



TROPICAL UPDATE



11 AM EDT

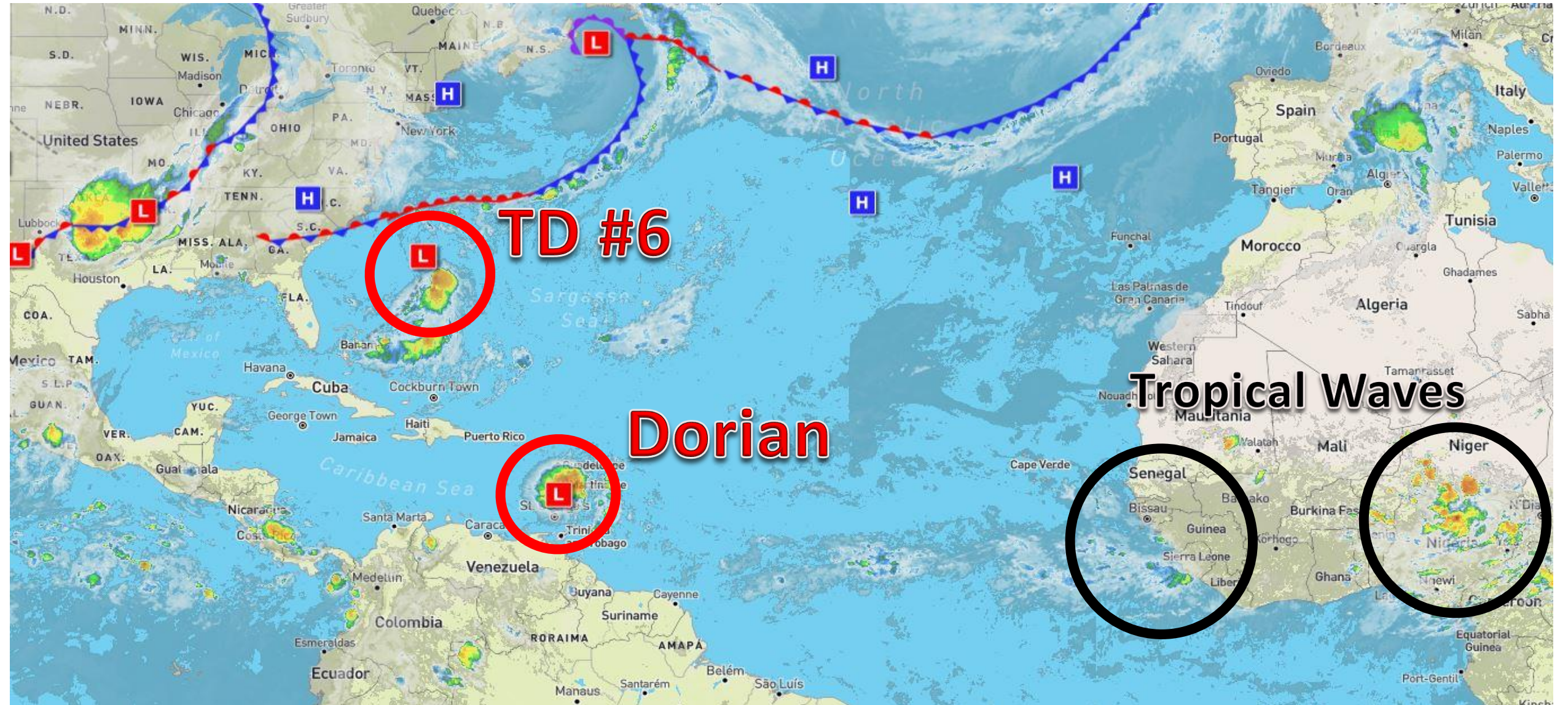
Tuesday, August 27, 2019

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.

Atlantic Basin Satellite Image

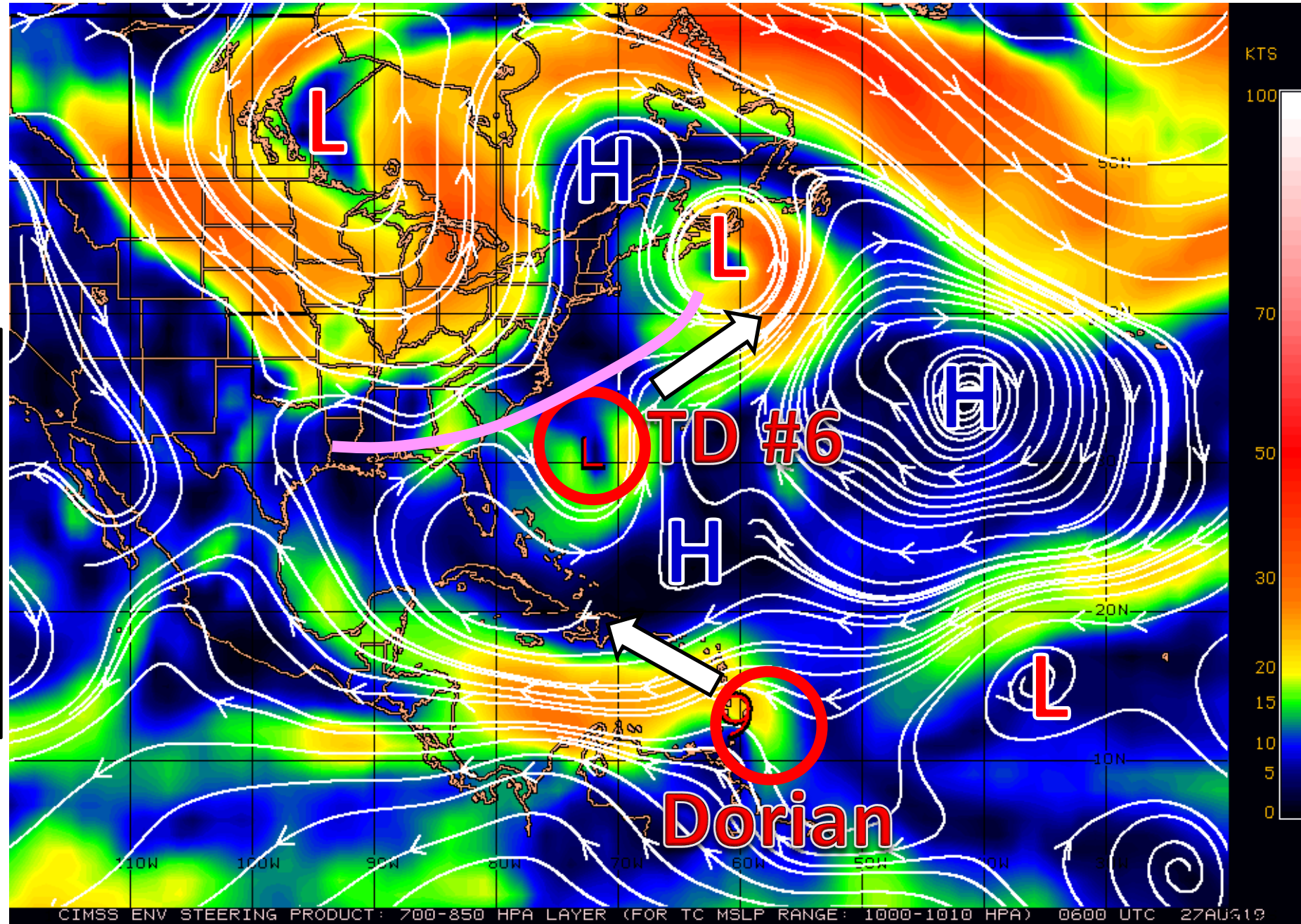
Chance of development: — None — Low — Medium — High



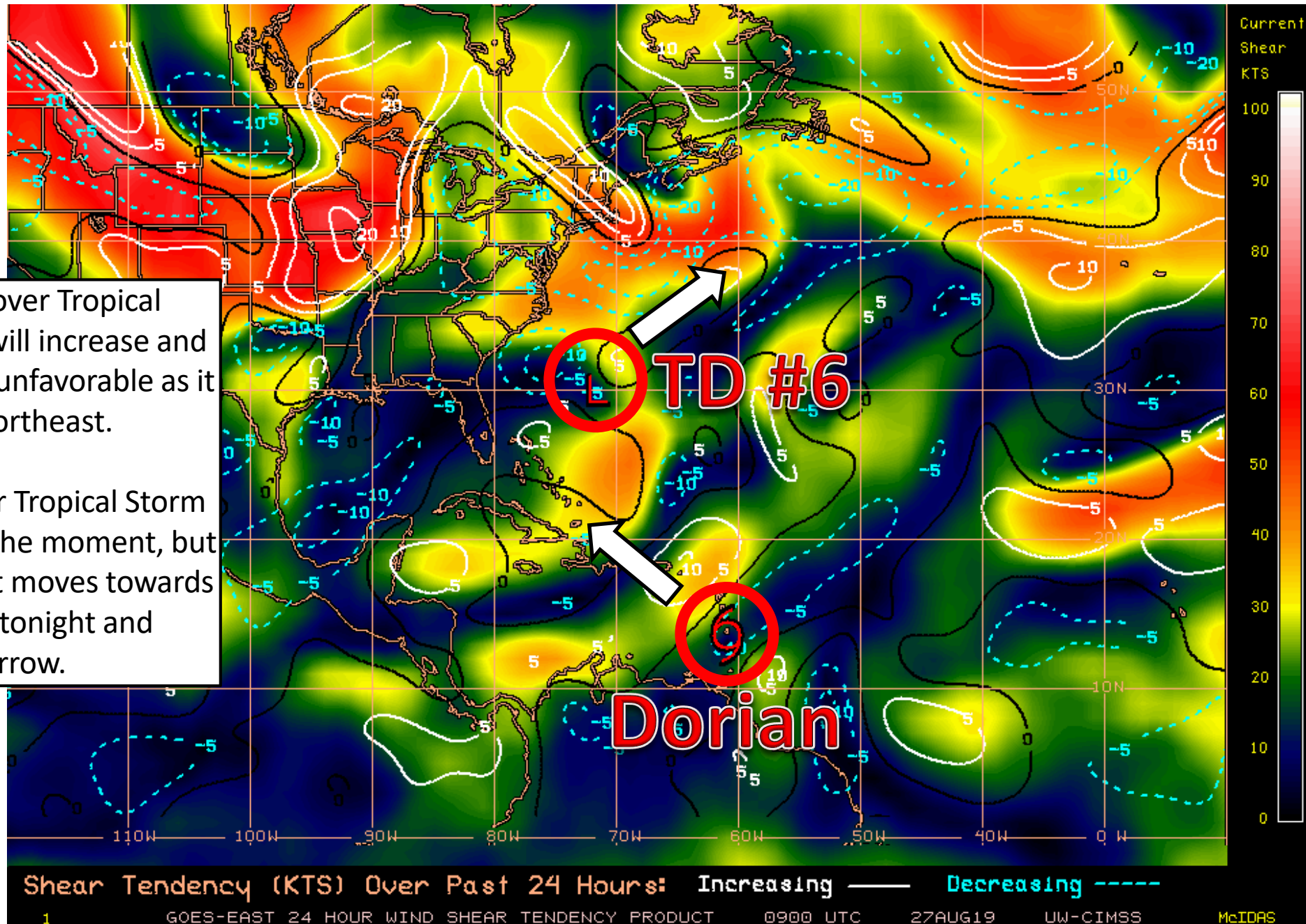
Steering Currents

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

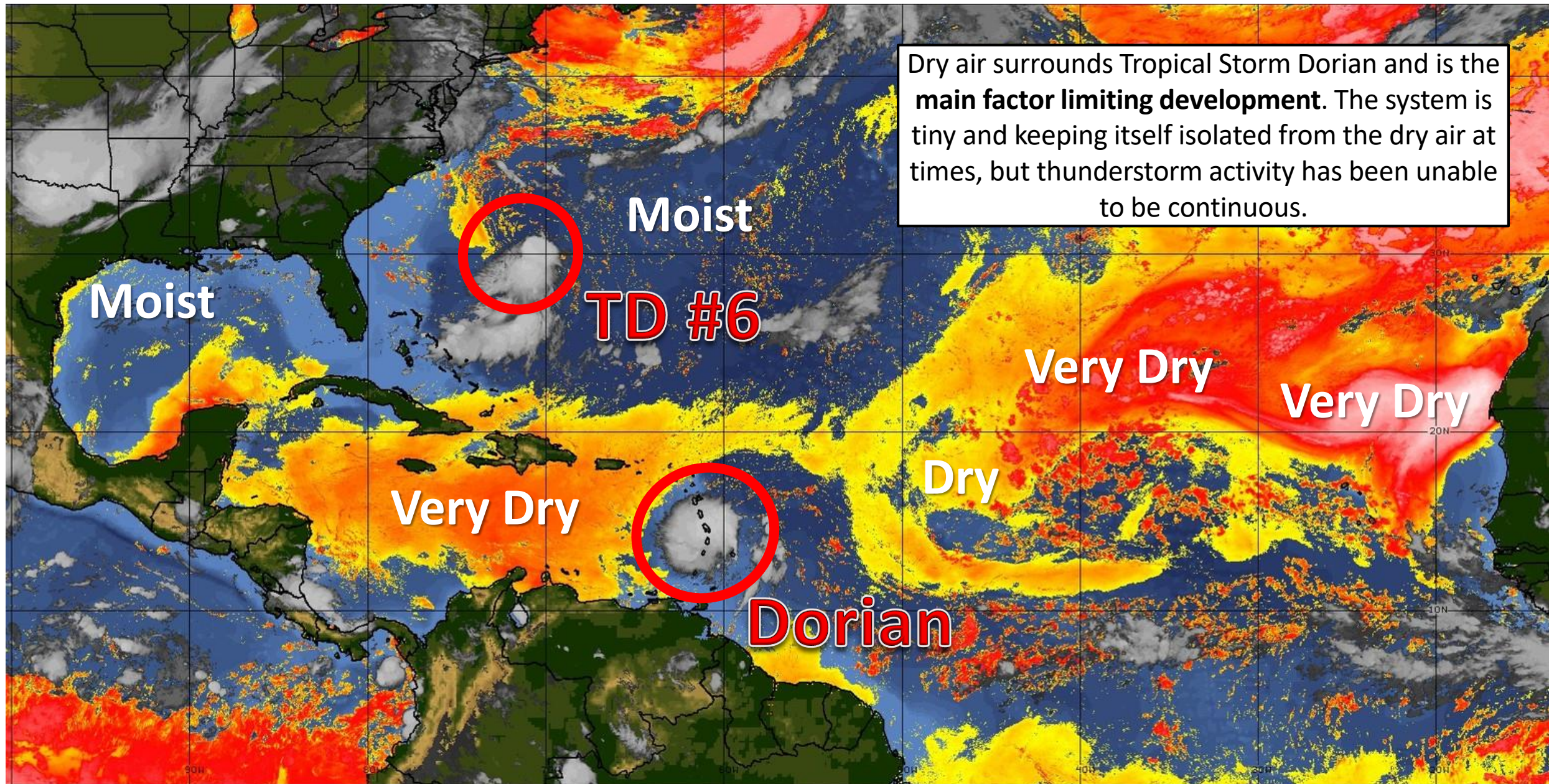
Dorian will move west-northwestward to northwest around the southern edge of a large Atlantic high pressure system.



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



Dry Air & Saharan Dust



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 times, but thunderstorm activity has been unable to be continuous.

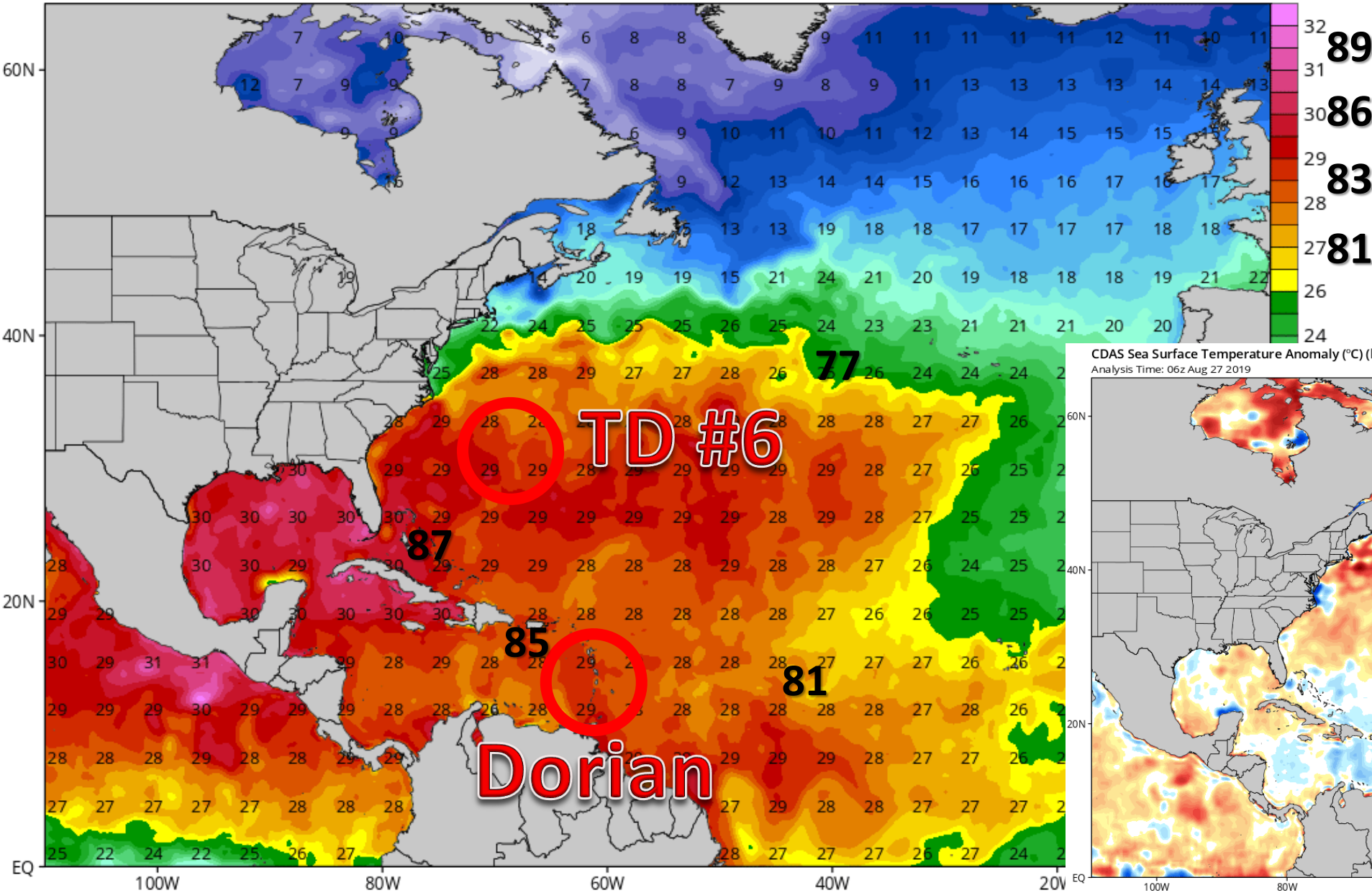
LESS <---- DRY AIR (LOW/MID-LEVEL) AND/OR DUSTY SAL AIRMASS ----> MORE

North Atlantic Sea Surface Temperatures and Anomalies

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Aug 27 2019

TROPICALTIDBITS.COM

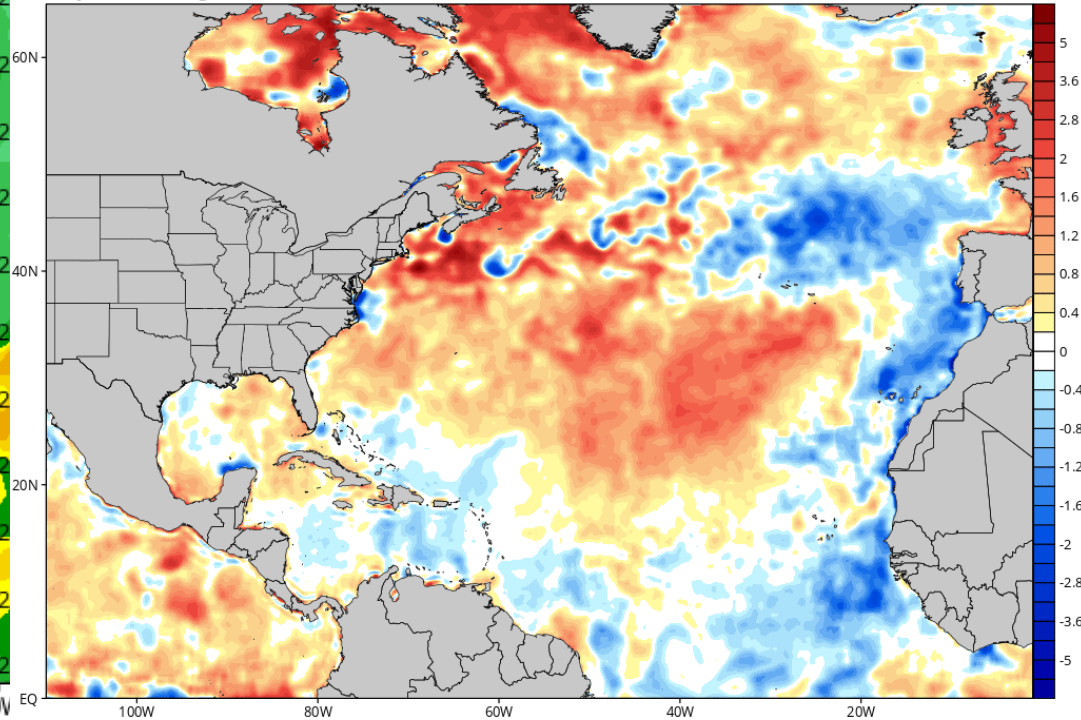


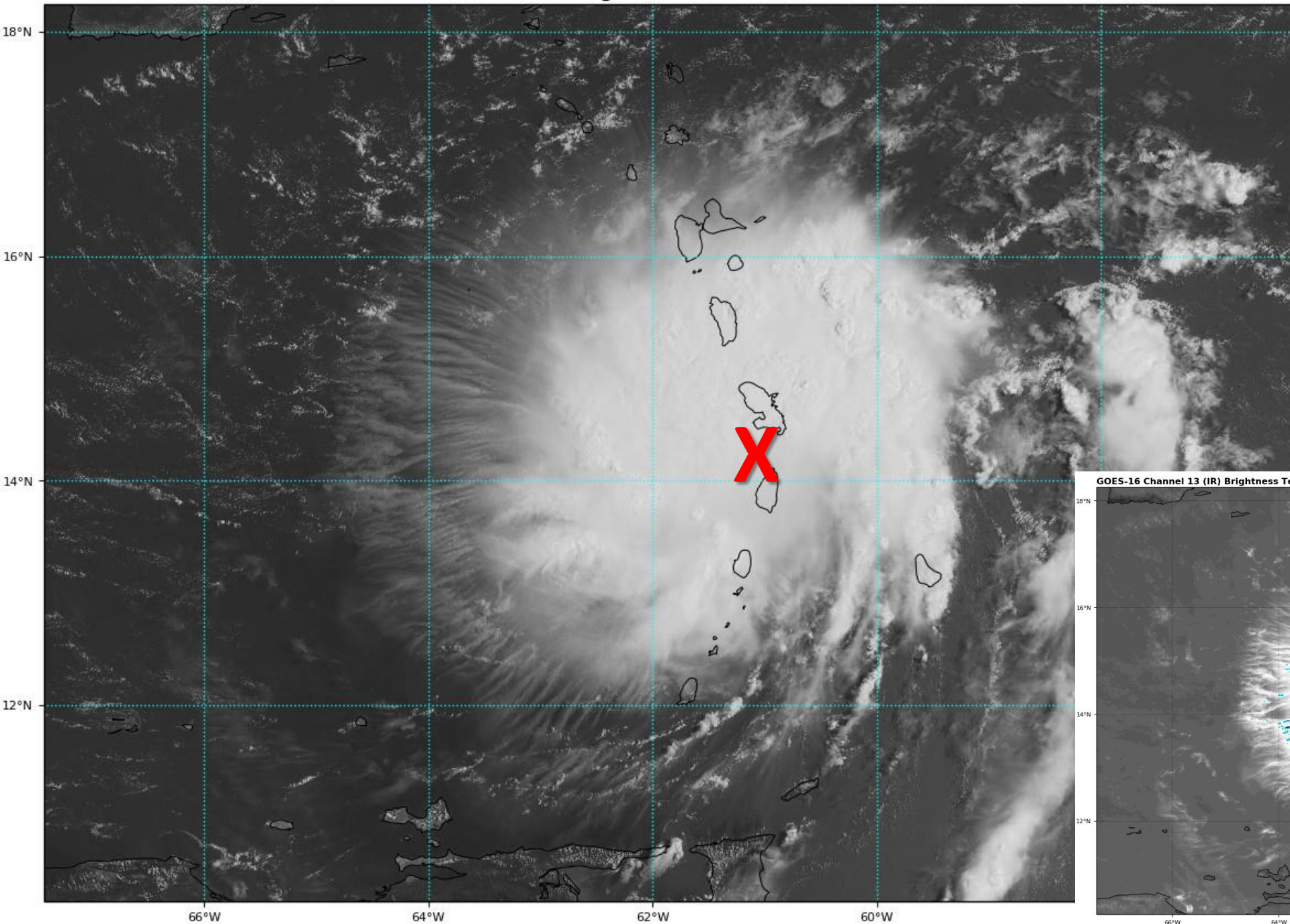
Water temperatures near and ahead of TD #6 and Dorian are warm enough to support tropical development. Water temperatures will be warming as Dorian travels northwest. Temperatures are near normal for this time of year in the Caribbean & Bahamas.

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

Analysis Time: 06z Aug 27 2019

TROPICALTIDBITS.COM



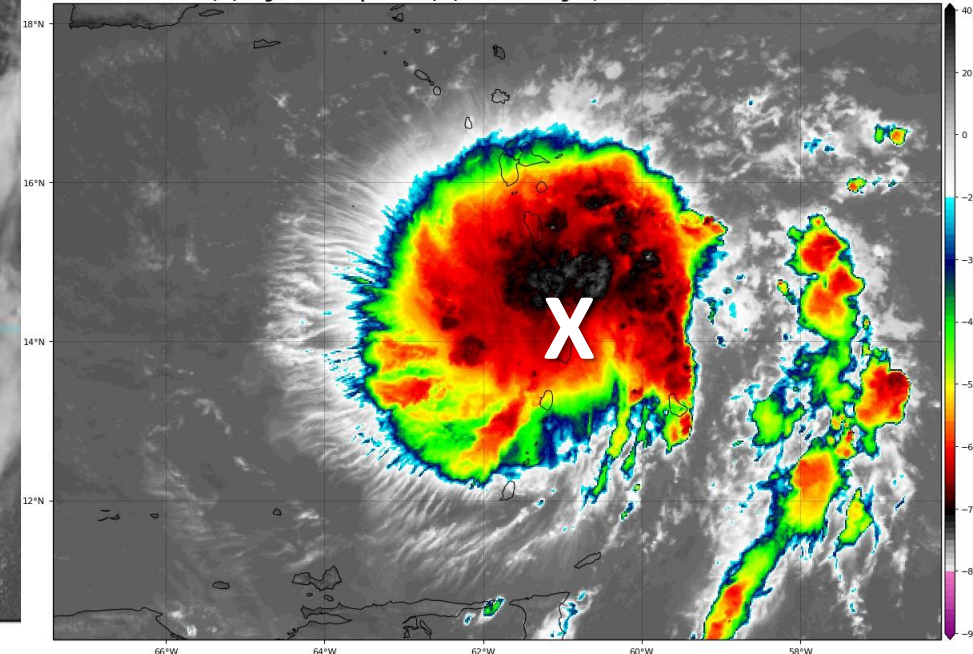


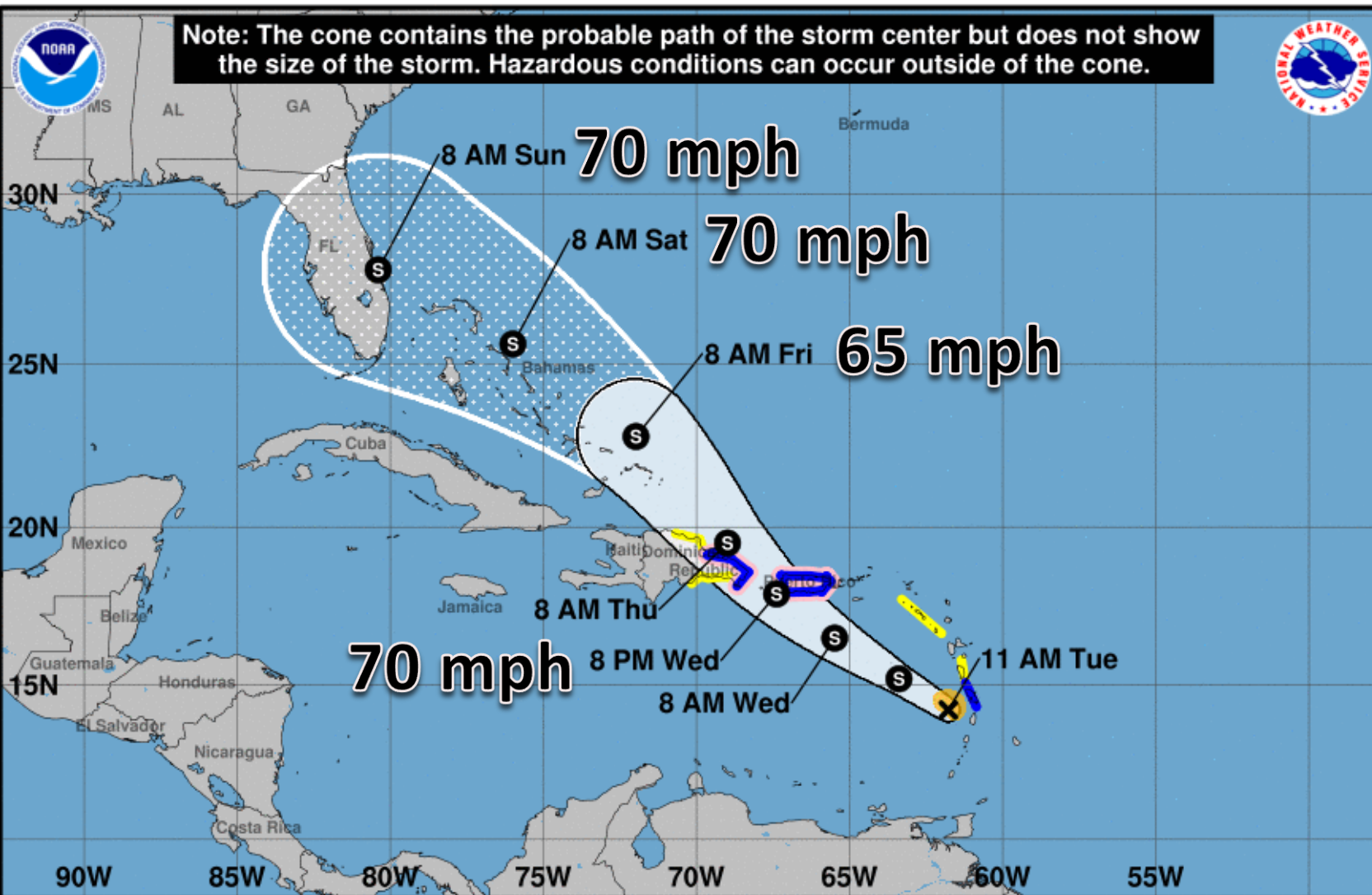
Tropical Storm Dorian Satellite Image

Tropical Storm Dorian continues to fight off dry air. Thunderstorms have had difficulty forming on the west and south side of the system due to the dry air, preventing intensification.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 13:25Z Aug 27, 2019

TROPICALTIDBITS.COM





Tropical Storm Dorian Forecast Track

Tropical Storm Dorian continues to the west-northwest, moving at 13 mph. Maximum sustained winds are at 50 mph.

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

Dorian is forecast to be near hurricane strength as it approaches Florida.

Tropical Storm Dorian Tuesday August 27, 2019 11 AM AST Advisory 13 NWS National Hurricane Center	Current information: x Center location 14.2 N 61.8 W Maximum sustained wind 50 mph Movement WNW at 13 mph	Forecast positions: ● Tropical Cyclone ○ Post/Potential TC Sustained winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110 mph	
Potential track area: Day 1-3 (solid line) Day 4-5 (dotted line)	Watches: Hurricane (pink) Trop Stm (yellow)	Warnings: Hurricane (red) Trop Stm (blue)	Current wind extent: Hurricane (brown) Trop Stm (orange)

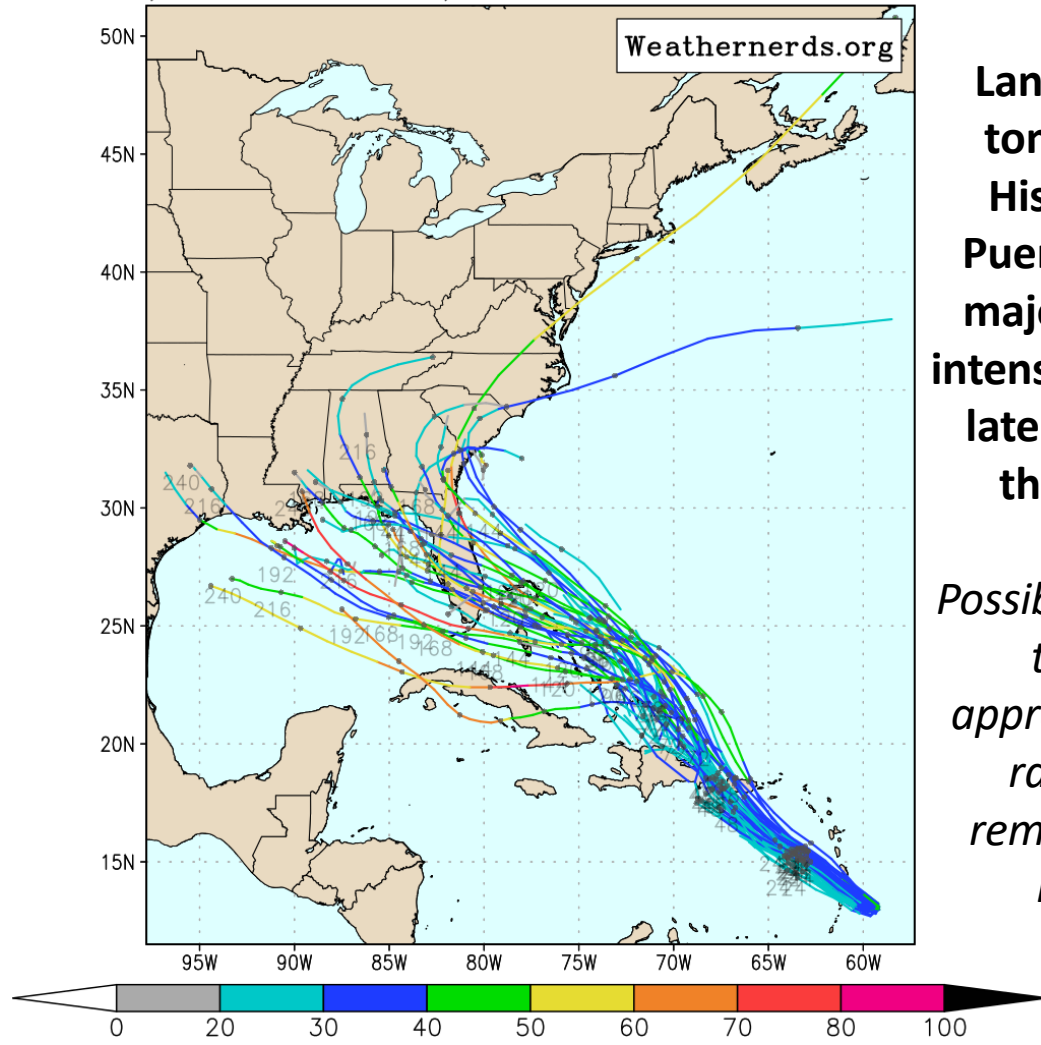
Current Forecast Ensemble Model Guidance

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 Puerto Rico will play a major role in how Dorian can organize in the Bahamas. Each line is a possible model solution, with the color representing wind strength.

ECMWF Ensemble, init: 2019082700, AL05 Dorian

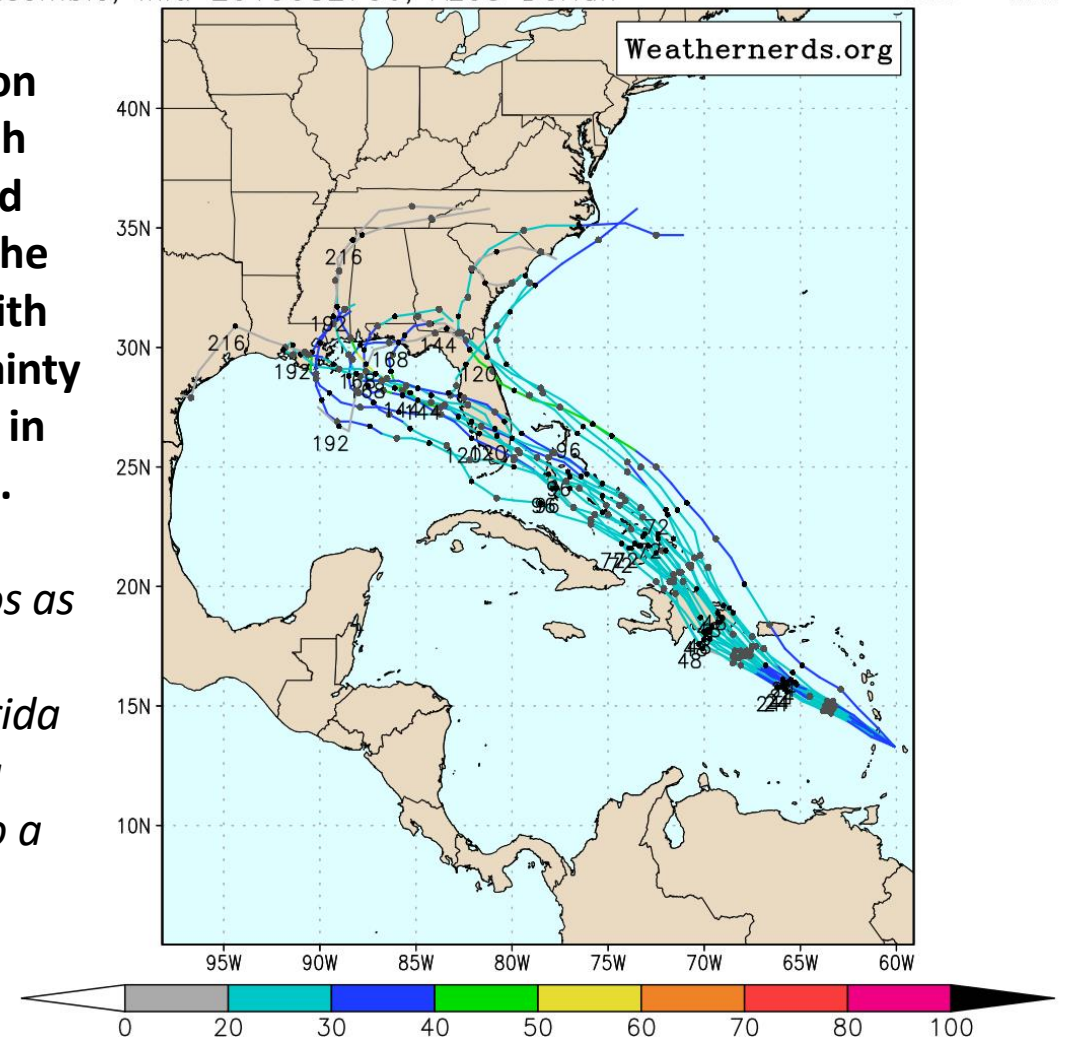
color = max wind (GFS Ensemble, init: 2019082706, AL05 Dorian

color = max wind (kt)

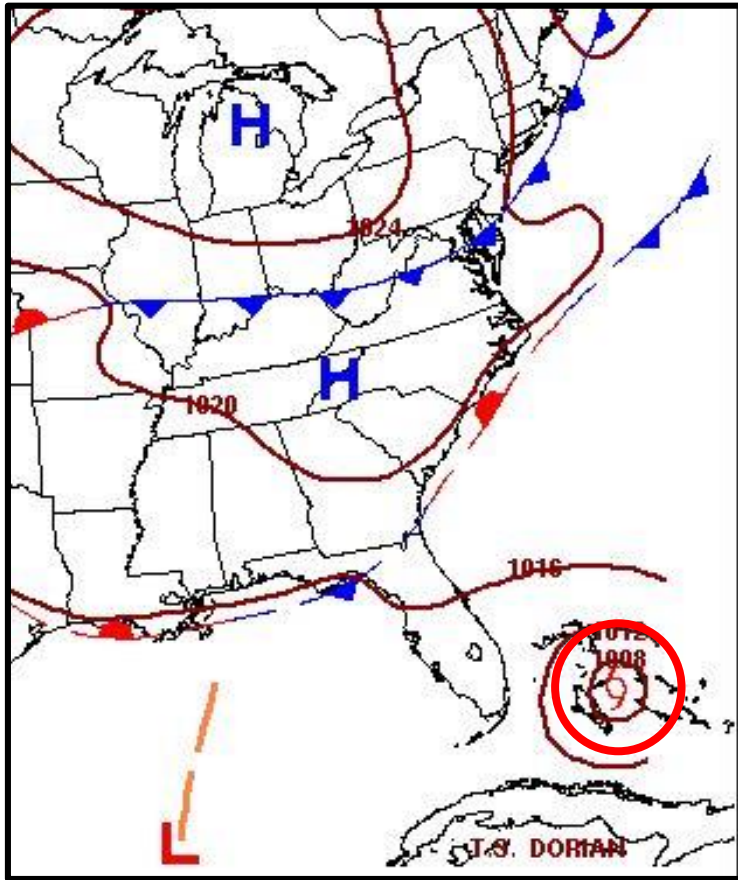


Land interaction tomorrow with Hispaniola and Puerto Rico is the major factor with intensity uncertainty later this week in the Bahamas.

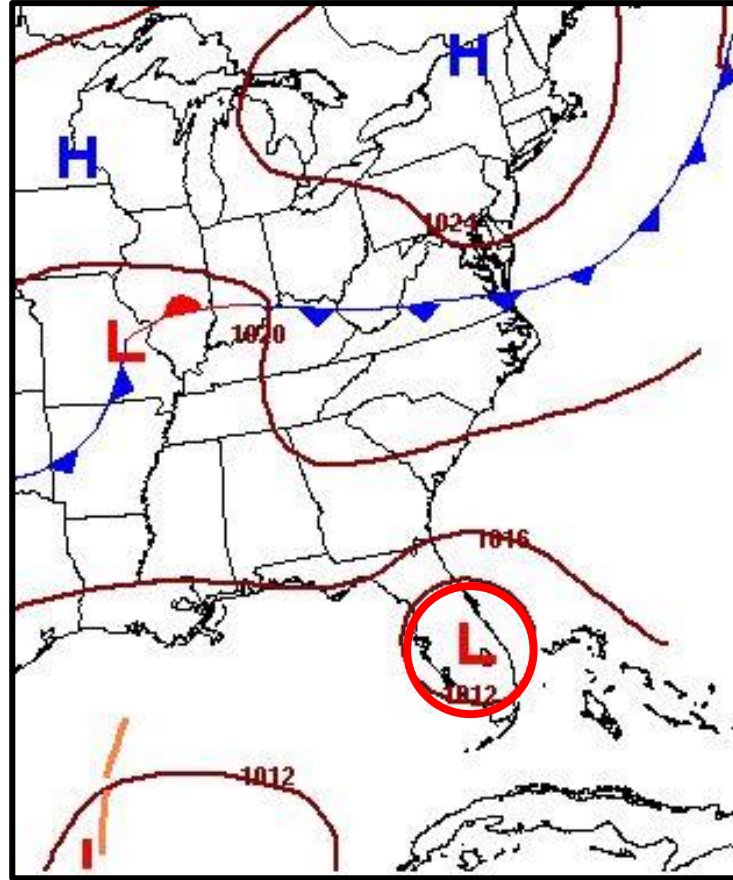
Possible scenarios as the system approaches Florida range from a remnant low to a hurricane.



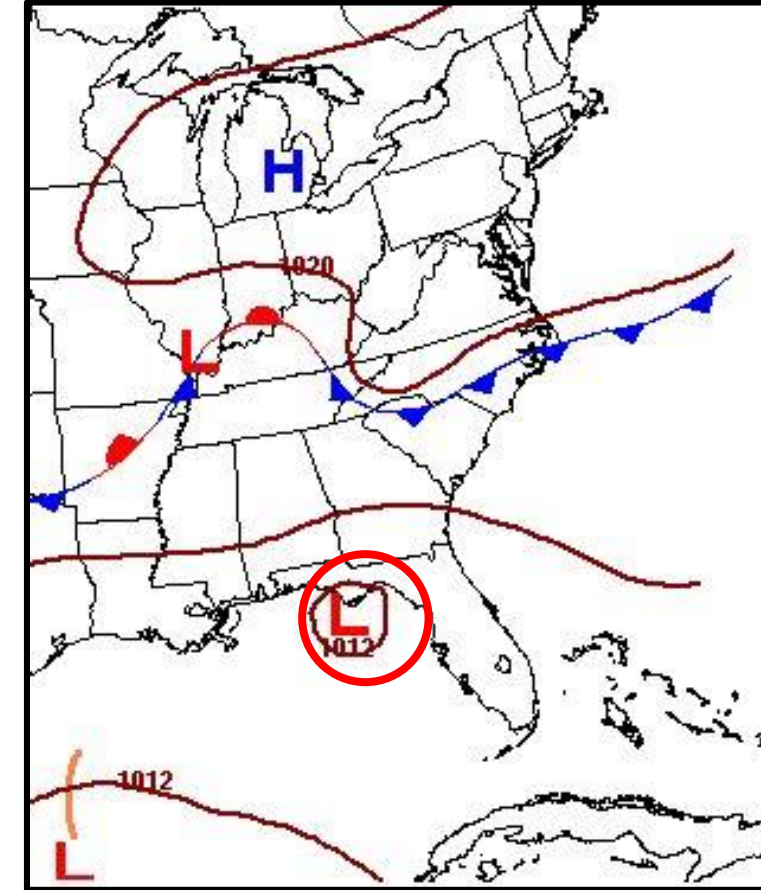
Forecast Weather Maps with Fronts



Saturday AM



Sunday AM



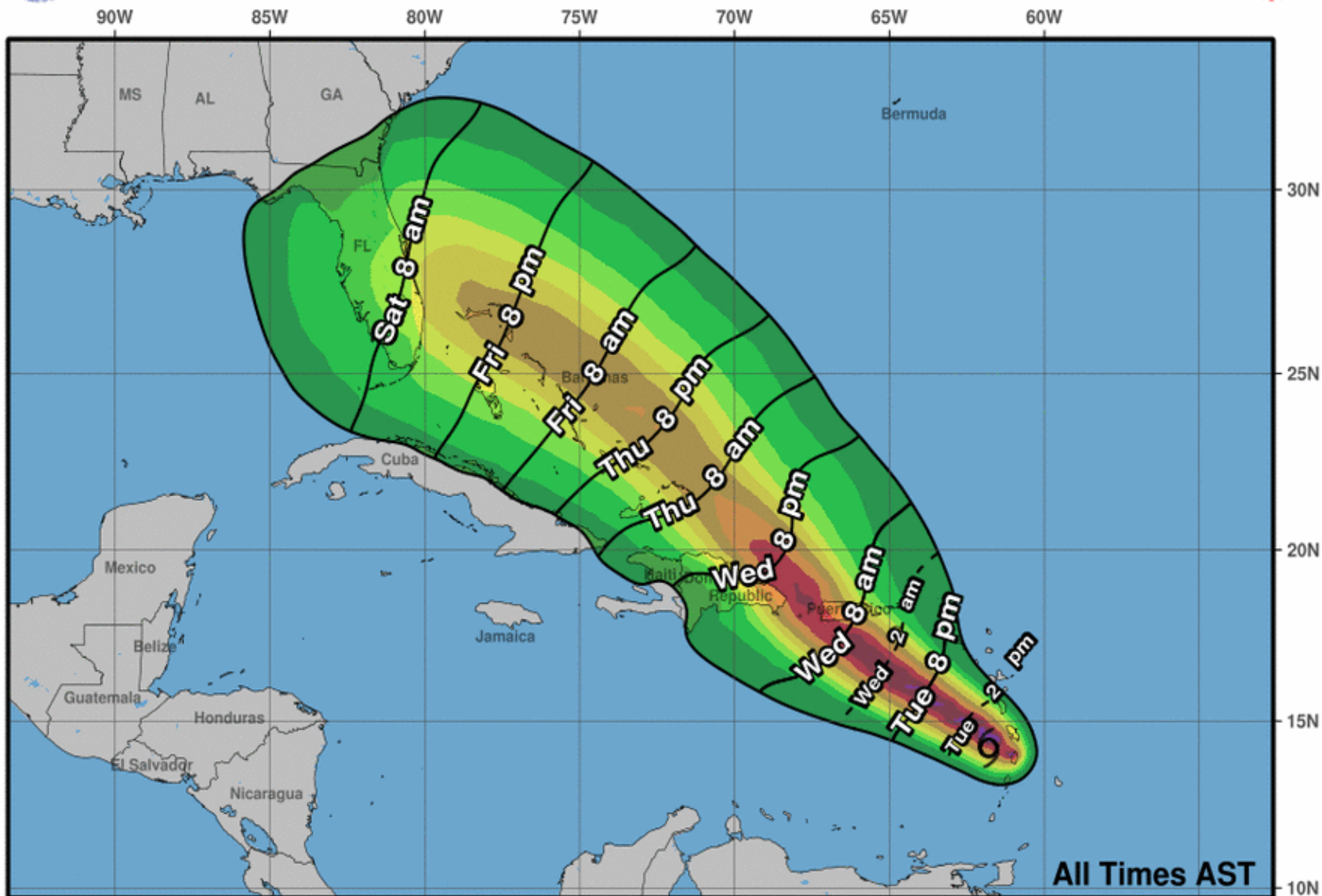
Monday AM

Tropical Storm Dorian will track through the Bahamas on Friday and Saturday, approaching the Florida Peninsula Saturday night and Sunday. Dorian may then move into the eastern Gulf of Mexico by Labor Day.

Regardless of the strength of Dorian, increased rain chances are expected statewide for Labor Day weekend.



Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Storm Dorian
Tue. Aug. 27, 2019 11 am AST
Advisory 13

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

Tropical Storm Warnings have been issued for Puerto Rico.

There are no watches or warnings for Florida.

Chance of tropical storm forces winds have increased since last night:

Jacksonville: 8%

Orlando: 22%

Cocoa Beach: 36%

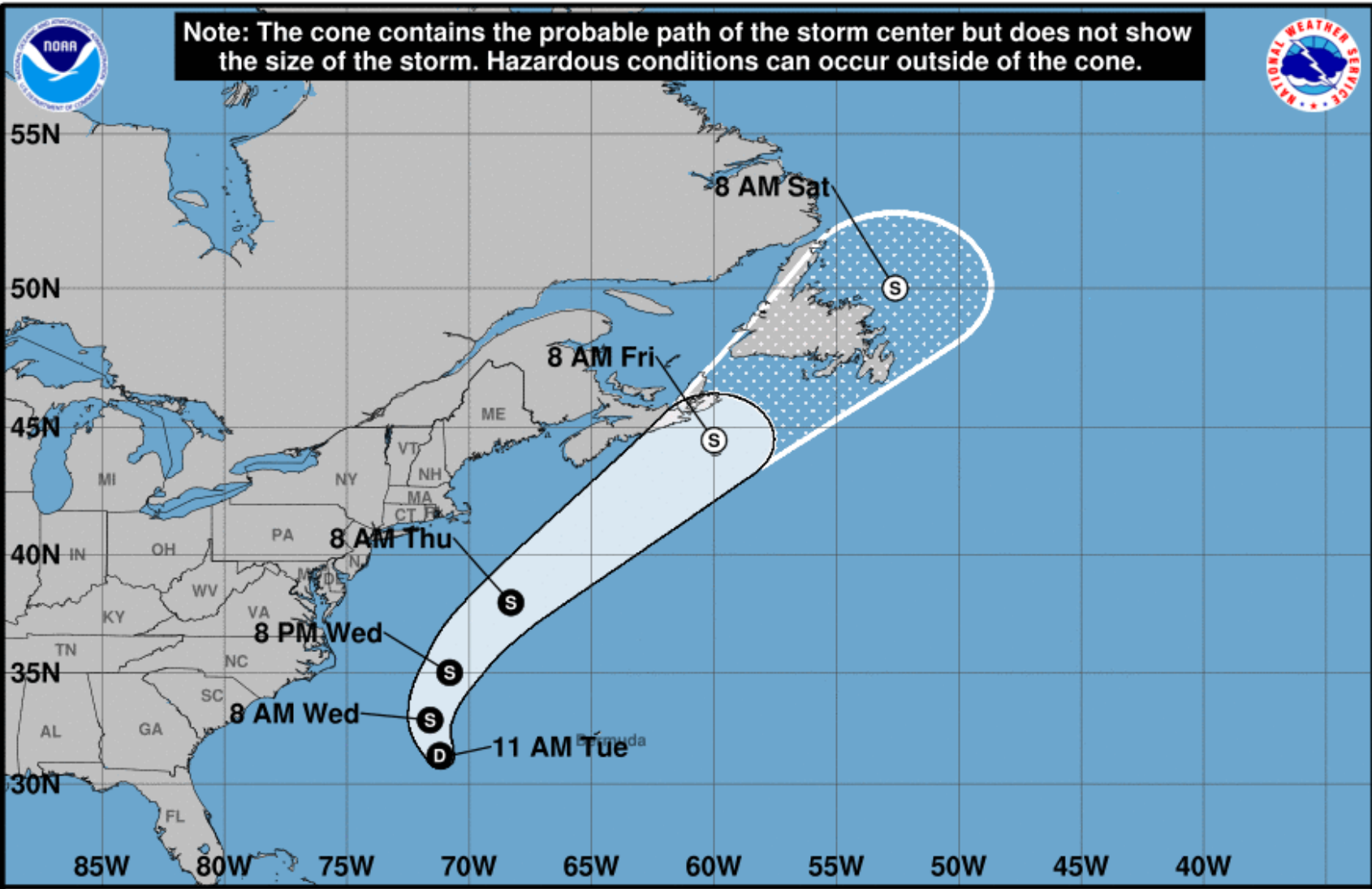
West Palm Beach: 41%

Ft. Lauderdale: 34%

Miami: 19%

Naples: 14%

Marathon: 15%



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

Tropical Depression Six Forecast Track

Tropical Depression Six is forecast to strengthen into Tropical Storm Erin tonight or tomorrow morning before accelerating northeast in southeastern Canada.

This system poses no threat to Florida.

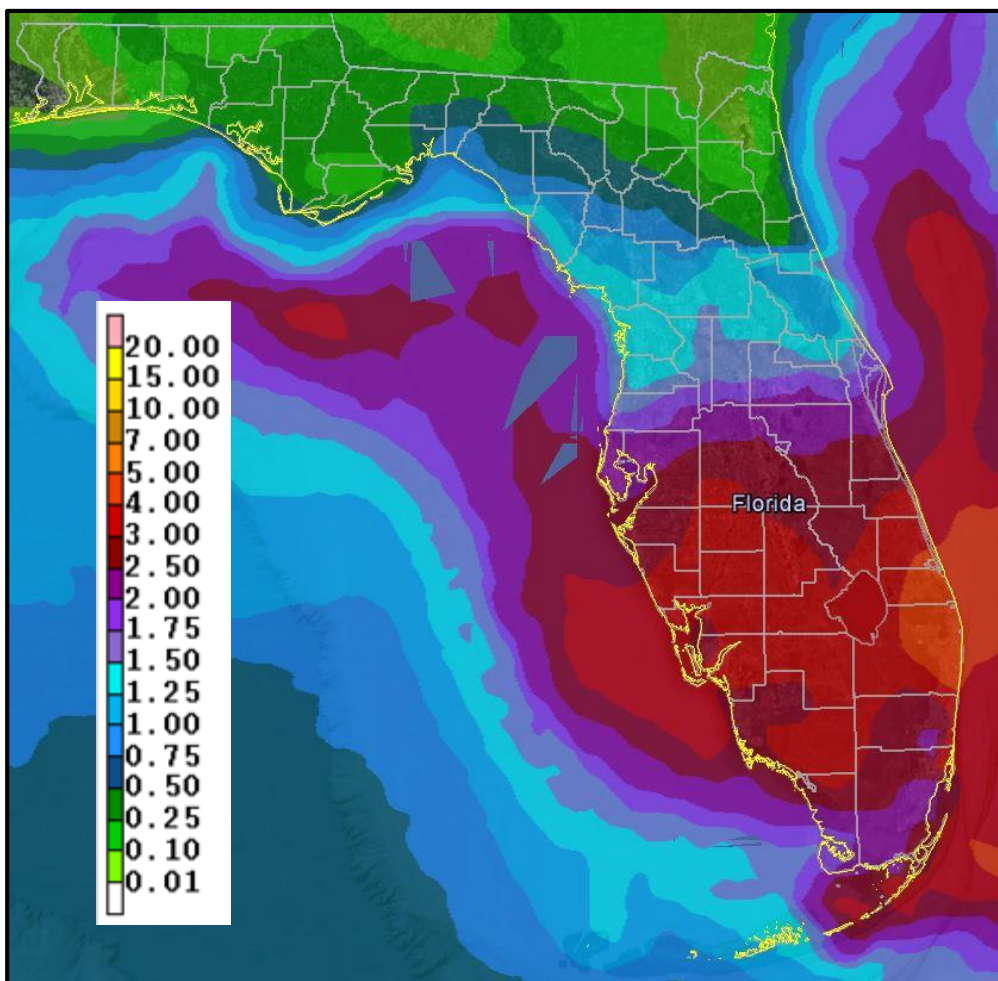
Tropical Depression Six Tuesday August 27, 2019 11 AM EDT Advisory 4 NWS National Hurricane Center		Current information: x Center location 31.2 N 71.2 W Maximum sustained wind 35 mph Movement N at 2 mph		Forecast positions: ● Tropical Cyclone ○ Post/Potential TC Sustained winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110 mph	
Potential track area: Day 1-3 (solid line) Day 4-5 (dotted line)	Watches: Hurricane (pink) Trop Stm (yellow)	Warnings: Hurricane (red) Trop Stm (blue)	Current wind extent: Hurricane (brown) Trop Stm (orange)		

Rainfall Totals Friday & Saturday

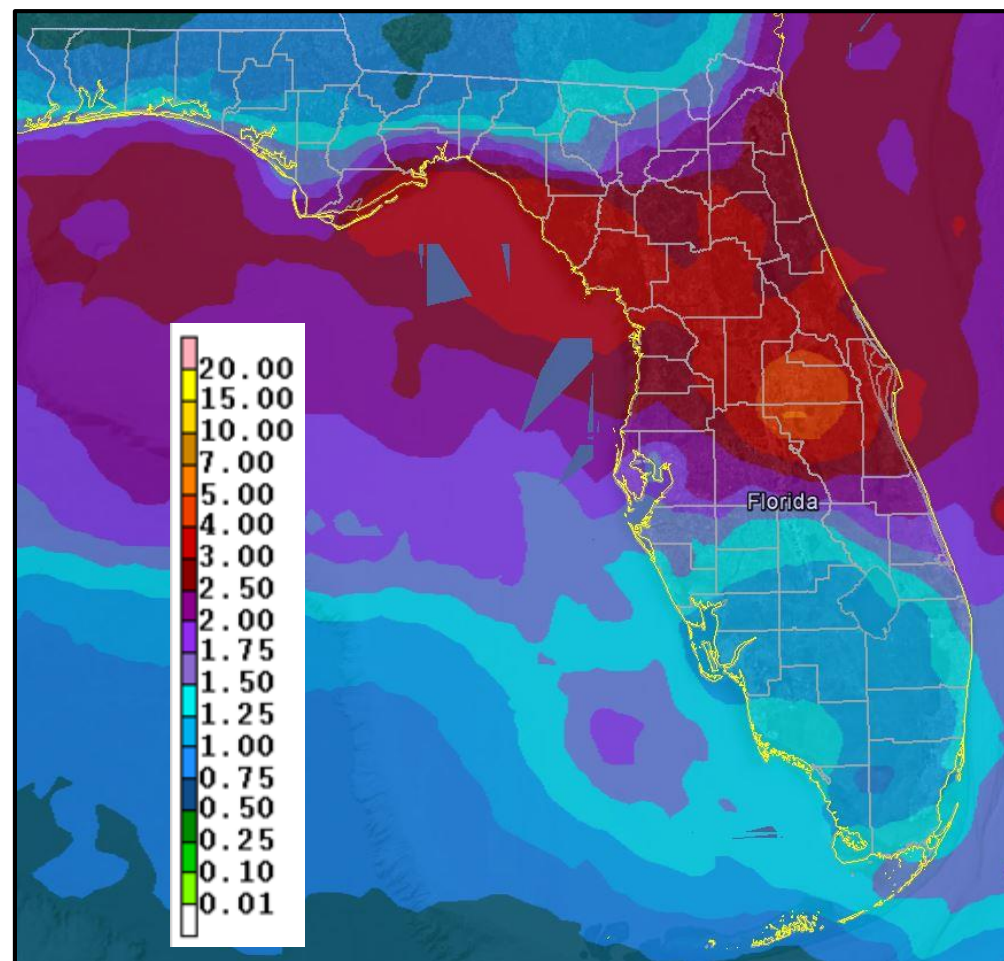
One of the more certain impacts this weekend will be increased rain chances in the Peninsula.

These rainfall forecasts will change as the track and the intensity of the system changes over the coming days!

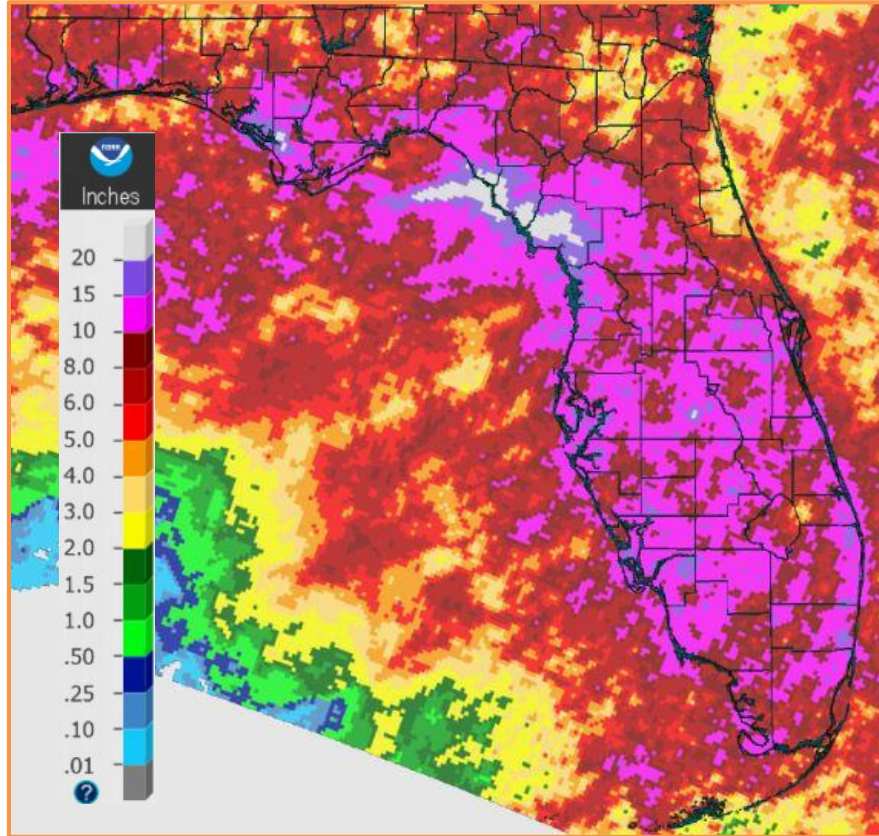
Rainfall Totals Sunday & Monday



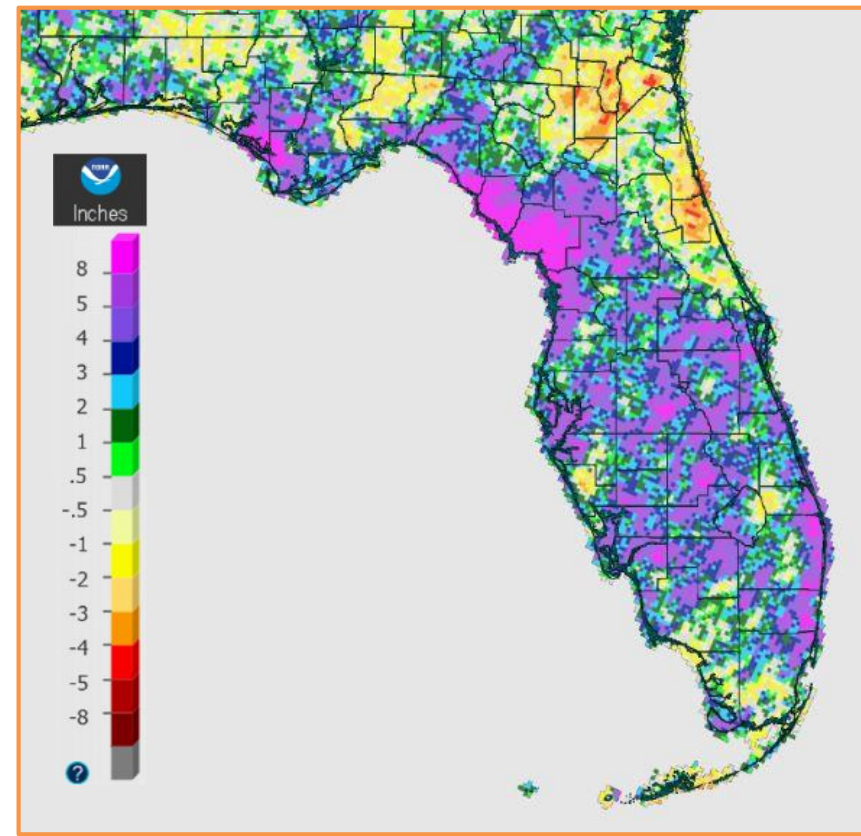
Given the recent stretch of wet weather, these rainfall amounts may create additional river flooding and areal flooding in urban and low-lying areas.



Estimated 30 Day Rainfall



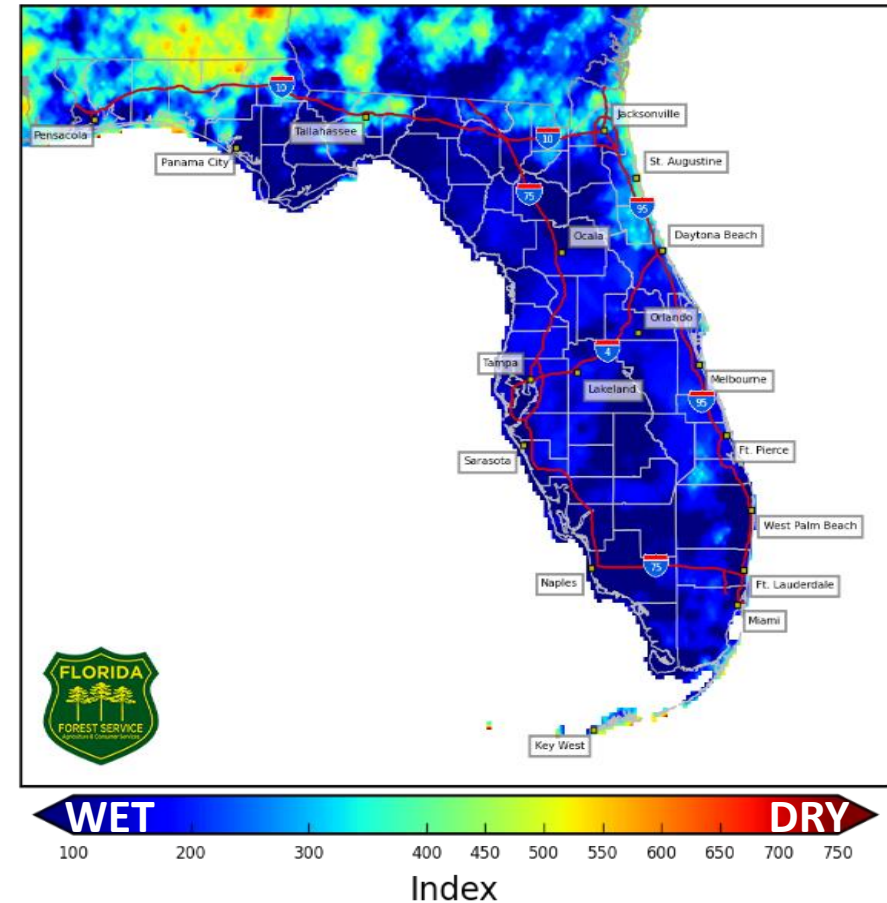
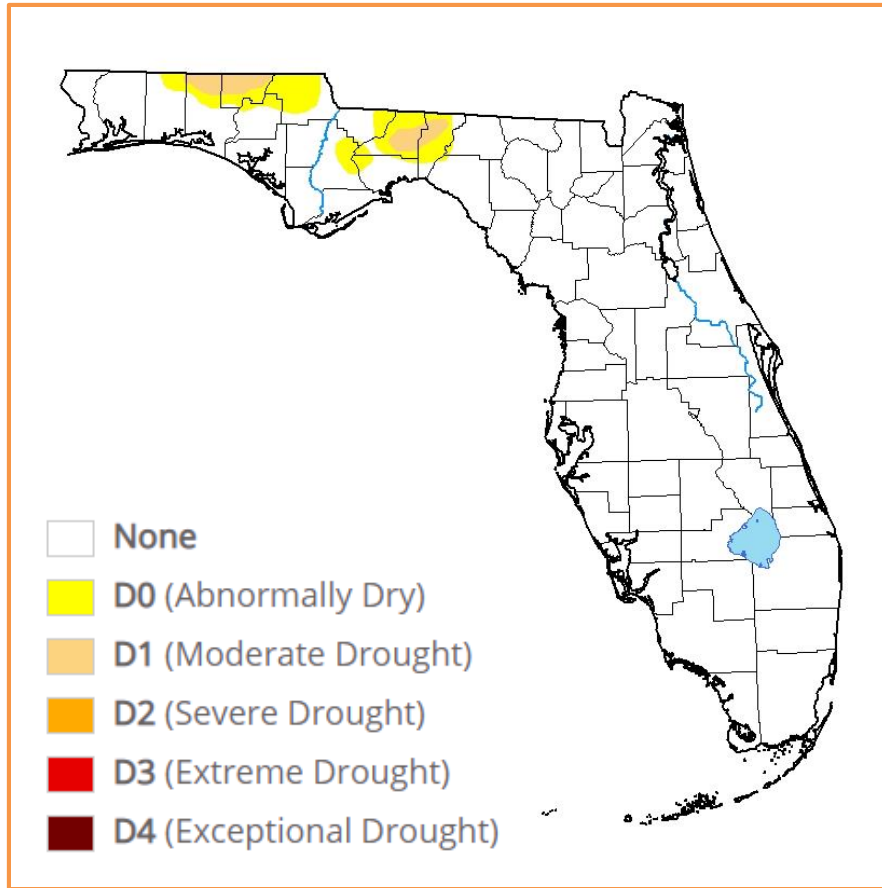
30 Day Rainfall Departures



Rainfall over the last 30 days has been very abundant across the Peninsula with most areas seeing 10-15 inches of rain. Localized areas in the Peninsula have seen 15-20"+, which is about 4-8"+ above average. This is also about 150-300% of normal rainfall. Rainfall in the Panhandle is about 1-3" below average for the last 30 days.

Current Drought Monitor and Keetch-Byram Drought Index

4 km Resolution KBDI
Statewide
August 26, 2019



Soils are very saturated across nearly all of the Peninsula, and the additional rainfall is not needed and may lead to additional flooding concerns. However, parts of the inland Panhandle and Big Bend are still in moderate drought, and the rainfall would be welcome in those areas.

Current River Conditions

River Gauges in Flood Stage

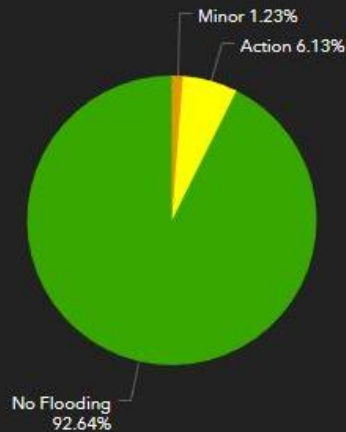
2

▲ 0 (last update)

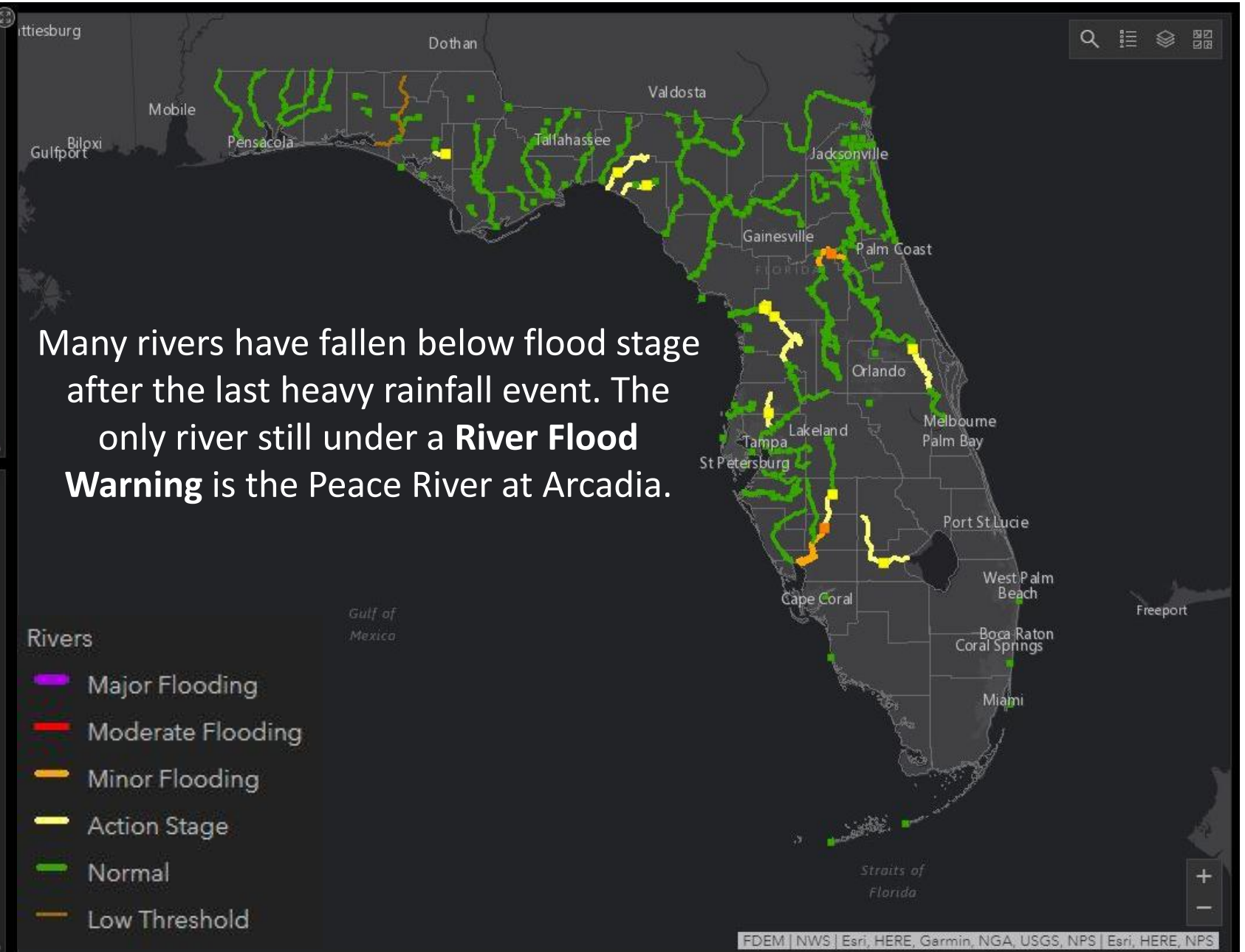
Includes gauges in Minor, Moderate, & Major Flood Stage

Last update: a minute ago

River Gauge Conditions by Status



Last update: a minute ago



Summary

Tropical Storm Dorian

- Hurricane Hunters investigated the system overnight and this morning and found Dorian struggling to fight off the dry air.
- However, Dorian does still have a closed circulation with maximum sustained winds of 50 mph as of the 11 AM ET advisory. Dorian is located 415 miles southeast of Ponce, Puerto Rico, moving to the west-northwest at 13 mph.
- Dorian will gradually strengthen or at least maintain intensity as it approaches Puerto Rico and the Dominican Republic on Wednesday.
- As Dorian passes over or near the mountainous islands of Puerto Rico and the Dominican Republic, wind shear will also be increasing (upper-level winds becoming unfavorable). Dorian is likely to weaken Wednesday night and Thursday.
- Conditions will be favorable for strengthening in the Bahamas on Thursday and Friday as the system tracks northwest towards the Florida Peninsula. However, it will need to avoid the mountainous islands and emerge in the favorable environment in-tact.
- Hurricane Hunters will continue to investigate the system regularly over the next few days.
- 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.

Tropical Depression Six (TD #6)

- Tropical Depression Six remains unorganized well east of the East Coast of the United States.
- The center of Tropical Depression Six is located about 375 miles southeast of Cape Hatteras, NC and moving to the north at 2 mph.
- TD #6 will begin accelerate to the northeast by Wednesday night after gaining strength into Tropical Storm Erin.
- TD #6 will become non-tropical on Friday over the cold waters of the North Atlantic, posing no threat to the United States.
- There are no areas being monitored for new tropical development over the next 5 days.

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.
- The entire Florida Peninsula is 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 to be near hurricane strength as it approaches Central Florida, South Florida, and/or the Florida Keys Saturday night.
- After Sunday, Dorian could re-emerge over the eastern Gulf of Mexico.
- Regardless of development, increased rain chances are expected across the Florida Peninsula, along with some minor coastal flooding due to the astronomical high tides this weekend.
- **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 afternoon. For the latest information on the tropics, please visit the National Hurricane Center website at 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



Created by:

Michael Spagnolo, Deputy State Meteorologist

Michael.Spagnolo@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

Users wishing to subscribe (approval pending) to this distribution list, register at https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic_id=SERT_Met_Tropics. Other reports available for subscription are available at <https://public.govdelivery.com/accounts/FLDEM/subscriber/new?preferences=true>