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Weather & Climate

Volume 4, Issue 11

November 2019

Summary

- There was one (1) heatwave period during the month of October on St. Maarten.
- Temperatures will become more comfortable this season.
- We are still in the hurricane season remain alert and updated.
- Heavy rainfall events are like through November; Flooding & Flash Flooding are possible.

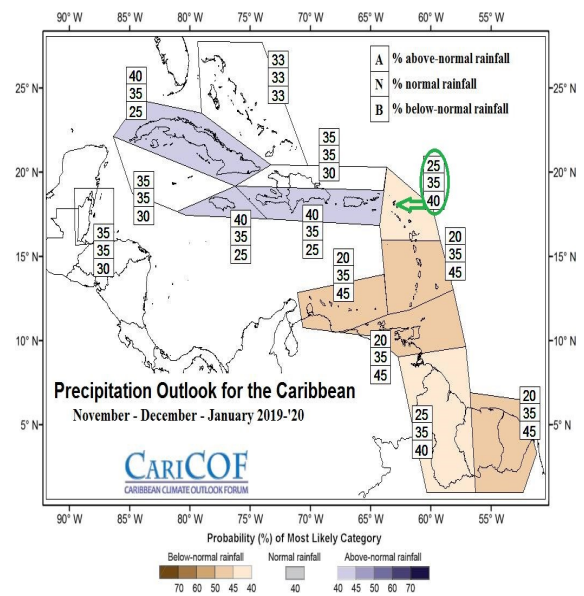
Seasonal Outlook for November to January (NDJ) 2019/20

Rainfall Forecast

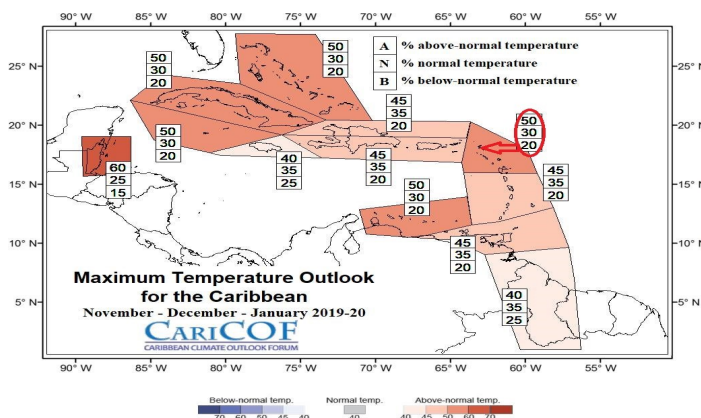
Rainfall totals for the season Nov.-Dec-Jan are expected to be the usual or drier across most of the eastern Caribbean including St. Maarten. Rainfall is expected to be more than usual over the Greater Antilles.

Within the 92 days of Nov-Dec-Jan, the normal rainfall total for St. Maarten ranges from 269 mm – 325 mm/ 11-13 in., 38-48 wet days, up to 3 (7-day) very wet spells can be expected this season.

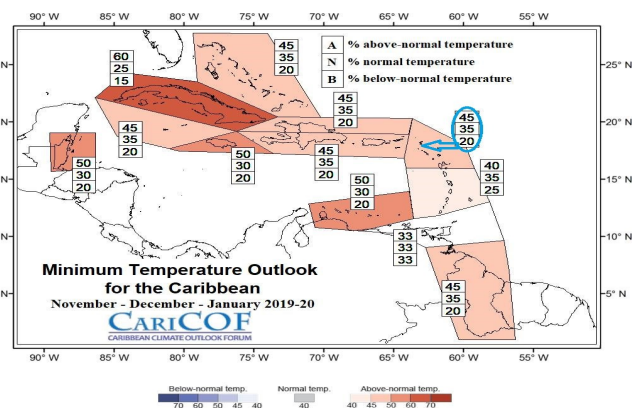
We are nearing the end of the wet season and flash floods and flooding remains a concern particularly in November. Some heavy showers can be expected in November since it is the wettest month on average in St. Maarten. Rainfall frequency and intensity decreases from the month of December.



Temperature Forecast



Day-time Temperatures

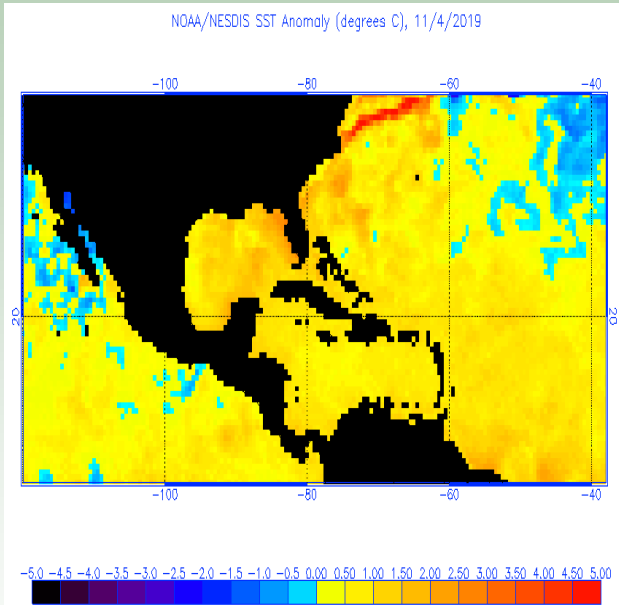


Night-time Temperatures

Day-time and night-time temperatures are expected to be as usual or warmer across most of the Caribbean during this period. Temperatures will return to comfortable levels in November.

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

WHAT INFLUENCES THIS SEASON CLIMATE?



Sea surface temperatures in the Pacific maintain ENSO-neutral levels during the month of September and early October. Models suggest that these conditions will persist throughout the end of 2019 and into the first quarter of 2020.

The ENSO neutral conditions do not drive seasonal rainfall or temperature in the Caribbean. Climate conditions in the Caribbean may more be affected by the North Atlantic Sea Surface temperatures (SST).

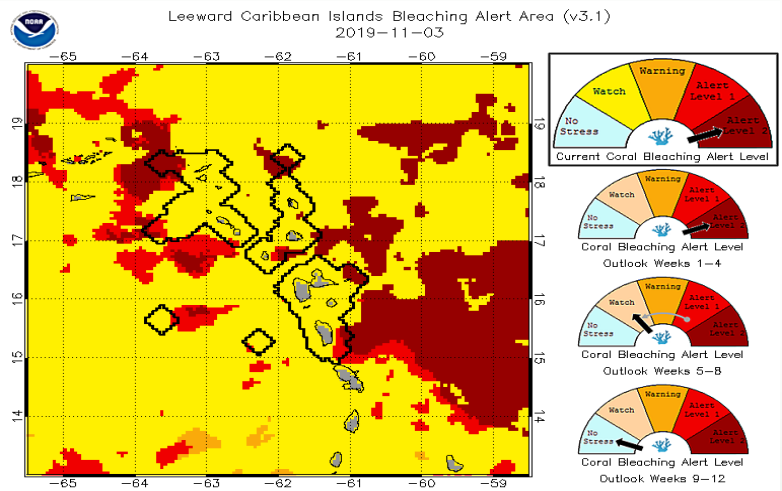
SST throughout the tropical north Atlantic and eastern Caribbean have warmed slightly above average while the SST in the Subtropical North Atlantic and western Gulf of Mexico continue to be 1°C above average. SST east of the Windward Islands remains near average.

Coral Bleaching Alert Level 2: Widespread Bleaching

Presently SSTs across the Leeward Islands are slightly above the bleaching threshold.

Widespread bleaching of corals is expected within the next 4 weeks in areas across the Leeward Islands marked in red on the map.

Thereafter conditions will return to normal (by December).



The 2019 Atlantic Hurricane Season

2019 Storm Names

Andrea	Humberto	Olga
Barry	Imelda	Pablo
Chantal	Jerry	Rebekah
Dorian	Karen	Sebastien
Erin	Lorenzo	Tanya
Fernand	Melissa	Van
Gabrielle	Nestor	Wendy

Be Prepared !!! Be Prepared !!! Be Prepared !!!

Tropical storm **Melissa** formed over the western Atlantic on October 11th and tropical storm **Nestor** formed on October 18th in the Gulf of Mexico. Tropical storm **Olga** and Tropical storm **Pablo** formed on October 25th in the Gulf of Mexico and the N.E Atlantic respectively. Pablo became the 6th hurricane of the season on the October 27th.

The next named storm will be **Rebekah**.

OCTOBER 2019 IN REVIEW

Total Rainfall	154.3 mm	6.1 in.
2019 Cumulative Rainfall	749.3 mm	29.5 in.
Max. 24-Hr. Rainfall	Oct. 14 th	105.8mm/ 4.2in.
No. Rain Days (>=1.0 mm)	8 days	
No. Heavy Rain Days (>=10.0 mm)	2 days	
No. Thunderstorm Days	3 days	
Avg. Wind Speed	6 kts.	7 mph
Avg. Temperature	28.9°C	84°F
Max. Temperature	Oct. 13 th	33.0°C / 91°F
Min. Temperature	Oct. 14 th	23.7°C / 75°F

Rainfall for the month of October was within the normal range (100-181 mm). A total of 69.0mm/2.7inches was recorded within a 6-hr period on October 14th.

Temperatures throughout the month of October were above the normal range.

The average daily temperature for October was 28.9°C/84°F.

The warmest day was the 5th with an average temperature of 30.1°C/86°F.

There were eight (8) heat-wave days (maximum temperature of 32.3°C/90°F and above) in the month of October. There was only one (1) heat-wave period from the 3rd to 7th Oct. i.e. three (3) or more consecutive days with maximum temperatures above 32.2°C.

The coolest day was the 28th with an average temperature of 27.3°C/81°F.

The days with the most sunshine hours were the 17th & 26th (11hrs :12min).

The day with the least sunshine hours was the 28th (3hrs:24min) due to cloudy to overcast skies.

The windiest day was the 7th with a daily average wind speed of 10 kts. / 12 mph.

Long /Short Term Seasonal Review

**Year in Review
(Nov. 2018— Oct. 2019)**

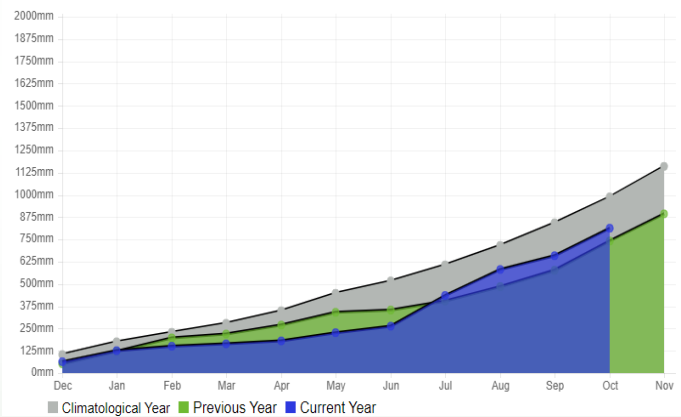
Total rainfall over the past twelve (12) months is once again below the normal range. There were seven (7) months within the past year with below normal rainfall.

Seasonal Review (Aug-Sept-Oct. 2019)

Total rainfall for the last three (3) months was 377.7 mm, this amount was within the normal range (332-422 mm). There were eight (8) days with heavy rainfall (>10mm) within that period.

TNCM, St-Maarten - Accum. Rainfall Dec-Nov Year

(Location: 18.0408°N, -63.1095°W)



NORMAL NOVEMBER CONDITIONS

Rainfall Total	85.3 mm – 169.9 mm	3– 7 in.
Avg. No. of Rain days	15 days	
Daily Average Temperature	27.3°C	81°F
Avg. Max. Temperature	30.0°C	86°F
Avg. Min. Temperature	24.7°C	77°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Tourism Sector

- We are still in the hurricane season. Therefore, tourism operators are advised to continue to monitor weather advisories issued by the Meteorological Department.
- At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.

Agriculture

- To minimize the effects of flash flooding farmers are advised to maintain drains around crop beds and/or plant crops on raised beds; house animals on high ground and/or on raised pens; and store fertilizer away from moisture and water sources.
- Agricultural pest and diseases may increase after excess periods of precipitation. Monitor and employ recommended treatment as necessary.

Health

- The presence of stagnant water in the aftermath of heavy rainfall or floods may promote the breeding of mosquitoes and increase the risk of associated mosquito borne diseases, such as Dengue & Chikungunya.
- 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.

Energy/Water Sector

Energy demand for cooling purposes maybe slightly reduced as temperatures become more comfortable this season.

SOME WEATHER TERMS YOU SHOULD KNOW!!!!.

What is a funnel cloud?

A funnel cloud is a rotating cone-shaped column of air extending downward from the base of a thunderstorm, but not touching the ground.



What is a waterspout?

A waterspout is a rotating cone-shaped column of air extending downward from the base of a thunderstorm and touches the water.



What is a tornado?

A tornado is a violent rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of up to 300 mph. They can destroy large buildings, uproot trees and hurl vehicles hundreds of yards.



What is a dust devil?

These are mostly harmless whirlwinds and are triggered by light desert breezes that create a swirling plume of dust with speeds rarely over 70 mph. These differ from tornadoes in that they are not associated with a thunderstorm (or any cloud) and are usually very weak.

