



DOMINICA METEOROLOGICAL BULLETIN

VOL 2 ISSUE 02

April—June

YEAR 2017

DROUGHT WATCH ALERT!!!!

Some models anticipate the onset of El Niño into the 2017 wet season. With the expected transition, below normal rainfall is anticipated for the up-coming wet season. Please continue to monitor the situation and conserve water.

Brief Summary

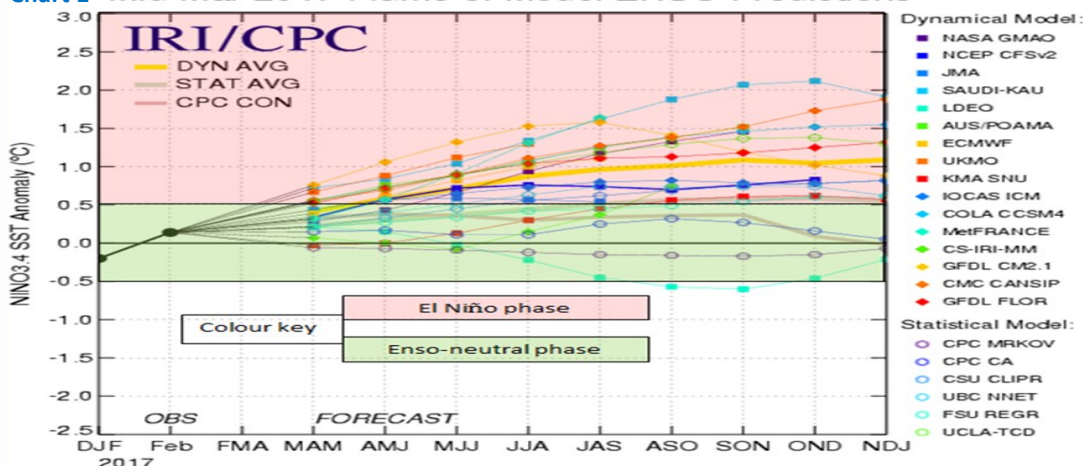
January to March 2017- The dry season runs from December to May when the seas are relatively cooler and thunderstorm activity and rainfall amounts are relatively low. Rainfall accumulated for the season January-February-March 2017 was above normal. Above to normal daytime temperatures were recorded with cooler night-time temperatures.

April to June 2017– Dominica is expected to transition into the wet season by May or June. Rainfall will likely increase and is forecast to offset the impacts of our dry season. Flash flood potential and heat discomfort is expected to increase after April.

EL NIÑO SOUTHERN OSCILLATION (ENSO) UPDATE

- Recent observations showed that ENSO-neutral conditions continued during February, with near-average sea surface temperatures (SSTs) observed across the central equatorial Pacific and above-average SSTs in the eastern Pacific.
- Most models predict the continuation of ENSO-neutral conditions (3-month average Niño-3.4 index between -0.5°C and 0.5°C —see chart 1 below) through the Northern Hemisphere summer. However, some dynamical models anticipate an onset of El Niño towards the end of the dry season into the wet season (dry season-December to May, wet season-June to November).
- Normally, ENSO-neutral conditions have little effect on rainfall or temperatures. However, if El Niño manifests during the first half of the wet season, odds are in favour of drier weather conditions with less extreme rainfall than usual for that part of the wet season.

Chart 1 Mid-Mar 2017 Plume of Model ENSO Predictions



Source: Climate Prediction Center (CPC) and the International Research Institute for Climate and Society (IRI)

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LOOKING BACK

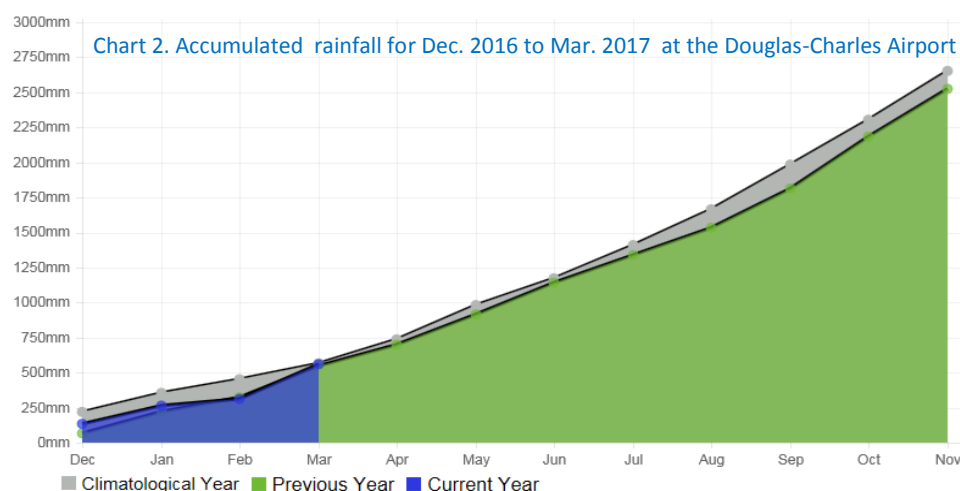
January-February-March 2017 Season (JFM) CLIMATOLOGICAL NORMAL (30YEARS)

RAINFALL

	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	179.3 to 259.1mm	301.0 to 397.3mm
JFM 2017 Total	300.3mm (above normal)	426.9mm(above normal)
TEMPERATURE		
Average Maximum Normal	29.5°C to 30.1°C	28.1°C to 28.6°C
JFM 2017 Average Maximum	30.3°C (above normal)	28.6°C (normal)
Average Mean Normal	25.8°C to 26.3°C	25.0°C to 25.6°C
JFM 2017 Average Mean	26.5°C (above normal)	26.2°C (above normal)
Average Minimum Normal	21.7°C to 21.9°C	22.0°C to 22.3°C
JFM 2017 Average Minimum	21.8°C (normal)	21.6°C (below normal)

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

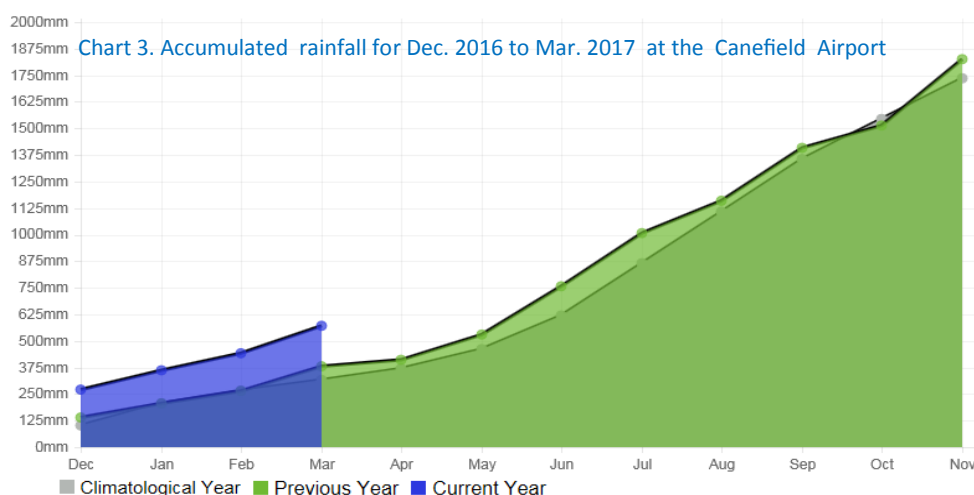
(Location: 15.547°N, -61.2993°W)



Rainfall accumulated at the Douglas- Charles Airport for the 2016/17 dry season to date is normal. Below normal accumulation was recorded from December to February. However in March an increase in rainfall activity resulted in up to 2 times more than its monthly climatological normal. This total resulted in the Douglas-Charles Airport accumulating normal rainfall by the end of March as depicted in chart 2 by the blue shading.

Canefield, Dominica - Accum. Rainfall Dec-Nov Year

(Location: 15.33962°N, -61.392°W)



At the Canefield Airport accumulated rainfall from December 2016 to March 2017 was above its climatological normal throughout, resulting in a wetter than normal (above normal) dry season so far. This is depicted in chart 3 by the blue shading.

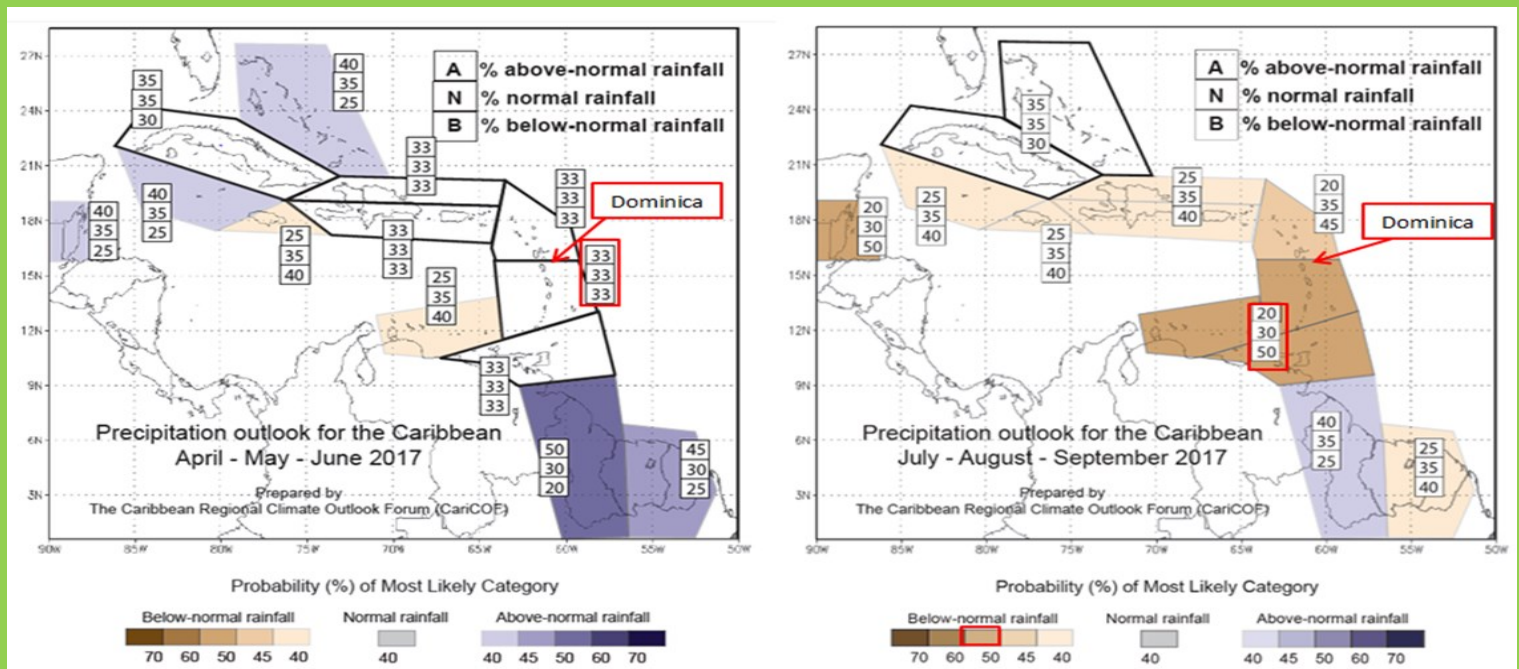
LOOKING AHEAD

Parameter	Douglas-Charles Airport (1981-2010)			Canefield Airport (1982-2011)		
Month	April	May	June	April	May	June
Rainfall normal	92.2- 162.9mm	139.1- 262.9mm	132.0- 229.0mm	30.1- 58.2mm	44.8-116.9mm	106.6-198.8mm
-highest total	772.9m (1981)	815.7mm (1987)	424.3mm (1987)	203.6mm (2013)	298.3m (1987)	381.3m (2006)
-lowest total	18.8mm (1997)	12.1mm (2001)	43.1mm (1989)	3.5mm (1983)	9.8mm (2007)	54.6mm (1985)
Temperature	27.2°C	28.0°C	28.5°C	27.9°C	28.8°C	29.0°C
-maximum	33.1°C (2005)	33.0°C (2010)	33.7°C (1985)	34.8°C (2005)	34.6°C (2005)	34.8°C (1991)
-minimum	18.0°C (1985)	19.8°C (1984/1986)	21.0°C (1985)	18.6°C (2009)	20.5°C (1989)	21.5°C (2009)
Wind	ESE @8kts	ESE @8kts	ESE @8kts	SSE @ 6kts	SSE @ 6kts	SE @ 6kts
Chance of 10 day dry spell	23%	17%	7%	67%	50%	27%

REGIONAL OVERVIEW ON SEASONAL FORECASTS FOR APRIL-MAY-JUNE 2017

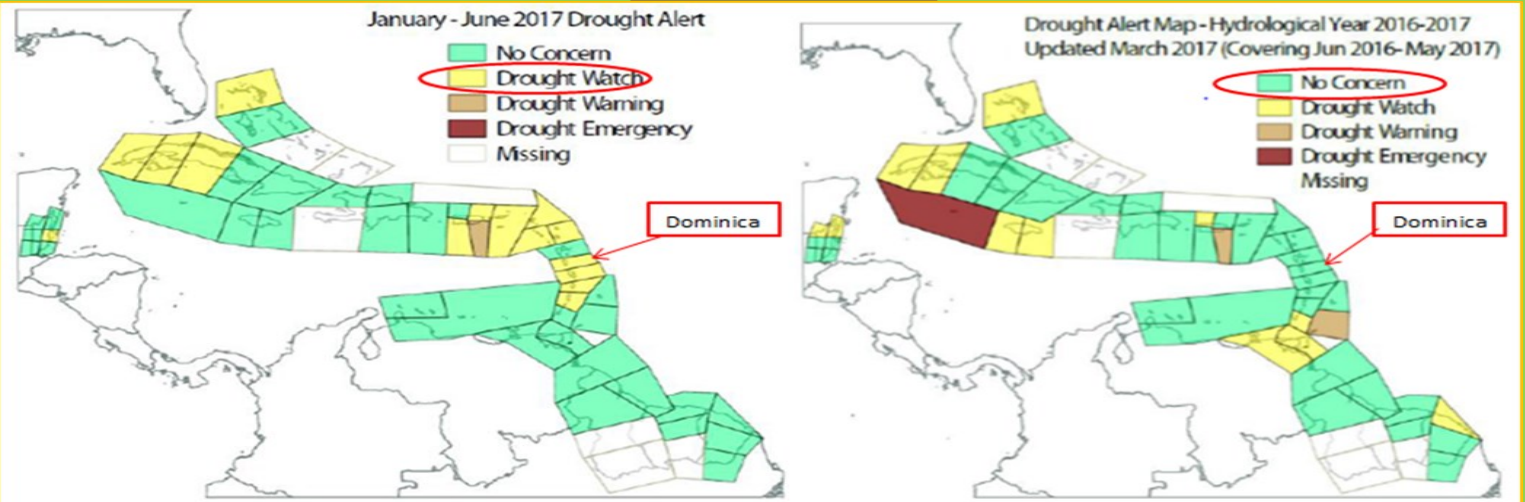
April to May ends the dry season followed by a transition into the wet season which begins by June. The April –June season is occasionally very wet. An increase in shower activity is often notable with the onset of the wet season.

RAINFALL OUTLOOK



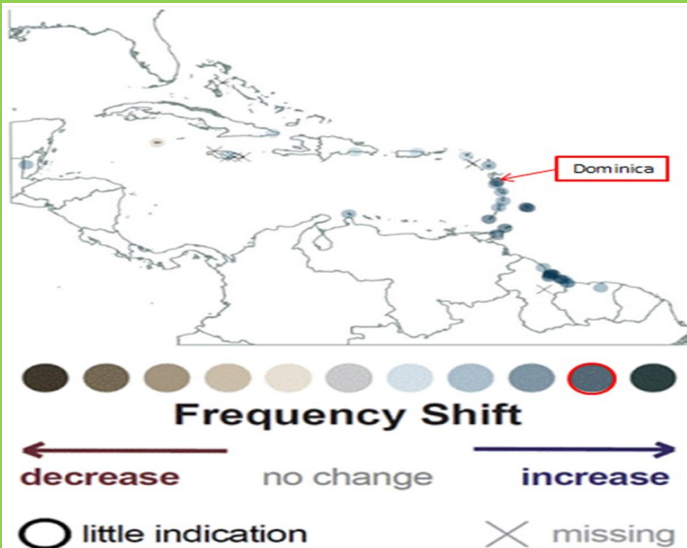
⇒ **Forecast:** There are uncertainties at this time for the expected rainfall for the season April to June 2017. However, beyond June with the anticipation of a transition to El. Niño phase, the forecast is for below normal rainfall. (Normal range for April to June- approximately 250 to 400mm) (Normal range for July to September- approximately 600 to 900mm)

DROUGHT ALERT



A short term drought watch (covering January to June 2017) has been issued for Dominica. This means that drought conditions are possible within the next 3 months. Continue to monitor the situation and conserve water. There are no concerns for a hydrological drought (June 2016-May 2017) at this time. Please continue to monitor for further development

APRIL TO JUNE WET DAYS FREQUENCY SHIFT



USUALLY: There are between 27 to 63 wet days ($\geq 1.0\text{mm}$) and approximately four 7-day wet spells (7 consecutive wet days) across Dominica.

FORECAST: An increase in wet days and wet spells are expected as we move into the wet season (June to November). This will result in increasingly frequent disruptions of outdoor activities and decreasing surface dryness. Flash floods are expected to become a concern after April.

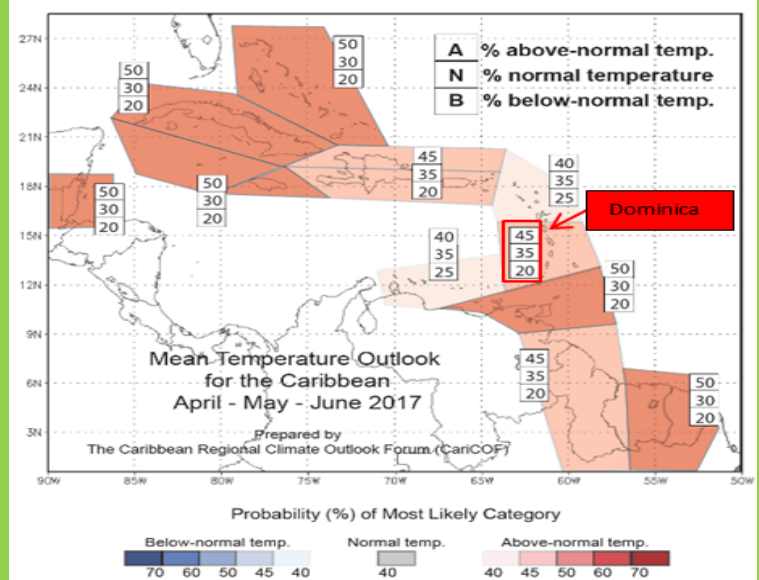
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TEMPERATURE OUTLOOK



Forecast:

- ⇒ Temperatures across the Caribbean are forecast to rise gradually and become more uncomfortable throughout the period (slightly above normal).
- ⇒ Heat discomfort is expected to grow more slowly in the Windward at this time than in the past couple of years.
- ⇒ The chances of heat waves are appearing in May and June for many islands.
- ⇒ (Maximum temperature normal range: 30-32°C) (Mean temperature normal range: 27-28°C) (Minimum temperature normal range: 23-24°C)