



Seasonal Climate Outlook Summary

Previous Season Forecast; Mar-Apr-May (MAM) 2021– At least as dry as usual conditions expected for the remainder of the dry season. Drought like conditions possible by the end of May. Daytime highs expected to be slightly cooler to usual for that time of year. Night-time and the daily mean temperatures expected to be at least as warm as usual.

MAM 2021 Observations: The accumulated rainfall totals were normal with significant dry spells occurring in April and May. Warmer than to usual temperatures were recorded at Canefield, while the usual daytime temperatures and cooler than usual nights were recorded at Douglas-Charles.

Current Season Forecast; Jun-July-Aug (JJA) 2021– The first half of the wet season is forecast to accumulate less than to the usual amounts of rainfall. At least one 7-day dry spell is possible during June to July. A wetter pattern is expected by August with an increase in the frequency and intensity of rainfall events.

2021 Atlantic Hurricane Season

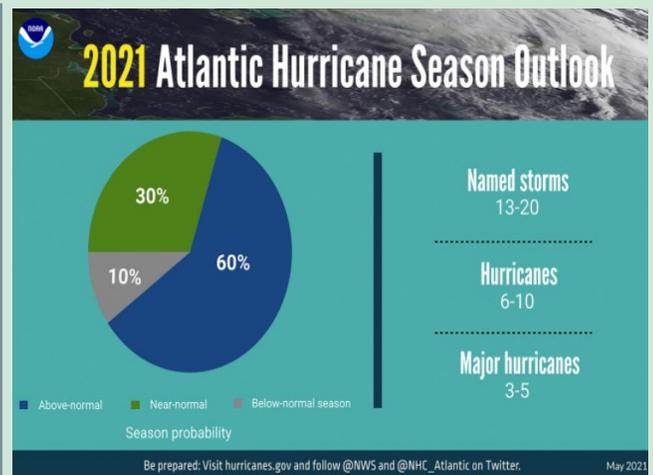
The National Oceanic and Atmospheric Administration (NOAA) Climate Prediction Center is predicting another above-normal Atlantic hurricane season (June 1st to November 30th 2021). However, experts do not anticipate the historic level of storm activity seen in 2020.

Forecasters predict a **60% chance of an above-normal season**, a **30% chance of a near-normal season** and a **10% chance of a below-normal season**.

There is a 70% confidence that a likely range of 13 to 20 named storms (winds of 39 mph or higher), of which 6 to 10 could become hurricanes (winds of 74 mph or higher), including 3 to 5 major hurricanes (category 3, 4 or 5; with winds of 111 mph or higher) could occur.

An average hurricane season produces; 14 named storms, of which 7 become hurricanes, including 3 major hurricanes (1991 to 2020 Climatology).

Influencing Factors – El Niño Southern Oscillation (ENSO) conditions are currently in the neutral phase, with the possibility of the return of La Niña later in the hurricane season. ENSO-neutral and La Niña support the conditions associated with the ongoing high-activity era. Predicted warmer than average sea surface temperatures in the tropical Atlantic Ocean and Caribbean Sea, weaker tropical Atlantic trade winds and an enhanced West African monsoon will likely be factors in this year's overall activity.



Looking Back – Dry Season (Dec 2020 – May 2021)

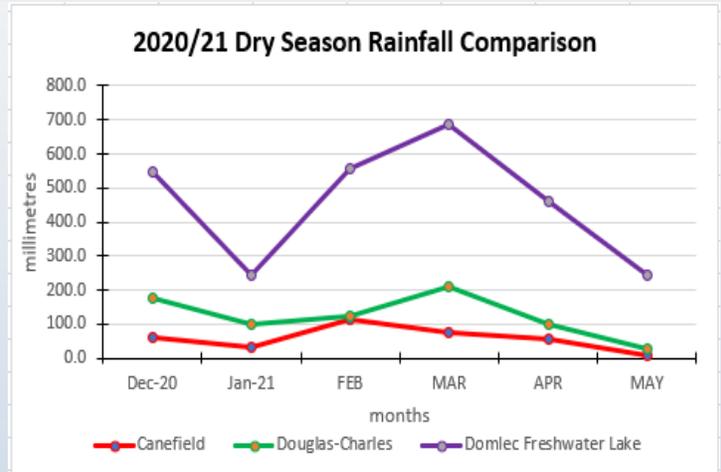
Rainfall

Accumulated rainfall totals at both airports for the 2020/21 dry season were normal. However, a drier pattern emerged in April and continued into May.

⇒ The Douglas-Charles Airport recorded a total of 736.8mm/ 29.01in of rainfall. Forty-eight percent (48%) of days were wet. There were 3 significant dry spells; one 9-day dry spell in **April**, an 8-day and a 9-day dry spell in **May**.

⇒ At Canefield a total of 345.4mm/ 13.60in was recorded for the dry season. Only 32% of days were wet. There were 8 significant dry spells, namely: **December** - two 9-day dry spells, **January** – a 9-day and 7-day dry spell, **March** – one 7-day dry spell, **April** – one 9-day dry spell and **May** – a 10-day and 14-day dry spell.

⇒ The chart shows rainfall recorded at the Freshwater Lake in the interior of the island and the airports located along the coast. Recorded rainfall amounts at the lake was up to 3 times that of Douglas-Charles and up to 8 times more than Canefield. Though rainfall totals were higher, there was a similar trend to that of the coast.

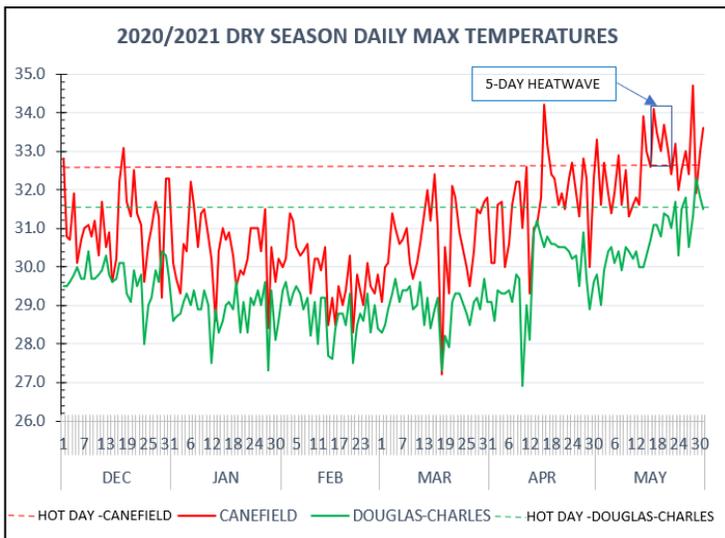


Record breakers at Canefield: Driest January (29.9mm/ 1.18in) and May (8.9mm/ 0.35in). (1982-2021)

Temperature

⇒ Douglas-Charles experienced cooler than usual night-time and daily mean temperatures with warmer than usual daily high temperatures.

⇒ At Canefield, while the nights were as warm as usual the daily high and mean temperatures were warmer than usual. There was a 5-day Heatwave from mid-May at Canefield. (*Heatwave— Three or more consecutive hot days when daily highs are equal to or exceeds 32.9°C at Canefield and 31.5°C at Douglas-Charles*).



December 2020 -January-February (DJF) 2021 Season CLIMATOLOGICAL NORMAL (30YEARS)		
RAINFALL	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	204.1 to 333.5mm	314.8 to 470.1mm
DJF 2020/21 Total	205.4mm (normal)	399.6mm (normal)
Wet Days Normal	36 to 53 days	49 to 63 days
DJF 2020/21 Wet Days Total	36	52
7-Day Dry Spells Normal	n/a	0 to 1
DJF 2020/21 7-Day Dry Spells	4	0
TEMPERATURE 15YRS AVERAGES		
Average Maximum	29.8°C to 30.2°C	28.5°C to 28.9°C
DJF 2020/21 Average Maximum	30.4°C (above normal)	29.1°C (above normal)
Average Mean	25.8°C to 26.1°C	25.5°C to 25.8°C
DJF 2020/21 Average Mean	26.3°C (above normal)	25.4°C (below normal)
Average Minimum	21.6°C to 22.0°C	22.3°C to 22.8°C
DJF 2020/21 Average Minimum	22.1°C (above normal)	21.6°C (below normal)

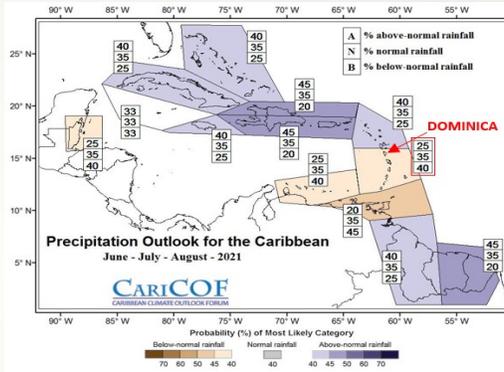
March-April-May (MAM) 2021 Season CLIMATOLOGICAL NORMAL (30YEARS)		
RAINFALL	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	106.5 to 231.0mm	305.5 to 556.1mm
MAM 2021 Total	140.0mm (normal)	337.2mm (normal)
Wet Days Normal	21 to 35 days	36 to 60 days
MAM 2021 Wet Days Total	23	35
7-Day Dry Spells Normal	n/a	0 to 4
MAM 2021 7-Day Dry Spells	4	3
TEMPERATURE (15YRS AVERAGES)		
Average Maximum	30.6°C to 31.3°C	29.2°C to 29.8°C
MAM 2021 Average Maximum	31.7°C (above normal)	29.8°C (normal)
Average Mean	26.7°C to 27.2°C	26.0°C to 26.5°C
MAM 2021 Average Mean	27.5°C (above normal)	26.1°C (normal)
Average Minimum	22.5°C to 23.1°C	22.9°C to 23.2°C
MAM 2021 Average Minimum	22.9°C (normal)	22.4°C (below normal)

SEASONAL OUTLOOK FOR JUNE TO AUGUST (JJA) 2021



RAINFALL FORECAST

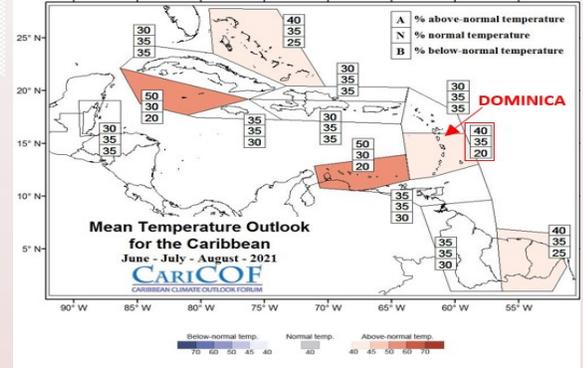
Normally, an increase in the frequency and intensity of rainfall events becomes evident during the first half of the wet season.



- This year, the first half of the wet season (JJA) is forecast to accumulate less than to the usual amounts of rainfall.
- At least one 7-day dry spell is possible during June to July. A wetter pattern is expected by August. At least two extreme 3-day wet spells are anticipated and this may increase the chances of flash floods and its associated hazards.
- At this time, the second half of the wet season (September- November) is expected to be at least as wet as usual. Keep Updated.



TEMPERATURE FORECAST



- Warmer than to usual daytime highs are expected throughout the wet season.
- During the first half of the wet season, nighttime lows along the west coast are anticipated to be slightly warmer than to usual, while the east coast and interior may experience slightly cooler to the usual temperatures.
- Generally, an increase in temperatures is expected to continue into the peak of the heat season (August -September). There is a 90% chance that at least 5 consecutive hot days may occur in June.
- Between July to September there is an 80% chance of having at least 15 consecutive hot days and a 60% chance of at least 30 consecutive hot days. Temperatures are expected to gradually decrease after September.

June-July-August Season

CLIMATOLOGICAL NORMAL (30YEARS)

RAINFALL	CANEFIELD AIRPORT	DOUGLAS-CHARLES AIRPORT
Normal	474.2 to 756.8mm	544.4 to 768.5mm
Wet Days Normal	50 to 67 days	53 to 69 days
7-Day Dry Spells Normal	n/a	0 to 1
TEMPERATURE (15YRS AVERAGES)		
Average Maximum	32.2°C to 32.5°C	30.7°C to 31.2°C
Average Mean	28.2°C to 28.5°C	27.7°C to 28.1°C
Average Minimum	24.1°C to 24.6°C	24.7°C to 25.1°C

SECTORAL IMPLICATIONS



AGRICULTURE

- Water availability should not be a major concern as the island transitions into its wet season.
- Pests and diseases thrive in wet conditions and farmers will have to be vigilant for any signs of increased infestations.
- Ensure fields are well maintained to keep weeds at a minimum and contours are constructed for proper drainage. Rainwater that is harvested should be kept covered to inhibit mosquito breeding.
- Farmers are encouraged to prepare a disaster plan. Ensure that you safeguard your investments especially with the start of the hurricane season. When a storm is likely to affect the island; greenhouse farmers should remove their plastic coverings; livestock farmers are encouraged to relocate animals that are in low-lying areas and near waterways to higher elevations or let loose if possible; protect your homes and your families.



TOURISM

- ◆ Maintain a state of readiness including communication plans and response protocols to deal with sudden eventualities, especially given the Covid-19 pandemic.
- ◆ An increase in the disruption of outdoor activities is expected throughout the season. Strong winds, landslides, flash floods and rough seas, among others are possible especially when a disturbance is forecast to affect the island. Tourism operators are advised to keenly monitor weather advisories issued by the Dominica Meteorological Services .
- ◆ Cooling needs are expected to increase from August to September during the peak of the heat season.
- ◆ With expecting increase in Sea Surface Temperatures by August, it is expected that temperatures may rise to coral bleaching threshold (approx. 29.3°C), increasing coral bleaching chances.



HYDROLOGY

- ◆ As we move through the wet season the likely increase in rainfall activity, will result in the increase in river discharge.
- ◆ A gradual increase in base flow is expected as the season progresses.
- ◆ Surface runoff is possible especially during extreme wet spells.
- ◆ A gradual reduction in soil dryness is expected during the first half of the wet season, especially along the western half of the island, where dry conditions were more intense during April and May.



HEALTH

- ◆ Water availability which is critical for hygiene purposes during the COVID-19 pandemic, is not expected to be a concern.
- ◆ Heat stress may appear and could peak during prolonged heat waves. Keep cool and hydrated.
- ◆ Continue wearing face masks and ensure they are breathable. Avoid crowds during hot days and if feeling ill. Remove masks in a private space. Sweaty masks should be changed.
- ◆ Manage water storage containers properly to reduce mosquito breeding areas and the incidents of vector-borne diseases such as Dengue, Chikungunya and Zika.
- ◆ Flooding may increase the risk of Leptospirosis due to displacement of rodent vectors from their usual habitats into houses, increasing the risk of contamination of flood waters, household surfaces and food-stores with rodent urine.



- ◆ Cases of gastroenteritis may also increase following floods if there is contamination of food and water supplies and also if there is contact with flood waters.
- ◆ When impactful hazards have seasonal patterns, like extreme weather events, floods and drought, mental health effects may increase as alerts and events arise. Health care professionals are therefore advised to be aware of these issues, as they interact with patients.

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