



DOMINICA METEOROLOGICAL BULLETIN

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October—December

YEAR 2018

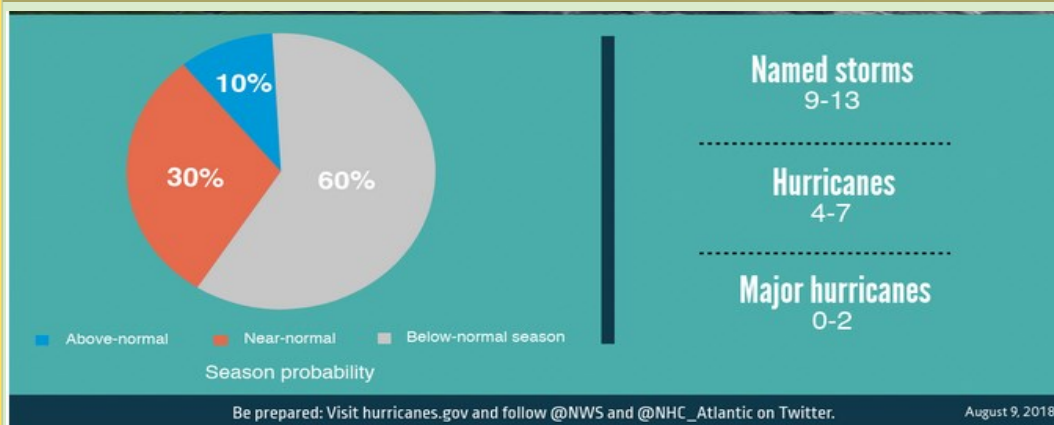
Brief Summary

July-August-September (JAS) 2018 -The Canefield Airport recorded below normal rainfall total with above to normal air temperatures. The total rainfall recorded at the Douglas–Charles Airport was normal with below normal air temperatures. Forecast: Below to normal rainfall amounts with cooler maximum temperatures. There were uncertainties for daily mean and night time temperatures.

October-November-December (OND) 2018 –The wet season officially ends on November 30th with the transition to the dry season usually occurring from December. Climatologically the transition is marked by frequent wet days and wet spells.
- This season, no significant change from the norm is expected.
- Slightly below to normal rainfall totals are forecast, with slightly warmer to normal air temperatures for the season.

2018 ATLANTIC HURRICANE SEASON OUTLOOK UPDATE

The US National Oceanic and Atmospheric Administration (NOAA) have increased the likelihood of a below-normal Atlantic hurricane season to 60 percent (up from 25 percent in May) in its updated outlook, issued on August 9, 2018. The likelihood of a near-normal season is now at 30 percent down from 40 percent in May and the chance of an above-normal season has dropped from 35 percent to 10 percent.



2018 Atlantic Basin Storm Names

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

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**) .

Factors considered in the updated predictions:

- 1) El Nino is now much more likely to develop. This phenomena produces increased wind shear over the tropical Atlantic and does not encourage the formation of tropical cyclones in our region.
- 2) A combination of stronger wind shear, drier air and increased stability of the atmosphere in the region where storms typically develop will further suppress hurricanes.
- 3) Sea surface temperatures across the tropical Atlantic Ocean and Caribbean Sea have remained much cooler than average.

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LOOKING BACK

JULY-AUGUST-SEPTEMBER 2018

Dominica was affected by three tropical cyclones during the season July to September 2018.

Tropical Storm Beryl - July 8th 2018

Tropical Storm Isaac - September 13th 2018

Tropical Storm Kirk - September 27th 2018

JULY-AUGUST-SEPTEMBER 2018 SEASON (JAS)

CLIMATOLOGICAL NORMAL (30YEARS)

RAINFALL

	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	601.6 to 867.4mm	648.6 to 873.3mm
JAS 2018 Total	532.7mm (below normal)	739.3mm(normal)

TEMPERATURE AVERAGES (15YEARS)

Average Maximum	31.7 to 32.3°C	30.8 to 31.3°C
JAS 2018 Average Maximum	32.4°C (above normal)	30.5°C (below normal)
Average	28.0 to 28.2°C	27.7 to 28.0°C
JAS 2018 Average	28.3°C (above normal)	27.4°C (below normal)
Average Minimum	24.1 to 24.4°C	24.5 to 24.8°C
JAS 2018 Average Minimum	24.2°C (normal)	24.3°C (below normal)

LOOKING AHEAD

(Climatological averages for October-November-December)

OCTOBER-NOVEMBER-DECEMBER CLIMATOLOGY

ACCUMULATED RAINFALL CLIMATOLOGICAL NORMAL (30YEARS)

PARAMETERS	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Rainfall	341.4 to 579.5mm	632.2 to 943.8mm
Wet-days	40 to 54 days	57 to 69 days
7-day wet-Spell	2.6 to 4.6 spell	3 to 5.7 spell
7-day Dry-spell	n/a	0 to 1 spell

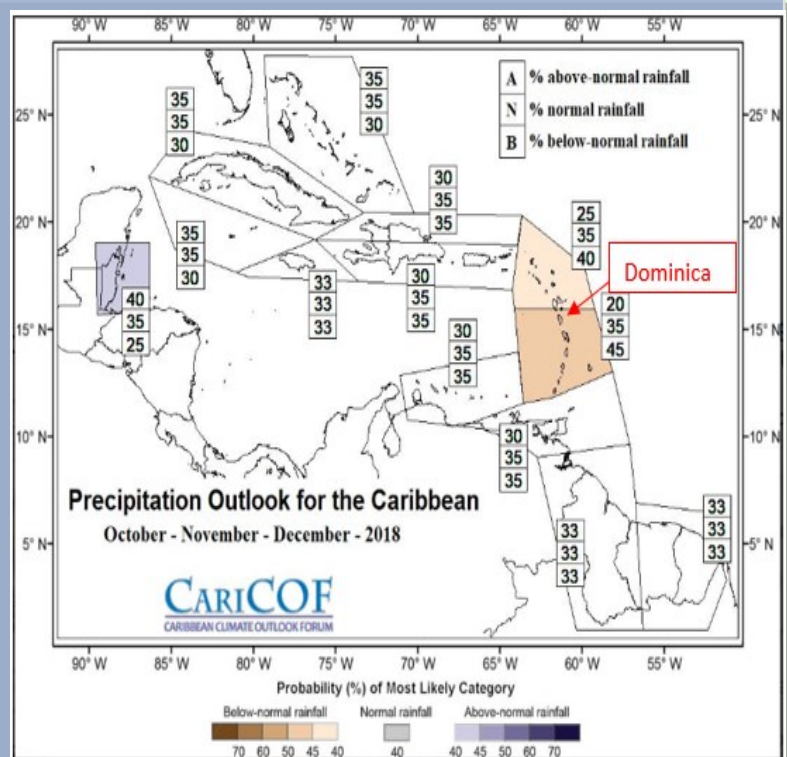
TEMPERATURE AVERAGE (15YEARS)

Average Maximum	31.0 to 31.3°C	29.8 to 30.0°C
Average	26.9 to 27.2°C	26.5 to 26.7°C
Average Minimum	22.8 to 23.3°C	23.1 to 23.6°C

SEASONAL OUTLOOK FOR OCTOBER-NOVEMBER-DECEMBER (OND)2018

RAINFALL OUTLOOK

- ⇒ In recent months, warm neutral El Niño Southern Oscillation (ENSO) conditions existed with most models suggesting ENSO conditions to evolve into a weak or moderate El Niño (with 60-70% and 65-75% confidence for October to December 2018 and January to March 2019, respectively). El Niño state tends to result in drier conditions with less shower activity. Note however, that these effects tend to be more dominant with stronger El Niño signals.
- ⇒ The latter half of the wet season is statistically the wettest period at the Douglas-Charles Airport.
- ⇒ Rainfall amount is expected to be slightly less than or equal to what is normally accumulated for that time of year.
- ⇒ Little or no significant change from the usual number of wet days ($\geq 1.0\text{mm}$) and wet spells is expected.
- ⇒ The chances of having significant dry spells is very low.



Probability for OND 2018: 20% chance of above normal; 35% chance normal and a 45% chance of below normal rainfall.

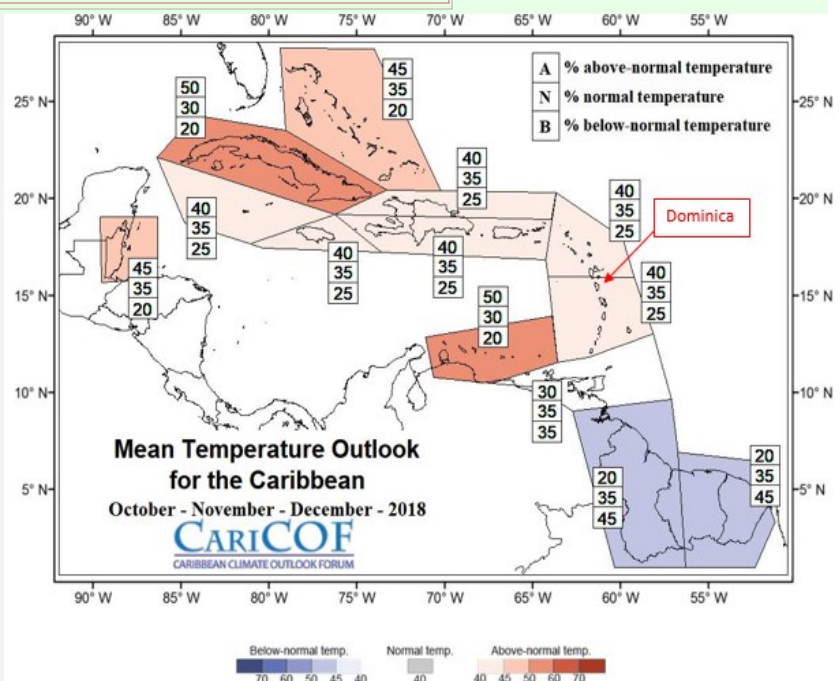
There are no short term (July to December 2018) and long term (December 2017 to November 2018) drought concerns for Dominica at this time.

TEMPERATURE OUTLOOK

- ⇒ Slightly warmer than the normal air temperatures are forecast for OND .
- ⇒ Normally, following the month of October, temperatures transition from warm to unbearable summer temperatures to cooler more relaxing temperatures.
- ⇒ Uncomfortably high temperatures are not anticipated across the region after November 2018.

Temperature probability for maximum/ day-time, minimum/ night-time and mean temperatures :

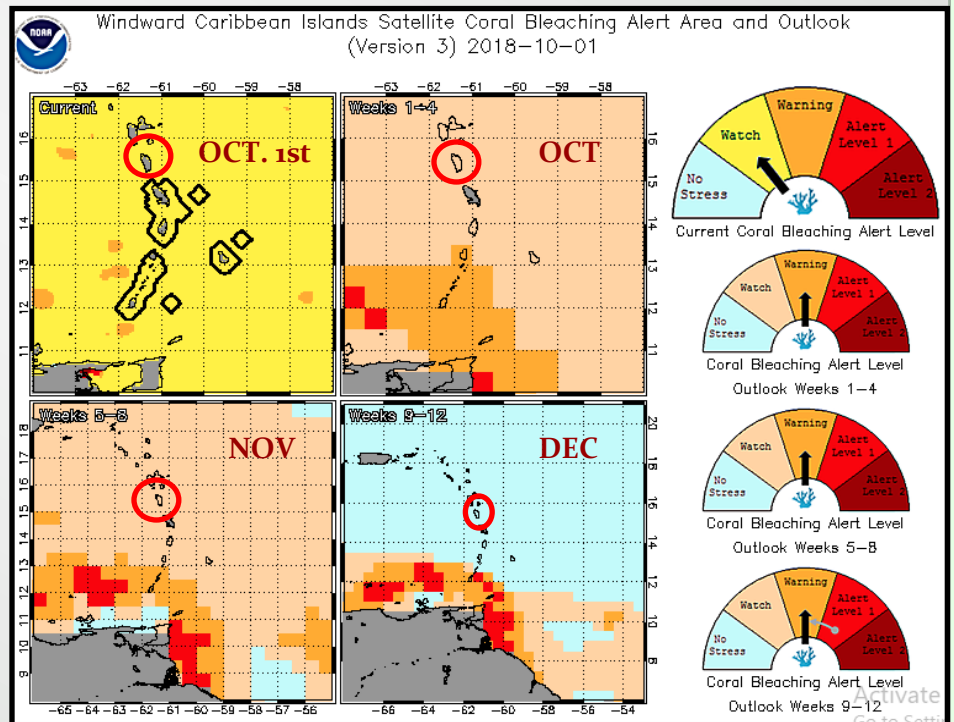
40% chance of above normal; 35% chance normal and a 25% chance of below normal.



CORAL BLEACHING OUTLOOK

The average Sea surface temperatures (SSTs) around Dominica from July to September ranged from about 27°C to 28°C (81°F to 82°F). However SSTs peaked to 29°C (84°F) in September which is slightly warmer than normal. Currently there is a Coral Bleaching Watch (low-level thermal stress) for Dominica and the possibility for any bleaching to occur is expected to fade away from mid-November when SSTs cools down. Some bleaching is however possible across the extreme southern region. The map shows alert level from October 1st 2018 to December 2018

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

- ⇒ Heat stress may be of concern; use protective measures against its effects on crops, livestock and human health.
- ⇒ Ensure livestock are kept cool by providing cool and clean drinking water; establishing/locating shading for livestock such as cows, sheep and goats.
- ⇒ Keep irrigation equipment ready to apply water as necessary to cropping systems.
- ⇒ **Vector-Borne Illness** - As the region moves through the latter part of the wet season, increased rainfall may continue to 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.
- ⇒ **Psychosocial impacts** are still being felt in Dominica following the impact of Hurricane Maria in 2017. When disasters have seasonal patterns such as those resulting from hurricanes, floods and drought, anxiety among survivors will increase when systems are approaching the area.
- ⇒ Tourism operators should maintain a state of readiness, including communication plans and response protocols during the hurricane season to deal with sudden eventualities. Extreme wet spells may be accompanied by thunderstorms and high winds,. This may result in flash floods, land slippage, power outages and possible contamination of food and water supplies. Therefore, proper planning /contingencies for these scenarios is imperative.

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

DOMINICA METEOROLOGICAL SERVICE

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