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Weather & Climate

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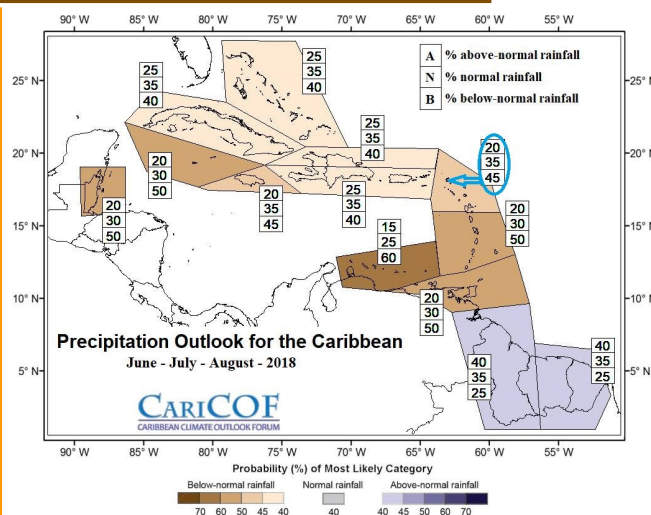
Seasonal Outlook for June to August (JJA) 2018

Rainfall Forecast

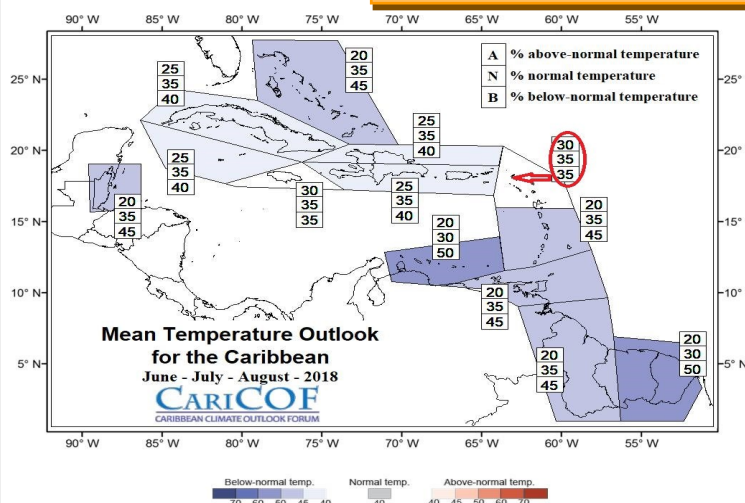
It is forecast that for the Jun-Jul-Aug season, rainfall across the region is likely to be the usual or drier except for the Guianas where it is expected to be above normal.

Within the 92 days of Jun-Jul-Aug, the normal rainfall total for St. Maarten ranges from 210 mm – 288 mm/ 8-11 in. with about 28-45 wet days.

The forecast is for the possibility of 1 to 4 wet spells and up to 3 very wet spells within that period. June is usually the beginning of the wet season in the Caribbean however, rainfall totals are expected to be lower than usual with a number of short dry spells and fewer wet spells.



Temperature Forecast



Temperatures for both day and night across the Caribbean are likely to be cooler than in most recent years except in the ABC Islands and Leeward Islands where warmer temperature are likely during the daytime.

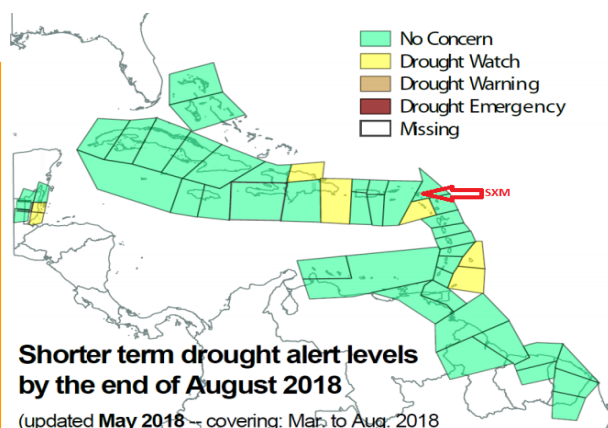
Therefore, Day-time temperatures across St. Maarten are expected to be slightly above normal while night-time temperatures are expected to be near normal to below normal.

Drought Forecast

In the drought Forecast issued last month drought conditions were expected across St. Maarten by the end of July. However in the latest forecasts indications are that by the end of August drought will no longer be a concern in St. Maarten.

Therefore, we should continue to monitor our surroundings and keep updated as well as implement our management plans.

Current Outlook



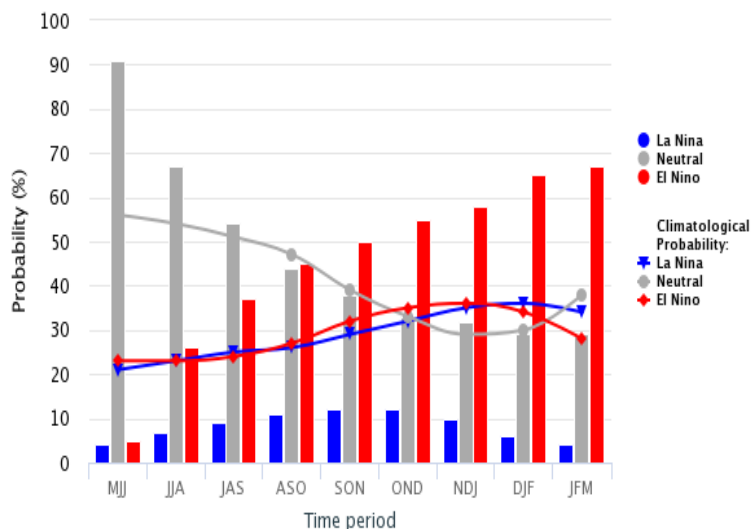
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

ENSO FORECAST

(El Niño Southern Oscillation)

Mid-May IRI/CPC Model-Based Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C



In mid May 2018, the east-central tropical Pacific still reflected Enso-neutral conditions. Most of the key atmospheric variables, also indicated neutral conditions while the upper level wind showed remnants of La Nina. The subsurface water temperatures continued to be above average.

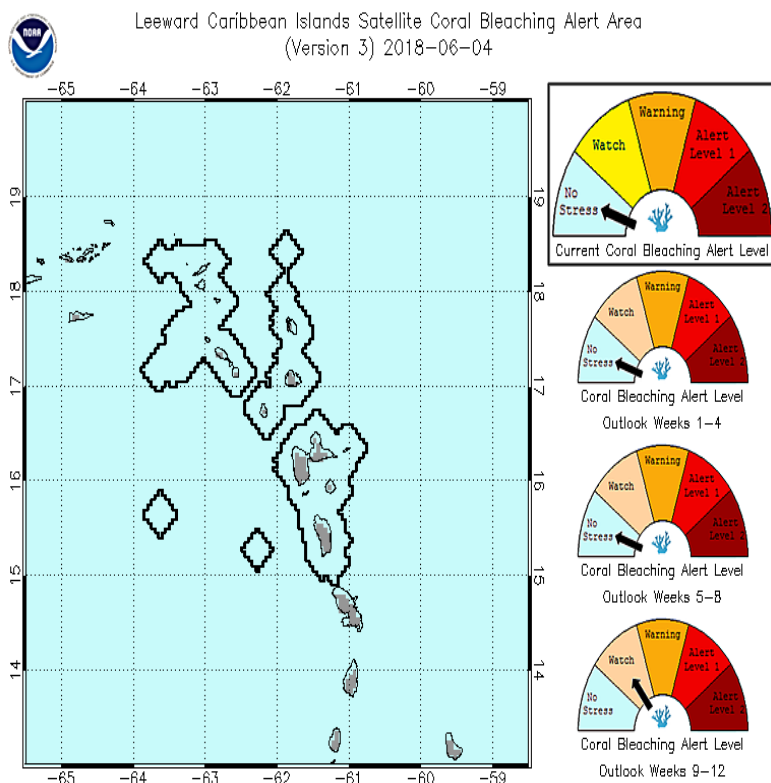
A majority of ENSO Predicting Models are favoring the development of a weak El Nino by the Sept-Oct-Nov (SON) season and to continue through early 2019.

If El Nino manifests by SON, the rainfall in the northern Caribbean is expected to increase, while a reduction rainfall totals will be expected in the southern Caribbean.

No Thermal Stress Concern for Corals.

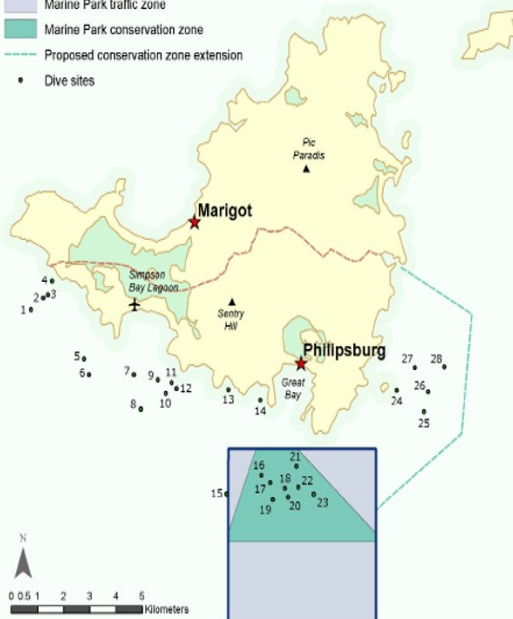
Presently sea surface temperatures (SST) around the Leeward Islands and St. Maarten are about 27.8°C (82°F). This is slightly above average for this time of year however, this temperature is way below the bleaching threshold (29.3°C/85°F).

As a result no thermal stress on corals is expected at this time and through the end of July 2018. There is a possibility for low thermal stress to begin by the end of August.



Legend

- Man of War Shoal Marine Park
- Marine Park traffic zone
- Marine Park conservation zone
- Proposed conservation zone extension
- Dive sites



St Maarten 'Man of War Shoal' Marine Park.

Photo compliments: Nature Foundation St. Maarten.

Total Rainfall	71.5 mm	2.8 in.
2018 Cumulative Rainfall	290.1 mm	11.4 in.
Max. 24-Hr. Rainfall	May 2nd	16.2mm/ 0.6 in.
No. Rain Days (≥1.0 mm)	16 days	
No. Heavy Rain Days (≥10.0 mm)	2 days	
No. Thunderstorm Days	None	
Avg. Wind Speed	11 kts.	13 mph
Max. Wind Gust		NA
Avg. Temperature	27.0 °C	81 °F
Max. Temperature	May 31st	30.7 °C / 88 °F
Min. Temperature	May 2nd & 11th	22.9°C / 73 °F

Rainfall for the month of May was within the normal range (56-115mm). A total of 71.5 mm/ 2.8 inches were recorded in sixteen (16) rain days. There were two (2) heavy rainfall days in May.

Temperatures for the month of May were near normal. (Maximum, minimum)

The warmest day was the 29th with an average temperature of 27.7°C/82°F.

The day with the most sunshine hours was the 8th (12hrs :06min).

The day with the least sunshine hours was the 2nd (4hrs:36 min).

The windiest day was the 5th, with a daily average wind speed of 15 kts. / 17 mph.

Skies were partly cloudy most of the time.

Year in Review (Jun. 2017– May 2018)

For the last 12 months rainfall has been slightly below the normal range. December and March were below normal while June, November and February were above the normal range.

Seasonal Review (Mar– Apr–May 2018)

Total rainfall for the last 3 months was 144.4 mm this amount was below the usual range (163-262mm). There were only two (2) days with slightly heavy rainfall during the last three (3) months. Occasional showers were produced by shallow clouds drifting with the brisk trade winds.

Small craft /high surf warnings were issued due to northerly swells and strong winds in March.

The 2018 Atlantic Hurricane Season

The National Oceanic & Atmospheric Administration (NOAA) issued its predictions for the 2018 Atlantic Hurricane Season on May 24th: 10-16 named storms, 5-9 hurricanes and 1-4 Major hurricanes. This suggests a near normal to above normal season. An average season produces 12 named storms, 6 hurricanes and 3 major hurricanes.

No matter how many tropical cyclones are forecast to develop, there is no way to predict so many weeks or months in advance where a certain tropical cyclone is going to develop or what country will it make landfall. Remember, that it takes only one major hurricane to make landfall on our island to make it an active season for us.

The geographical location of our islands make us vulnerable to these forms of natural disasters consequently being prepared and well informed is key.

2018 Atlantic Storms Names

Alberto	Helene	Oscar
Beryl	Isaac	Patty
Chris	Joyce	Rafael
Debby	Kirk	Sara
Ernesto	Leslie	Tony
Florence	Michael	Valerie
Gordon	Nadine	William

The first tropical storm for the season formed on Friday May 25th over the northwestern Caribbean Sea. The next named storm will be Beryl.

Summary of Forecast for June to August 2018

- Rainfall totals are expected to be lower than usual.
- Daytime temperatures are expected to be warmer than usual while night-time temperatures are forecast to be slightly cooler than in most recent years.
- Drought conditions expected to continue until the end of July however it is expected that by the end of August it will be alleviated.
- No thermal stress on coral expected by the end of July, possibility increases by the end of August

Implication of Forecast for Sectors

Health

- High temperature with increasingly humid air across the region increases the chances of heat waves towards August.
- There will be an increase in the risk of dehydration during the next 3 months which may present other associated symptoms such as weakness, dizziness, fainting etc.
- As temperatures increase vulnerable persons are to be monitored as the risk of morbidity from heat stress increases.

Energy Sector

- Need for power for cooling will continue to increase this season as day-time temperatures are expected to be on the rise.

Tourism Sector

- Fewer disruptions to outdoor activities as drier than usual conditions are expected this season.
- Increase demand for cooling & hydration particularly during the day-time hours.
- Tourists are encouraged to use sunscreen and seek shaded areas between the hours of 10am to 3pm to avoid risk of skin damage on sunny days.
- We are in the hurricane season; Tourism operators should monitor all advisories/ warning issued by the Meteorological Department.

Agriculture

- Drier than usual season is forecast therefore expect increased surface dryness and dry spells.
- Put irrigation plans in place and monitor for brush fires. Dry conditions may be alleviated by the end of August.

NORMAL JUNE CONDITIONS

Rainfall Total	39.7 mm – 65.9 mm	2– 3 in.
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	

Important Tips

Naming of Storms began in the early 1950's. Every year there is a list of 21 names. There are six lists of 21 names which are being rotated and recycled every 6 years. That is, the list of names for 2017 will be used again in 2023, and the list for 2018 will be used again in 2024.

If one of the storms in any year is deadly or costly, that name is retired and a new name beginning with the same letter is selected. For example on the 2017 list 3 names have been retired they are 'Harvey, Irma and Maria'. Consequently on the 2023 list instead of Harvey it will be Harold; Idalia and Margot will replace Irma and Maria respectively.

In the event that in any year there are more than 21 named storms in the Atlantic additional names will be taken from the Greek alphabet.

The last time this happened in the Atlantic was in 2005 when an additional 6 names were taken from the Greek alphabet.