



TROPICAL UPDATE



5 PM EDT

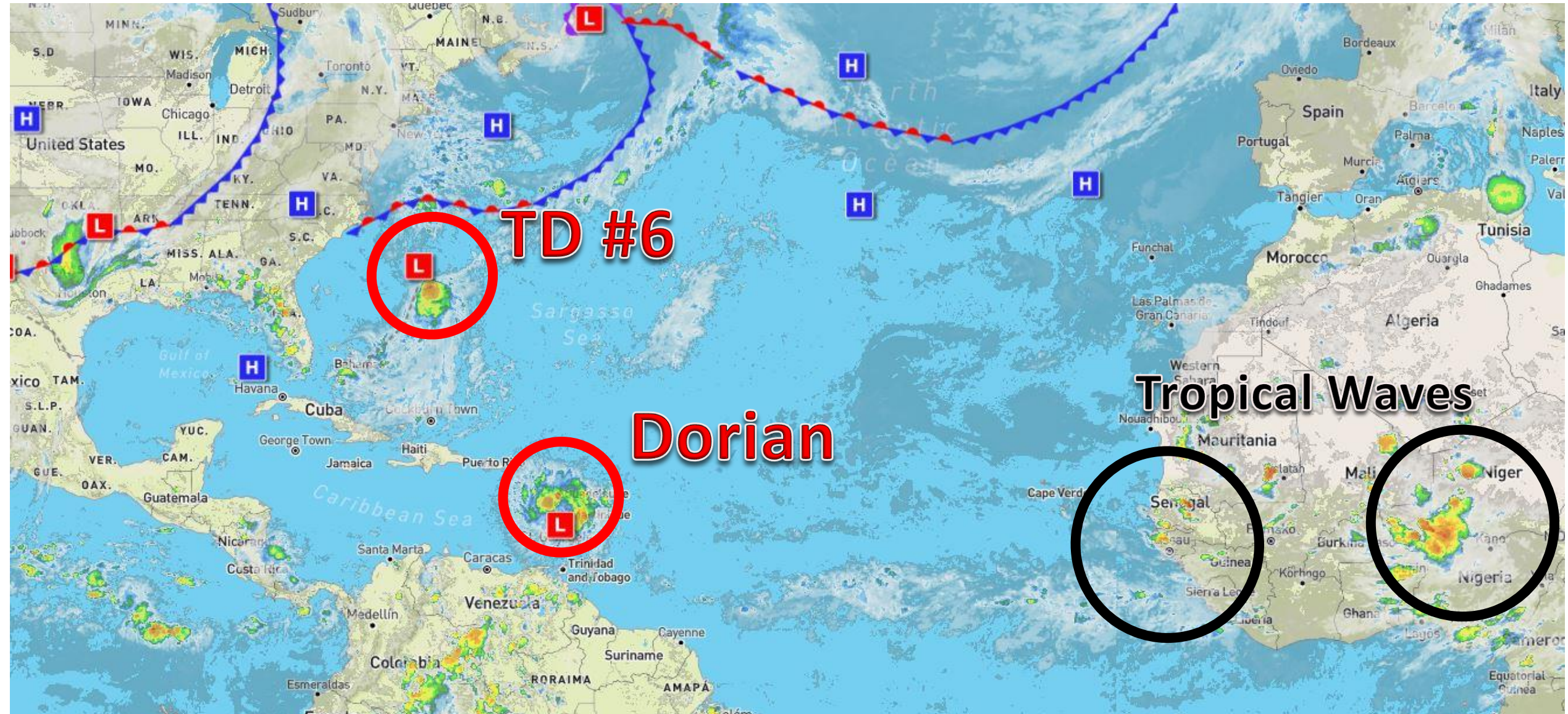
Tuesday, August 27, 2019

Tropical Storm Dorian
& Tropical Depression Six

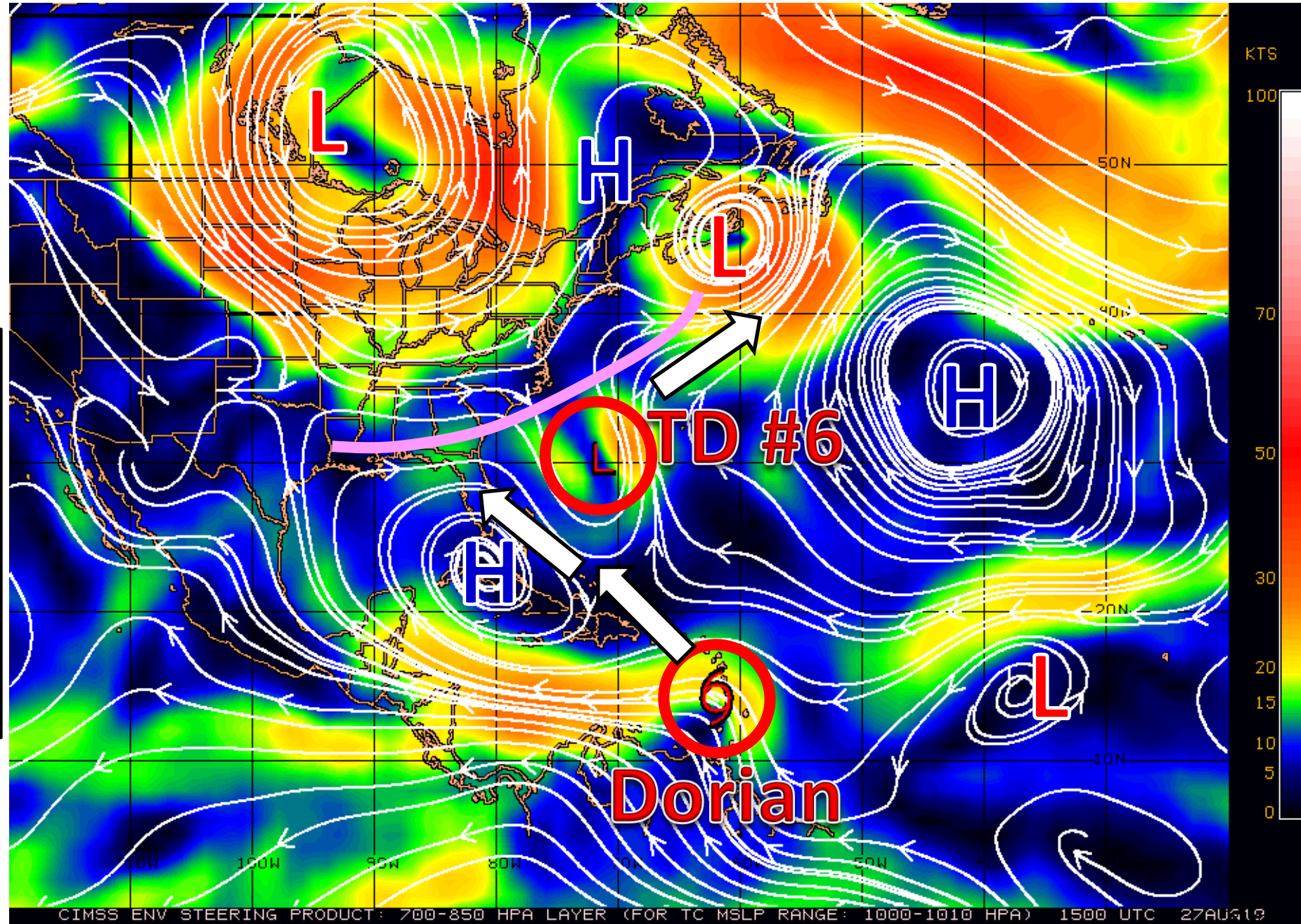
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an 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



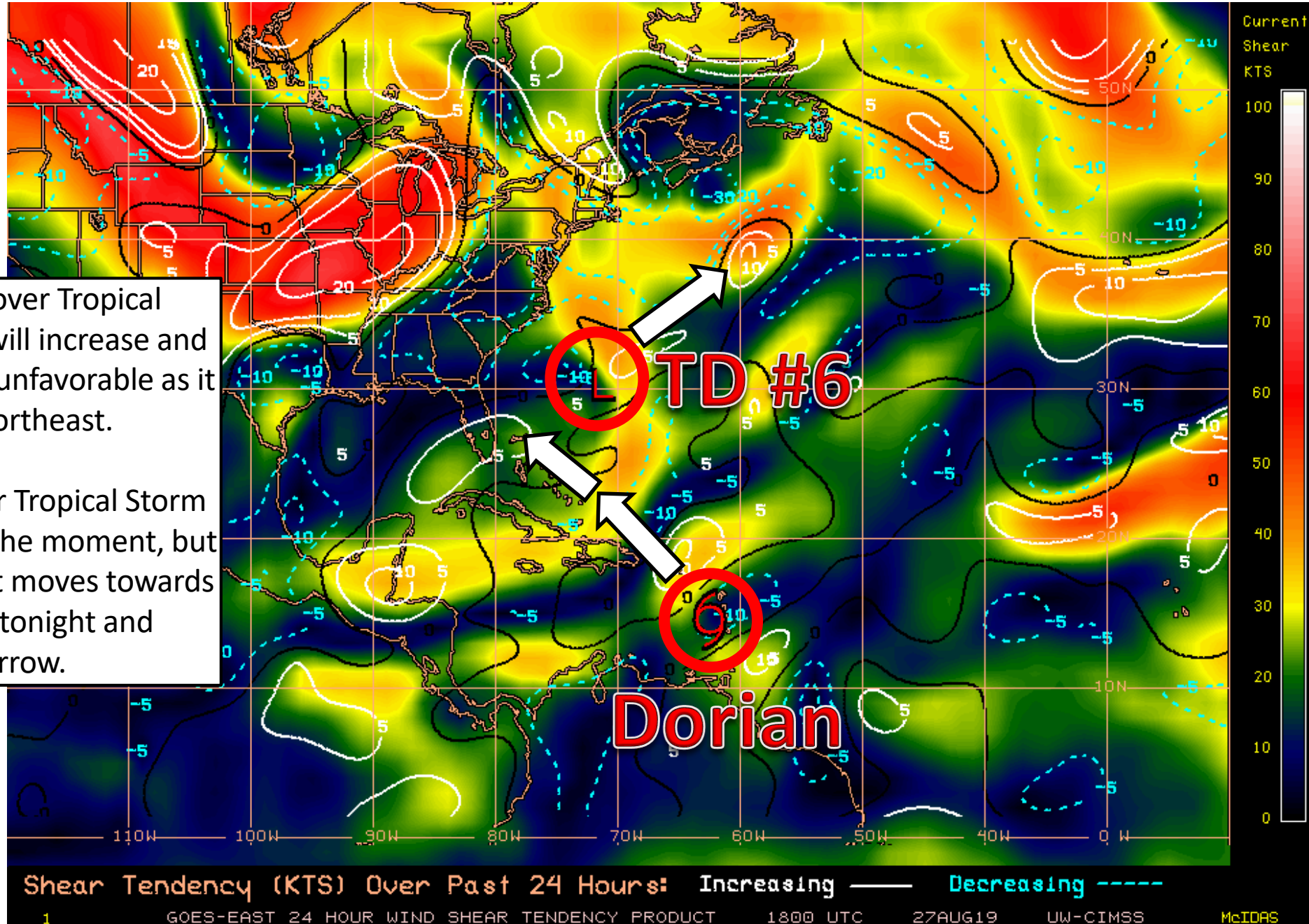
Steering Currents



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.

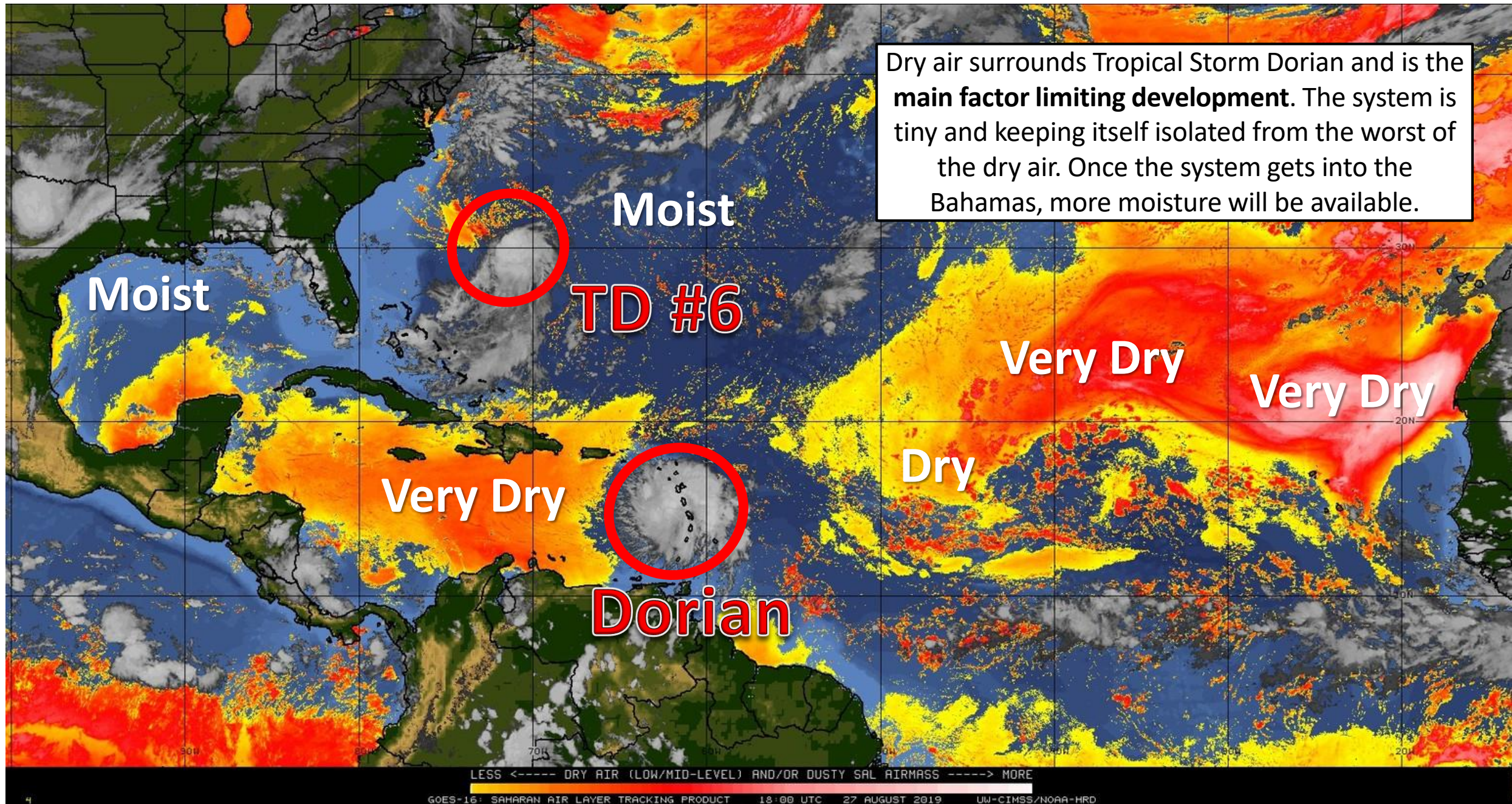
Wind Shear (shaded) and Wind Shear Tendencies (contoured)



Wind shear over Tropical Depression Six will increase and becoming more unfavorable as it moves northeast.

Wind shear near Tropical Storm Dorian is low at the moment, but will increase as it moves towards Puerto Rico tonight and tomorrow.

Dry Air & Saharan Dust

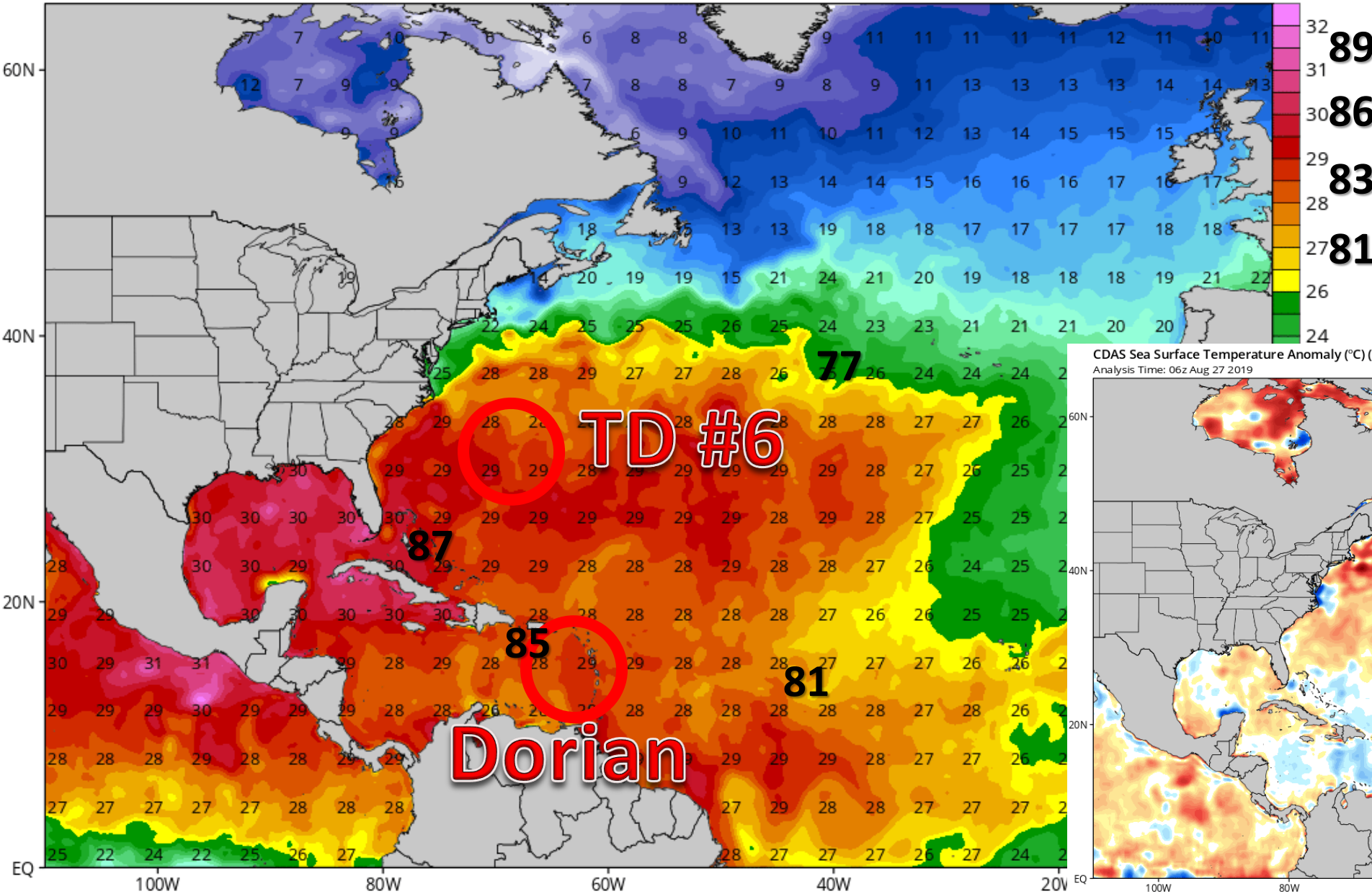


North Atlantic Sea Surface Temperatures and Anomalies

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Aug 27 2019

TROPICALTIDBITS.COM

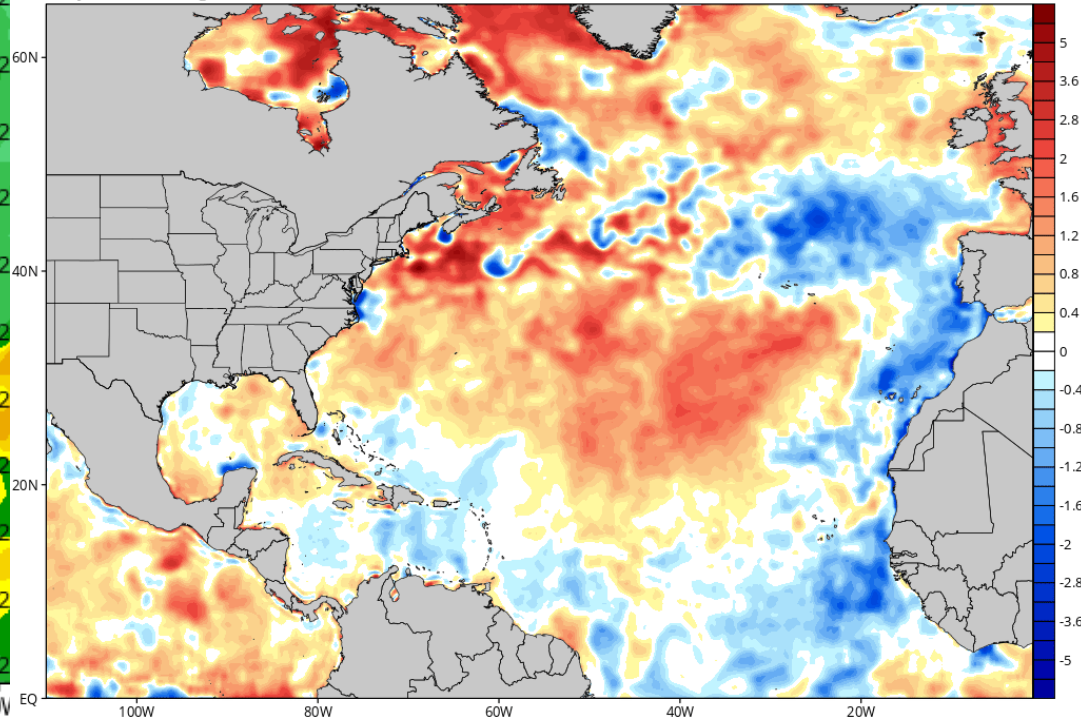


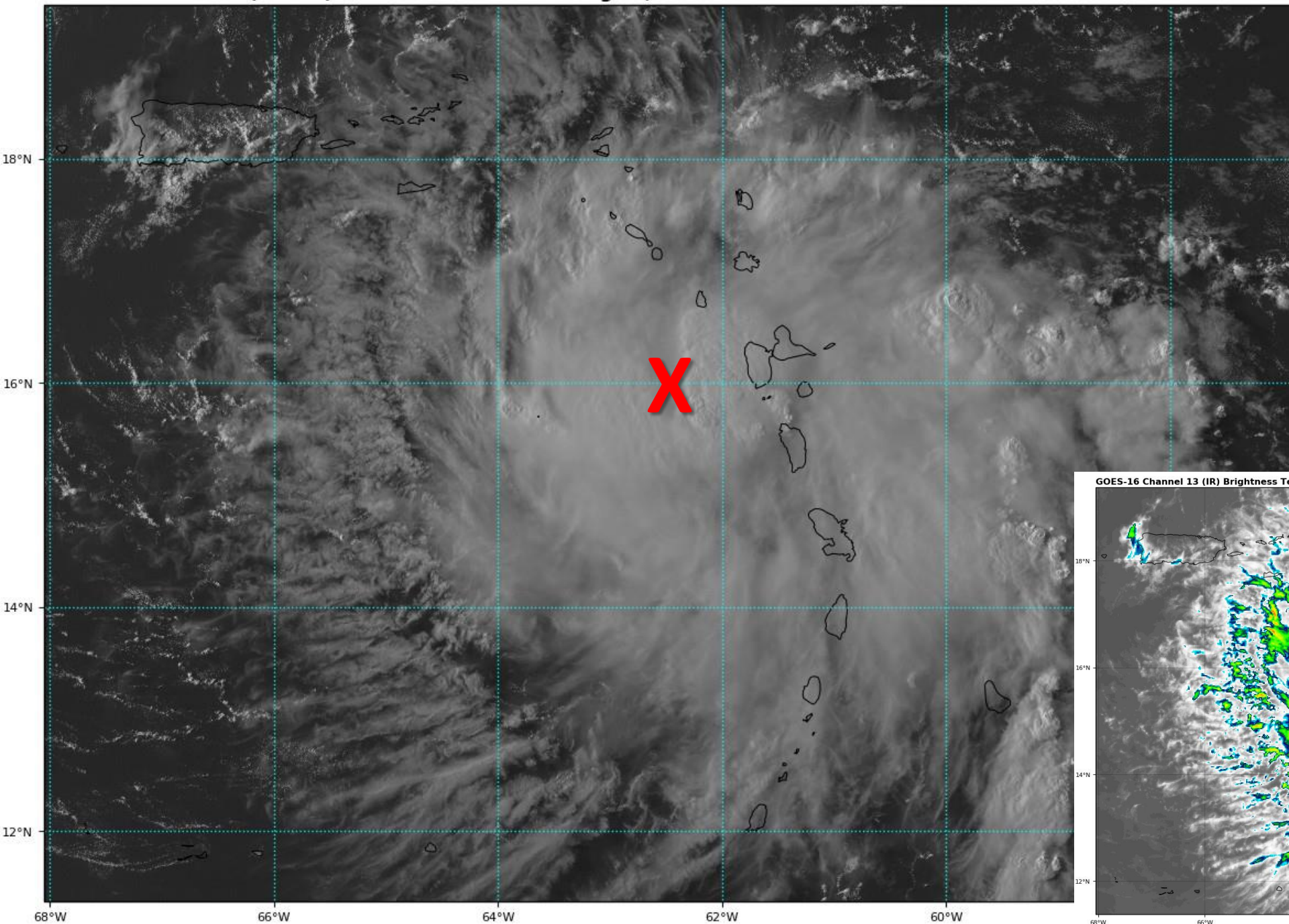
Water temperatures near and ahead of TD #6 and Dorian are warm enough to support tropical development. Water temperatures will be warming as Dorian travels northwest. Temperatures are near normal for this time of year in the Caribbean & Bahamas.

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

Analysis Time: 06z Aug 27 2019

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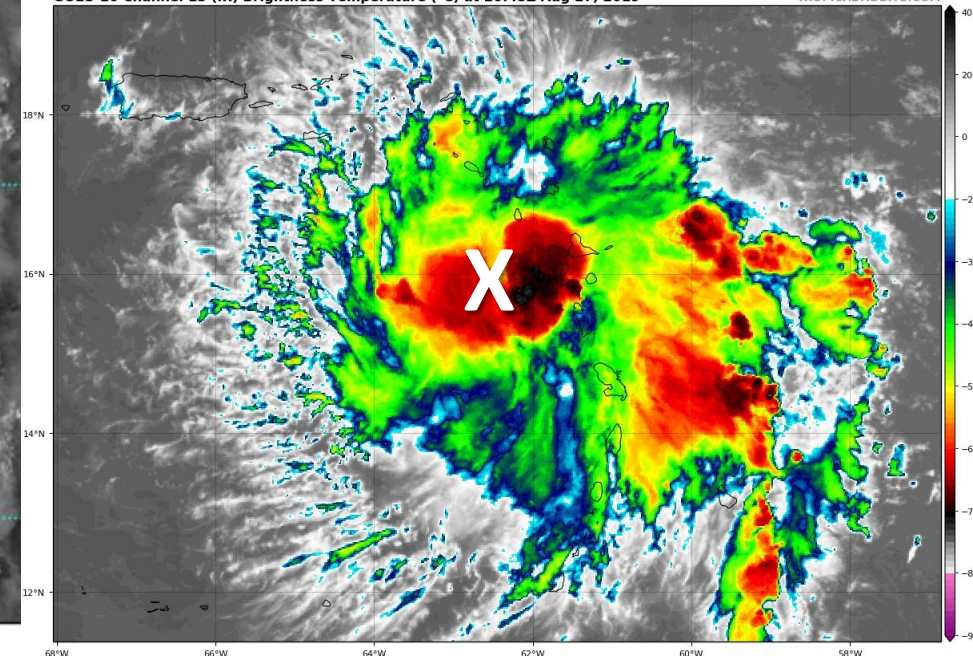


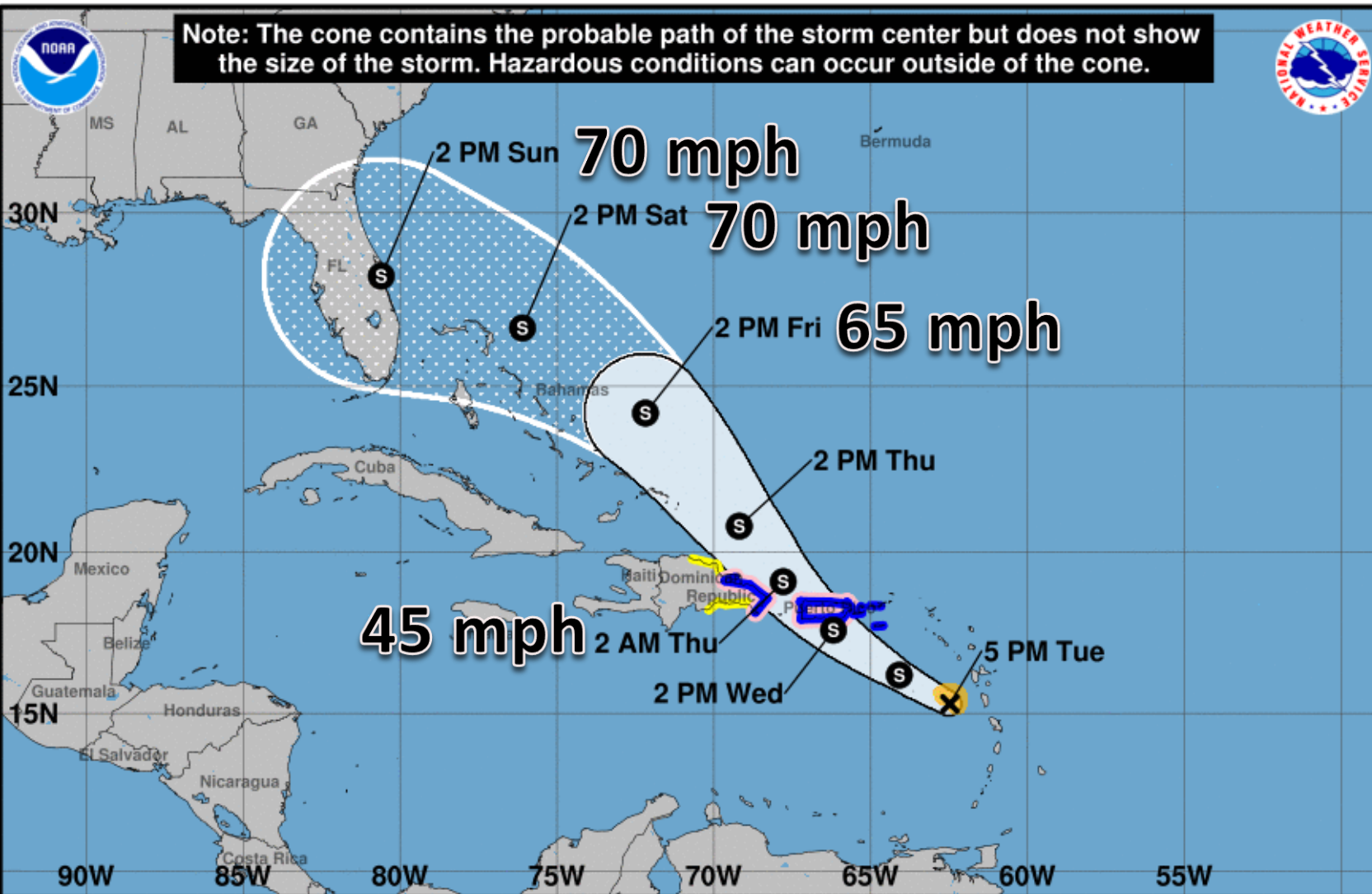
Tropical Storm Dorian Satellite Image

Tropical Storm Dorian continues to struggle with dry air. Thunderstorms continue to develop near the center, but are unable to get organized due to dry air mixing in.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 20:45Z Aug 27, 2019

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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 Storm Dorian Tuesday August 27, 2019 5 PM AST Advisory 14 NWS National Hurricane Center | | Current information: x Center location 15.3 N 62.5 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 Day 4-5 | | Watches: Hurricane Trop Stm | | Warnings: Hurricane Trop Stm | |
| Current wind extent: Hurricane Trop Stm | | | | | |

Tropical Storm Dorian Forecast Track

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

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

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

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 speed.

ECMWF Ensemble, init: 2019082712, AL05 Dorian

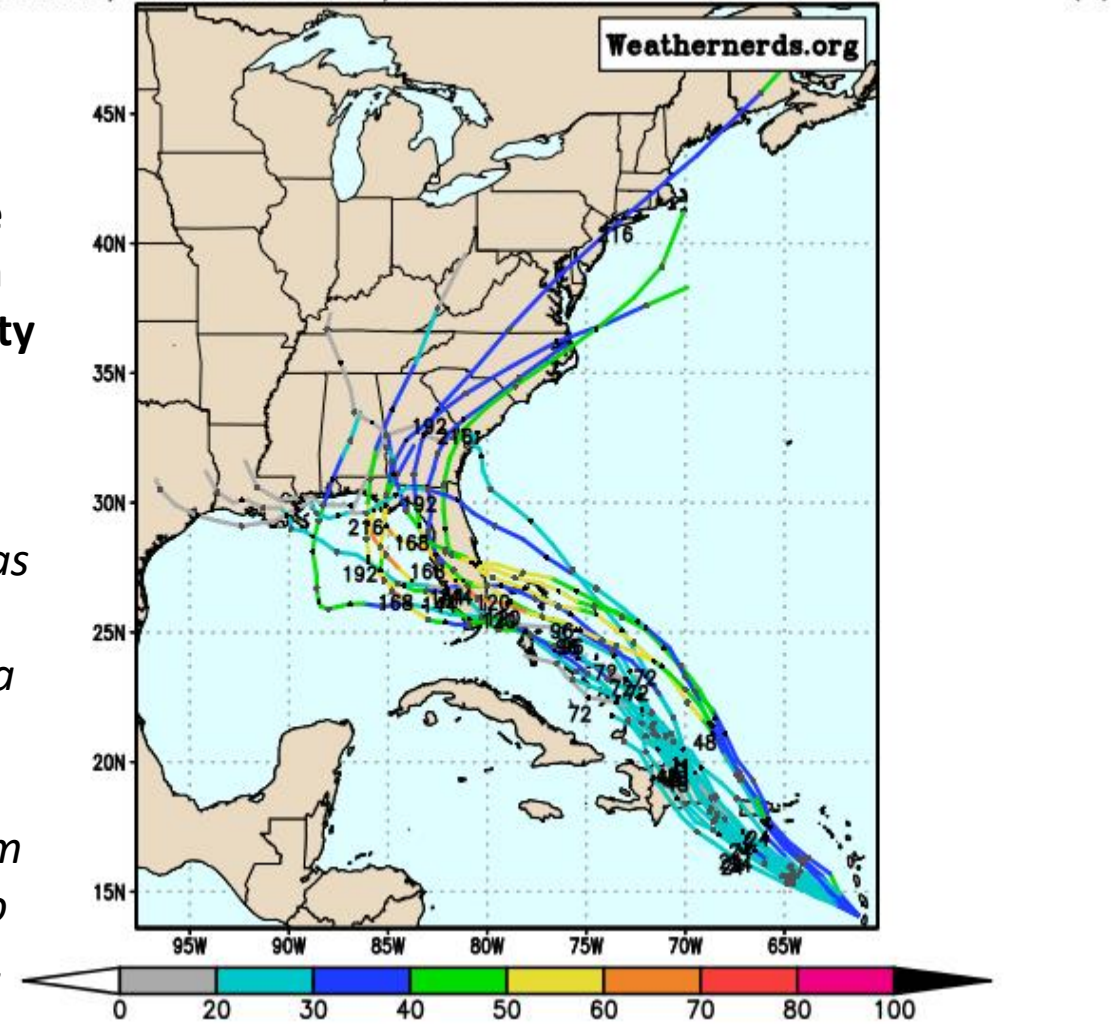
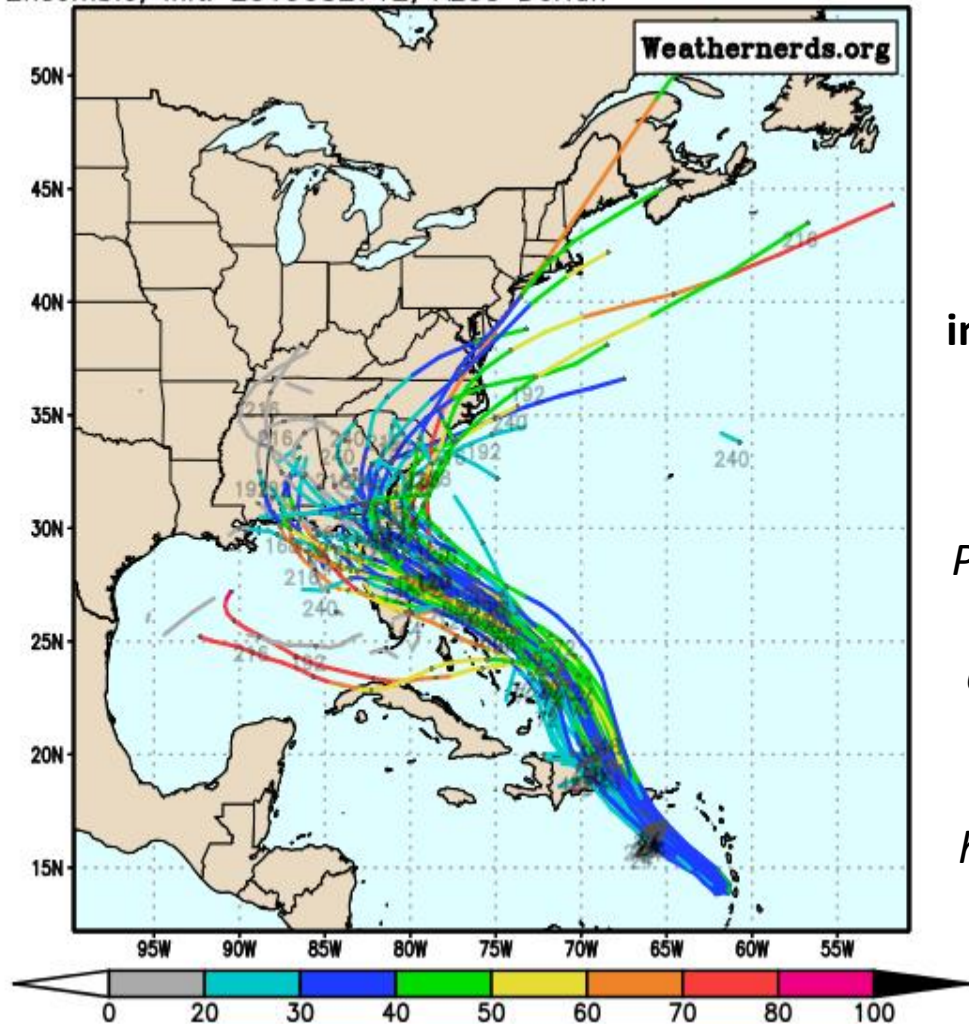
color = max wind (kt)

GFS Ensemble, init: 2019082712, 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.

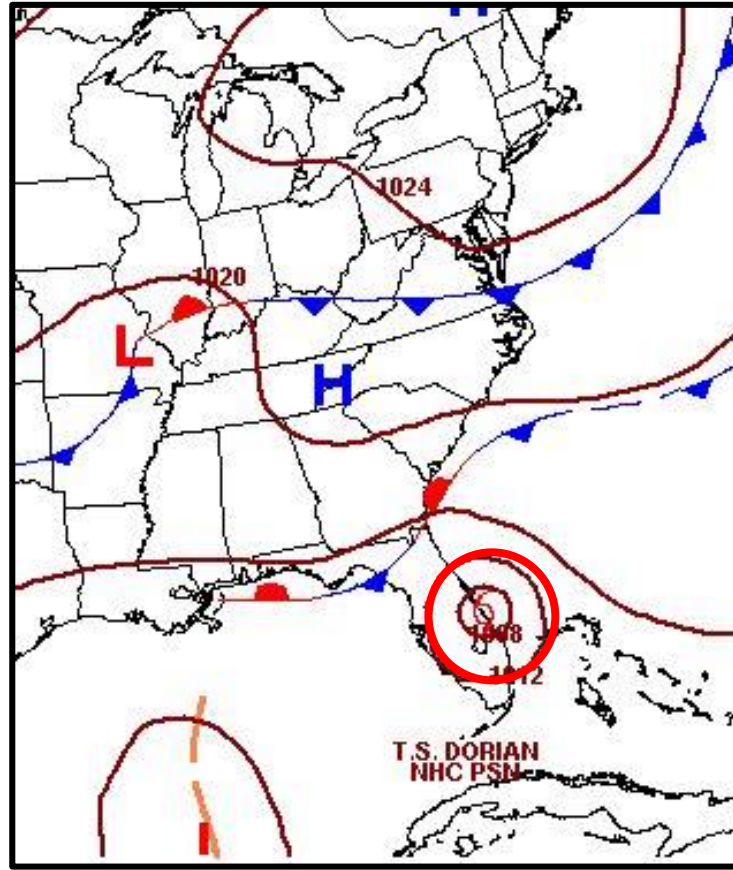
Possible scenarios as the system approaches Florida range from a remnant low to a hurricane, and from the Florida Keys to Northeast Florida.



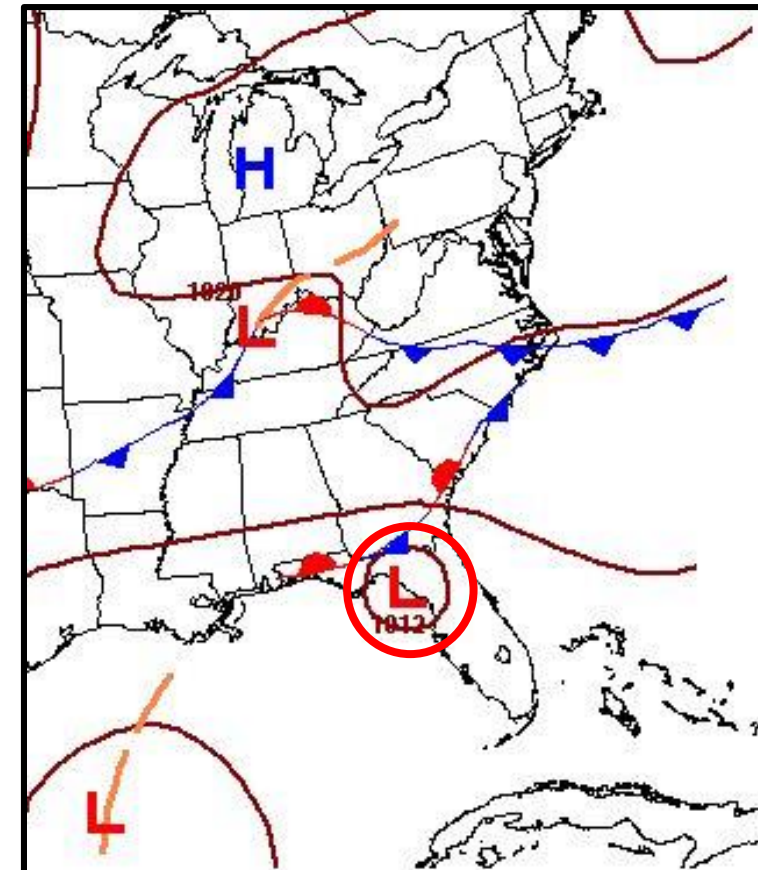
Forecast Weather Maps with Fronts



Saturday AM



Sunday AM



Monday AM

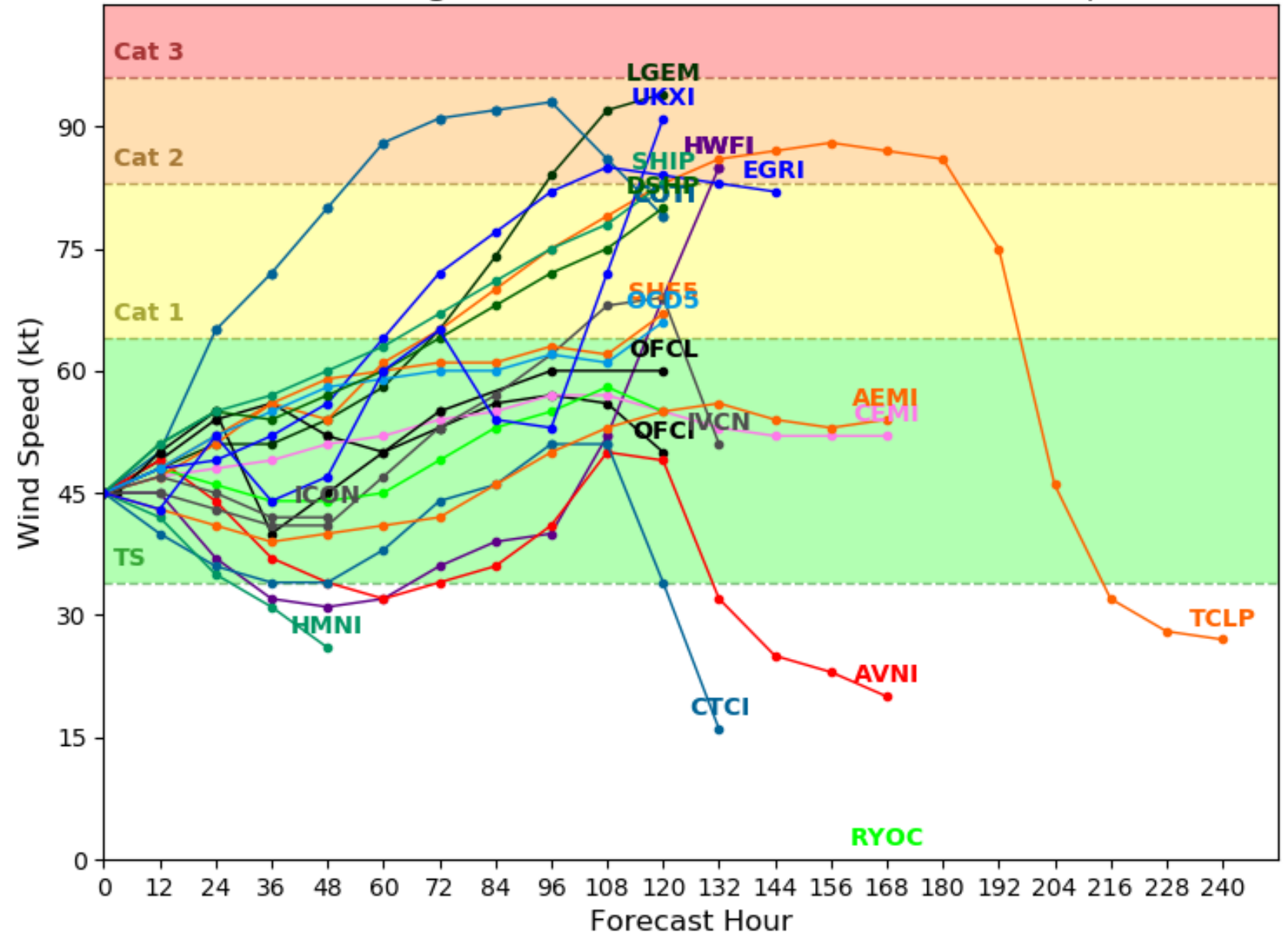
Tropical Storm Dorian will track through the Bahamas on Friday and Saturday, approaching the Florida Peninsula Saturday night and Sunday. Dorian may then move into the eastern Gulf of Mexico by Labor Day.

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

Tropical Storm DORIAN Model Intensity Guidance

Initialized at 18z Aug 27 2019

Levi Cowan - tropicaltidbits.com



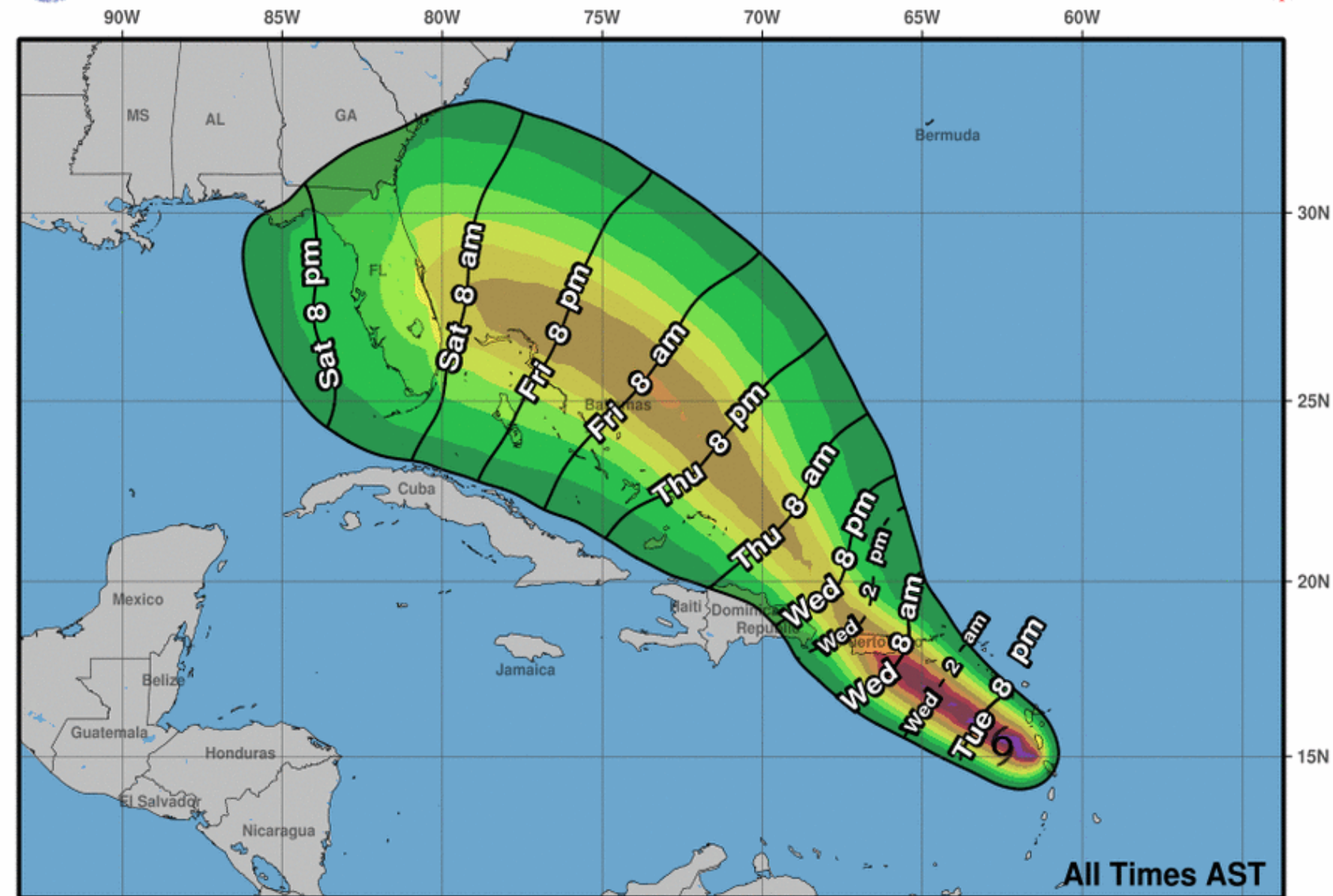
Intensity remains very uncertain for Dorian later this week. The small size of the system makes it more susceptible to rapid weakening from dry air, wind shear, and mountainous terrain.

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 Category 2 Hurricane.



Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



All Times AST

Tropical Storm Dorian
Tue. Aug. 27, 2019 5 pm AST
Advisory 14

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 %

Tropical Storm Warnings have been issued for Puerto Rico and the US Virgin Islands.

There are no watches or warnings for Florida, but could be issued as early at Thursday.

Chance of tropical storm forces winds have increased today for Central and Northeast Florida, and decreased slightly for South Florida:

Tallahassee: 5%
Jacksonville: 11%
Orlando: 24%
Cocoa Beach: 40%
West Palm Beach: 36%
Ft. Lauderdale: 28%
Miami: 16%
Naples: 13%
Marathon: 12%



Key Messages for Tropical Storm Dorian

Advisory 14: 5:00 PM AST Tue Aug 27, 2019



1. Tropical storm conditions are expected in the U.S. Virgin Islands and Puerto Rico on Wednesday and in portions of the Dominican Republic Wednesday night and Thursday. Hurricane conditions are possible in Puerto Rico and portions of the Dominican Republic.

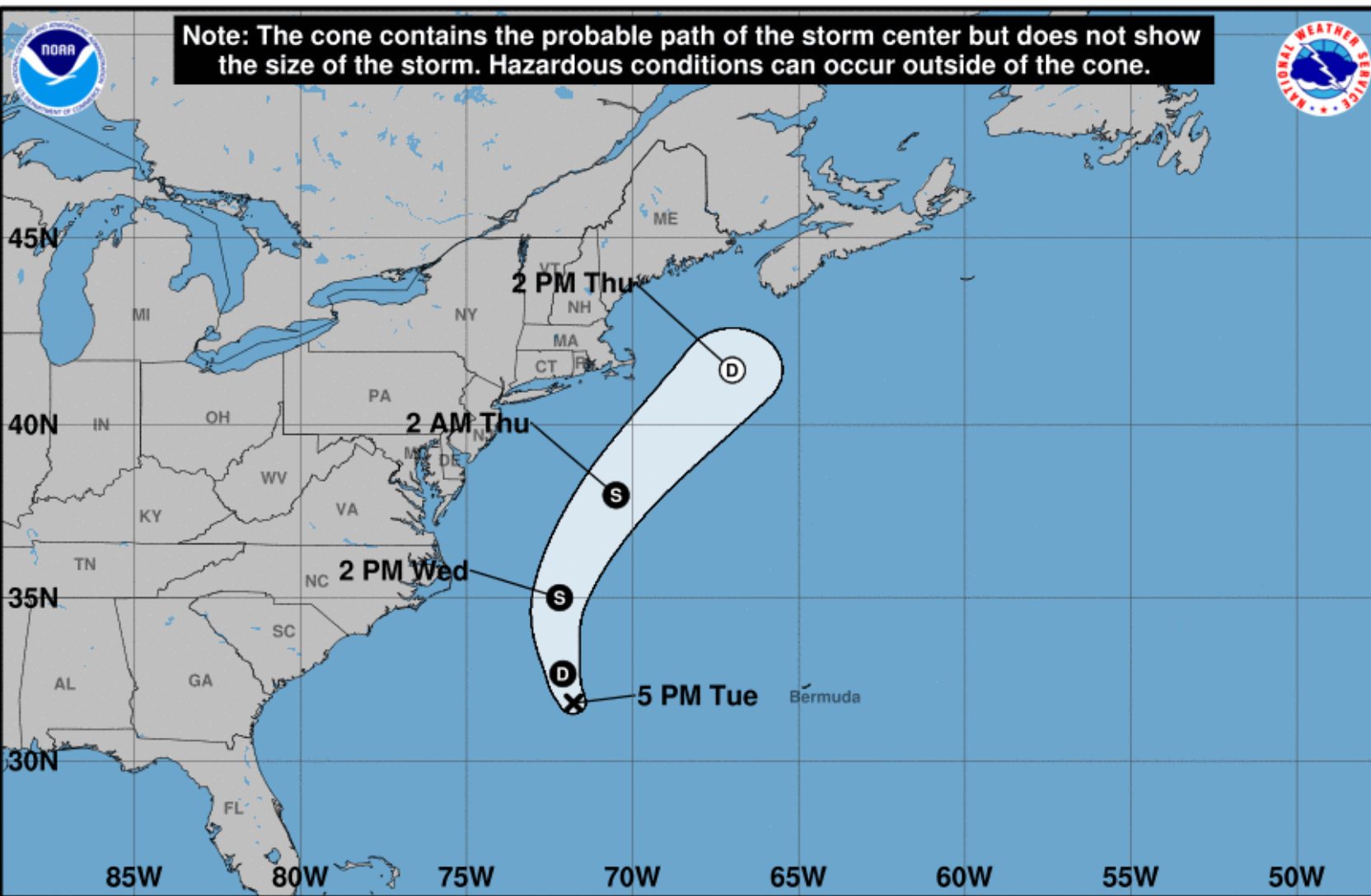
2. Heavy rainfall over portions of Puerto Rico and the Dominican Republic could produce flash flooding during the next few days. Heavy rains are expected to occur over portions of the Bahamas and Florida later this week and into early next week.

3. The threat of tropical storm or hurricane conditions, along with storm surge, in the Bahamas and along portions of the Florida east coast have increased. Residents in these areas should monitor the progress of Dorian and ensure that they have their hurricane plan in place.

4. Uncertainty in the intensity forecast later this week remains higher than usual due to the potential for Dorian's interaction with Puerto Rico and Hispaniola to weaken the storm.



For more information go to hurricanes.gov



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 tomorrow before accelerating northeast into southeastern Canada.

This system poses no threat to Florida.

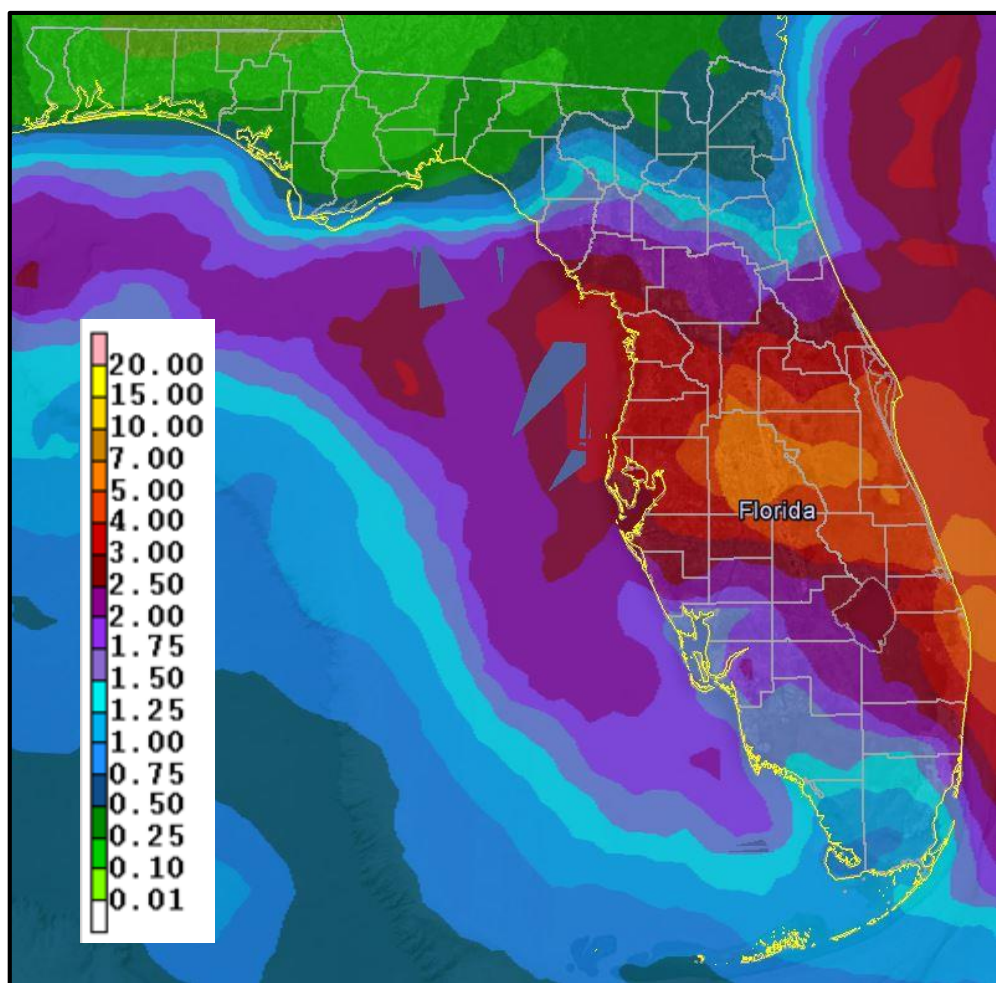
| | | | |
|---|--|---|--|
| Tropical Depression Six Tuesday August 27, 2019 5 PM EDT Advisory 5 NWS National Hurricane Center | Current information: x Center location 31.8 N 71.8 W Maximum sustained wind 35 mph Movement NNW at 7 mph | Forecast positions: ● Tropical Cyclone ○ Post/Potential TC Sustained winds: D < 39 mph S 39-73 mph H 74-110 mph M > 110 mph | |
| Potential track area: ▽ Day 1-3 ▨ Day 4-5 | Watches: ■ Hurricane ■ Trop Stm | Warnings: ■ Hurricane ■ Trop Stm | Current wind extent: ■ Hurricane ■ Trop Stm |

Rainfall Totals Saturday & Sunday

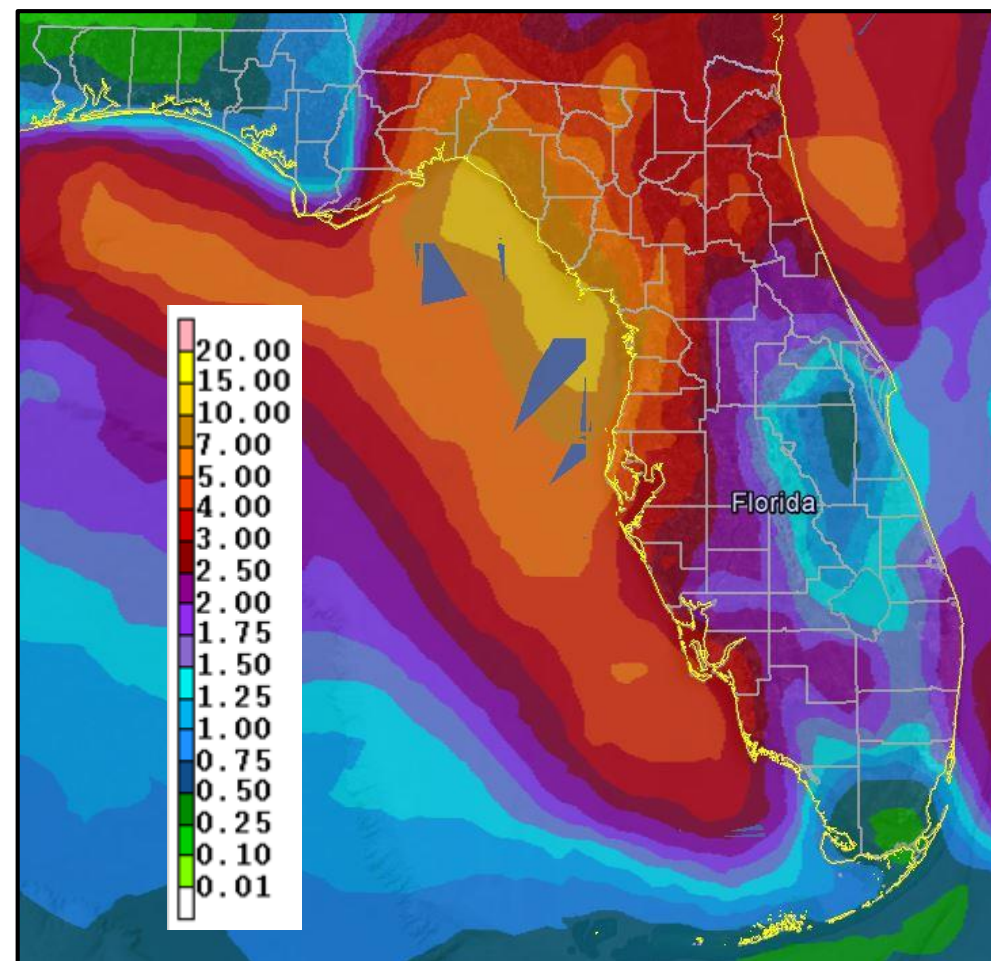
One of the more certain impacts this weekend will be increased rain chances across the state.

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

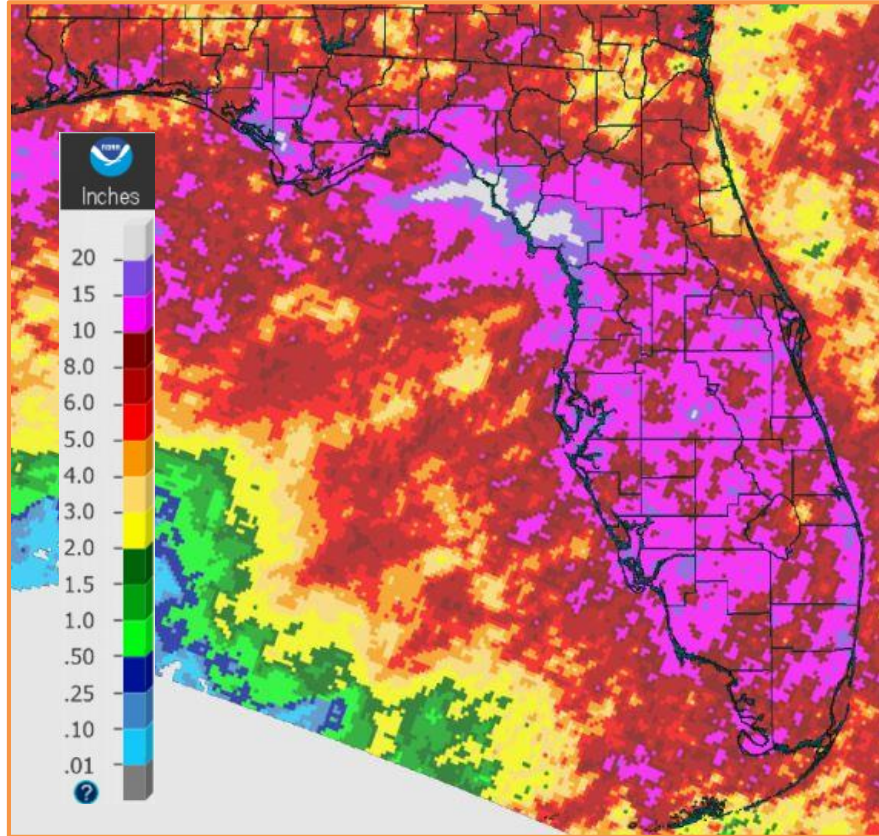
Rainfall Totals Monday & Tuesday



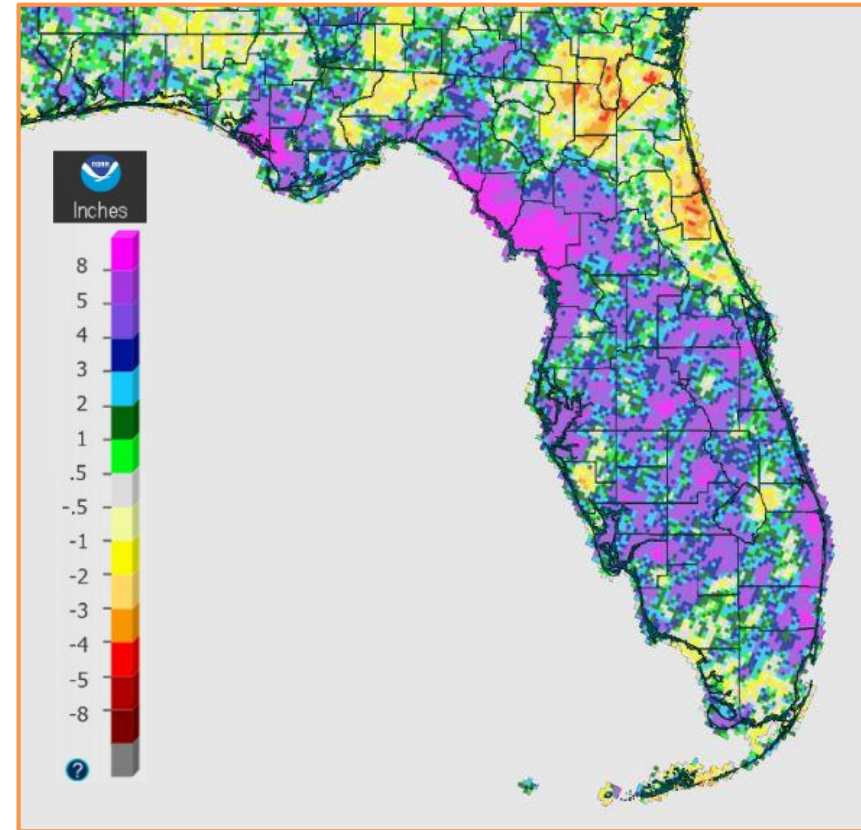
Given the recent stretch of wet weather, these rainfall amounts may create additional river flooding and areal flooding in urban and low-lying areas.



Estimated 30 Day Rainfall



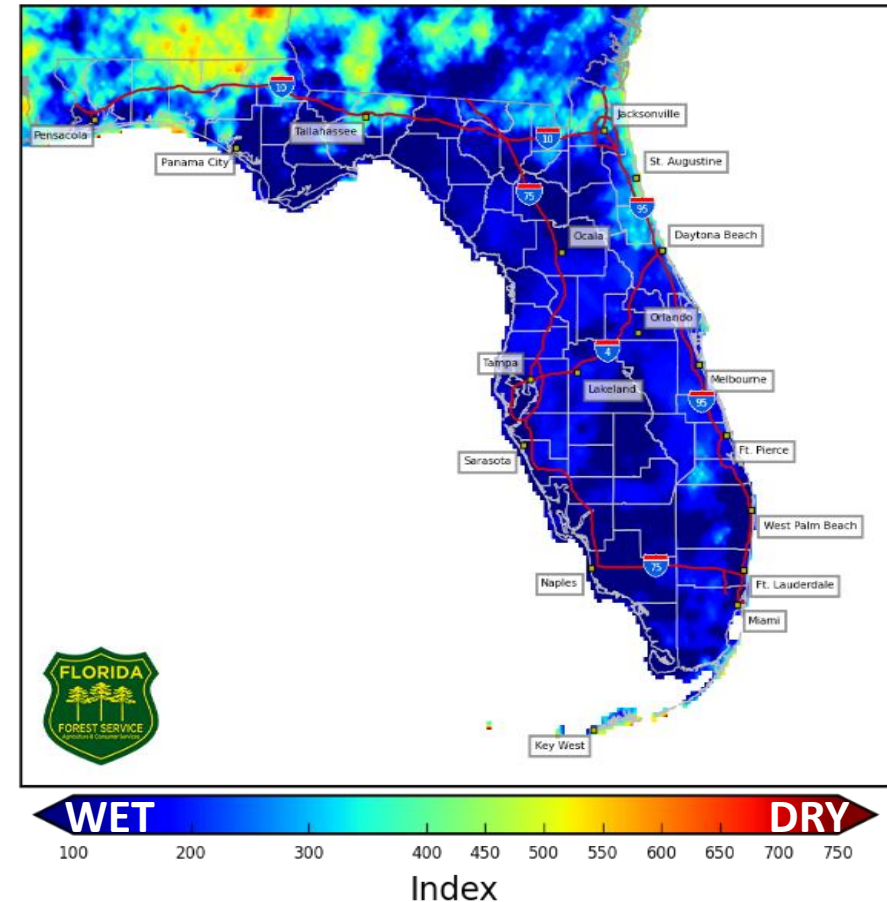
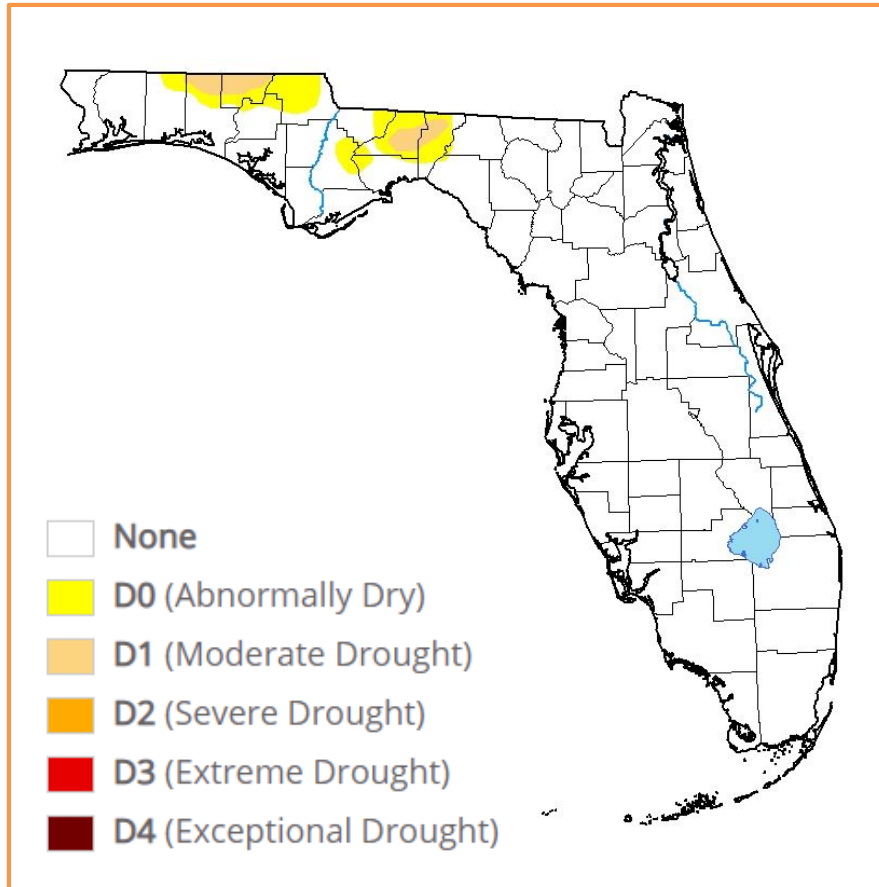
30 Day Rainfall Departures



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

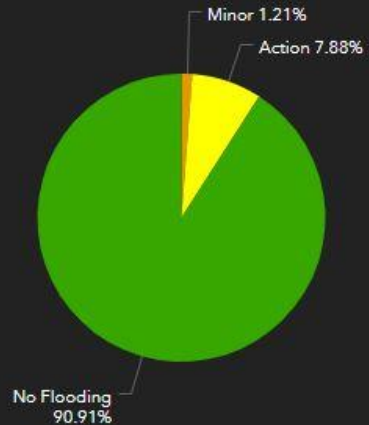
0

▲ 0 (last update)

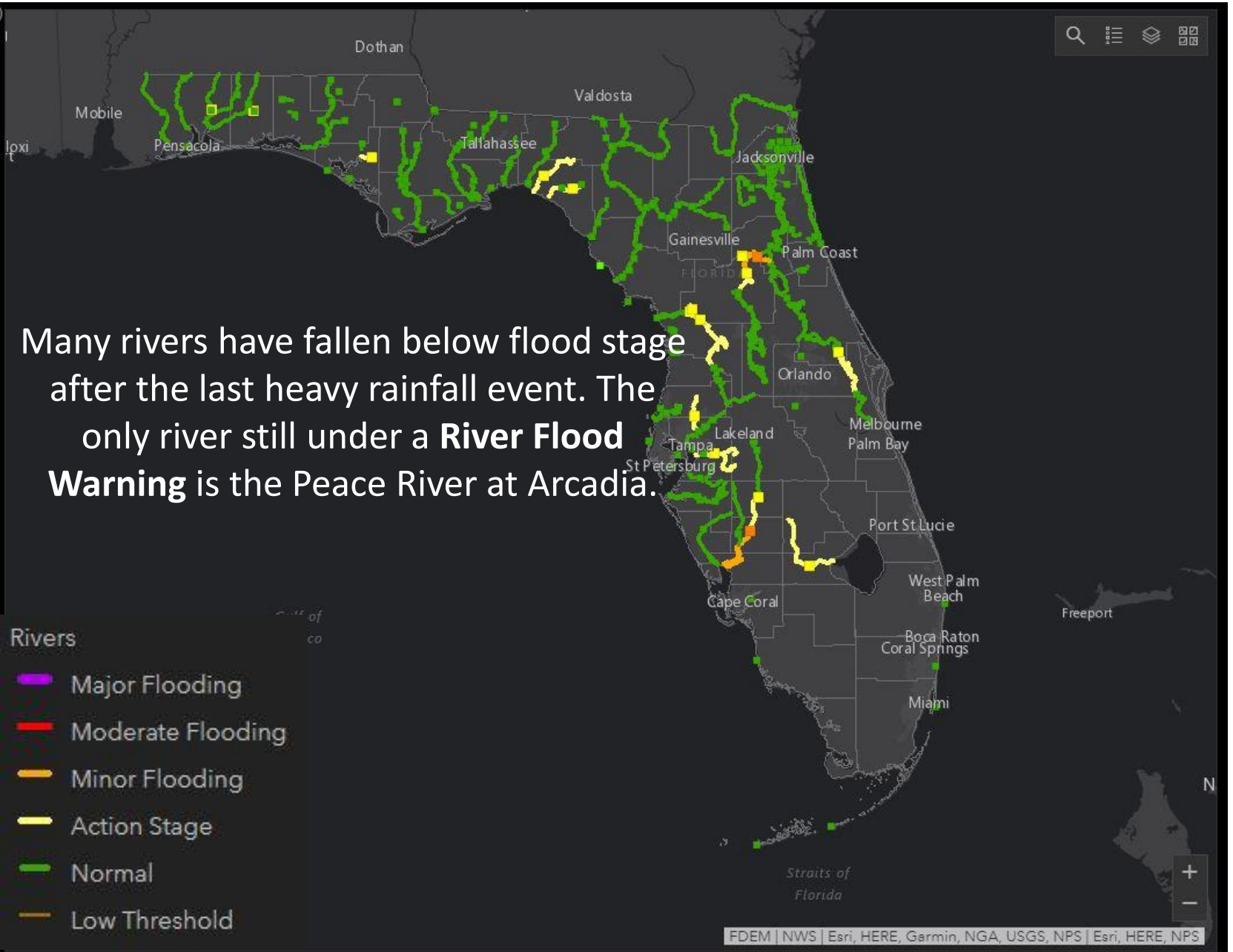
Includes gauges in Minor, Moderate, & Major Flood Stage

Last update: a few seconds ago

River Gauge Conditions by Status



Last update: a few seconds ago



Summary

Tropical Storm Dorian

- As of the 5 PM ET advisory, Tropical Storm Dorian was located 330 miles southeast of Ponce, Puerto Rico and moving to the west-northwest at 13 mph. Maximum sustained winds remain at 50 mph.
- While upper-level winds have been favorable and water temperatures warm, dry air has prevented strengthening today.
- 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, wind shear will also be increasing (upper-level winds becoming unfavorable). Dorian is likely to significantly weaken Wednesday night and Thursday morning.
- Conditions will be favorable for strengthening in the Bahamas on Thursday, Friday, and Saturday 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 315 miles southeast of Cape Hatteras, NC and moving to the north-northwest at 7 mph.
- TD #6 will begin accelerating 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 morning, at the earliest.
- The entire Florida Peninsula, the Upper Keys, Northeast Florida, and the eastern Big Bend are now included in the 5-day forecast cone.
- There are no watches or warnings in effect, but tropical storm or hurricane watches could be issued on Thursday.
- Dorian is forecast to be near hurricane strength as it approaches Florida Saturday night (Northeast Florida, Central Florida, South Florida, and/or the Florida Keys).
- After Sunday, Dorian could re-emerge over the eastern Gulf of Mexico should it track over Central or South Florida.
- Regardless of development, increased rain chances are expected across Florida, along with some minor coastal flooding due to the astronomical high tides this weekend.
- **Given the unknown degree of interaction with Hispaniola, the intensity forecast at days 4 and 5 is of low confidence.**
- **The threat of tropical storm or hurricane conditions, flooding, and storm surge along portions of the Florida east coast have increased.**
- **All locations in Florida should continue to monitor Dorian for possible impacts over the Labor Day Weekend.**

The next tropics packet will be issued Wednesday morning. 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



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State Meteorological Support Unit

Florida Division of Emergency Management

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