



# DOMINICA METEOROLOGICAL BULLETIN

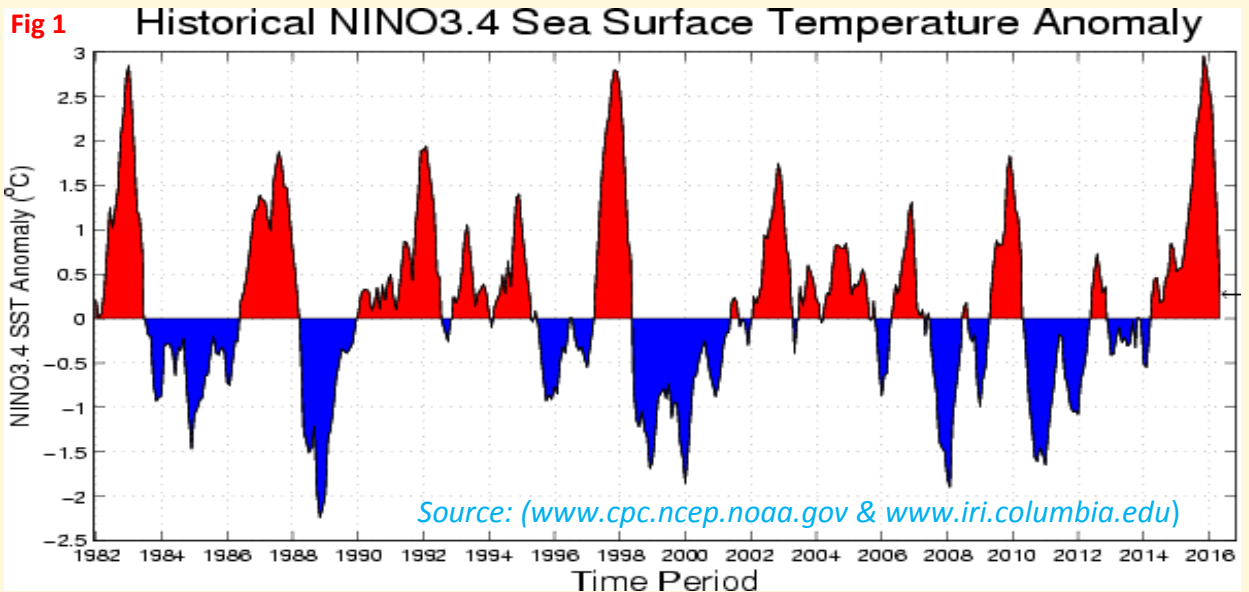
**VOL 1 ISSUE 03**

**JULY-SEPTEMBER**

**YEAR 2016**

## The strong 2015-2016 El Niño has ended giving way to ENSO-Neutral conditions

During mid-June 2016 the Tropical Pacific Sea Surface Temperature (SST) anomaly was near zero, indicating ENSO-neutral conditions (fig.1). Most ENSO prediction models indicate neutral ENSO conditions during June, with likely development of La Niña (of unknown strength, but likely weak) by late July or August, lasting through the 2016 Hurricane/Wet Season and into the 2017 Dry Season.



This is expected to result in a shift towards above to normal rainfall in the Caribbean due to reduced wind speeds in the upper atmosphere, which allows for stronger local showers to develop. A higher frequency of tropical storm likelihood during La Niña may also contribute to rainfall totals. Higher temperatures are probable for the region, which may also add to increased moisture uptake and lead to increase precipitation.

## 2016 Atlantic Hurricane Season

The Atlantic Hurricane Season officially runs from June 1st - November 30th, annually. This year, 2016, weather scientists are predicting that the Atlantic Hurricane season will likely be near normal. The US National Oceanic and Atmospheric Administration (NOAA) is predicting a 70 percent likelihood of:

- 10 to 16 Named Storms (winds of 39 mph or higher)
- 4 to 8 Hurricanes (winds of 74 mph higher)
- 1 to 4 Major Hurricanes (Category 3, 4 or 5; winds of 111 mph or higher)

## 2016 Atlantic Tropical Cyclone Names

Alex  
Bonnie  
Colin  
Danielle  
Earl  
Fiona  
Gaston

Hermine  
Ian  
Julia  
Karl  
Lisa  
Matthew  
Nicole

Otto  
Paula  
Richard  
Shary  
Tobias  
Virginie  
Walter

## 2015/16 DRY-SEASON REPORT

The charts below (fig 2-Canefield and fig 3-Douglas-Charles) shows accumulated rainfall amounts. The black dotted lines with the red fill represents climatology (normal). The grey dotted line with the blue fill represents 2015/2016 dry season accumulated rainfall.

### Canefield, Dominica - Accum. Rainfall Dec-Nov Year

**Fig 2**

(Location: 15.33962°N, -61.392°W)

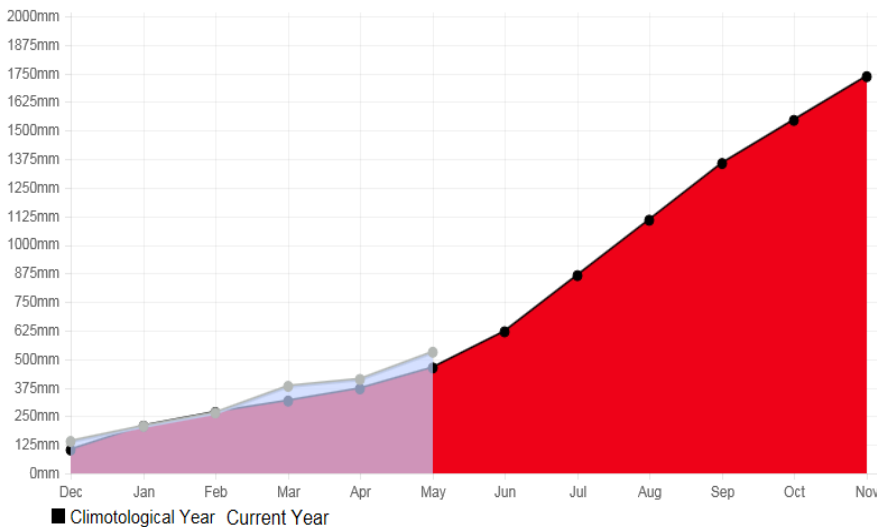


Fig 2 illustrates that at Canefield climatologically 461.4mm of rainfall is recorded by the end of May. The 2015/16 dry season accumulated rainfall at the end of May was 529.8mm, 68.4mm more than usual.

### Douglas-Charles, Dominica - Accum. Rainfall Dec-Nov Year

**Fig 3**

(Location: 15.547°N, -61.2993°W)

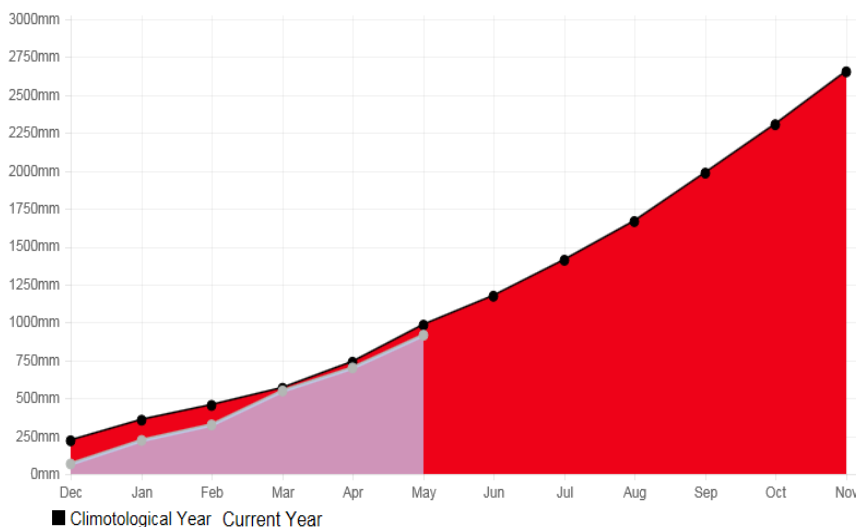


Fig 3 illustrates that at Douglas-Charles climatologically 981.8mm of rainfall is recorded by the end of May. The 2015/16 dry season accumulated rainfall at the end of May was 915.9mm, 65.9mm less than usual.

### Canefield Airport

The rainfall total recorded between December 2015 and May 2016 was normal (33—66 percentile). The wettest month of the dry season was December (139.7mm) and the driest was April (30.2mm). March 2016 was the 2nd wettest March since 1982.

The average temperature for the six months period was 27.6°C and that is 0.4°C above the normal. The Maximum temperature recorded was 34.0°C on May 6th and 19th (warmest month) and the minimum 19.7°C on January 11th (coolest month).

The highest wind gust recorded was 37kts on both February 6th(trough system) and May 7th( Atlantic High Pressure System) . Two thunderstorm days were recorded ( March and May)

### Douglas-Charles Airport

The rainfall total recorded between December 2015 and May 2016 was also normal (33—66 percentile). The wettest month of the dry season was March(224.1mm) and the driest was December(66.5mm). This was the driest December on record(1968-2015).

The average temperature was 27.0°C and that is 0.3°C above the normal. The Maximum temperature recorded was 31.4°C on April 28th and the minimum was 18.7°C on February 5th. May was the warmest while January was the coolest.

The highest wind gust recorded was 33kts on March 27th(Atlantic High Pressure System with Jet stream) . Two thunderstorm days were recorded ( March and April).

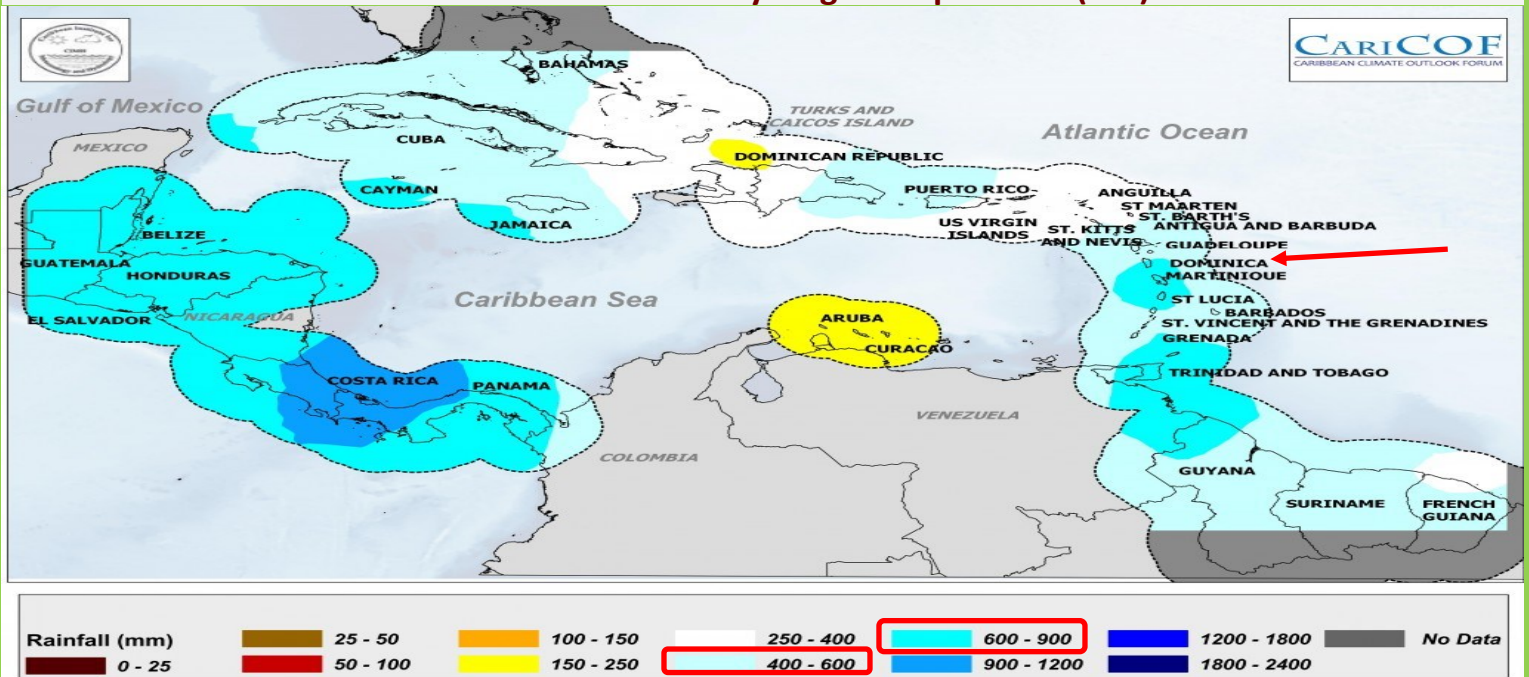
## Weather Summary for April-May-June 2016

Parameter	Douglas-Charles Airport			Canefield Airport		
Month	April	May	June	April	May	June
Rainfall total	152.0mm	215.8mm	226.0mm	30.2mm	118.8	227.5
Temperature (avg)	27.5°C	28.2°C	28.6°C	28.4°C	29.1°C	29.2°C
-maximum	31.4°C (28th )	31.0°C (21st )	31.6°C (14th )	33.9°C (27th )	34.0°C (6th,19th)	33.9°C (17th)
-minimum	21.2°C (14th )	22.7°C (12th )	22.6°C (19th )	21.9°C (3rd,10th)	22.5°C (11th )	23.0°C (21st )
Wind	ESE @ 6kts	ESE @ 7kts	ESE @ 8kts	SSW @ 4kts	SE @ 5kts	ESE @ 5kts
Relative Humidity	78%	76%	76%	68%	64%	66%
Sunshine hours	7hrs 48mins	7hrs	7hrs 24mins	-	-	-

## LOOKING AHEAD (Climatological averages for July-August-September)

Parameter	Douglas-Charles Airport (1981-2010)			Canefield Airport (1982-2011)		
Month	July	August	September	July	August	June
Rainfall normal	199.1 to 273.2mm	203.6 to 257.2mm	245.9 to 342.8mm	218.8 to 315.1mm	181.1 to 271.5mm	201.7 to 280.8mm
-highest total	406.6mm (2010)	457.3mm (2010)	744.5mm (2004)	393.3mm (2010)	539.4mm (2007)	434.4mm (1996)
-lowest total	57.2mm (1975)	80.1mm (1984)	94.3mm (2012)	45.1mm (1994)	102.0mm (1984)	31.9mm (2012)
Temperature	28.6°C	28.8°C	28.6°C	28.9°C	28.9°C	28.7°C
-maximum	33.2°C (1995)	34.3°C (1996)	34.3°C (2012)	34.5°C (1995)	35.4°C (2005)	34.9°C (2005)
-minimum	20.7°C (1989,1993)	20.9°C (1992)	20.0°C (1992)	20.5°C (1989)	21.7°C (1996)	20.7°C (1997)
Wind	ESE @8kts	ESE @7kts	ESE @6kts	SE @ 6kts	SE @ 5kts	SSE @ 4kts
Chance of 5 day dry spell	20%	10%	33%	30%	40%	53%

## Rainfall Patterns for July-August-September (JAS)





## REGIONAL OVERVIEW ON SEASONAL FORECASTS FOR JULY-AUGUST-SEPTEMBER 2016

*Air temperatures are expected to be above to normal. Night and day-time temperatures are expected to be warmer.*

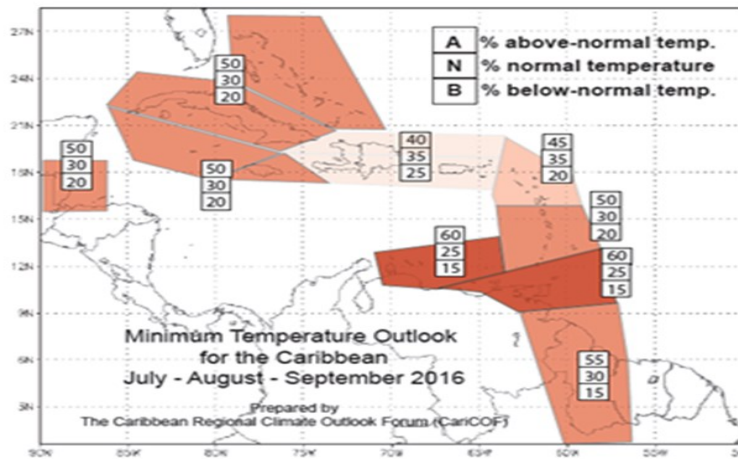


Fig 4

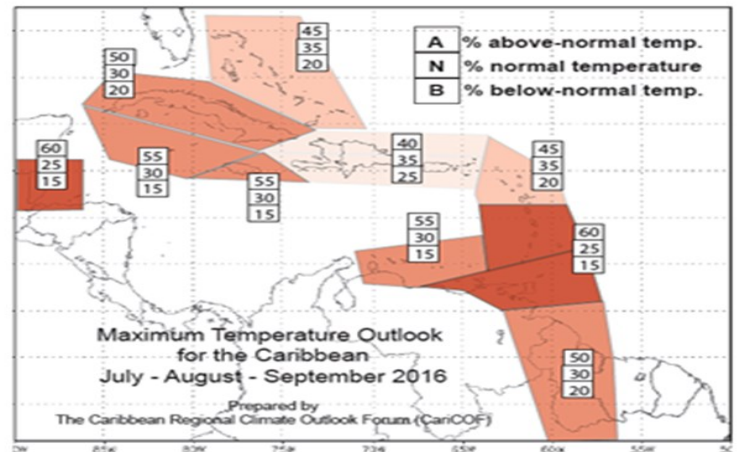
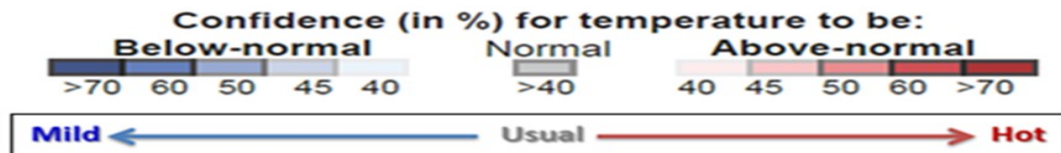


Fig 5



### Minimum/ night-time temperature Probability (fig.4)

- 50% chance of above normal
- 30% chance normal
- 20% chance of below normal

### Maximum/ day-time temperature Probability (fig.5)

- 60% chance of above normal
- 25% chance normal
- 15% chance of below normal

## RAINFALL OUTLOOK

The models are 40% confident that rainfall totals will be slightly below normal, 35% confident for normal and 25% for above normal for the period (fig.6). The models are also indicating that Dominica will experience a slight decrease in wet days ( $\geq 1.0\text{mm}$ ) (low to medium confidence) and 7-day wet spells. However, the frequency of 3-day extreme wet spells is forecast to remain normal.

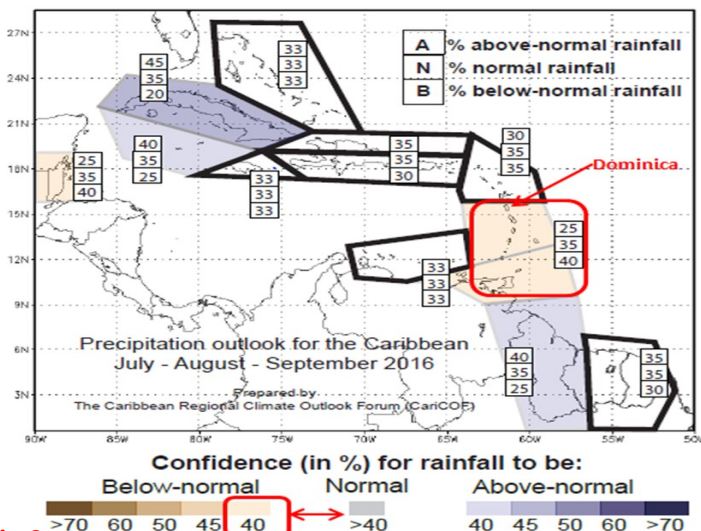


Fig 6

### Implications

Moving from the dry to wet season usually results in an increase in rainfall amounts. This means that there will be an increase in disruptions of outdoor activities, however less often than usual. The potential for flash flood is developing with extreme wet spells.

Keep updated with changes in weather conditions given by the Dominica Meteorological Services daily. Visit our website, call the weather hotline (447-5555) or call us directly for more information.

**BE PREPARED !!!!!!!!**

DOMINICA METEOROLOGICAL SERVICE

Canefield / Douglas-Charles Airports

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