



DOMINICA CLIMATIC NEWSLETTER

VOL 7 ISSUE 04

SEPTEMBER-OCTOBER-NOVEMBER

YEAR 2022

Seasonal Climate Outlook Summary

Previous Season Forecast; Jun-Jul-Aug (JJA) 2022– Rainfall total for the period was likely to be below the usual to near usual. Maximum and minimum temperatures were likely to be as usual.

JJA Observed: The accumulated rainfall was usual both airports. Daytime highs were usual to above usual while night-time low temperatures were cooler than usual.

Current Season Forecast; Sept-Oct-Nov (SON) 2022– Medium confidence that rainfall total for the period is likely to be more than usual. Maximum temperatures are likely to be cooler than usual while minimum temperatures are likely to be warmer than usual. Above normal rainfall accumulation is likely to continue into the DJF season.

The Wet Season so far...

Canefield Airport:

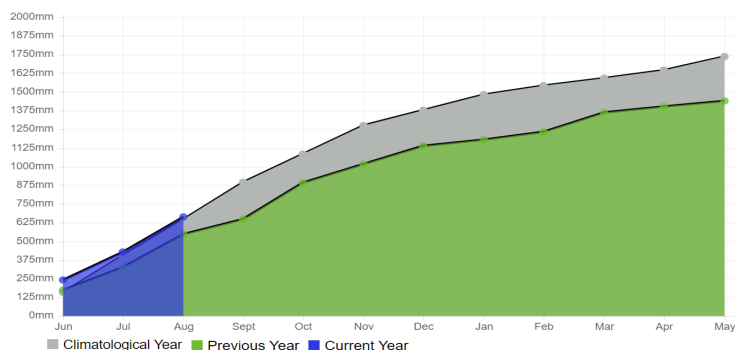
- ◆ The wet season began relatively dry with below normal rainfall in June. However, July's total was above normal while rainfall in August was normal. Total accumulation for the first half of the wet season was 662.7mm/ 26.10in.;
- ◆ There were no significant dry spells;
- ◆ Daytime high temperatures were higher than usual while night-time lows were cooler than usual with an average maximum of 32.7°C/ 91°F and average minimum of 24.0°C/ 75°F.
- ◆ There was a 10-day heat wave in June and an 11 day heat wave in August.

Douglas-Charles Airport:

- ◆ Monthly rainfall since the beginning of the season and into August has been normal; a total of 671.8mm/ 26.45in. Maximum daily rainfall was 81.5mm/ 3.21in observed July 1st during the passage of a tropical wave. Flooding reported in Hampstead August 20th when 80.1mm was reported;
- ◆ There were no significant dry spells;
- ◆ Daytime temperatures were as warm as usual while night-time temperatures were cooler than usual, with an average maximum of 30.9°C/ 88°F and average minimum of 24.4°C/ 75°F.
- ◆ There was a 7 day heat wave in June.

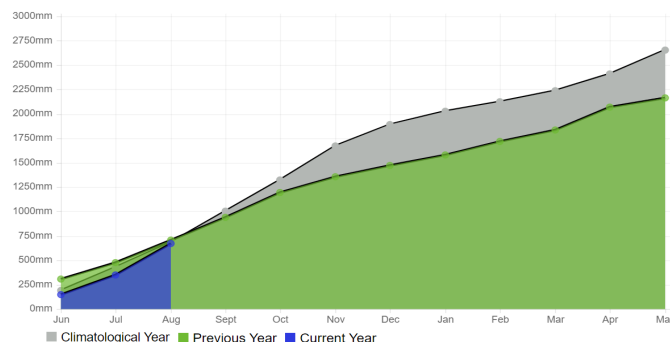
Canefield, Dominica - Accum. Rainfall Water Year

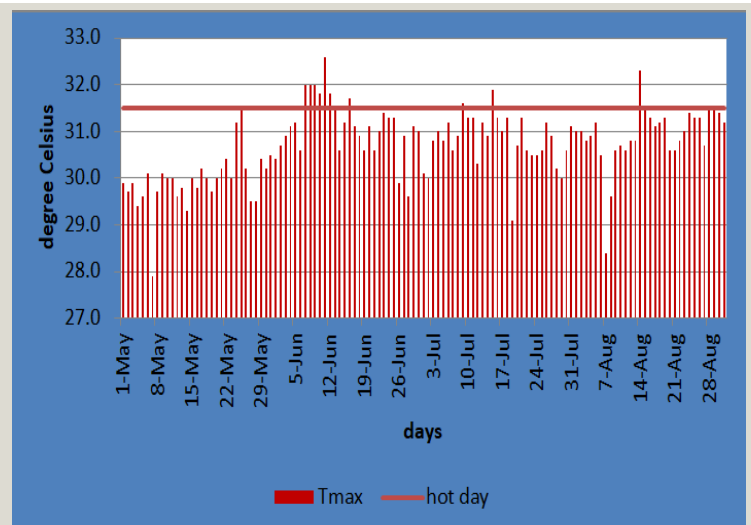
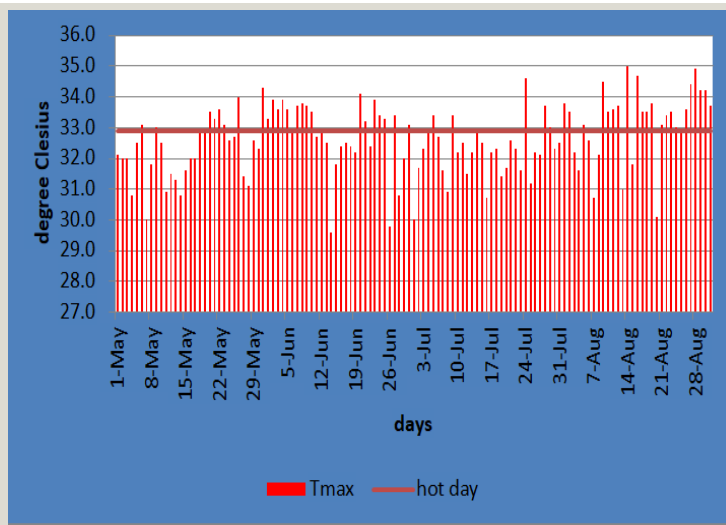
(Location: 15.33962°N, -61.392°W)



Douglas-Charles, Dominica - Accum. Rainfall Water Year

(Location: 15.547°N, -61.2993°W)





Peak daytime temperatures (Tmax) at Canefield (left) and Douglas-Charles (right). Canefield observed quite a few hot days (maximum temperature $\geq 32.9^{\circ}\text{C}$ from since the start of the heat season in May. Some very hot days where Tmax was over 34°C were also reported. Douglas Charles observed a few hot days towards the beginning of the season but recorded near normal temperatures thereafter.

2022 Atlantic Hurricane Season



The season has progressed slowly with the formation of four cyclones. However, activity is expected to increase in September as it comes to its climatological peak.

In its August update, the National Hurricane Centre indicated that the Atlantic Hurricane Season is still projected to be higher than normal.

**STAY PREPARED AND KNOW YOUR RISKS,
TO BE HURRICANE RESILIENT AND
CLIMATE READY !!!**

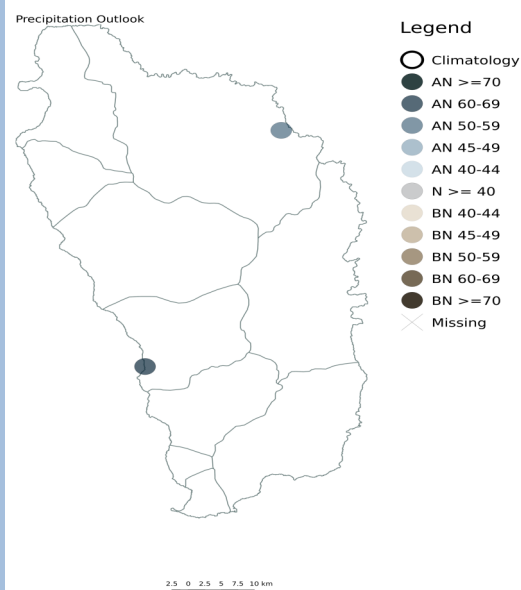
SEASONAL OUTLOOK FOR SEPTEMBER-OCTOBER-NOVEMBER (SON) 2022

INFLUENCING FACTORS

- Sea Surface Temperatures (SSTs) in the eastern Pacific remain below -1.0°C ; La Niña conditions have persisted for the year thus far. The models forecast La Niña conditions may maintain into DJF. La Niña tilts the odds to more rainfall activity during the wet season and higher tropical storm frequency in the Atlantic Basin.
- Warmer than usual SSTs above 1°C have persisted in the sub-tropical portions of the North Atlantic and near normal in the Caribbean. Models are forecasting SST to be slightly warmer than usual in the Caribbean and sub-tropical North Atlantic which may contribute to higher air temperatures with above-average humidity, seasonal rainfall totals and an increased frequency of extreme rainfall.

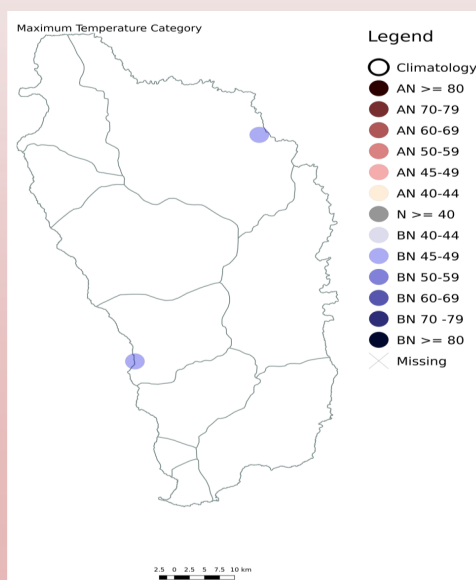
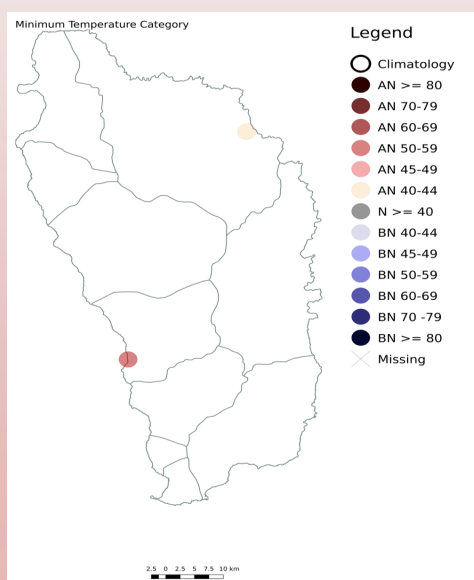
RAINFALL FORECAST

- ◆ Total rainfall for this period is likely to be as high as usual with medium confidence of being above what is usual in some areas;
- ◆ Slight increase in the number of wet days ($\geq 1\text{mm}$) is possible, particularly on the west coast;
- ◆ Slight increase from the normal in the number of 7 day wet spells;
- ◆ Up to 2 extreme 3 day wet spells are possible which would increase the potential for flash floods and associated hazards;
- There is no concern for drought at this time.



TEMPERATURE FORECAST

- ◆ Temperatures are generally expected to be cooler by the end of November, as the Caribbean Heat season would have ended;
- ◆ The seasonal average daytime temperature may be cooler than usual while night-time temperature may likely be warmer than usual. However, recurring heat waves are expected throughout September and possibly into early October.



CLIMATOLOGICAL AVERAGES FOR SEPTEMBER-OCTOBER-NOVEMBER (SON)


Parameters	Canefield Airport	Douglas-Charles Airport
Rainfall (30 years)		
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 (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



TOURISM

- ◆ Expect high demand for cooling/hydration services into October;
- ◆ Maintain communication plans and response protocols to sudden eventualities;
- ◆ Ensure that drainage and catchment systems are cleaned and cleared for intense rainfall events. Prepare facilities for potential impacts of tropical cyclone;
- ◆ All are encouraged to apply high SPF sunscreen lotion regularly (preferably reef safe).

AGRICULTURE

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- ◆ Certain pests and diseases such as phytophthora root rot will increase during and after extreme wet conditions. Implement appropriate disease and pest management practices;
 - ◆ Ensure livestock are housed on high ground and evacuate animals in low-lying areas which are prone to flooding and erosion;
 - ◆ Maintain drains around crop bed to ensure proper drainage of water;
 - ◆ Provide adequate ventilation, shading and water for livestock especially poultry;
 - ◆ Take heed of signs of heat stress in ruminants (panting, drooling, sweating);
 - ◆ Maintain proper records of inputs and crop under cultivation and/or livestock being reared.

MOON PHASES

Sept: FQ 3rd, FM 10th , LQ 17th, NM 25th

Oct: FQ 2nd, FM 9th, LQ 17th, NM 25th

Nov: FQ 1st, FM 8th, LQ 16th, NM 23rd



HEALTH

- ◆ Keep cool and hydrated. Avoid foods that may increase dehydration (sugary, salty and alcoholic foods);
- ◆ Water availability, which is critical for hygiene and sanitization purposes during the COVID-19 pandemic, is not expected to be a concern;
- ◆ 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 incidents of vector-borne diseases such as Dengue, Chikungunya and Zika;
- ◆ Take breaks in cool and shaded areas to reduce body temperature;
- ◆ Minimize skin exposure to direct sunlight, particularly during 10am and 3pm. Wear sunscreen and protective clothing outdoors.



HYDROLOGY

- ◆ During torrential rainfall expect the rivers to reach peak discharge in quick time because of the characteristics of our river basins;
- ◆ Expect street flooding during heavy rainfall and frequent ponding to occur;
- ◆ Small river channels will not have the capacity to withstand the expected increase in stream flow during intense rainfall; thus, flooding will occur;
- ◆ Anticipate an increase in soil moisture;
- ◆ The rivers are expected to rise to flood level during intense rainfall.

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