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Meteorological Department

St. Maarten

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Weather & Climate

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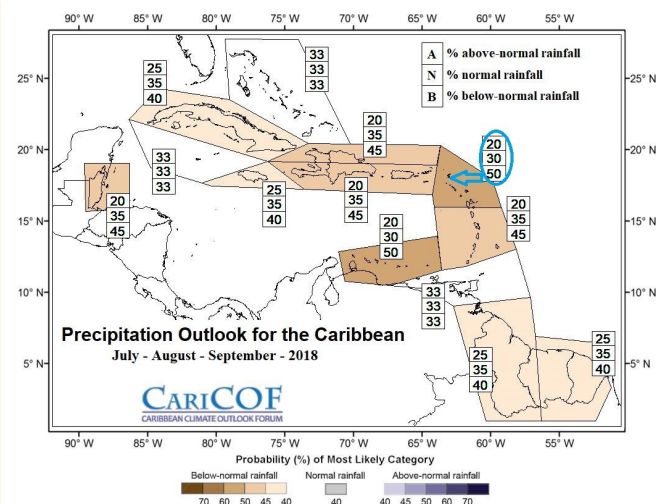
Seasonal Outlook for July to September (JAS) 2018

Rainfall Forecast

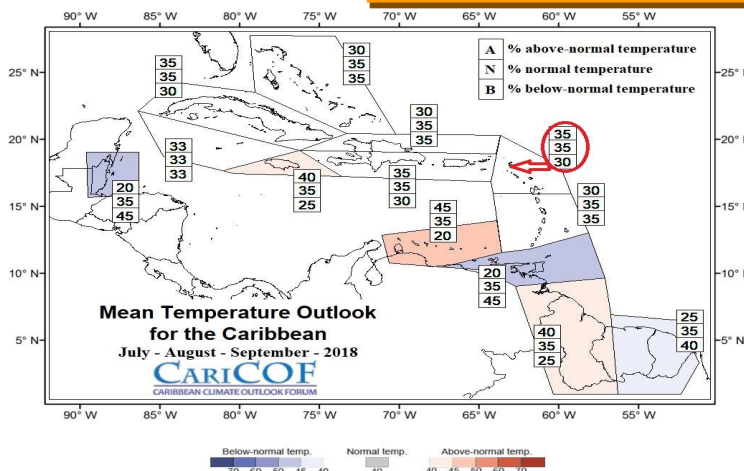
It is forecast that for the Jul-Aug-Sept season, rainfall is likely to be the usual or drier across the entire region. The forecast is for the possibility of 2 to 5 wet spells and up to 3 very wet spells within that period.

Within the 92 days of Jul-Aug-Sept, the normal rainfall total for St. Maarten ranges from 264 mm – 349 mm/ 10-14 in. with about 33-49 wet days. July to August is usually wet with a mid-summer dry spell and in September there is usually more frequent showers.

This season rainfall totals and number of wet days are likely to be lower than usual.



Temperature Forecast



Temperatures for both day and night across the Caribbean are likely to be cooler than in most recent years, except in Guyana nights are expected to be warmer and in the ABC Islands both day and night temperatures expected to be warmer.

In St. Maarten, temperatures for both day and night are expected to be warm but cooler than in most recent years.

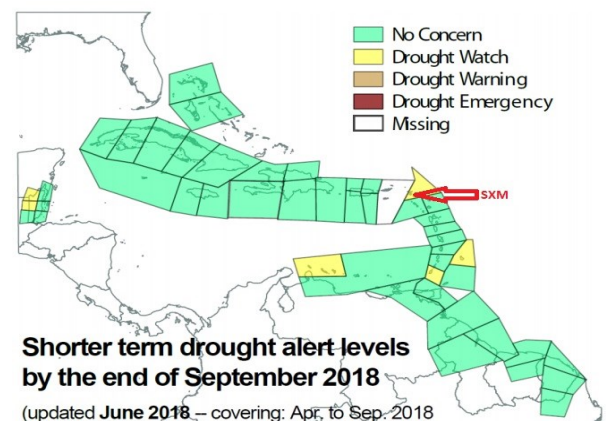
Drought Forecast

The latest drought forecast for the Caribbean is issuing a drought watch for the northern Leeward Islands, Barbados, Grenada, and western Belize.

Lower than usual rainfall is anticipated across the Caribbean for the next three months therefore drought is becoming a concern in some areas in the short term.

With this latest forecast drought is becoming a concern in St. Maarten over this season. (Jul-Aug-Sept.)

Current Outlook



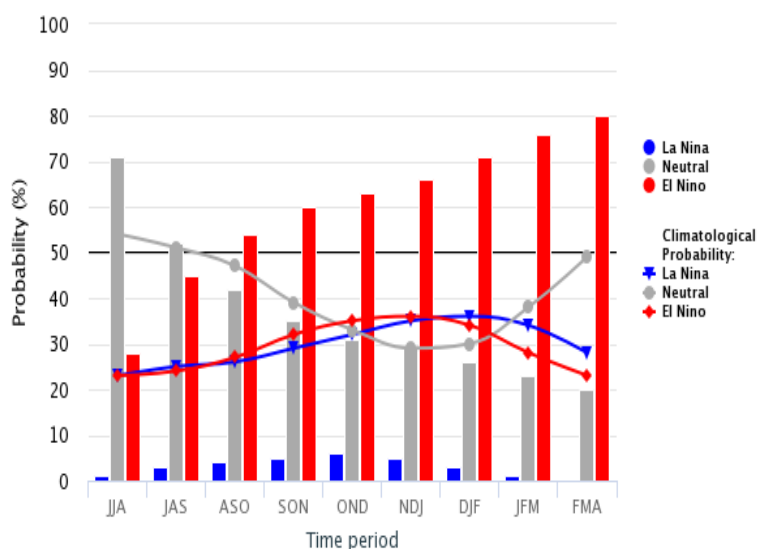
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

ENSO FORECAST

(El Niño Southern Oscillation)

Mid-Jun IRI/CPC Model-Based Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C



In mid June 2018, the east-central tropical Pacific waters reflected Enso-neutral conditions. The subsurface water temperatures continued to be above average and this strengthened further during May.

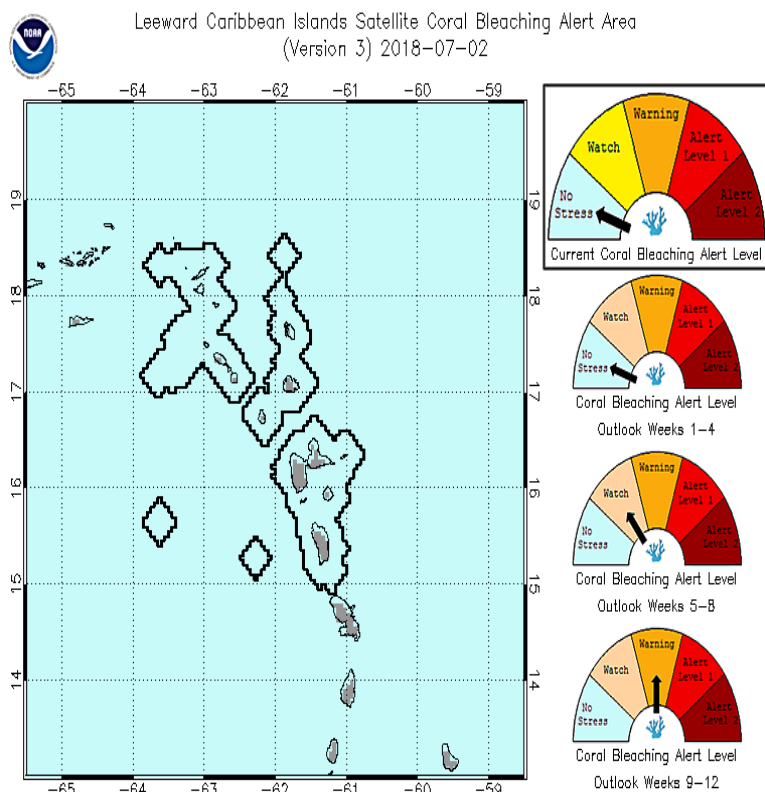
A majority of ENSO Predicting Models are calling for neutral conditions to continue through this season (Jul-Aug-Sept.) and for a weak El Niño to develop by the Aug-Sept-Oct (ASO) season continuing through early 2019.

If El Niño manifests by ASO, the rainfall in the **northern Caribbean** is expected to increase, while a reduction in rainfall totals will be expected in the **southern Caribbean** as well as decrease the possibility of late-season hurricane activity.

No Thermal Stress Concern for Corals.

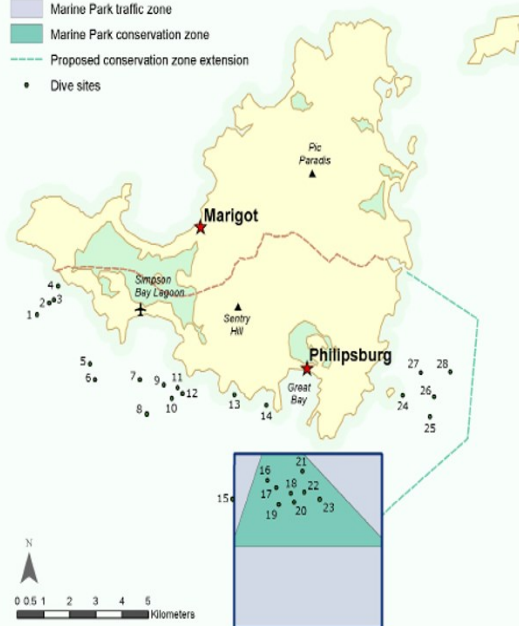
Presently sea surface temperatures (SST) around the Leeward Islands and St. Maarten are about 27.8°C (82°F). This is slightly above average for this time of year however, temperatures still remain below the bleaching threshold (29.3°C/85°F).

As a result no thermal stress on corals is expected at this time. Low thermal stress is possible by the 2nd week of August and alerts will be issued thereafter.



Legend

- "Man of War Shoal" Marine Park
- Marine Park traffic zone
- Marine Park conservation zone
- Proposed conservation zone extension
- Dive sites



St Maarten 'Man of War Shoal' Marine Park.

Photo compliments: Nature Foundation St. Maarten.

Total Rainfall	12.8 mm	0.5 in.
2018 Cumulative Rainfall	301.9 mm	11.9 in.
Max. 24-Hr. Rainfall	June 22nd	4.9 mm/ 0.2 in.
No. Rain Days (≥1.0 mm)	3 days	
No. Heavy Rain Days (≥10.0 mm)	0 days	
No. Thunderstorm Days	0 day	
Avg. Wind Speed	10 kts.	12 mph
Avg. Temperature	28.1 °C	83 °F
Max. Temperature	Jun. 15th	31.6 °C / 89 °F
Min. Temperature	Jun. 8th	24.9°C / 77 °F

Rainfall for the month of June was below the normal range (40-66mm). A total of 12.8 mm/ 0.5 of an inch was recorded in only three (3) rain days. There were no heavy rainfall days in June. This was the driest month within the past 2 years. June 2016 was drier ; a total of 6.4mm was recorded.

The 2018 Atlantic Hurricane Season

The Colorado State University (CSU) released an update to its May forecast on July 2nd. It is now predicting 11 named storms, 4 hurricanes and 1 major hurricane. The National Oceanic & Atmospheric Administration (NOAA) will update its 2018 predictions early August. Latest predictions are now tending to a near normal to below normal season this year. An average season produces 12 named storms, 6 hurricanes and 3 major hurricanes.

Currently, sea surface temperatures averaged over the tropical Atlantic are the coldest that they have been in the middle of June since at least the early 1980s. At this time last year, tropical Atlantic sea surface temperatures were the third-warmest since 1982. This may lead to a less active season.

However, as we move closer to the peak of the season (Aug. to Oct.) we should not let our guards down, dangerous systems can also develop in less active seasons. Remember, that it takes only one major hurricane to make landfall on our island to make it an active season for us therefore being prepared and well informed is key.

Maximum temperature for the month of June was near normal. Average daily and minimum temperatures were lower than usual.

The warmest day was the 29th with an average temperature of 28.8°C/84°F.

The day with the most sunshine hours was the 1st & 5th (11hrs :24min).

The day with the least sunshine hours was the 22nd (2hrs:06 min).

The longest dry spell was thirteen (13) days from June 9th to 21st.

The windiest day was the 11th , with a daily average wind speed of 13 kts. / 15 mph.

Skies were cloudy and hazy most of the time.

Year in Review (Jul. 2017– June 2018)

For the last 12 months rainfall has been below the normal range. December, March and June were below normal while November and February were above the normal range. Overall there is a deficit in the amount of rainfall.

Seasonal Review (Apr–May –Jun 2018)

Total rainfall for the last 3 months was 134.3 mm this amount was below the usual range (156-253mm). There were only three (3) days with slightly heavy rainfall during the last three (3) months. These last 3-months were drier than the same period in 2017 but not as dry as 2016.

Occasional showers were produced by shallow clouds drifting with the brisk trade winds. Small craft /high surf advisories were issued due to long period swells and strong winds.

2018 Atlantic Storms Names

Alberto	Helene	Oscar
Beryl	Isaac	Patty
Chris	Joyce	Rafael
Debby	Kirk	Sara
Ernesto	Leslie	Tony
Florence	Michael	Valerie
Gordon	Nadine	William

The month of June has been very quiet in terms of storm formation in the Atlantic Basin. Tropical Storm Beryl formed July 5th in the central Atlantic. The next named storm will be Chris.

Summary of Forecast for July to September 2018

- Rainfall totals are expected to be lower than usual.
- Both daytime and night-time temperatures are expected to be warm but slightly cooler than in most recent years.
- A drought watch has been issued for the St. Maarten and the rest of the northern Leeward Islands.
- No thermal stress on coral expected until the beginning of august, alerts will then be issued.

Implication of Forecast for Sectors

Health

- High temperature with increasingly humid air across the region increases the chances of heat waves towards August.
- There will be an increase in the risk of dehydration during the next 3 months which may present other associated symptoms such as weakness, dizziness, fainting etc.
- As temperatures increase vulnerable persons are to be monitored as the risk of morbidity from heat stress increases.
- Persons with allergies/ respiratory illnesses should take necessary precaution during Saharan dust events.

Energy Sector

- Need for power for cooling will continue to increase this season as day-time and night-time temperatures are expected warm.

Tourism Sector

- Fewer disruptions to outdoor activities as drier than usual conditions are expected this season.
- Increase demand for cooling & hydration particularly during the day-time hours.
- Tourists are encouraged to use sunscreen and seek shaded areas between the hours of 10am to 3pm to avoid risk of skin damage on sunny days.
- We are in the hurricane season; Tourism operators should monitor all advisories/ warnings issued by the Meteorological Department.

Agriculture

- Drier than usual season is forecast therefore expect increased surface dryness and dry spells.
- Put irrigation plans in place and monitor for brush fires.

NORMAL JULY CONDITIONS

Rainfall Total	63.4 mm – 106.4 mm	3– 4 in.
Avg. No. of Rain days	13 days	
Daily Average Temperature	28.6°C	83°F
Avg. Max. Temperature	31.9°C	89°F
Avg. Min. Temperature	26.2°C	79°F
Avg. Daily Hours of Sunshine	8 hrs	

Things you should know.....

Tropical cyclones are classified according to their maximum sustained winds in 3 main groups, namely: Tropical Depression, Tropical Storm, and Hurricane.

1. Tropical Depression	<38mph
2. Tropical Storm	39-73mph
3. Hurricane	74+mph

Once cyclones attain hurricane status, they are categorized using the Saffir-Simpson Scale which is based on a 1-5 rating.

Category	Wind Speeds
1	74-95 mph
2	96-110 mph
3	111-129 mph
4	130-156 mph
5	157+ mph