

# Weather & Climate

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## KEY POINTS

- Rainfall/ Temperatures for February 2024 was above the normal range.
- Temperatures are forecast to be above normal this season throughout the Caribbean.
- There should be no drought concerns by the end of May 2024 on St. Maarten.

## SEASONAL OUTLOOK FOR MARCH TO MAY (MAM) 2024

# RAINFALL FORECAST

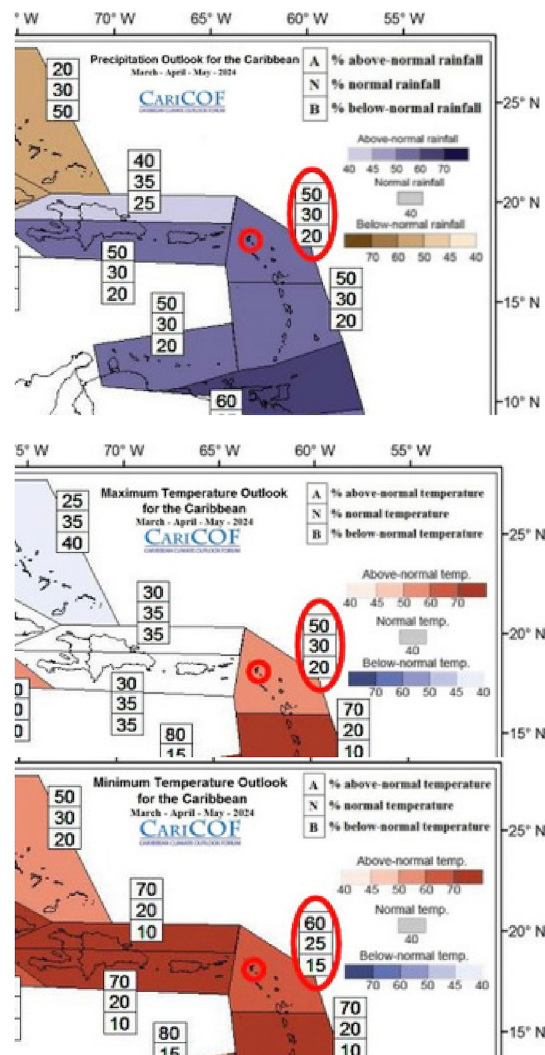
Models are indicating that rainfall totals for the season Mar-Apr-May 2024 are likely to be above the normal range in St. Maarten and for most of the Caribbean except for the northern and western Caribbean.

The normal rainfall for the Mar-Apr-May season on St. Maarten ranges 148mm–250mm/6-10 inches with 22-32 wet days. This is the latter part of the dry season, there are usually sunny days with some days with showers. May is a transition month it can either be dry and wet.

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

# TEMPERATURE FORECAST

Day-time and night-time temperatures are forecast to be higher than usual. Heat stress is expected to increase while some heatwaves may be possible in some areas.

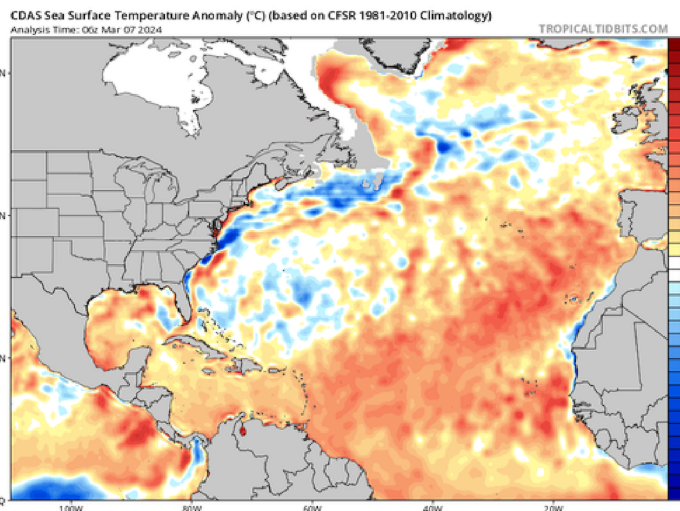


# WHAT INFLUENCES THIS SEASON'S CLIMATE ?

In mid February, moderate to strong El Nino conditions persisted in the eastern and central Pacific with key oceanic and atmospheric variables aligning with the ongoing El Nino event which is gradually diminishing. The El Nino advisory remained in place for February along with a La Nina watch issued for June to August 2024. The majority of the forecast models predict that an El Nino will persist through the end of May and rapidly weaken thereafter.

A transition out of El Nino more often than not is associated with increased chances of heavy showers and higher rainfall totals in April. Enso-neutral is expected to become the most likely phase from the Apr-May-Jun season with Enso-neutral and La Nina nearly equal in the Jun-Jul-Aug season and La Nina the most probable phase by the Jul-Aug-Sep season.

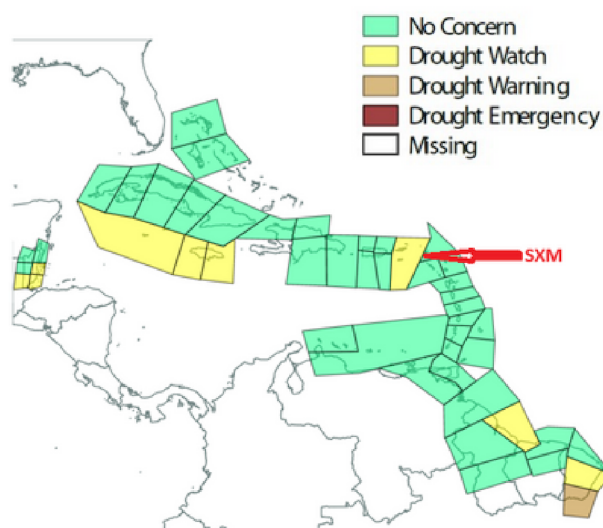
Sea Surface Temperatures (SSTs) in much of the Caribbean Sea and the tropical Atlantic are currently 1-2°C above normal. Models are confidently forecasting increasing warm SSTs across the Caribbean. Warm SSTs in and around the Caribbean contribute to higher air temperatures with above-average humidity, seasonal rainfall totals and increased frequency of extreme rainfall events ahead of and early in the wet/hurricane season.



## DROUGHT ALERT!

Models indicate that by the end of May 2024 there will be no drought concern in St. Maarten. Short term drought may evolve in parts of Belize, Jamaica, the Cayman Islands, the virgin Islands and parts of the Guianas.

Although, there is a no threat for drought conditions by the end of May resources should be monitored closely and infrastructure upgraded and management plans should be ratified and updated.



Short term drought alert levels at the end of May 2024



# FEBRUARY 2024 IN REVIEW

**Warmest day:** February 5th  
Average temperature of 27.7°C/82°F

**Coollest day:** February 8th & 23rd  
Average temperature of 22.7°C/73°F

**Sunshine hours:**  
**Most:** February 17th (11hrs:00min)  
**Least:** February 8th (0hr:00min)

**Windiest day:** February 6th  
Daily average wind speed of 12kt./14mph.

**Highest wind gust:** February 6th

**Longest dry spell:** 9 days

**Highest maximum temperature:**  
February 16th & 25th

**Seven(7) cool nights:**  
Minimum temperatures less than 22.7°C/73°F.

<b>Total Rainfall</b>	154.4 mm   6.1 in
<b>2023 Cumulative Rainfall</b>	203.9 mm   8.0 in
<b>Maximum 24-hr. Rainfall</b>	63.0 mm   2.5 in
<b>No. of Rain Days</b>	8 days
<b>No. of Heavy Rain Days</b>	3 days
<b>No. of Thunderstorm Days</b>	0
<b>Average Wind Speed</b>	7 kt   8 mph
<b>Maximum Wind Gust</b>	24 kt   28 mph
<b>Average Temperature</b>	26.2°C   79°F
<b>Maximum Temperature</b>	30.7°C   87°F
<b>Minimum Temperature</b>	20.7°C   69°F

# LONG/SHORT TERM SEASONAL REVIEW

## YEAR IN REVIEW (MAR 2023 - FEB 2024)

Total rainfall for the last 12 months was below the normal range. (987 -1222mm). A total of 873mm/34in. of rainfall was recorded at the Princess Juliana International Airport.

## SEASONAL REVIEW (DEC-JAN-FEB 2023/24)

Total rainfall for the last three (3) months was 260.4mm/8.1in; this amount was above the normal range (160-249mm). There were six (6) days with heavy rainfall (>10mm) during that period.

# NORMAL MARCH CONDITIONS

<b>Total Rainfall</b>	24-58 mm   1-2 in
<b>Average No. of Rain Days</b>	8 days
<b>Daily Avg. Temperature</b>	25.8°C   78°F
<b>Avg. Max. Temperature</b>	29°C   84°F
<b>Avg. Min. Temperature</b>	23.5°C   74°F
<b>Avg. Daily Hrs. of Sunshine</b>	9 hours

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

## HEALTH

- Persons with respiratory illnesses should take the necessary precautions during Saharan dust episodes and monitor daily forecasts for more information.
- UV radiation will gradually increase this season.
- Proper management of water storage containers e.g. covering with protective mesh helps to reduce the risk of mosquito breeding.

## TOURISM

- More interruptions to outdoor activities can be expected by April.

## AGRICULTURE

- No drought concern by the end of May.

## ENERGY/WATER

Energy demand for cooling purposes will gradually increase this season.

# WORLD METEOROLOGICAL DAY 2024

Climate change poses an urgent and undeniable threat to global civilization, with visible and potentially catastrophic effects looming unless immediate action is taken. The theme of World Meteorological Day 2024, "At the Frontline of Climate Action," highlights the critical need for proactive measures. The World Meteorological Organization (WMO) plays a pivotal role in addressing climate change and advancing Sustainable Development Goals (SDGs), vital for societal well-being.

SDG 13 emphasizes the urgency of combatting climate change, recognizing its integral role in achieving progress across all SDGs. The work of the WMO community is multifaceted, with efforts spanning from weather predictions supporting food production to early-warning systems mitigating the impacts of extreme weather events. These initiatives are essential in reducing hunger, poverty, improving health, ensuring clean water and energy, protecting ecosystems, and enhancing community resilience to climate change.

The WMO, along with its members and partners, is dedicated to driving the full value cycle from scientific research to actionable solutions for the betterment of society. Science stands at the forefront of these efforts, supercharging progress towards SDGs. Through cooperation, innovation, and leveraging collective expertise, the WMO remains committed to spearheading climate action, aiming to create a safer, more resilient world for future generations.



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