

Weather & Climate

Volume 9, Issue 11

November 2024

KEY POINTS

BE ALERT!

- October 2024 was the warmest October since 1961.
- There were three (3) heatwave periods in October; The longest heatwave lasted 17 days.
- We are still in the Hurricane Season. Be Alert!

SEASONAL OUTLOOK FOR NOVEMBER TO JANUARY (NDJ) 2024/25

RAINFALL FORECAST

Models are indicating that rainfall totals for the season Nov-Dec-Jan 2024/25 are likely to be the usual across St. Maarten and most of the Greater Antilles, and above normal for the southern Caribbean and Belize.

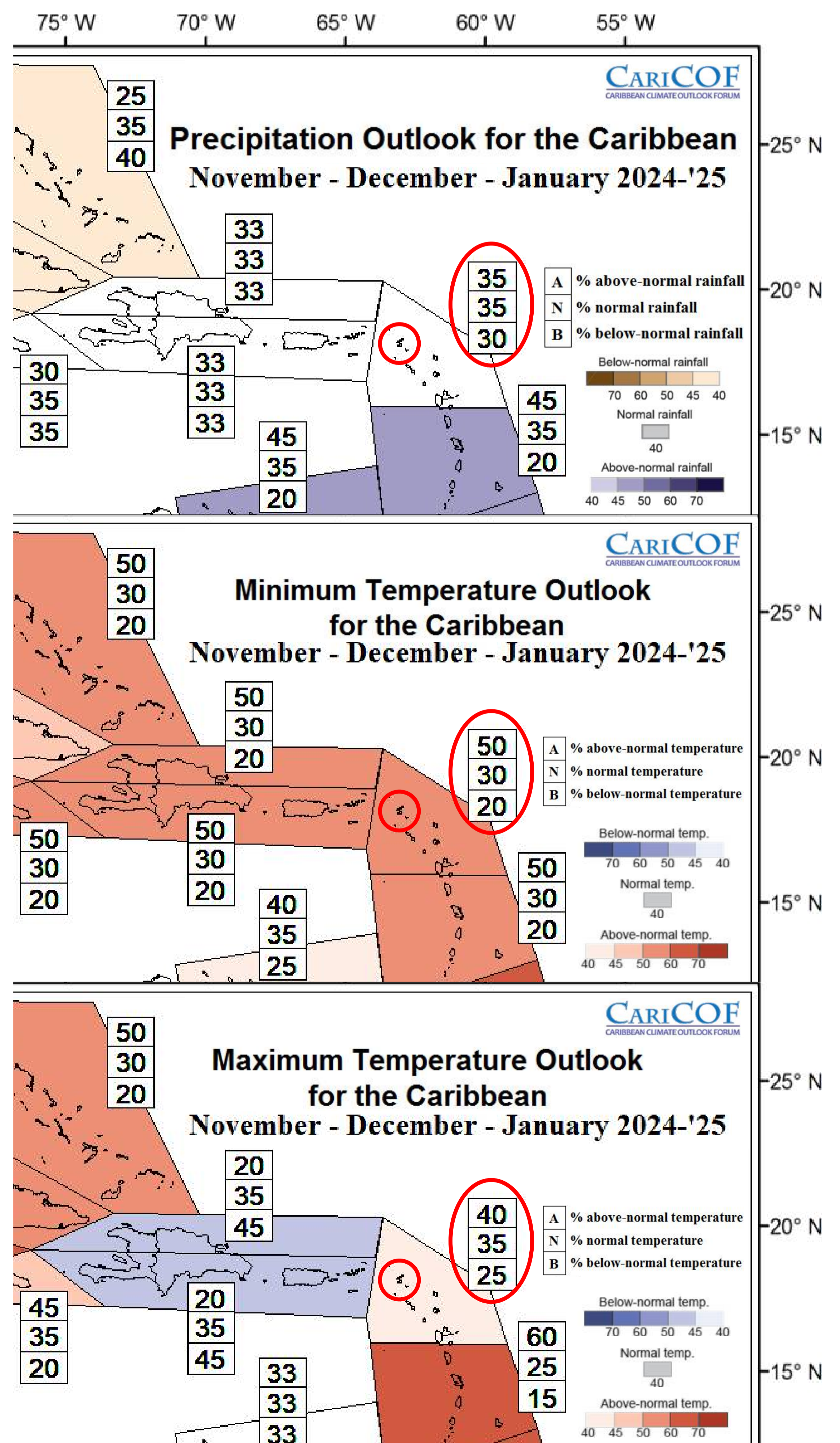
The normal rainfall for the Nov-Dec-Jan season on St. Maarten ranges 272mm–321mm/11-13 inches, with 37 to 45 wet days. November is usually the wettest month with frequent showers and some heavy; from December we transition to the dry season with decreasing shower intensity and frequency.

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

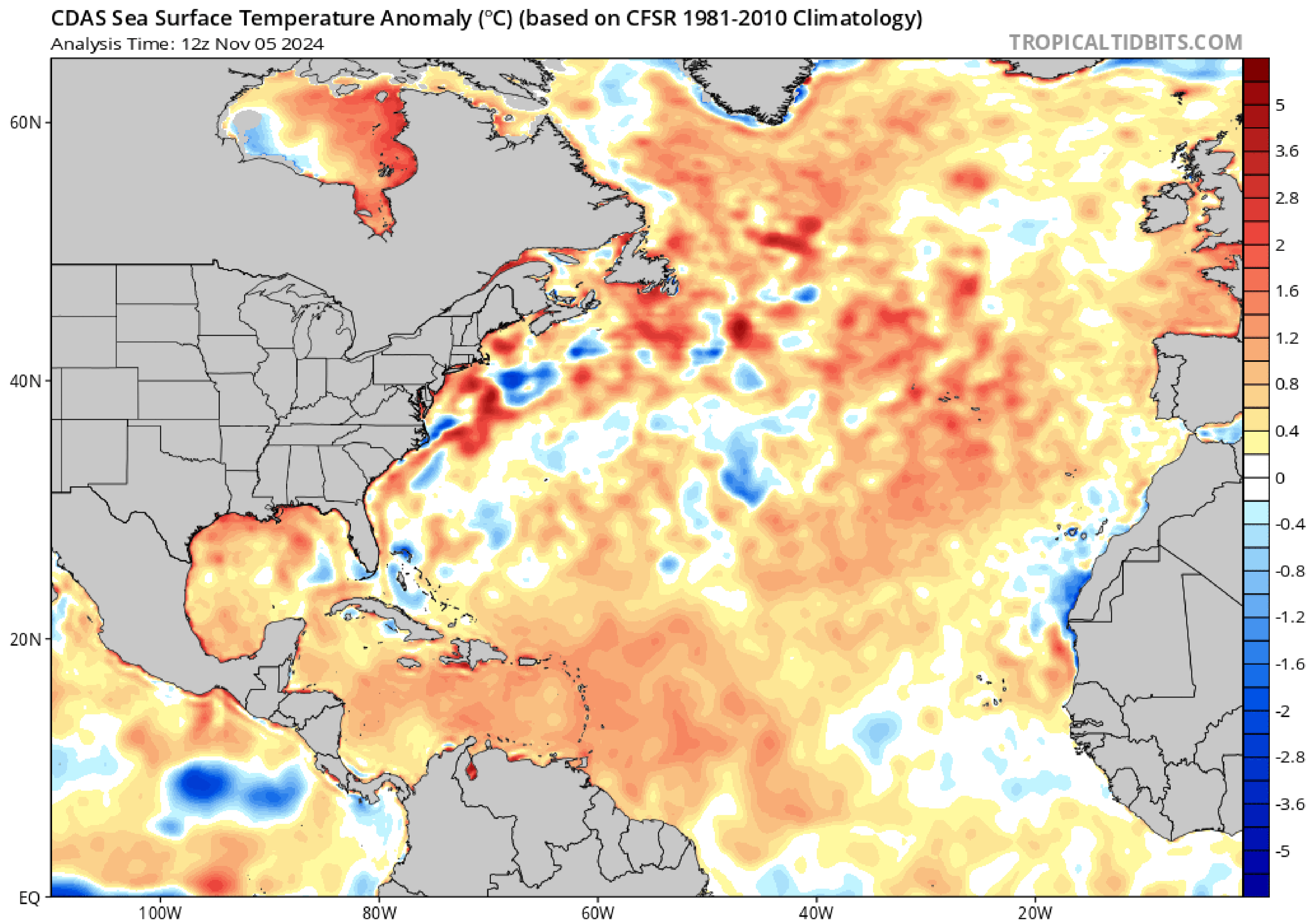
As we near the official end of the 2024 Atlantic Hurricane season there is still the potential for severe weather, flooding and flash flooding.

TEMPERATURE FORECAST

Day-time and night-time temperatures as well as humidity are likely to remain higher than usual. However, episodes of heat stress are expected to gradually decrease through November and should no longer be a significant hazard thereafter.



WHAT INFLUENCES THIS SEASON'S CLIMATE?



In mid October, ENSO-neutral conditions persist in the equatorial Pacific. There is still a notable difference in Models output probability values. The CPC ENSO Outlook predicts a clear preference for La Niña onset in Sep-Nov with continuation until Jan-Mar 2025. In contrast, the objective IRI ENSO forecasts show weak and short-lived La Niña conditions in Nov-Jan, and Dec-Feb, 2025. Both the CPC ENSO Outlook and the IRI ENSO forecast indicate a return to ENSO-neutral conditions by spring of 2025.

La Niña conditions are often associated with increased chances of heavy showers, higher rainfall totals and higher temperatures in NDJ season as well as a wetter secondary wet season for the Guianas and a drier than usual early dry season for the Northwest Caribbean.

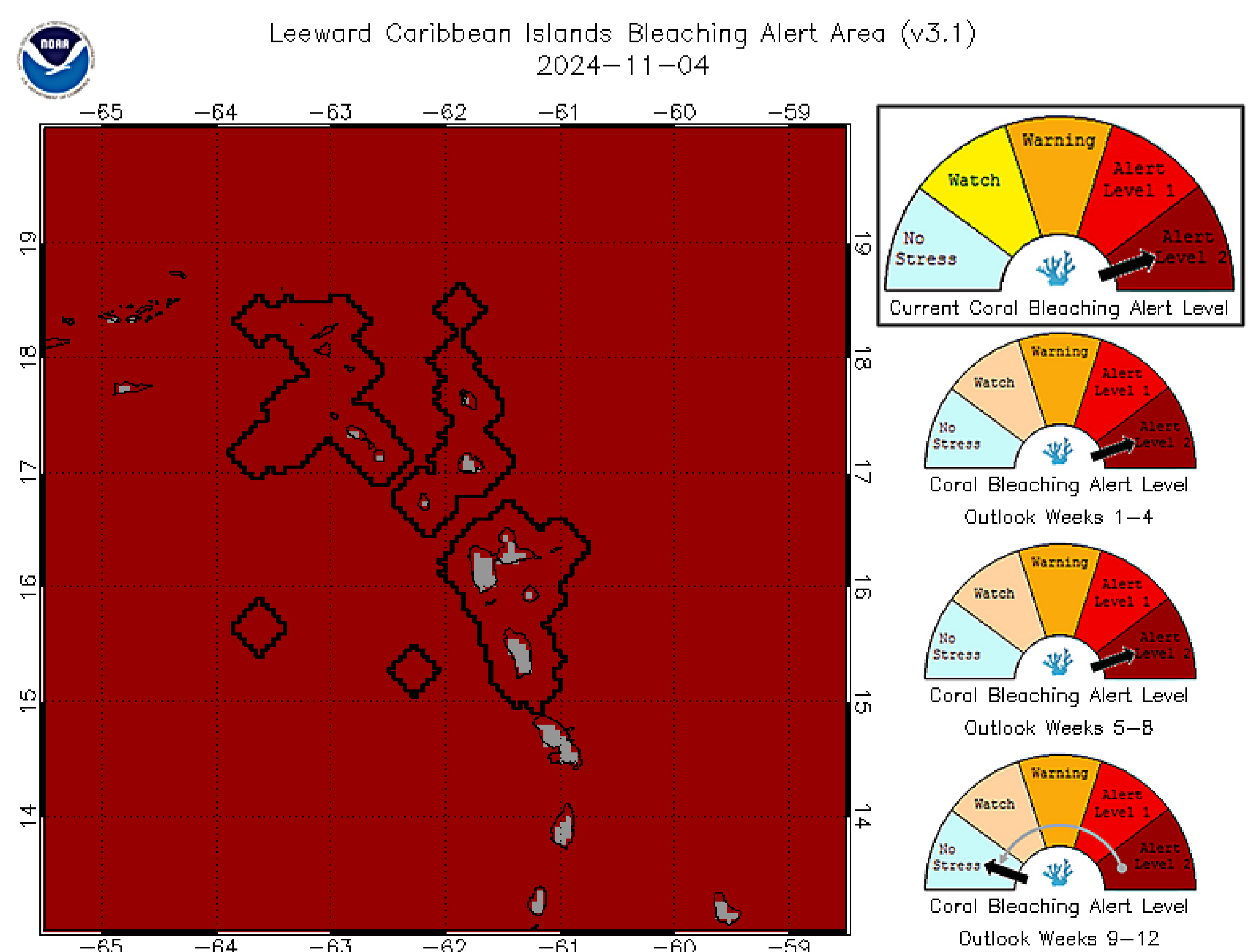
Record Sea Surface Temperatures (SSTs) in much of the Caribbean Sea and the tropical Atlantic are currently 1 to 2°C above normal since summer of 2023. Models are confidently forecasting above average SSTs across the Caribbean Sea and the Tropical North Atlantic from November through April 2025.

Warm SSTs in and around the Caribbean contribute to higher air temperatures with above-average humidity, seasonal rainfall totals, increased frequency of extreme rainfall and tropical cyclone activity through the end of the year.

CORAL REEF BLEACHING ALERT

Currently, a **Bleaching Alert Level 2** is in effect for St. Maarten and the entire eastern Caribbean through December.

Widespread Coral Bleaching and mortality is expected throughout the Eastern Caribbean.





OCTOBER 2024 IN REVIEW

Warmest day: October 9th

Average Temperature of 31.0°C/88°F

Coollest day: October 31st

Average Temperature of 26.0°C/79°F

Most Sunshine hours: October 5th (11hrs:12mins)

Least Sunshine hours: October 31st (0hrs:00mins)

→ *Overcast skies throughout the day.*

Windyest day & Highest wind gust: October 31st

Daily Average Wind Speed of 12kt./14mph.

Longest dry spell: October 5th to 19th

Length: 14 days

Highest Maximum Temperature: October 13th

Heatwave: 3 periods

Longest: 17 days

Hot days(>= 32.2°C/90°F): 27 days

Warm nights(>= 27.2°/81°F): 25 nights

Extremely warm: 9 nights

Total Rainfall	90.8 mm 3.6 in
2024 Cumulative Rainfall	962.2 mm 37.9 in
Maximum 24-hr. Rainfall	31.8 mm 1.3 in
No. of Rain Days	5 days
No. of Heavy Rain Days	3 days
No. of Thunderstorm Days	3 days
Average Wind Speed	7 kt. 8 mph.
Maximum Wind Gust	33 kt. 38 mph.
Average Temperature	29.9°C 86°F
Maximum Temperature	33.8°C 93°F
Minimum Temperature	22.5°C 73°F

For the month of October, rainfall was slightly below the normal range. October 2024 was the warmest October on records.

LONG/ SHORT TERM SEASONAL REVIEW

YEAR IN REVIEW

(NOV 2023 - OCT 2024)

Total rainfall for the last 12 months was within the normal range; (986-1231mm). A total of 1064mm/42in. of rainfall was recorded at the *Princess Juliana International Airport*.

SEASONAL REVIEW

(AUG-SEP-OCT 2024)

Total rainfall for the last three (3) months was 330.7mm/13in; this amount was within the normal range (290-408mm). There were twelve (12) days with heavy rainfall (>10mm) during that period.

NORMAL NOVEMBER CONDITIONS

Total Rainfall	89-156 mm 4-6 in
Average No. of Rain Days	14 days
Daily Average Temperature	27.4°C 81°F
Average Maximum Temperature	30.0°C 86°F
Average Minimum Temperature	25.0°C 77°F
Average Daily Hrs. of Sunshine	8 hours

IMPLICATION OF FORECAST FOR SECTORS

HEALTH

- On hot days, excessive UV exposure can cause skin damage.
- On Sunny days; Keep Hydrated!
- Proper management of water storage containers e.g. covering with protective mesh helps to reduce the risk of potential breeding sites for mosquitoes.
- Persons with respiratory illnesses should take the necessary precautions during Saharan dust episodes and monitor daily forecasts for more information.

TOURISM

- Coral reef bleaching alerts remains high.
- Heat stress will gradually decrease this season.

ENERGY/WATER

- Energy demand for cooling purposes will gradually decrease this season.

AGRICULTURE

- The potential for flooding and flash flooding remains high.
- Irrigation should be considered during dry spells.

2024 ATLANTIC HURRICANE SEASON

The month of October produced four (4) named storms; **Leslie, Milton, Nadine** and **Oscar**. Three (3) became hurricanes: **Leslie, Milton** and **Oscar**.

Sea surface temperatures remains at record high and the onset of a La Niña still pending; tropical storm formation remains high through this season (Nov-Jan).

So far there has been seventeen (17) named storms for the season, with eleven (11) of which have become hurricanes.

As we near the official end of the season remain alert for tropical storm activity can occur at any time.

Remember, that it takes only one major hurricane to make landfall on our island to make it an active season for us.

BE ALERT!

Tropical Depression	<38 mph
Tropical Storm	39-73 mph
Hurricane	74+ mph

2024 ATLANTIC STORMS

<i>ALBERTO</i>	<i>HELENE</i>	<i>OSCAR</i>
<i>BERYL</i>	<i>ISAAG</i>	<i>PATTY</i>
<i>CHRIS</i>	<i>JOYCE</i>	<i>RAFAEL</i>
<i>DEBBY</i>	<i>KIRK</i>	<i>SARA</i>
<i>ERNESTO</i>	<i>LESLIE</i>	<i>TONY</i>
<i>FRANCINE</i>	<i>MILTON</i>	<i>VALERIE</i>
<i>GORDON</i>	<i>NADINE</i>	<i>WILLIAM</i>

CATEGORY	WIND SPEEDS
1	74-95 mph
2	96-110 mph
3	111-129 mph
4	130-156 mph
5	157+ mph

The Meteorological Department St. Maarten (MDS) will monitor the development of all tropical systems closely and will issue watches or warnings when it becomes necessary using various communication mediums; radio, newspaper, its website (www.meteosxm.com) and Facebook (www.facebook.com/sxmweather).

DISCLAIMER: This information contained in this newsletter is produced with the understanding that the Meteorological Department of St. Maarten makes no warranties, either implied or expressed concerning the accuracy, completeness, reliability, or suitability of the forecast. The information may be used freely by the public with appropriate acknowledgement of its source.