DOMINICA METEOROLOGICAL BULLETIN

VOL 3 ISSUE 01 July—September YEAR 2018

Brief Summary

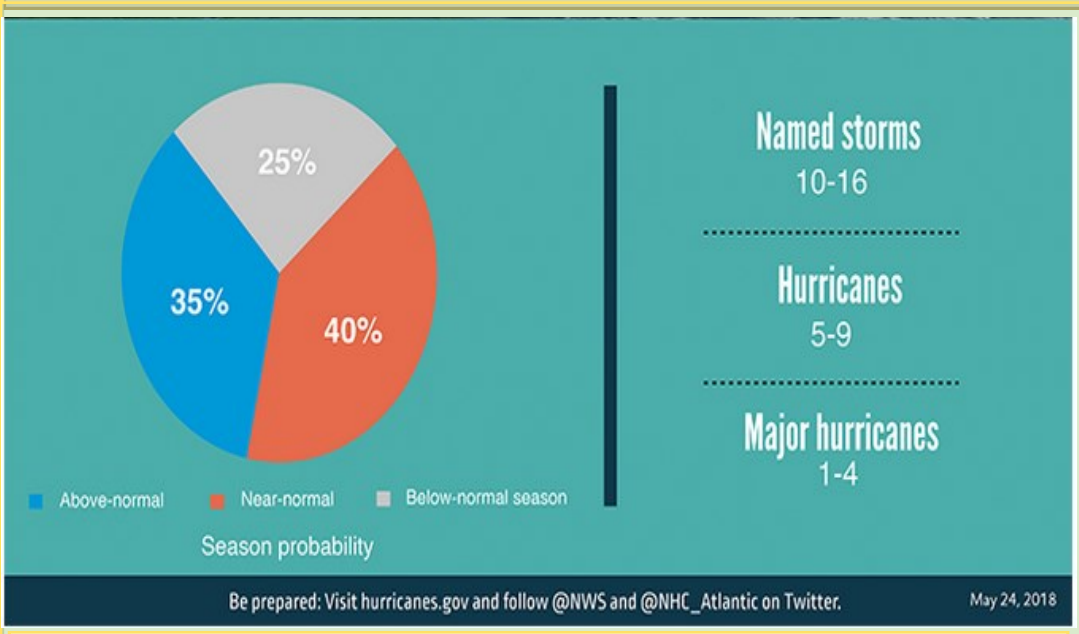
April-May-June (AMJ) 2018-The rainfall accumulated for the season was normal. Temperatures at Canefield were normal while Douglas-Charles experienced cooler day and night time temperatures.

Forecast: Below to normal rainfall, mean and minimum temperature. Uncertain for maximum temperature.

July-August-September (JAS) 2018– Below to normal rainfall amounts with less wet days and wet spells than usual is forecast. Cooler maximum temperatures are anticipated with uncertainties at this time for daily mean and night time temperatures. For the first time since a number of years the forecast suggests temperatures may not be warmer than usual between July and December across the Lesser Antilles.

2018 ATLANTIC HURRICANE SEASON OUTLOOK

The US National Oceanic and Atmospheric Administration (NOAA) forecast a 75-percent likelihood of having a near- or above -normal 2018 Hurricane Season.



2018 Atlantic Basin Storm Names

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

An average hurricane season produces 12 named storms, **(winds of 39 mph or higher)** of which 6 become hurricanes **(winds of 74 mph or higher)** with 3 developing into major hurricanes **(category 3, 4 or 5; with winds of 111 mph or higher)** .

Two of the main factors that contributed to the predictions are the possibility of a weak El Nino developing and near-average sea surface temperatures (SSTs) across the tropical Atlantic Ocean and Caribbean Sea.

These factors are set upon a backdrop of atmospheric and oceanic conditions that are conducive to hurricane development and have been producing above average Atlantic hurricane seasons since 1995.

IN THIS ISSUE

LOOKING BACK

DECEMBER 2016 TO MAY 2017 DRY SEASON

Dominica's 2017/ 2018 Dry Season accumulated higher rainfall amounts than normal with typical day and night time temperatures. Cooler SSTs in the equatorial eastern Pacific (La Nina) was the main driver for the season resulting in an increase in rainfall activity.

FORECAST: Above to normal rainfall was forecast for December 2017 to May 2018. There were uncertainties in the forecast for the mean and minimum temperatures. The maximum temperature for the first half was forecast to be above to normal while the second half was expected to be normal to below normal.

December 2017 - May 2018 Dry Season		
ACCUMULATED RAINFALL CLIMATOLOGICAL NORMAL (30YEARS)		
	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	310.6 to 564.6mm	620.4 to 1026.3mm
Dec 2017 – May 2018 Total	962.2mm (above normal)	1038.1mm (above normal)
TEMPERATURE AVERAGE (15YEARS)		
Average Maximum	30.1°C to 30.7°C	28.7°C to 29.1°C
Dec 2017 – May 2018 Average Maximum	30.6°C (normal)	29.1°C (normal)
Average	26.9°C to 27.4°C	26.5°C to 26.9°C
Dec 2017 – May 2018 Average	26.5°C (normal)	26.0°C (below normal)
Average Minimum	22.1°C to 22.6°C	22.3°C to 23.0°C
Dec 2017 – May 2018 Average Minimum	22.6°C (normal)	23.0°C (normal)

LOOKING AHEAD

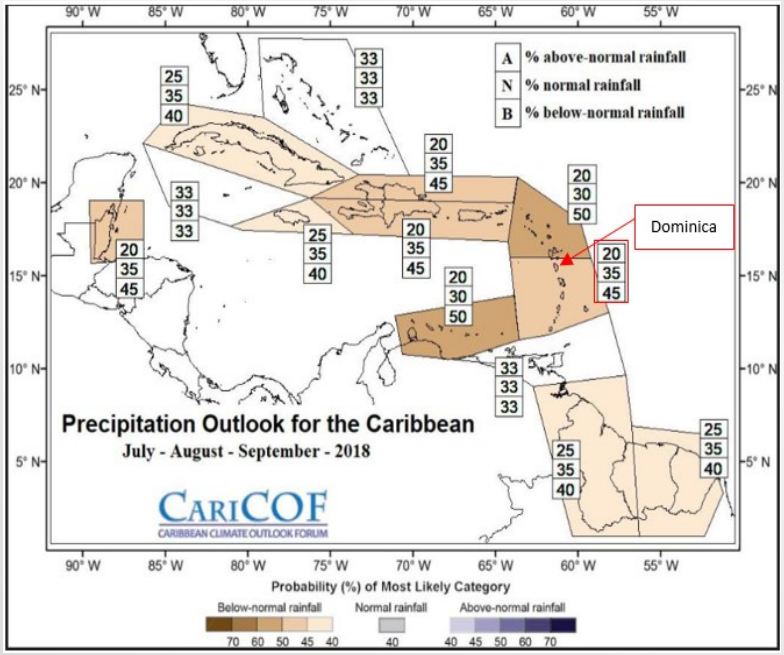
(Climatological averages for July-August-September)

JULY-AUGUST-SEPTEMBER CLIMATOLOGY		
ACCUMULATED RAINFALL CLIMATOLOGICAL NORMAL (30YEARS)		
	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Rainfall	601.6 to 867.4mm	648.6 to 873.3mm
Wet-days	52 to 64 days	56 to 69 days
7-day wet-Spell	3.7 to 7.2 spell	2.9 to 6.6 spell
7-day Dry-spell	n/a	0 to 1 spell
TEMPERATURE AVERAGE (15YEARS)		
Average Maximum	31.7 to 32.3°C	30.8 to 31.3°C
Average	28.0 to 28.2°C	27.7 to 28.0°C
Average Minimum	24.1 to 24.4°C	24.5 to 24.8°C

WIND DIRECTION GUIDE: N—NORTH, S—SOUTH, W—WEST, E—EAST

SEASONAL OUTLOOK FOR JULY-AUGUST-SEPTEMBER 2018

RAINFALL OUTLOOK



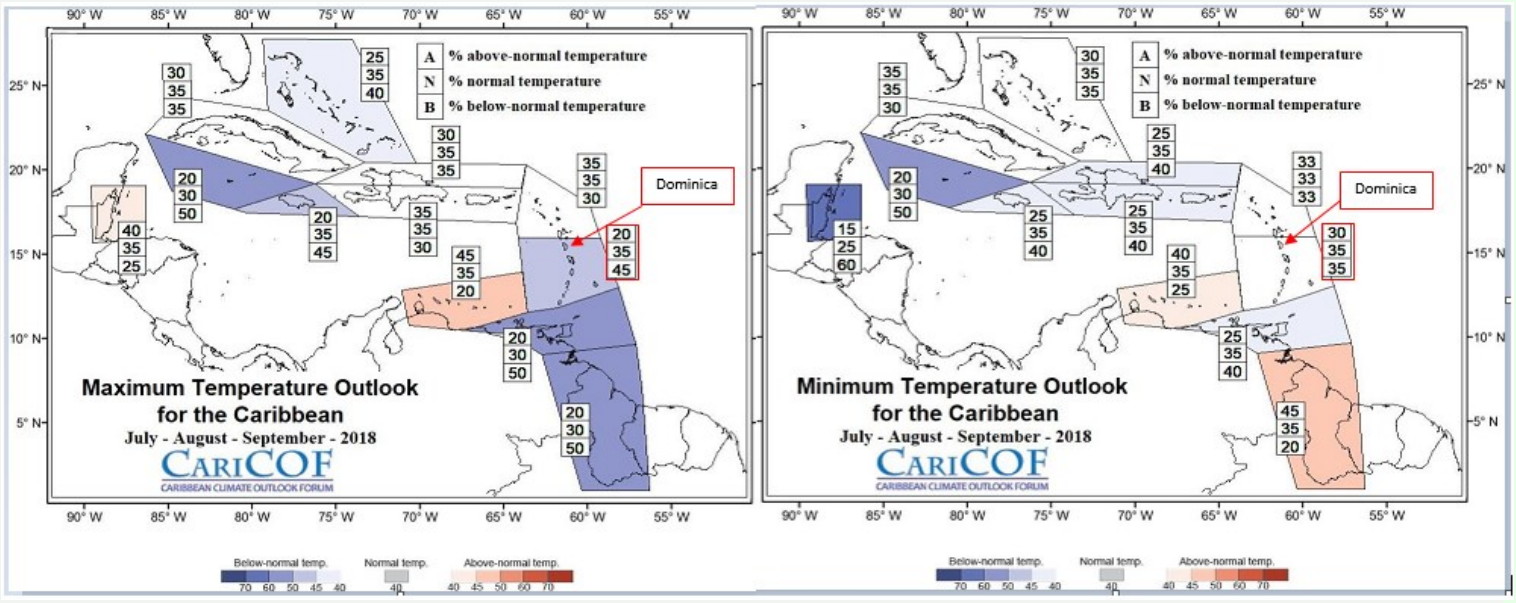
Forecast: July - September is statistically the wettest season at the Canefield station while Douglas-Charles experiences their wettest period from September to November. Rainfall amounts for the 2018 Wet Season is expected to be less than or equal to what is normally accumulated for that time of year. Although a decrease in the number of wet days (≥1.0mm) is expected, the chances of having significant dry spells is very low.

Probability for June-July-August 2018

- 20% chance of above normal
- 35% chance normal
- 45% chance of below normal

There is no short term (April to September 2018) and long term (December 2017 to November 2018) drought concerns for Dominica at this time.

TEMPERATURE OUTLOOK



Forecast: Whereas daytime peak temperatures are forecast to be cooler than usual, there are uncertainties for daytime mean and night time temperatures at this time.

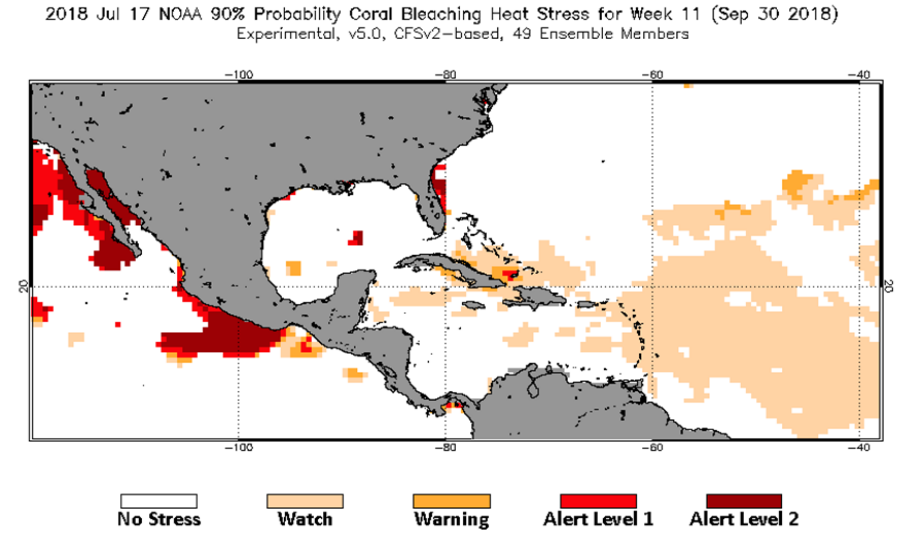
Probability of:

Maximum/ day-time temperature: 20% chance of above normal; 35% chance normal; 45% chance of below normal

Minimum/ night-time temperature: 30% chance of above normal; 35% chance normal; 35% chance of below normal

CORAL BLEACHING OUTLOOK

Sea surface temperatures (SSTs) around Dominica for July averaged about 27°C to 28°C (81°F to 82°F), which is normal and below the bleaching threshold of about 29.3°C. Currently there is no thermal stress around the island. This pattern should remain up to mid-September when the SSTs are expected to increase slightly raising the alert level to a "Watch" (Low-level thermal stress). The Watch will remain up to early November when the SSTs cool down again.



Alert Level	Interpretation
No Stress	No Thermal Stress
Watch	Low-level thermal stress
Warning	Thermal stress is accumulating
Alert level 1	Bleaching expected
Alert level 2	Widespread bleaching and some mortality expected

SECTORAL IMPLICATIONS

⇒ Water availability for agriculture is likely to increase as the wet/hurricane season continues.

⇒ Continue to be mindful of the necessary procedures you need to take to avoid/minimize damage or loss in the event of storms and flash floods.

⇒ The incidence of pests and diseases (e.g. bacterial leaf diseases and water molds) could be an issue as rainfall totals increase into the wet/hurricane season. Follow the guidelines from your extension officers to effectively control pests and diseases.

⇒ **Vector-Borne Illness -** As the region enters the first half of the wet season, increased rainfall may also create more breeding places for mosquitoes. However, note that in case of flash floods, flood waters may sweep away mosquito eggs, larvae and pupae, potentially reducing mosquito populations. There may be accelerated mosquito proliferation in communities where water is stored in containers without protective mesh. There is increased risk of **Leptospirosis** due to displacement of vectors such as rodents into houses, increasing the risk of contamination of household surfaces and food-stores.

⇒ **Respiratory Illness -** Persons with **asthma** and those prone to **allergic rhinitis** may experience symptoms due to frequent episodes of Saharan dust incursions into the Caribbean in the coming season.

⇒ **Psychosocial impacts** are still being felt in Dominica. When disasters have seasonal patterns like hurricanes, floods and drought, anxiety among survivors will increase as the season starts.

⇒ **Gastrointestinal Illness** - Where episodes of flooding may occur, cases of gastroenteritis may increase.

For Regional Sectoral Bulletins (Agriculture, Health and Tourism). Visit: https://rcc.cimh.edu.bb/

DOMINICA METEOROLOGICAL SERVICE

Canefield/Douglas-Charles Airports; metoffice@cwdom.dm, metoffcan@cwdom.dm; www.weather.gov.dm; Tel: 4492200/4457849

Source: Caribbean Institute for Meteorology and Hydrology (CIMH) & National Oceanic and Atmospheric Administrative (NOAA)