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Weather & Climate

Volume 3, Issue 2

August 2017

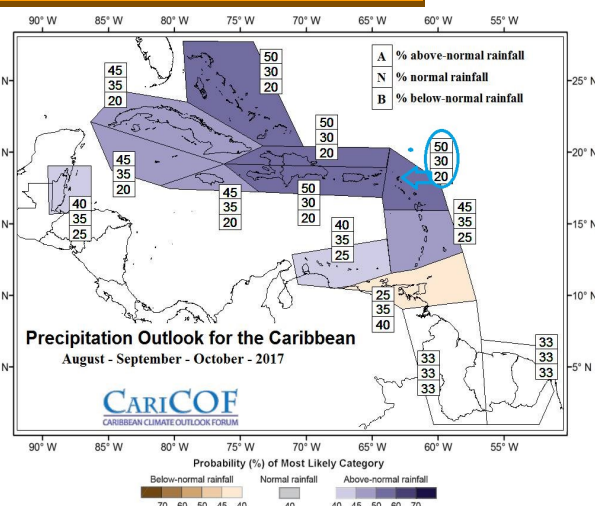
Seasonal Outlook for August to October (ASO) 2017

Rainfall Forecast

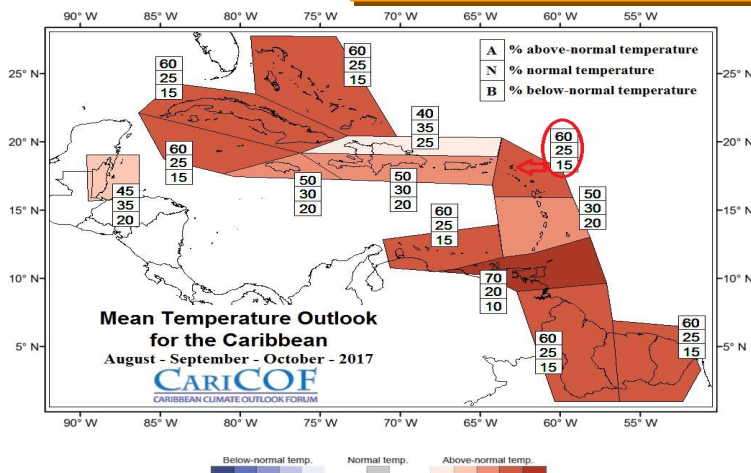
Rainfall is forecast to be above normal for St. Maarten, most of the northern Caribbean and Belize, for the season August-September-October with a slight increase in the number of wet days. Below normal to normal rainfall is forecast for Trinidad and Tobago.

Throughout the 92 days of Aug-Sept-Oct, the normal rainfall total for St. Maarten ranges from 332 mm –422 mm/ 13-17 in. with about 35-50 wet days.

Normally, in August there is often a mid summer dry spell while in September and October there are frequent heavy showers.



Temperature Forecast



Temperatures for both day and night across the Region are likely to be above normal for this season; September to October.

The hottest time of year which is usually August to October will be warmer than normal.

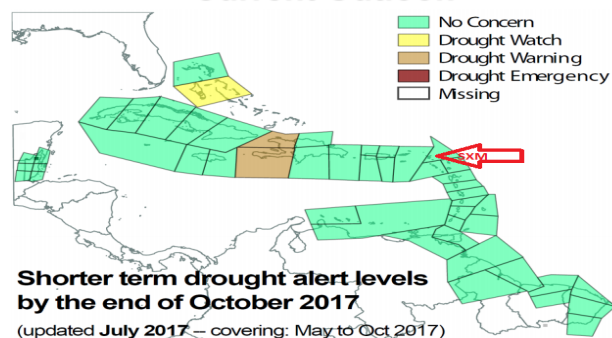
Heat stress on humans and livestock is expected to increase during this season.

Drought Forecast

As we continue into the wet season there is currently no drought concern in the short term (by the end of October) for the region except for Haiti and the central parts of the Bahamas.

In the long term (by the end of November 2017) however, drought will evolve in the northern and central parts of the Bahamas.

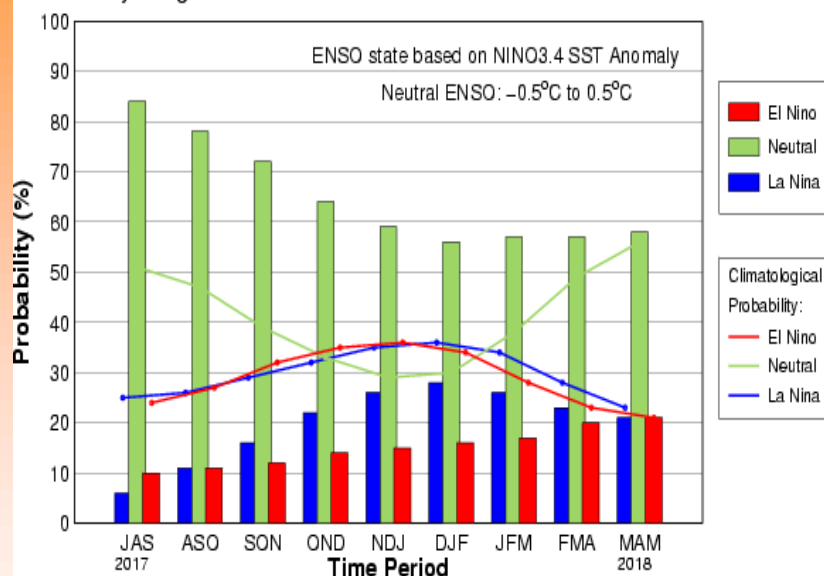
Current Outlook



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

ENSO FORECAST

Early-Aug CPC/IRI Official Probabilistic ENSO Forecast



During early August 2017, the tropical Pacific remained in an ENSO-neutral state. Sea surface temperature were near average in the eastern-central Pacific Ocean and the atmosphere maintaining ENSO-neutral patterns.

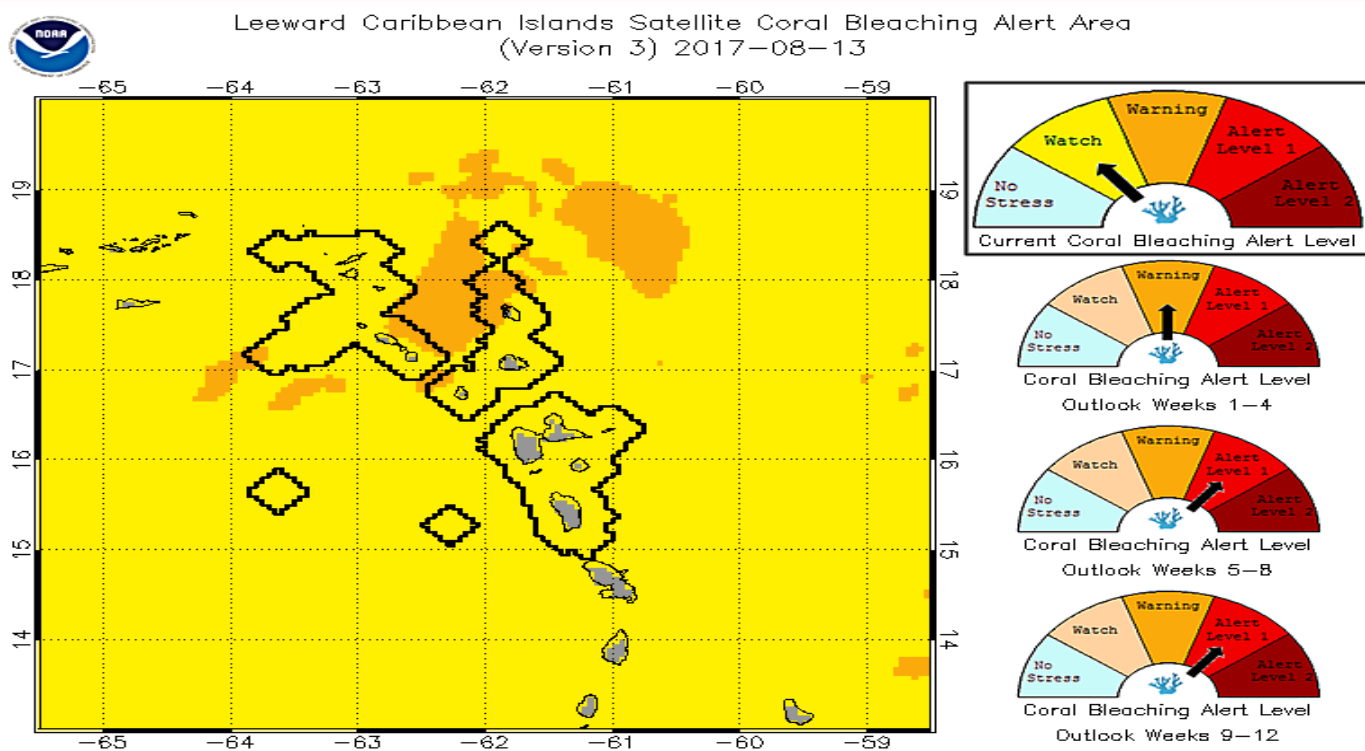
The collection of all ENSO Predicting Models indicate the ENSO-neutral as the most likely condition throughout the rest of 2017 into 2018 with the chances of El Niño development less than 25 percent.

This ongoing neutral state will have little effect on our rainfall and temperatures. However, in the unlikely event that El Niño does manifest, odds are in favour of hotter conditions and less hurricane activity

Coral Bleaching WARNING

Presently sea surface temperatures (SST) around Leeward Islands and St. Maarten are about 28.9°C (84°F). This is above average. Temperatures are very near the bleaching threshold, therefore thermal stress will continue to accumulate during the next four (4) weeks till the mid September. As a result, the alert level will move to a **Warning**. No bleaching has been reported across the Caribbean at this time.

As mean temperatures continue to increase across the Region during the next months; September through October, stress on corals is expected to increase. By the end of September bleaching is expected to begin and become more widespread thereafter. Please report any signs of bleaching to the Nature Foundation of St. Maarten.



JULY 2017 IN REVIEW

Total Rainfall	73.2 mm	2.9 in.
2017 Cumulative Rainfall	530.0 mm	20.9 in.
Max. 24-Hr. Rainfall	July 11 th	23.1 mm/ 0.9 in.
No. Rain Days (≥1.0 mm)	14 days	
No. Heavy Rain Days (≥10.0 mm)	2 days	
No. Thunderstorm Days	3 days	
Avg. Wind Speed	10 kts.	12 mph
Max. Wind Gust	July 18 th & 19 th	31 kts. / 36 mph
Avg. Temperature	28.7 °C	84 °F
Max. Temperature	July 31 st	32.1 °C / 90 °F
Min. Temperature	July 13 th	23.7°C / 75 °F

The average and maximum temperature for July were within the normal range while the minimum temperature was below-normal.

The warmest day was the 31st with an average temperature of 29.6°C/85°F.

The day with the most sunshine hours was the 30th (12hrs :00min).

The day with the least sunshine hours was the 11th (4hr: 54 min).

The windiest day was the 18th, with a daily average wind speed of 14 kts. / 16 mph.

The highest wind gust was recorded as 31kts/ 36 mph on July 18th & 19th.

Skies were variable throughout the month.

Rainfall for the month of July was within the normal range (63-106mm). A total of 73.2 mm/2.9 inches were recorded in fourteen (14) rain days. There were two (2) heavy rainfall days.

On July 11th between 8am and 2pm (6 hrs) 20.1 mm/0.8 inch of rainfall were measured at the airport. This was as a result of instability associated with an upper level low located north of the region and available low level moisture. The rest of the month was generally dry and hazy due to the presence of Saharan dust across the Region.

Year in Review (Jan-Jul 2017)

Rainfall for the year so far is 530.0 mm this amount is within the normal range (451-573mm).

There is **NO drought concern** at this time.

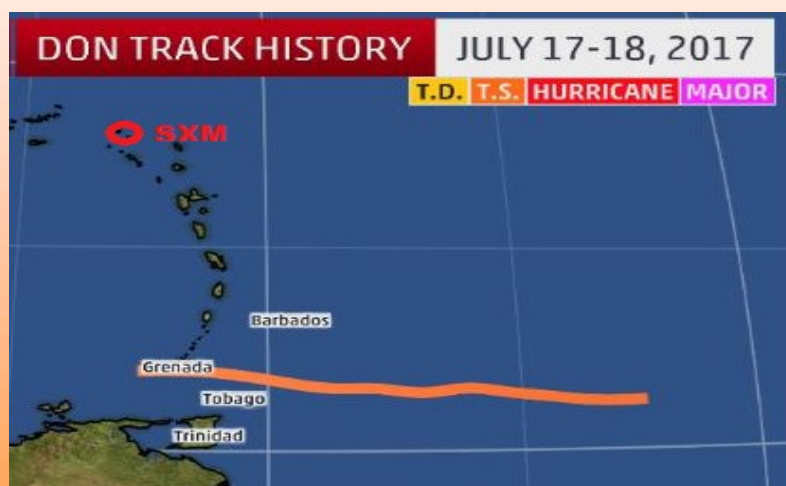
Seasonal Review (May—Jul 2017)

Total rainfall for the last 3 months was 299.1mm this amount was above the normal range (194-281mm). Heavy rainfall and minor flooding was reported on May 9th, June 29th & July 11th. May 9th was the heaviest rain day for the past season when a total of 63.2mm was recorded with 39 mm were measured within a 6-hour period.

The 2017 Atlantic Hurricane Season

Three systems formed in the month of July. **Tropical Depression Four** formed on July 5th in the Eastern Atlantic but quickly degenerated 2 days later. **Tropical Storm Don** formed on **July 17th** just east of the Windward Islands and also quickly degenerated in the southeast Caribbean sea the following day.

Tropical Storm Emily formed on **July 31st** west of Tampa, Florida. Emily became post tropical the very next day. Two storms have formed for the month of August so far. The next storm to form will be called **Harvey**.



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 August to October 2017

- Rainfall totals will be higher than normal. Both daytime and nighttime temperatures higher than normal.
- There is no drought concern at this time.
- Heat stress and heat waves will be a concern especially during August and September.
- Coral Bleaching can be expected by the end of September.

Implication of Forecast for Sectors

Health

- Increase cases of vector borne diseases such as Dengue, Zika or chikungunya.
- Increased risk of Leptospirosis due to human contact with flood waters which may be contaminated.
- Possible risk of injury or death during flash flooding events.
- Risk of dehydration, fainting or dizziness due to high temperatures in vulnerable persons such as babies and the elderly.
- Increase risk of skin rash or damage skin due to increase in UV radiation on sunny days.

Energy Sector

- Increased need for power for cooling as temperatures for both nights and days are expected to increase.

Tourism Sector

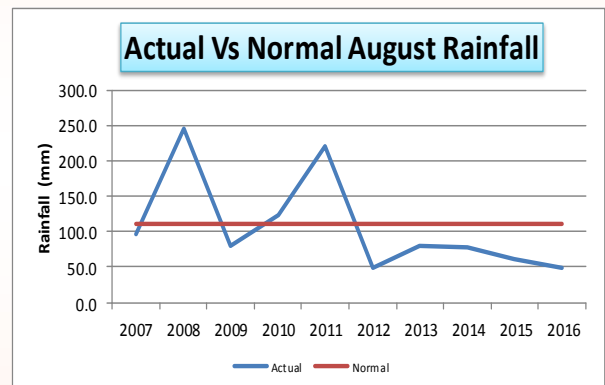
- More frequent disruptions to outdoor activities.
- Increase in use of insect repellants as environment becomes more conducive to mosquito breeding.
- Increase use of sunscreen and protective clothing as temperatures and the chances of heat waves increases.
- Report any cases of Coral Bleaching to St. Maarten Nature Foundation.

Agriculture

- Increase in moisture related pests and loss of crops due to flash flood events.
- Heat stress and discomfort in livestock.

NORMAL AUGUST CONDITIONS

Rainfall Total	76.1 mm – 123.6 mm	3– 5 in.
Avg. No. of Rain days	15 days	
Daily Average Temperature	28.8°C	84°F
Avg. Max. Temperature	31.9°C	89 °F
Avg. Min. Temperature	26.4°C	80°F
Avg. Daily Hours of Sunshine	8 hrs	



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

2017 Atlantic Tropical Cyclone Names

Arlene	Franklin	Katia	Philippe
Bret	Gert	Lee	Rina
Cindy	Harvey	Maria	Sean
Don	Irma	Nate	Tammy
Emily	Jose	Ophelia	Vince
			Whitney