

Seasonal Climate Outlook Summary

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

JJA Observed: The usual amounts of rainfall was observed at Canefield but below normal at Douglas Charles. Both daytime and night-time temperatures were warmer than usual.

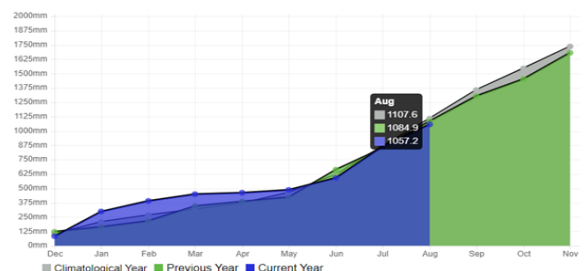
Current Season Forecast; Sept-Oct-Nov (SON): The usual amounts of rainfall is likely (medium confidence). Day and night-time temperatures are very likely to be higher than usual.

The 2023 Wet Season so far (JJA)....

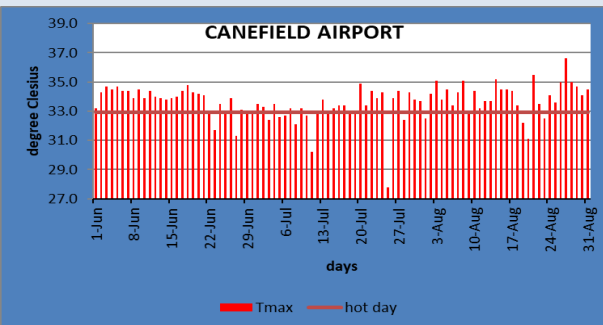
Canefield Airport:

Canefield, Dominica - Accum. Rainfall Dec-Nov Year

(Location: 15.33962°N, -61.392°W)



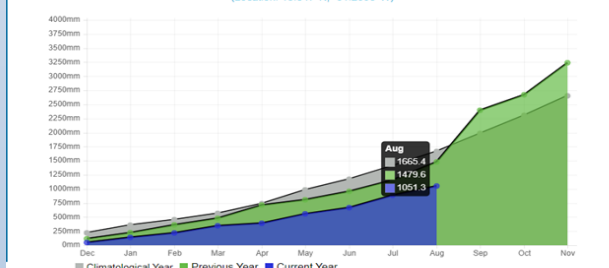
- ◆ Rainfall for the period was normal with a total of 570.4mm/ July was the wettest month with 274.3mm;
- ◆ There were 50 wet days during JJA, which is usual;
- ◆ There was a 5-day dry spell in June and an 8-day spell towards the end of August;
- ◆ Daytime and night-time temperatures were warmer than usual with an average maximum of 33.4°C/ 91°F and minimum of 24.8°C/ 75°F. Maximum temperature was 36.6°C/ 99°F, observed August 27th. Second consecutive year of temperature greater than 36°.
- ◆ About 85 percent of days were at least equal to or greater than 32.9°C, the hot day threshold temperature. Heatwaves were prominent during the first half of June and from the second half of July onwards. Two or more consecutive hot days determine a heat-wave.



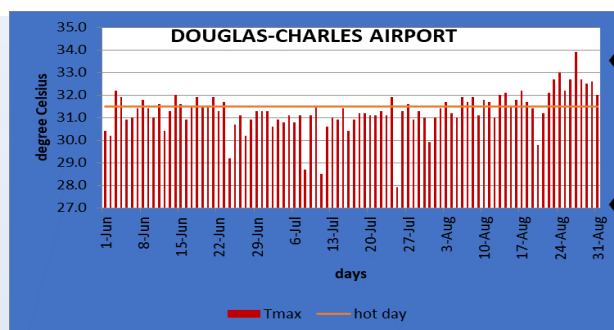
Douglas-Charles Airport:

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

(Location: 15.547°N, -61.2993°W)



- ◆ Rainfall was below normal by about 50mm/ 1.97in, with a total of 493.7mm/ 19.44inches. June and August reported below normal amounts. The station is experiencing rainfall deficits;
- ◆ There were 52 wet days during JJA, which is slightly less than normal;
- ◆ There were 6 day dry spells in June and August and a 5-days spell in July;



Temperatures were slightly warmer than usual with an average maximum of 31.3°C/ 88°F and an average minimum of 25.2°C/ 77°F. Highest temperature was 33.9°C/ 93°F, August 27th;

Hot days were more prevalent in August when a 10-day heatwave was reported.

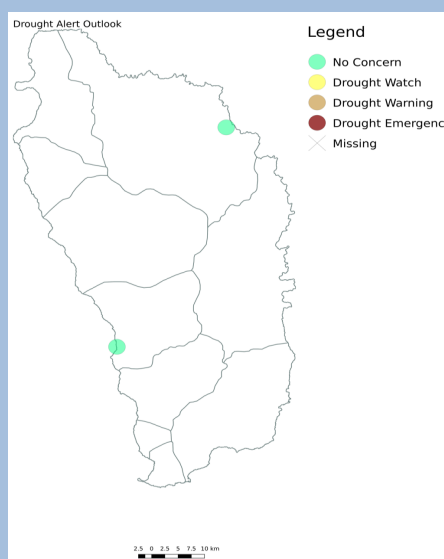
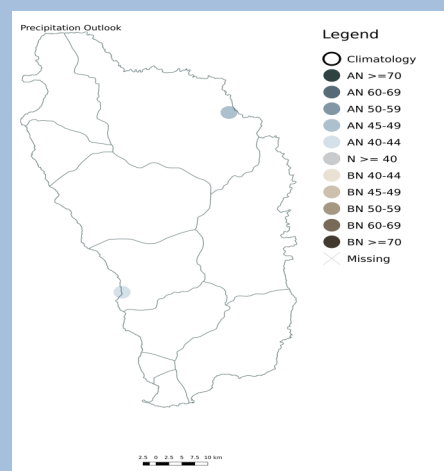
SEASONAL OUTLOOK FOR SEPTEMBER-OCTOBER-NOVEMBER (SON) 2023

INFLUENCING FACTORS

- Sea Surface Temperatures (SSTs) in the eastern Pacific have risen and weak EL Nino conditions exist from end of May. Models indicate further warming to moderate El Niño conditions in SON and DJF (95% confidence). El Niño is marked by a warmer heat season, a drier summer and reduced tropical cyclone activity, particularly from September to November. DJF rainfall (dry season) tends to be lower than usual.
- SSTs have hovered above 1° to 2°C above average in much of the Tropical North Atlantic (TNA) even reaching record high values. Models are confidently forecasting increasingly warm 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

- Rainfall accumulation is likely to be the usual with some areas receiving more than usual;
- Fewer wet days than usual is likely;
- However, a slight increase in the number of wet spells and the number of very wet spells, which could result in flash-floods is possible;
- While models indicate no concern for hydrological drought by the end of November, the Douglas-Charles station may continue to observe prolonged dry days, with bursts of significant showers this season;
- The effects of El Niño may be felt more during DJF, which could result in drier than normal conditions during the dry season.

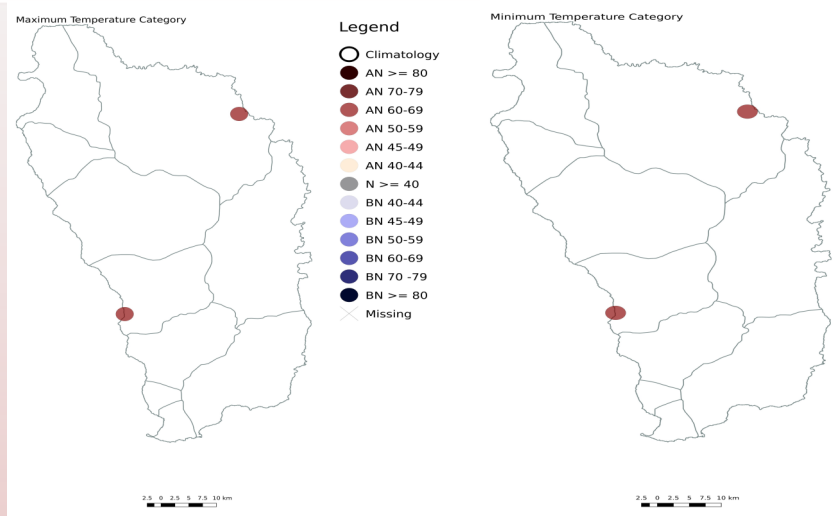


CLIMATOLOGICAL AVERAGES FOR SEPT-OCT-NOV (SON)

Parameters	Canefield Airport	Douglas-Charles Airport
<i>Rainfall (30 years)</i>		
Normal	434.3mm to 699.0mm	730.4mm to 1051.1mm
Wet Days Normal	42 to 54	57 to 69
7-day Wet Spells Normal	3 to 6	4 to 6

TEMPERATURE FORECAST

- ◆ Temperatures are expected to remain uncomfortably high as the Caribbean Heat Season peaks;
- ◆ Daytime highs and night-time lows are forecast to be even higher than usual;
- ◆ Excessive heat, which could rival that of 2020, is likely to produce recurring heat-waves which will maintain high chance of heat stress in September.



CLIMATOLOGICAL AVERAGES FOR JUNE-JULY-AUGUST (JJA)

Parameters	Canefield Airport	Douglas-Charles Airport
Temperature (15 years)		
Average Maximum	31.8 to 32.2°C	30.6 to 31.0°C
Mean	27.6 to 27.9°C	27.1 to 27.4°C
Average Minimum	23.4 to 23.7°C	23.6 to 23.9°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;
- ◆ Heat stress can increase mood-affective and stress-related disorders;
- ◆ Manage water storage containers properly to reduce mosquito breeding areas and incidents of vector-borne diseases such as Dengue, Chikungunya and Zika;



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;
- ◆ Ensure poultry and livestock have adequate shading and other cooling methods;
- ◆ Minimize the transport of livestock during the hottest times of the day and take heed of signs of heat stress in ruminants.

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

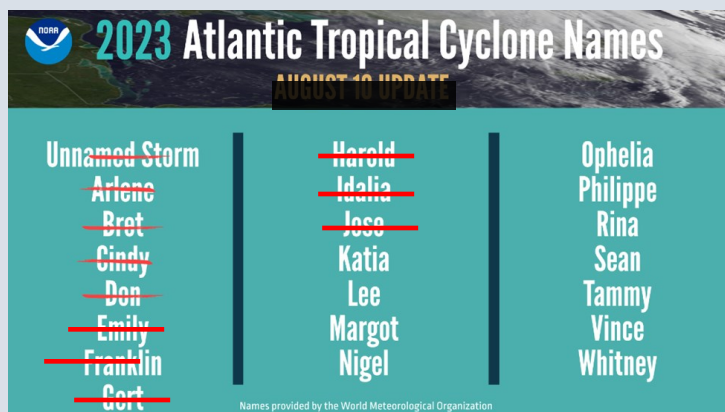
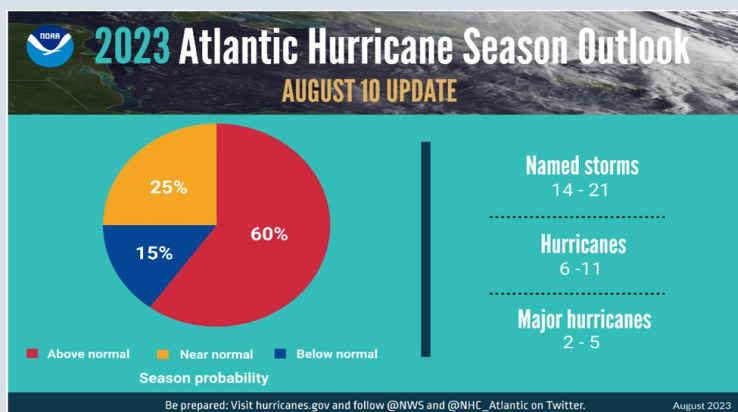
- ◆ Expect an increase in demand for cooling/ hydration services. Advise guests accordingly;
- ◆ Staff and visitors should be encouraged to wear sunscreen and protective clothing outdoors; sun-burn can happen even on cloudy days. A high risk of sun damage due to intense UV light remains into October;
- ◆ Autumn season in most source markets may increase demand for Caribbean vacations. Operators should enhance marketing efforts and focus on differentiating themselves through innovative packages, memorable customer service and activities;
- ◆ Prepare facilities for potential impacts of tropical cyclones and severe weather events;
- ◆ Mild levels of sargassum are likely into October. The amount in the Atlantic is slightly less than at this time last year(CERMES);
- ◆ Mass coral bleaching is likely into November (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



NOAA increased the chance of an above normal season from 40% to 60% in its August update. Eleven tropical systems has formed by the end of August.

KNOW YOUR RISKS, STAY INFORMED!

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