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Weather & Climate

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October 2021

Summary

- Rainfall total for the month of September 2021 was 31% below normal;
- Rainfall for this season (Oct-Nov-Dec) is expected to be above normal.
- Heat waves are possible during the months of October.

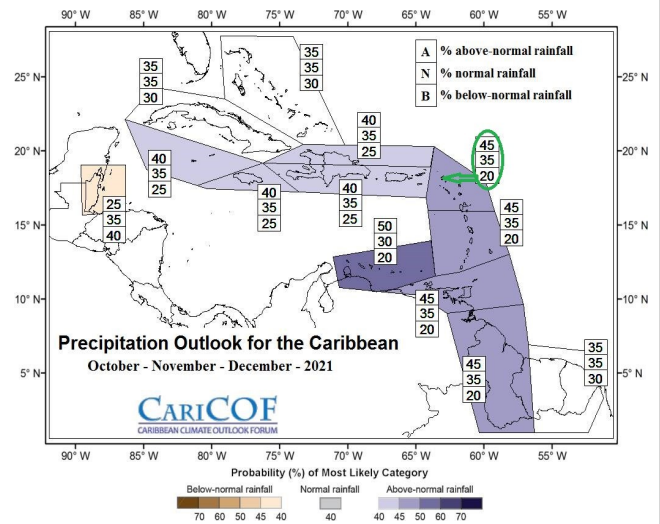
Seasonal Outlook for October to December (OND) 2021

Rainfall Forecast

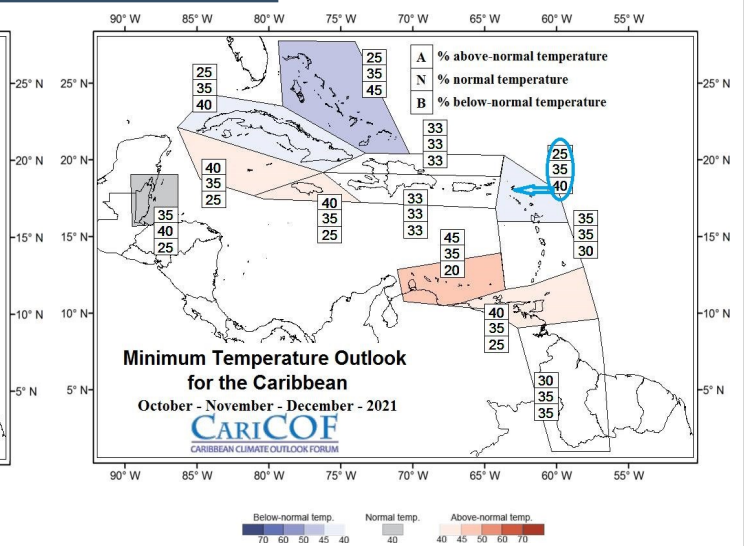
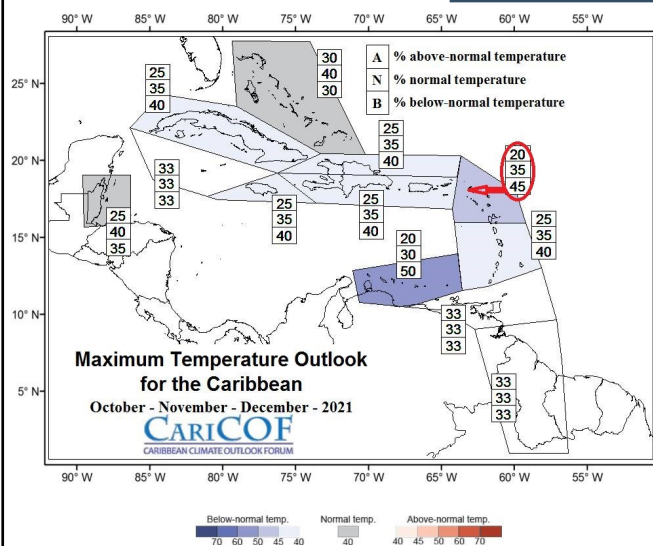
Models are indicating that rainfall totals for the season Oct-Nov-Dec, 2021 are likely to be the usual or higher in St. Maarten and across most of the region.

Normal rainfall on St. Maarten during the Oct-Nov-Dec season ranges 325 mm–415 mm/13-16in, with 37 to 45 wet days. There is usually frequent heavy showers in October and November while in December rainfall often decrease in frequency and intensity as we transition in the dry season.

Up to 7 (7-day) wet spells and up to 3 (7-day) dry spells are likely on St. Maarten during the season. There is no drought concern until the end of December.



Temperature Forecast



Day-time and night-time temperatures are expected to gradually decrease this season and become near normal or slightly lower than usual across the Leeward Islands. Some hot days will continue to occur in the first half of October, heat waves are also possible during that time.

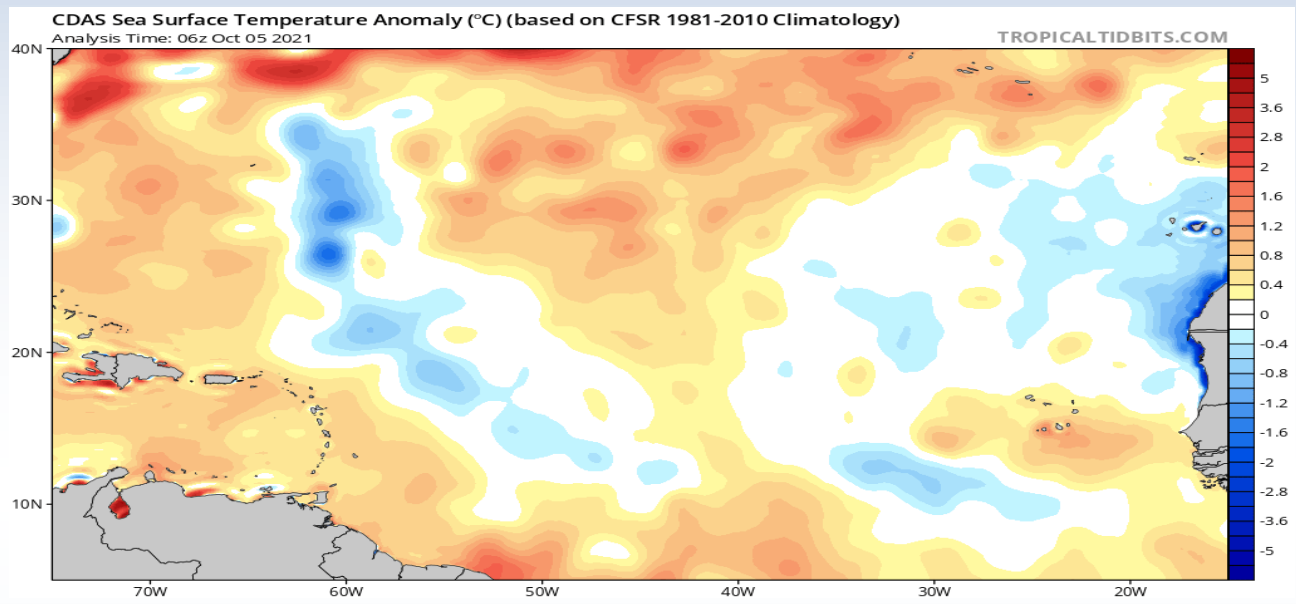
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid September, sea surface temperature (SST) in the east-central Pacific was 0.4 degrees C below average and most key atmospheric variables were consistent with ENSO-neutral conditions.

Majority of the forecast models predict SSTs to cool further through the rest of 2021 leading to a re-emergence of La Nina conditions. There is significant uncertainty whether for Jan-Feb-Mar La Nina will persist or a return to the ENSO neutral phase .

SSTs are within 0.5°C or near average in much of the Caribbean Sea and the Tropical North Atlantic but is around 0.5-2°C above average in the sub-tropical North Atlantic. Models are forecasting observed SST to remain around average across the Caribbean Sea . Warm SSTs in and around the Caribbean tend to contribute to higher air temperature, above-average humidity, seasonal rainfall totals, an increase in the frequency of extreme rainfall and a more active Atlantic Hurricane Season.



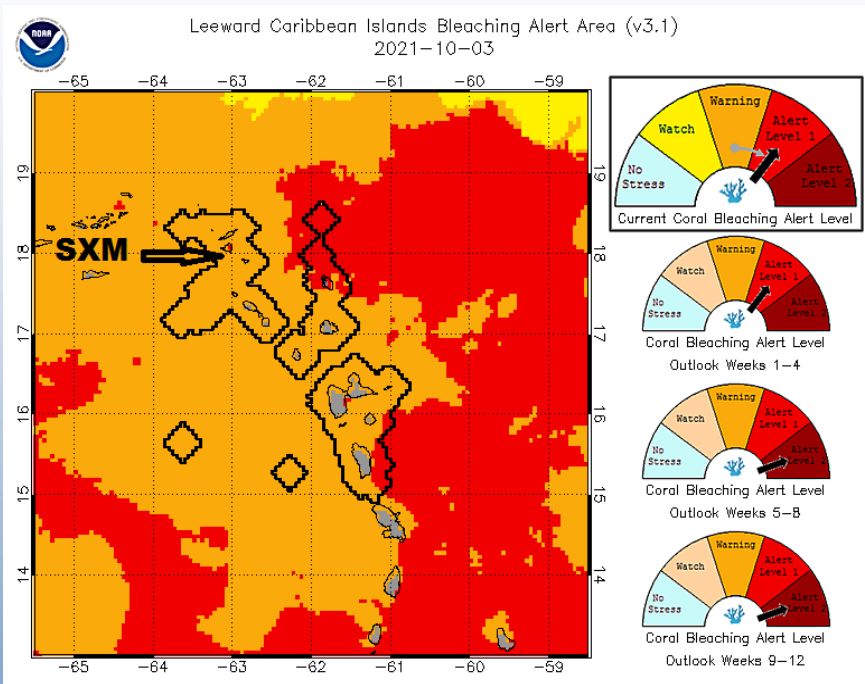
Coral Reef Outlook

Alert Level 1

Bleaching is possible within the next 5 weeks.

Sea Surface Temperatures are currently above the bleaching threshold.

By the end of October, widespread bleaching and some mortality is expected around the Leeward Islands and in other parts of the eastern Caribbean.



SEPTEMBER 2021 IN REVIEW

Total Rainfall	79.9 mm	3.1 in.
2021 Cumulative Rainfall	463.7 mm	18.3 in.
Max. 24-Hr. Rainfall	19 th Sep	27.6mm/ 1.1 in.
No. Rain Days (≥1.0 mm)	10 days	
No. Heavy Rain Days (≥10.0 mm)	2 days	
No. Thunderstorm Days	5 days	
Avg. Wind Speed	7 kts.	8 mph
Max. Wind Gust	31 kts.	36mph
Avg. Temperature	29.3°C	85°F
Max. Temperature	7 th Sep.	34.1°C / 93°F
Min. Temperature	14 th Sep.	25.1°C / 77°F

Long /Short Term Seasonal Review**Year in Review
(October 2020— September 2021)**

Total rainfall over the past twelve (12) months was below the normal range (953-1132). A total of 899.0mm/35in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review
(Jul-Aug-Sept. 2021)**

Total rainfall for the last three (3) months was 182mm/7 inches, this amount was below the normal range (250-349mm). There were four (4) days with heavy rainfall (>10mm) during that period.

Generally, temperatures were near to or above the normal range for the month of September 2021. Rainfall was below the normal range by approximately 31%.

The average daily temperature for September was 29.3°C /85°F.

The warmest days were the 5th with an average temperature of 30.2°C/86°F. The coolest day was the 14th with an average temperature of 27.0°C/81°F.

There were 21 hot days, 13 of which were very hot and 5 extremely hot days.

The warmest nights were the 4th, 5th & 6th with minimum temperature of 28.2°C/83°F. The coolest night was the 14th with a minimum temperature of 25.1°C/77°F.

The day with the most sunshine hours was the 2nd (11hrs:18min).

The day with the least sunshine hours was the 13th (0hrs:48min).

The windiest day was the 6th, with a daily average wind speed of 11 kt./ 13 mph.

The day with the highest wind gust was the 12th with a gust of 31kt/36 mph.

Skies were mostly fair during the month of September.

There were ten (10) days with rainfall in September. Two (2) of which had heavy rainfall.

The longest dry spell was nine (9) days from the 1st to 9th September. There were two (2) heat wave periods the longest being ten (10) days.

**NORMAL
OCTOBER CONDITIONS**

Rainfall Total	97 mm – 167 mm	4– 7 in.
Avg. No. of Rain days	14 days	
Daily Average Temperature	28.3°C	82°F
Avg. Max. Temperature	31.2°C	88°F
Avg. Min. Temperature	26.4°C	80°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes will remain high until the end of October. Cooler temperatures are expected from November.

Tourism Sector

- Continue to observe all health protocols.
- Increased possibility of interruptions to outdoor activities.

Agriculture

- Increased potential for flooding and waterlogged soils.
- Pests and diseases may increase in extreme dry and wet conditions.

Health

- Wear protective clothing, especially on sunny days as exposure to dangerous UV radiation can cause skin damage.
- Keep hydrated.
- As shower activity becomes more frequent there is the likelihood of an increase in vector borne diseases.
- Proper management of water storage containers e.g., covering with protective mesh helps to reduce this risk.
- Persons with respiratory illnesses should take the necessary precautions during Saharan dust events.

The 2021 Atlantic Hurricane Season

So far for the 2021 Atlantic Hurricane season, there has been twenty (20) named storms, seven (7) of which became hurricanes. There has been no major hurricanes yet this year. The month of September produced nine (9) named storms, three (3) of which became hurricanes.

The season is well on its way to be a very active one since in a normal season there are fourteen (14) named storms, seven (7) hurricanes and three (3) major hurricanes. Based on the last predictions (August 2021) from the National Oceanic Atmospheric & Administration (NOAA) and the Colorado State University (CSU), forecasts indicated above average activity for the 2021 Atlantic Hurricane Season.

As we near the end of the season, we should not let our guards down. It is important that we remain alert and vigilant, keep updated on weather information from credible sources. Remember it does not have to be a hurricane or storm but an active tropical wave or heavy rainfall event can also have significant impacts on our lives.

As we continue to focus on protecting our families and ourselves during this pandemic, bear in mind that we are still in the hurricane season.

For reliable weather information connect with the Meteorological Department St. Maarten (MDS).

Website: www.meteosxm.com

Facebook: facebook.com/sxmweather

Telephone: 721-545-4226/545-2024

BE PREPARED!!!

DON'T WAIT!!!!

2021 ATLANTIC HURRICANE SEASON

STORM NAMES

- | | | |
|------------------------|-----------------------|---------------------|
| • Ana | • Henri | • Odette |
| • Bill | • Ida | • Peter |
| • Claudette | • Julian | • Rose |
| • Danny | • Kate | • Sam |
| • Elsa | • Larry | • Teresa |
| • Fred | • Mindy | • Victor |
| • Grace | • Nicholas | • Wanda |

2021 ATLANTIC HURRICANE SEASON

SUPLIMENTARY LIST STORM NAMES

- | | | |
|-----------|-----------|------------|
| • Adria | • Heath | • Orlanda |
| • Braylen | • Isla | • Pax |
| • Caridad | • Jacobus | • Ronin |
| • Deshawn | • Kenzie | • Sophie |
| • Emery | • Lucio | • Tayshaun |
| • Foster | • Makayla | • Viviana |
| • Gemma | • Nolan | • Will |

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