

Like us on Facebook:

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

## Meteorological Department St. Maarten

Follow us on twitter:

@sxmweather



# Weather & Climate

Volume 4, Issue 6

June 2019

### Summary of Forecast for June to August 2019

- Rainfall totals are forecasted to be the usual or drier in June-July-August 2019.
- There is the possibility of up to 4 very wet spell during this season.
- Both day-time and night-time temperatures are expected to be warmer than usual this season.
- Drought conditions may be a concern until the end of August 2019 for St. Maarten.

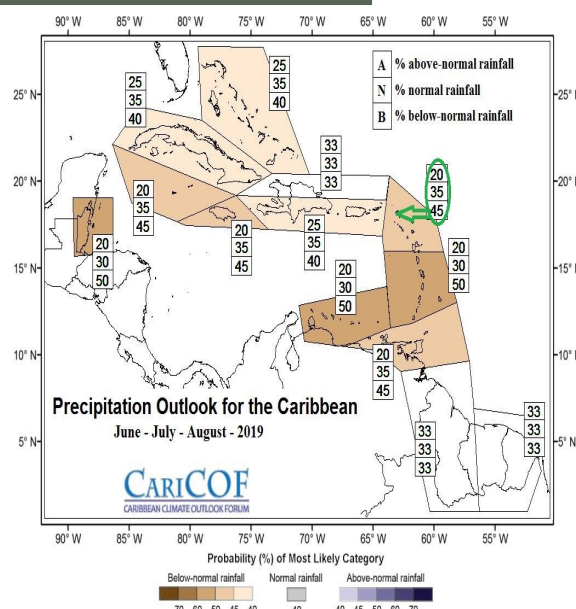
### Seasonal Outlook for June to August (JJA) 2019

#### Rainfall Forecast

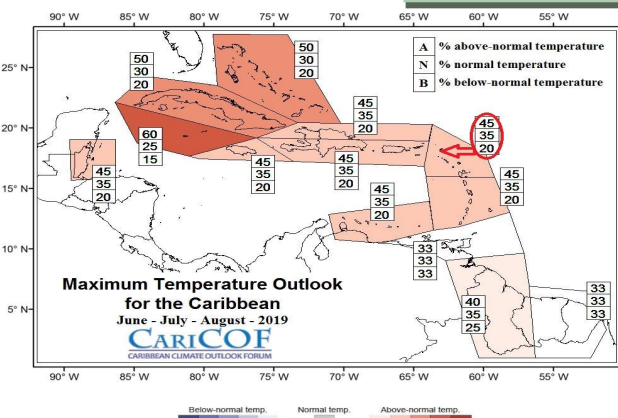
Rainfall totals for the season Jun-Jul-Aug. 2019, are likely to be as usual or drier across most of the Caribbean.

Within the 92 days of Jun-Jul-Aug., the normal rainfall total for St. Maarten ranges from 210 mm – 287 mm/ 8-11 in. 29-45 wet days, at least 4 very wet spell and up to 3 dry spells (7-day) can be expected during this period.

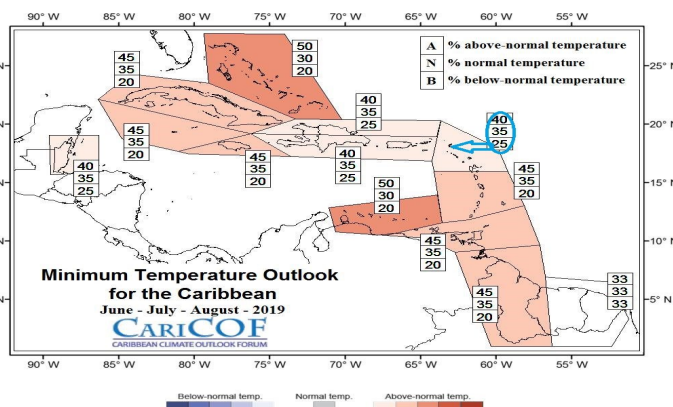
June marks the beginning of the wet season, therefore some heavy showers may occur. Meanwhile in July and August there is often a mid summer dry spell. According to the predictions rainfall totals for these months are expected to be drier than usual on St. Maarten.



#### Temperature Forecast



Day-time Temperatures



Night-time Temperatures

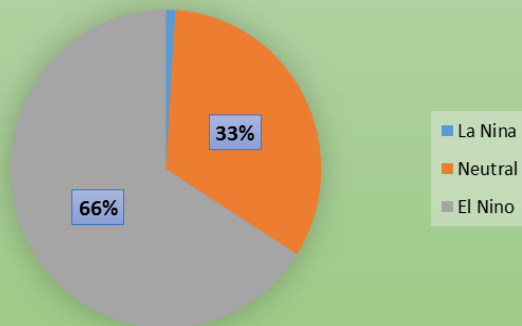
Both day-time and night-time temperatures in the Eastern Caribbean are likely to be usual or warmer during Jun-Jul-Aug. 2019.

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

## ENSO FORECAST

(El Niño Southern Oscillation)

### Enso Forecast Probabilities Jun-Jul-Aug 2019



Sea surface temperatures in the Pacific have maintained a weak El Niño level during April and early May while subsurface waters have decreased to just slightly above average. Patterns in the atmosphere continue to show weak El Niño conditions.

The latest forecast models collectively indicates a 66% chance of El Niño prevailing during Jun-Jul-Aug 2019. The forecast also indicate that, a weak El Niño will continue through 2019.

An El Niño phase usually produces warmer and drier conditions with less rainfall activity in most parts of the Caribbean and also tends to suppress storm development.

**No Thermal Stress on Corals is expected through July. Low Thermal stress will increase in August..**

### Drought Forecast



Residents and the general public should continue to monitor and look out for monthly updates.

Drought conditions continue in most islands in the Caribbean as we begin the wet season.

By the end of August it is expected that drought conditions may still be a concern in many territories including St. Maarten/ St. Martin as rainfall totals are forecasted to be below the usual.

A drought warning means drought is evolving therefore management plans should be implemented and water should be conserved and/or recycled.

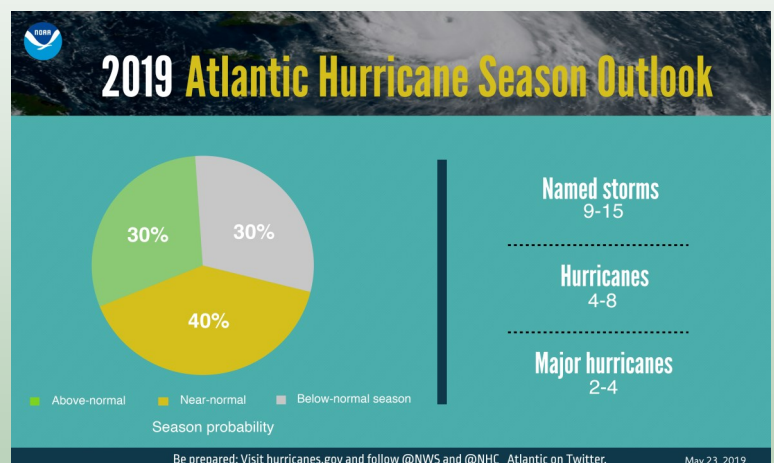
### The 2019 Atlantic Hurricane Season

#### 2019 Storm Names

|               |          |           |
|---------------|----------|-----------|
| <b>Andrea</b> | Humberto | Olga      |
| Barry         | Imelda   | Pablo     |
| Chantal       | Jerry    | Rebekah   |
| Dorian        | Karen    | Sebastien |
| Erin          | Lorenzo  | Tanya     |
| Fernand       | Melissa  | Van       |
| Gabrielle     | Nestor   | Wendy     |

**Be Prepared !!!!!**

**Be Prepared !!!!!**



**MAY 2019 IN REVIEW**

|                                   |                      |                 |
|-----------------------------------|----------------------|-----------------|
| Total Rainfall                    | 46.0 mm              | 1.8 in.         |
| 2019 Cumulative Rainfall          | 162.8 mm             | 6.4 in.         |
| Max. 24-Hr. Rainfall              | May 31 <sup>st</sup> | 9.9 mm/ 0.4 in. |
| No. Rain Days<br>(≥1.0 mm)        | 10 days              |                 |
| No. Heavy Rain Days<br>(≥10.0 mm) | 0 days               |                 |
| No. Thunderstorm Days             | None                 |                 |
| Avg. Wind Speed                   | 10 kts.              | 12 mph          |
| Avg. Temperature                  | 27.4°C               | 81°F            |
| Max. Temperature                  | May 29 <sup>th</sup> | 31.5°C / 88°F   |
| Min. Temperature                  | May 4 <sup>th</sup>  | 23.2°C / 74°F   |

Rainfall for the month of May was once again below the normal range (56-115 mm).

Temperatures throughout the month of May were generally within the normal range.

The warmest day was the 28<sup>th</sup> with an average temperature of 28.4°C/83°F.

The coolest day was the 10<sup>th</sup> with an average temperature of 25.5°C/78°F.

The day with the most sunshine hours was the 8<sup>th</sup> (11hrs :42min).

The day with the least sunshine hours was the 31<sup>st</sup> (0hrs:30min).

The windiest day was the 2<sup>nd</sup>, with a daily average wind speed of 13 kts. / 15 mph. There was a maximum wind gust of 27 kt/31 mph on the 5<sup>th</sup>.

Mostly cloudy skies prevailed throughout the month of May due to instability on most days.

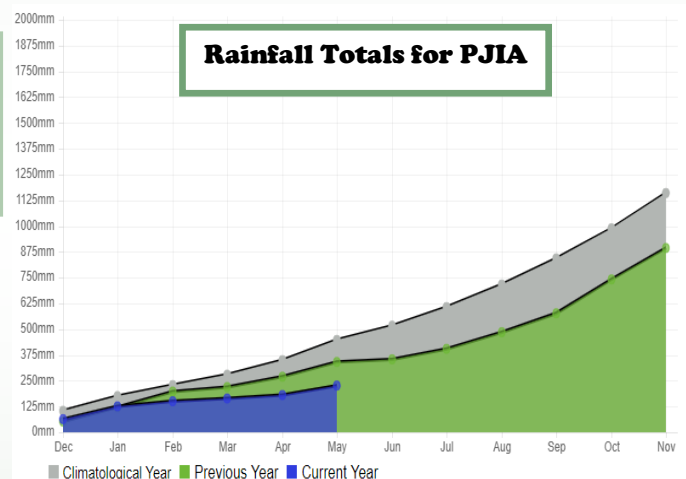
The longest dry spell was 14 days from May 11<sup>th</sup> to 24<sup>th</sup>.

**Long /Short Term Seasonal Review****Year in Review (June 2018— May 2019)**

Rainfall over the past year continues to remain below normal. There is a 32% rainfall deficit. There were eight (8) months within the past year with below normal rainfall.

**Seasonal Review (Mar-Apr –May 2019)**

Total rainfall for the last 3 months was 75.6 mm, this amount was below the normal range (162-262 mm). There were no days with heavy rainfall (>10mm) within that period.

**Rainfall Totals for PJIA****NORMAL JUNE CONDITIONS**

|                              |                   |         |
|------------------------------|-------------------|---------|
| Rainfall Total               | 39.7 mm — 65.9 mm | 2— 3in. |
| Avg. No. of Rain days        | 10 days           |         |
| Daily Average Temperature    | 28.4°C            | 83°F    |
| Avg. Max. Temperature        | 31.5°C            | 89°F    |
| Avg. Min. Temperature        | 26.1°C            | 79°F    |
| Avg. Daily Hours of Sunshine | 8 hrs             |         |

## Caribbean Climate Outlook Forum (CARICOF)

St. Maarten hosted the **Wet/Hurricane Season Caribbean Outlook Forum** from May 21<sup>st</sup> to 24<sup>th</sup> 2019 at the Simpson Bay Resort & Marina. Meteorologist, Climatologists and Stakeholders involved in Disaster Management from across the region and International Agencies made technical presentations and discussed the 2019 Wet/Hurricane Season.

### Implication of Forecast for Sectors

#### Health

- More frequent episodes of Saharan dust into the Caribbean region may increase the risk of respiratory illnesses. Persons suffering with Asthma and other such illness should take the necessary precaution.
- Heat waves may become an issue from this season onwards therefore, the need for hydration and protection from repeated exposure to dangerous UV radiation is advised.

#### Tourism Sector

- The possibility for disruptions to outdoor activities expected to increase this season.
- The UV index continues to increase this season therefore, sunscreen application is encouraged.
- On hot days, there will be an increase demand for cooling & hydration.

#### Agriculture

- Irrigation is necessary as rainfall totals continue to be below the usual for this time of year.
- Provide adequate water and shade for Livestock.
- Conserve and recycle water. Collect rain water in a safe way to avoid mosquito breeding.

#### Energy/Water Sector

Energy demand for cooling purposes will continue to increase as both day-time and night-time temperatures are expected to increase this season. .

## THE 2019 ATLANTIC HURRICANE SEASON

As we begin the 2019 Atlantic Hurricane Season, there is no doubt that we are reminded of our dreadful 2017 'Irma Experience'. However, one of the key lessons we should have learnt is, "being adequately prepared is key". The geographical location of our islands make us vulnerable to these forms of natural disasters consequently preparing our family and property and being well informed is fundamental.

Many institutions and Scientific Organizations have presented their predictions for the 2019 Atlantic Hurricane Season. Most of the predictions released so far, call for near normal to above normal activity this year.

This year the main climate factors playing a role in determining the level of activity in the Atlantic Basin are:

Firstly, the ongoing El Nino Phenomenon, which helps suppress storm activity. The latest models suggest that weak El Nino conditions will persist throughout 2019. However, there is uncertainty as to the strength of the El Nino during the peak of the hurricane season (August to October).

Secondly, another contributing factor is the Sea Surface Temperatures. Hurricanes and storms thrive in warm ocean waters, up till mid-May sea surface temperatures in the tropical Atlantic and the Caribbean sea has been warmer than average.

The question is, how much of an impact will any of these factors have on the formation of storms or hurricanes during the 2019 Atlantic Hurricane Season? These conditions will continue to change as we go through the season therefore monitoring is key. Sea surface temperatures can heat up within a month, there is the uncertainty surrounding the onset and intensity of the El Nino phenomenon.

Remember, that it takes only one major hurricane to make landfall on our island to make it an active season for us.

**DISCLAIMER:** This information contained in this newsletter is produced with the understanding that the Meteorological Department of St. Maarten., makes no warranties, either implied or expressed concerning the accuracy, completeness, reliability, or suitability of the forecast. The information may be used freely by the public with appropriate acknowledgement of its source .