# Dominica Meteorological Sawina

# DOMINICA CLIMATIC NEWSLETTE

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June-August

YEAR 2020

## Brief Summary

Previous season: Mar-Apr-May (MMA) 2020- Rainfall forecast was inconclusive/uncertain. Accumulated rainfall at both stations was below normal. Daytime temperatures were warmer than usual while night-time temperatures on the east were slightly cooler than usual, unlike on the west.

Current season; Jun-Jul-Aug (JJA) 2020- Wetter than to usual rainfall is forecast with above normal day and night-time temperatures.

## **REVIEW OF 2020 DRY SEASON**

- The dry season started wet with above normal rainfall amounts recorded at both Canefield and Douglas-Charles Airports for the periods December 2019 to February 2020.
- A decline in rainfall total was observed during the second half of the season from March to May.
- Overall though, rainfall accumulated during the dry season was above normal at Canefield (635.3mm/ 25.01in) and normal at Douglas-Charles (784.7mm/ 30.89in.).
- Mean temperatures were generally warmer than usual, particularly peak daytime temperatures (30°-31°C/ 86°-88°F). Cooler than usual night-time temperatures were observed at Douglas Charles, from December 2019 to April 2020 (22°C/ 72°F).



- The number of dry spells exceeding 10 days were more than usual; a maximum of 21 consecutive dry days were recorded at Canefield from the end of March to April followed by 20 days in May. At Douglas-Charles, the maximum dry spell length was 15 days from the end of March to April, followed by 14 days in May.
- An 11-day heatwave (maximum temperature >=32.8°C) was recorded at Canefield from May 21st.



Above normal season predicted as a result of

1) The El Niño phenomena which suppresses formation and intensity of hurricanes is not expected this summer. Additionally, there is medium confidence that La Niña, which enhances tropical cyclone formation and development, could be in place by September.

2) Warmer-than-average sea-surface temperatures which fuels tropical cyclone development are expected to persist in the tropical Atlantic Ocean and Caribbean Sea and

3) Favorable winds over West Africa which encourages formation of tropical disturbances.

Arthur and Bertha formed in May ahead of the official June 1st start of the season. These were followed by Cristobal in early June. The season so far has broken the record for earliest 3 storms.

## SEASONAL OUTLOOK FOR JUN-JUL-AUG (JJA) 2020

CLIMATOLOGICAL AVERAGES FOR JJA		
Parameters	Canefield Airport	Douglas-Charles Airport
	Accumulated Rainfall (30 years)	
Normal	506.5 to 785.3mm	534.7 to 759.4mm
Wet days	50 to 67	53 to 69
7 day wet spell	4 to 7	2 to 6
7 day dry spell	NA	0 to 2
	Temperature (15 years)	
Average Maximum	31.7 to 32.2°C	30.5 to 31.1°C
Mean	28.0 to 28.3 °C	27.7 to 28.0°C
Average Minimum	24.2 to 24.6°C	24.8 to 25.1°C

Existing and forecast atmospheric conditions driving tropical cyclone activity also drives the seasonal forecast.

- Above normal rainfall accumulation along with a few more wet days than usual is expected by the end of August. However, most of this amount is expected during the July to August period.
- Slightly more than usual 7-day wet spells are expected. Flood potential increases, with expected increase in wet spells frequency as the season progresses.
- One to two extreme wet spells which could result in flash-flooding are possible mainly in 2nd half of the season.



- Night-time minimum and day-time peak temperatures are likely to be warmer than usual, as the island moves towards the peak of the heat season in October.
- Number of heatwave days are expected to be much higher than usual this heat season (30 days compared to about 12).
- Probability of heatwaves increases through the season, with up to 90% chance of 7 or more heatwave days in August.
- Drought is not a concern by the end of August.



## **Bleaching Alert Area and Outlook**

By the end of August, bleaching alert is expected to move from a watch to a warning, at which time sea



surface temperatures are expected to be at the coral bleaching threshold (29.3°C). Thermal stress on coral reefs will be

#### SECTORAL IMPLICATIONS

### AGRICULTURE

- Drought-like conditions in western and northern regions may persist possibly to July. Water conservation techniques such as mulching and water management practices like irrigation should continue.
- Land preparation, mainly in western and northern regions, may be postponed until July. Practice conservation tillage to reduce soil loss when the rain starts.
- Planting climate resilient varieties such as cassava and sweet potatoes on adequately managed crop areas should be considered in dry areas.
- Adequate shading and water may be required for livestock.
- Store extra seeds, planting material, animal feed and medicines in the event of adverse weather conditions.

#### TOURISM

- Monitor weather and Covid-19 progress in source regions and enhance marketing strategies.
- All should apply high SPF sunscreen lotion regularly and seek shaded areas between the hours of 10am and 3pm.
- Expect an increase in the demand for cooling/ hydration services (air conditioning use, drinking water).
- Frequency of outdoor activity disruptions due to rainfall should be increasing towards August.
- This is a good season to engage in coral reef restoration activities that build coral resilience.

### HEALTH

- Increasing temperatures and humidity result in high heat indices (a measure of how hot it really feels). This can lead to dehydration and even death in vulnerable members of the population. Minimize direct sun exposure. Stay hydrated.
- Saharan Dust events increases the likelihood of respiratory and allergic reactions in susceptible persons.
- Manage water storage containers properly to reduce mosquito breeding areas.
- Within the context of the Covid-19 pandemic, plans should be in place to address the social and hygienic requirements where people may gather during disasters.
- Extreme weather events/ disasters may increase burden on health services .
- The use of face masks should be managed in hot conditions. Ensure the material is breathable. If feeling ill, remove masks in a private space. Sweaty masks should be changed.

#### HYDROLOGY

- Soil moisture increase expected as the season progresses. This increases the chance of landslides and rock falls, particularly in dry areas and regions with clay soils.
- Expect runoff to increase during heavy rainfall, especially, in areas where there were bush fires and where soils are compact.
- Overflow of gutters and ravines and flooding over low-built bridges is highly possible during heavy rainfall.

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