



# TROPICAL UPDATE



6 PM EDT

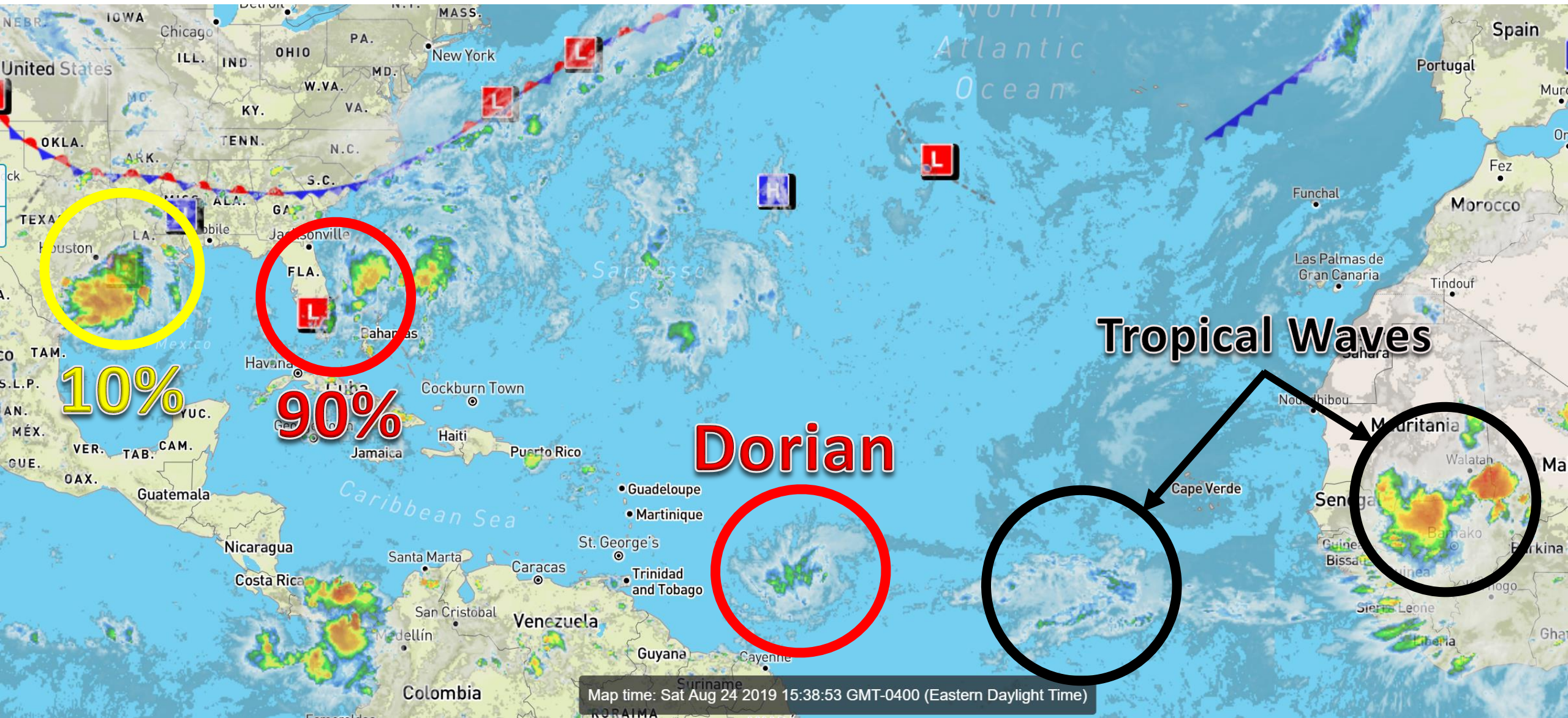
Saturday, August 24, 2019

Tropical Storm Dorian, Invest 98L (90%),  
Invest 90L (10%)

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

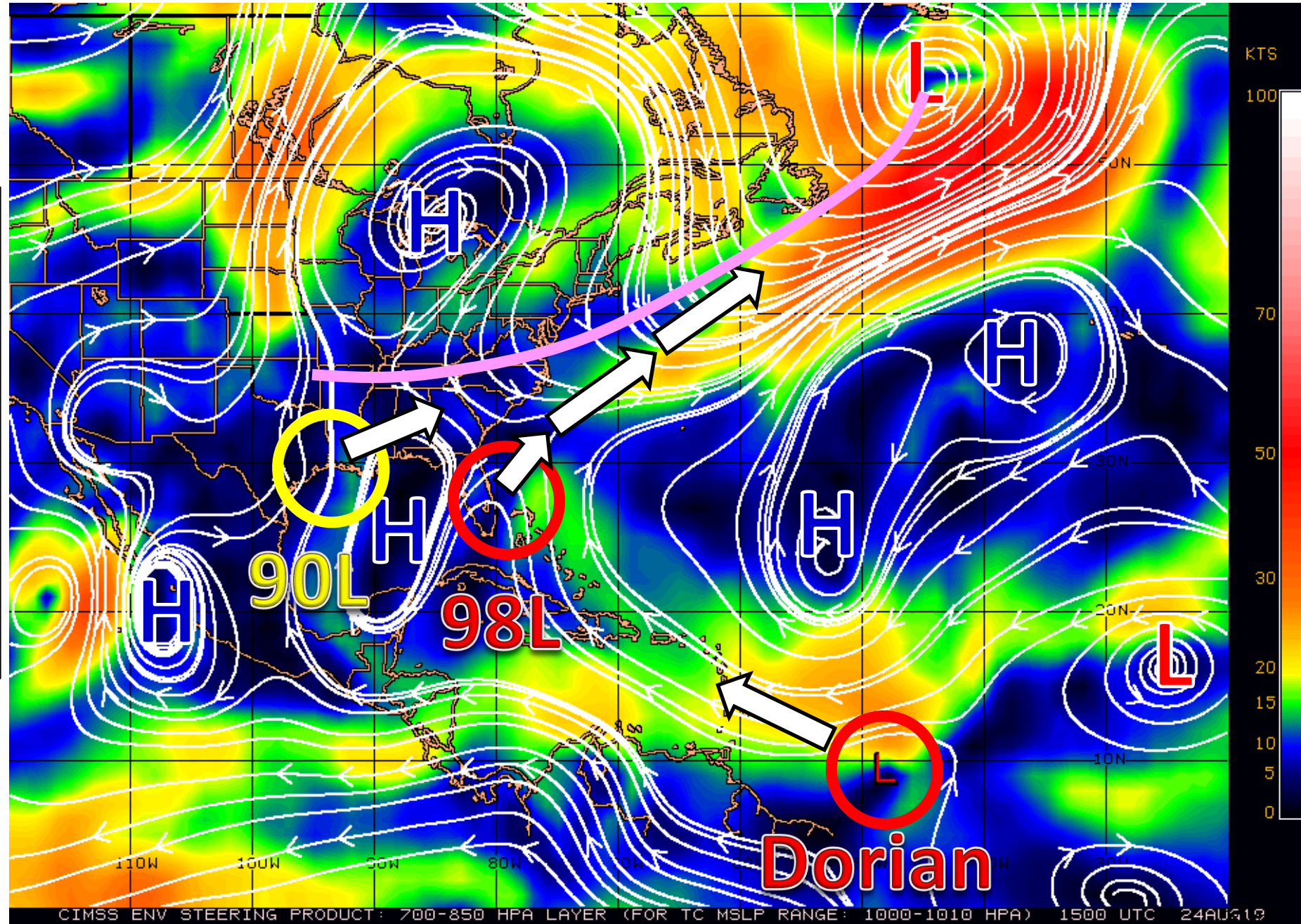
Chance of development: — None    — Low    — Medium    — High



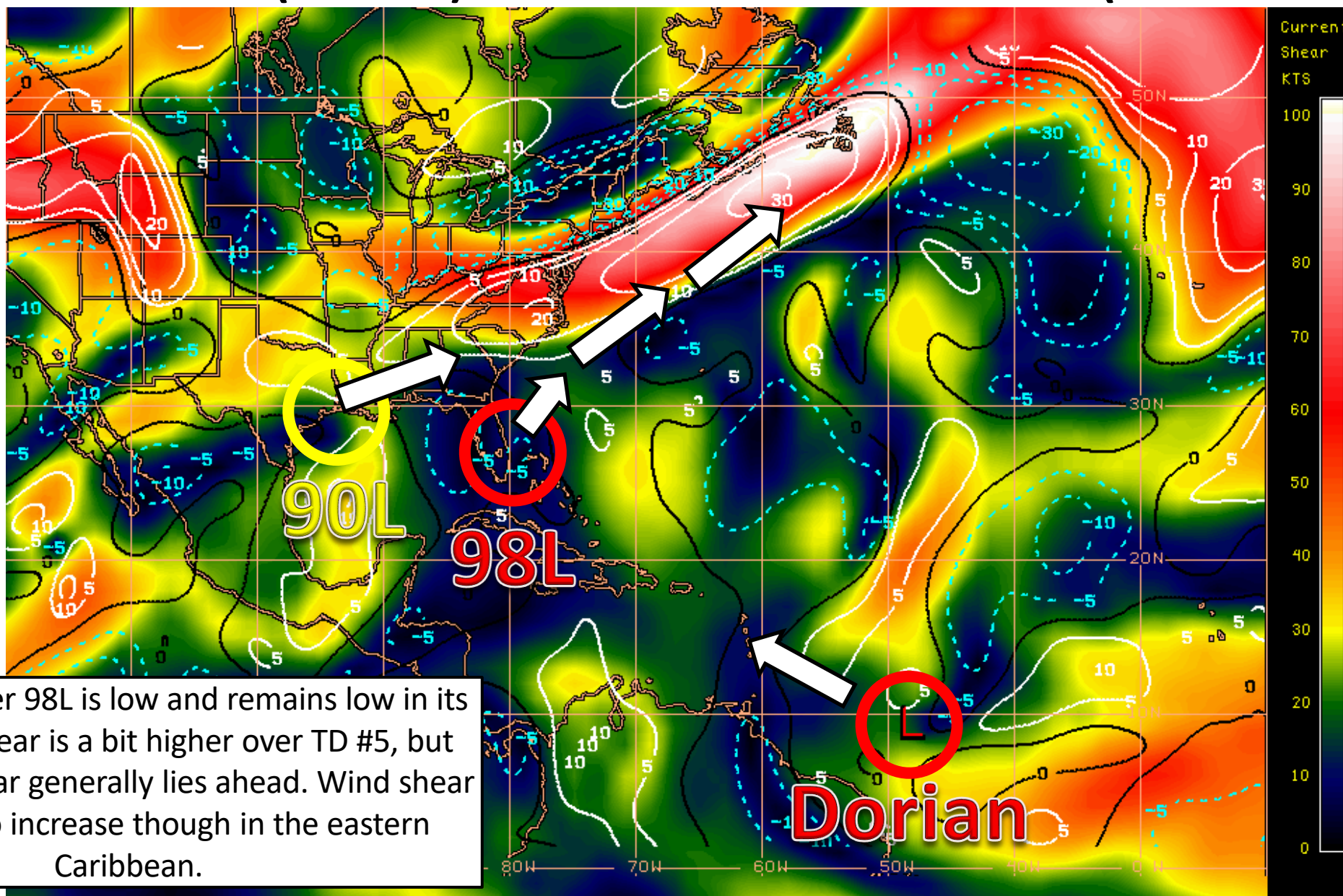


# Steering Currents

Newly-designated Invest 90L near the TX/LA border is moving northward between two high pressure areas and will turn east-northeastward ahead of a cold front (pink line). Invest 98L just offshore of the FL East Coast will move northeastward ahead of a cold front. Dorian will move west-northwestward around the southern edge of a large Atlantic high.



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



Shear Tendency (KTS) Over Past 24 Hours: Increasing — Decreasing ----

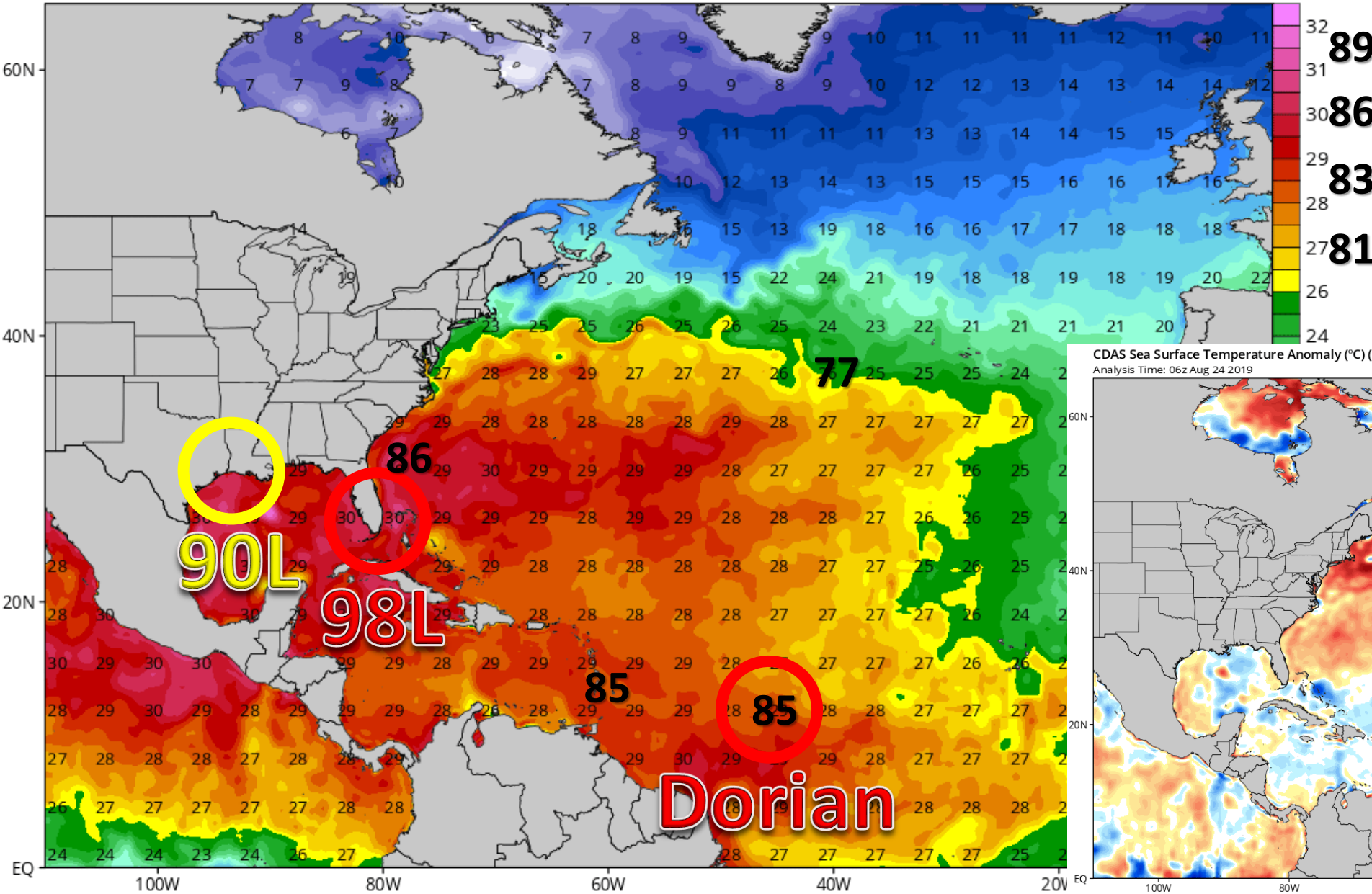


# North Atlantic Sea Surface Temperatures and Anomalies

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Aug 24 2019

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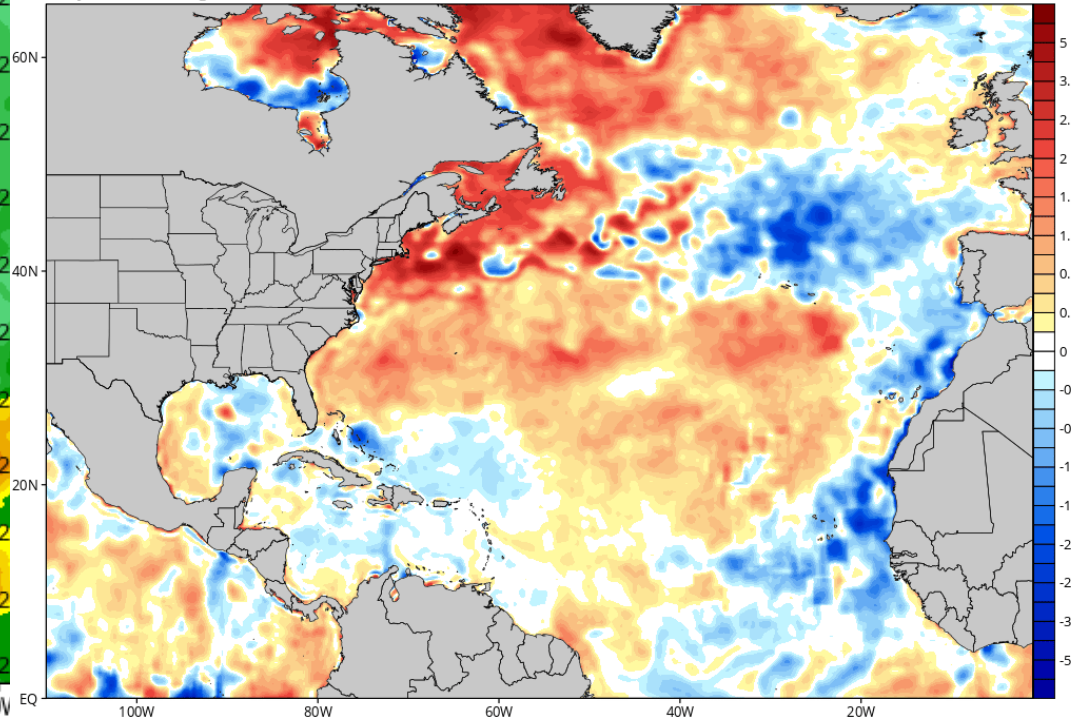


Water temperatures near and ahead of 98L and TD #5 are warm enough to support tropical development. 98L will be moving over the Gulf Stream over the next few days.

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

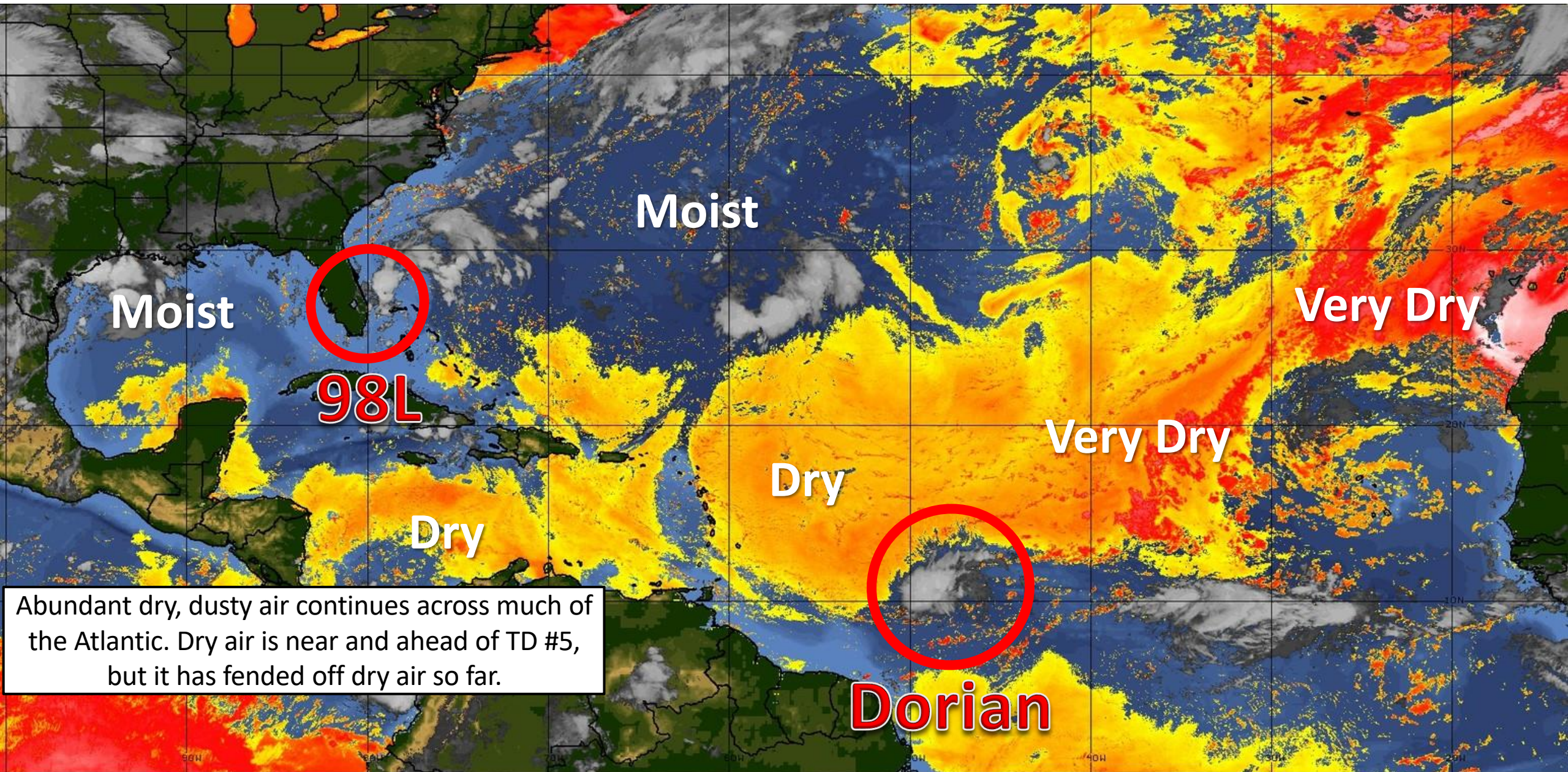
Analysis Time: 06z Aug 24 2019

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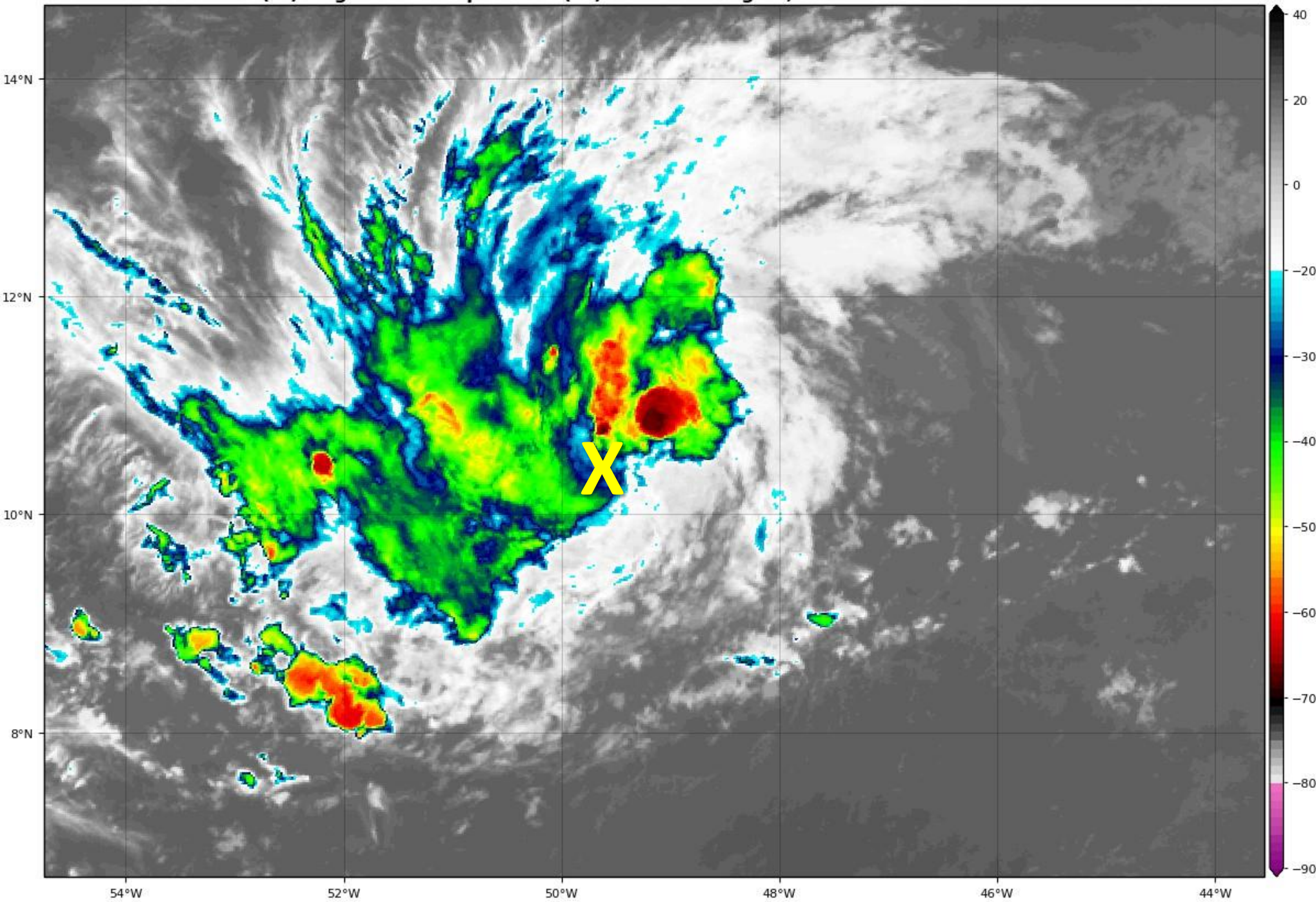


# Dry Air & Saharan Dust



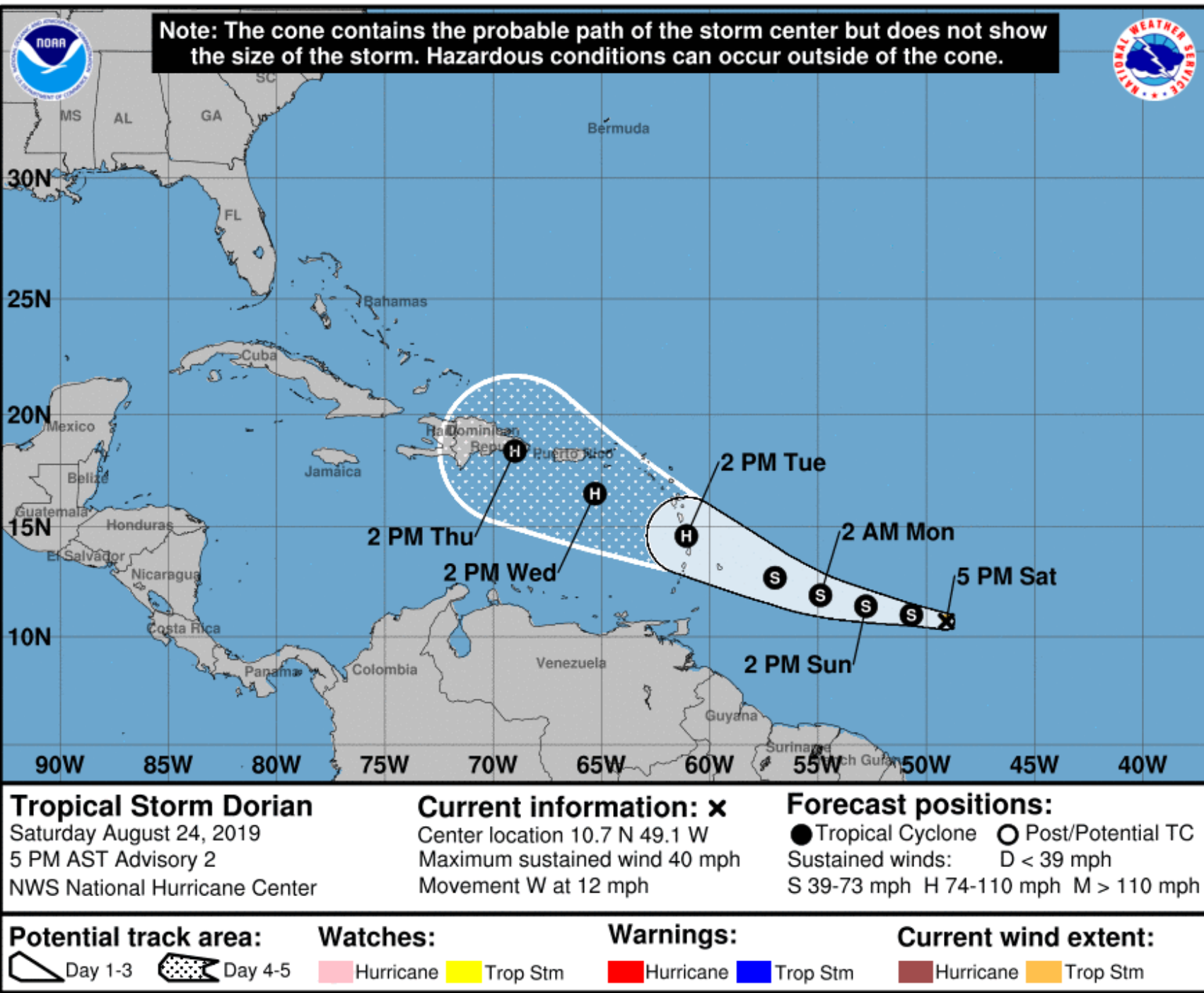
LESS <----- DRY AIR (LOW/MID-LEVEL) AND/OR DUSTY SAL AIRMASS -----> MORE





## Tropical Storm Dorian Satellite Image

TD #5 continues to become better organized and is strengthening. Thus, the National Hurricane Center has upgraded TD #5 to Tropical Storm Dorian.



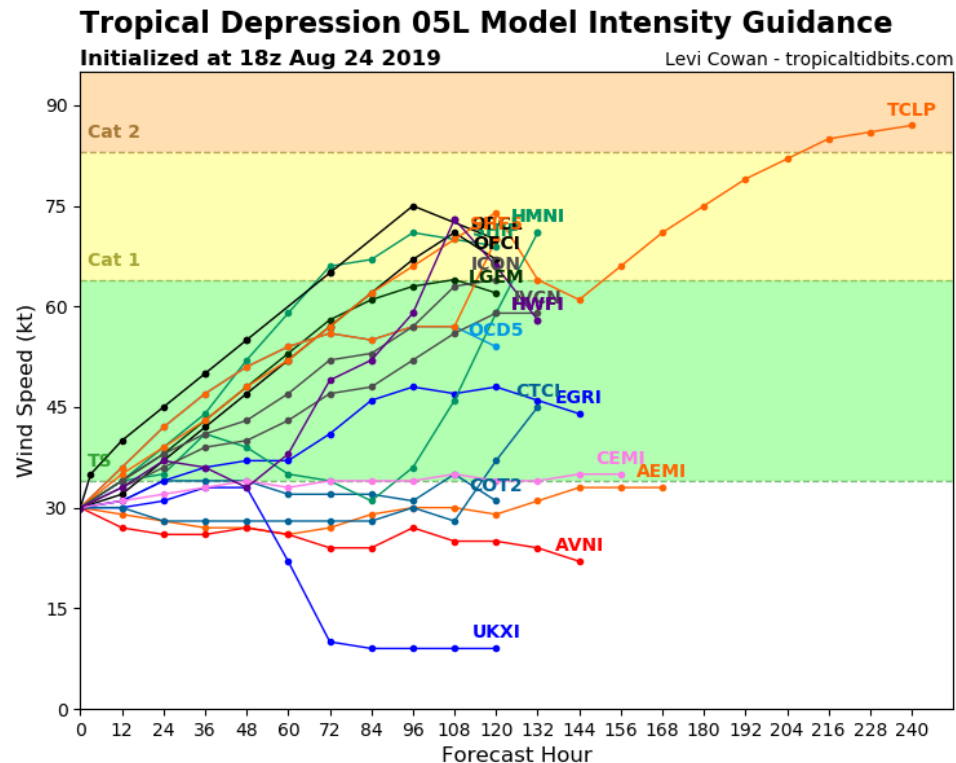
# Tropical Storm Dorian Forecast Track

Tropical Storm Dorian is located about 725 miles east-southeast of Barbados, moving west at about 12 mph. Dorian is expected to turn toward the west-northwest late Sunday or Monday. Maximum sustained winds have increased to near 40 mph. Further strengthening is forecast, and Dorian is forecast to become a hurricane by Tuesday near the Lesser Antilles.



# T.S. Dorian Model Guidance

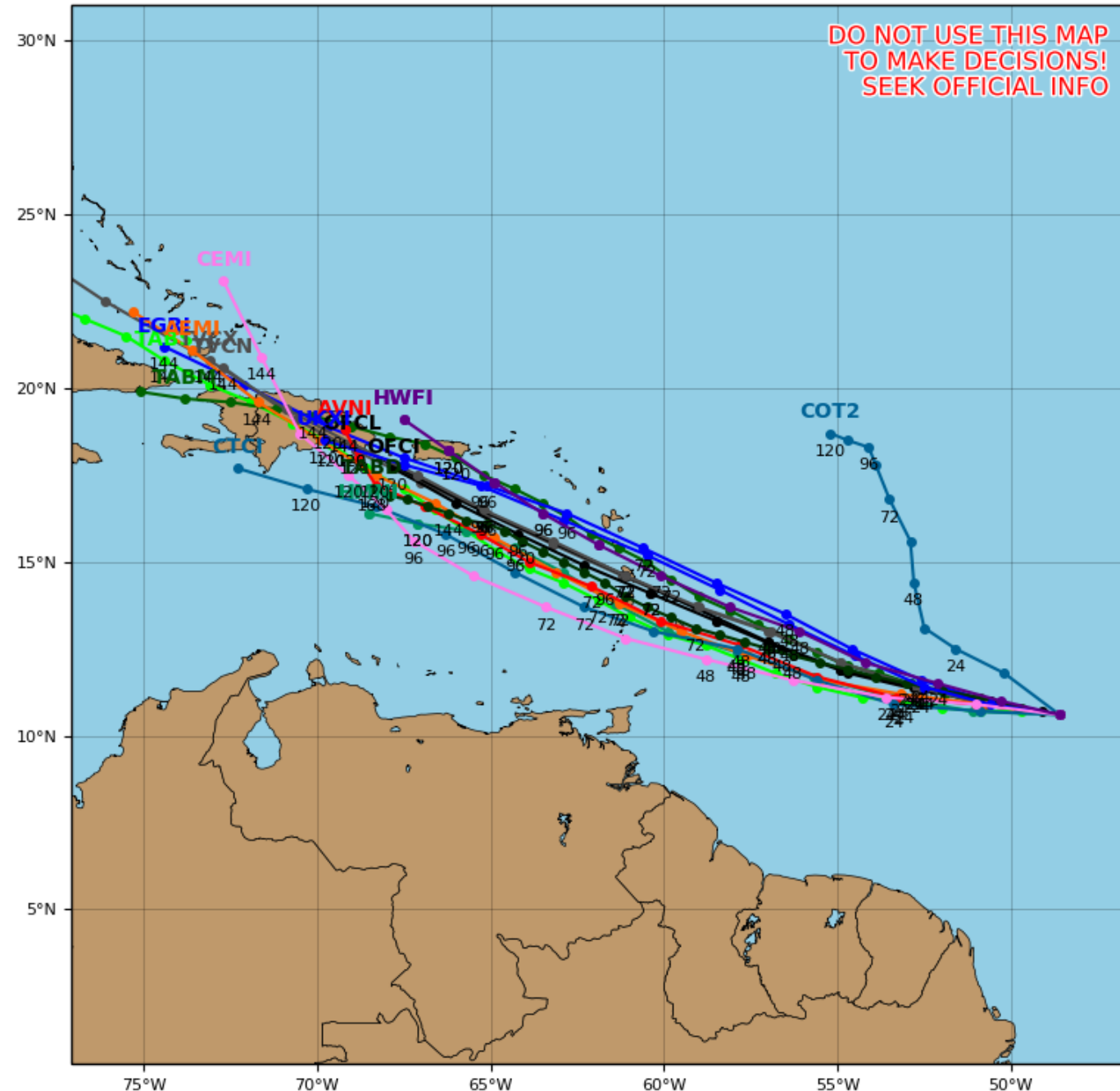
The models are in very good agreement on the track for Dorian, with most models having Dorian near Puerto Rico in about 5 days. Intensity remains more uncertain as there is a wide spread in the model guidance. The National Hurricane Center is currently on the upper end of the model guidance for intensity. Additionally, since Dorian is a small system, the intensity can fluctuate greatly as small systems are more susceptible to outside influences.



# Tropical Depression 05L Model Track Guidance

Initialized at 18z Aug 24 2019

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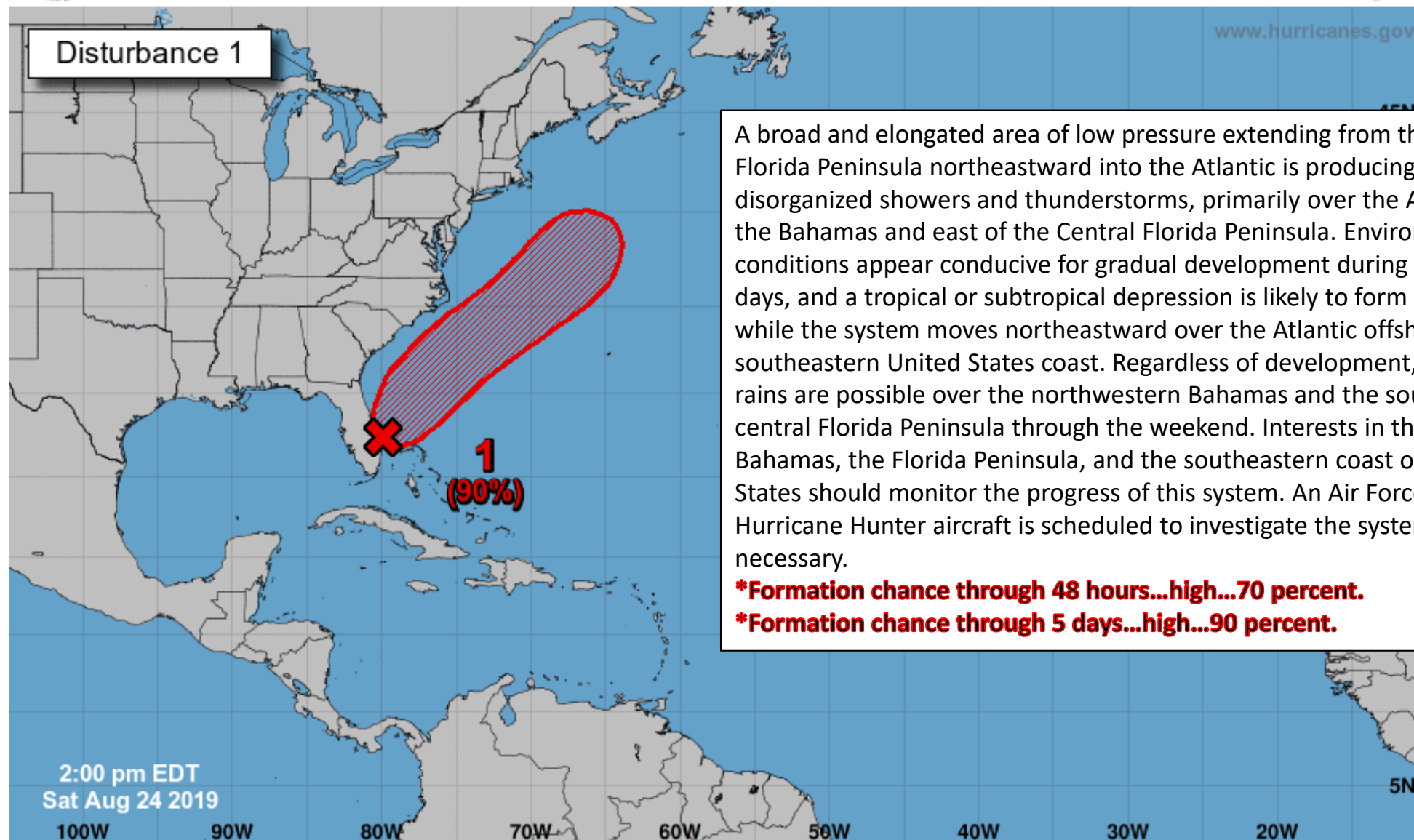
# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

Disturbance 1



A broad and elongated area of low pressure extending from the southern Florida Peninsula northeastward into the Atlantic is producing a large area of disorganized showers and thunderstorms, primarily over the Atlantic north of the Bahamas and east of the Central Florida Peninsula. Environmental conditions appear conducive for gradual development during the next few days, and a tropical or subtropical depression is likely to form early next week while the system moves northeastward over the Atlantic offshore of the southeastern United States coast. Regardless of development, locally heavy rains are possible over the northwestern Bahamas and the southern and central Florida Peninsula through the weekend. Interests in the northwestern Bahamas, the Florida Peninsula, and the southeastern coast of the United States should monitor the progress of this system. An Air Force Reserve Hurricane Hunter aircraft is scheduled to investigate the system on Sunday, if necessary.

**\*Formation chance through 48 hours...high...70 percent.**

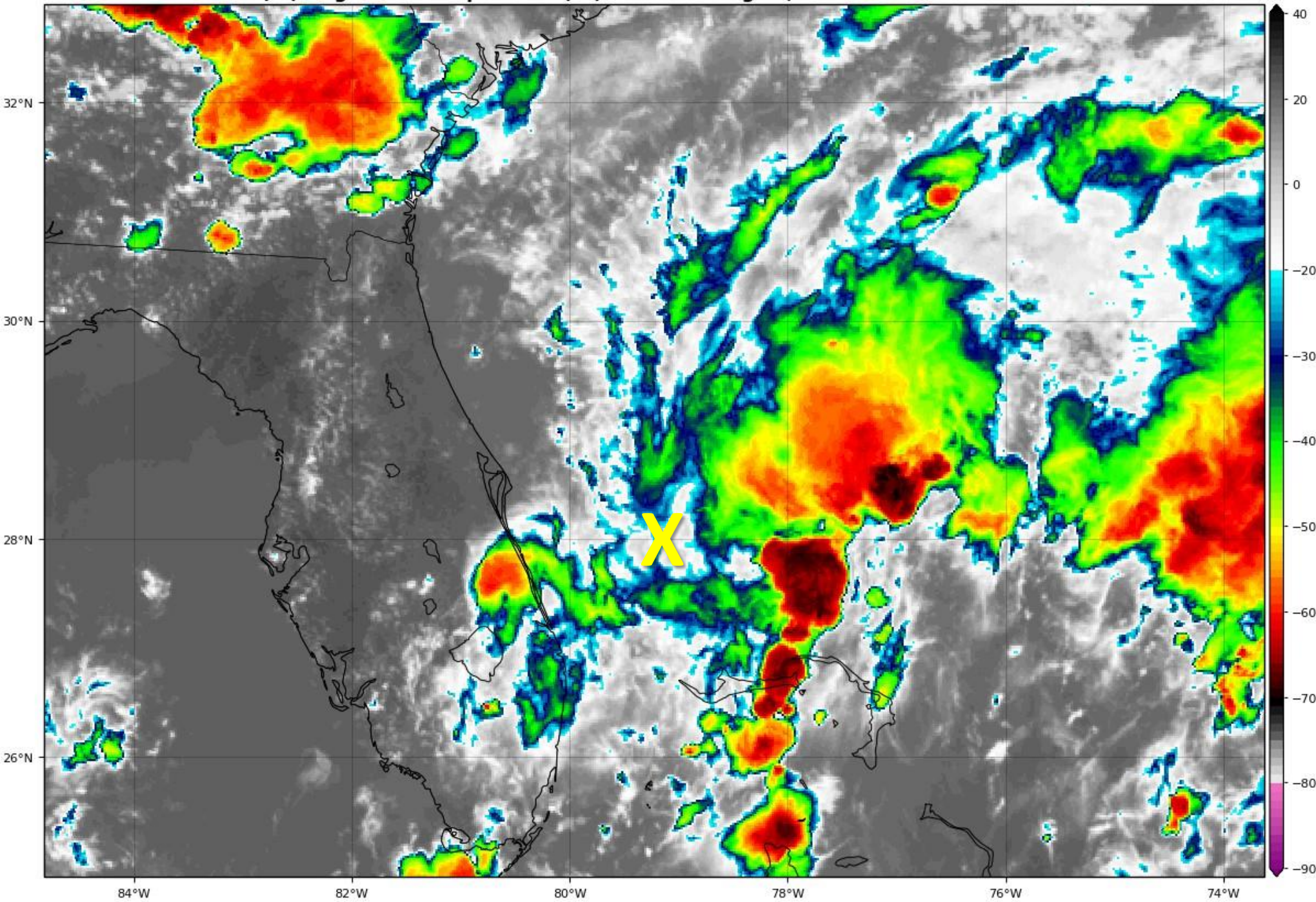
**\*Formation chance through 5 days...high...90 percent.**

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 (yellow X) has moved offshore. Conditions remain favorable for gradual development, but the system is rather disorganized at this time. Still, a tropical or subtropical depression is likely to form in the next few days.



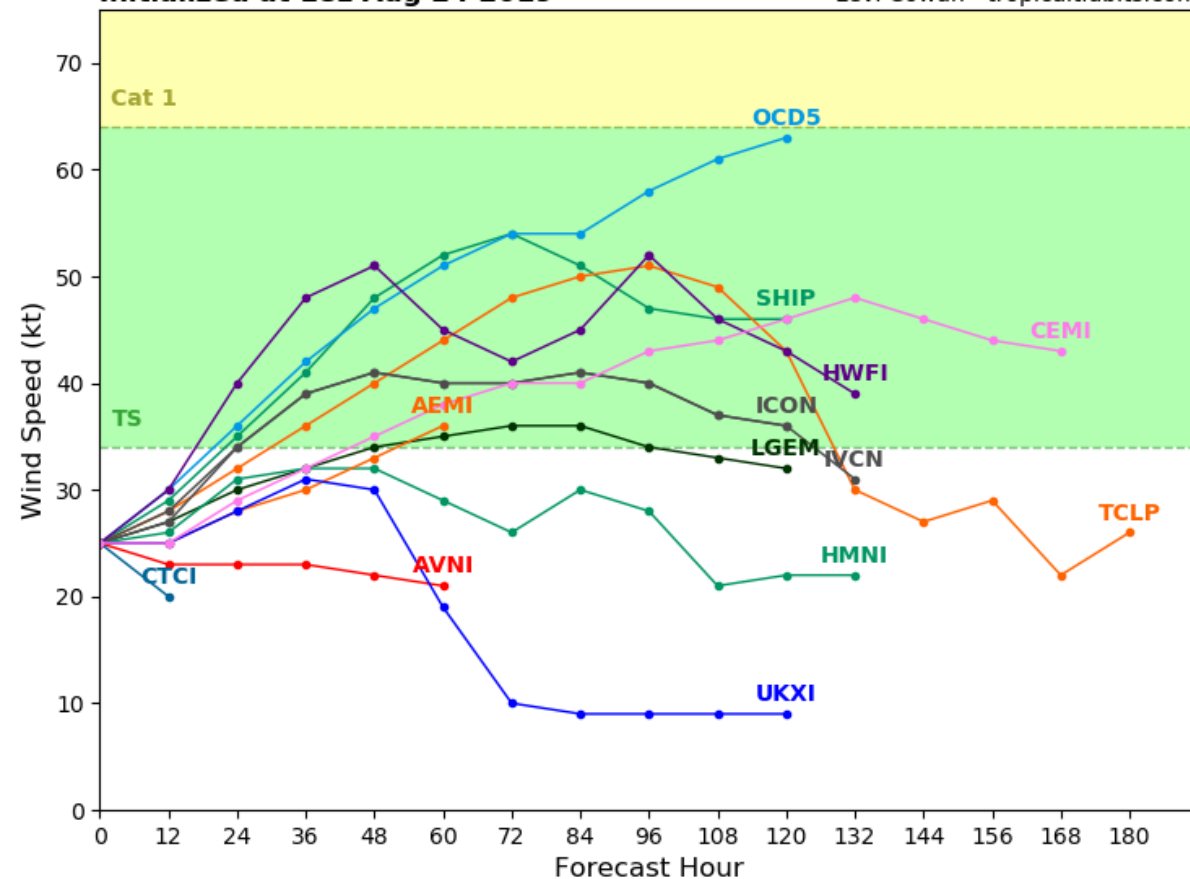
# Invest 98L Model Guidance

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

## Invest 98L Model Intensity Guidance

Initialized at 18z Aug 24 2019

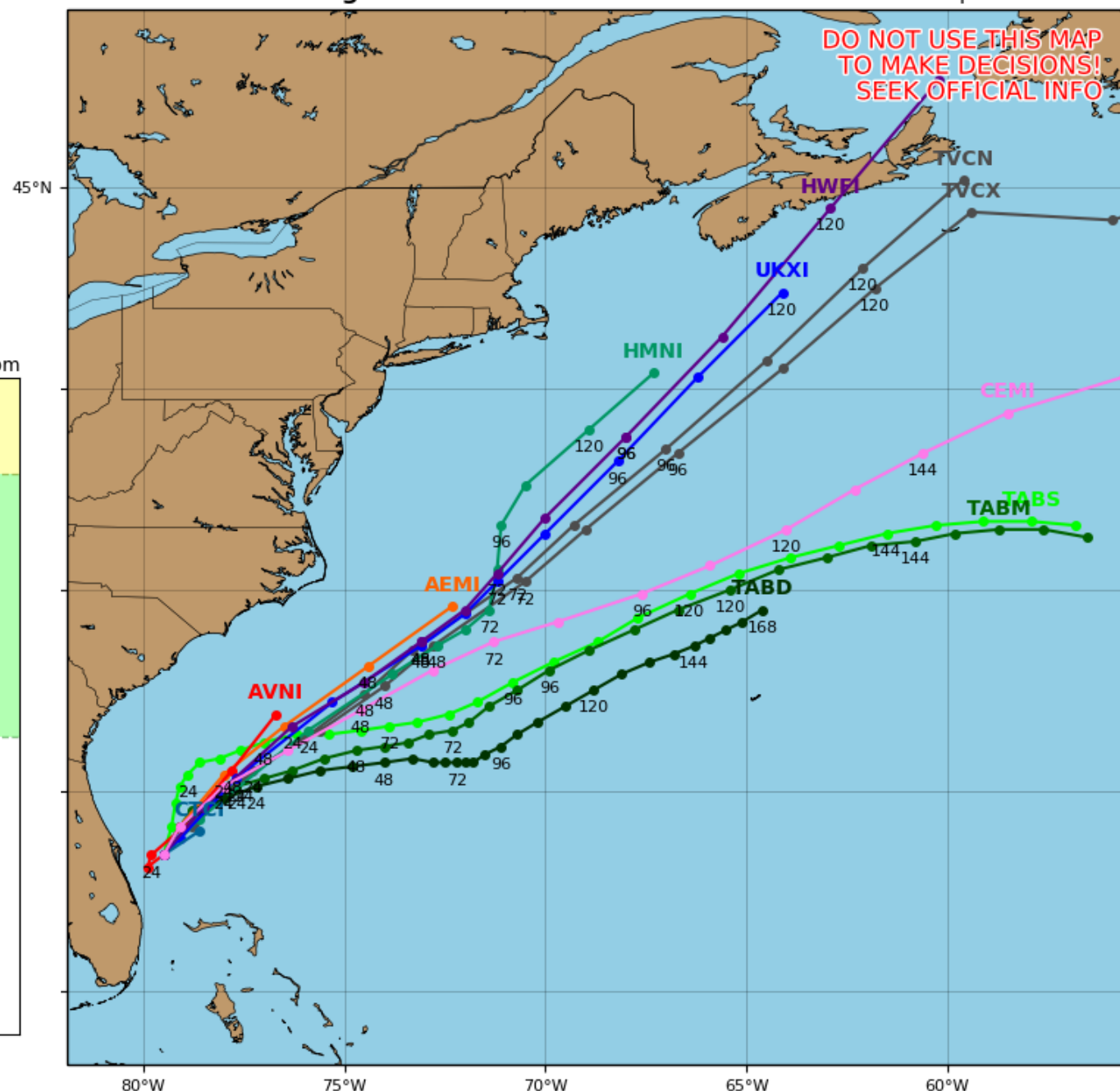
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## Invest 98L Model Track Guidance

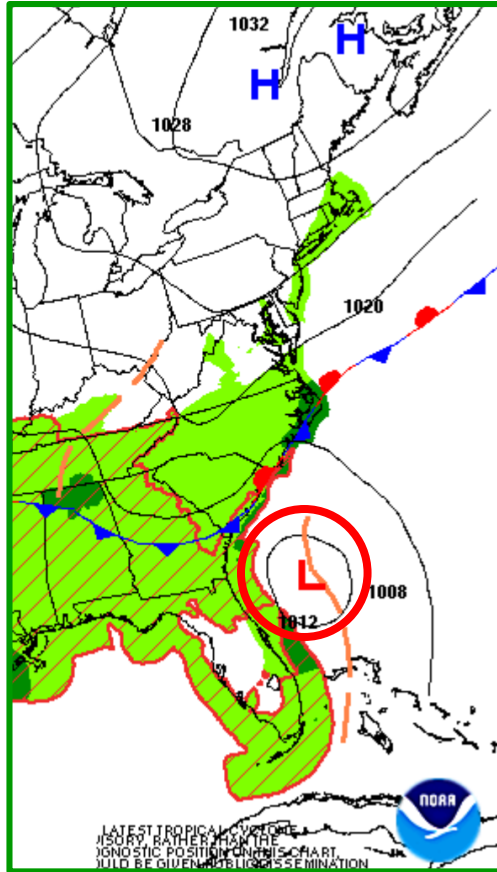
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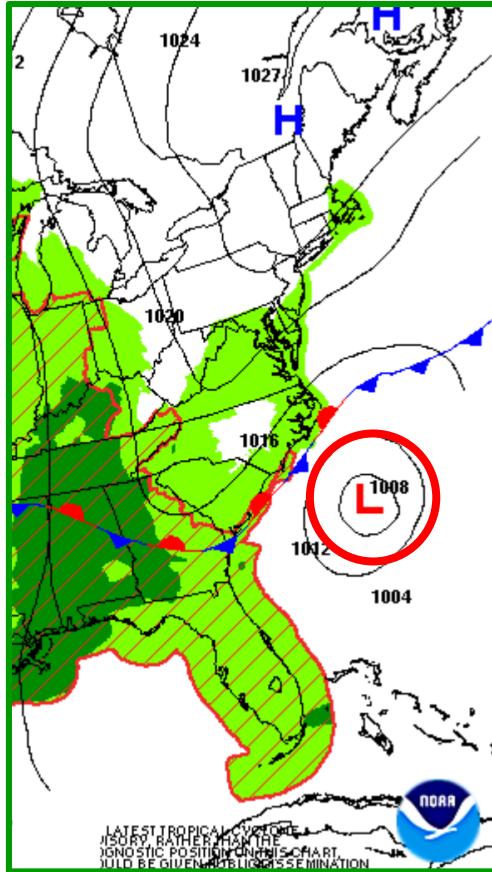




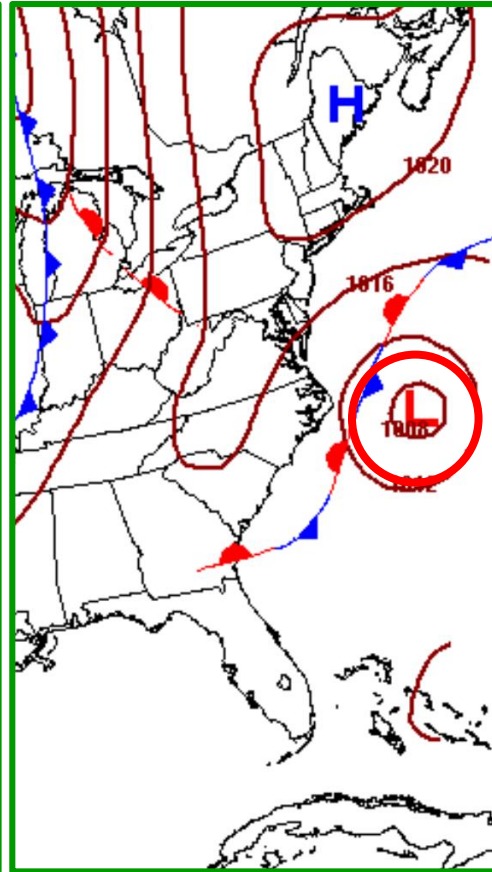
# Forecast Weather Maps with Fronts



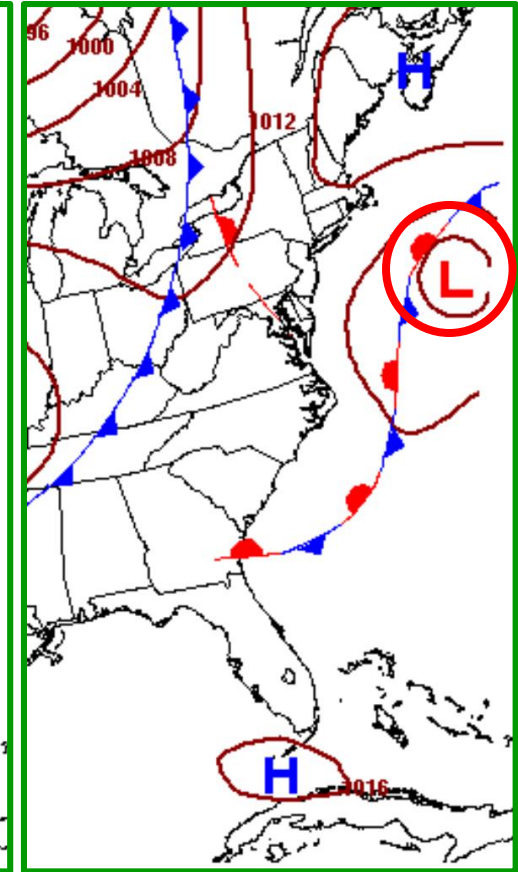
**Sunday**



**Monday**



**Tuesday**



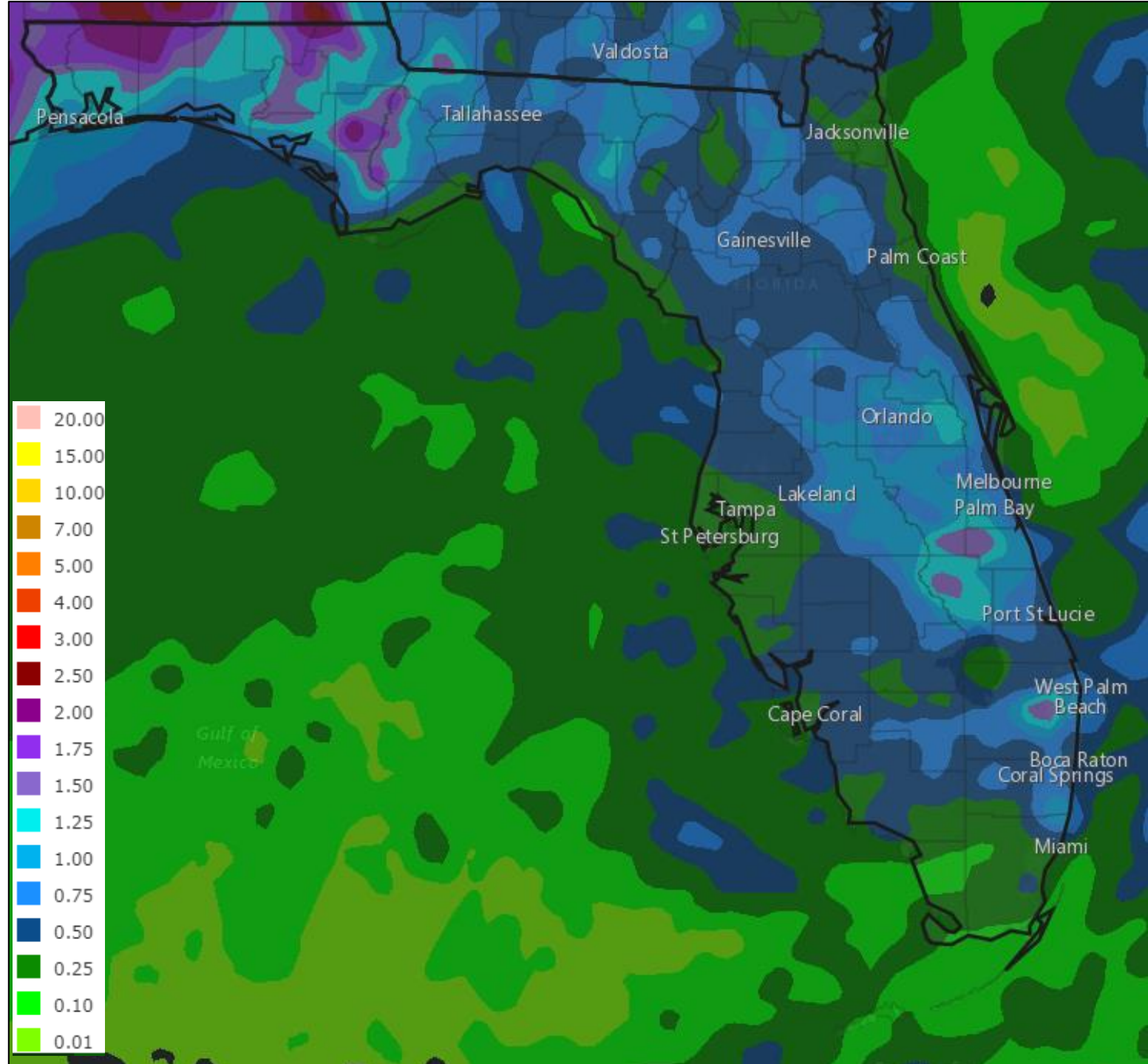
**Wednesday**

Invest 98L will begin to move away from the state later today and Sunday as it gets pulled to the northeast by an approaching cold front. While rain chances will generally decrease over South Florida as 98L moves away, rain chances over North Florida will increase as the front sags southward.



# Rainfall Totals Next 3 Days

The latest 3-day rainfall forecast confines the heavier rainfall amounts to the immediate coast and offshore. Still, 1-2" of rain is possible across much of the Peninsula with higher values near the coast. Localized totals of 3-4" are possible along the immediate East Coast.

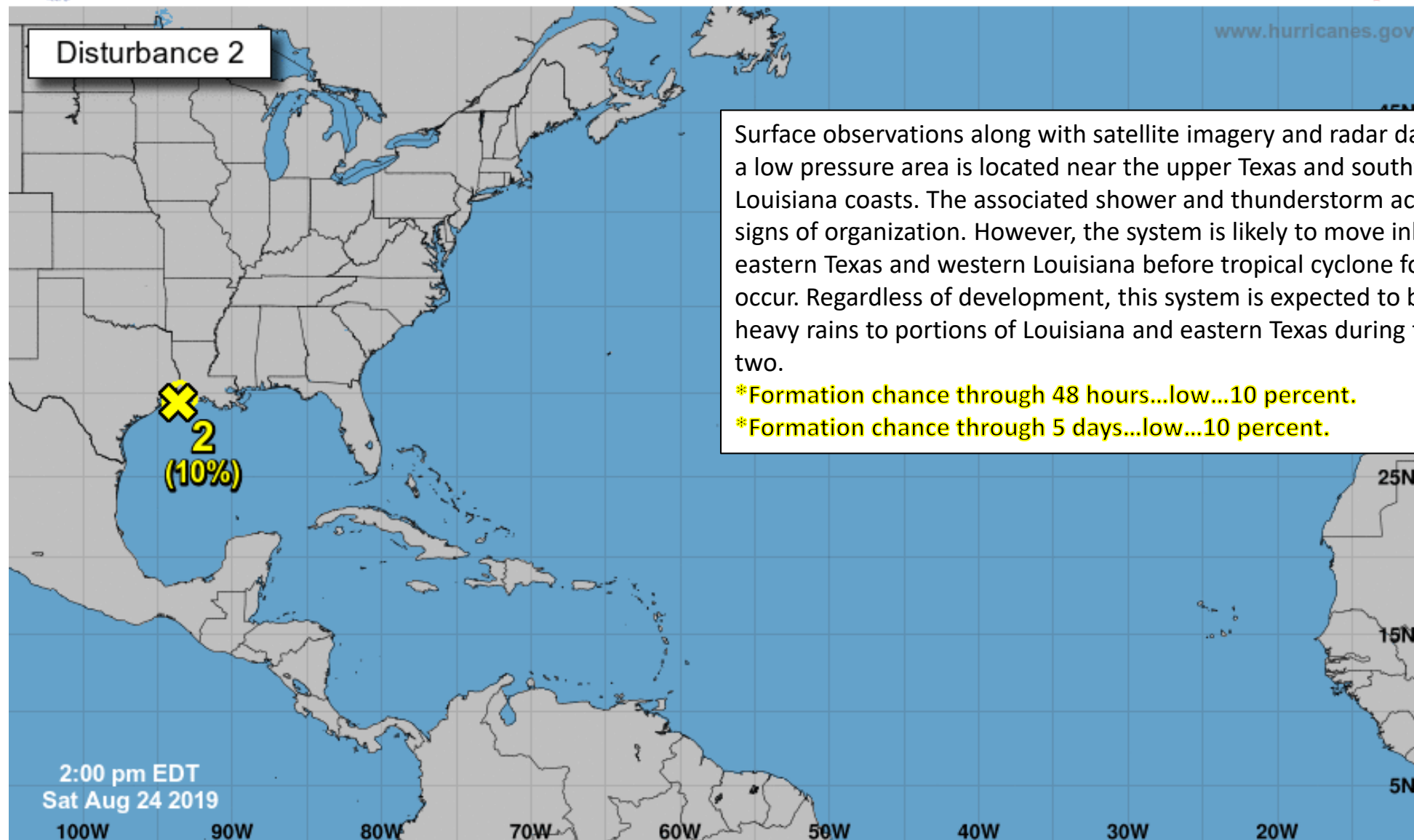






# Five-Day Graphical Tropical Weather Outlook

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



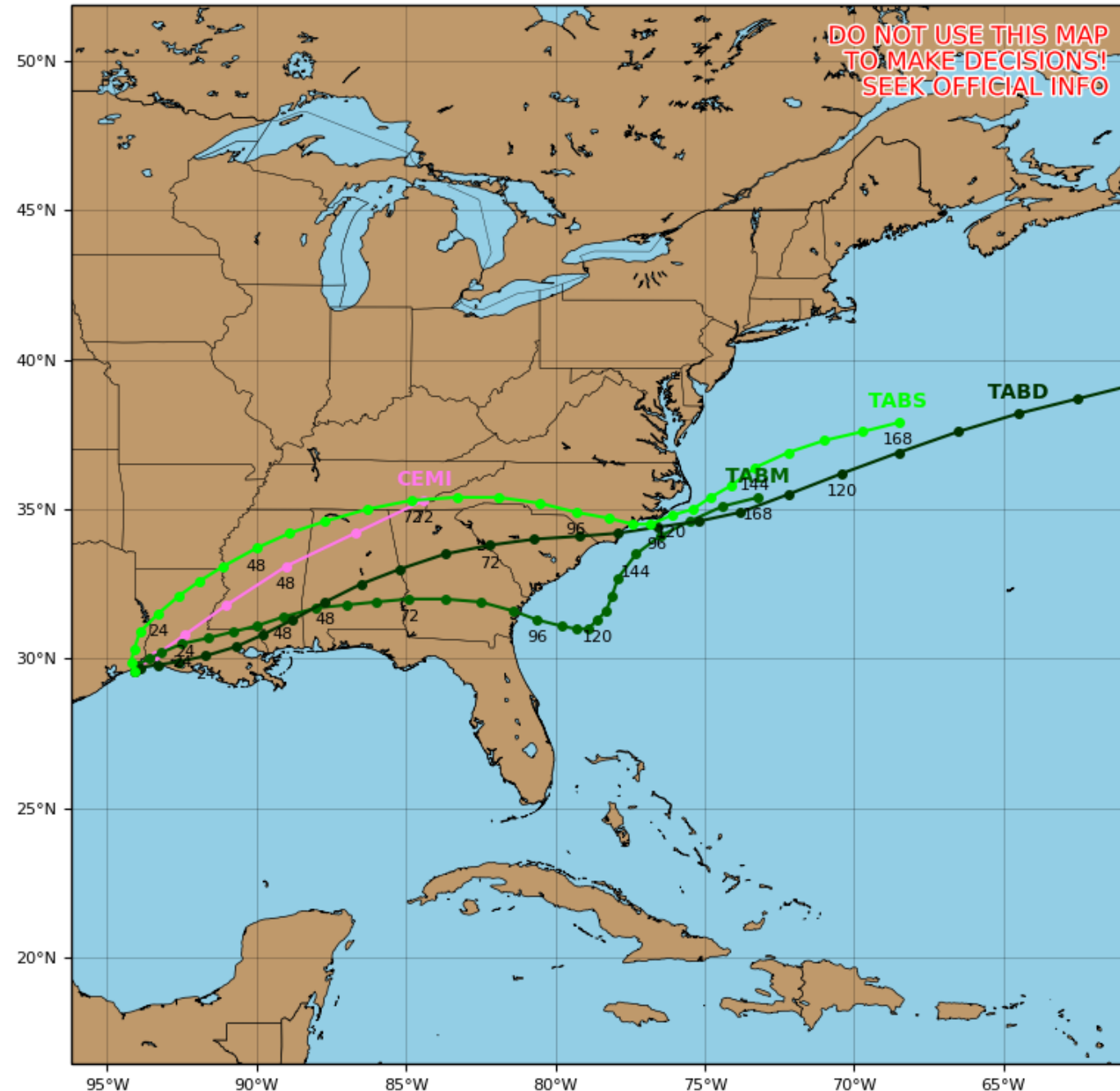
# Invest 90L Model Guidance

90L will move inland over eastern Texas and western Louisiana, then move across the Southeast U.S. ahead of a cold front.

## Invest 90L Model Track Guidance

Initialized at 18z Aug 24 2019

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# Summary

## **Tropical Storm Dorian**

- TD #5 has continued getting better organized and strengthening, and has become Tropical Storm Dorian.
- TD #5 is moving to the west at 12 mph, and a slight turn to the west-northwest is expected over the next day or so. It should reach the Lesser Antilles by Tuesday and Puerto Rico by Thursday.
- Maximum sustained winds are near 40 mph, and slow but steady strengthening is forecast through the next several days. The tropical storm may become a hurricane early next week as it moves toward the Lesser Antilles.
- Beyond 5 days, it is uncertain where Dorian will continue 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.

## **Invest 98L**

- Invest 98L has re-emerged into the Atlantic off the East Coast of Florida and will continue to move northeastward off the U.S. East Coast.
- 98L is likely to become a tropical or subtropical depression over the next few days.
- Now that Invest 98L is moving out to sea, it likely will not affect land over the next several days.
- This system has a 70% (medium) chance of formation during the next 48 hours and a 90% (high) chance of formation during the next 5 days.

## **Invest 90L**

- Invest 90L is centered just offshore of the Texas/Louisiana border and is slowly drifting northward into eastern Texas or western Louisiana.
- This system likely won't develop before moving onshore. The National Hurricane Center only gives this system a 10% (low) chance of formation.



## Florida Outlook:

- Locally heavy rainfall is possible across Central and South Florida through Sunday. As a cold front approaches, rain chances will increase further across much of the state.
- Current rainfall totals across the Peninsula are 1-2” this weekend with locally higher totals of 3-4” possible, mainly near the coast.
- Due to antecedent saturated soils across the Peninsula, some isolated flooding is possible, especially in low-lying, poor drainage, or urban areas.
- Some of the stronger showers could contain brief gusty winds and isolated waterspouts.
- Due to recent rainfall, several Big Bend and West Coast rivers remain in minor flood stage, but have crested and are falling.
- Tropical Storm Dorian poses no threat to Florida at this time. However, it should continue to be monitored.

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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