



# TROPICAL UPDATE



11 AM EDT

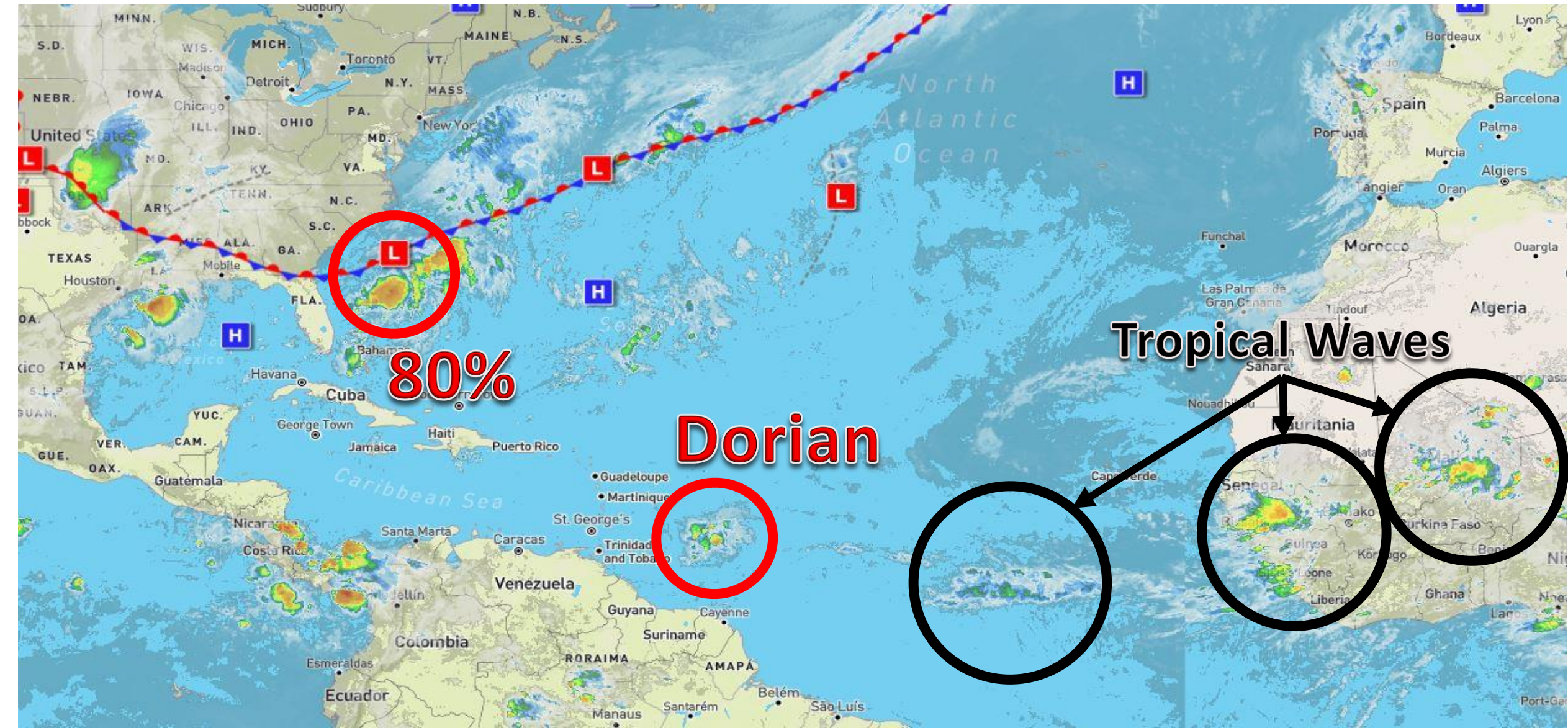
Sunday, August 25, 2019

Tropical Storm Dorian  
& Invest 98L (80%)

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).

# Atlantic Basin Satellite Image

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







# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

All Disturbances

1. 80%

1. Showers and thunderstorms remain disorganized in association with a trough of low pressure that extends from the southern Florida peninsula northeastward over the western Atlantic for a few hundred miles. Environmental conditions appear conducive for gradual development, and a tropical or subtropical depression is likely to form within the next few days while the system moves slowly northeastward well offshore of the southeastern United States. Interests along the coasts of South and North Carolina should continue to monitor the progress of this system. An Air Force Reserve Hurricane Hunter aircraft is scheduled to investigate the disturbance this afternoon, if necessary.

\* Formation chance through 48 hours...medium...60 percent.

\* Formation chance through 5 days...high...80 percent.

DORIAN

8:00 am EDT  
Sun Aug 25 2019

100W 90W 80W 70W 60W 50W 40W 30W 20W

15N

5N

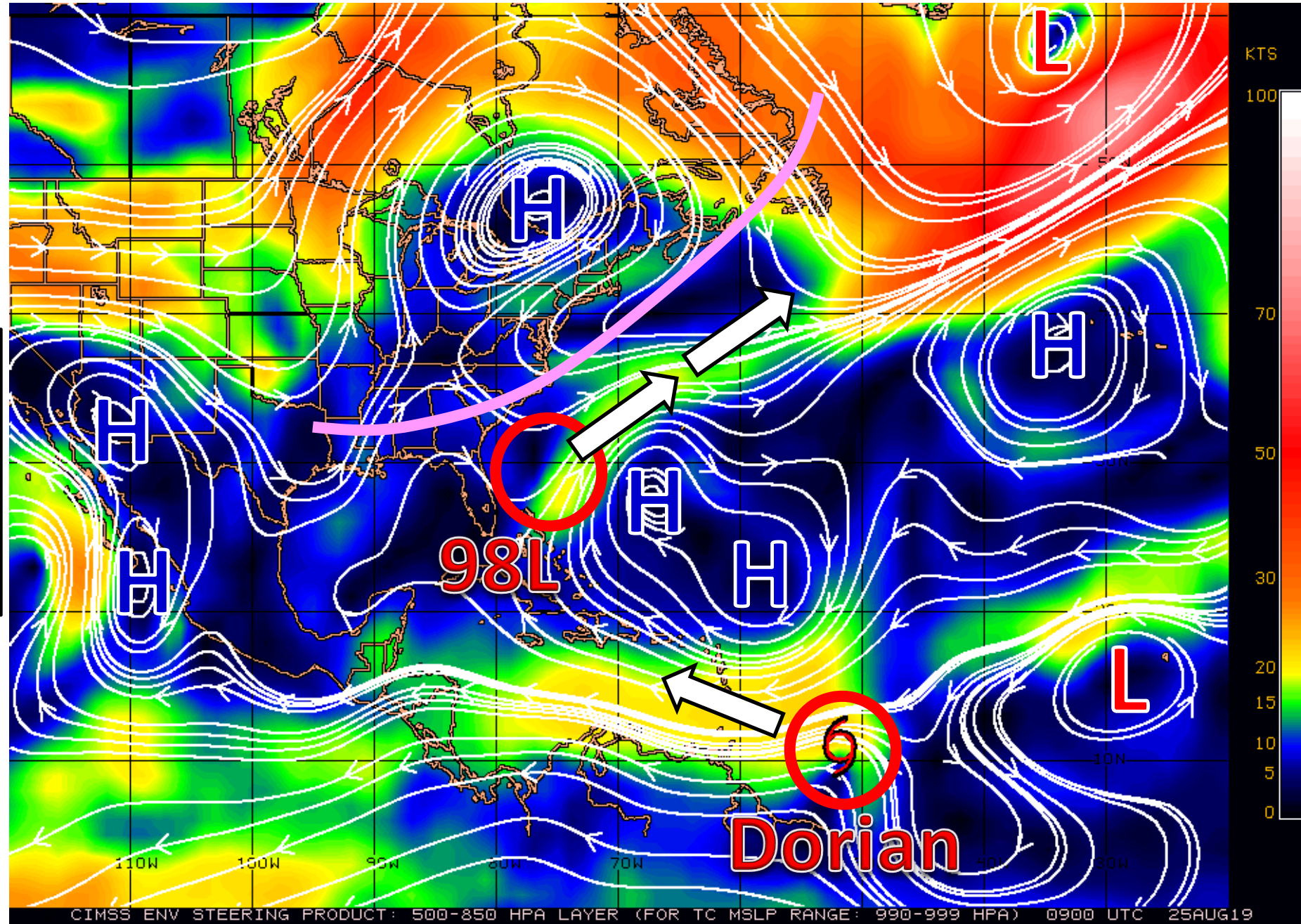
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

# Steering Currents

Invest 98L, 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.

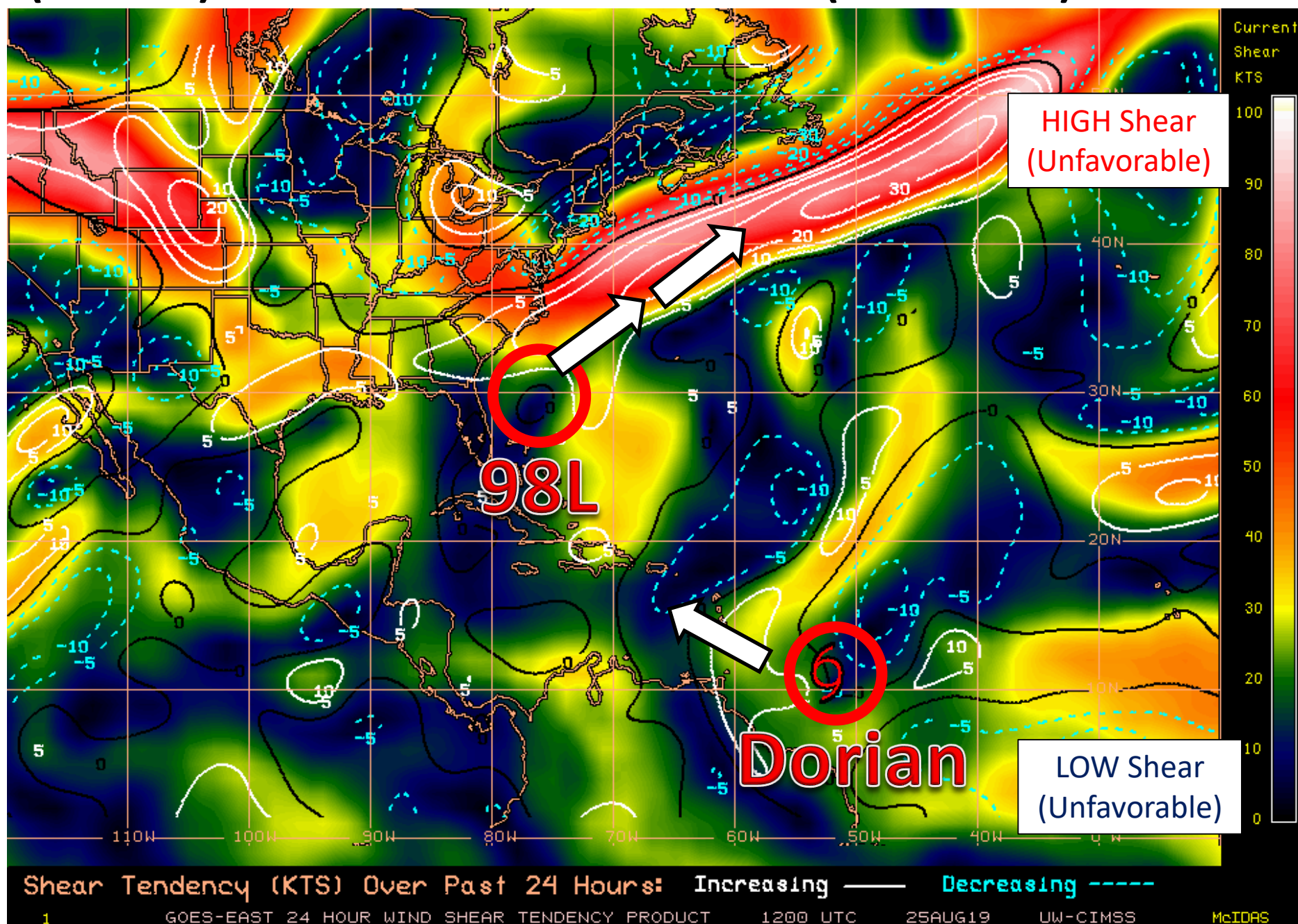




# Wind Shear (shaded) and Wind Shear Tendencies (contoured)

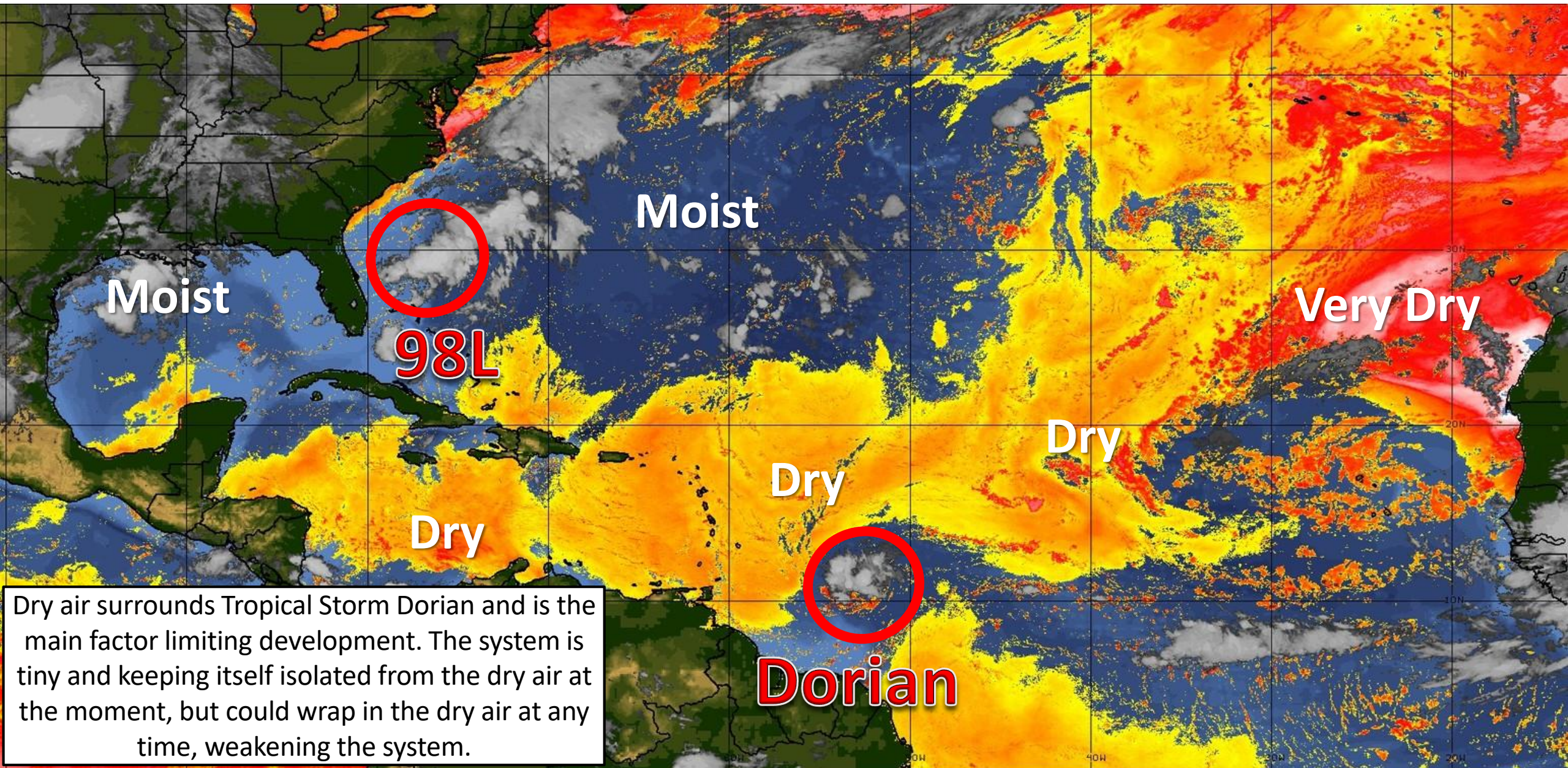
Wind shear over 98L is low and will remain favorable for development for the next couple of days.

Wind shear near Tropical Storm Dorian has decreased and will remain favorable for strengthening. However, wind shear is forecast to increase in the Caribbean later this week.





# Dry Air & Saharan Dust



Moist

Moist

Very Dry

98L

Dry

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 could wrap in the dry air at any time, weakening the system.

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

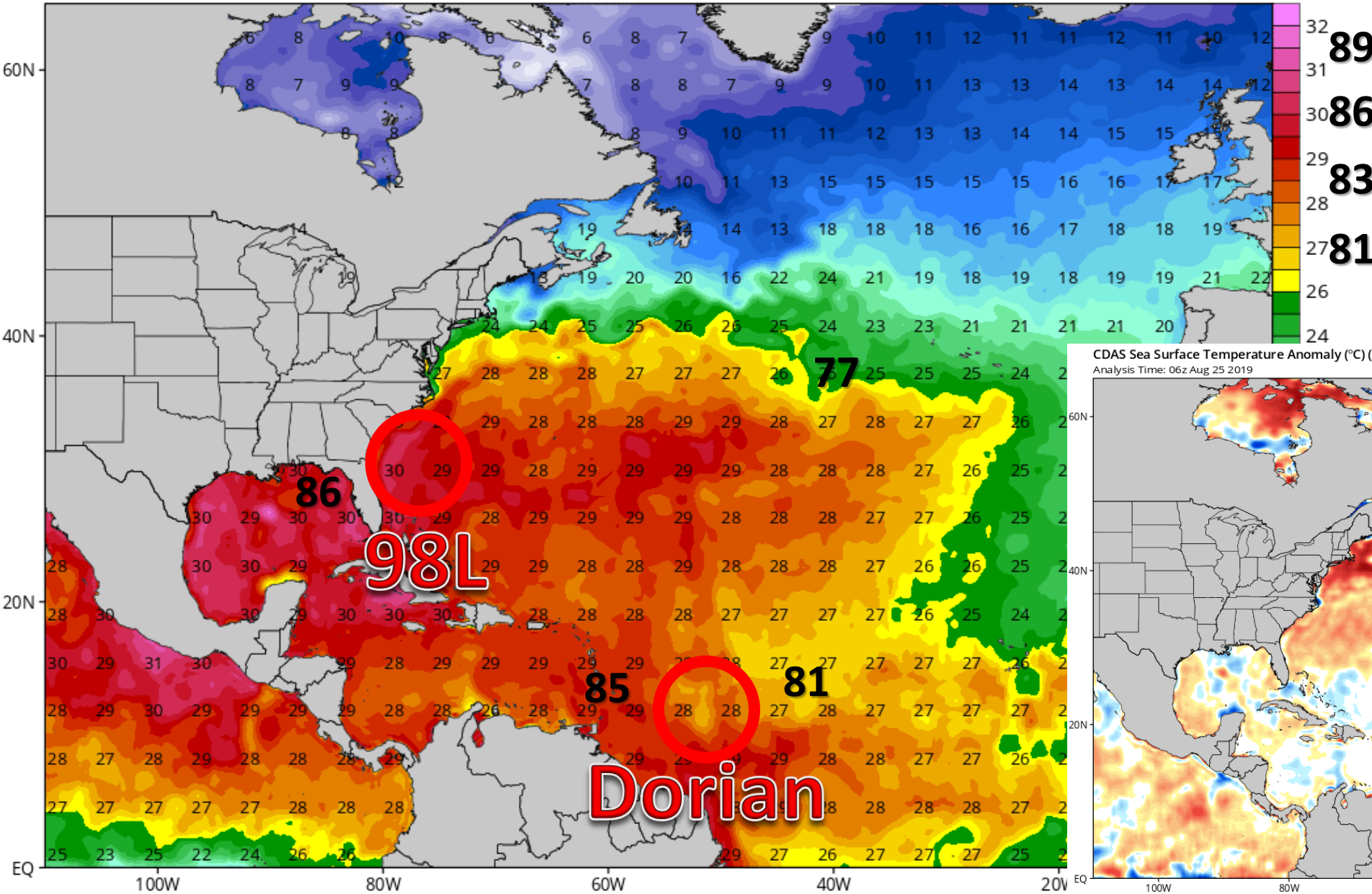


# North Atlantic Sea Surface Temperatures and Anomalies

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Aug 25 2019

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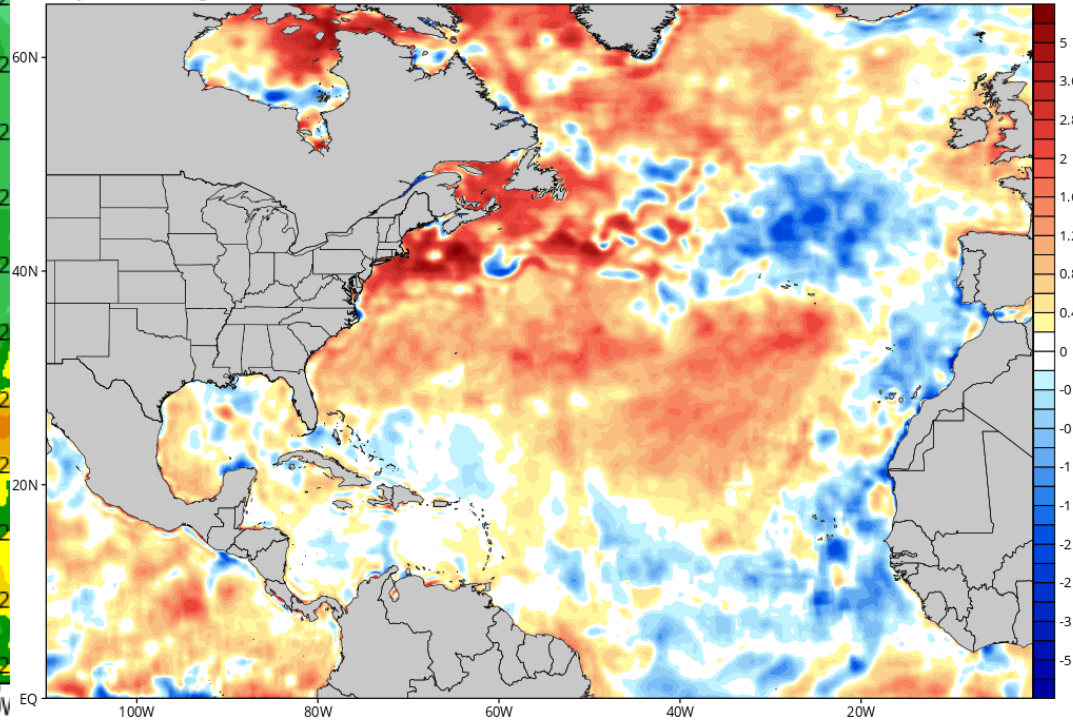


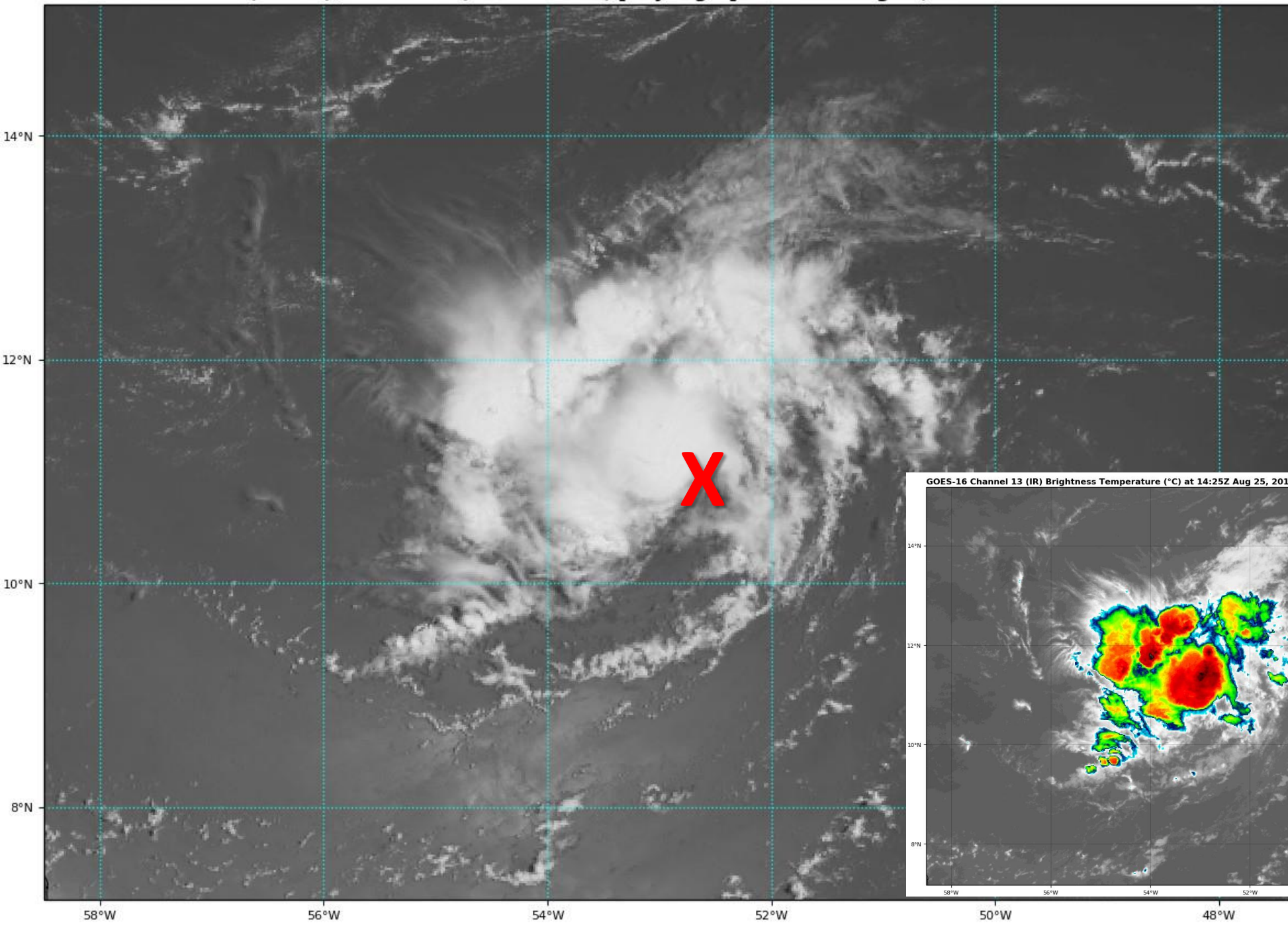
Water temperatures near and ahead of 98L and Dorian are warm enough to support tropical development. Water temperatures will be warming as Dorian travels west.

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

Analysis Time: 06z Aug 25 2019

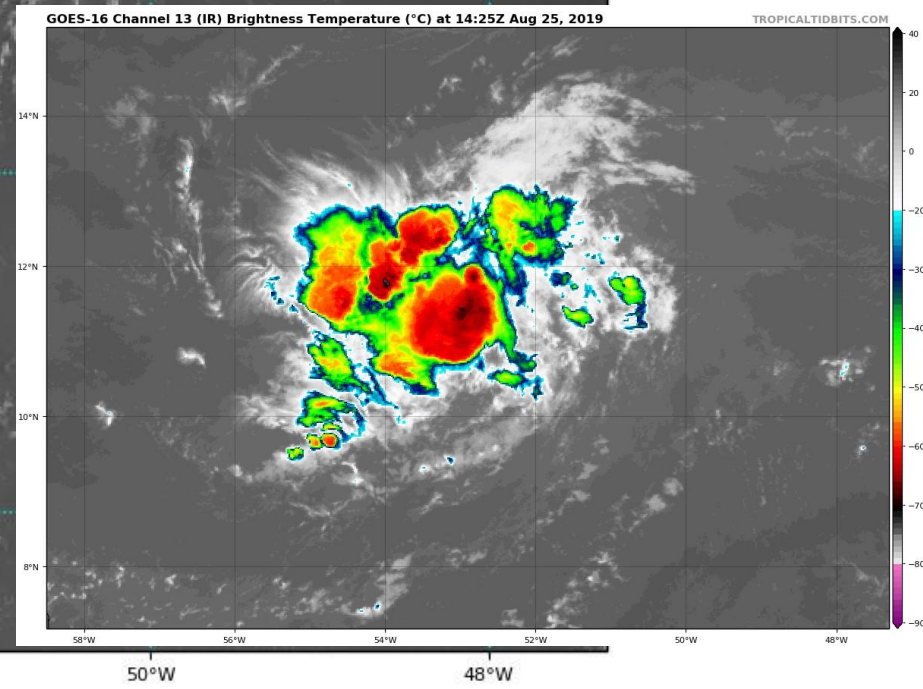
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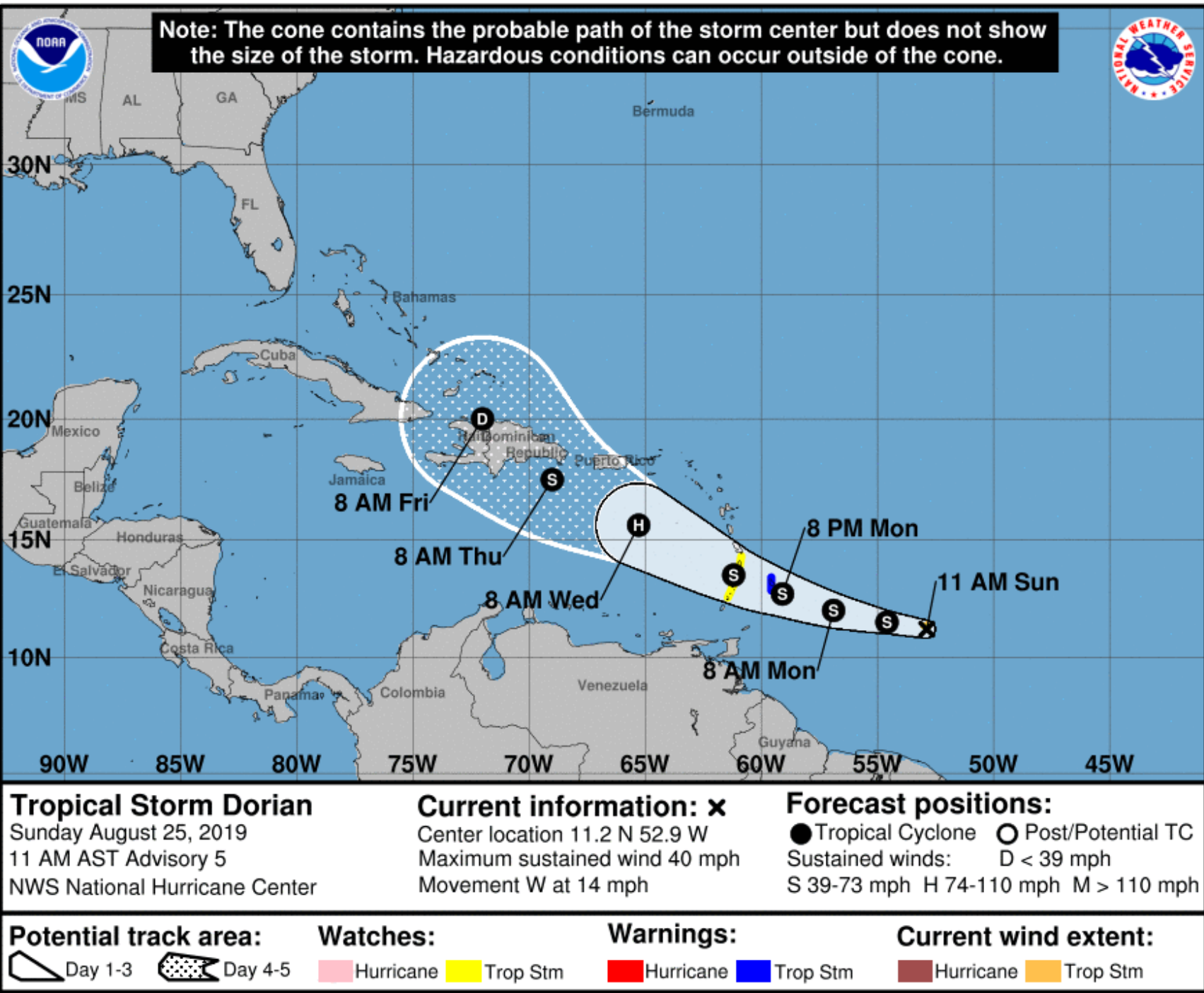


# Tropical Storm Dorian Satellite Image

Tropical Storm Dorian is a small system with the showers displaced to the north and west of the center.







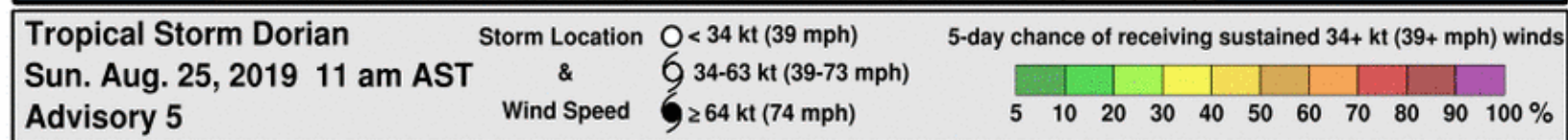
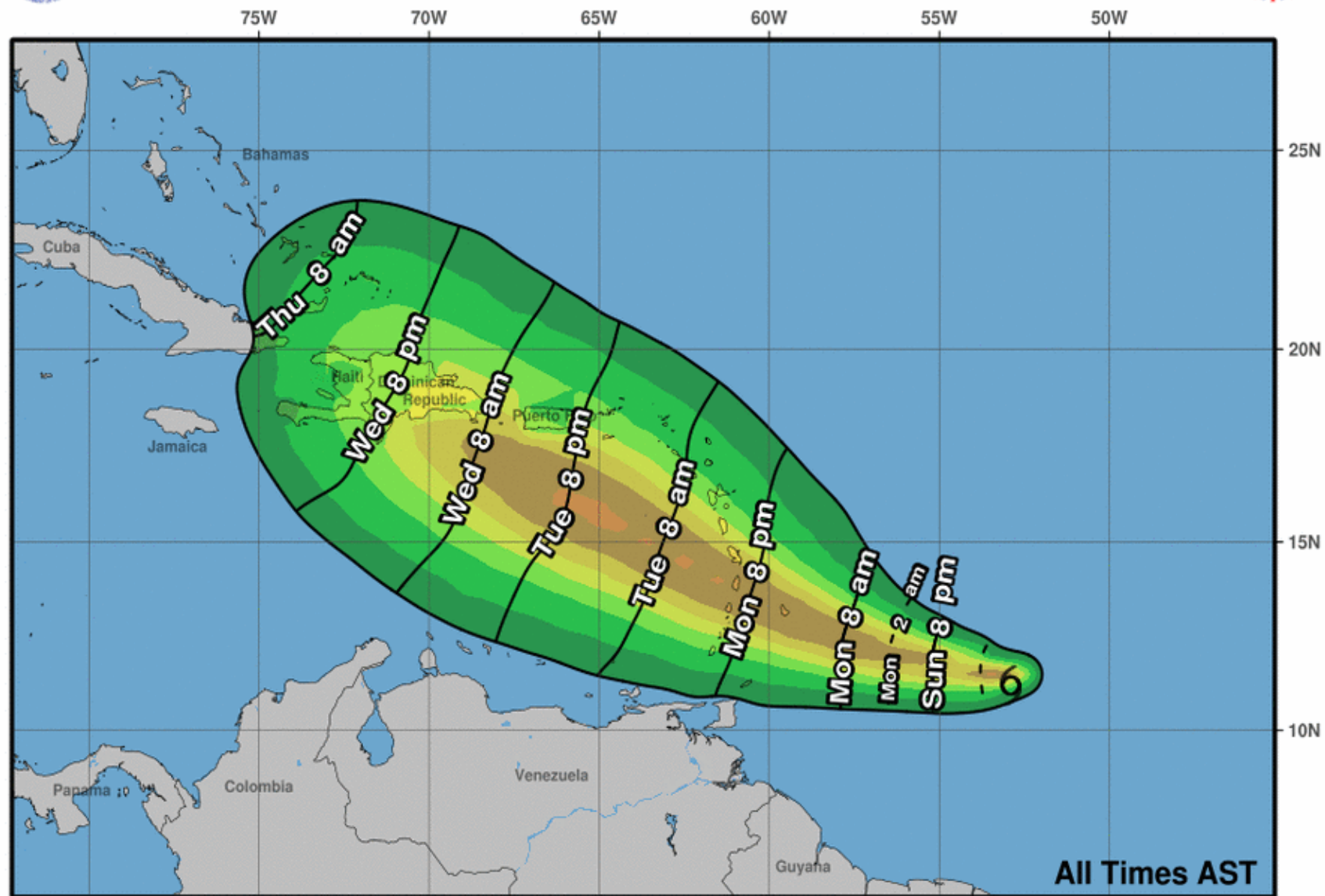
# Tropical Storm Dorian Forecast Track

Tropical Storm Dorian is located about 465 miles east-southeast of Barbados, moving west at about 14 mph. Dorian is expected to turn toward the west-northwest by Monday. Maximum sustained winds remain at 40 mph. Further strengthening is forecast, and Dorian is forecast to become a hurricane by Wednesday in the eastern Caribbean. Land interaction and unfavorable upper-level winds will weaken or dissipate the system thereafter.





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



Puerto Rico and the United States Virgin Islands have a 1 in 5 chance of seeing tropical storm force winds.



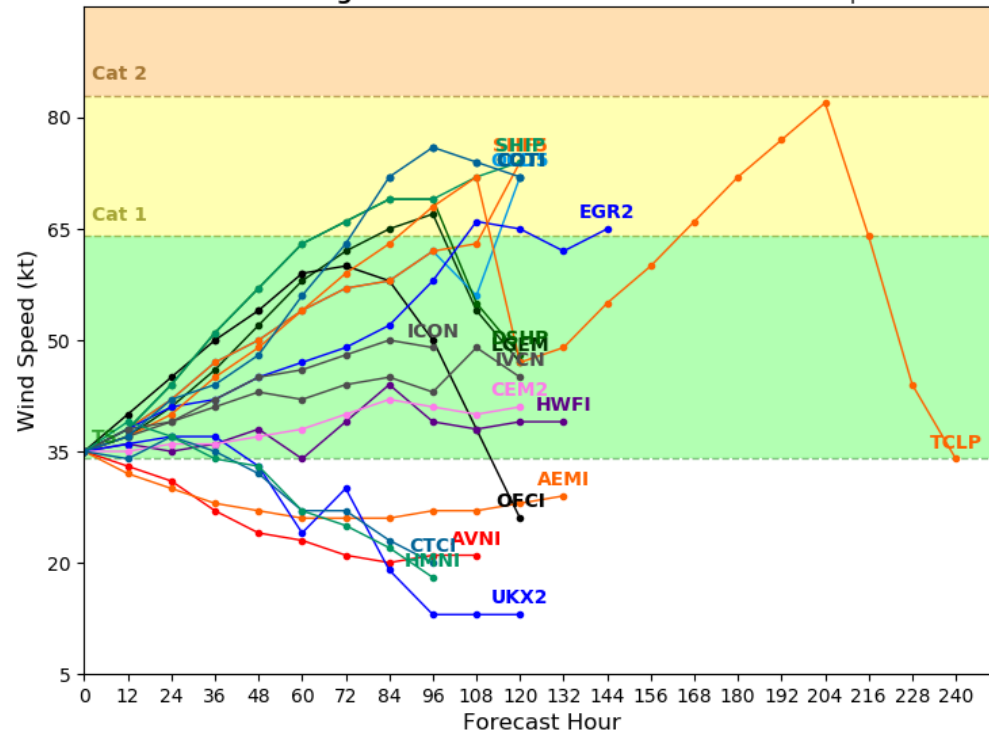
# T.S. Dorian Model Guidance

- The models are in good agreement on the track for Dorian, with most models having Dorian near Puerto Rico or Hispaniola in about 4 days. However, consensus continues to shift southwest with the track.
- Intensity remains more uncertain as there is a wide spread in the model guidance. The uncertainty in the intensity forecast is due to the small size of Dorian.

## Tropical Storm DORIAN Model Intensity Guidance

Initialized at 12z Aug 25 2019

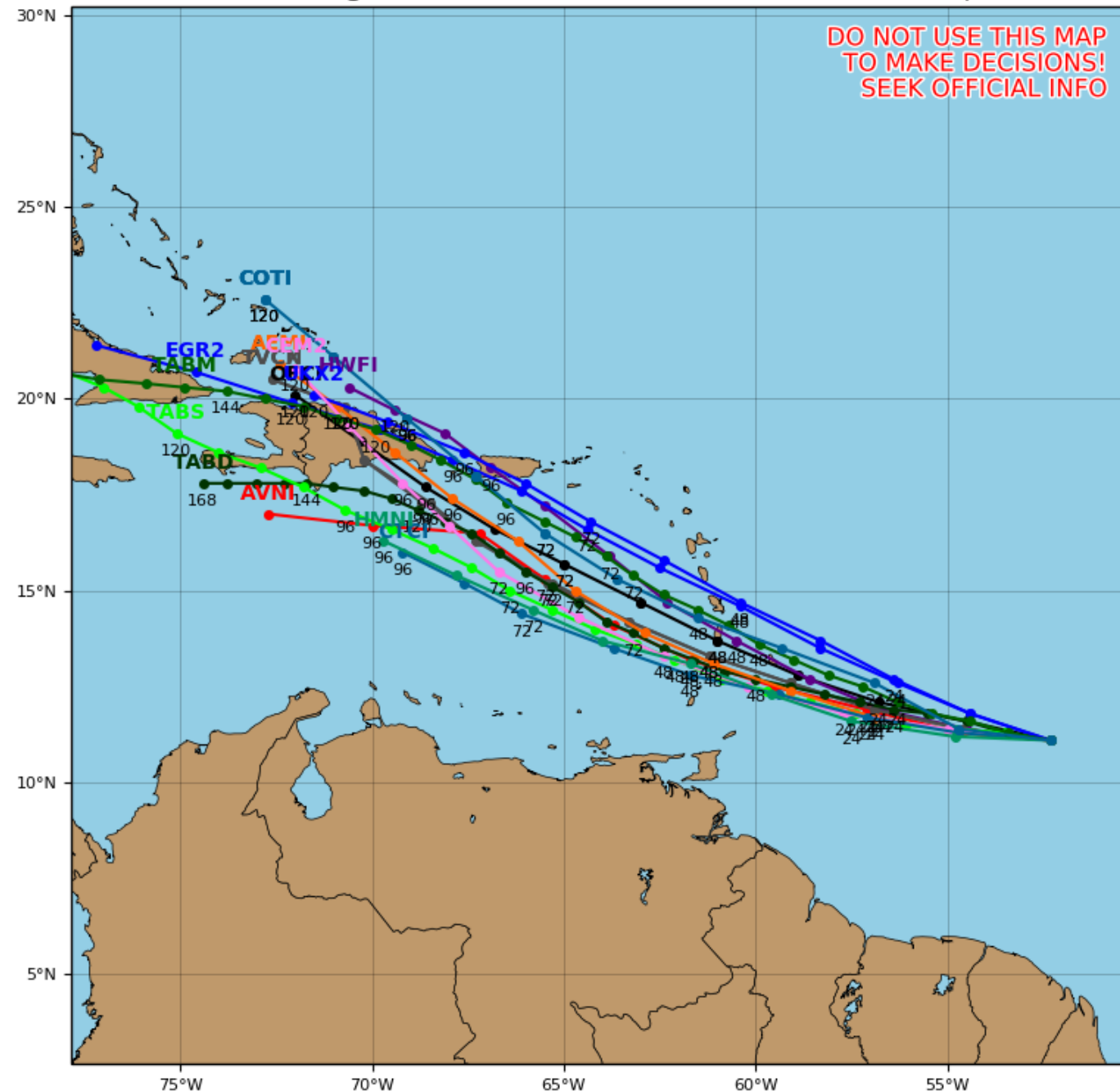
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## Tropical Storm DORIAN Model Track Guidance

Initialized at 12z Aug 25 2019

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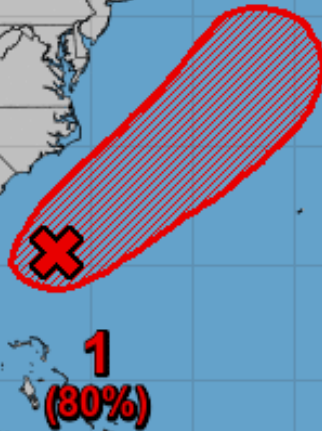
# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

Disturbance 1



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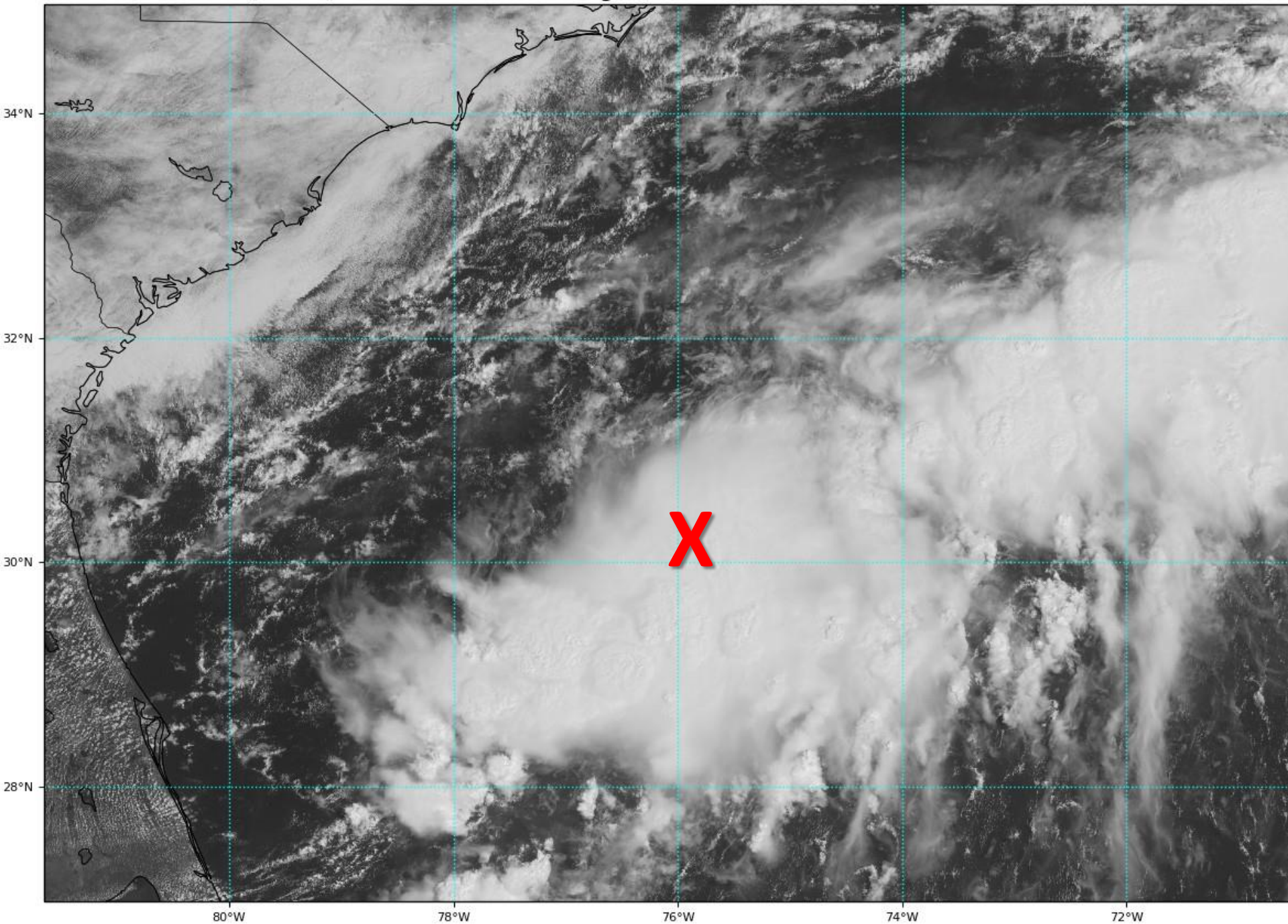
5N

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





## Invest 98L Satellite Image

The center of 98L is broad and unorganized, but strong thunderstorms are numerous. The system will slowly organize over the next few days.



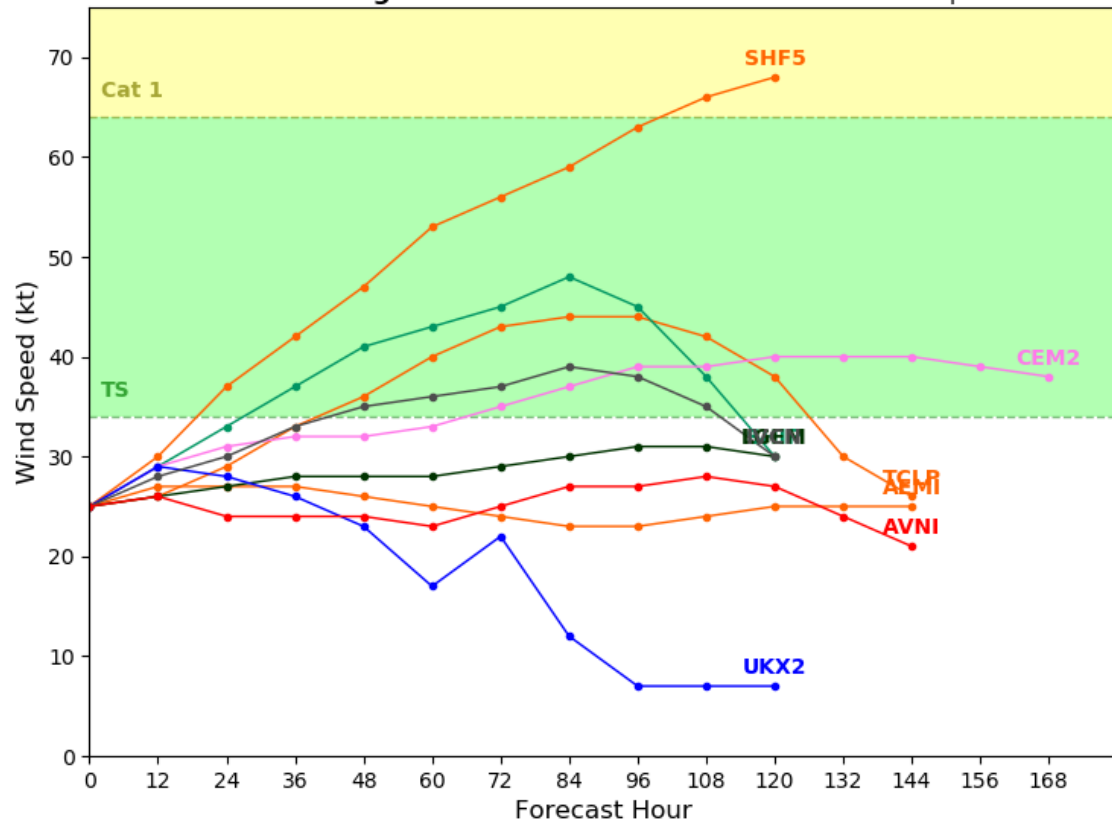
# Invest 98L Model Guidance

98L will move northeastward today and through the next several days. Models keep the storm well away from the U.S. East Coast. 98L will likely stay weak.

## Invest 98L Model Intensity Guidance

Initialized at 12z Aug 25 2019

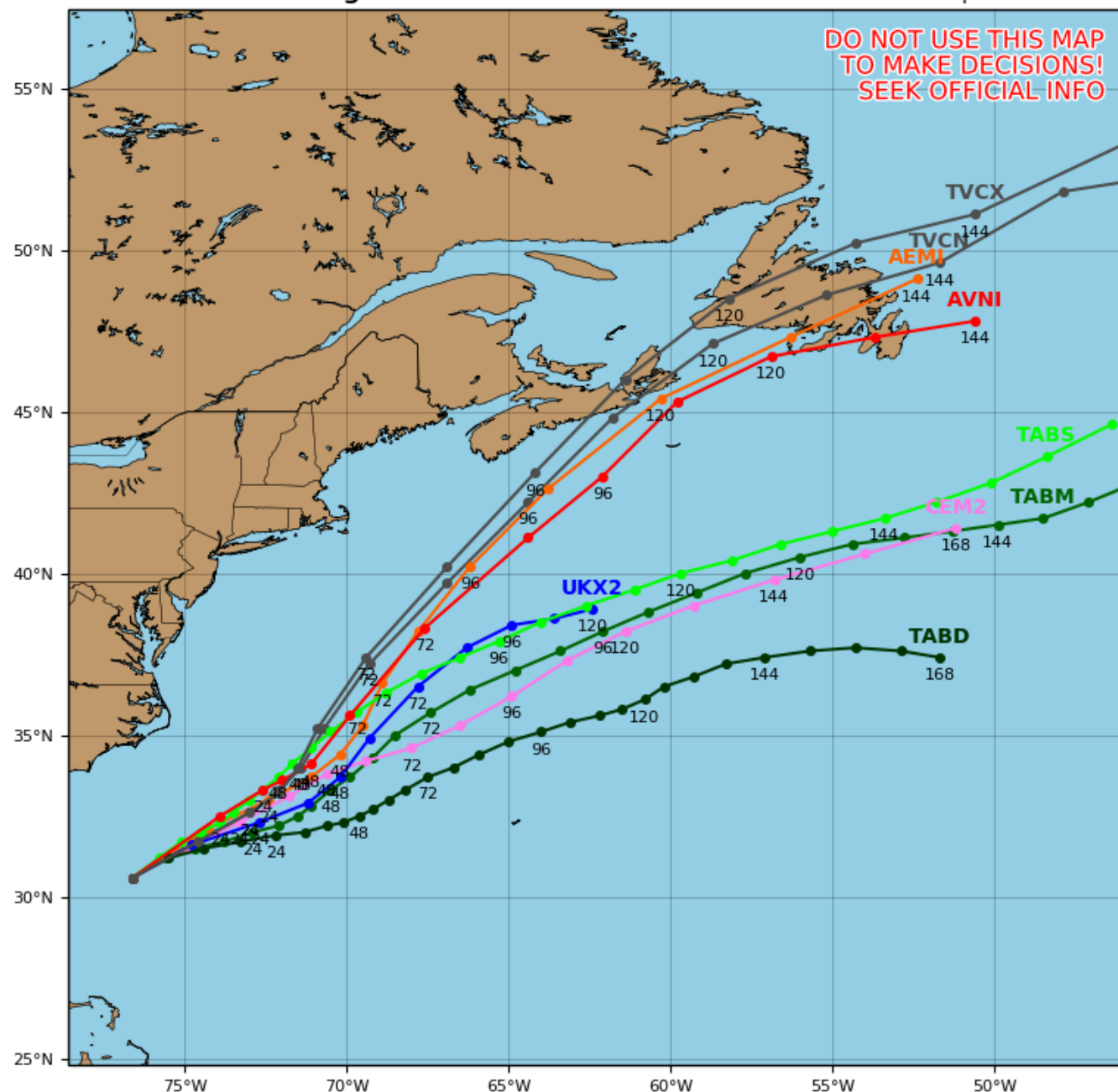
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## Invest 98L Model Track Guidance

Initialized at 12z Aug 25 2019

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# Rainfall Totals Next 3 Days

A cold front in North Florida will increase rain chances through Tuesday, with some areas of the Panhandle receiving a widespread 2-3".

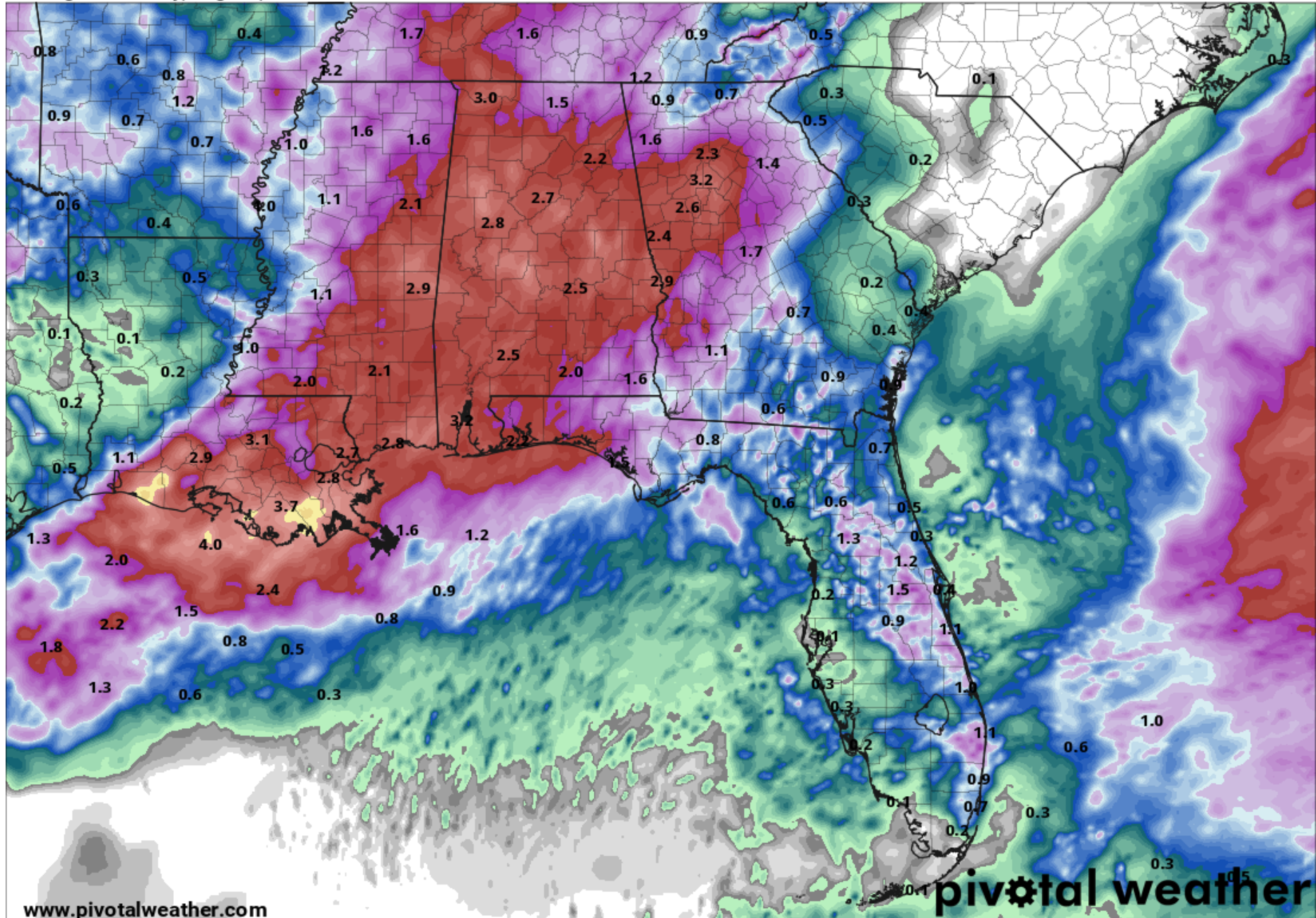
Increased rain chances are forecast for South Florida today before returning to a seasonable weather pattern.

**These rainfall totals are not expected to impact river levels.**

*Ponding of water on roadways is possible in the afternoon.*

72-Hour Precipitation (in)  
Ending Wednesday, Aug. 28, 2019 at 8 a.m. EDT

Init: Sun 2019-08-25 12z WPC







Sunday



Monday

# Flash Flood Outlooks

A stalling cold front across North Florida will increase rain chances for the next couple of days. Recent dry conditions inland will limit the flood threat. The most susceptible area for flooding based on recent rainfall is Bay and Gulf County along with the Pensacola metro area.

**Minor street flooding will be the primary impact.**



**MARGINAL  
(MRGL)**

**Isolated flash  
floods possible**

Localized and  
primarily affecting  
places that can  
experience rapid  
runoff with heavy  
rainfall.

**SLIGHT  
(SLGT)**

**Scattered flash  
floods possible**

Mainly localized. Most  
vulnerable are urban  
areas, roads, small  
streams and washes.  
Isolated significant  
flash floods possible.

Tuesday

# Summary

## **Tropical Storm Dorian**

- Tropical Storm Dorian maintained intensity overnight, having no increase in organization.
- Dorian is located about 450 miles east-southeast of Barbados and is moving to the west at 14 mph.
- A slight turn to the west-northwest is expected over the next day or so. It should reach the Lesser Antilles by Tuesday morning and Hispaniola by Thursday morning.
- Maximum sustained winds are near 40 mph, and slow but steady strengthening is forecast through the next couple of days. The tropical storm may become a hurricane Tuesday or Wednesday in the eastern Caribbean Sea.
- Beyond 5 days, it is uncertain where Dorian will continue to move or how strong it will be. Small systems such as Dorian are more susceptible to surrounding atmospheric conditions, which could lead to fluctuations in intensity.
- Any land interaction with Hispaniola is likely to dissipate the system entirely.

## **Invest 98L**

- Invest 98L is well off the East Coast of Florida and will continue to move northeastward away from land.
- 98L is likely to become a tropical or subtropical depression over the next few days.
- This system has a 60% (medium) chance of formation during the next 48 hours and a 80% (high) chance of formation during the next 5 days.

## **Invest 90L**

- Invest 90L moved inland over Louisiana and has no chance of tropical development.



## Florida Outlook:

- Locally heavy rainfall is possible across South Florida today and the Panhandle Monday and Tuesday.
- Seasonable rain chances are expected across the rest of the state this week.
- Current rainfall totals across the Panhandle are 1-3" through Tuesday with locally higher totals of 4-5" possible, mainly near the coast.
- Due to saturated soils across the Peninsula, some isolated flooding is possible, especially in low-lying, poor drainage, or urban areas. Dry conditions across the inland Panhandle will limit the flood threat.
- Only one river flood warning is in effect (Peace River at Arcadia). All other rivers have fallen below flood stage.
- Tropical Storm Dorian poses no threat to Florida over the next week. **However, it should continue to be monitored.** *On the current most-likely forecast, land interaction and wind shear will weaken the system later this week.*

The next tropics packet will be issued this afternoon. 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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