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Weather & Climate

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May 2021

Summary

- Rainfall remains below average for the first four months of 2021.
- Dry conditions expected to continue at least through June 2021 on St. Maarten.
- Drought is not expected to be a concern by the end of July 2021.

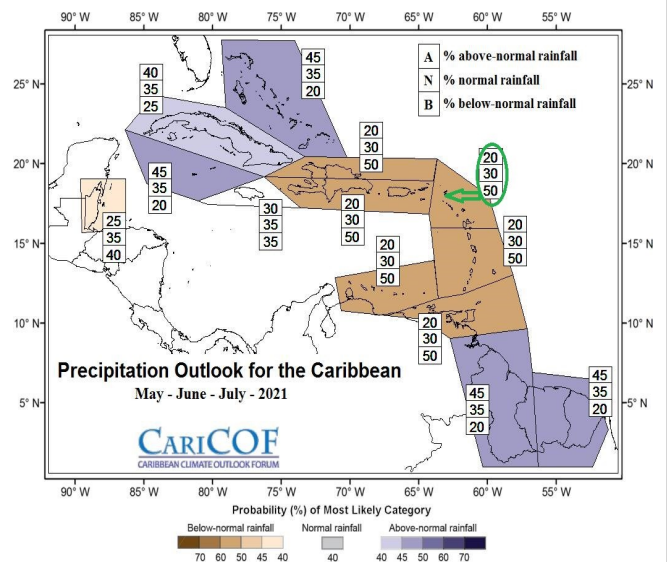
Seasonal Outlook for May to July (MJJ) 2021

Rainfall Forecast

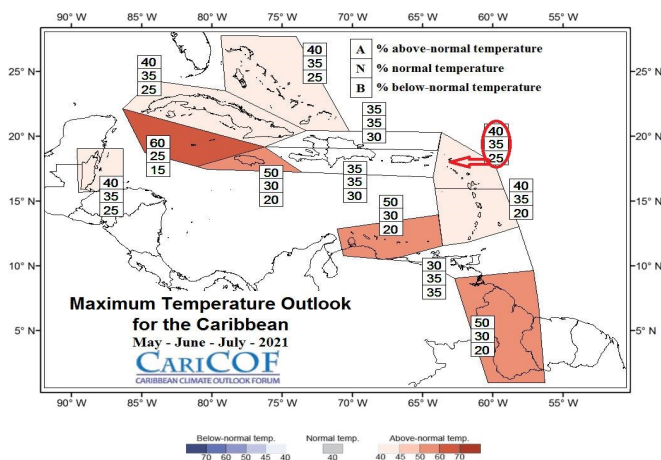
Models are indicating that rainfall totals for the season May-Jun-Jul 2021 are likely to be the usual or drier in St. Maarten and the rest of the Eastern Caribbean.

Within the 92 days of May-Jun-Jul, the normal rainfall total for St. Maarten ranges from 167mm–295mm/7-12in. with 28 to 36 wet days. There are usually frequent showers in May and June as we transition to the wet season with a mid-summer dry spell in July.

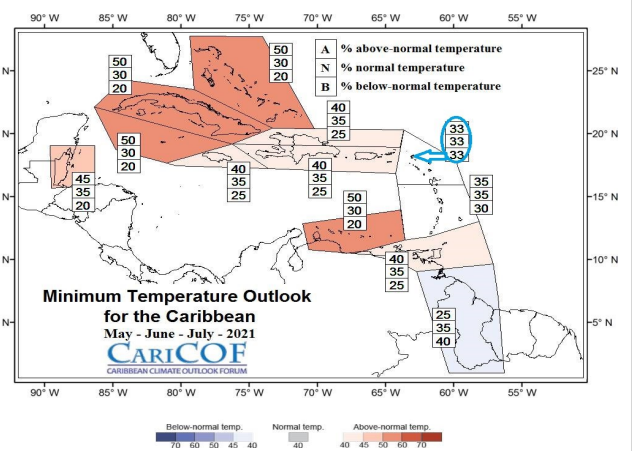
The forecast is for drier than normal conditions with the possibility of 2-6 (7-day) dry spells and 1-4 (7-day) wet spells in Maarten this season.



Temperature Forecast



Day-time Temperatures



Night-time Temperatures

Day-time temperatures are likely to be warmer than usual while night-time temperatures are expected to be near normal during the May-Jun-Jul season across most of the Eastern Caribbean.

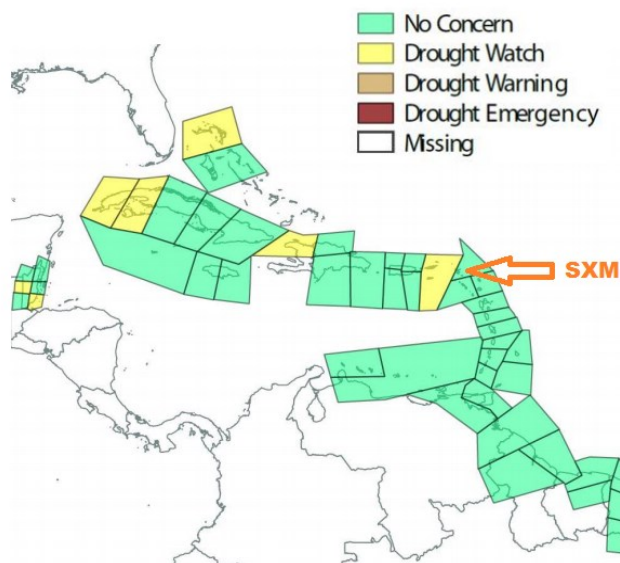
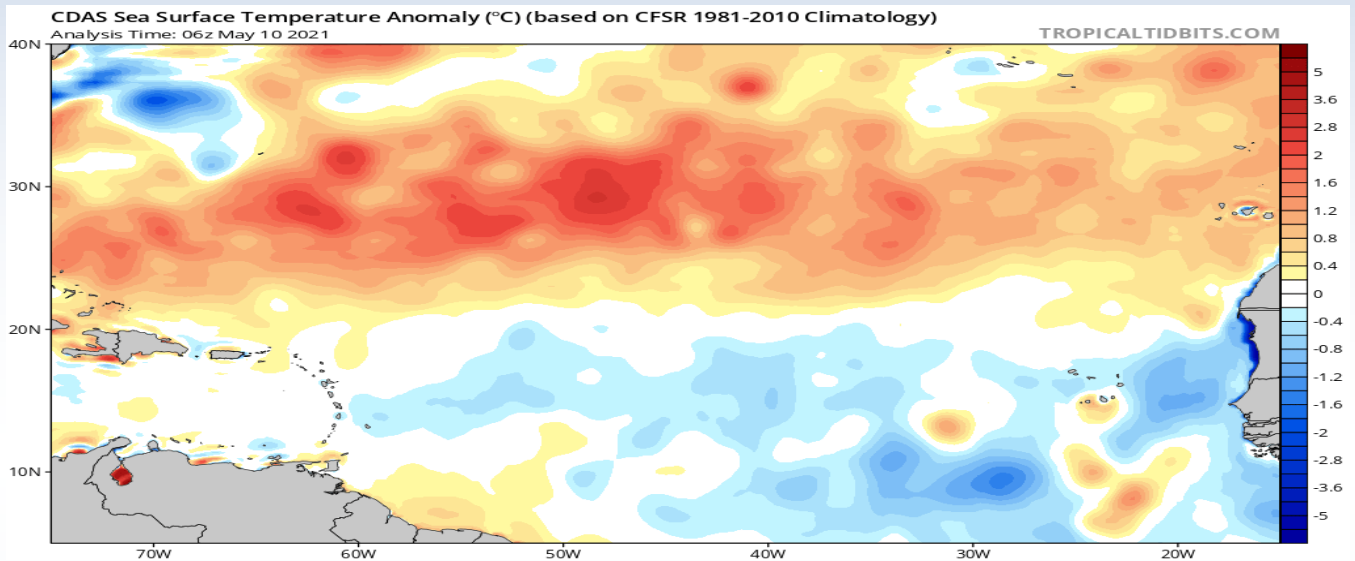
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid April, sea surface temperatures (SST) in the east-central Pacific were roughly 0.4 degree Celsius below average, which reflects cold-neutral to marginal La Nina conditions and most key atmospheric variables are consistent with weakening La Nina conditions.

Majority of the forecast models predict SSTs to return to normal this season and to remain in place throughout the rest of 2021 though a La Nina Advisory remains in effect. The models are also indicating a slight increased in the probability of the re-emergence of La Nina in the Aug-Sept-Oct season.

SSTs have cooled somewhat to close to average in much of the Caribbean Sea and the Tropical North Atlantic and around 0.5°C above average in the sub-tropical North Atlantic. Models vary in forecasting whether SST anomalies decrease or increase across the Caribbean Sea through Aug-Sept-Oct. Continued warm SSTs throughout the Caribbean tend to contribute to above-average humidity, seasonal rainfall totals and reduced dry spell frequency and a potential earlier start of the wet season in the Lesser Antilles and the Guianas.



**Short term drought alert levels
at the end of July 2021**

Drought: No Concern by end of July

Presently, there are no major short term drought concerns across the region. However a drought watch is being considered for N. Bahamas, sections of Belize, western Cuba and the US Virgin Islands by the end of July 2021.

Dry conditions are likely to persist across St. Maarten through June however models are suggesting that dry conditions will be alleviated by the end of July.

Some of the things that can be done:

- * Keep updated on the situation;
- * Monitor areas that are noticeably dry for unexpected bush fires.
- * Monitor pond levels to avoid major fish kill;
- * Irrigate plants when necessary.
- * Shelter animals from excessive heat.

APRIL 2021 IN REVIEW

Total Rainfall	25.4 mm	1.0 in.
2021 Cumulative Rainfall	133.4 mm	45.3in.
Max. 24-Hr. Rainfall	21 st Apr.	5.4mm/ 0.2in.
No. Rain Days (≥1.0 mm)	7 days	
No. Heavy Rain Days (≥10.0 mm)	0 days	
No. Thunderstorm Days	2 days	
Avg. Wind Speed	8 kts.	9 mph
Max. Wind Gust	28 kts.	32 mph
Avg. Temperature	26.8°C	80°F
Max. Temperature	19 th Apr.	31.5°C / 89°F
Min. Temperature	12 th Apr.	22.3°C / 72°F

Long /Short Term Seasonal Review**Year in Review
(May. 2020— Apr. 2021)**

Total rainfall over the past twelve (12) months was below the normal range (957-1181mm). A total of 928mm/37in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review
(Feb-Mar-Apr. 2021)**

Total rainfall for the last three (3) months was 101.6mm/4inches, this amount was below the normal range (132-168mm). There was only 1 day with heavy rainfall (>10mm) during that period.

Generally, temperatures were within the normal range except for the maximum temperature which was above normal for the month of April 2021.

The average daily temperature for April was 26.8°C /80°F.

The warmest days were the 17th & 18th with an average temperature of 27.8°C/82°F.

The coolest day was the 28th with an average temperature of 25.4°C/78°F.

The day with the most sunshine hours was the 15th (11hrs:36min).

The day with the least sunshine hours was the 28th (5hrs:00min).

The windiest days were the 1st & 2nd, with a daily average wind speed of 12 kt./ 14 mph.

The day with the highest wind gust was the 21st with a gust of 28kt/32 mph.

Skies were partly cloudy for most of the time during the month of April.

There were seven (7) days with rainfall in April. None were heavy rainfall days.

The longest dry spell was 17 days from the 4th to 20th April.

**NORMAL
MAY CONDITIONS**

Rainfall Total	49 mm – 121 mm	2– 5 in.
Avg. No. of Rain days	10 days	
Daily Average Temperature	27.5°C	82°F
Avg. Max. Temperature	30.4°C	87°F
Avg. Min. Temperature	25.3°C	78°F
Avg. Daily Hours of Sunshine	8 hrs	

Implication of Forecast for Sectors

Energy/Water Sector

Energy demand for cooling purposes will gradually increase through this season as temperatures warm.

Tourism Sector

- Continue to observe all health protocols.
- UV index will be very high to extremely high on sunny days. Visitors should be encouraged to apply sunscreen lotion regularly, and seek shaded areas between the hours of 10 AM and 3 PM.

Health

- During this period, excessive exposure due to dangerous UV radiation can cause skin damage across the population, especially on sunny days and keep hydrated.
- The short term drought and associated increase in dust, as well as, potential soot and smoke from bushfires may contribute to higher concentrations of airborne particulate matter. Persons with respiratory illnesses should remain alert.

Agriculture

- Employ water management techniques such as irrigation scheduling and mulching; install water-saving devices.
- Shelter livestock from excessive heat.
- Monitor for bush fires.

The 2021 Atlantic Hurricane Season

The 2021 Atlantic Hurricane Season is quickly approaching . Here a some changes to consider....

Firstly, beginning with this year's hurricane season outlooks, NOAA's Climate Prediction Center (CPC) will use 1991-2020 as the new 30-year period of record. The updated averages for the Atlantic hurricane season have increased with **14 named storms and 7 hurricanes**. The average for major hurricanes (Category 3, 4 or 5) remains unchanged at 3. The previous Atlantic storm averages, based on the period from 1981 to 2010, were 12 named storms, 6 hurricanes, and 3 major hurricanes.

Secondly, Hurricane Committee members agreed to create a supplemental list of names A-Z (excluding Q, U, as well as X, Y, and Z on the Atlantic list) that would be used in lieu of the Greek alphabet when the standard list is exhausted in a given season. Names on this list could be retired and replaced, when required.

Lastly, although the Atlantic Hurricane season officially begins on June 1st, it is not uncommon for tropical cyclones to form on or prior to that date. To provide more consistent information on the potential for late May and early June systems, the National Hurricane Center (NHC) will now begin the routine issuance of the Atlantic Tropical Weather Outlook at 8 a.m. EDT on May 15 2021.

2021 ATLANTIC HURRICANE SEASON

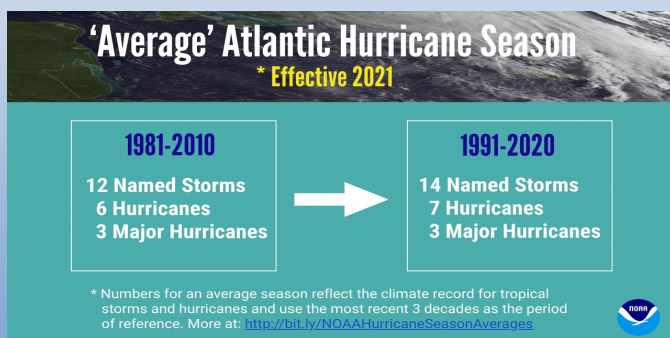
STORM NAMES

- | | | |
|-------------|------------|----------|
| • Ana | • Henri | • Odette |
| • Bill | • Ida | • Peter |
| • Claudette | • Julian | • Rose |
| • Danny | • Kate | • Sam |
| • Elsa | • Larry | • Teresa |
| • Fred | • Mindy | • Victor |
| • Grace | • Nicholas | • Wanda |

2021 ATLANTIC HURRICANE SEASON

SUPLIMENTARY LIST STORM NAMES

- | | | |
|-----------|-----------|------------|
| • Adria | • Heath | • Orlanda |
| • Braylen | • Isla | • Pax |
| • Caridad | • Jacobus | • Ronin |
| • Deshawn | • Kenzie | • Sophie |
| • Emery | • Lucio | • Tayshaun |
| • Foster | • Makayla | • Viviana |
| • Gemma | • Nolan | • Will |



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