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Weather & Climate

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September 2023

Key Points

- Night-time & Day-time temperatures for August 2023 were the warmest since 1991.
- There were four (4) heat wave periods in August; the longest lasted twelve (12) days.
- Temperatures expected to remain uncomfortably high through October.
- We are in the peak of the Hurricane Season. Be Prepared!.

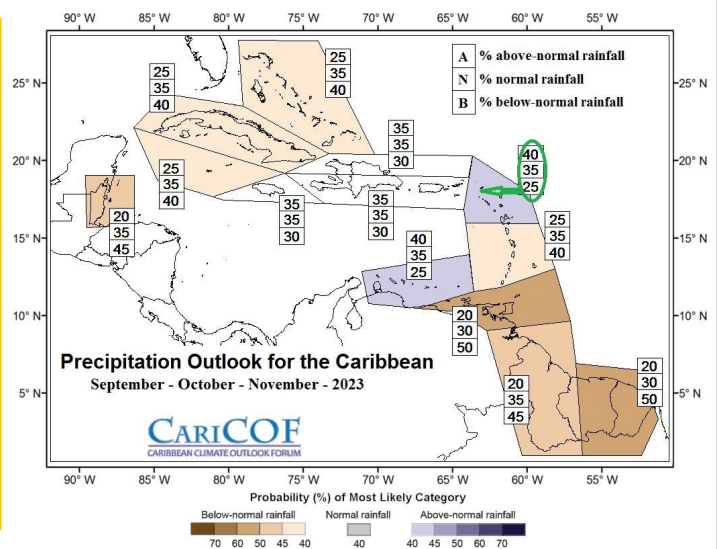
Seasonal Outlook for September to November (SON) 2023

Rainfall Forecast

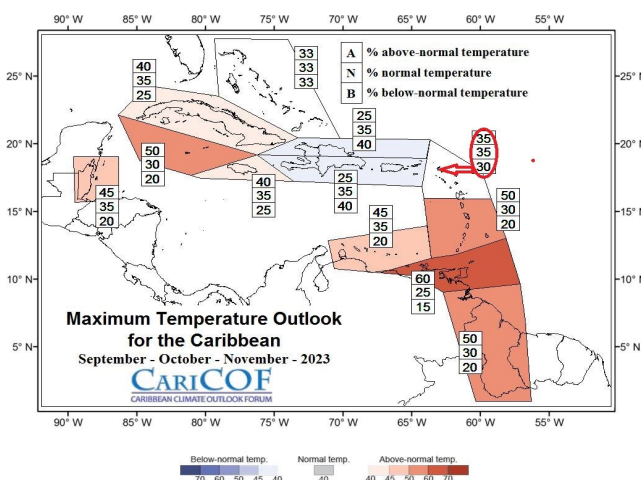
Models are indicating that rainfall totals for the season Sept-Oct-Nov 2023 are likely to be above the normal range in St. Maarten and the rest of the Leeward islands.

The normal rainfall for Sept-Oct-Nov season on St. Maarten ranges 320mm-466mm/13-18 inches, with 37 to 45 wet days. Throughout this season there are usually heavy and more frequent showers.

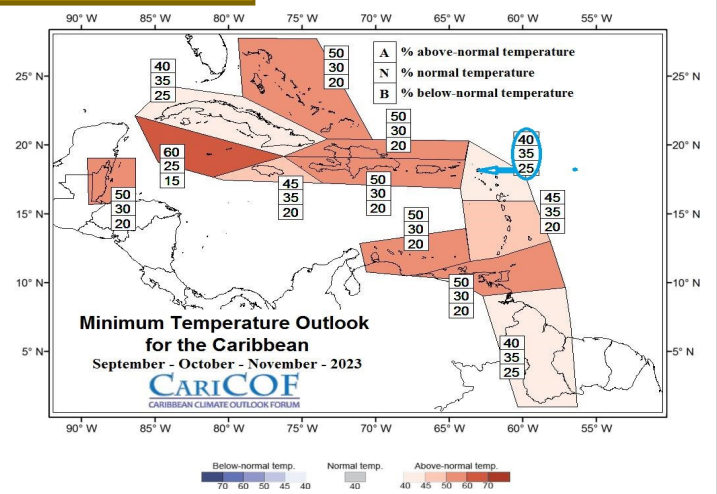
The forecast is for up to 6 (7-day) wet spells, up to 4 very wet spells and about 5 (7-day) dry spells on St. Maarten during this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

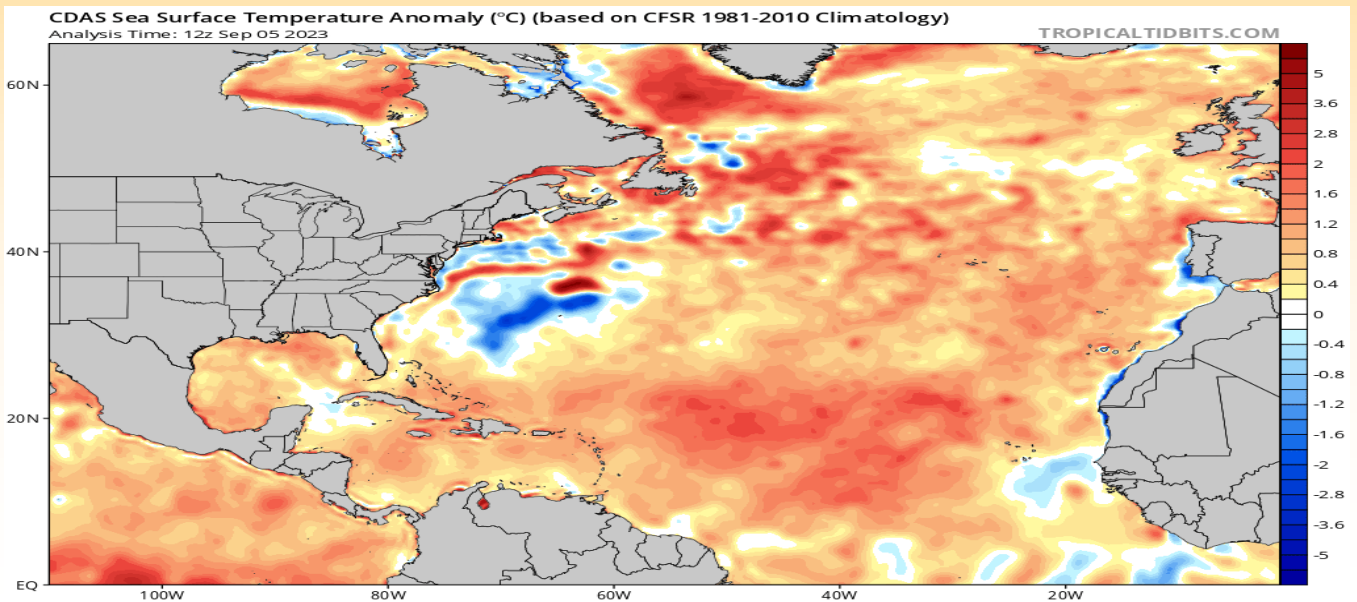
Day-time and night-time temperatures are forecast to be uncomfortably high this season. Humidity and the frequency of heatwaves are expected to remain high through October and expected to gradually become more comfortable in November.

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 August, the El Nino conditions in the eastern and central Pacific strengthened. The El Nino advisory remains in place and the majority of the forecast models predict that an El Nino will persist through the first quarter of 2024 and weaken thereafter with a neutral phase the most likely phase from April 2024.

El Nino more often than not is marked by a warmer heat season, drier summer, and reduced tropical cyclone activity especially from September to November. Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures with above average humidity and increase frequency of heatwaves. However, the current unusually high SSTs may increase hurricane activity.



2023 Atlantic Hurricane Season

Five (5) named storm formed during the month of August and two of them became major hurricanes.

T.S Franklin formed on August 20th in the Caribbean Sea and became a hurricane over the NW Atlantic Ocean on August 26th.

T.S Idalia formed on August 27th in the western Caribbean Sea. Idalia became a hurricane on the 29th and made landfall in Florida on 30th as a cat. 3 Hurricane.

We are presently in the peak of the hurricane season, All residents should evaluate their surrounding and make the necessary preparations in the event of any system heading our way.

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

AUGUST 2023 IN REVIEW

Total Rainfall	158.6 mm	6.2 in
2023 Cumulative Rainfall	487.1 mm	19.2 in.
Max. 24-Hr. Rainfall	55.3 mm	2.2 in.
No. Rain Days (≥1.0 mm)	13 days	
No. Heavy Rain Days (≥10.0 mm)	4 days	
No. Thunderstorm Days	4 days	
Avg. Wind Speed	9 kt.	10 mph
Max. Wind Gust	30 kt.	35 mph
Avg. Temperature	29.7°C	86°F
Max. Temperature	33.8°C	93°F
Min. Temperature	23.9°C	75°F

Long /Short Term Seasonal Review**Year in Review
(September 2022– August 2023)**

Total rainfall over the past twelve (12) months was within the normal range. (957 –1216mm). A total of 964mm/38in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review
(Jun –Jul –Aug 2023)**

Total rainfall for the last three (3) months was 265mm/10in, this amount was within the normal range (201-267mm). There were eight (8) days with heavy rainfall (>10mm) during that period.

For the month of August, rainfall was above the normal range as well as temperatures . August 2023 was the warmest August since 1991. Night-time Average temperatures were also the warmest since 1991

The warmest day in August was the 28th with an average temperature of 30.6°C/87°F. The coolest day was the 20th with an average temperature of 27.6°C/82°F.

The day with the most sunshine hours in August was the 1st (12hrs:12min).

The day with the least sunshine hours was the 21st, (1hr:30min)

The windiest day in August was the 19th with a daily average wind speed of 15kt./17mph.

The day with the highest wind gust was also the 17th (30kt./35mph).

There were thirteen (13) days with rainfall in August, Four (4) of which had heavy rainfall (>10mm).

The longest dry spell in August was nine (9) days long. (21st to 29th).

August 30th recorded the highest maximum temperature (33.8°C/93°F)

There were four (4) heat wave periods in August the longest lasted twelve (12) days; August 9-20.

Nineteen (19) warm nights were recorded; thirteen (13) of those were extremely warm. The 16th and 27th were the warmest nights with a minimum temperature of 28.7°C/84°F.

**NORMAL
SEPTEMBER CONDITIONS**

Rainfall Total	83 – 120 mm	3-5 in.
Avg. No. of Rain days	12 days	
Daily Average Temperature	28.8°C	84°F
Avg. Max. Temperature	31.7°C	89°F
Avg. Min. Temperature	26.4°C	80°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes will continue to increase this season.

Health

- UV radiation will continue to increase this season. Excessive UV exposure can cause skin damage across the population on sunny days.
- Keep hydrated and limit outdoor activity between 11am and 3pm.
- Precaution should be taken during Saharan dust events.

Tourism Sector

- On hot days, there will be an increase demand for cooling & hydration.
- Coral reef bleaching alerts are high.
- Monitor updates for hurricane/storm activity

Agriculture

- Irrigation should be considered during dry spells.
- Increase cooling and ventilation for livestock.

BE PREPARED.....

We are in the peak of the hurricane season, there has been eleven (11) named storms three (3) hurricanes so far for the 2023 season. Predictions remain for above normal activity this season. The Atlantic Ocean continues to be extremely warm and above normal which enhances the development of cyclones. Therefore it is important that everyone take the necessary action to safe guard lives and property. and listen to credible sources for weather information.



Additionally the heat season continues across the Caribbean through October.

Stay Hydrated;

Wear protective clothing;

Never leave infants, children or pets inside a parked vehicle,;

Check on elderly family members, neighbors and friends to make sure they are comfortable and safe.

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