



DOMINICA METEOROLOGICAL BULLETIN

VOL 2 ISSUE 01

JANUARY — MARCH

YEAR 2017

2016/17 DRY SEASON SUMMARY

Dominica's dry season officially runs from December to May each year. The 2016 wet season, which prolonged into December resulting in a delay to the start of the 2016/17 dry season, was recorded as a normal season as it relates to rainfall amounts. A weak La Niña (the cooling of the Eastern Equatorial Pacific Ocean) was observed towards the end of 2016 and a transition to ENSO– neutral is expected during the period January to March 2017.

La Niña tends to shift rainfall chances for January-February-March 2017 to above to normal in the southern-most islands of the Caribbean. With this occurrence, above to normal rainfall amounts are expected, resulting in less solar radiation and more cooling by clouds and more rainfall than last year. Temperatures are also expected to be closer to normal.

Mid-Dec 2016 Plume of Model ENSO Predictions

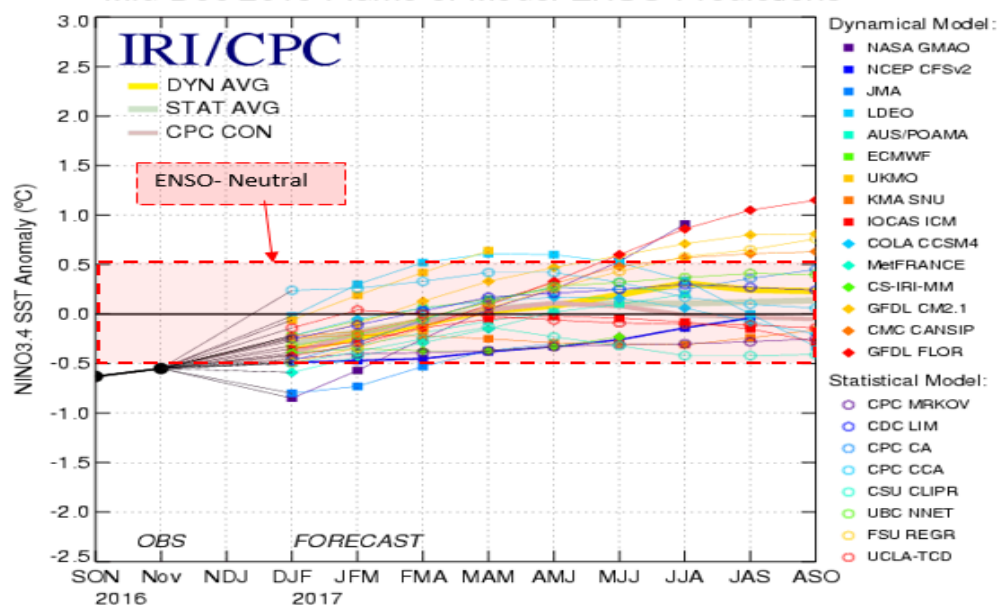


Chart 1. Mid-December ENSO prediction plume

IN THIS ISSUE

Pg.1 2016/17 Dry-Season
Dominica's Climate

Pg.2 Looking back at 2016

Pg.3 2016 Hurricane Season
Looking ahead

Pg.4 Seasonal Forecast

DOMINICA'S CLIMATE

Rainfall received during the dry season are usually generated by the annual migration of the North Atlantic Subtropical High, low level clouds which move with the easterly trade winds, southward dipping frontal boundaries and trough systems. The dry season runs from December to May when the seas are cooler and thunderstorms and rainfall activity are relatively low. On average approximately 40% of the annual rainfall is recorded in elevated and eastern areas and approximately 25% along the western coast.

LOOKING BACK AT 2016

DOUGLAS-CHARLES AIRPORT

Rainfall

- ♦ 2592.9mm (normal)
- ♦ Wettest month (October -370.4mm)
- ♦ Driest month (February -102.3mm)
- ♦ Wettest day (May 11th -110.6mm)

Temperature

- ♦ 27.7°C (above normal)
- ♦ Hottest month (August- 29.2°C)
- ♦ Coolest month (January- 26.1°C)
- ♦ Highest temperature (October 9th -32.4°C)
- ♦ Lowest temperature (February 5th- 18.7°C)

Wind

- ♦ Average: (east south east at 7kts)
- ♦ Windiest months(March and December)

Thunderstorm

- ♦ 22 thunderstorm days
- ♦ September had most days (6 days)
- ♦ Annual average sunshine duration : 218.5 hours out of the possible 370.3 hours.

CANEFIELD AIRPORT

Rainfall

- ♦ 1956.9mm (above normal)
- ♦ Wettest month (November- 312.0mm)
- ♦ Driest month (April-30.2mm)
- ♦ Wettest day (September 28th- 98.6mm)(Tropical Storm Matthew)

Temperature

- ♦ 28.2°C (normal)
- ♦ Hottest month (August- 29.5°C)
- ♦ Coolest month (January 26.5°C)
- ♦ Highest temperature (October 12th- 35.5°C)
- ♦ Lowest temperature (January 11th- 19.7°C)

Wind

- ♦ Average: (south south east at 4kts)
- ♦ Windiest months (February, March, May and June)

Thunderstorm

- ♦ 41 thunderstorm days
- ♦ September had most days (11 days)

Douglas-Charles monthly rainfall total (mm)

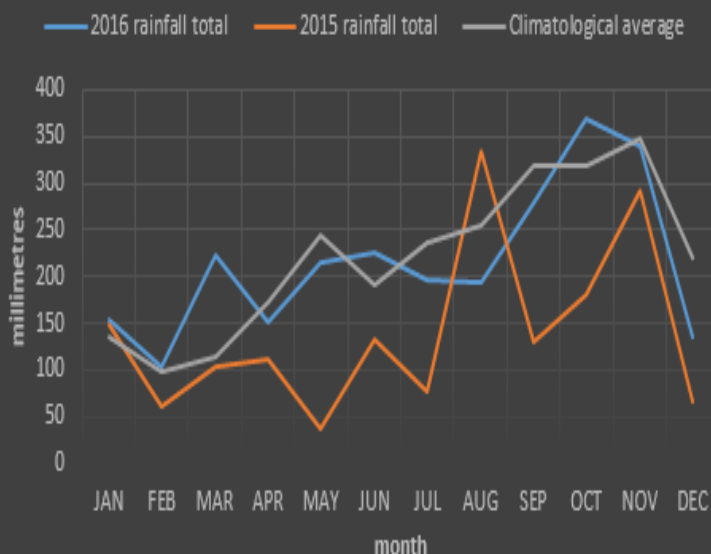


Chart 3. Monthly rainfall total recorded at the Douglas-Charles Airport

Canefield Airport monthly rainfall total (mm)

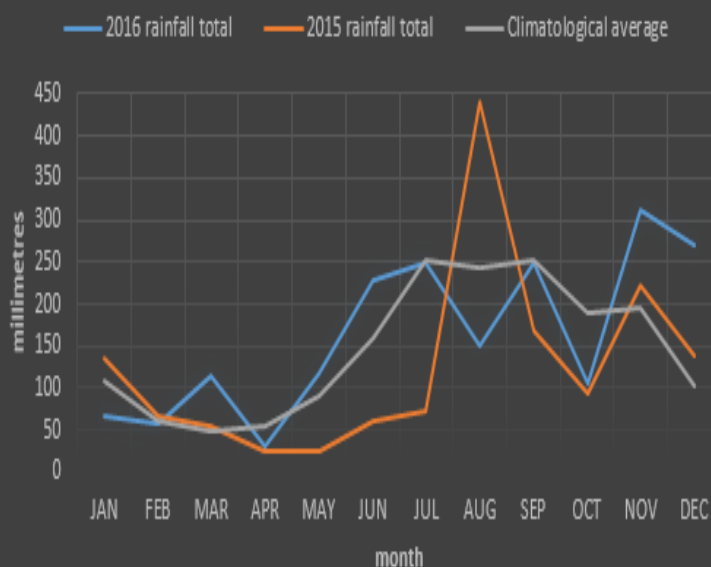
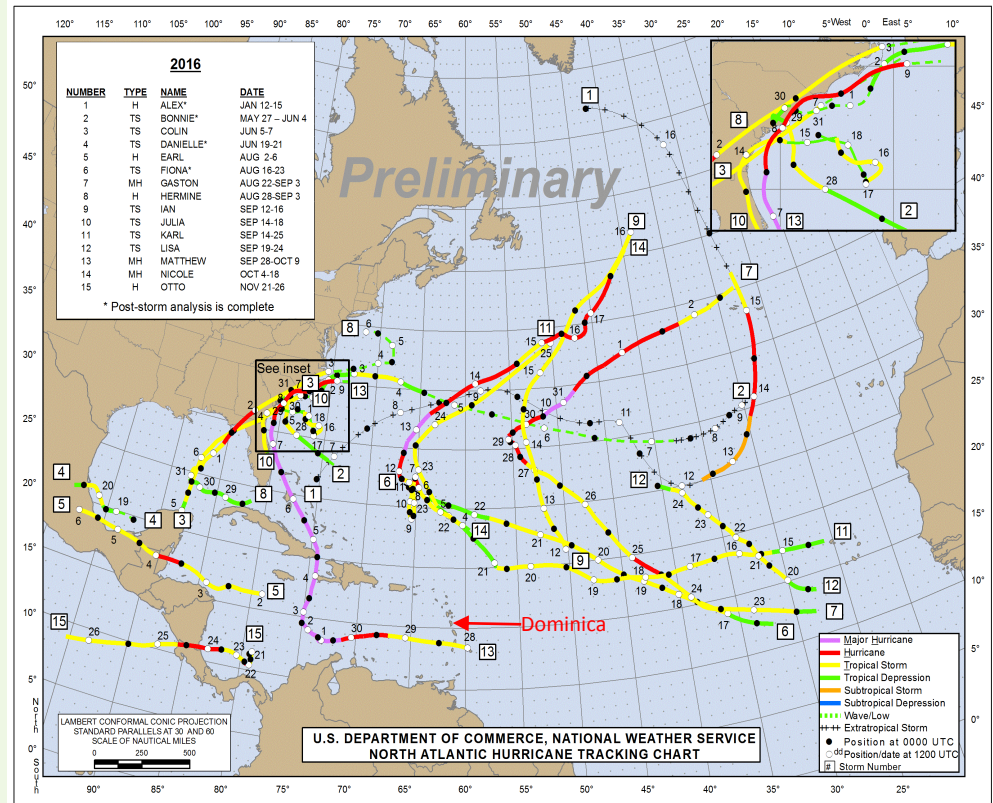


Chart 2. Monthly rainfall total recorded at the Canefield Airport

2016 ATLANTIC HURRICANE SEASON

The 2016 Atlantic Hurricane Season officially ended on Wednesday November 30th. The August 2016 predictions by the US National Oceanic and Atmospheric Administration (NOAA) for the Atlantic Hurricane season was for 12–17 named storms, of which 5–8 were expected to become hurricanes, including 2–4 major hurricanes. The activity for the season resulted in the formation of 16 tropical cyclones, 15 were named storms, 7 of which intensified to hurricane status and 3 major hurricanes. For the Atlantic, this is the first above-normal season since 2012.

Throughout the 2016 season a series of tropical weather systems affected the island of Dominica. Tropical Storm Matthew, which formed just east of the Lesser Antilles on September 28th, was the only cyclone that impacted Dominica during the period. The system moved south of Dominica from the 28th to 29th of September and produced strong winds gusting to tropical storm force, periods of moderate to heavy showers and isolated thunderstorms. Other tropical systems that generated significant weather activity across Dominica were mainly tropical waves and trough systems which closed out the season by generating significant rainfall across Dominica on November 28th to 29th.



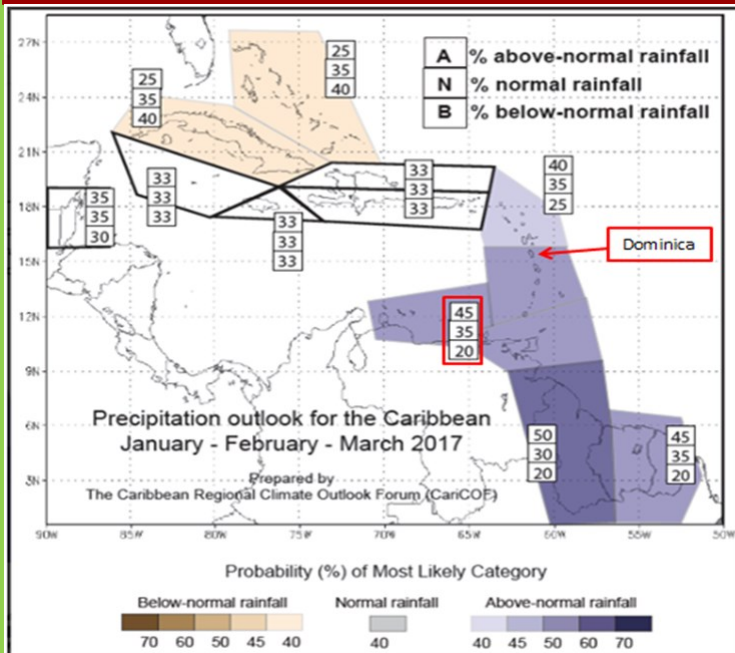
LOOKING AHEAD

(Climatological averages for January - February- March)

Parameter	Douglas-Charles Airport (1981-2010)			Canefield Airport (1982-2011)		
Month	January	February	March	January	February	March
Rainfall normal	97.0 – 153.9mm	77.2–106.7mm	74.2– 130.3mm	81.6 -- 138.2mm	45.8–81.7mm	31.6—56.0mm
-highest total	249.0mm (1998)	196.6mm (1989)	317.4mm (1995)	228.2mm (2011)	131.5mm (1982)	129.2mm (2004)
-lowest total	68.6mm(1989)	4.2mm (2010)	27.7mm (1994)	31.3mm (2001)	0.4mm (2010)	5.5mm (2005)
Temperature	26.1°C	25.9°C	26.4°C	26.4°C	26.4°C	26.9°C
-maximum	31.8°C (1987)	31.9°C (1998)	32.3°C (2010)	32.0°C (2005)	32.5°C (2010)	34.4°C (2010)
-minimum	17.1°C (1988)	17.0°C (1988)	17.2°C (2000)	18.2°C (2008)	18.0°C (2008)	18.1°C (2009)
Wind	ESE @ 8kts	ESE @ 8kts	ESE @ 8kts	SE @ 6kts	SE @ 6kts	SE @ 6kts
Chance of 10 day dry spell	3%	17%	24%	36%	37%	73%

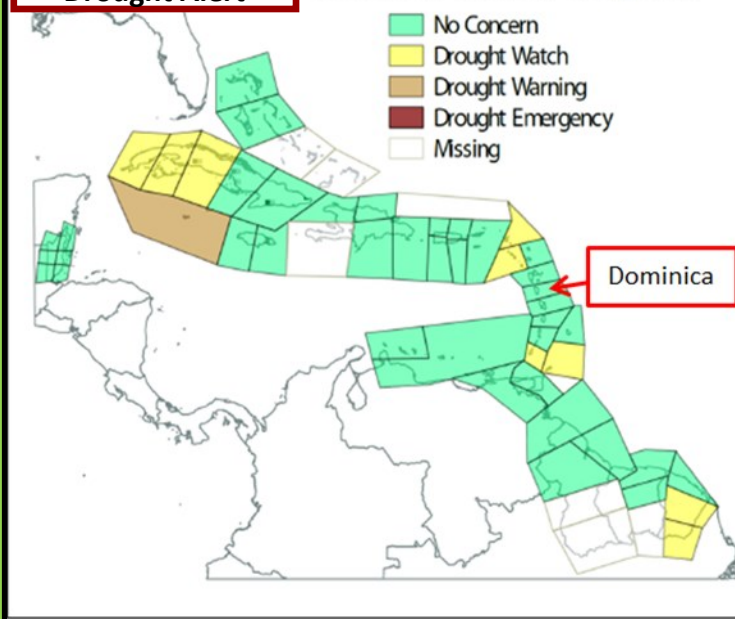
REGIONAL OVERVIEW ON SEASONAL FORECASTS FOR JANUARY-FEBRUARY-MARCH 2017

Rainfall Outlook



Drought Alert

October 2016 - March 2017 Drought Alert



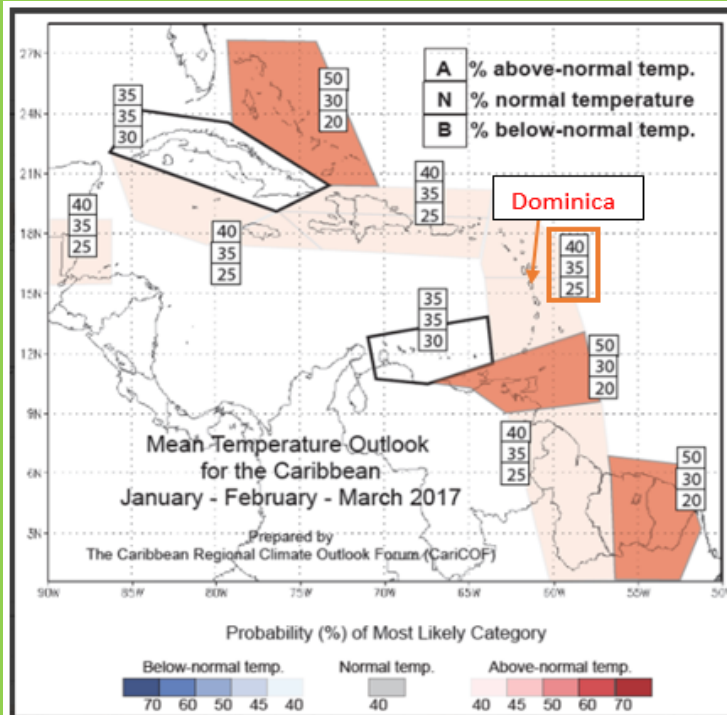
Forecast:

- ⇒ Above to normal rainfall totals can be expected for the season January to March 2017.
- ⇒ There is a 45% chance for above normal rainfall; 35% chance normal and a 20% chance for below normal.
- ⇒ Little change from the usual amount of wet days is expected. The forecast range is around 26 to 63 days, with expected 7-day wet spells to range from 0 to 3.
- ⇒ The chances for 3-day extreme wet spells are low.
- ⇒ There are no drought concerns for Dominica for the season.

⇒ Disruptions of outdoor activities by rainfall will become fewer as the months progress.

⇒ Depletion of large reservoirs during the dry season would likely be slower than in 2015.

Temperature Outlook



Temperatures across the Caribbean are forecast to rise but generally continue to be comfortable until April, with the chance of heat waves appearing in May and June for many.

Probability for: Maximum/ day-time temperature, Minimum/ night-time temperature and Average temperature is 40% chance of above normal; 35% chance normal; 25% chance of below normal.

DOMINICA METEOROLOGICAL SERVICE

Canefield/ Douglas-Charles Airports

metoffice@cwdom.dm, metoffcan@cwdom.dm

www.weather.gov.dm

Tel: 4491990/4457878