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# Meteorological Department St. Maarten

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## Weather & Climate

Volume 5, Issue 3

March 2020

### Summary

- Drought conditions are possible across St. Maarten by the end of May 2020.
- Temperatures are expected to gradually become uncomfortably hot as the season progresses.
- Temperatures recorded for the month of February were above normal for this time of year.

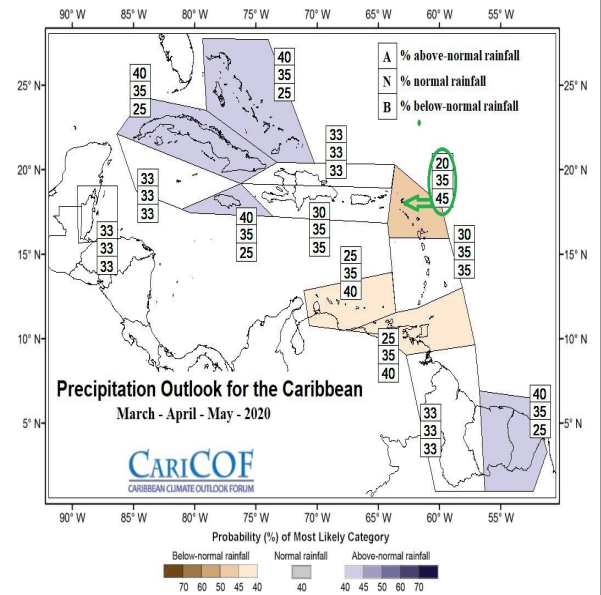
### Seasonal Outlook for March to May (MAM) 2020

#### Rainfall Forecast

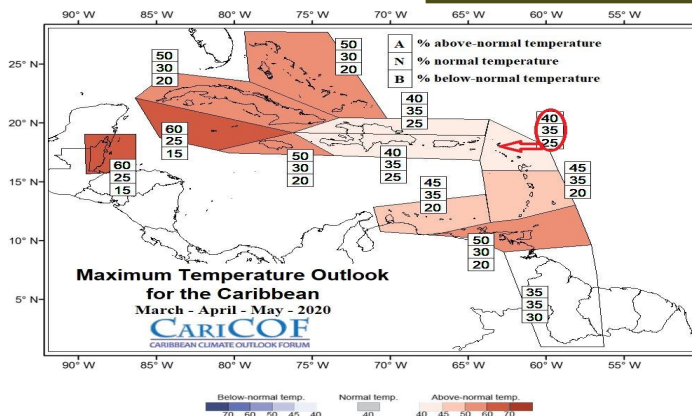
Rainfall totals for the season Mar-Apr-May 2020 are likely to be as usual or drier in St. Maarten and the rest of the Leeward Islands, the ABC Islands and Trinidad & Tobago. However, it is likely to be wetter than usual in the Bahamas, Cuba, Jamaica and eastern parts of the Guianas.

Within the 92 days of Mar-Apr-May, the normal rainfall total for St. Maarten ranges from 162.5mm–262.0mm/ 6-10in with 23-30 wet days. The forecast goes for at least 2 (7-day) wet spells and up to 10 (7-day) dry spells this season.

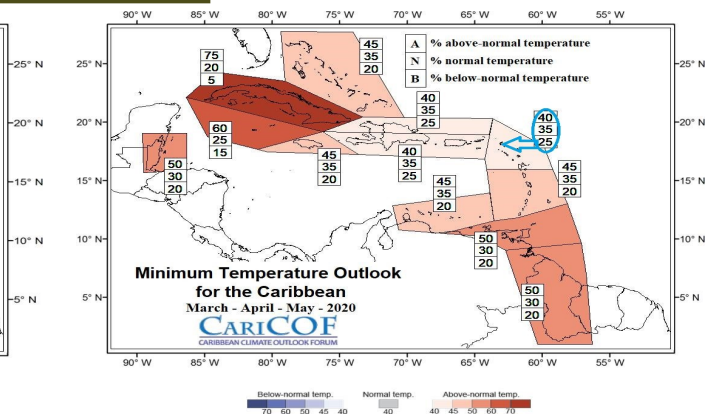
As we continue through the dry season, we can expect mostly sunny days with a few showers with an increase in showers in May as we transition to the wet season.



#### Temperature Forecast



Day-time Temperatures

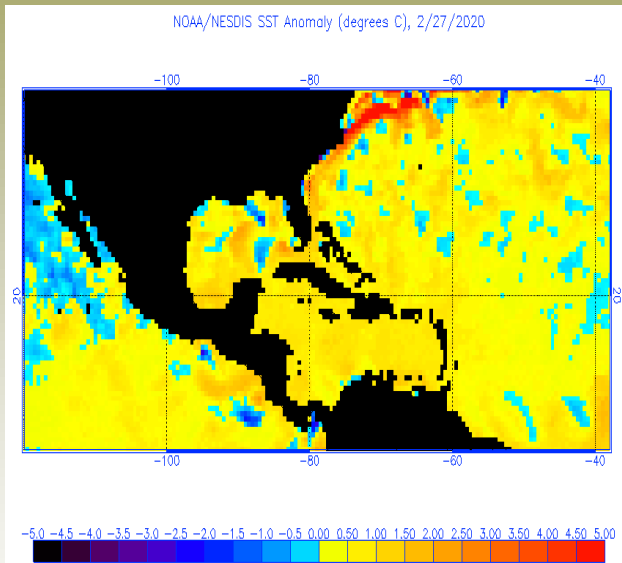


Night-time Temperatures

Both day-time and night-time temperatures are expected to be at least as warm as usual across most of the Caribbean and may become uncomfortably hot at times.

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

## WHAT INFLUENCES THIS SEASON'S CLIMATE?



Sea surface temperatures (SST) in the east-central Pacific were neutral, but above average during mid-February.

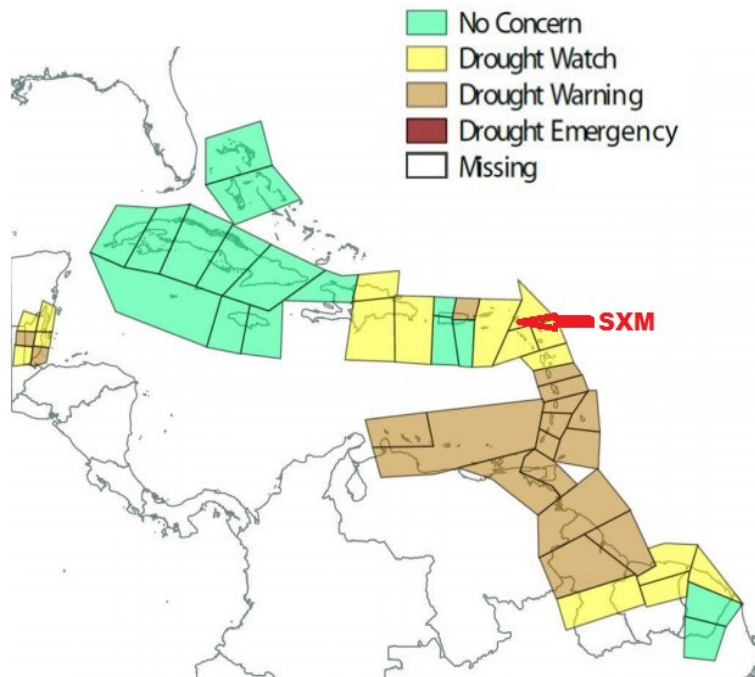
Patterns in the atmosphere have split between neutral and weak El Nino conditions. Most models favor warm-neutral SST conditions during this season cooling to average by early summer.

The ENSO neutral conditions have little contribution to the seasonal rainfall or temperature in the Caribbean. At this time, climate conditions in the Caribbean continue to be affected by the North Atlantic Sea Surface Temperatures (SST).

SSTs in the Gulf of Mexico are up to 2°C above average while SSTs across much of the Caribbean are up to 1°C above average. Those environmental factors favor a wetter transition from the dry to wet season towards May and June.

### Drought Watch: Drought Conditions possible by end of May 2020.

December and January were moderately wet while February was slightly wet. Rainfall has varied across the Caribbean over the past three months, the impacts of the current dry season are likely to play out differently across the region.



### Short term drought alert levels by the end of May 2020

Shorter term drought is evolving in the ABC Islands, Barbados, Belize, Dominica, Grenada, Guyana, NE Puerto Rico, Martinique, St. Lucia, St. Vincent, Trinidad & Tobago and possible in St. Maarten/St. Martin and the Leeward Islands by the end of May 2020.

This means that persons in the countries mentioned above should keep updated, monitor and repair infrastructure, implement management plans, protect resources and conserve water.

For St. Maarten drought conditions would mean dry conditions are possible therefore management plans should be put in place for bush fires, irrigation of crops, shelter for animals and management of pond-water levels for fish survival.

**FEBRUARY 2020 IN REVIEW**

Total Rainfall	64.2 mm	2.5 in.
2020 Cumulative Rainfall	199.7mm	7.9 in.
Max. 24-Hr. Rainfall	Feb. 14 <sup>th</sup>	11.1mm/ 0.4in.
No. Rain Days (≥1.0 mm)	17 days	
No. Heavy Rain Days (≥10.0 mm)	2 days	
No. Thunderstorm Days	1 day	
Avg. Wind Speed	9 kts.	10 mph
Max. Wind Gust	15 <sup>th</sup> Feb.	31 kts/46mph
Avg. Temperature	26.2°C	79°F
Max. Temperature	Feb. 24 <sup>th</sup>	30.6°C / 87°F
Min. Temperature	Feb. 21 <sup>st</sup>	22.1°C / 72°F

**Long /Short Term Seasonal Review****Year in Review****(Mar. 2019— Feb. 2020)**

Total rainfall over the past twelve (12) months was below the normal range. A total of 1030.9mm/41 inches of rainfall was recorded at the Princess Juliana International Airport. This was approximately 11% below the annual average.

**Seasonal Review (Dec-Jan-Feb. 2019/20)**

Total rainfall for the last three (3) months was 333.3mm/13 inches, this amount was above the normal range (173-258 mm). There were twelve (12) days with heavy rainfall (>10mm) within that period.

Rainfall for the month of February was above the normal range (31-57 mm). Temperatures were generally above normal for this time of year. Both average and absolute maximum temperature were the highest for the month of February since 2010.

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

The warmest day was the 3<sup>rd</sup> with an average temperature of 26.9°C/80°F.

The coolest day was the 26<sup>th</sup> with an average temperature of 25.1°C/77°F.

The day with the most sunshine hours was the 27<sup>th</sup> (11hrs :12min).

The day with the least sunshine hours was the 26<sup>th</sup> (1hrs:24min).

The windiest day was the 13<sup>th</sup>, with a daily average wind speed of 14 kt./ 16 mph.

The day with the highest wind gust was the 15<sup>th</sup> with a gust of 31kt/36 mph.

Skies were mostly fair throughout the month of February

Small craft advisories were issued due to above normal swells and strong winds.

**NORMAL MARCH CONDITIONS**

March is the driest month on St. Maarten based on short and long term records.

Rainfall Total	32.4 mm – 58.3 mm	1– 2 in.
Avg. No. of Rain days	9 days	
Daily Average Temperature	25.7°C	78°F
Avg. Max. Temperature	29.2°C	85°F
Avg. Min. Temperature	23.4°C	74°F
Avg. Daily Hours of Sunshine	9 hrs	

## Implication of Forecast for Sectors

### Tourism Sector

- A decrease in the frequency of wet days and an increasing number of dry days and dry spells will lead to less disruption to outdoor activities this season.
- Day-time and night time temperatures are expected to be as warm as usual and become uncomfortably hot at times beyond March.

### Health

- UV radiation will be on the increase this season. Excessive exposure can cause skin damage across the population on sunny days. The use of sunscreen and other protective gears are advised.
- During the dry season, increased use of containers for water storage may potentially create more breeding sites for mosquitoes, especially those associated with mosquito borne diseases, such as Dengue, Chikungunya and Zika.

### Agriculture

With decreasing rainfall totals and possible drought conditions by the end of May, management plans should be put in place for water storage/irrigation, bush fires and shelter for animals.

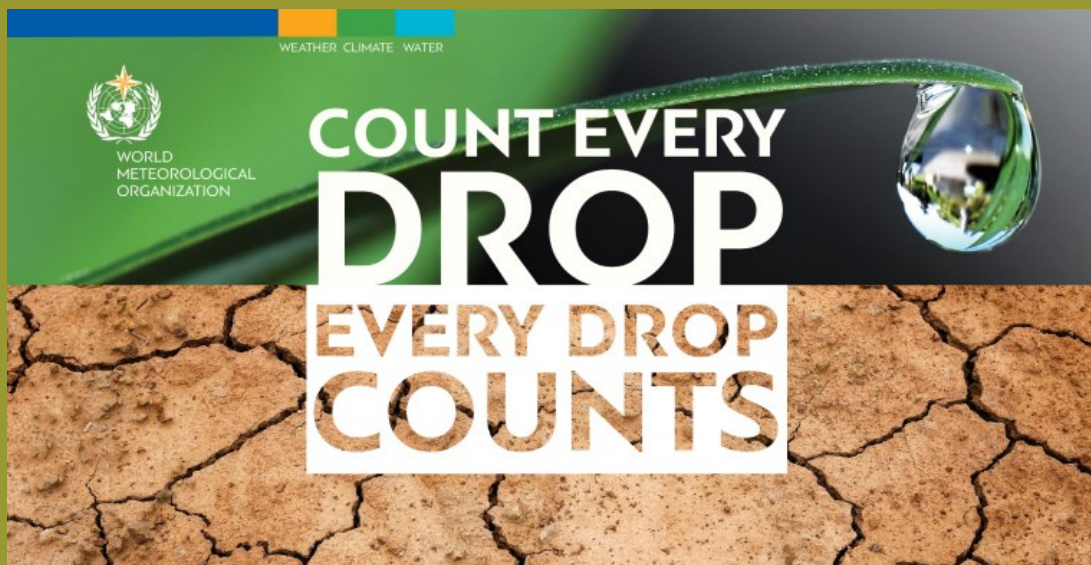
### Energy/Water Sector

Energy demand for cooling purposes is expected to increase throughout this season.

## WORLD METEOROLOGICAL DAY!!!!

World Meteorological Day takes place every year on 23 March, commemorating the date in 1950 when the Convention establishing the World Meteorological Organization (WMO) came into force. It showcases the essential contribution of National Meteorological and Hydrological Services to the safety and wellbeing of society and is celebrated with activities around the world. The themes chosen for World Meteorological Day reflect topical weather, climate or water-related issues.

This year, World Meteorological Day and World Water Day share the theme, **Climate and Water**. The focus is on managing climate and water in a more coordinated and sustainable manner because they are inextricably linked. Both lie at the heart of the global goals on sustainable development, climate change and disaster risk reduction.



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