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Weather & Climate

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August 2021

Summary

- Rainfall total for July 2021 was 53% below normal; this was the driest July since 2015.
- Predictions for the 2021 Atlantic Hurricane Season continue to show above average activity.
- Heat waves are possible during the months of August to October

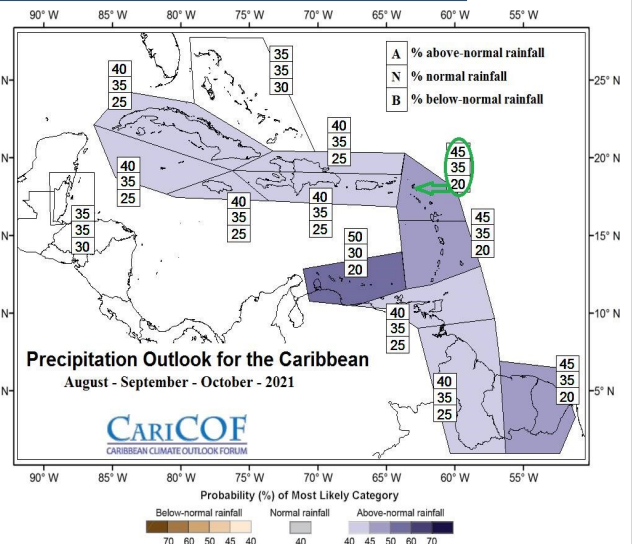
Seasonal Outlook for August to October (ASO) 2021

Rainfall Forecast

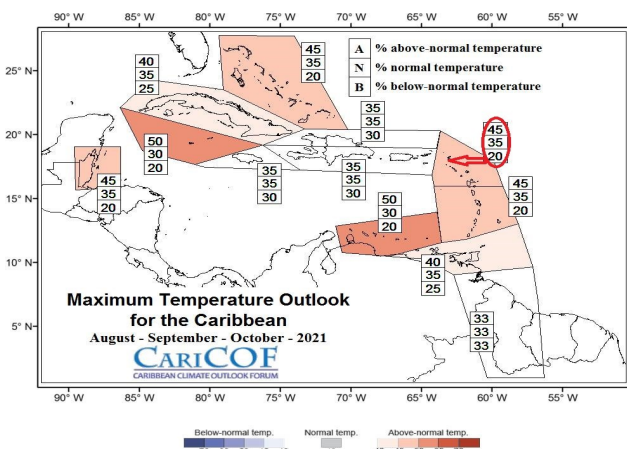
Models are indicating that rainfall totals for the season Aug-Sept-Oct. 2021 are likely to be normal or wetter across the Antilles and the Guianas.

Within the 92 days of Aug-Sept-Oct, the normal rainfall total for St. Maarten ranges from 290 mm–408 mm/11-16in. with 37 to 45 wet days. August is usually wet with more frequent heavy showers in September and October.

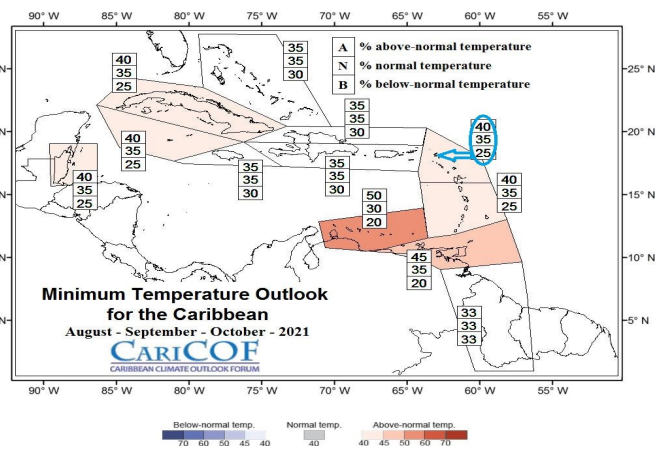
2-7 (7-day) wet spells and up to 4 (7-day) dry spells are likely on St. Maarten during the season. There is no drought concern until the end of October.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

Day-time and night-time temperatures are expected to be near normal to above normal across eastern Caribbean. Heat stress is expected to peak in August and September especially during heatwaves.

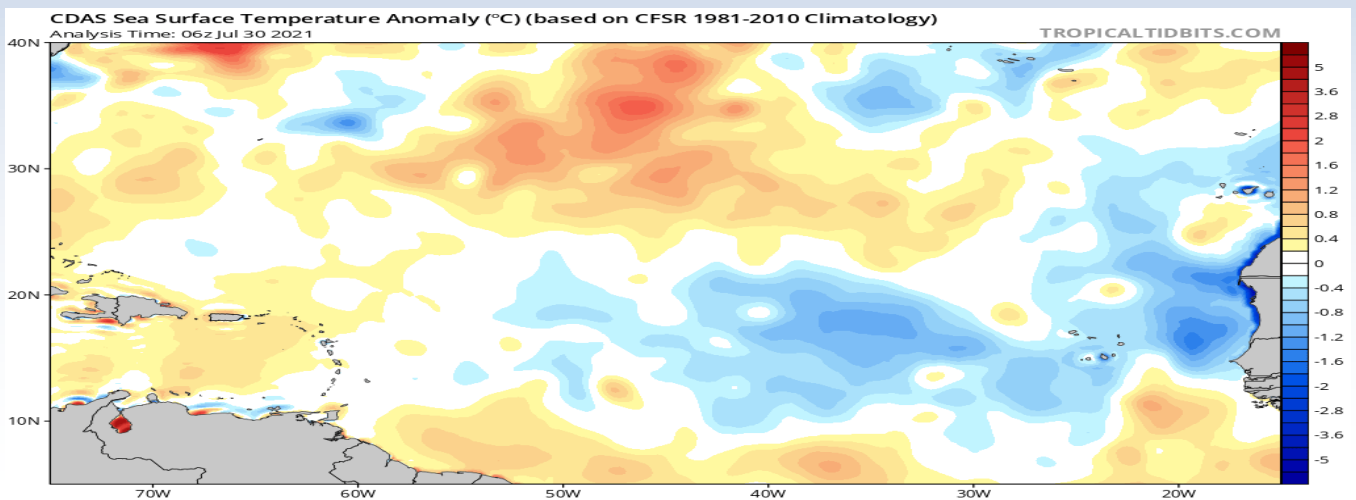
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid July, sea surface temperatures (SST) in the east-central Pacific were slightly below average and most key atmospheric variables were consistent with ENSO-neutral conditions.

Majority of the forecast models predict SSTs to remain near normal through summer. The latest ENSO models are indicating the likelihood for a neutral phase to persist through Aug-Sept-Oct with greater uncertainty thereafter. ENSO neutral offers little contribution to seasonal rainfall or temperature in the Caribbean.

SSTs are near average in much of the Caribbean Sea and the Tropical North Atlantic but is around 0.5°C above average in the sub-tropical North Atlantic. Models are forecasting observed SST anomalies between 0-0.5°C above average across the Caribbean Sea through Nov-Dec-Jan. 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.

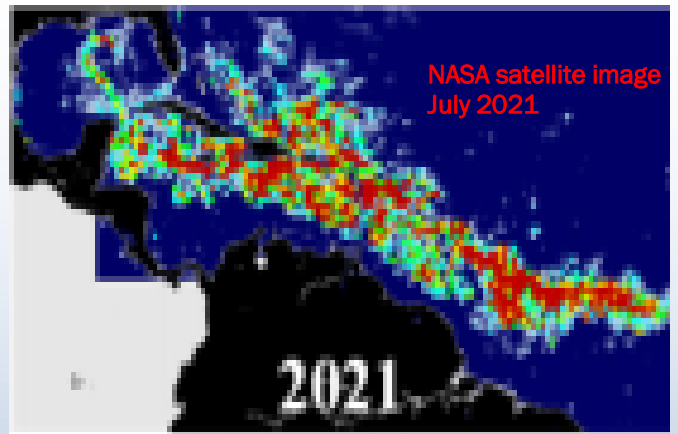


Sargassum Outlook

In July 2021, the overall Sargassum amount decreased from June 2021 across the central Atlantic by about 18%. Despite the decrease, large amount of Sargassum was still observed across the region. Beaching events continued around many Caribbean islands.

The Sargassum amount is expected to decrease but will remain high to moderate in the central West Atlantic and Caribbean Sea this summer.

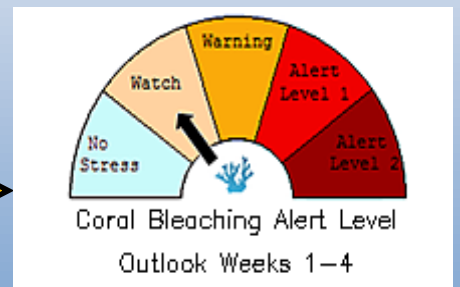
For more information and near real-time imagery (<https://optics.marine.usf.edu/projects/saws.html>)



Coral Reef Outlook: Bleaching Watch

Low thermal stress is expected on corals through the next 4 to 8 weeks, with some accumulation and possible bleaching thereafter.

Sea Surface Temperatures are currently below the bleaching threshold.



JULY 2021 IN REVIEW

Total Rainfall	45.4 mm	1.8 in.
2021 Cumulative Rainfall	327.1 mm	12.9 in.
Max. 24-Hr. Rainfall	23 rd Jul.	7.5mm/ 0.3in.
No. Rain Days (≥1.0 mm)	13 days	
No. Heavy Rain Days (≥10.0 mm)	None	
No. Thunderstorm Days	3 days	
Avg. Wind Speed	11 kts.	13 mph
Max. Wind Gust	32 kts.	37 mph
Avg. Temperature	28.6°C	84°F
Max. Temperature	20 th & 27 th Jul.	32.1°C / 90°F
Min. Temperature	14 th Jul.	24.2°C / 76°F

Long /Short Term Seasonal Review

Year in Review (August 2020— July 2021)

Total rainfall over the past twelve (12) months was within the normal range (929-1198mm). A total of 954.9mm/38in. of rainfall was recorded at the Princess Juliana International Airport.

Seasonal Review (May-Jun-Jul 2021)

Total rainfall for the last three (3) months was 193.7mm/8inches, this amount was within the normal range (167-295mm). There were four (4) days with heavy rainfall (>10mm) during that period.

Generally, temperatures were near or within the normal range for the month of July 2021. Rainfall was below the normal range; this was the driest July since 2015.

The average daily temperature for July was 28.6°C /84°F.

The warmest day was the 31st with an average temperature of 29.3°C/85°F.

The coolest day was the 9th with an average temperature of 28.0°C/82°F.

The day with the most sunshine hours was the 1st (12hrs:00min).

The day with the least sunshine hours was the 12th (2hrs:36min).

The windiest day was the 2nd, with a daily average wind speed of 16 kt./ 18 mph.

The day with the highest wind gust was the 2nd with a gust of 32kt/37 mph.

Skies were mostly cloudy for most of the time during the month of July.

There were thirteen (13) days with rainfall in July. None of these days had heavy rainfall.

The longest dry spell was four (4) days from the 1st to 4th July.

NORMAL AUGUST CONDITIONS

Rainfall Total	75 mm – 121 mm	3– 5 in.
Avg. No. of Rain days	14 days	
Daily Average Temperature	28.8°C	84°F
Avg. Max. Temperature	31.8°C	89°F
Avg. Min. Temperature	26.5°C	80°F
Avg. Daily Hours of Sunshine	9 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes will continue to increase through this season as heat intensifies.

Tourism Sector

- Continue to observe all health protocols.
- UV index will be very high to extremely high on sunny days. Visitors should be encouraged to apply sunscreen lotion regularly, and seek shaded areas between the hours of 10 AM and 3 PM.
- Increased possibility of interruptions to outdoor activities.

Health

- Wear protective clothing, especially on sunny days as exposure to dangerous UV radiation can cause skin damage.
- Keep hydrated.
- As shower activity become 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.
- High humidity may cause discomfort when wearing masks.

Agriculture

- Increased potential for flooding and waterlogged soils.
- Shelter livestock from excessive heat.
- Pests and diseases may increase in extreme dry and wet conditions.

The 2021 Atlantic Hurricane Season

One (1) tropical storm formed in the month of July. Tropical Storm Elsa formed on Jul 1st east of the Lesser Antilles and became a hurricane on July 2nd west of Barbados. Elsa accounted for heavy rainfall and structural damage in Barbados and the southern windward Islands. Elsa was the first hurricane of the 2021 season.

Based on latest predictions (August 4, 2021) from the National Oceanic Atmospheric & Administration (NOAA) and (August 5, 2021) the Colorado State University (CSU), forecasts continue to indicate above average activity for the 2021 Atlantic Hurricane Season. Although sea surface temperatures are not expected to be as warm as they were during the 2020 season other climatic factors could contribute to above average activity across the Atlantic this year. There is the possibility of the re-emergence of La Nina conditions later into the season, a reduction in vertical wind shear and an enhanced west African monsoon can all promote the formation and development of storms and hurricanes across the Atlantic and the Caribbean.

It is therefore important that we make the necessary preparations ahead of time, remember it only takes one hurricane or storm to make landfall in our area to make it an active season for us. As we continue to focus on protecting our families and ourselves during this present global health crisis, it is essential that we remain vigilant and monitor weather updates from the Meteorological Department St. Maarten (MDS).

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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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