

Seasonal Climate Outlook Summary

Previous Season Forecast; Mar-Apr-May (MAM) 2023– There were uncertainties in western regions while less than usual amounts of rainfall was forecasted in eastern regions. Temperatures were likely to be close to the usual or cooler than usual.

MAM Observed: The usual amounts of rainfall was measured at Douglas Charles, though on the low side and less than usual at Canefield. Daytime temperatures were warmer than usual while night-time lows were cooler than usual.

Current Season Forecast; Jun-Jul-Aug (JJA) 2023– Medium confidence that rainfall total for the period is likely to be close to the usual and even greater in some areas. Maximum and minimum temperatures are likely to be higher than usual. Below normal rainfall accumulation is likely from Sept to Nov (SON).

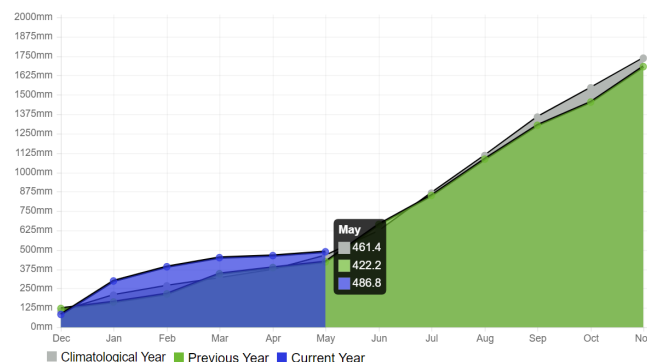
The 2023 Dry Season (Dec 2022 to May 2023)

Canefield Airport:

- ◆ 486.8mm/ 19.17in of rainfall was recorded, which is normal. January, February and March were very wet while April and May were extremely dry.
- ◆ There were 20 wet days during MAM (less than normal) and 64 during the entire season;
- ◆ There was an 7-day dry spell in February, a 16-day in March , a 12-day dry spell in April and a 9 days dry spell in May;
- ◆ Daytime and night-time temperatures were as usual for the season with an average maximum of 31°C/ 88°F and minimum of 22°C/ 72°F, respectively.
- ◆ There was a 2 day heatwave at the end of April as day and night-time temperatures gradually increased and a 10 days event in May.

Canefield, Dominica - Accum. Rainfall Dec-Nov Year

(Location: 15.33962°N, -61.392°W)

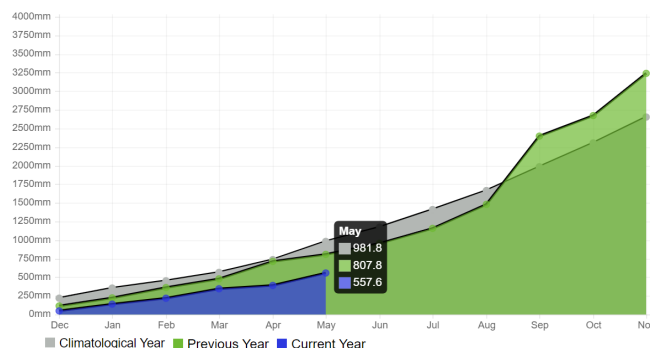


Douglas-Charles Airport:

- ◆ Total rainfall was below normal with 557.6mm/ 21.95in. December and April were severely dry, while March was unusually wet;
- ◆ There were 42 wet days during MAM (normal) and 87 during the season;
- ◆ There was an 11-day dry spell from the end of February to March, 6-day dry spell in April and May;

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

(Location: 15.547°N, -61.2993°W)



The 2023 Dry Season (Dec 2022 to May 2023)

- ◆ Daytime temperatures were as warm as usual with an average maximum of 29.3°C/ 84°F, while night-time temperatures were mostly cooler than usual with an average minimum of 22.2°C/ 72°F;
- ◆ A 3-day heatwave was reported from end of April and 5-days in May.

SEASONAL OUTLOOK FOR JUNE-JULY-AUGUST (JJA) 2023

INFLUENCING FACTORS

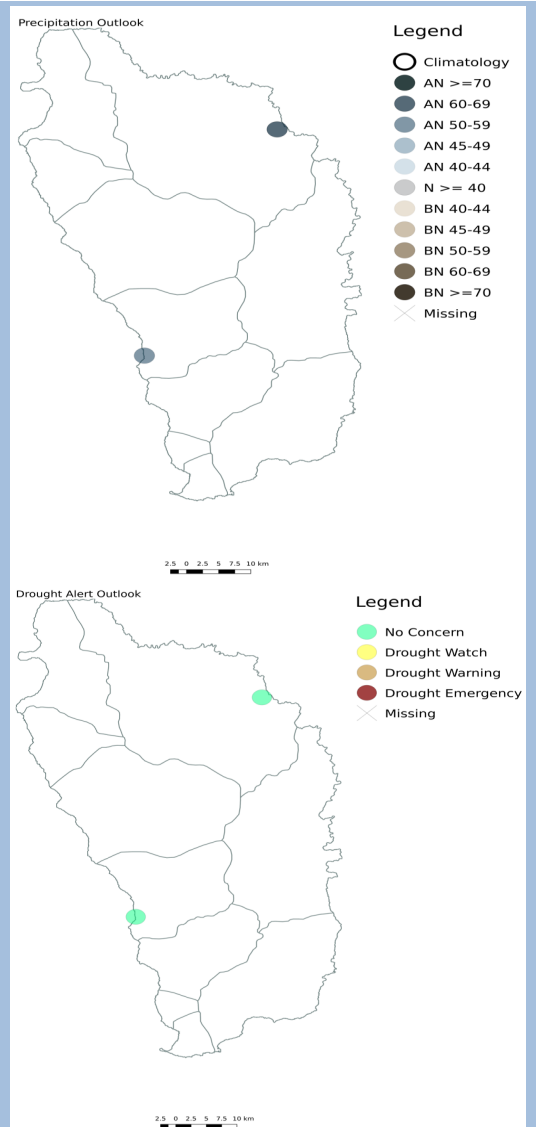
- Sea Surface Temperatures (SSTs) in the eastern Pacific are now slightly above average, that is, they have risen from La Niña conditions to ENSO neutral by mid-May. Models forecast that a transition to El Niño conditions is likely in JJA with higher confidence of this in SON (85-90%). ENSO neutral offers little predictability in the Caribbean, but El Niño is marked by a warmer heat season, a drier summer and reduced tropical cyclone activity, particularly from September to November.
- SSTs have hovered between 0.5° and 1.5°C above average in much of the sub-tropical North Atlantic and eastern Tropical North Atlantic (TNA) but near average in the Caribbean Seas. Models are confidently forecasting above average SSTs. Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures with above-average humidity, an increased frequency of heatwaves, higher Atlantic hurricane season activity and seasonal rainfall totals and an increased frequency of extreme rainfall during the wet season.

RAINFALL FORECAST

- ◆ Warmer than usual Atlantic SSTs may be more impactful during JJA;
- ◆ Rainfall accumulation is likely to be the usual to more than usual, across parts of the island during the first half of the wet season;
- ◆ An increase in the number of wet days is likely;
- ◆ However, there is no significant change in the number of 7 day wet spells and very wet spells, which could result in flash-floods
- ◆ Drought is of no concern by the end of August.
- ◆ The effects of El Niño may be felt more during SON.
- ◆ Usual to less than usual rainfall is possible.;
- ◆ By the end of November, a Drought Watch may be likely for some areas, particularly eastern communities, which will have potential impacts on large surface water reservoirs and groundwater.

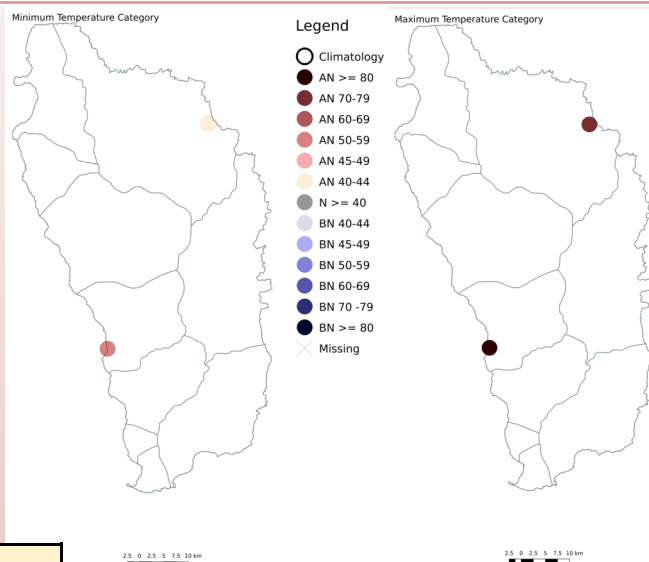
CLIMATOLOGICAL AVERAGES FOR MARCH-APRIL-MAY (MAM)

Parameters	Canefield Airport	Douglas-Charles Airport
<i>Rainfall (30 years)</i>		
Normal	474.2mm to 756.8mm	544.4mm to 768.5mm
Wet Days Normal	49 to 66	53 to 68
7-day Wet Spells Normal	4 to 7	2 to 6



TEMPERATURE FORECAST

- ◆ Temperatures are expected to become increasingly warmer as the Caribbean Heat Season continues and a more humid heat sensation is expected;
- ◆ Daytime highs and night-time lows are forecast to be even higher than usual and may often be uncomfortable to many;
- ◆ Excessive heat, which could rival that of 2020, is likely to produce recurring heatwaves which can lead to increasing heat stress particularly by August.



CLIMATOLOGICAL AVERAGES FOR JUNE-JULY-AUGUST (JJA)

Parameters	Canefield Airport	Douglas-Charles Airport
Temperature (15 years)		
Average Maximum	32.2 to 32.5°C	30.7 to 31.2°C
Mean	28.2 to 28.5°C	27.7 to 28.1°C
Average Minimum	24.1 to 24.6°C	24.7 to 25.1°C

SECTORAL IMPLICATIONS



HEALTH

Extreme heat events are of concern. To reduce effects of heat on the body:

- ◆ Keep cool by opening windows to allow air to circulate within homes or spend some time in the shade underneath a tree or air-conditioned building;
- ◆ Take frequent showers or use cold packs, wraps and towels;
- ◆ Stay hydrated;
- ◆ Use light bed linen and sheets;
- ◆ Elderly and sick living alone should be visited daily;
- ◆ Avoid athletic training and exercise in peak heat periods;
- ◆ Get help if you are dizzy, weak, anxious or have intense thirst and headache;
- ◆ Manage water storage containers properly to reduce mosquito breeding areas and incidents of vector-borne diseases such as Dengue, Chikungunya and Zika;
- ◆ Saharan dust incursions will be frequent; symptoms of respiratory illnesses may increase.



AGRICULTURE

- ◆ Employ farm management plans to maintain adequate soil moisture.
- ◆ Select crops and varieties and planting them with careful thought of the availability of water resources;
- ◆ Employ water management techniques such as water harvesting, irrigation scheduling, weeding and mulching;
- ◆ Refrain from transplanting in extreme hot conditions which can cause wilting and even death;
- ◆ Employ proper drainage on farms for excessive rainfall events;
- ◆ Stock-up on fungal chemicals to be used in wetter conditions;
- ◆ Consider the use of pen manure and other natural products to maintain soil acidity;
- ◆ Liaise with your field officer to develop a plan for your farm.

MOON PHASES

Jun: FQ 26th, FM 3rd, LQ 10th, NM 18th

Jul: FQ 25th, FM 3rd, LQ 9th, NM 17th

Aug: FQ 24th, FM 1st/30th, LQ 8th, NM 16th



SECTORAL IMPLICATIONS



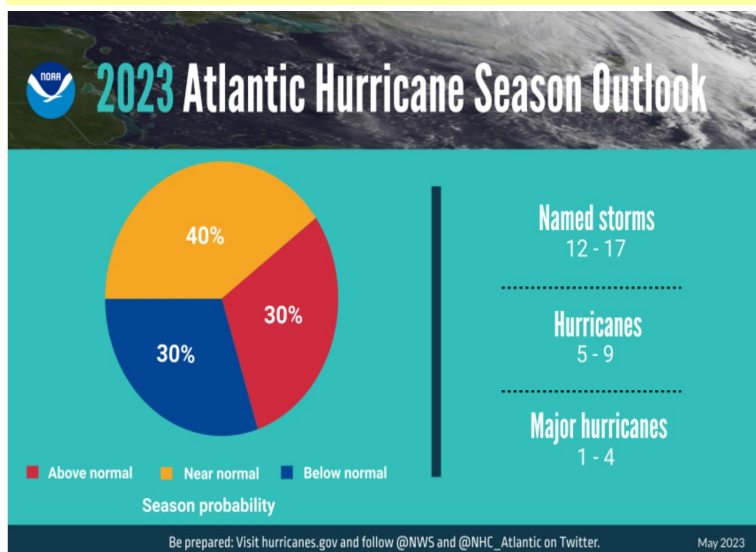
TOURISM

- ◆ Expect an increase in demand for cooling/ hydration services. Advise guests accordingly;
- ◆ Staff and visitors should be encouraged to wear sunscreen and protective clothing outdoors; sun-burn can happen even on cloudy days;
- ◆ Most source markets are experiencing summer conditions except northern Europe. Operators should focus on differentiating themselves through innovative packages, memorable customer service and activities;
- ◆ Prepare facilities for potential impacts of tropical cyclones and severe weather events;
- ◆ High levels of sargassum into August will result in more residues on exposed beaches or in piles with brown water likely to persist in areas (CERMES);
- ◆ The area is likely to be on high alert for coral bleaching by August (CoralReefWatch).



HYDROLOGY

- ◆ River discharge is expected to increase as rainfall events increase;
- ◆ Anticipate an increase in the water level of the rivers during a rainy event;
- ◆ Increased surface runoff during downpours may affect vegetation and the top soil and the normal flow of traffic may be impacted;
- ◆ Expect rivers to be in flood during moderate to heavy rainfall;
- ◆ Increased turbidity of our rivers will affect aquatic life and water quality;
- ◆ Heavy rains will cause the soil to become saturated, which will increase the possibility of landslides; Destruction of property and life, unfortunately, may occur.
- ◆ Expect rivers to flood onto low-lying bridges during moderate to heavy rainfall. This will impede traffic. and may undermine bridges and roads;
- ◆ Pay attention to daily forecasts and sub-seasonal outlooks.



2023 Atlantic Hurricane Season

The season is expected to be less active than recent years due to competing factors:

- an above normal West African monsoon which seeds many of the strongest and longest lived hurricanes during most seasons,
 - warmer-than-average SSTs in the Atlantic Ocean and Caribbean Sea which creates more energy to fuel storm development,
- forecasted El Niño that suppresses tropical cyclone development is likely to persist throughout the hurricane season.
 - Tropical Storm Arlene formed in the Gulf of Mexico, June 2nd.

PREPARE EARLY; MAKE A PLAN AND KNOW YOUR RISKS!

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