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Weather & Climate

Volume 6, Issue 3

March 2021

Summary

- **Drought conditions are possible on St. Maarten by the end of May 2021.**
- **Temperatures forecast to remain comfortable through March and gradually warm thereafter.**
- **Rainfall for the month last 3 months was below average.**

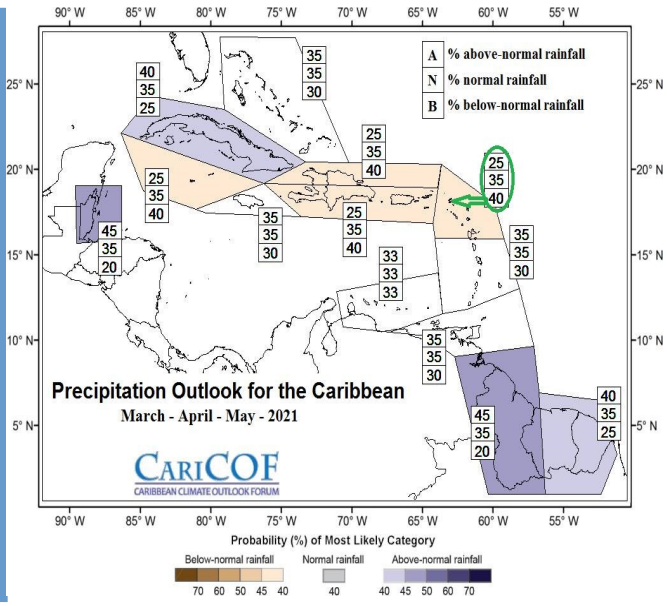
Seasonal Outlook for March to May (MAM) 2021

Rainfall Forecast

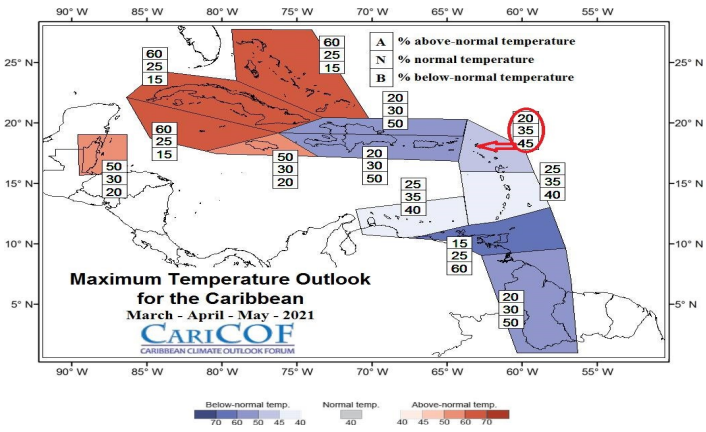
Rainfall totals for the season Mar-Apr-May 2021 are likely to be the usual or drier in St. Maarten and the rest of the Leeward Islands.

Within the 92 days of Mar-Apr-May, the normal rainfall total for St. Maarten ranges from 148mm–250mm/6-10in. with 22 to 30 wet days. There are usually some sunny days in Mar. and Apr. with limited showers while May can be either wet or dry as it is the transition month into the wet season.

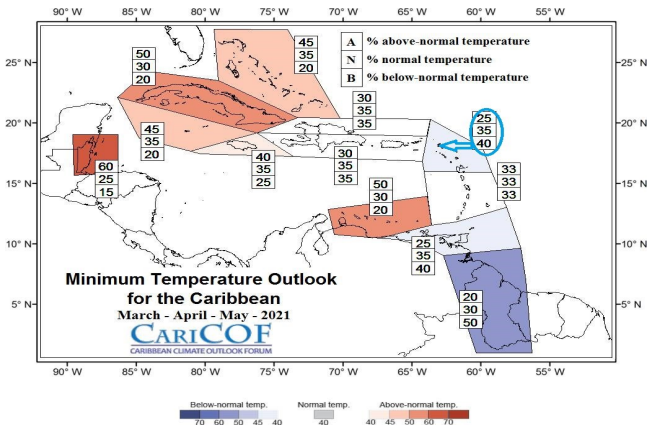
The forecast is for a slight increase in the number of wet days and for about 6 (7-day) dry spells in St. Maarten this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

Day-time and night-time temperatures will remain comfortably cool through the month of March and then progressively warm into May across most of the Eastern Caribbean.

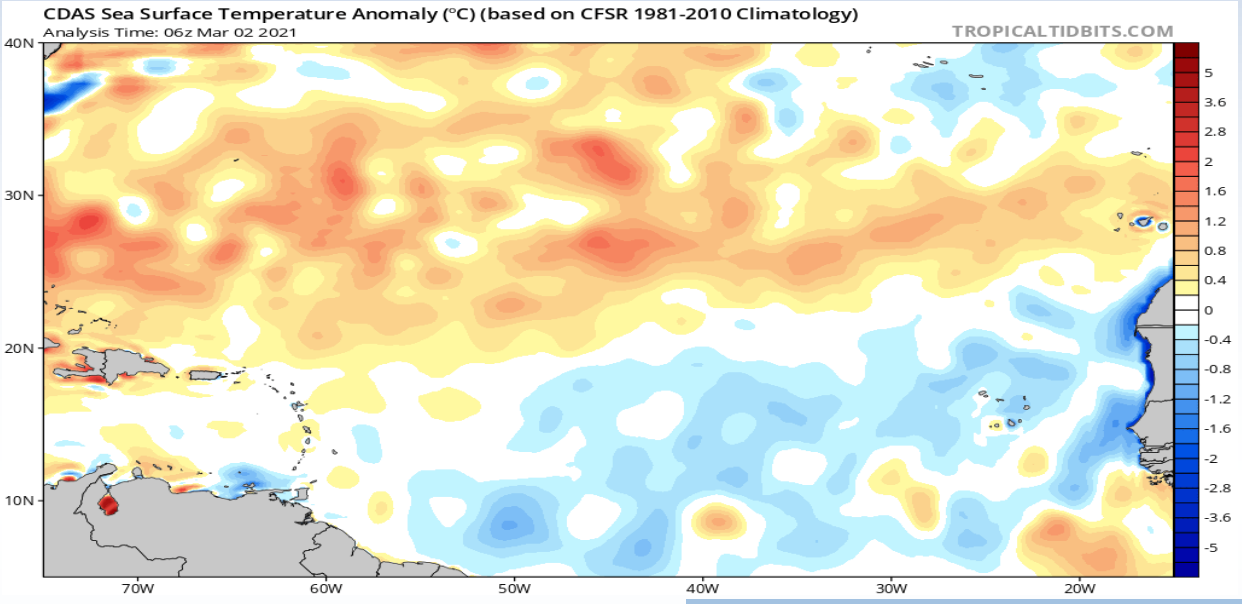
For more information on other Caribbean Outlooks go to http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/

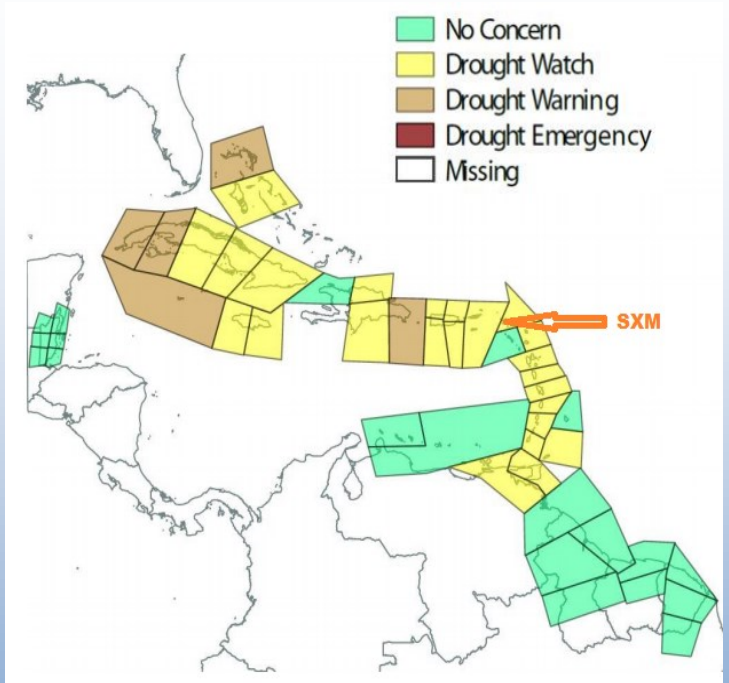
WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid February, Sea surface temperatures (SST) in the east-central Pacific were roughly 1.1 degree Celsius below average, and all key atmospheric variables are consistent with continued La Nina conditions.

Majority of the forecast models predict SSTs to be cooler than the La Nina threshold through Mar-Apr-May season and a likely transition to a neutral phase in Apr-May-Jun season. A La Nina Advisory remains in effect.

SSTs have warmed up to 1°C above average in much of the Tropical North Atlantic and cooled over the central Atlantic. Models vary in forecasting whether SST anomalies decrease or increase across the Caribbean Sea through July. Continued warm SSTs throughout the Caribbean tend to contribute to above-average humidity, seasonal rainfall totals and reduced dry spell frequency and a potential earlier start of the wet season in the Lesser Antilles.





Short term drought alert levels by the end of May 2021

Drought Watch

Drought conditions are evolving in much of the Greater Antilles and is possible in the Lesser Antilles by the end of May 2021 with the exception of St. Kitts, Barbados, the ABC Islands and the Guianas.

Due to limited amount of rainfall experienced over the past 3 months, drought conditions are **possible** in the short term; by the end of May in St. Maarten.

Some of the things that can be done now:

* Keep updated on the situation;
* Monitor and repair infrastructure; fire hydrants/ trucks, plan response strategies.
* Implement our management plans in specific fields (water resource);
* Put measures in place to monitor pond levels to avoid major fish kill;
* Put irrigation plans in place and prepare shelter for animals.

This newsletter is produced by the Meteorological Department of St. Maarten. We would appreciate your comments and feedback. Kindly drop us a line at meteo@sintmaartengov.org or call us at (1 721) 520 3312/ 545 4226.

FEBRUARY 2021 IN REVIEW

Total Rainfall	**48.5 mm**	**1.9 in.**
2021 Cumulative Rainfall	**80.3 mm**	**3.2 in.**
Max. 24-Hr. Rainfall	**11th Feb.**	**10.9 mm/ 0.4in.**
No. Rain Days (>=1.0 mm)	**12 days**	
No. Heavy Rain Days (>=10.0 mm)	**1 day**	
No. Thunderstorm Days	**0 days**	
Avg. Wind Speed	**12 kts.**	**14 mph**
Max. Wind Gust	**33 kts.**	**38 mph**
Avg. Temperature	**26.2°C**	**79°F**
Max. Temperature	**3rd & 16th Feb**	**29.9°C / 86°F**
Min. Temperature	**20th Feb.**	**21.3°C / 70°F**

Long /Short Term Seasonal Review

Year in Review (Mar. 2020— Feb. 2021)

Total rainfall over the past twelve (12) months was within the normal range (987-1222mm). A total of 996.9 mm/39in. of rainfall was recorded at the Princess Juliana International Airport.

Seasonal Review (Dec-Jan-Feb. 20/21)

Total rainfall for the last three (3) months was 150.9mm/5.9inches, this amount was below the normal range (160-249mm). There were 4 days with heavy rainfall (>10mm). In December, rainfall was near normal while January and February rainfall was below the usual.

Overall temperatures were above the normal range for the month of February and rainfall was below the average.

The average daily temperature for February was 26.2°C /79°F.

The warmest day was the 4th with an average temperature of 27.0°C/81°F.

The coolest days were the 12th & 17th with an average temperature of 25.5°C/78°F.

The day with the most sunshine hours was the 24th (11hrs:12min).

The day with the least sunshine hours was the 21st (7hrs:00min).

The windiest day was the 18th, with a daily average wind speed of 15 kt./ 17 mph.

The day with the highest wind gust was the 17th with a gust of 33kt/38 mph.

Skies were mostly fair during the month of February.

There were twelve (12) days with rainfall in February and one day recorded heavy rainfall.

The longest dry spell was 5 days from the 20th to 24th February.

NORMAL MARCH CONDITIONS

Rainfall Total	24 mm — 58 mm	1— 2 in.
Avg. No. of Rain days	9 days	
Daily Average Temperature	25.7°C	78°F
Avg. Max. Temperature	29.0°C	84°F
Avg. Min. Temperature	23.5°C	74F
Avg. Daily Hours of Sunshine	9 hrs	

Please note that all data was recorded at the Princess Juliana International Airport and may not necessarily reflect conditions at other points on country St Maarten.

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes may gradually increase by April as temperatures warm.

Health

- Little or no heat discomfort until mid March 2021.
- Persons with respiratory illnesses should remain alert during Saharan dust episodes.

Tourism Sector

- Continue to observe all health protocols.
- Monitor daily forecasts for marine conditions as northerly swells are more frequent this time of year and can create hazardous sea conditions.

Agriculture

- Drought conditions are possible by the end of May.
- Harvest rain water during rainy events for irrigation.
- Prepare proper shelter for livestock.

World Meteorological Day will be celebrated this year under the theme ' The Ocean, Our Climate and Weather'. When it comes to the weather and climate, most of us think only about what is happening in the atmosphere. If we ignore the ocean, however, we miss a big piece of the picture.

Covering some 70% of the Earth's surface, the ocean is a major driver of the world's weather and climate. It also plays a central role in climate change. The ocean is also a major driver of the global economy, carrying more than 90% of world trade and sustaining the 40% of humanity that lives within 100 km of the coast.

Recognizing this, National Meteorological and Hydrological Services and researchers regularly monitor the ocean and how it is changing, modeling how it affects the atmosphere and delivering a wide variety of marine services, including supporting coastal management and Safety of Life at Sea.

Today, the growing impacts of climate change are making ocean observations, research and services more critical than ever before.

WMO, as the United Nations specialized agency for climate, weather and water, strives to support understanding the inextricable link between ocean, climate and weather. This helps us understand the world in which we live, including the impacts of climate change, and to help Members strengthen their ability to keep lives and property safe – reducing the risk of disaster – and to maintain viable economies.