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Weather & Climate

Volume 6, Issue 7

July 2021

Summary

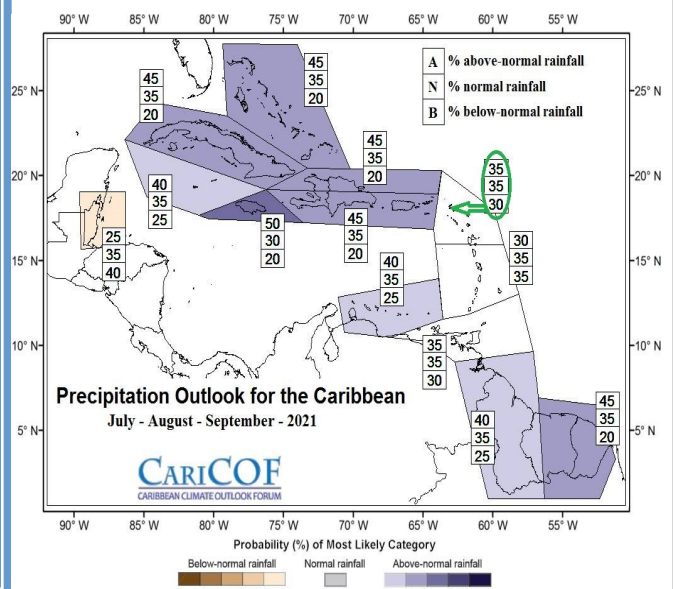
- June 2021 had the highest number of rain days on record for the month of June.
- June 2021 was the wettest June since 2010.
- Heat waves are possible during the next 3 months.

Seasonal Outlook for July to September (JAS) 2021

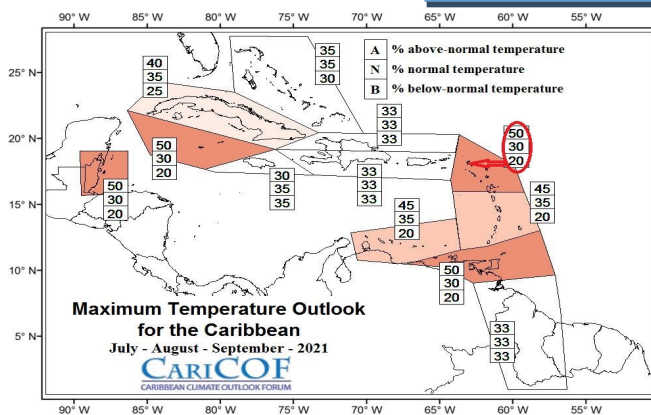
Rainfall Forecast

Models are indicating that rainfall totals for the season Jul-Aug-Sept. 2021 are likely to be the usual or slightly wetter in St. Maarten and the rest of the northern Leeward Islands while wetter conditions are expected in the Greater Antilles, the Bahamas and the Guianas. The rest of the eastern Caribbean may experience slightly drier conditions.

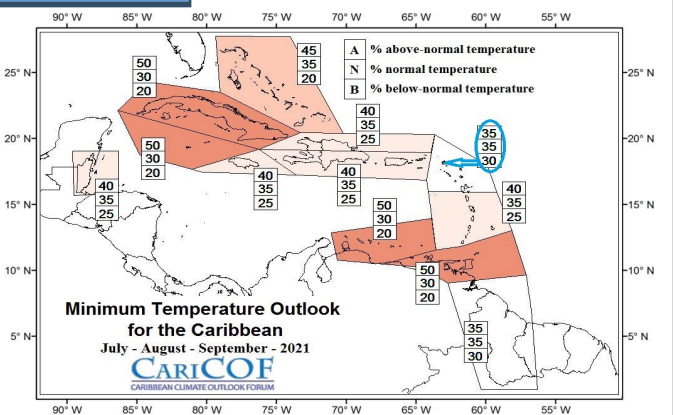
Within the 92 days of Jul-Aug-Sept, the normal rainfall total for St. Maarten ranges from 250mm–349mm/10-14in. with 37 to 45 wet days. July through August is usually wet but also includes a mid-summer dry spell while in Sept. there are frequent heavy showers. 2-5 (7-day) wet spells and up to 5 (7-day) dry spells are likely on St. Maarten during the season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

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

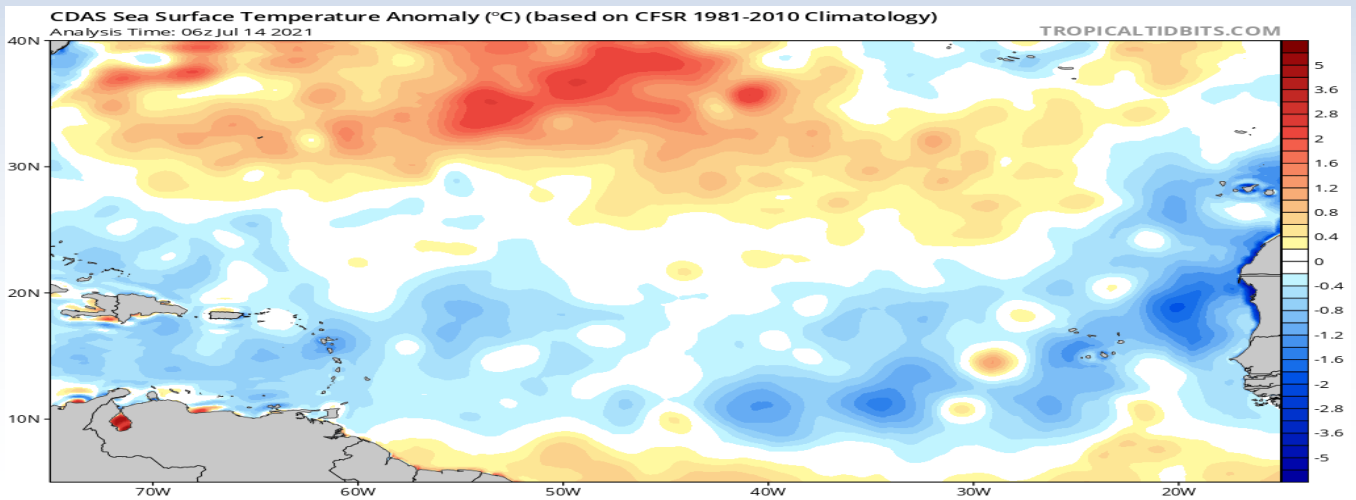
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid June, sea surface temperatures (SST) in the east-central Pacific were 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 a neutral phase to persist through Aug-Sept-Oct, with an increased possibility for La Nina conditions thereafter. A La Nina watch is in effect.

SSTs have cooled just below average in much of the Caribbean Sea and the Tropical North Atlantic and around 0.5°C above average in the sub-tropical North Atlantic. Models vary in forecasting whether observed SST anomalies between 0-0.5°C above average will return across the Caribbean Sea through Oct-Nov-Dec. Warm SSTs in and around the Caribbean tend to contribute to above-average humidity, seasonal rainfall totals, reduced dry spell frequency and a more active Atlantic Hurricane Season.

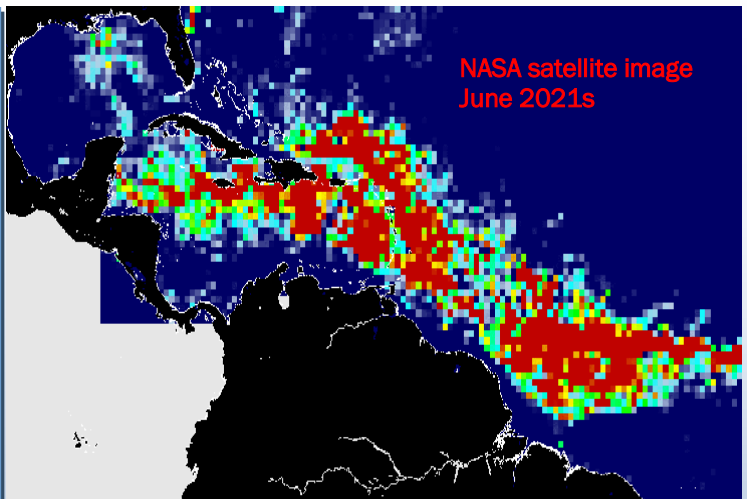


Sargassum Outlook

In June 2021, the Sargassum amount increased slightly from May 2021 across the central west Atlantic (CWA) and the Caribbean Sea. Large amount of Sargassum was observed in the region east of the Lesser Antilles and the entire Caribbean Sea. In addition to the significant beaching events around many Caribbean islands.

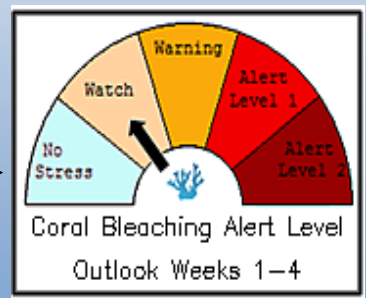
In all regions combined, the total Sargassum amount in June 2021 was approaching the historical record in June 2018.

The Sargassum amount in the Caribbean Sea is expected to remain high this summer according to the University of South Florida.



**Coral Reef Outlook:
Low Thermal Stress**

Low thermal stress is expected on corals through August, with some accumulation and possible bleaching by late September.



JUNE 2021 IN REVIEW

Total Rainfall	100.9 mm	4.0 in.
2021 Cumulative Rainfall	281.7 mm	11.1 in.
Max. 24-Hr. Rainfall	26 th Jun.	24.0mm/ 0.9in.
No. Rain Days (≥1.0 mm)	19 days	
No. Heavy Rain Days (≥10.0 mm)	3 days	
No. Thunderstorm Days	2 days	
Avg. Wind Speed	10 kts.	12 mph
Max. Wind Gust	32 kts.	37 mph
Avg. Temperature	27.9°C	82°F
Max. Temperature	15 th Jun.	32.2°C / 90°F
Min. Temperature	11 th Jun.	23.2°C / 74°F

Long /Short Term Seasonal Review

Year in Review (July 2020— June 2021)

Total rainfall over the past twelve (12) months was within the normal range (942-1188mm). A total of 1038.5mm/41in. of rainfall was recorded at the Princess Juliana International Airport.

Seasonal Review (Apr-May-Jun 2021)

Total rainfall for the last three (3) months was 173.7mm/7inches, this amount was within the normal range (148-250mm). 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 June 2021. Rainfall for the month of June was above the normal range making it the wettest June since 2010.

The average daily temperature for May was 27.9°C /82°F.

The warmest days were the 15th & 16th with an average temperature of 28.7°C/84°F.

The coolest day was the 8th with an average temperature of 26.1°C/79°F.

The day with the most sunshine hours was the 29th (11hrs:36min).

The days with the least sunshine hours were the 11th , 26th & 30th (3hrs:18min).

The windiest day was the 17th, with a daily average wind speed of 15 kt./ 17 mph.

The days with the highest wind gust were the 17th & 30th with a gust of 32kt/37 mph.

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

There were nineteen (19) days with rainfall in June. This was the most rainy days ever recorded for the month of June. Heavy rainfall was recorded on three (3) of those days.

The longest dry spell was six (6) days from the 12th to 17th June.

NORMAL JULY CONDITIONS

Rainfall Total	65 mm – 115 mm	3– 5 in.
Avg. No. of Rain days	13 days	
Daily Average Temperature	28.6°C	84°F
Avg. Max. Temperature	31.5°C	89°F
Avg. Min. Temperature	26.3°C	79°F
Avg. Daily Hours of Sunshine	9 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes will gradually increase through this season as temperatures warm.

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

Three (3) tropical storms formed in the month of June. Tropical Storm Bill formed on June 14th along the eastern coast of the United States and became extratropical the following day. Tropical storm Claudette formed on June 19th in the Gulf of Mexico and tropical storm Danny formed on June 28th along the eastern coast of the US.

Based on latest predictions (July 8, 2021) from the Colorado State University (CSU), forecasts continue to indicate above average activity for the 2021 Atlantic Hurricane Season. Presently, sea surface temperatures averaged across most of the tropical Atlantic are near to or slightly above normal. Most of the subtropical North Atlantic remains warmer than normal and there is the possibility of the re-emergence of La Nina conditions later into the season. All these mentioned conditions enhance the formation of tropical cyclones and increases the possibility for major hurricanes or storms to make landfall in 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).

Website: www.meteosxm.com

Facebook: facebook.com/sxmweather

Telephone: 721-545-4226

**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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