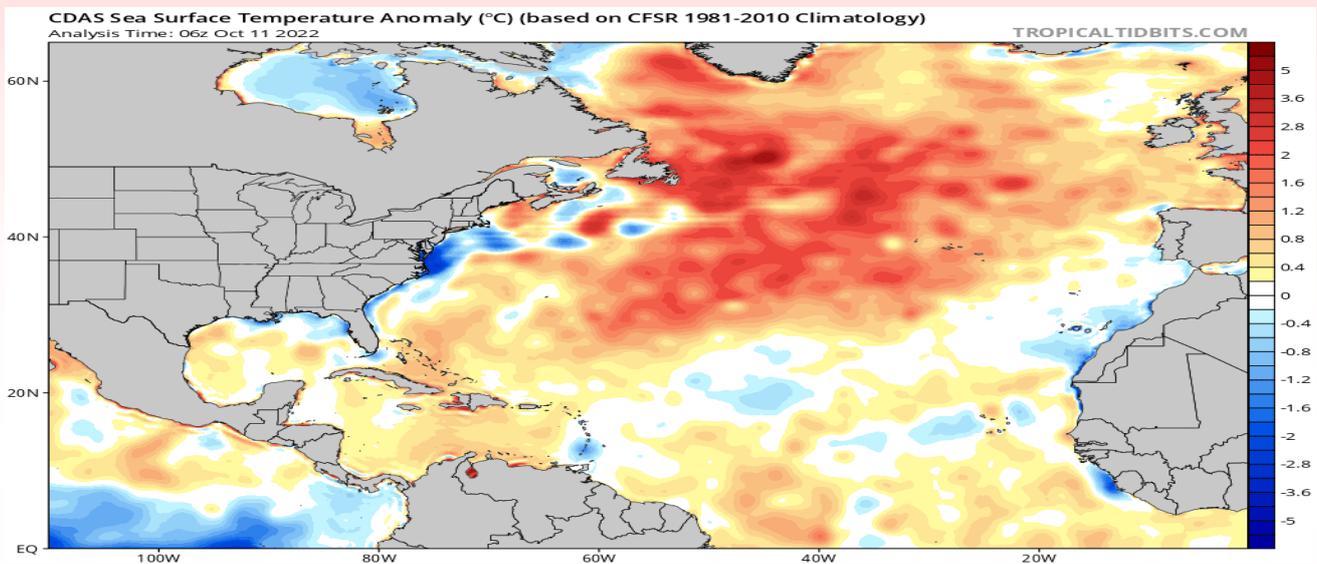
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid September, sea surface temperature (SST) remained below-average in the east-central Pacific (-1.0°C). The key atmospheric variables also remained consistent with continued La Nina conditions. The La Nina Advisory remained in place.

Majority of the forecast models predict that SSTs will remain below normal at the level of a La Nina until at least February 2023.

SSTs are presently around the average or about 0.5°C above average in much of the Caribbean Sea and the Tropical north Atlantic but around 0.5-1°C above average in the sub-tropical north Atlantic. Models are forecasting SST to be near or slightly warmer than usual (0°C to 0.5°C above average) around the Caribbean and in the tropical North Atlantic. Warm SSTs in and around the Caribbean tend to contribute to higher air temperature, above-average humidity, seasonal rainfall totals and an increase in the frequency of extreme rainfall.



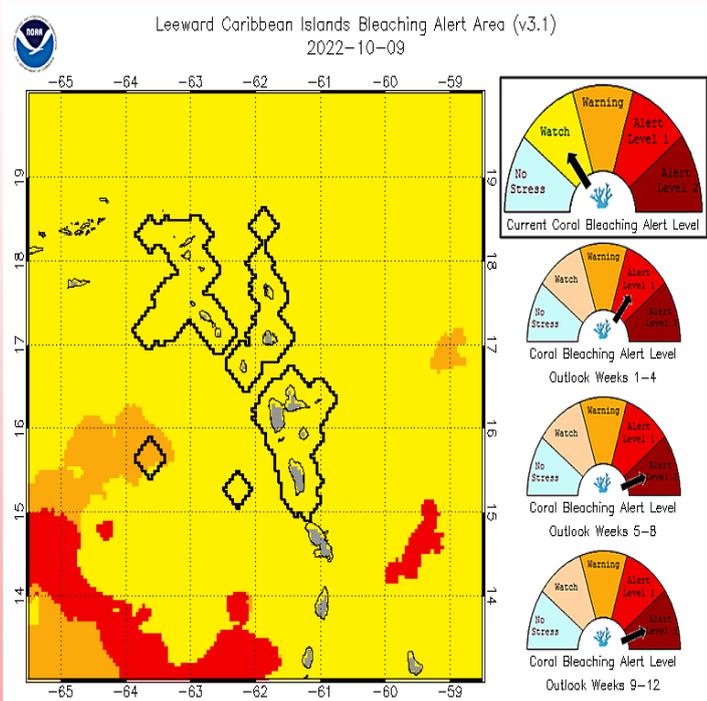
CORAL REEF WATCH

Warming continues in the Gulf of Mexico, the Caribbean basin, and the Western Atlantic.

Bleaching watch alerts issued throughout the region. Every regional virtual station is currently registering a watch alert.

Thermal stress is accumulating. Sea Surface Temperatures are currently near the bleaching threshold.

Bleaching is possible mainly in the southern Caribbean by the end of October. Widespread bleaching is not expected around the Leeward Islands.



SEPTEMBER 2022 IN REVIEW

Total Rainfall	180.2 mm	7.1 in
2022 Cumulative Rainfall	560.7 mm	22.1 in.
Max. 24-Hr. Rainfall	44.5 mm	1.8in.
No. Rain Days (≥1.0 mm)	11 days	
No. Heavy Rain Days (≥10.0 mm)	6 days	
No. Thunderstorm Days	9 days	
Avg. Wind Speed	9 kt.	10 mph
Max. Wind Gust	40 kt.	46 mph
Avg. Temperature	28.8°C	84°F
Max. Temperature	33.2°C	92°F
Min. Temperature	23.3°C	77°F

Long /Short Term Seasonal Review**Year in Review
(October 2021 – September 2022)**

Total rainfall over the past twelve (12) months was below the normal range (953-1132mm). A total of 867mm/34in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review
(Jul-Aug-Sept. 2022)**

Total rainfall for the last three (3) months was 348mm/14in, this amount was within the normal range (250-349mm). There were nine (9) days with heavy rainfall (>10mm) during that period.

Rainfall for the month of September was above the normal range. This was the wettest September since 2008. Temperatures for the month of September were within the normal range.

The warmest days in September were the 8th, 9th & 10th with an average temperature of 29.7°C/86°F. The coolest day was the 17th with an average temperature of 26.3°C/79°F.

The day with the most sunshine hours in September was the 1st (11hrs:30min).

The days with the least sunshine hours in September were the 15th, 17th & 18th (0hrs:00min)

The windiest day in September was the 17th with a daily average wind speed of 18kt./ 21mph.

The day with the highest wind gust was the 17th (40kt./46mph).

Skies were mostly cloudy for most of the month.

There were eleven (11) days with rainfall in September, six (6) of which were heavy rainfall days (>10mm).

The longest dry spell was nine (9) days long; 18th - 26th September.

There were eight (8) hot days in September, six (6) of them were very hot.(>32.6°C/91°F)

There were fourteen (14) warm nights in September, three (3) of which were very warm. (>27.6°C /82°F)

There were two (2) heat wave periods during the month of September. The longest heatwave was from September 8th to 14th.

**NORMAL
OCTOBER CONDITIONS**

Rainfall Total	97 – 167 mm	4-7 in.
Avg. No. of Rain days	14 days	
Daily Average Temperature	28.3°C	83°F
Avg. Max. Temperature	31.2°C	88°F
Avg. Min. Temperature	26.0°C	79°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes may decrease after October.

Tourism Sector

- Continue to observe all health protocols.
- Keep updated on weather information as we are in the hurricane season.

Agriculture

- Drought conditions are not expected throughout this season.
- The potential for flooding and flash flooding remains high.

Health

- On hot days, excessive UV exposure can cause skin damage across the population on sunny days. Keep Hydrated!
- Persons with respiratory illnesses should take the necessary precautions during Saharan dust episodes and monitor daily forecasts for more information.
- Proper management of water storage containers e.g. covering with protective mesh helps to reduce the risk of potential breeding sites for mosquitoes.

2022 Atlantic Hurricane Season

After a very quiet August, activity increased in the month of September. There were six (6) named storms four (4) of which became a hurricanes.

Tropical storm Fiona, the 6th named storm of the 2022 Atlantic Hurricane season formed approximately 645 miles east of the Leeward Islands on Sunday September 14, 2022.

A tropical storm watch was issued for St. Maarten at 11:00pm September 14 and was upgraded to a warning at 11:00am September 15, 2022.

Fiona passed at its closest approximately 110miles south of St. Maarten around 5:00am on Saturday September 17, 2022.

There were no significant impacts reported. There were wind gusts up to storm force recorded at PJIA during September 16 & 17. The highest wind gust reported was 40kt/46mph around 6am on the 17th. An accumulated rainfall total of 84mm/3in was recorded during the passage of Fiona.

The tropical storm warning for St. Maarten was discontinued at 5:00pm on Saturday September 17, 2022.

The public is hereby urged to keep updated and continue to monitor weather reports as the hurricane season officially comes to an end on November 30th .

Keep updated and be prepared.

2022 TROPICAL CYCLONE NAMES

ALEX	KARL
BONNIE	LISA
COLIN	MARTIN
DANIELLE	NICOLE
EARL	OWEN
FIONA	PAULA
GASTON	RICHARD
HERMINE	SHARY
IAN	TOBIAS
JULIA	VIRGINIE
	WALTER

BE PREPARED!!!!!!

1. Tropical Depression	<38mph
2. Tropical Storm	39-73mph
3. Hurricane	74+mph

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