



DOMINICA CLIMATIC NEWSLETTER

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YEAR 2021

Seasonal Climate Outlook Summary

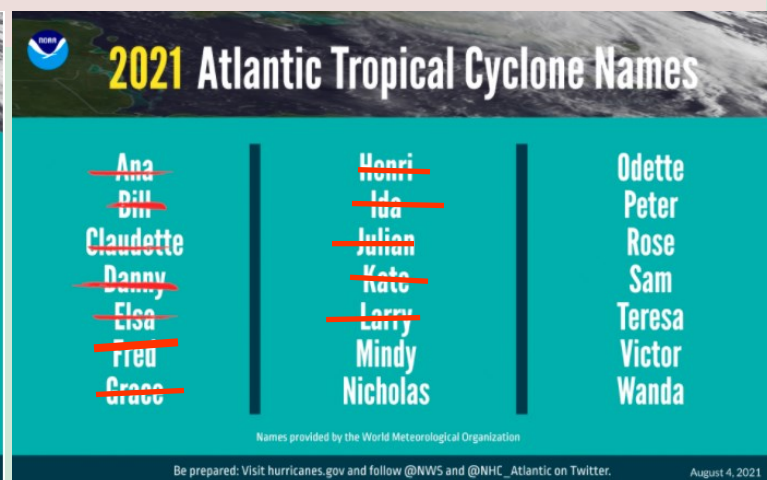
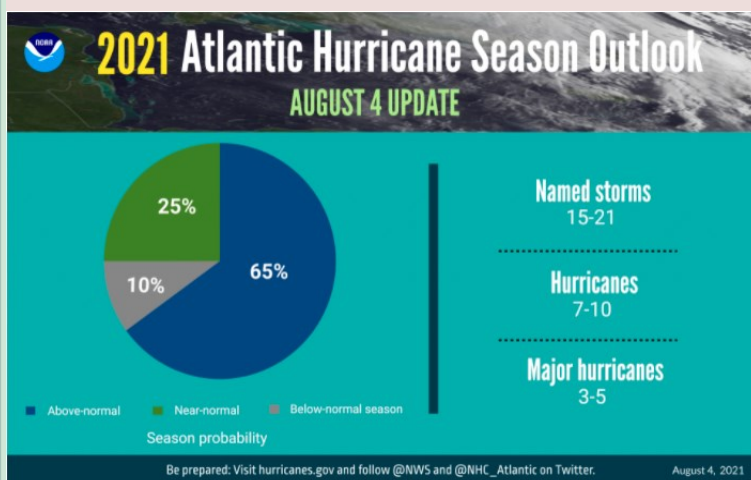
Previous Season Forecast; Jun-Jul-Aug (JJA) 2021– June to July was expected to record less than to the usual rainfall with at least one 7-day dry spell; with an increase in frequency and intensity in August. There was high confidence in day and night-time temperatures being above normal.

JJA Actual: Rainfall accumulation at both stations was normal. Temperatures were warmer than usual at Canefield with significant heatwaves. Temperatures were cooler than usual at Douglas-Charles.

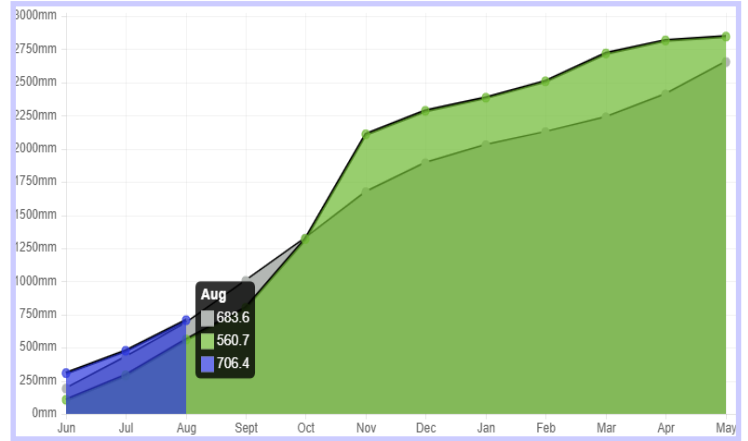
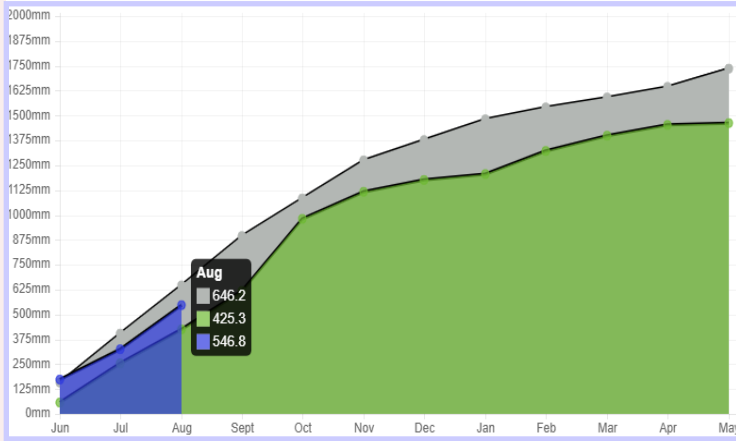
Current Season Forecast; Sept-Oct-Nov (SON) 2021– Usual to slightly drier than usual rainfall accumulation is forecast, with above normal day and night-time temperatures. Temperatures are expected to become more comfortable during November.

THE ATLANTIC HURRICANE SEASON THUS FAR...

- In its August update, the National Hurricane Centre (NHC) stated that the hurricane season ‘does not show any signs of relenting as it enters the peak months ahead’. The season peaks in September.
- The forecast for an above normal season is maintained. This calls for 15-21 named storms, 7-10 hurricanes, including 3-5 major hurricanes. This includes all named systems already formed; up to Elsa which developed July 1st.
- The potential return of La Niña in the coming months, reduced vertical wind shear and an enhanced west Africa monsoon all contribute to the current conditions that can increase seasonal hurricane activity. However, Atlantic sea surface temperatures are not expected to be as warm as they were during the record-breaking 2020 season.
- So far, Dominica has not been severely nor directly impacted by tropical cyclones. A Tropical Storm Warning was issued for Hurricane Elsa on July 2nd and for Potential Tropical Cyclone #6 on August 9th. The majority of rainfall events was associated with tropical waves and troughs.



Looking Back.....June-July-August 2021



Accumulated rainfall for the wet season so far at Canefield (left) and Douglas-Charles (right) Airports

- Usual rainfall accumulated at Canefield; a total of 546.8mm/ 21.53in. June and August was normal while July was drier than normal.
- There were 48 wet days which is less than normal.
- There was a 6-day dry spell in June with the last week of August being fairly dry.
- Daytime maximum temperature was warmer than usual with a few 3 to 4-day heatwaves in August, when temperatures were at least 32.9°C/ 91°F. Night-time temperatures were normal.
- Maximum temperature for the period of 34.3°C/ 92°F was recorded August 6th and the minimum was 22.2°C/ 72°F recorded June 2nd.

- Usual rainfall accumulated at Douglas-Charles Airport; a total of 706.4mm/ 27.81in. June was above normal, July was below normal and August was normal.
- There were 57 wet days which is normal. No significant dry spells were observed.
- Mean temperature was cooler than usual with both daytime highs and night-time lows being cooler than usual. Record average minimum observed in June (23.7°C/ 75°F).
- Maximum temperature for the period was 31.9°C/ 90°F recorded on June 4th and the minimum was 21.4°C/ 70°F recorded August 31st.

SEASONAL OUTLOOK FOR SEPT-OCT-NOV (SON) 2021

INFLUENCING FACTORS

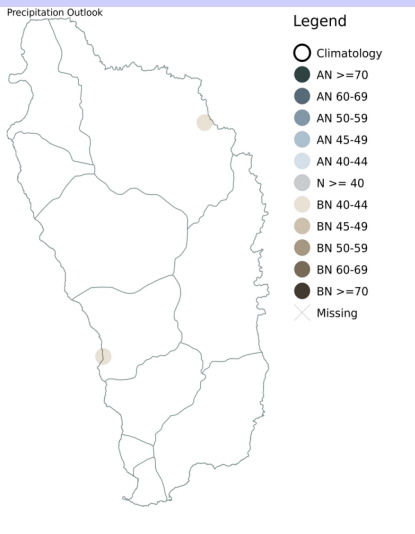
- Neutral El Niño Southern Oscillation (ENSO) conditions are in place. Sea surface temperatures (SSTs) in the eastern Pacific are just below normal. Models are uncertain as to whether ENSO neutral or La Niña (cooling of the eastern Pacific) will manifest in SON. ENSO neutral offers little contribution to seasonal rainfall and temperature predictions. La Niña increases the chance for more rainfall and increased tropical cyclone activity.
- SSTs along the shores of the Caribbean and in parts of the Tropical North Atlantic (TNA) and sub-tropical North Atlantic are projected to be slightly warmer or near to average. Continued warm SSTs tend to contribute to above-average humidity, higher temperatures, higher hurricane season activity, seasonal rainfall totals and increased frequency of extreme rainfall.

CLIMATOLOGICAL AVERAGES FOR SON 2021

Parameters	Canefield Airport	Douglas-Charles Airport
<i>Accumulated Rainfall (30 years)</i>		
Normal	434.3 to 699.0mm	730.4 to 1051.1mm
Wet days	45 to 59	58 to 70
7 day wet spell	3 to 7	4 to 7
7 day dry spell	NA	0 to 1
<i>Temperature (15 years)</i>		
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

RAINFALL FORECAST

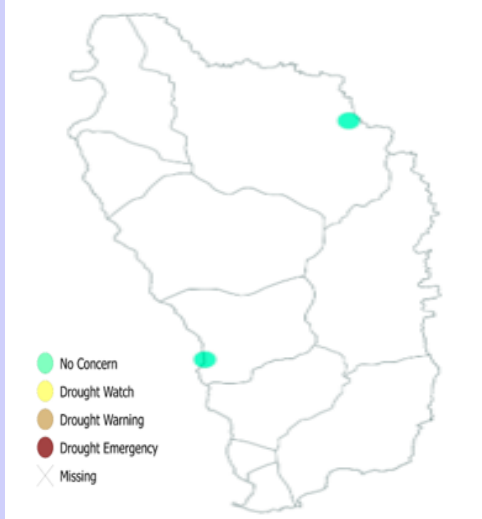
- The wet season peaks within these months and a general increase in rainfall amounts is anticipated.
- Conditions are expected to be as wet as usual, although there is a slight chance that totals could be below normal.



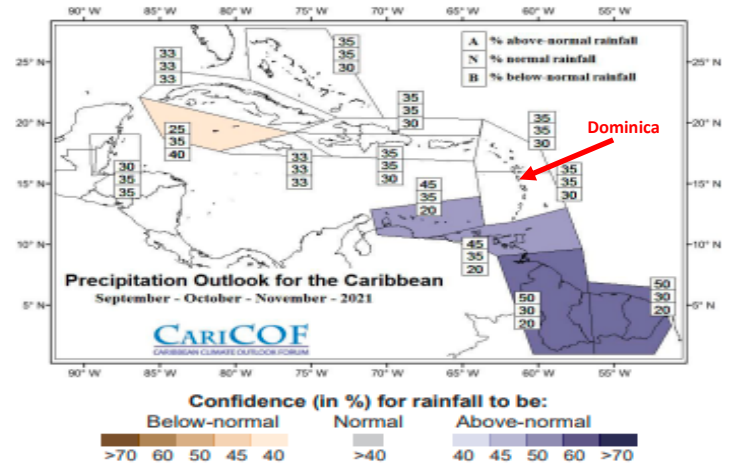
However, considering the accumulated rainfall amounts that are possible within this season, the impacts of being below normal is not expected to be significant.

- No more than one 7 day dry spell is expected on the east coast. A few more dry days are possible along the west coast.
- However, a few more wet days than usual is expected by the end of November, with 2 to 4 very wet 7-day spells.
- At least two 3-day extreme wet spells are possible which could result in flash-flooding most probably after the 1st half of September.
- Drought is not a concern by the end of November 2021.

Drought outlook by end of November 2021

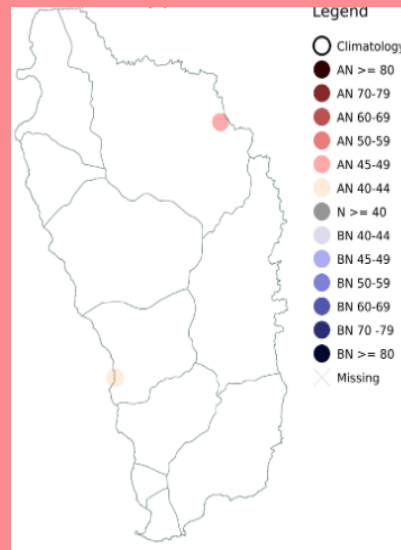


SON 2021 Rainfall Outlook



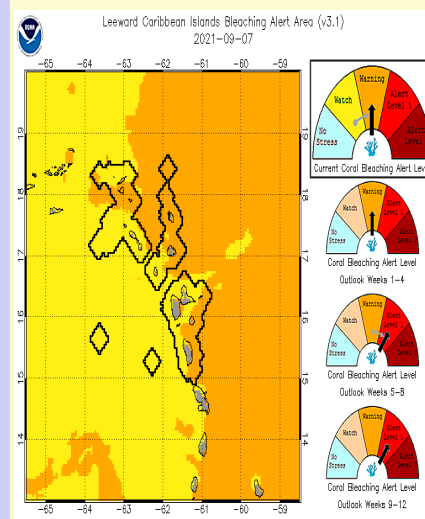
TEMPERATURE FORECAST

- The heat season peaks during SON with temperatures becoming more comfortable through November.



- Night-time temperatures are expected to be as cool as usual
- Day-time temperatures are likely to be as warm as usual with a slight chance of it being cooler than usual at Canefield.
- Medium to high chance of a 15 day heatwave, which is normal.

Bleaching Alert Area and Outlook



The region is under a warning for increasing thermal stress on coral reefs. By the end of November, the area may be under Alert 1 as coral bleaching is expected.

SECTORAL IMPLICATIONS

AGRICULTURE



- ◆ Though few dry spells are expected, irrigation methods may be required mainly across western parts of the island during limited rainfall activity.
- ◆ Flood-producing rains are possible as the season progresses. Therefore, maintain drains around crop beds and/ or plant crops on raised beds; house animals on high ground or in raised pens and store fertilizer away from water sources and moisture. Grass barriers are ideal for slowing water flows.
- ◆ Ensure proper ventilation for poultry to safeguard against heat stress and clean chicken wire to reduce dust and feather buildups. Change flooring of chicken coops as necessary
- ◆ Greenhouse farmers are encouraged to remove covers during severe weather and to change covering when necessary.

TOURISM



- ◆ Maintain a state of readiness including communication plans and response protocols to deal with sudden eventualities, especially given the Covid-19 pandemic.
- ◆ Monitor weather and Covid-19 progress in source regions and enhance marketing strategies.
- ◆ Demand for cooling/ hydrations services (AC use and drinking water) expected to be high
- ◆ Ultraviolet radiation levels is expected to be high leading to increased risk of UV damage. All should apply high SPF sunscreen lotion regularly and seek shaded areas between the hours of 10am and 3pm. The use of reef-safe sunscreen is encouraged.

STAY INFORMED ON SUB-SEASONAL AND DAILY WEATHER UPDATES TO ASSIST WITH PLANNING!!

HEALTH



- ◆ The chance of heatwaves remains high and therefore the risk of heat related stress and heat strain is very high through October. Temperatures are expected to become more comfortable in November.
- ◆ Minimize direct sun exposure. Stay hydrated.
- ◆ Frequent Saharan dust events increase the likelihood of respiratory and allergic reactions in susceptible persons.
- ◆ Manage water storage containers properly to reduce mosquito breeding areas and the incidents of vector-borne diseases such as Dengue.
- ◆ Ensure face masks are breathable. If feeling ill, remove masks in a private space. Sweaty masks should be changed.
- ◆ The use of shelters during tropical cyclone activity should be managed considering Covid-19 protocols.

HYDROLOGY



- ◆ The chance of runoff, overflow of gutters and ravines and flooding over low-built bridges remains moderate in times of heavy rainfall.
- ◆ Disruption of traffic can be expected when low-water bridges are flooded
- ◆ Ponding and increase in runoff are possible
- ◆ Landslides are likely, especially in areas with porous soil.

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