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Weather & Climate

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Key Points

- Night-time & Day-time temperatures for September 2023 were the warmest on record.
- The longest heat wave period in September lasted nineteen (19) days.
- Temperatures expected to remain uncomfortably high through October.
- We are still in the Hurricane Season. Remain Alert and monitor weather updates.

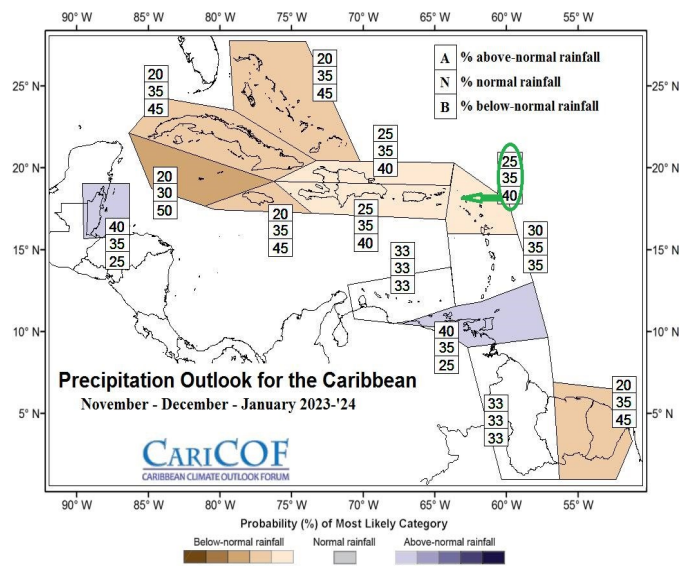
Seasonal Outlook for November to January (NDJ) 2023

Rainfall Forecast

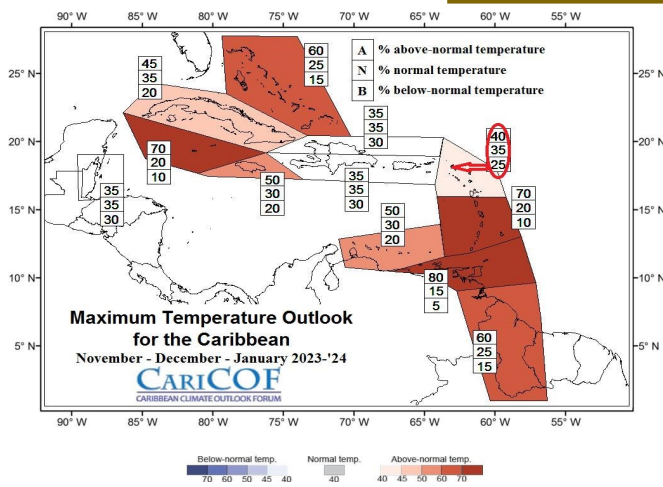
Models are indicating that rainfall totals for the season Nov-Dec-Jan 23/24 are likely to be below the normal range in St. Maarten, the rest of the Leeward islands and the northern Caribbean

The normal rainfall for Nov-Dec-Jan season on St. Maarten ranges 269mm–325mm/11-13 inches, with 40 to 45 wet days. November, is normally very wet and December to January we transition to the dry season.

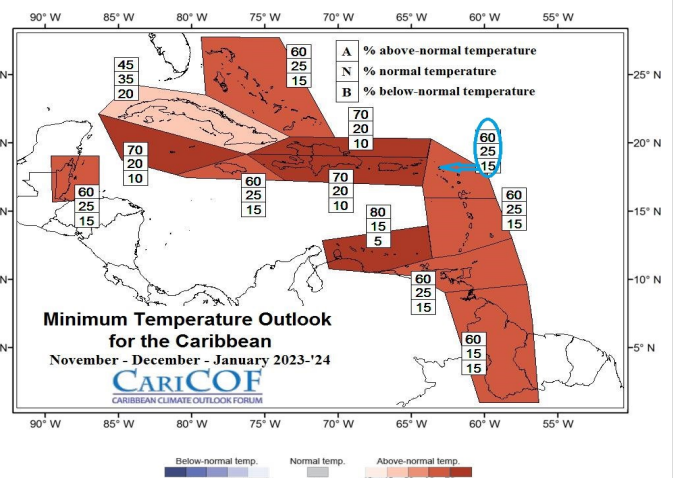
The forecast is for up to 6 (7-day) wet spells, up to 4 very wet spells and about 5 (7-day) dry spells on St. Maarten during this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

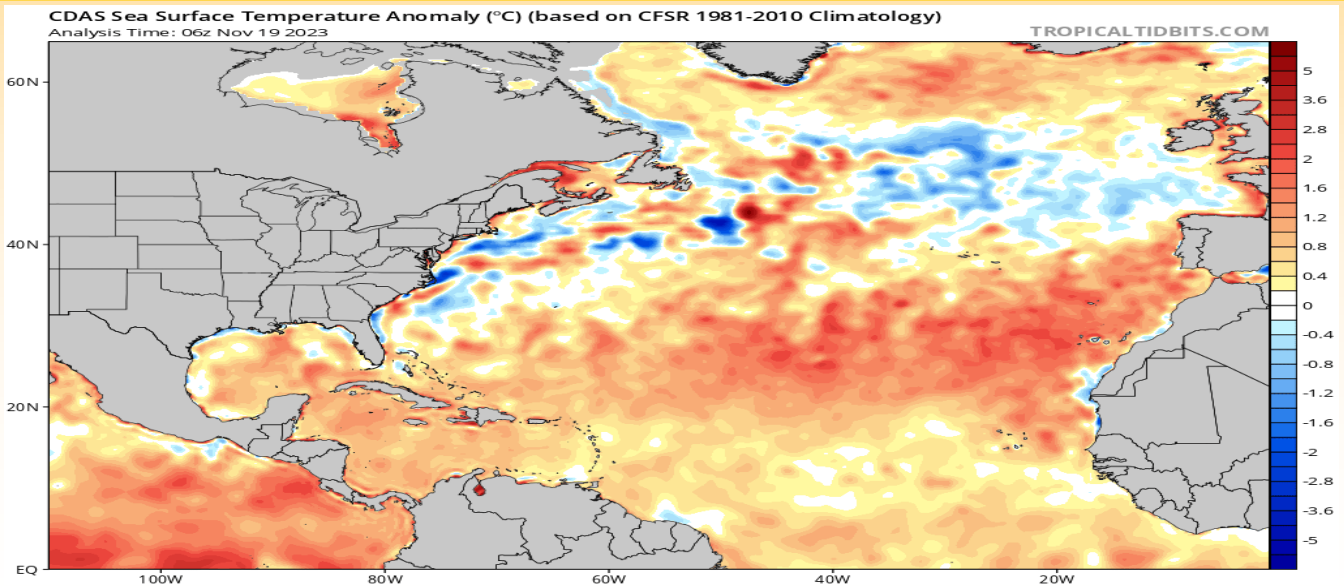
Day-time and night-time temperatures are forecast to remain high or higher than usual in November. Some heatwaves are still possible in certain areas

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 October, the El Nino conditions in the eastern and central Pacific plateaued at the levels of a moderate El Nino. The El Nino advisory remains in place and the majority of the forecast models predict that an El Nino will persist through the Apr-May-Jun 2024 season followed by the neutral phase the most likely phase from May 2024.

El Nino more often than not is marked by a warmer end of the heat season and reduced tropical cyclone activity towards the end of the Atlantic Hurricane Season. Rainfall tends to be less than usual in the southern Caribbean and more than usual in the north.



2023 Atlantic Hurricane Season

Two (2) named storms formed in the month of October one (1) of them became a hurricane (Tammy).

T.S Sean formed in the eastern Atlantic on October 11 and remained over open water.

T.S Tammy formed east of the Windward Islands on October 18 and became a hurricane on the 20 just east of the Lesser Antilles. A number of Caribbean islands issued watching and warnings however no significant impacts were experienced.

The 2023 Atlantic Hurricane Season is coming to a close, Let us all remain vigilant as storms and hurricane do form outside the official season.

The Meteorological Department of St. Maarten will continue to monitor the Atlantic and issue weather updates accordingly

Be Prepared!!

	2023 Atlantic Storm Names		
Arlene	Harold	Ophelia	
Bret	Idalia	Philippe	
Cindy	Jose	Rina	
Don	Katia	Sean	
Emily	Lee	Tammy	
Franklin	Margot	Vince	
Gert	Nigel	Whitney	

OCTOBER 2023 IN REVIEW

Total Rainfall	273.7 mm	10.8 in
2023 Cumulative Rainfall	797.9 mm	31.4 in.
Max. 24-Hr. Rainfall	83.8 mm	3.3 in.
No. Rain Days (≥1.0 mm)	10 days	
No. Heavy Rain Days (≥10.0 mm)	5 days	
No. Thunderstorm Days	10 days	
Avg. Wind Speed	8 kt.	9 mph
Max. Wind Gust	29 kt.	33 mph
Avg. Temperature	29.1°C	84°F
Max. Temperature	33.3°C	92°F
Min. Temperature	24.2°C	76°F

Long /Short Term Seasonal Review

Year in Review (November 2022 – October 2023)

Total rainfall over the past twelve (12) months was below the normal range. (986 –1231mm). A total of 810.3mm/32in. of rainfall was recorded at the Princess Juliana International Airport.

Seasonal Review (Aug-Sept –Oct 2023)

Total rainfall for the last three (3) months was 469mm/19in, this amount was above the normal range (290-407mm). There were nine (9) days with heavy rainfall (>10mm) during that period.

For the month of October, rainfall was above the normal range this was the wettest October since 2010. Temperatures were above normal, this was the warmest October since 2017.

The warmest days in October were the 1st, 15th, & 16th with an average temperature of 30.1°C/86°F. The coolest days were the 3rd & 28th with an average temperature of 27.5°C/82°F.

The days with the most sunshine hours in October was the 16th (11hrs:24min).

The days with the least sunshine hours were the 3rd & 4th, (0hr:00min)

The windiest days in October were the 20th & 23rd with a daily average wind speed of 13kt./15mph.

The day with the highest wind gust was also the 21st (29kt./33mph).

There were eighteen (18) days with rainfall in October and five were heavy rainfall days (>10mm).

There was no significant dry in October.

October 15th & 16th recorded the highest maximum temperature (33.3°C/92°F)

There were two (2) heat wave periods in October the longest lasted twelve (12) days; October 5-16.

Twelve (12) warm nights were recorded; three (3) of those were extremely warm. The 8th was an extremely warm night with a minimum temperature of 28.3°C/83°F.

NORMAL NOVEMBER CONDITIONS

Rainfall Total	89 – 156 mm	4-6 in.
Avg. No. of Rain days	14 days	
Daily Average Temperature	27.4°C	81°F
Avg. Max. Temperature	30.0°C	86°F
Avg. Min. Temperature	25.0°C	77°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Health

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

Tourism Sector

- Coral reef bleaching alerts remains high.

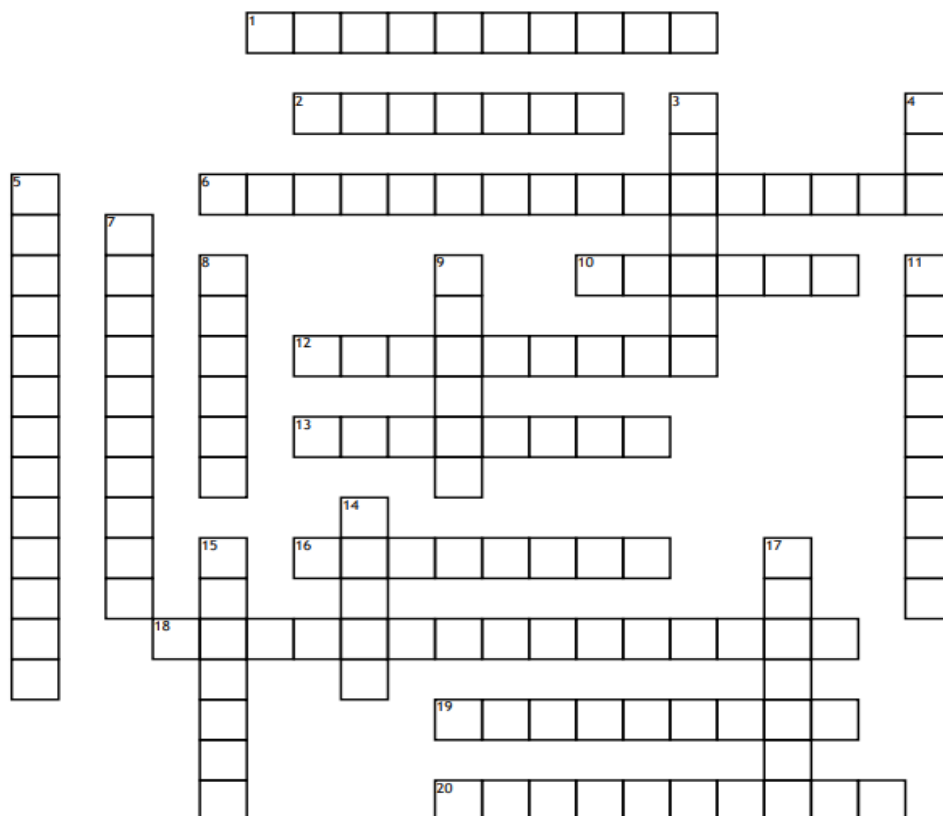
Agriculture

- The potential for flooding and flash flooding remains high
- Irrigation should be considered during dry spells.

Energy/Water Sector

Energy demand for cooling purposes will gradually decrease this season.

Hurricane Terms



Across

1. a rise in the ocean as the result of strong winds from a hurricane or other intense storm
2. an imaginary circle around the Earth, halfway between the North and South Poles.
6. Motion goes in a circle in the opposite direction from the way a clock moves
10. a line on a weather map that represents constant barometric (air) pressure.
12. A powerful, rotating storm that forms over warm oceans near the equator in the Ocean.
13. a prediction of future weather made by meteorologists.

16. when a hurricane first goes over land.

18. long bands of rain clouds that seem to spiral into the eyewall

19. a narrow, powerful wind that flows high the atmosphere (in the upper troposphere).

20. A weather instrument that measures wind speed. Atlantic Ocean The Atlantic Ocean is a large body of salt water that separates the Americas from Europe and

Down

3. a closed, rotating wind.

4. Hurricane winds blow in a spiral around the calm, roughly circular center called the _____.

5. a large body of salt water that separates the Americas from Europe and Africa.

7. a tornado that passes over water

8. a unit of measurement of an angle

9. a spinning flow of air

11. device that measures air pressure.

14. device that detects objects at a distance (like hurricanes) using radio waves. RADAR stands for "Radio Detecting And Ranging."

15. a tropical cyclone that forms in the Western Pacific Ocean

17. a current of air that is flowing upwards.

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