

Like us on Facebook:

[www.facebook.com/sxmweather](http://www.facebook.com/sxmweather)

# Meteorological Department St. Maarten

Follow us on twitter:

@sxmweather



## Weather & Climate

Volume 5, Issue 7

July 2020

### Summary

- Rainfall for the last 3-months was 65% below the average for that period.
- June 2020 was the warmest June in 25 Years.
- Temperatures are forecast to be warmer than usual for the next 3 months with the likelihood of heatwaves occurring during this period.
- There were 3 heat wave periods in June 2020.

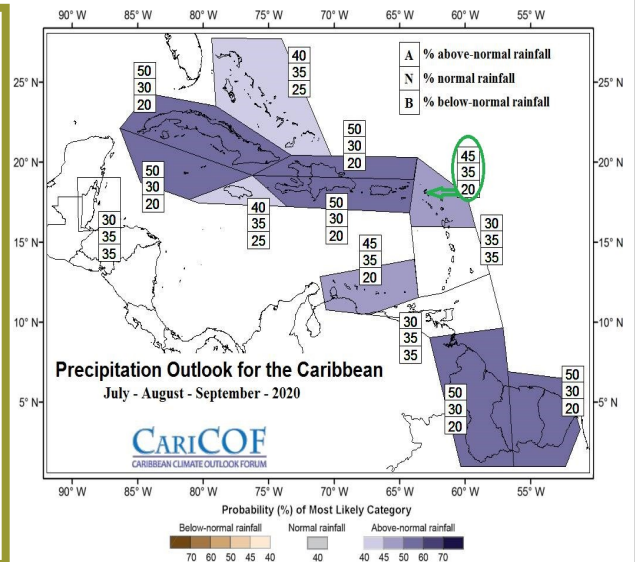
### Seasonal Outlook for July to September (JAS) 2020

#### Rainfall Forecast

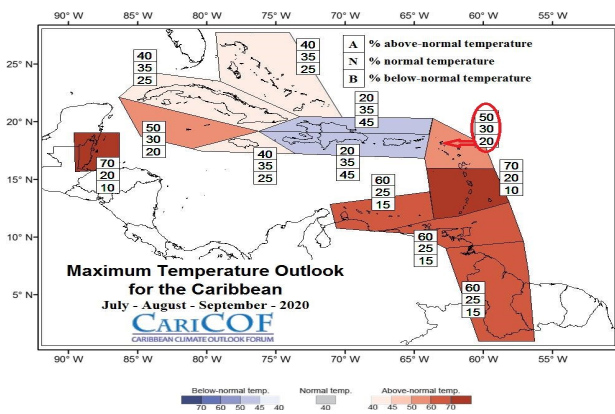
Rainfall totals for the season Jul-Aug-Sept. 2020 are likely to be above the usual in St. Maarten, the Leeward Islands, Greater Antilles and the Guianas.

Within the 92 days of Jul-Aug-Sept., the normal rainfall total for St. Maarten ranges from 264mm–349mm/ 10-14in with 38 to 45 wet days. The forecast goes for 2 to 6 (7-day) wet spells and 1 to 4 (7-day) dry spells this season.

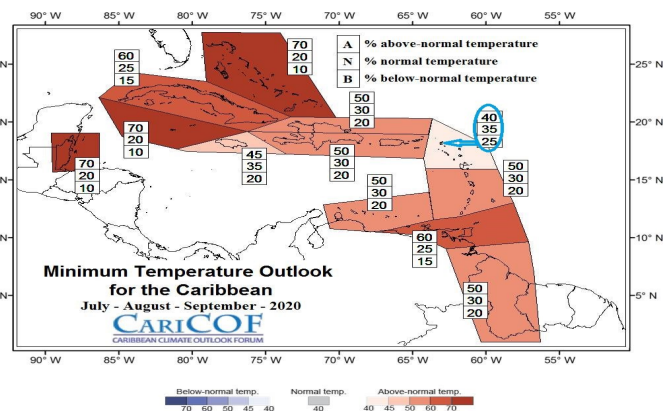
July to Sept. is the wet season there is more frequent shower activity. However, there may be a few dry spells in the month of July. More frequent shower activity is expected to occur in August and September.



#### Temperature Forecast



Day-time Temperatures

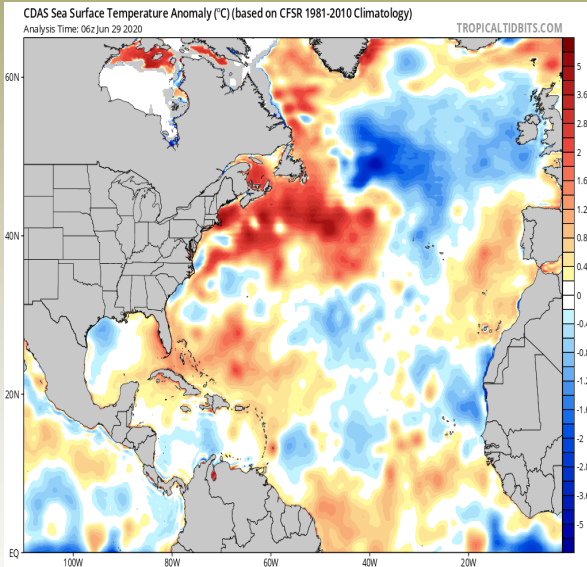


Night-time Temperatures

Both day-time and night-time temperatures are expected to be warmer than usual across most of the Caribbean, along with increasing humidity, which will often feel uncomfortably hot during heat waves.

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?



Sea surface temperatures (SST) in the east-central Pacific decreased to near La Nina threshold in early June. Atmospheric variables were indicative of weak La Nina conditions.

Most of the latest forecast models are tending towards a weak La Nina through the end of 2020.

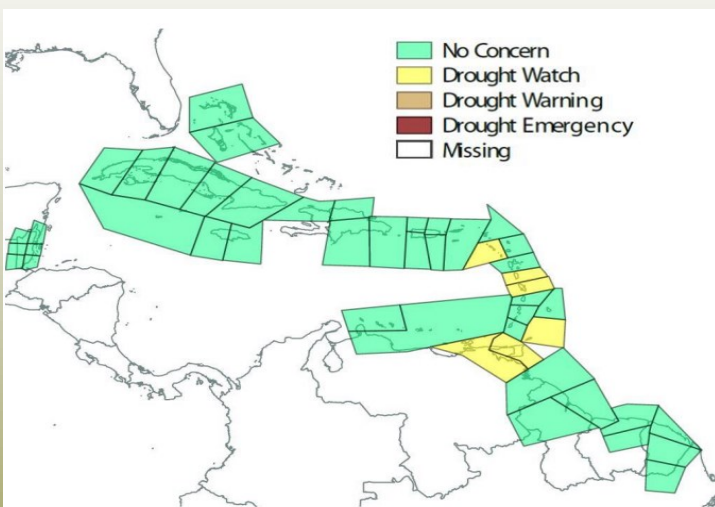
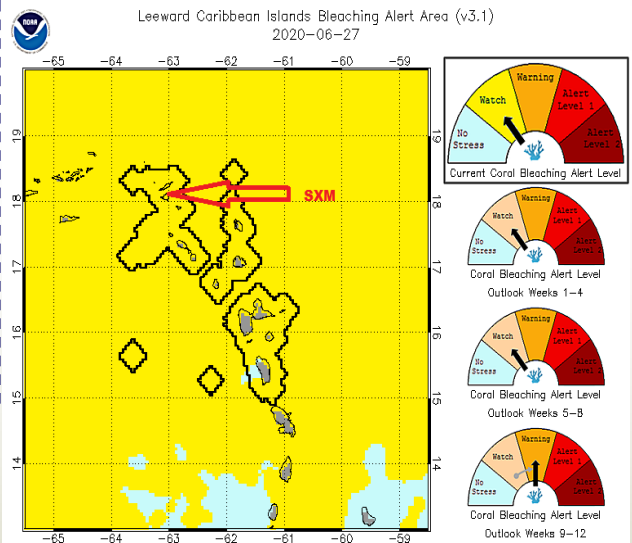
The ENSO neutral conditions have little contribution to the seasonal rainfall or temperature in the Caribbean. However La Nina conditions tend to increase rainfall activity and enhance storm development.

Recent observations show that SSTs along the Caribbean coasts and in parts of the Tropical North Atlantic are up to 1°C with sub-tropical North Atlantic SSTs up to 2°C above average.

Continued warm SSTs throughout the Caribbean may contribute to above-average humidity, increased seasonal rainfall totals and wet spell frequency across the region.

### Drought & Coral Bleaching Forecasts

January to April 2020 was exceptionally to moderately wet while May and June were exceptionally dry. Many Caribbean Islands have been experiencing dry conditions since the beginning of May. More frequent showers are expected as we progress into the wet season however there is the possibility for a few dry spells to occur during the month of July. As a result it is likely that by the end of September drought conditions may be alleviated in most islands including St. Maarten.



**Suggested alert levels for short term drought at the end of September 2020**

The bleaching alert and outlook for St. Maarten and the Leeward Islands is currently at watch level and is forecasted to remain there until the end of August, then evolve to a warning in September. Presently the SSTs around the Leeward Islands are slightly above average but below the bleaching threshold. Low thermal stress is expected for the next two (2) months across the Leeward Islands and will begin to accumulate thereafter.

**Coral Bleach Alert: WATCH**

**JUNE 2020 IN REVIEW**

Total Rainfall	26.3 mm	1.0 in.
2020 Cumulative Rainfall	359.5mm	14.2 in.
Max. 24-Hr. Rainfall	Jun. 10 <sup>th</sup>	9.8mm/ 0.4in.
No. Rain Days (≥1.0 mm)	6 days	
No. Heavy Rain Days (≥10.0 mm)	0 day	
No. Thunderstorm Days	0 day	
Avg. Wind Speed	9 kts.	10 mph
Max. Wind Gust	28 kts.	32 mph
Avg. Temperature	29.1°C	84°F
Max. Temperature	Jun. 23 <sup>rd</sup>	33.0°C / 91°F
Min. Temperature	Jun. 29 <sup>th</sup>	24.6°C / 76°F

**Long /Short Term Seasonal Review****Year in Review  
(Jul. 2019— Jun 2020)**

Total rainfall over the past twelve (12) months was within the normal range. A total of 1078 mm/42 inches of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review (Apr-May-Jun 2020)**

Total rainfall for the last three (3) months was 82.8mm/3 inches, this amount was below the normal range (156-253 mm). There was only one (1) day with heavy rainfall (>10mm) within that period.

Rainfall for the month of June was below the normal range (40-66mm). This was the second consecutive month with below normal rainfall. Temperatures were above normal for this time of year. June 2020 was the warmest June since 1995.

The average daily temperature for June was 29.1°C /84°F.

The warmest days were the 22<sup>nd</sup> & 23<sup>rd</sup> with an average temperature of 29.8°C/86°F.

The coolest day was the 11<sup>th</sup> with an average temperature of 28.3°C/83°F.

The day with the most sunshine hours was the 13<sup>th</sup> (12hrs :06min).

The day with the least sunshine hours was the 22<sup>nd</sup> (2hrs:06min).

The windiest day was the 26<sup>th</sup>, with a daily average wind speed of 13 kt./ 15 mph.

The day with the highest wind gust was the 6<sup>th</sup> with a gust of 28kt/32 mph.

Skies were partly cloudy and hazy most days in June.

There were six (6) days with rainfall in June.

There were 3 heat wave periods in June and 2 very hot days the 23<sup>rd</sup> & 25<sup>th</sup>. Max. temperatures were 32.8 & 33 °C.

The longest dry spell was 8 days from June 18<sup>th</sup>-24<sup>th</sup>.

A thick plume of Saharan dust reduced visibility to 4km on June 21<sup>st</sup> & 22<sup>nd</sup>.

**NORMAL JULY CONDITIONS**

Rainfall Total	63.4 mm – 106.4 mm	3– 4 in.
Avg. No. of Rain days	13 days	
Daily Average Temperature	28.6°C	84°F
Avg. Max. Temperature	31.7°C	89°F
Avg. Min. Temperature	26.2°C	79°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.

### Agriculture

Warmer than usual conditions expected this season therefore proper shelter for livestock should be put in place.

Some form of irrigation and alert for bush fires will continue during dry spells.

### Health

- UV radiation will be on the increase this season. Excessive exposure can cause skin damage on sunny days. The use of sunscreen and other protective gears are advised.
- Day-time and night-time temperatures are expected to be warmer than usual this season and become uncomfortably hot at times. 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.

### Tourism Sector

- Put all hurricane/disaster plans in place.

## 2020 TROPICAL CYCLONE NAMES



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

JUNE 1ST MARKED THE OFFICIAL START OF THE 2020 ATLANTIC HURRICANE SEASON.

2 STORMS FORMED IN THE MONTH OF JUNE (CRISTOBAL & DOLLY) . 1 FORMED EARLY JULY (EDOUARD)

**BE PREPARED!!!! BE PREPARED!!!!!!!**

## Saharan Dust

### Where does it come from?

It comes from the Saharan Desert in north Africa. During dust storms vast amounts of dust are forced up into the atmosphere as high as 15,000 feet and are then transported by the jet streams and easterly trade winds westwards to the Caribbean every year .

### Advantages of Saharan Dust:

- ◆ The presence of dust in the atmosphere creates spectacular sunrises and sunsets.
- ◆ Provides nutrients that boost plant-root and development. Saharan dust is rich in minerals, like iron – making it essentially an airborne fertilizer for marine life as well as tropical rainforests.
- ◆ Can suppress tropical cyclone development for weeks at a time.

### Disadvantages of Saharan Dust:

- ◆ Air quality is the biggest threat to humans, especially those with respiratory illnesses such as asthma and pneumonia.
- ◆ Researchers have also linked Saharan dust to coral disease.
- ◆ Low visibility especially for aircrafts and fishermen.
- ◆ Pollutes rain water.

The recent Saharan dust event was stated to be the worst in over 20 years as recorded by many of the measuring stations across the Caribbean.