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Weather & Climate

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Summary of Forecast for December to February 2018/19

- Dec-Jan-Feb, rainfall totals are expected to be lower than usual.
- Daytime temperatures are expected to be near the usual or warmer while night-time temperatures are expected to be cooler than usual.
- Drought is expected to become a concern by the end of February 2019.

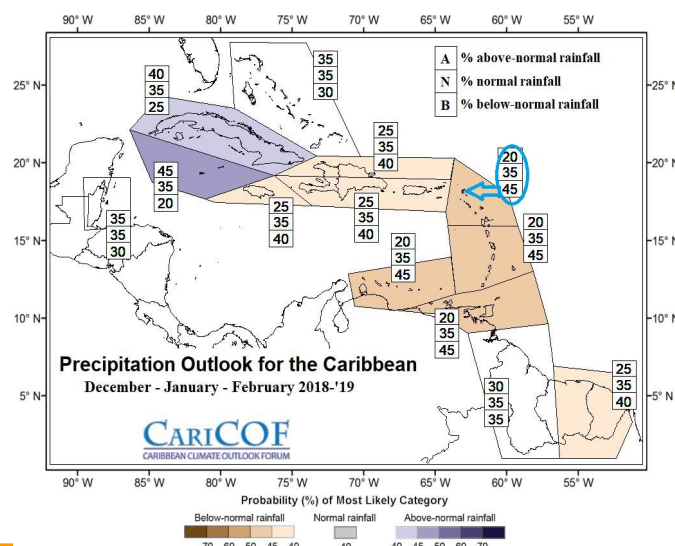
Seasonal Outlook for December to February (DJF) 2018/19

Rainfall Forecast

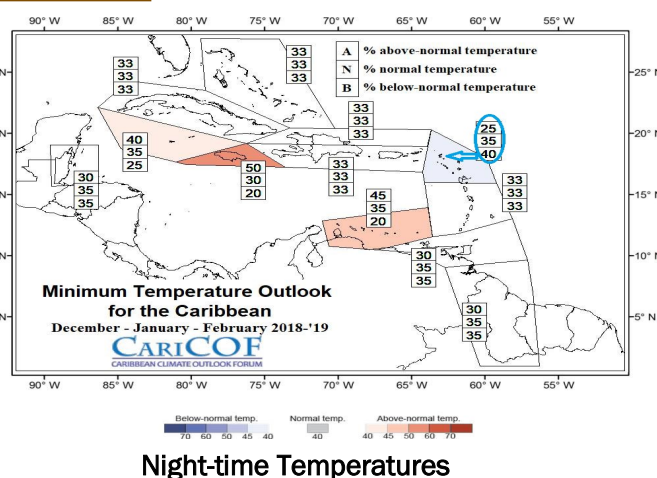
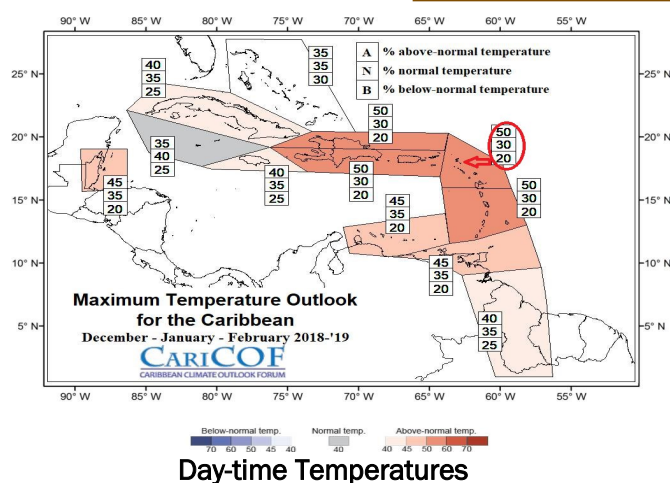
Rainfall totals for the season Dec-Jan-Feb 2018/19, are likely to be the usual or drier across the Lesser Antilles, the ABC Islands, Hispaniola and the US Virgin Islands.

Within the 90 days of Dec-Jan-Feb, the normal rainfall total for St. Maarten ranges from 173 mm – 258mm/ 7-10 in. with about 30-46 wet days.

Dec. to Jan, heavy showers become less frequent and February tends to be dry as the dry season sets in.



Temperature Forecast



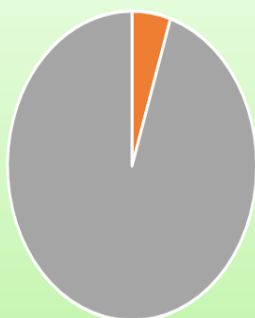
Day-time temperatures in the Caribbean are likely to be the usual or warmer during Dec.- Jan.- Feb. while night time temperatures across the Leeward Islands (St. Maarten) may be cooler than usual.

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
Dec-Jan-Feb 2018/19



■ La Niña ■ Neutral ■ El Niño

Sea surface temperatures continue to increase across the east-central tropical Pacific.

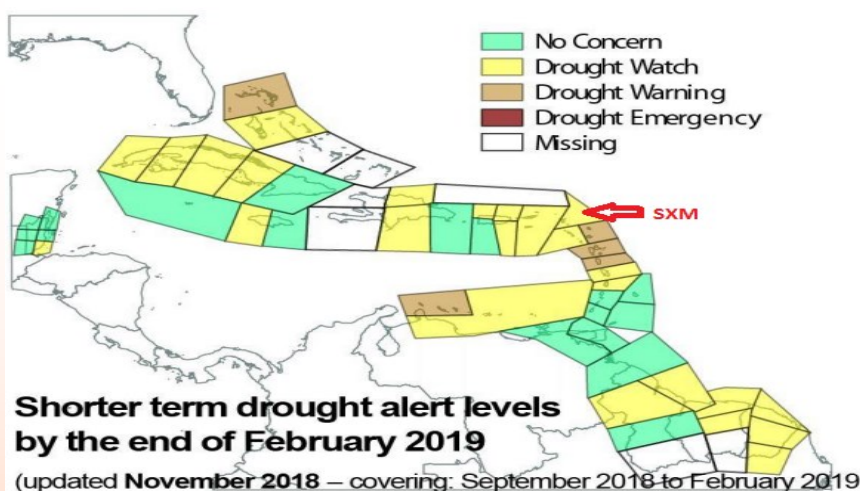
The latest forecast models collectively indicate a weak to moderate El Niño development (94%) this season and most likely maintaining that strength through the first half of 2019. An El Niño Watch remains in effect.

An El Niño phase will tend to produce drier conditions across the eastern Caribbean and slightly wetter conditions over the portions of the Greater Antilles and the Bahamas.

No Thermal Stress on Corals is expected this season..

Drought Forecast

Current Outlook



By the end of February 2019 drought will become a concern for much of the Caribbean. Drought conditions are possible in St. Maarten by this time.

Short term drought is evolving in the ABC Islands, Antigua, Northern Bahamas, Guadeloupe and Dominica. Some of these countries may also be faced with a long term drought risk.

The 2018 Atlantic Hurricane Season

The 2018 Atlantic Hurricane season officially came to an end on November 30th 2018.

The season produced fifteen (15) named storms, eight (8) hurricanes two (2) of which were major (Cat 3 or higher). In an average season there are twelve (12) named storms, six (6) hurricanes with at least three (3) being major hurricanes.

Overall, this season had more activity than an average season, reasons being warm sea surface temperatures and the late onset of the El Niño phenomenon which is often responsible for suppressing storm development.

The 2018 Atlantic Hurricane Season was a much better season for St. Maarten as compared to the 2017 season. Alerts were issued for Tropical Storms Beryl and Kirk however there were no significant impacts on the island.

NOVEMBER 2018 IN REVIEW

Total Rainfall	152.4 mm	6.0 in.
2018 Cumulative Rainfall	841.8 mm	33.1 in.
Max. 24-Hr. Rainfall	Nov. 10 th	49.1mm/ 1.9in.
No. Rain Days (≥1.0 mm)	18 days	
No. Heavy Rain Days (≥10.0 mm)	6 days	
No. Thunderstorm Days	8 days	
Avg. Wind Speed	9 kts.	10 mph
Avg. Temperature	27.2 °C	81 °F
Max. Temperature	Nov. 1 st	31.3 °C / 88°F
Min. Temperature	Nov. 13 th	22.3°C / 72°F

Rainfall for the month of November was within the normal range (85-170mm). A total of 152.4 mm/ 6.0 inches was recorded in eighteen (18) rain days. There were six (6) heavy rainfall days.

Generally, temperatures were either within the normal range or slightly higher than usual for the month of November.

The warmest day was the 1st with an average temperature of 28.4°C/83°F.

The days with the most sunshine hours were the 24th & 28th (10hrs :48min).

The day with the least sunshine hours was the 3rd (0hrs:00min).

The windiest day was the 14th, with a daily average wind speed of 14 kts. / 16 mph.

Heavy rainfall occurred on the 10th due to instability across the area.

Skies were mostly fair during the month except for days with heavy rainfall.

Long /Short Term Seasonal Review

Year in Review (Dec. 2017– Nov 2018)

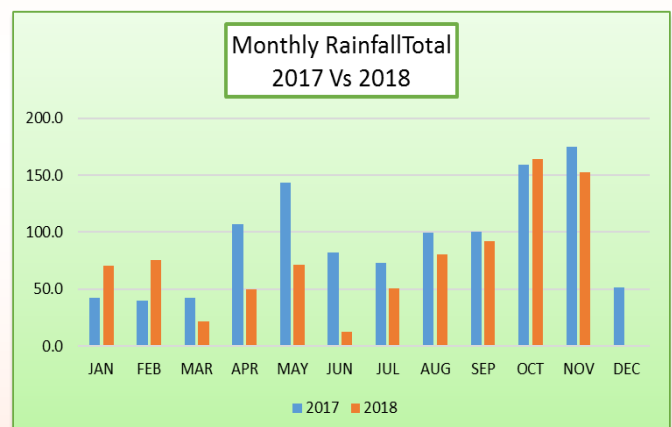
For the last 12 months, rainfall has been below the normal range. December '17, March ,June, July and September 2018 were below normal while February 2018, was above the normal range.

Overall there was a deficit in the amount of rainfall for the past year.

Seasonal Review (Sept.-Oct.-Nov. 2018)

Total rainfall for the last 3 months was 408mm, this amount was within the normal range (356-498mm). There were twelve (12) days with heavy rainfall. (>10mm)

Sept-Oct-Nov. 2018 was drier than the same period in 2017.



NORMAL DECEMBER CONDITIONS

Rainfall Total	74.6 mm – 110.1 mm	3– 4 in.
Avg. No. of Rain days	14 days	
Daily Average Temperature	26.2°C	79°F
Avg. Max. Temperature	29.4°C	85°F
Avg. Min. Temperature	23.9°C	75°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Health

- There may be an increase in allergens in the atmosphere from plant material (pollen) driven by increased wind speeds.
- There may be accelerated mosquito proliferation in areas where water is stored in containers without protective mesh during this time of low rainfall activity.
- Although temperatures are expected to be more comfortable, the risk of dehydration and other associated symptoms are possible during the day time and dry spells.

Tourism Sector

- A decrease in disruptions to outdoor activities this season. February tends to be the sunniest of the next three (3) months.
- The UV index is at its lowest in Dec-Jan. and will quickly increase during February therefore sunscreen application is encouraged in February.
- On hot days, there will be an increase demand for cooling & hydration.

Agriculture

- Some irrigation may become necessary as rainfall totals are expected to be below the usual for this time of year.
- Wind speed will be on the rise this season (Dec-Jan-Feb) as high pressure increases over the area.

Energy Sector

Energy demand for cooling purposes is expected to be higher during the day time than night time.

Things you should know.....

DROUGHT

Drought is a complex phenomenon which is difficult to monitor and define. Drought, is basically the *absence* of water.

It is a creeping phenomenon that slowly sneaks up and impacts many sectors of the economy, and operates on many different time scales. As a result, the climatological community has defined four types of drought:

- 1) **Meteorological Drought:** This happens when dry weather patterns dominate an area.
- 2) **Agricultural Drought:** This happens when crops become affected.
- 3) **Hydrological Drought:** This occurs when low water supply becomes evident, especially in streams, reservoirs, ponds and groundwater levels, usually after many months of meteorological drought.
- 4) **Socioeconomic Drought:** This relates the supply and demand of various commodities to drought.

Meteorological drought can begin and end rapidly, while hydrological drought takes much longer to develop and then recover.

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