

# Weather & Climate

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February 2018

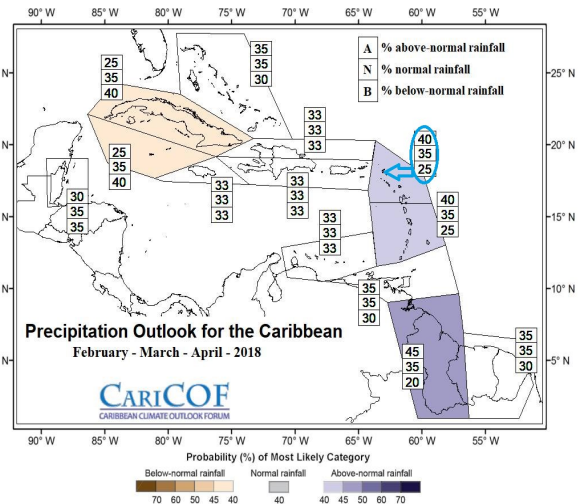
## Seasonal Outlook for February to April (FMA) 2018

### Rainfall Forecast

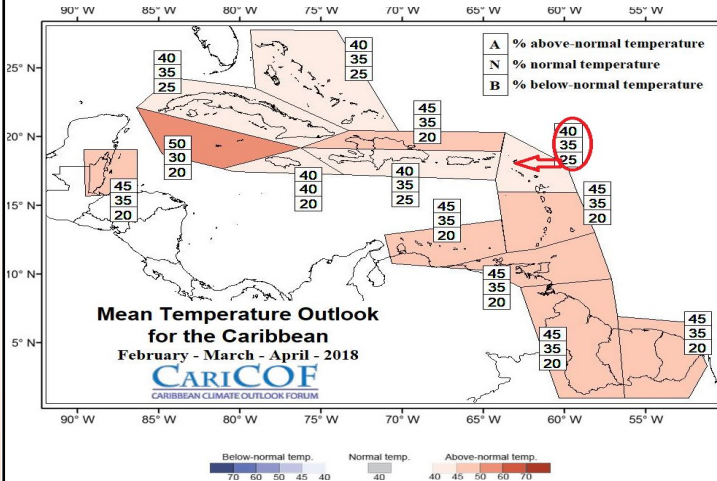
Rainfall is forecast to be above normal for St. Maarten, most of the eastern Caribbean and Guyana, for the season February-March-April with a slight increase in the number of wet days. Below normal to normal rainfall is forecast for Cayman Islands and Cuba.

Throughout the 90 days of Feb-Mar-Apr, the normal rainfall total for St. Maarten ranges from 148 mm – 179 mm/ 6-7 in. with about 22-38 wet days.

Normally, during the months: Feb-Mar-Apr, there are mostly sunny days with some days with showers.



### Temperature Forecast



Temperatures for both day and night across the Caribbean are likely to be near normal to above normal for this season. However there are few exceptions:

Day-time temperatures are expected to be cooler over southern Hispaniola, Puerto Rico and the U.S Virgin Islands while night-time temperatures are expected to be cooler over Guyana.

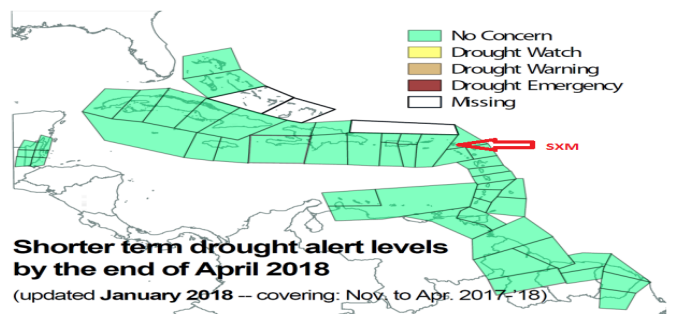
Temperatures will feel comfortable in most areas.

### Drought Forecast

At present there are no drought concerns in the short term ( by the end of April 2018) across the Caribbean region.

As we proceed into the “dry season” we should continue to monitor our resources, conserve water, upgrade infrastructure and update management plans.

### Current Outlook

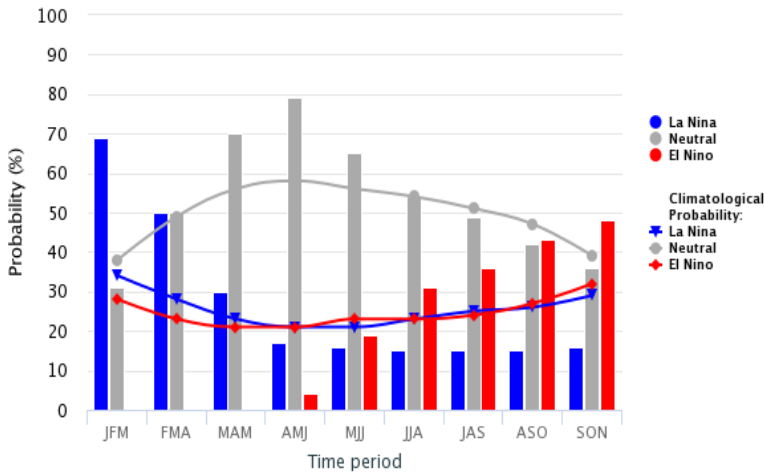


# ENSO FORECAST

(El Niño Southern Oscillation)

## Mid-Jan 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 January 2018, the tropical Pacific reflected La Nina conditions, with sea surface temperatures in the east-central Pacific in the range of a weak to moderate La Nina and the atmosphere also suggesting La Nina patterns.

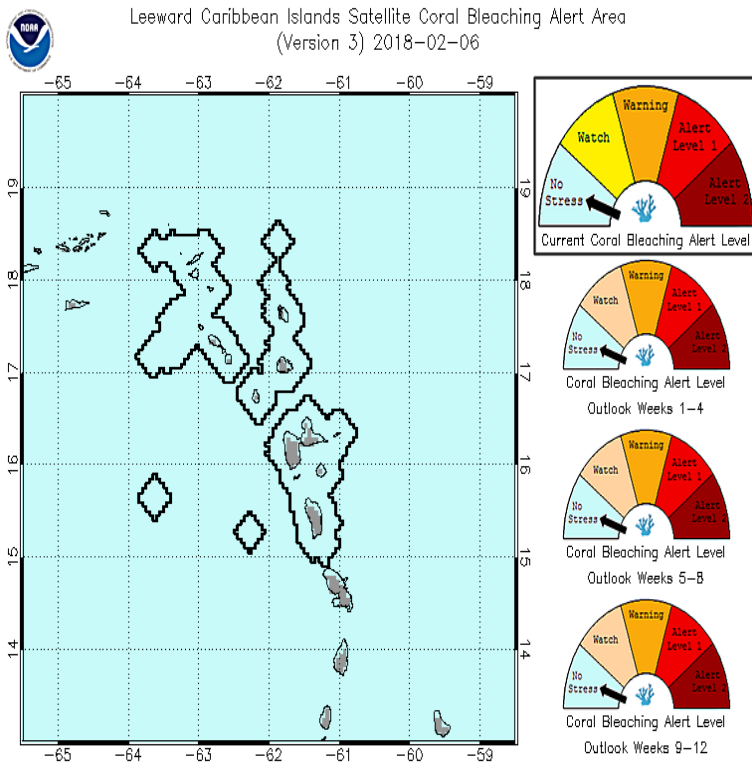
The collection of all ENSO Predicting Models indicate weak La Nina continuing through Feb-Mar-Apr season followed by a return to neutral conditions by the end of the season.

A weak La Nina state will increase chances of drier conditions in the northwest Caribbean until April while slightly increase chances of wetter conditions in most of the Eastern Caribbean.

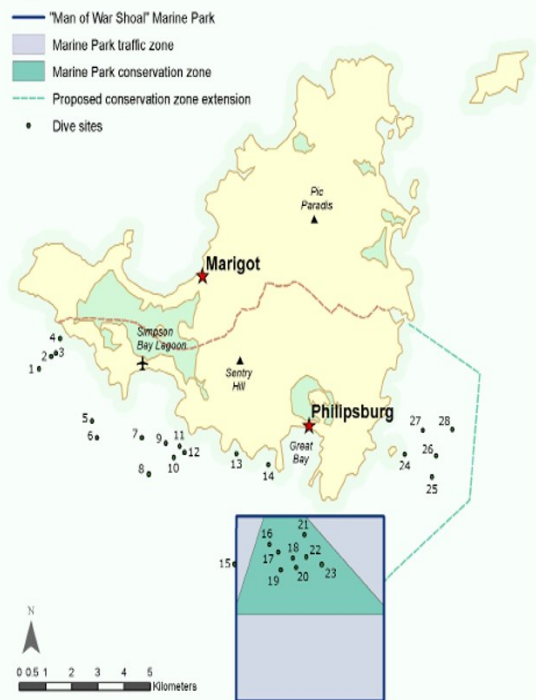
## No Thermal Stress Concern for Corals.

Presently sea surface temperatures (SST) around the Leeward Islands and St. Maarten are about 26.8°C (80°F). This is 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 May.



### Legend



St Maarten 'Man of War Shoal' Marine Park.

Photo compliments: Nature Foundation St. Maarten.

## JANUARY 2018 IN REVIEW

<b>Total Rainfall</b>	<b>70.2 mm</b>	<b>2.8 in.</b>
<b>2018 Cumulative Rainfall</b>	<b>70.2 mm</b>	<b>2.8 in.</b>
<b>Max. 24-Hr. Rainfall</b>	<b>January 6<sup>th</sup></b>	<b>9.1mm/ 0.4 in.</b>
<b>No. Rain Days (≥1.0 mm)</b>	<b>17 days</b>	
<b>No. Heavy Rain Days (≥10.0 mm)</b>	<b>None</b>	
<b>No. Thunderstorm Days</b>	<b>None</b>	
<b>Avg. Wind Speed</b>	<b>11 kts.</b>	<b>12 mph</b>
<b>Max. Wind Gust</b>	<b>NA</b>	
<b>Avg. Temperature</b>	<b>26.5 °C</b>	<b>80 °F</b>
<b>Max. Temperature</b>	<b>January 16<sup>th</sup></b>	<b>29.6 °C / 85 °F</b>
<b>Min. Temperature</b>	<b>January 28<sup>th</sup></b>	<b>22.0°C / 72 °F</b>

The average and maximum temperature for January were slightly above the normal range while the minimum temperature was below-normal.

The warmest days were the 4<sup>th</sup> & 22<sup>nd</sup> with an average temperature of 27.2°C/81°F.

The day with the most sunshine hours was the 31<sup>st</sup> (10hrs :48min).

The day with the least sunshine hours was the 5<sup>th</sup> (3hrs:36 min).

The windiest day was the 28<sup>th</sup>, with a daily average wind speed of 19 kts. / 22 mph.

Skies were partly cloudy to cloudy.

Rainfall for the month of January was within the normal range (60-85mm). A total of 70.2 mm/2.8 inches were recorded in seventeen (17) rain days. There were no heavy rainfall days this January.

Most of the rainfall in January was as a result of the presence of old frontal boundaries and low level cloud patches drifting with the trade winds. There were also days (11<sup>th</sup>, 16<sup>th</sup> & 29<sup>th</sup>) when visibility was reduced as a result of Saharan dust across the region.

A strong Atlantic High Pressure System generated brisk winds during the month of January.

### Year in Review (Feb. 2017-Jan 2018)

For the last 12 months rainfall has been within the normal range. December was below normal while April, May, June and November were above the normal range.

There is **NO drought concern** at this time (Short-term).

### Seasonal Review (Nov 2017–Jan 2018)

Total rainfall for the last 3 months was 296.8 mm this amount was within the normal range (269-325mm). Heavy rainfall and minor flooding was reported on November 7<sup>th</sup> due to instability brought about by a frontal boundary. This was the heaviest rain day for the past season with a total of 65.5mm of rainfall recorded.

A Small craft warning was issued due to northerly swells and strong winds from January 27<sup>th</sup> to 30<sup>th</sup>.

## The 2017 Atlantic Hurricane Season

The 2017 Atlantic Hurricane Season officially came to an end on November 30<sup>th</sup> 2017. This hurricane season can be described as an extremely active one as was predicted by the National Hurricane Center (NHC).

The season produced seventeen (17) named storms of which ten (10) became hurricanes with six (6) being major hurricanes (category 3 or higher). This included the first major hurricane to hit St. Maarten in twenty-two (22) years.

2017 was the seventh most active season in the historical record dating to 1851 and was the most active season since 2005.

Months	Tropical Cyclone
April	TS Arlene
June	TS Bret, TS Cindy
July	TS Don, TS Emily
August	H Franklin, H Gert, MH Harvey, MH Irma
September	MH Jose, H Katia, MH Lee, MH Maria
October	H Nate, MH Ophelia, TS Philippe
November	TS Rina

**TS: Tropical Storm; H: Hurricane; MH: Major Hurricane**

Please note that all data was recorded at the Princess Juliana International Airport and may not necessarily reflect conditions at other points on country St Maarten.

## Summary of Forecast for February to April 2018

- Rainfall totals will be higher than normal.
- Daytime and night-time temperatures are forecast to be comfortable without much heat stress, in spite of the daytime temperatures being usual or slightly higher for this time of the year.
- There is no drought concern at this time.
- No thermal stress on coral expected

### Implication of Forecast for Sectors

#### Health

- Monitor trends in symptoms in persons with asthma or other respiratory illnesses due to smoke or episodes of Saharan dust.
- Possible cases of vector borne diseases such as Dengue, Zika or chikungunya as breeding grounds for mosquitoes may still be present.
- Monitor cases in allergic reactions to fungal spores from mold.

#### Energy Sector

- Decrease need for power for cooling as temperatures for both nights and days are expected to be comfortable at least for first part of this season.

#### Tourism Sector

- Some disruptions to outdoor activities are possible due to slight increase in wet days.
- 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.

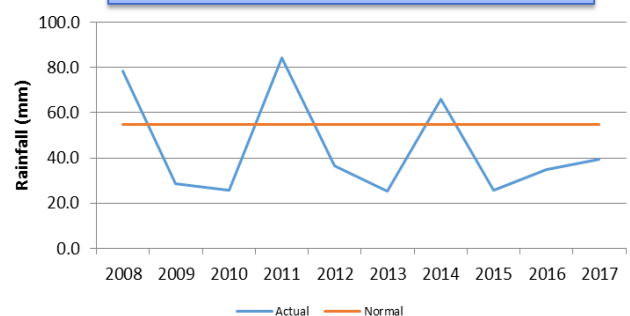
#### Agriculture

- Cooler night-time temperatures may favour pollen viability and could give rise to increased crop production.
- There are no concerns for short-term drought across the region .

### NORMAL FEBRUARY CONDITIONS

Rainfall Total	31.2 mm – 57.0 mm	1– 2 in.
Avg. No. of Rain days	10 days	
Daily Average Temperature	25.4°C	78°F
Avg. Max. Temperature	28.8°C	84 °F
Avg. Min. Temperature	23.1°C	74°F
Avg. Daily Hours of Sunshine	9 hrs	

#### Actual Vs Normal February Rainfall



Rainfall for the month of February was below-normal for 7 out of the last 10 years.

### Important Tips

Tropical Cyclones do develop outside of the official hurricane season ( June-November).

The 2018 hurricane season is only four (4) months away. Preparedness is the key and it is never too early.

Adverse weather events may occur at any time and impact our lives. Consult your daily weather forecasts using the following mediums:  
website: [meteosxm.com](http://meteosxm.com) or like us on facebook: @sxmweather