



# TROPICAL UPDATE



5 PM EDT

Monday, August 26, 2019

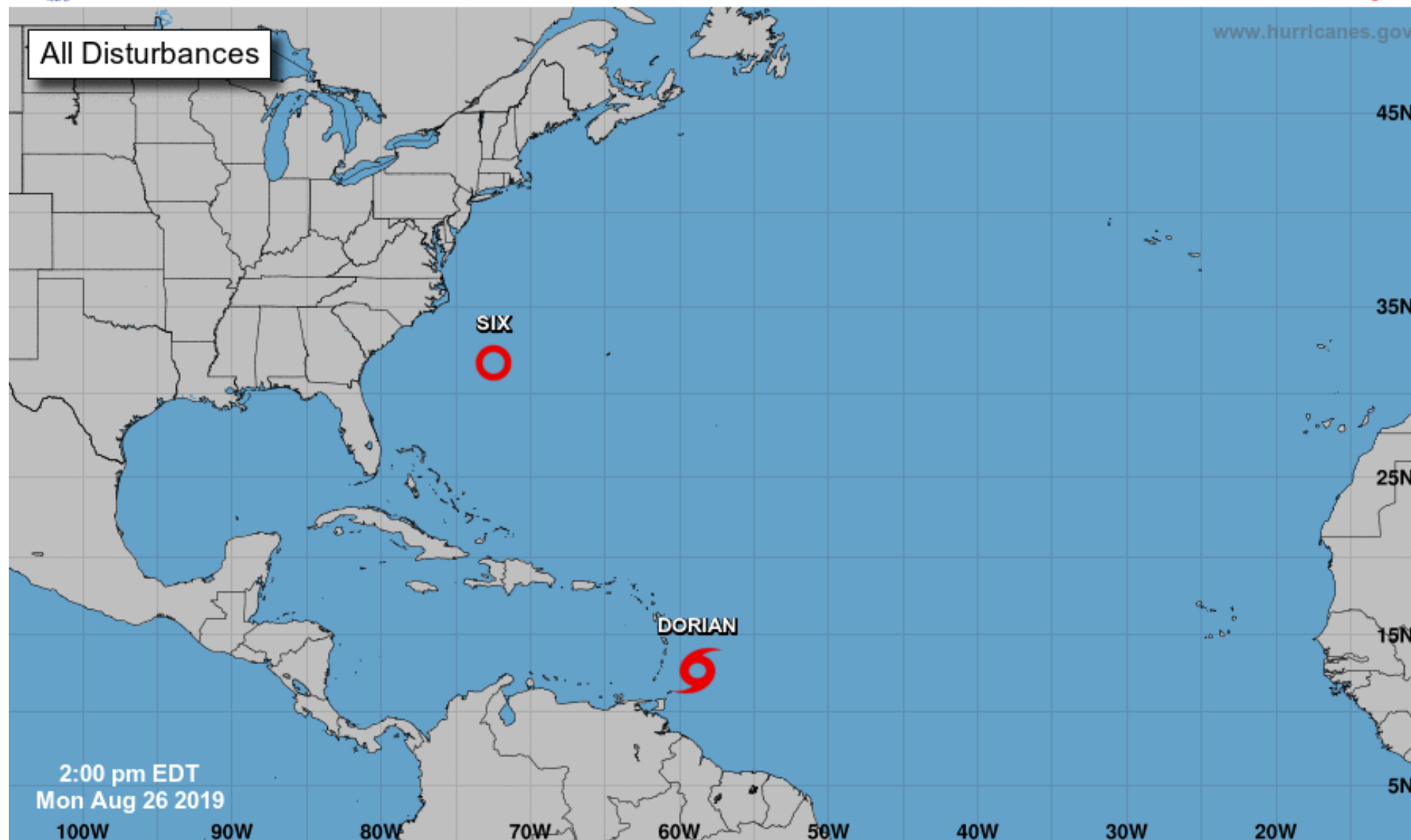
Tropical Storm Dorian  
& Tropical Depression Six

This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office, or visit the National Hurricane Center website at [www.hurricanes.gov](http://www.hurricanes.gov).



# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Current Disturbances and Five-Day Cyclone Formation Chance:

✕ < 40%

✕ 40-60%

✕ > 60%

Tropical or Sub-Tropical Cyclone:

○ Depression

⚡ Storm

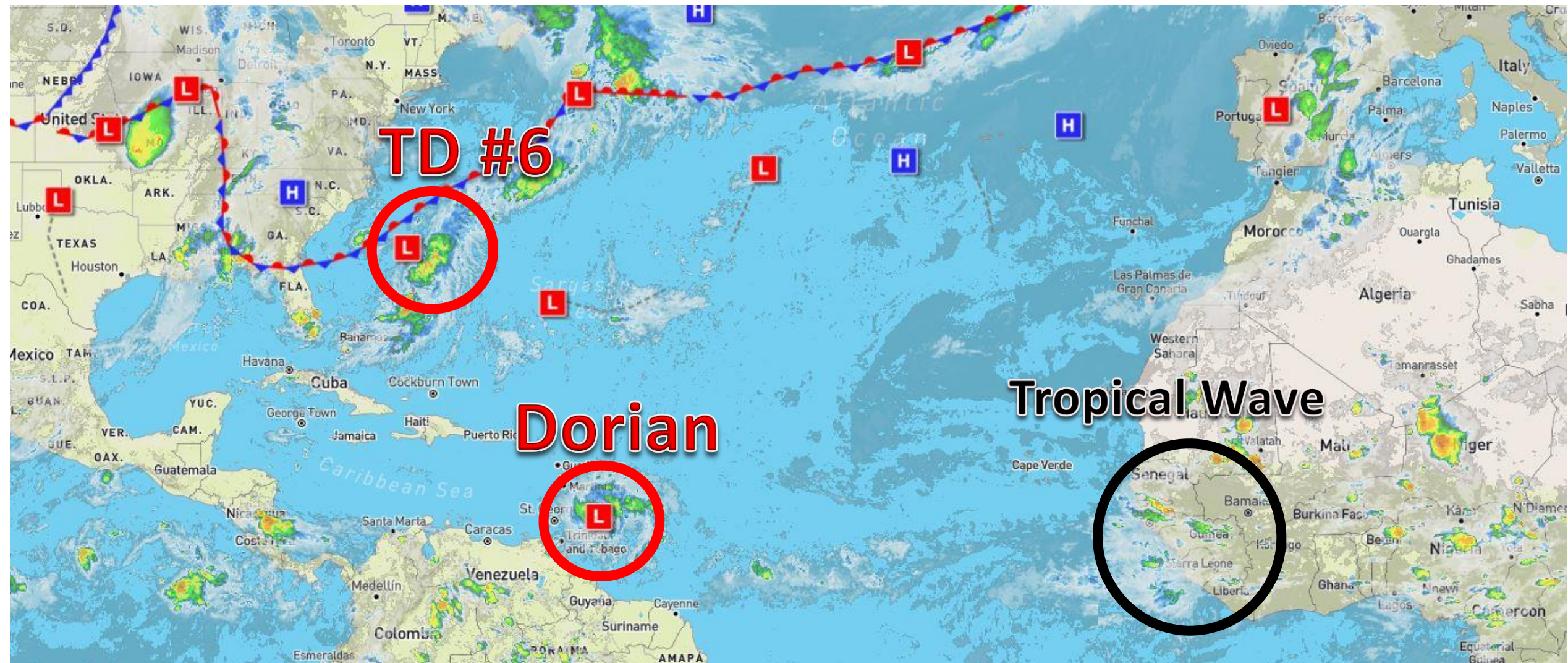
⚡ Hurricane

⊗ Post-Tropical Cyclone or Remnants



# Atlantic Basin Satellite Image

Chance of development: — None    — Low    — Medium    — High

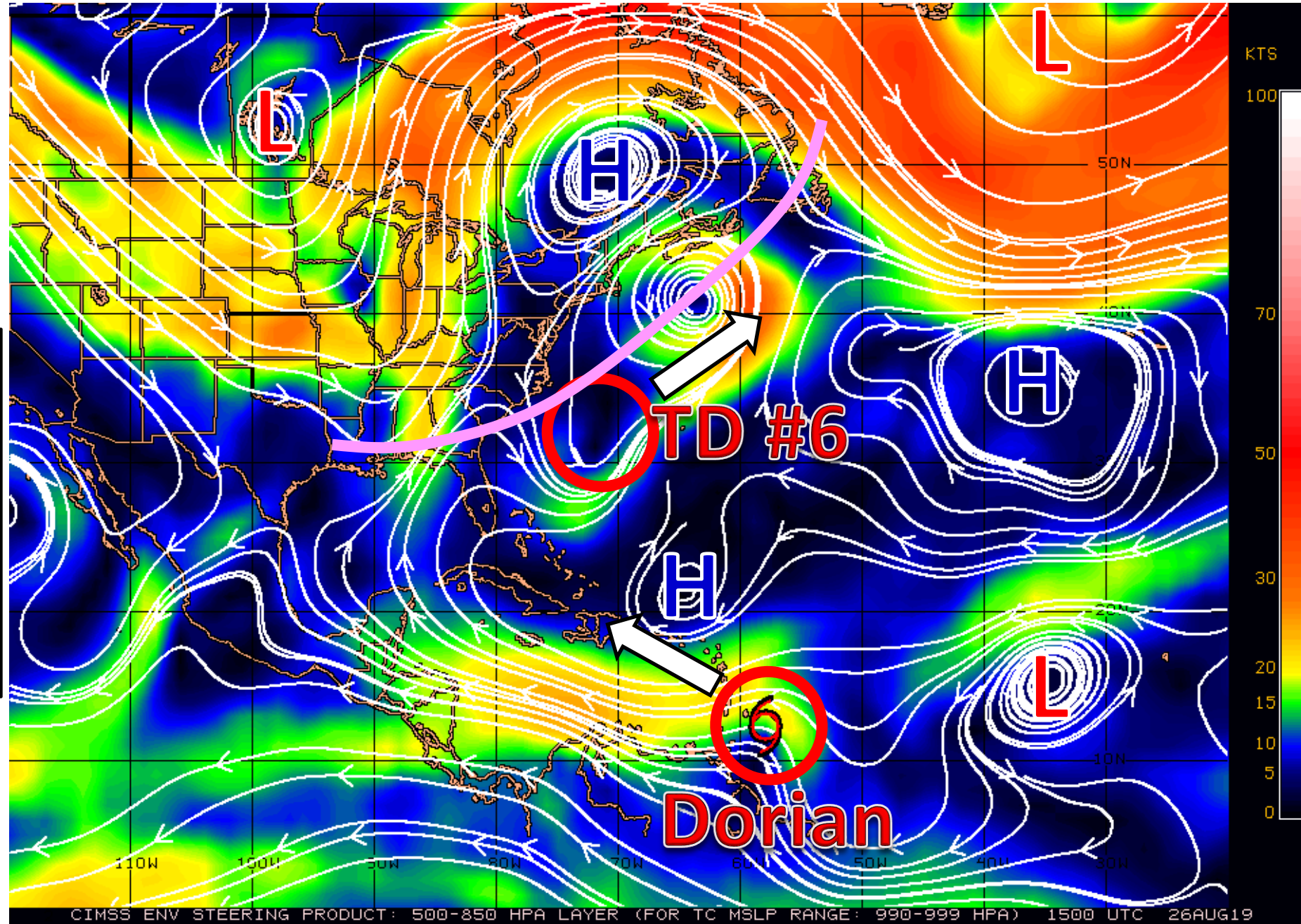




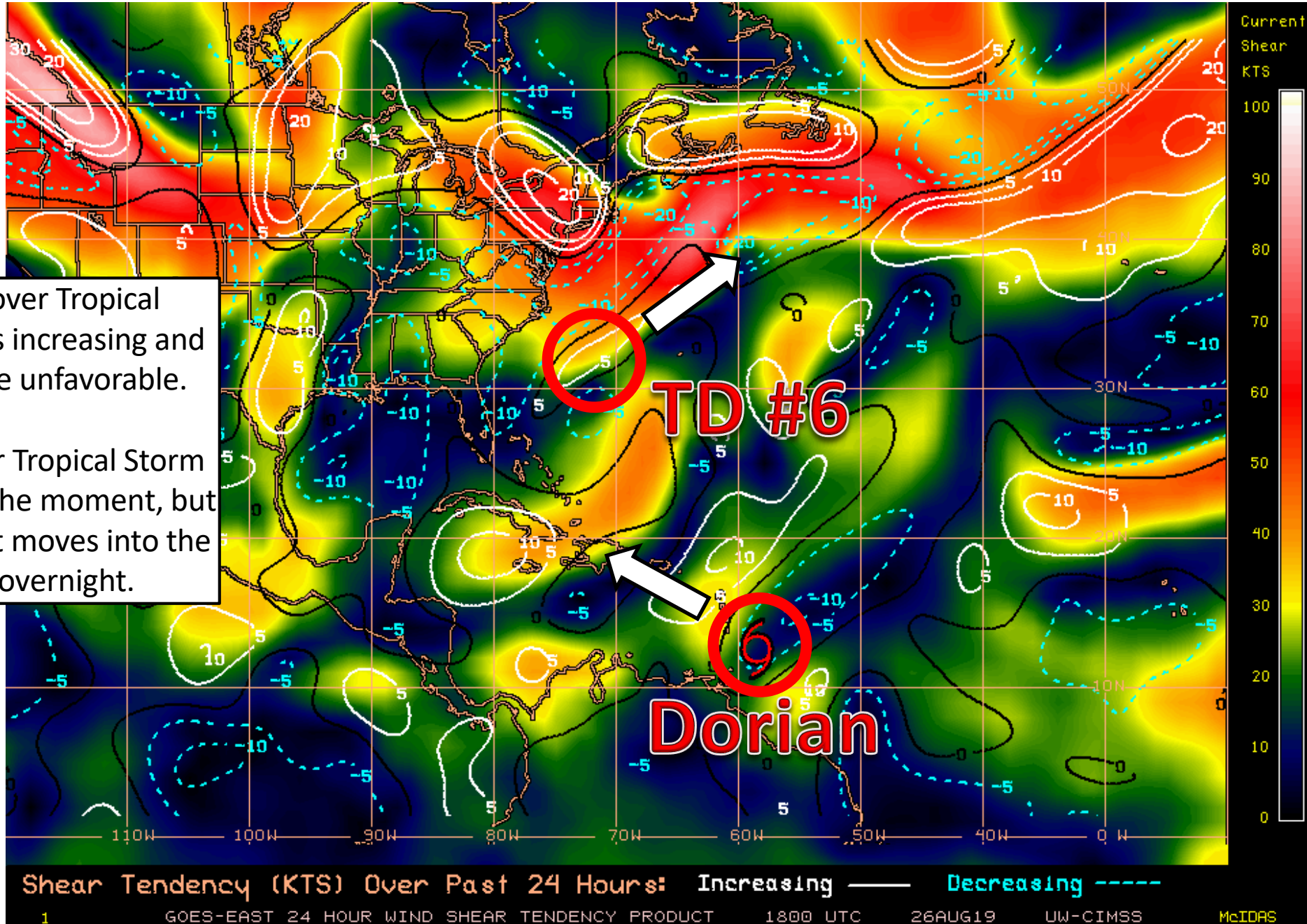
# Steering Currents

Tropical Depression Six, well offshore of the FL East Coast, will move northeastward ahead of a cold front (pink line).

Dorian will move west-northwestward around the southern edge of a large Atlantic high pressure system.

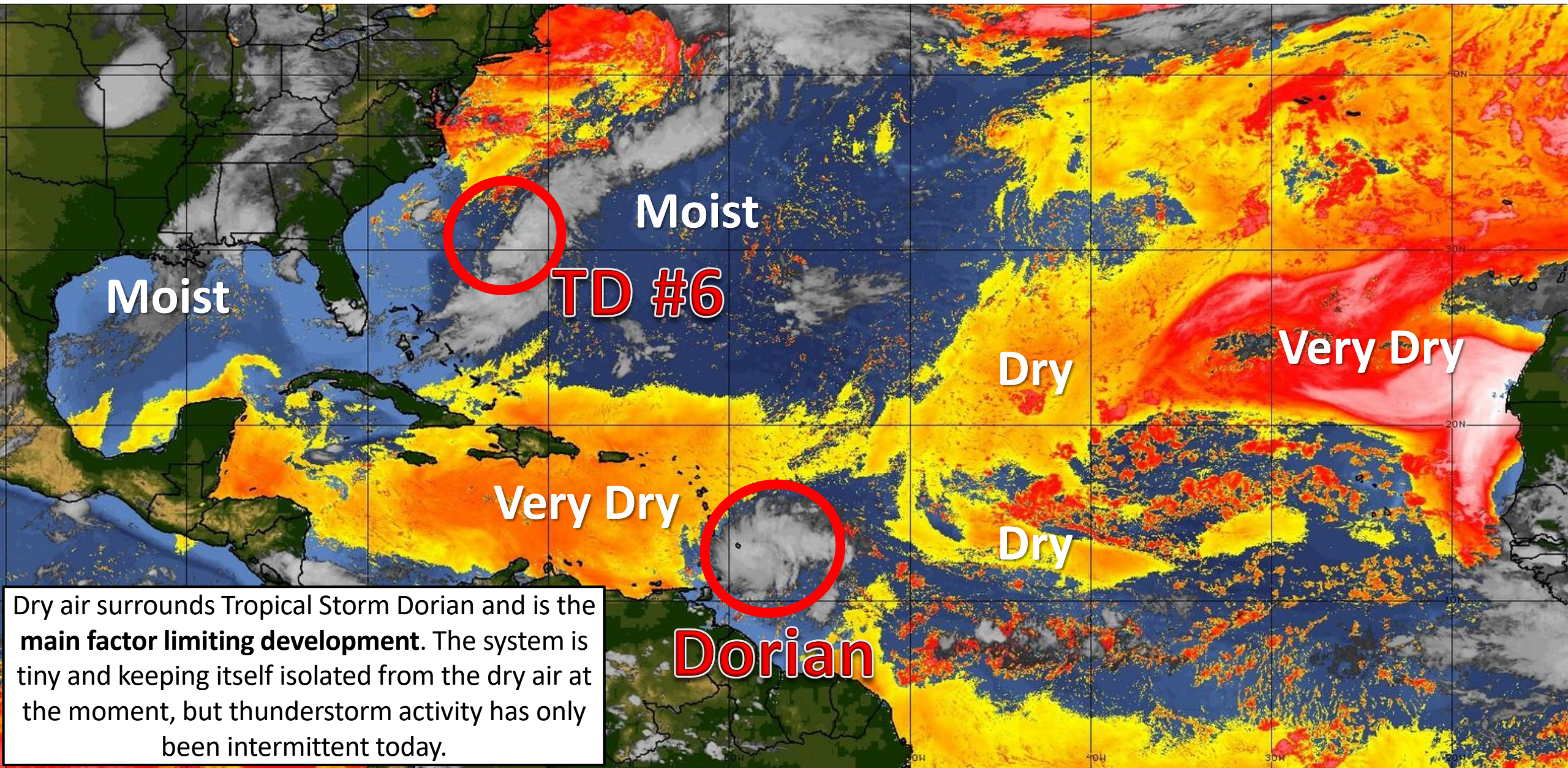


# Wind Shear (shaded) and Wind Shear Tendencies (contoured)





# Dry Air & Saharan Dust



Moist

Moist

TD #6

Dry

Very Dry

Very Dry

Dry

Dorian

Dry air surrounds Tropical Storm Dorian and is the **main factor limiting development**. The system is tiny and keeping itself isolated from the dry air at the moment, but thunderstorm activity has only been intermittent today.

LESS <----- DRY AIR (LOW/MID-LEVEL) AND/OR DUSTY SAL AIRMASS -----> MORE

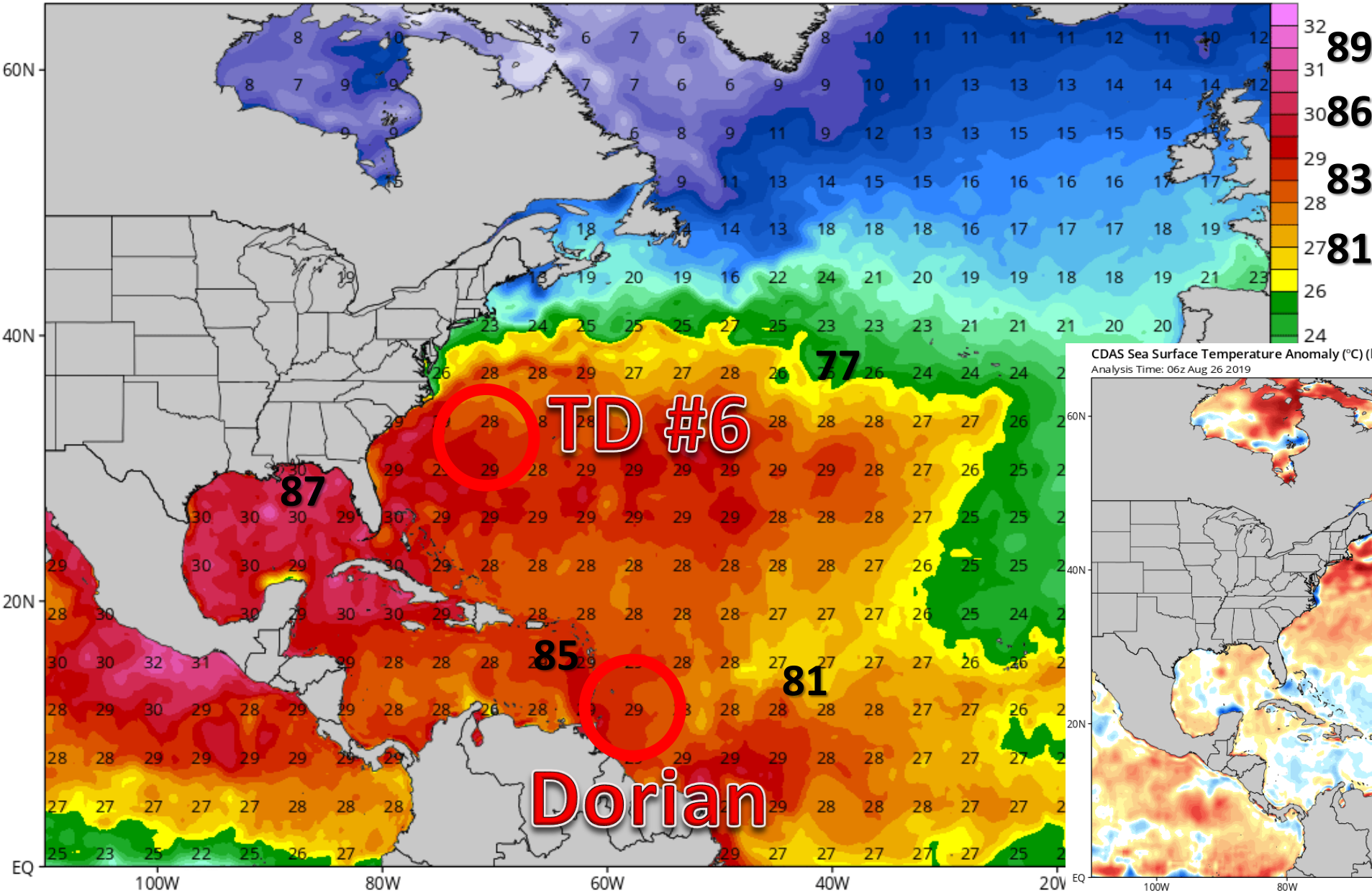


# North Atlantic Sea Surface Temperatures and Anomalies

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Aug 26 2019

TROPICALTIDBITS.COM

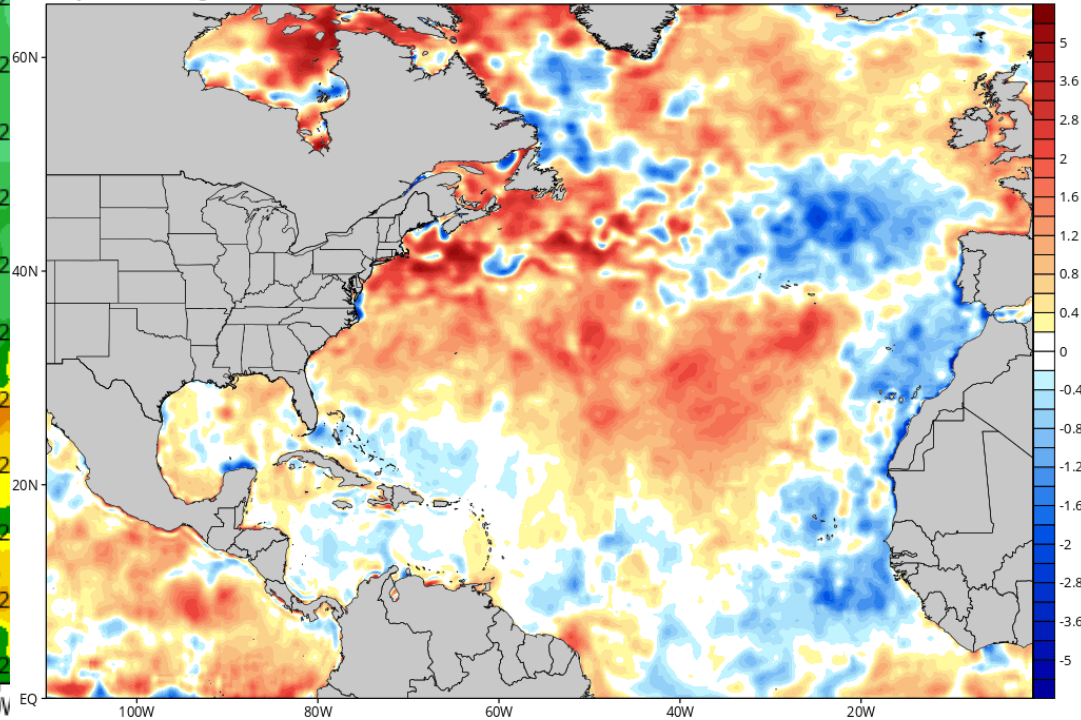


Water temperatures near and ahead of TD #6 and Dorian are warm enough to support tropical development. Water temperatures will be warming as Dorian travels west. Temperatures are near normal for this time of year in the Caribbean.

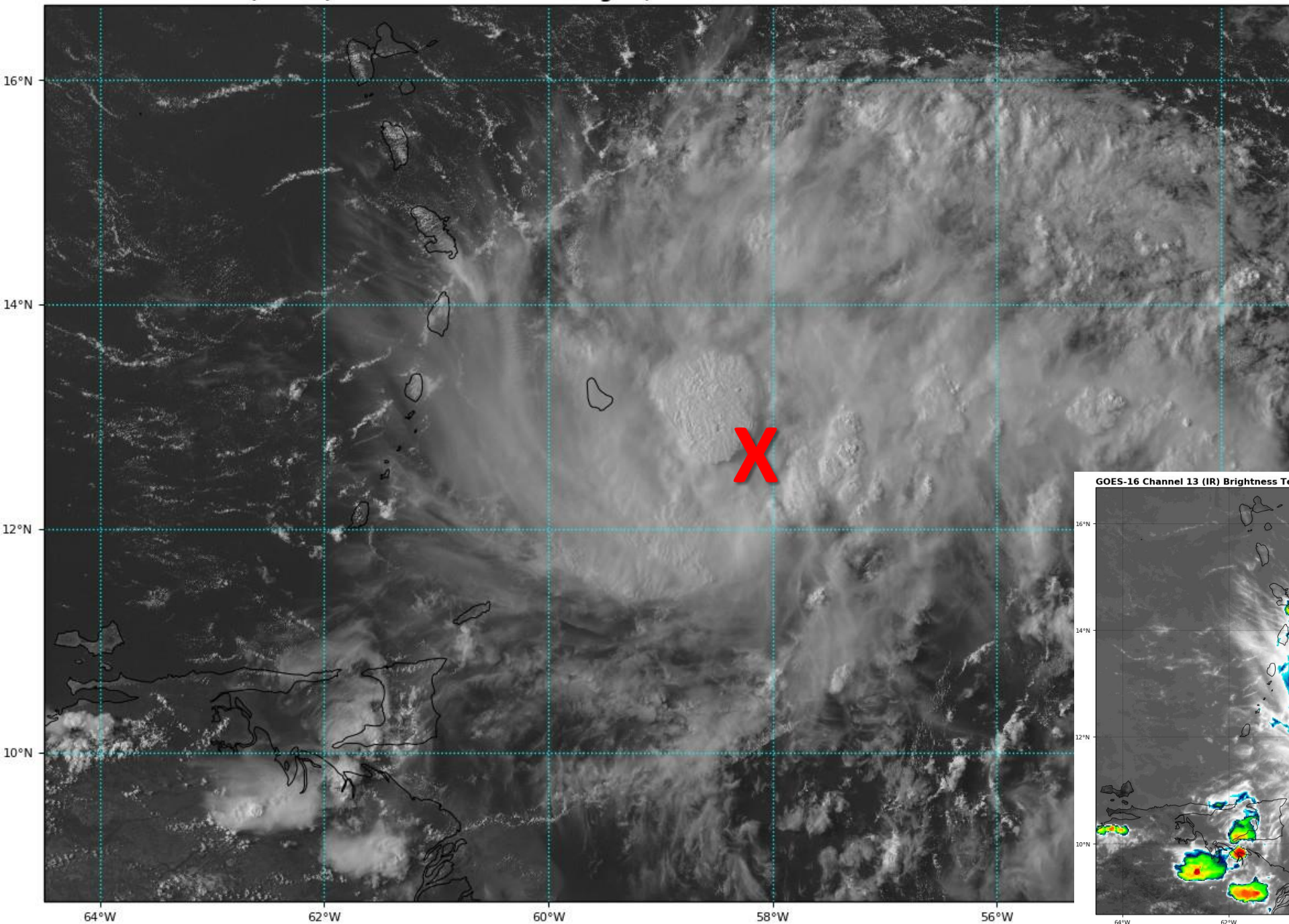
CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

Analysis Time: 06z Aug 26 2019

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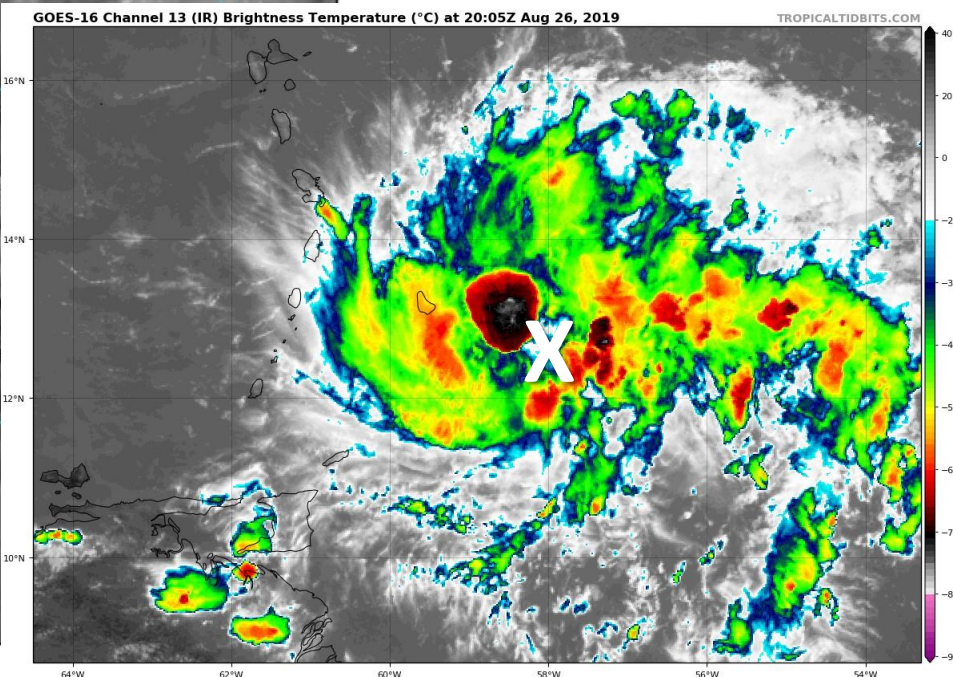




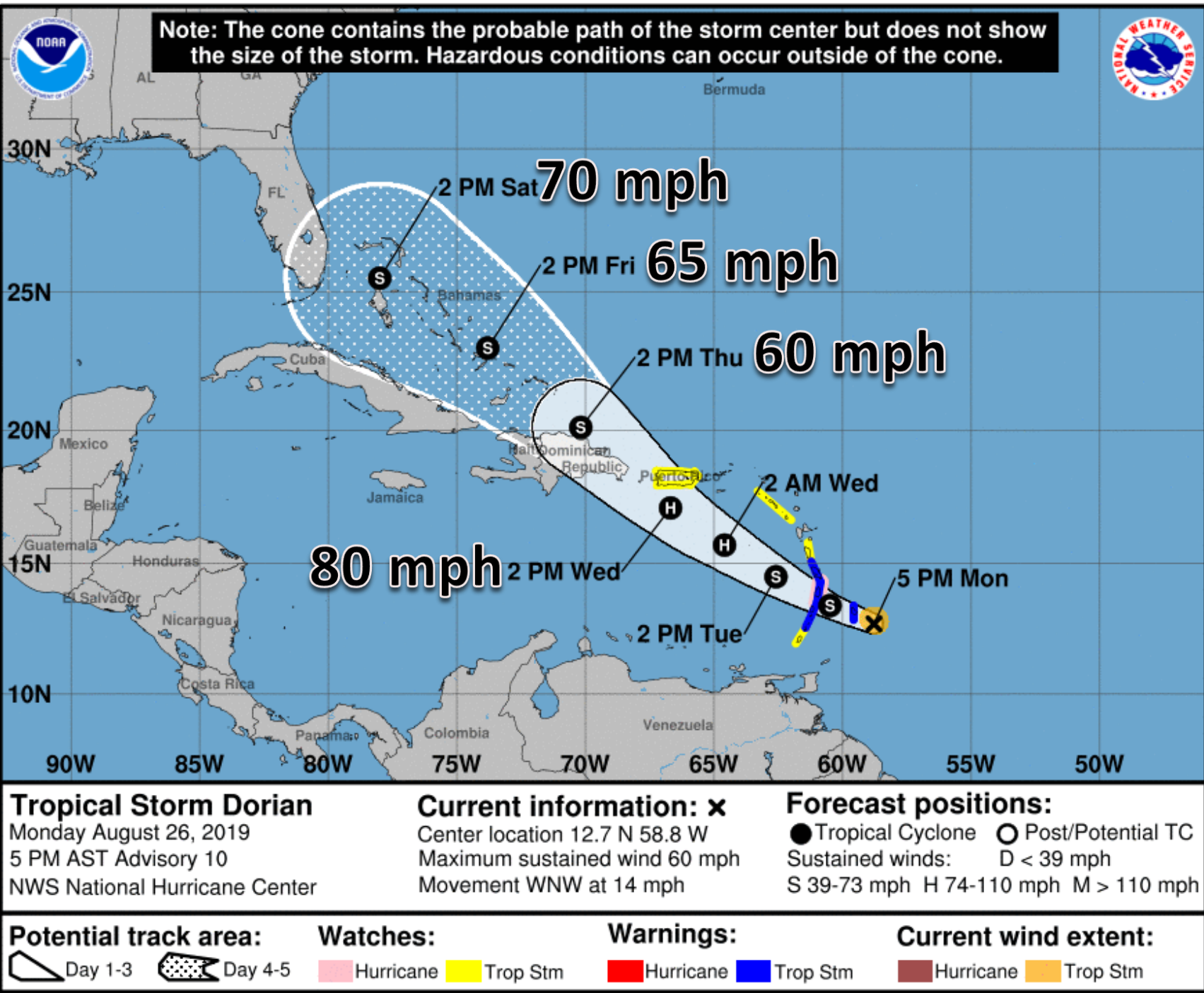


# Tropical Storm Dorian Satellite Image

Tropical Storm Dorian continues to fight off dry air. Thunderstorms from this morning dissipated, but new thunderstorm development has just started near the center.







# Tropical Storm Dorian Forecast Track

Tropical Storm Dorian continued to the west-northwest, moving at 14 mph. Dorian is expected to turn toward the northwest tomorrow.

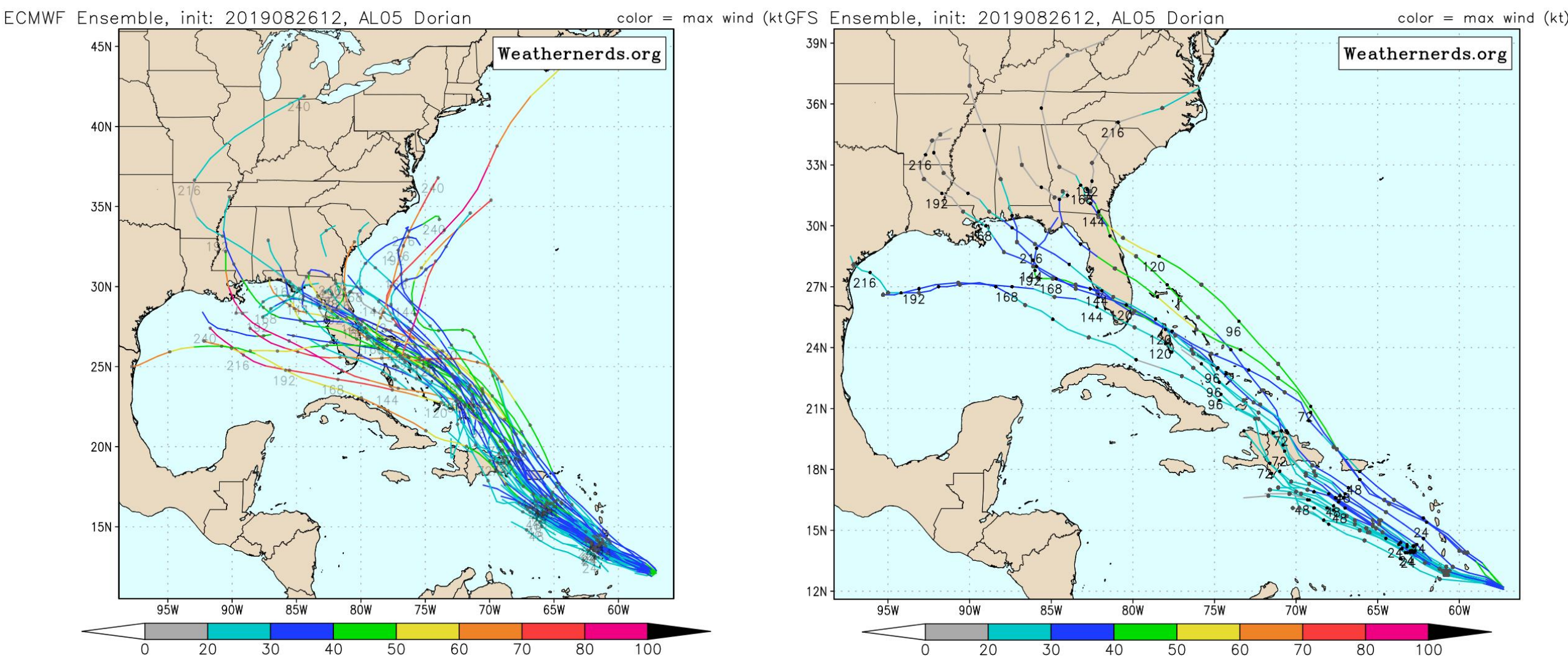
Maximum sustained winds remain at 60 mph. Further strengthening is forecast, and Dorian is forecast to become a hurricane by Tuesday night in the eastern Caribbean.

Land interaction and unfavorable upper-level winds will likely weaken the system mid-week, but **re-strengthening is forecast in the Bahamas.**



# Current Forecast Ensemble Model Guidance

There is a wide spread in solutions for the track and strength of Dorian later this week. How Dorian emerges after passing over or near Hispaniola and the timing and strength of a cold front this weekend will be players in Dorian's eventual track. Each line is a possible model solution, with the color representing wind strength.

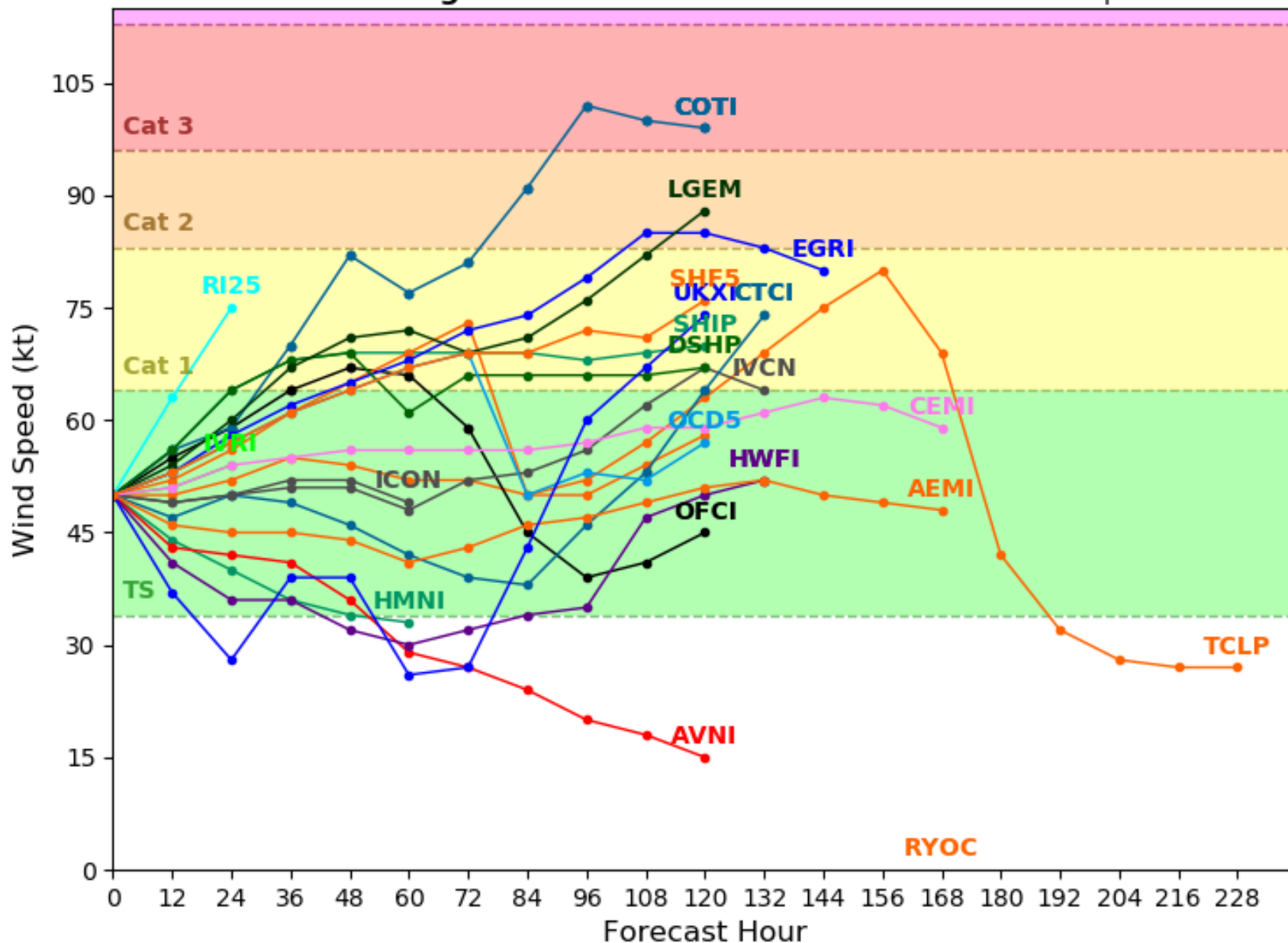




# Tropical Storm DORIAN Model Intensity Guidance

Initialized at 18z Aug 26 2019

Levi Cowan - tropicaltidbits.com



Intensity remains very uncertain for Dorian, both in the short-term and long-term. The small size of the system makes it more susceptible to rapid weakening from dry air and wind shear, but at the same time, can isolate itself from these factors and continue strengthening.

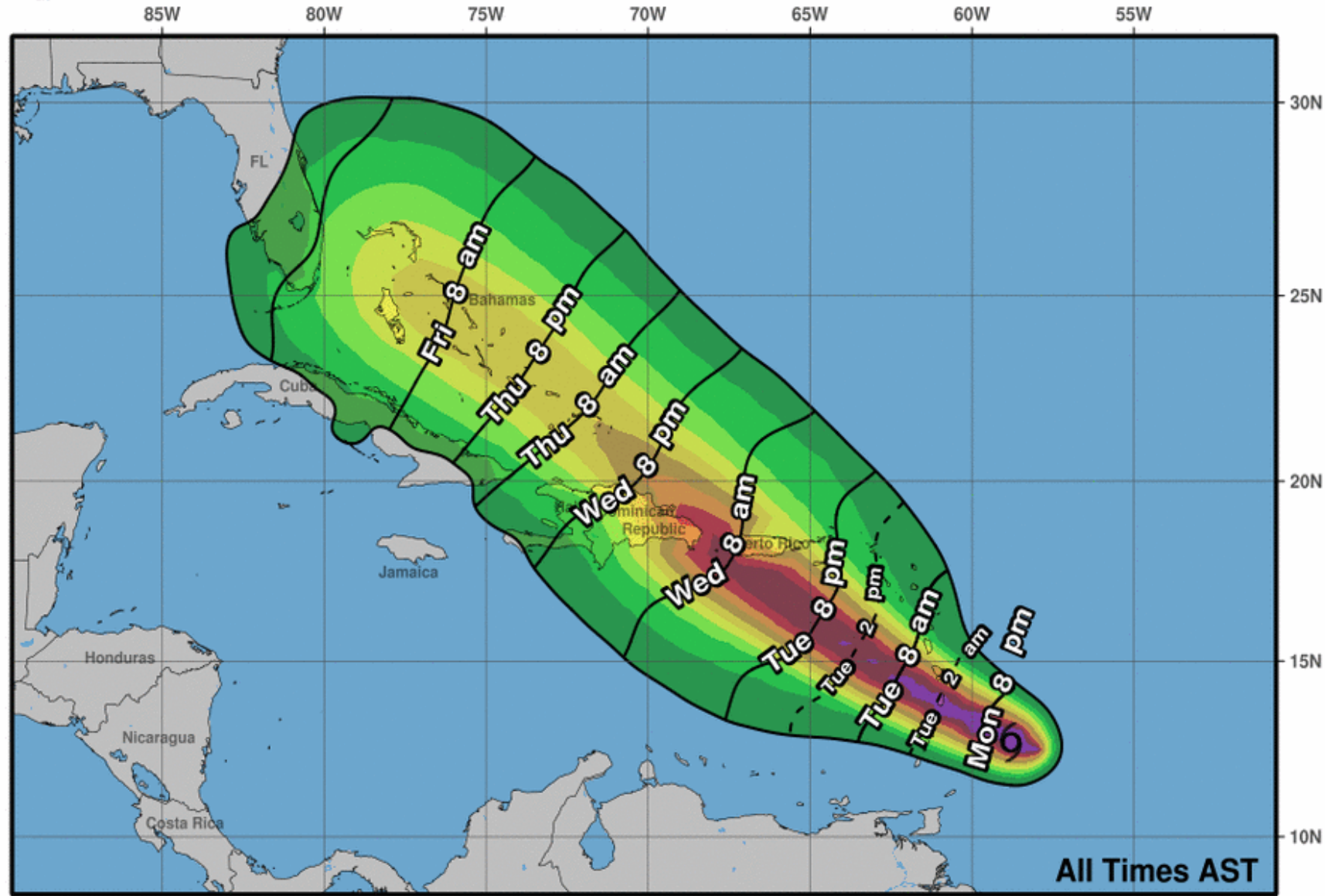
**Land interaction later this week with Hispaniola is the major factor with intensity uncertainty later this week in the Bahamas.**

Possible scenarios range from a remnant low to a hurricane in the Bahamas.





# Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Storm Watches have been issued for Puerto Rico.

**There are no watches or warnings for Florida.**

Chance of tropical storm forces winds:

- Orlando: 4%
- Naples: 6%
- Ft. Pierce: 16%
- West Palm Beach: 20%
- Ft. Lauderdale: 21%
- Miami: 12%
- Marathon: 13%

**Tropical Storm Dorian**  
**Mon. Aug. 26, 2019 5 pm AST**  
**Advisory 10**

Storm Location & Wind Speed  
○ < 34 kt (39 mph)  
○ 34-63 kt (39-73 mph)  
● ≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (39+ mph) winds  
5 10 20 30 40 50 60 70 80 90 100 %



# Key Messages for Tropical Storm Dorian

Advisory 10: 5:00 PM AST Mon Aug 26, 2019



1. Dorian is expected to bring tropical storm conditions to portions of the Lesser Antilles tonight and Tuesday, where tropical storm watches and warnings are in effect. Hurricane conditions are possible in St. Lucia, where a Hurricane Watch is in effect. Rainfall of 3 to 8 inches is expected from Martinique to St. Vincent, including Barbados, with isolated totals as high as 10 inches possible.

2. Tropical storm conditions are possible in Puerto Rico on Wednesday, where a tropical storm watch has been issued. Rainfall of 2 to 4 inches with maximum totals of 6 inches are possible across Puerto Rico and St. Croix.

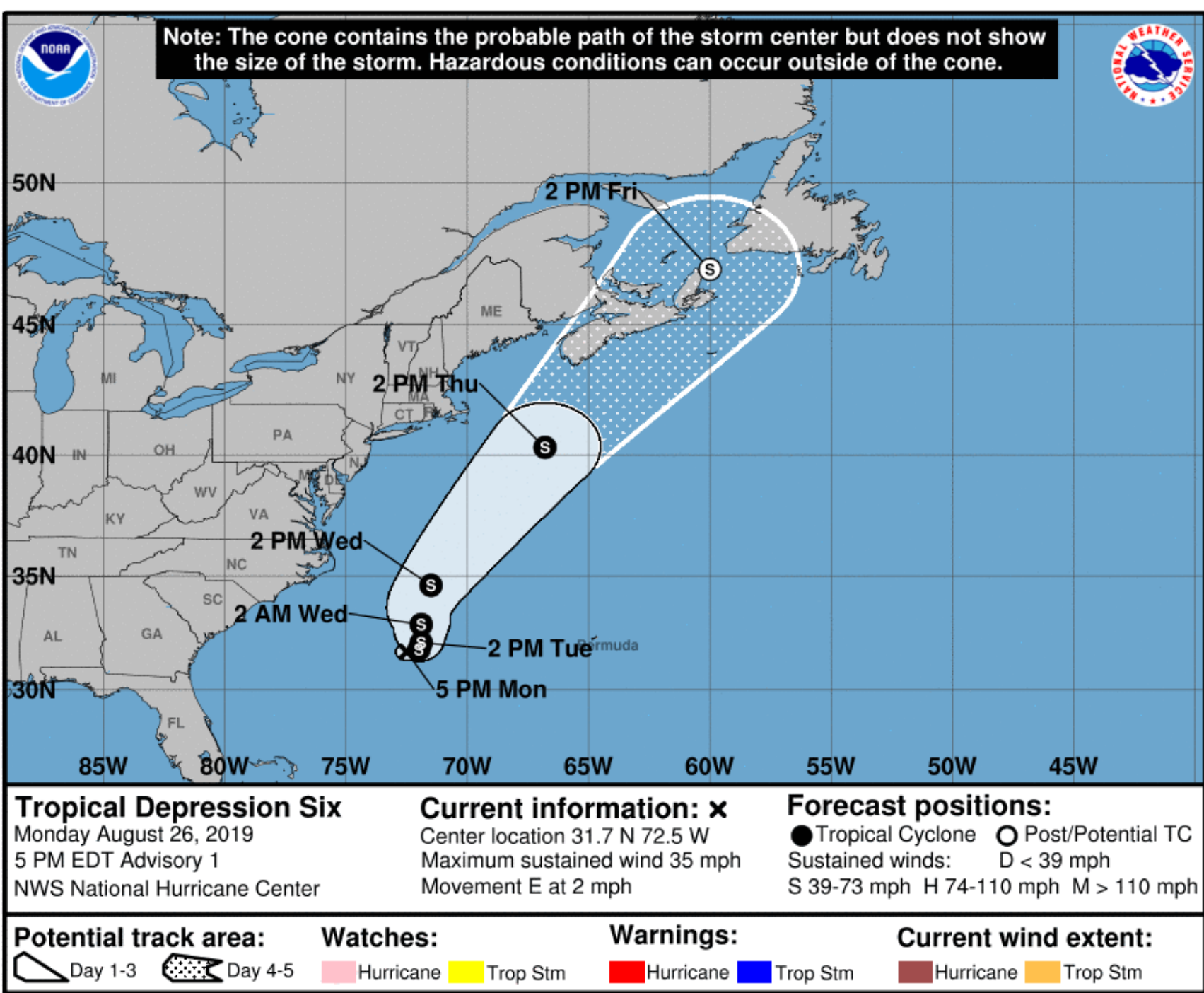
3. Watches will likely be issued for portions of Hispaniola tonight or Tuesday, as the threat of wind and rain impacts continues to increase.

4. While uncertainty is high, wind and rain impacts are possible in the Bahamas and Florida later this week and this weekend. Residents in these areas should monitor the progress of Dorian and ensure that they have their hurricane plan in place.



For more information go to [hurricanes.gov](https://hurricanes.gov)





# Tropical Depression Six Forecast Track

Tropical Depression Six is forecast to strengthen into Tropical Storm Erin by tomorrow afternoon before accelerating northeast in southeastern Canada.

**This system poses no threat to Florida.**

# Summary

## **Tropical Storm Dorian**

- Tropical Storm Dorian maintained strength today with periodic bursts of thunderstorms. However, dry air continues to prevent rapid intensification.
- As of the 5 PM ET advisory, maximum sustained winds remain at 60 mph. Slow but steady strengthening is forecast to continue for the next 24-36 hours. The tropical storm may become a hurricane Tuesday or Wednesday on it's approach to Puerto Rico and Hispaniola.
- Dorian is located about 60 miles east-southeast of Barbados and continues to the west-northwest at 14 mph. A turn to the northwest is expected tomorrow.
- Dorian will move through the Lesser Antilles tonight and Puerto Rico/Dominican Republic sometime Wednesday.
- This weekend, Dorian, or the remnants, will track through the Bahamas and near the Florida Peninsula.
- Any land interaction with Hispaniola is likely to significantly weaken the system. For Dorian to be a threat to Florida this weekend, it will need to avoid the mountainous islands.
- Hurricane Hunters will investigate the system tonight which will supply a better estimate of the storms intensity and structure.

## **Tropical Depression Six**

- The area of disturbed weather well off the East Coast of the United States, Invest 98L, developed a well defined circulation today. At 5 PM ET, advisories began on Tropical Depression Six.
- Tropical Depression Six is located 295 miles southeast of Cape Hatteras, NC and moving to the east at 2 mph.
- TD 6 will accelerate to the northeast by Wednesday after gaining strength into Tropical Depression Erin.
- TD 6 will become non-tropical on Friday over the cold waters of the North Atlantic.



## Florida Outlook:

- Tropical Depression Six well off the East Coast of the United States poses no threat to Florida.
- Tropical Storm Dorian does not pose a threat to Florida until Saturday.
- All of the Florida Keys, South Florida, and the Treasure Coast are now included in the 5-day forecast cone.
- To pose a significant threat to Florida, Dorian will need to reach the Bahamas with minimal land interaction with Puerto Rico, and the Dominican Republic.
- Current forecasts suggest conditions will be favorable in the Bahamas for re-strengthening of the system.
- Dorian is forecast be near hurricane strength as it approaches South Florida Saturday night.
- Details will become available on Wednesday once it can be seen how much land interaction Dorian will have with Puerto Rico and the Dominican Republic.
- **All locations in Florida should continue to monitor Dorian for possible impacts over the Labor Day Weekend.**
- **Given the unknown degree of interaction with Hispaniola, the intensity forecast at days 4 and 5 is of low confidence.**

The next tropics packet will be issued Tuesday morning. For the latest information on the tropics, please visit the National Hurricane Center website at [www.hurricanes.gov](http://www.hurricanes.gov). For the latest flood updates, see the latest products from your local National Weather Service, the [Southeast River Forecast Center](#), and the [Weather Prediction Center](#).



# TROPICAL UPDATE



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State Meteorological Support Unit

Florida Division of Emergency Management

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