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Weather & Climate

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September 2020

Summary

- August 2020 was the warmest August in 22 years with 23 hot days and 4 heatwave periods.
- August 2020 produced 4 named storms, 2 of which became hurricanes.
- Warmer than usual temperatures are likely for the next 3 months; heatwaves are possible during this period.
- Coral Bleaching is expected by October around St. Maarten and the rest of the Leeward Islands.

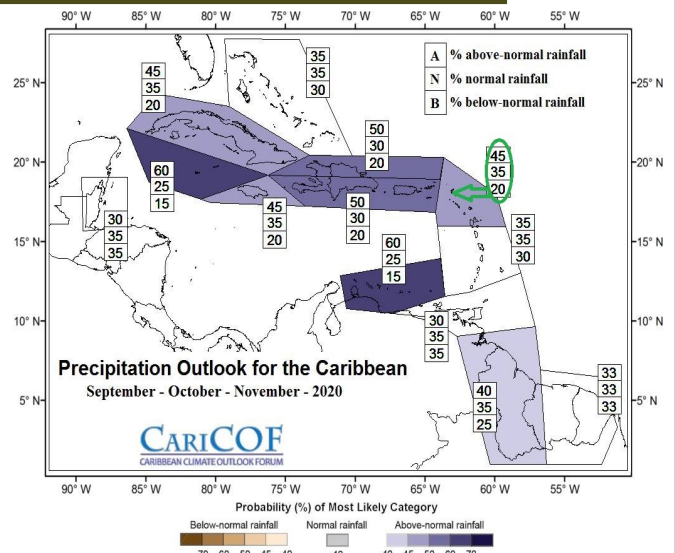
Seasonal Outlook for September to November (SON) 2020

Rainfall Forecast

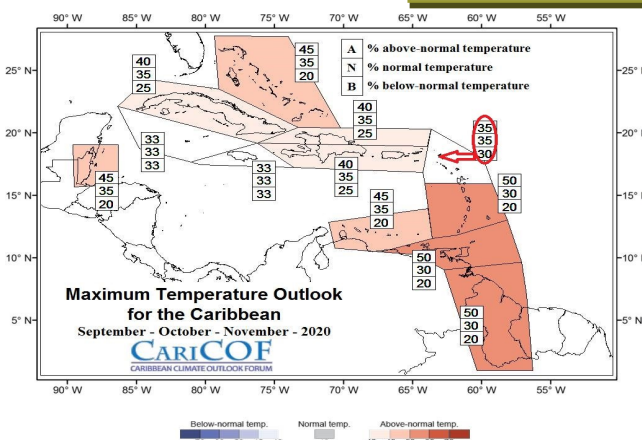
Rainfall totals for the season Sept-Oct-Nov 2020 are likely to be higher than usual in St. Maarten, the Leeward Islands, Greater Antilles, ABC Islands and western Guianas.

Within the 91 days of Sept-Oct-Nov., the normal rainfall total for St. Maarten ranges from 356mm–498mm/ 14-20in. with 39 to 48 wet days. This is the wettest season on St. Maarten with frequent heavy showers.

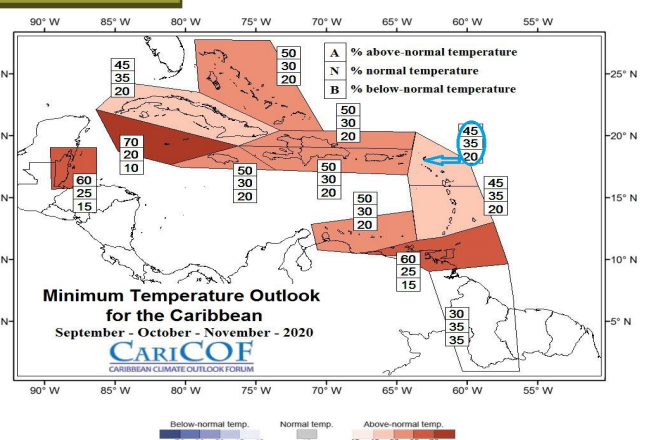
The forecast is for 3-7 (7-day) wet spells and up to 4 very wet spells in St. Maarten this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

Day-time and night-time temperatures are likely to be the usual or warmer across most of the Caribbean. Frequent heat waves and high humidity will cause heat discomfort until October.

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

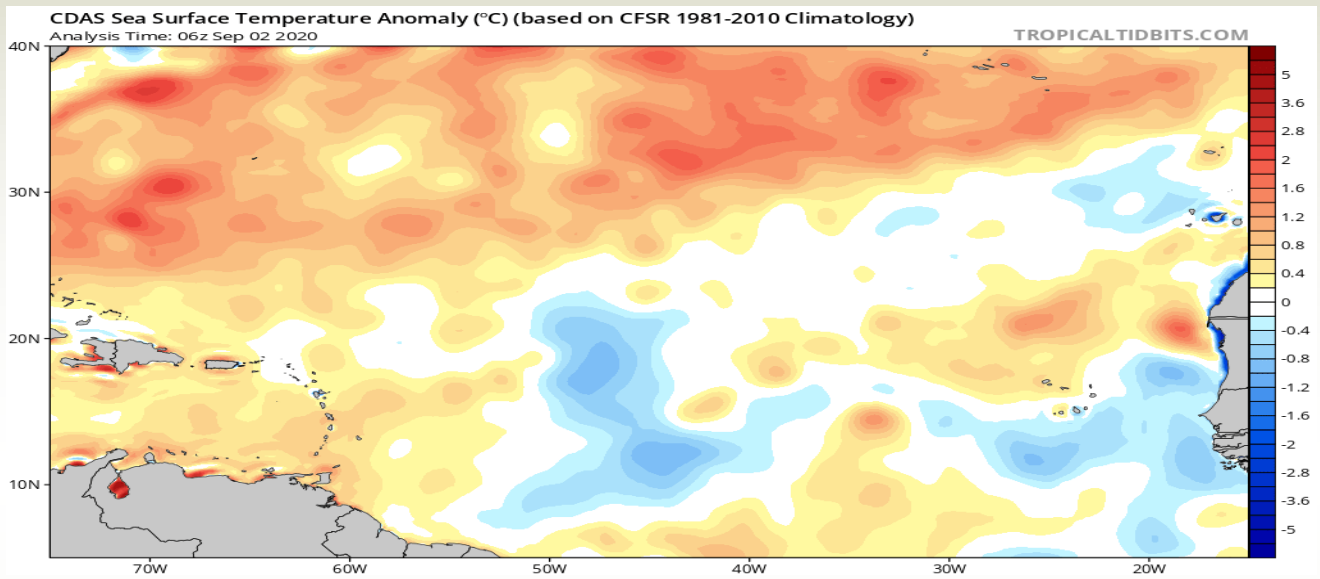
WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid August, Sea surface temperatures (SST) in the east-central Pacific were somewhat below average and Atmospheric variables were leaning toward La Nina conditions.

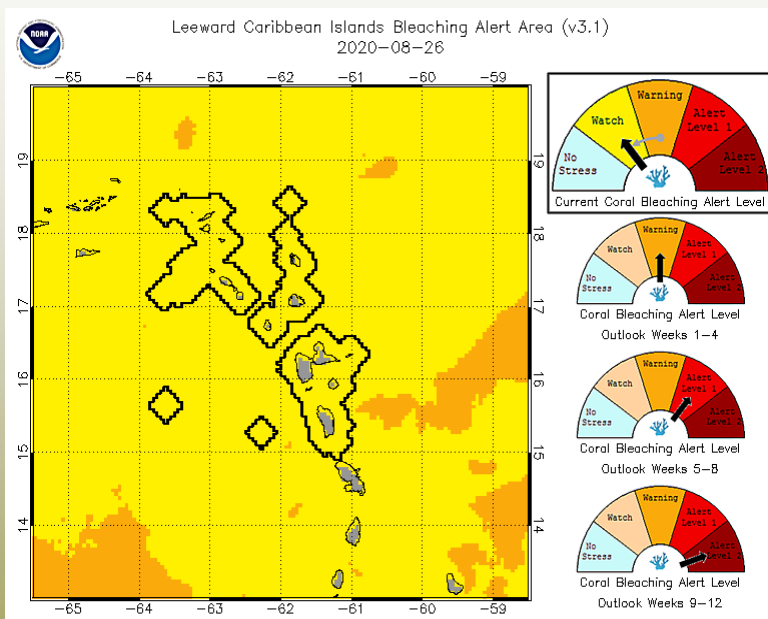
Most of the forecast models are tending towards a weak La Nina through the end of 2020 but weakening towards the beginning of 2021. A La Nina watch is posted.

La Nina conditions favor more rainfall and tropical cyclone activity in the Caribbean. However La Nina conditions are very weak at this time and offers little contribution to the seasonal rainfall and temperature predictions.

Recent observations show that SSTs along the Caribbean coasts and in parts of the Tropical North Atlantic are up to 2°C above average. Continued warm SSTs throughout the Caribbean may contribute to above-average humidity, increased seasonal rainfall totals and increase tropical cyclone activity.



Coral Bleaching Forecasts



The Coral Bleaching Alert and Outlook for St. Maarten and the Leeward Islands will be up to a warning till the end of September followed by bleaching Alert Level 1 by October .

Presently the SSTs around the Leeward Islands are slightly above average but below the bleaching threshold.

Thermal stress is expected to accumulate during the next few weeks across the Leeward Islands, followed by bleaching in October.

Coral Bleach Alert: WARNING

AUGUST 2020 IN REVIEW

Total Rainfall	97.2 mm	3.8 in.
2020 Cumulative Rainfall	585.7mm	23.1 in.
Max. 24-Hr. Rainfall	Aug. 21 st	30.8mm/ 1.2in.
No. Rain Days (≥ 1.0 mm)	13 days	
No. Heavy Rain Days (≥ 10.0 mm)	3 days	
No. Thunderstorm Days	4 days	
Avg. Wind Speed	9 kts.	10 mph
Max. Wind Gust	33 kts.	38 mph
Avg. Temperature	29.3°C	85°F
Max. Temperature	Aug. 19 th	33.3°C / 92°F
Min. Temperature	Aug. 22 nd	24.5°C / 76°F

Long /Short Term Seasonal Review**Year in Review
(Sept. 2019— Aug 2020)**

Total rainfall over the past twelve (12) months was near normal. A total of 986.1 mm/39in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review
(Jun –Jul-Aug. 2020)**

Total rainfall for the last three (3) months was 252.5mm/10 inches, this amount was within the normal range (210-288mm). There were six (6) days with heavy rainfall (>10 mm) within that period all occurring in the last two months.

Overall temperatures were above normal for the month of August. This was the warmest August since 1998 and there were 23 hot days ($>32.3^{\circ}\text{C}/90^{\circ}\text{F}$). There were 4 heatwave periods; the longest was 10 days. i.e. 10 consecutive days when maximum temperature was $32.3^{\circ}\text{C}/90^{\circ}\text{F}$ or above.

The average daily temperature for August was $29.3^{\circ}\text{C}/85^{\circ}\text{F}$.

The warmest days were the 13th & 17th with an average temperature of $29.9^{\circ}\text{C}/86^{\circ}\text{F}$.

The coolest day was the 22nd with an average temperature of $27.6^{\circ}\text{C}/82^{\circ}\text{F}$.

The day with the most sunshine hours was the 6th (11hrs :36min).

The day with the least sunshine hours was the 22nd (1hrs:06min).

The windiest day was the 22nd, with a daily average wind speed of 14 kt./ 16 mph.

The day with the highest wind gust was the 22nd with a gust of 33kt/38 mph. This was as a result of Tropical Storm Laura which passed about 80 miles south southwest of St. Maarten on the 21st.

Skies were fair to partly cloudy most days in August.

There were thirteen (13) days with rainfall in August with 3 days of heavy rainfall.

There were 23 hot days with 11 of them being very hot days ($>32.8^{\circ}\text{C}/91^{\circ}\text{F}$).

The longest heat wave was from August 11th to 21st.

NORMAL AUGUST CONDITIONS

Rainfall Total	76.1 mm – 123.6 mm	3– 5 in.
Avg. No. of Rain days	15 days	
Daily Average Temperature	28.8°C	84°F
Avg. Max. Temperature	31.9°C	89°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 is expected to increase until October as this heat season is expected to be most intense in recent years.

Tourism Sector

- Observe all health protocols.
- Put all hurricane/disaster plans in place and monitor weather advisories issued by the Meteorological Department.

Agriculture

An Increase in rainfall activity may increase the risk of moisture related pests and disease as well as increase erosion.

Health

- Frequent heat waves and high humidity may cause significant heat discomfort therefore, adequate cooling and hydration are required.
- During episodes of Saharan dust persons with respiratory illnesses/allergies should stay indoors or take the necessary precautions when venturing outdoors.
- As shower activity increases this season, the presence of stagnant water after heavy rainfall events may promote the breeding of mosquitoes and increase the risk of vector-borne illnesses.

2020 TROPICAL CYCLONE NAMES



Arthur	Laura
Bertha	Marco
Cristobal	Nana
Dolly	Omar
Edouard	Paulette
Fay	Rene
Gonzalo	Sally
Hanna	Teddy
Isaias	Vicky
Josephine	Wilfred
Kyle	

AUGUST PRODUCED 4 NAMED STORMS 2 OF WHICH WERE HURRICANES, 1 MAJOR.

(JOSEPHINE, KYLE, LAURA, & MARCO).

BE PREPARED!!!! BE PREPARED!!!!!!!

2020 Atlantic Hurricane Season thus Far

By Sheryl Etienne-Leblanc

This Atlantic hurricane season is truly living up to its expectations. Would you believe it is only the 1st week of September and there are only six (6) names left from the 21 names of storms provided for 2020?

Yes! So far we have had 15 named storms, four (4) of which have become hurricanes including one (1) major hurricane (Laura).

The next two weeks are going to be the most anticipated weeks of this hurricane season. This is the peak of the season where most activity based on historical data happens in St. Maarten and most of the eastern Caribbean.

The National Hurricane Center has two (2) areas in the Atlantic, which seem to have some potential for development in the next 5 days. Most of the global models also have quite a few disturbances developing for the next 6 to 12 days so it is possible we will really run out of names this year and have to turn to the Greek alphabet for additional names.

Out of the 15 storms, which have developed so far, only three (3) have developed east of the island chain. September is the month when most storms develop in the central Atlantic. This September let us all remember the impacts of major hurricanes such as Irma in 2017 and Luis in 1995.

It is time we complete all preparations to protect our lives and property while we keep our eyes on the Tropics.