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Weather & Climate

Volume 8, Issue 1

February 2023

Summary

- Rainfall & Temperatures for January 2023 were near normal.
- The lowest minimum temperature for January since 2012 was recorded.
- Heat will gradually increase through April 2023.

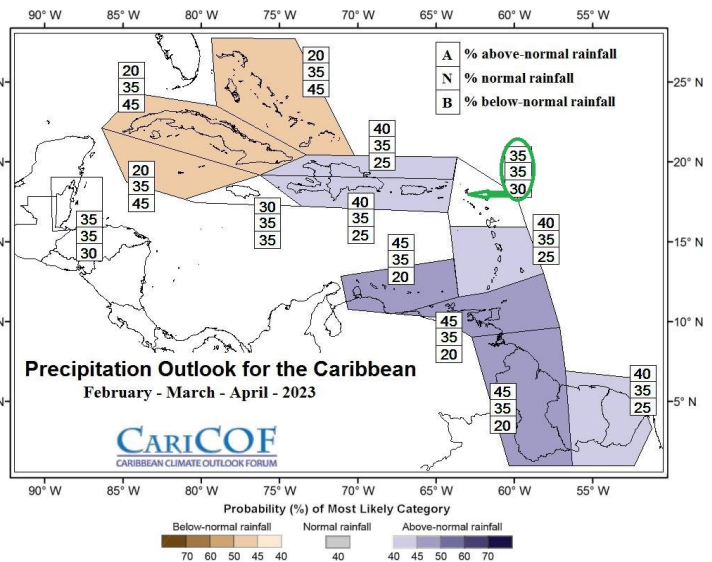
Seasonal Outlook for February to April (FMA) 2023

Rainfall Forecast

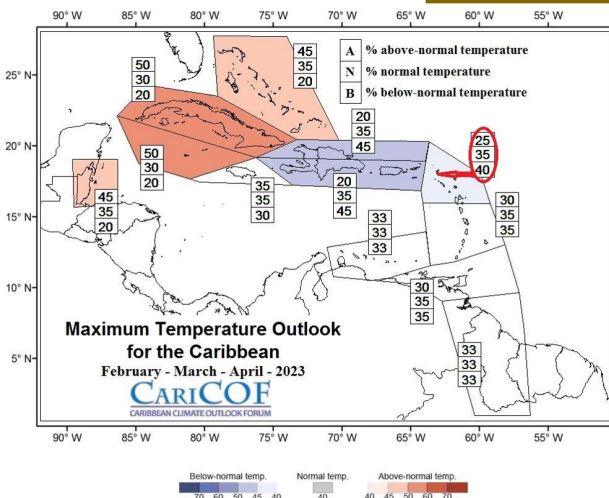
Models are indicating that rainfall totals for the season Feb-Mar-Apr 2023 are likely to be near the normal range in St. Maarten and the rest of the Leeward Islands.

The Feb-Mar-Apr season is the driest season on St. Maarten. Normal rainfall ranges 132mm–168mm/5-7 inches, with 22 to 32 wet days. We are in the dry season therefore, mostly sunny day with a few showers are expected.

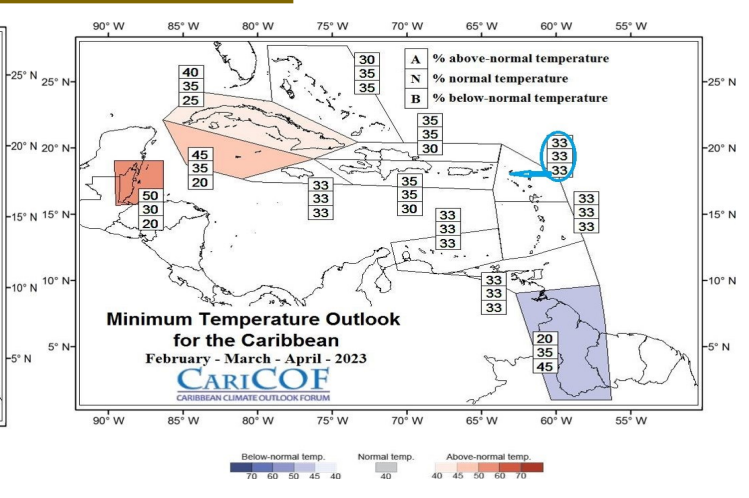
The forecast is for up to 4 (7-day) wet spells, up to 3 very wet spells and about 6 (7-day) dry spells on St. Maarten during this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

Day-time and night-time temperatures are expected to be near the usual or slightly lower this season. Heat stress is not expected to be of concern through March however by April heat will be on the rise.

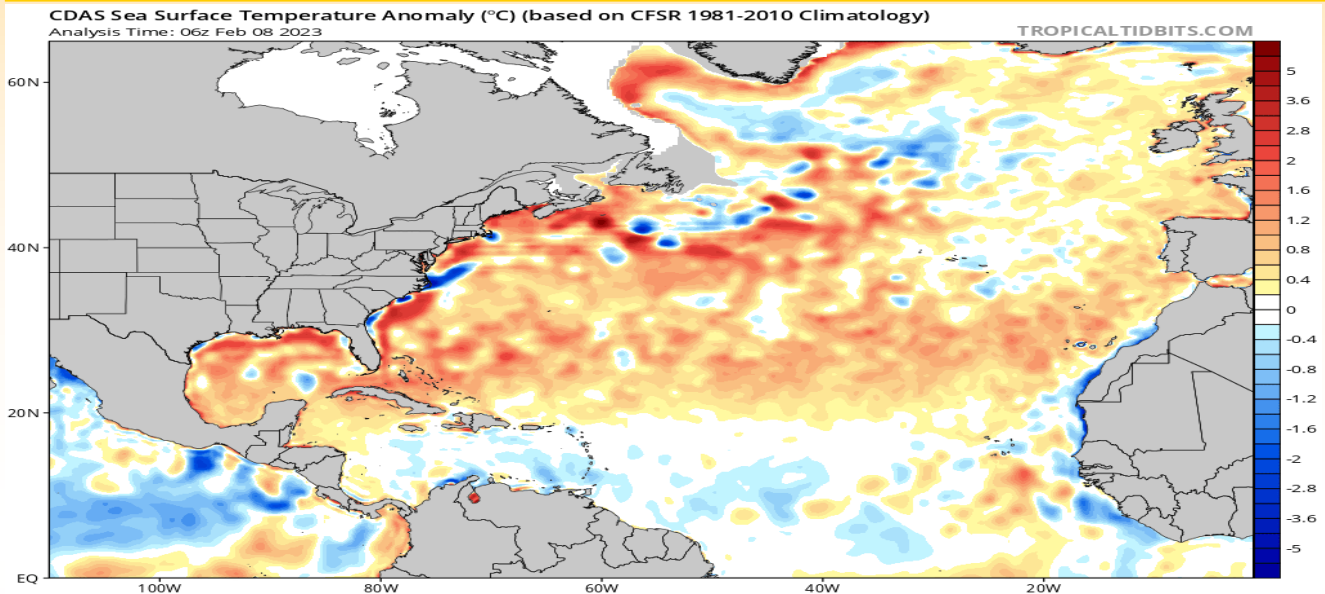
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid January, 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 though there are signs of weakening. The La Nina Advisory remained in place.

Majority of the forecast models predict that SSTs will transition from La Nina levels to the neutral state during February and March. The likelihood of El Nino remains low in May to July and increases in probability thereafter.

SSTs remained around 0.5°C above average in much of the sub-tropical North Atlantic but was near average in the Caribbean Sea and the Tropical north Atlantic. Models are suggesting that SST will remain to between 0°C to 0.5°C above average around the Caribbean and in the tropical North Atlantic.

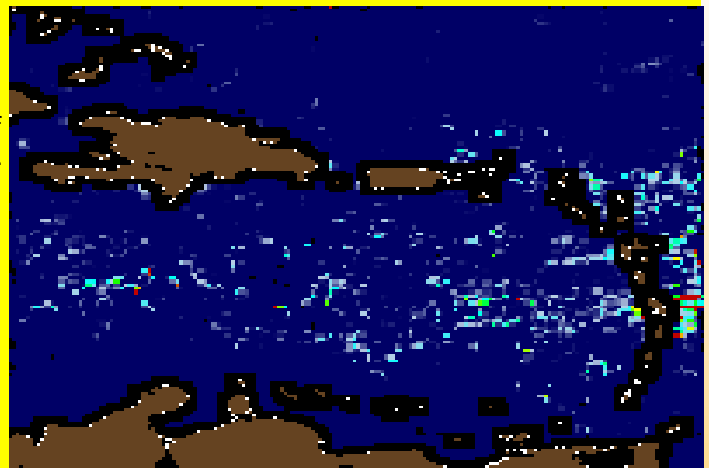


SARGASSUM REPORT

The map below shows Sargassum abundance, with warm colors representing higher values. The overall Sargassum quantity in the Atlantic Ocean doubled from December to January (8.7 million tons), again setting a new record (previous January record was 6.5 million tons in 2018).

The Eastern Caribbean islands have experienced mild conditions in the final quarter of 2022, except for an unexpected influx of sargassum at the end of December lasting over the New Year.

The level of sargassum arriving now is moderate, but is expected to increase further in the coming weeks. There is twice as much (204% more) sargassum visible out in the Atlantic than this time last year



January 2023

For more information:

<https://www.cavehill.uwi.edu/cermes/projects/sargassum/outlook-bulletin.aspx>

<https://optics.marine.usf.edu/projects/saws.html>

JANUARY 2023 IN REVIEW

Total Rainfall	66.8 mm	2.6 in
2023 Cumulative Rainfall	66.8 mm	2.6 in.
Max. 24-Hr. Rainfall	15.1 mm	0.6in.
No. Rain Days (≥1.0 mm)	17 days	
No. Heavy Rain Days (≥10.0 mm)	1 day	
No. Thunderstorm Days	None	
Avg. Wind Speed	9 kt.	10 mph
Max. Wind Gust	28 kt.	32 mph
Avg. Temperature	25.7°C	78°F
Max. Temperature	30.1°C	86°F
Min. Temperature	21.0°C	70°F

Long /Short Term Seasonal Review**Year in Review
(February 2022– January 2023)**

Total rainfall over the past twelve (12) months was below the normal range (973 –1237mm). A total of 894mm/35in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review
(Nov-Dec-Jan 2022/23)**

Total rainfall for the last three (3) months was 296mm/12in, this amount was within the normal range (272-321mm). There were five (5) days with heavy rainfall (>10mm) during that period.

Rainfall and temperatures for the month of January were within the normal range.

The warmest day in January was the 10th with an average temperature of 26.4°C/80°F. The coolest day was the 28th with an average temperature of 24.3°C/76°F.

The days with the most sunshine hours in January were the 20th & 23rd (10hrs:48min).

The day with the least sunshine hours was the 16th, (5hrs:24min)

The windiest days in January were the 4th & 5th with a daily average wind speed of 13kt./ 15mph.

The day with the highest wind gust was the 7th (28kt./32mph).

Skies were Mostly fair for most days.

There were seventeen (17) days with rainfall in January with only one (1) heavy rainfall day (>10mm).

There were no significant dry spells in January.

There were no hot days or warm nights in January.

There were seven cool nights in January with the 27th recorded as the coolest with 21.0°C/ 70°F. This was the lowest minimum temperature recorded in January since 2012.

**NORMAL
FEBRUARY CONDITIONS**

Rainfall Total	31 – 57 mm	1-2 in.
Avg. No. of Rain days	11 days	
Daily Average Temperature	25.6°C	78°F
Avg. Max. Temperature	28.7°C	84°F
Avg. Min. Temperature	23.3°C	74°F
Avg. Daily Hours of Sunshine	9 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes will slowly increase through April.

Tourism Sector

- Fewer interruptions to outdoor activities are possible.

Agriculture

- Frequent dry spells are expected this season.
- Pest and disease may increase in extreme dry and wet conditions. Monitor and employ recommended treatments as necessary.

Health

- UV radiation will gradually increase this season. Excessive UV exposure can cause skin damage across the population on sunny days.
- Proper management of water storage containers e.g. covering with protective mesh helps to reduce the risk of mosquito breeding.

WORLD METEOROLOGICAL DAY 2023

MARCH 23, 2023



THEME:

*The Future of Weather, Climate and Water
across Generations*

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