



# TROPICAL UPDATE



5 PM EDT

Tuesday, September 17, 2019

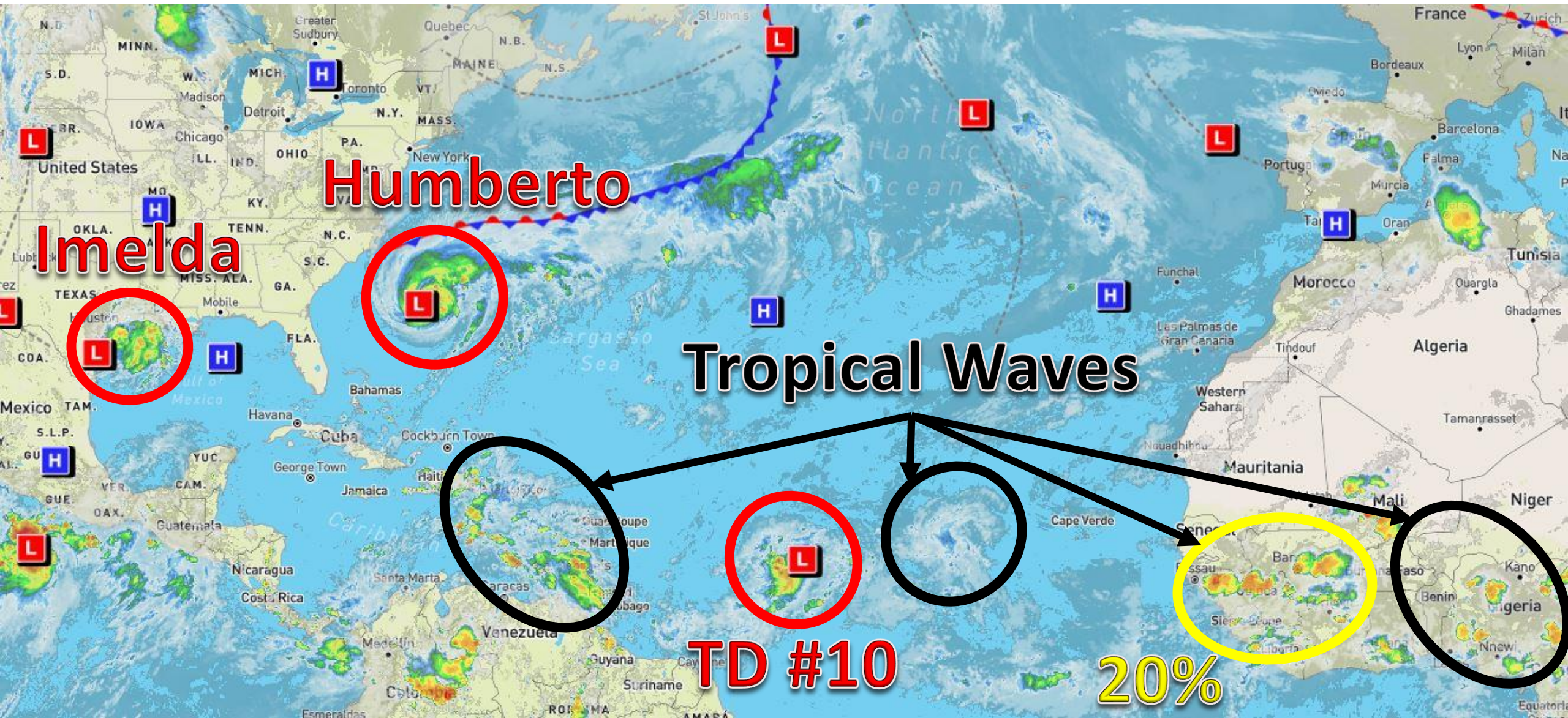
Hurricane Humberto, Tropical Storm Imelda,  
Tropical Depression Ten, & African Wave (20%)

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

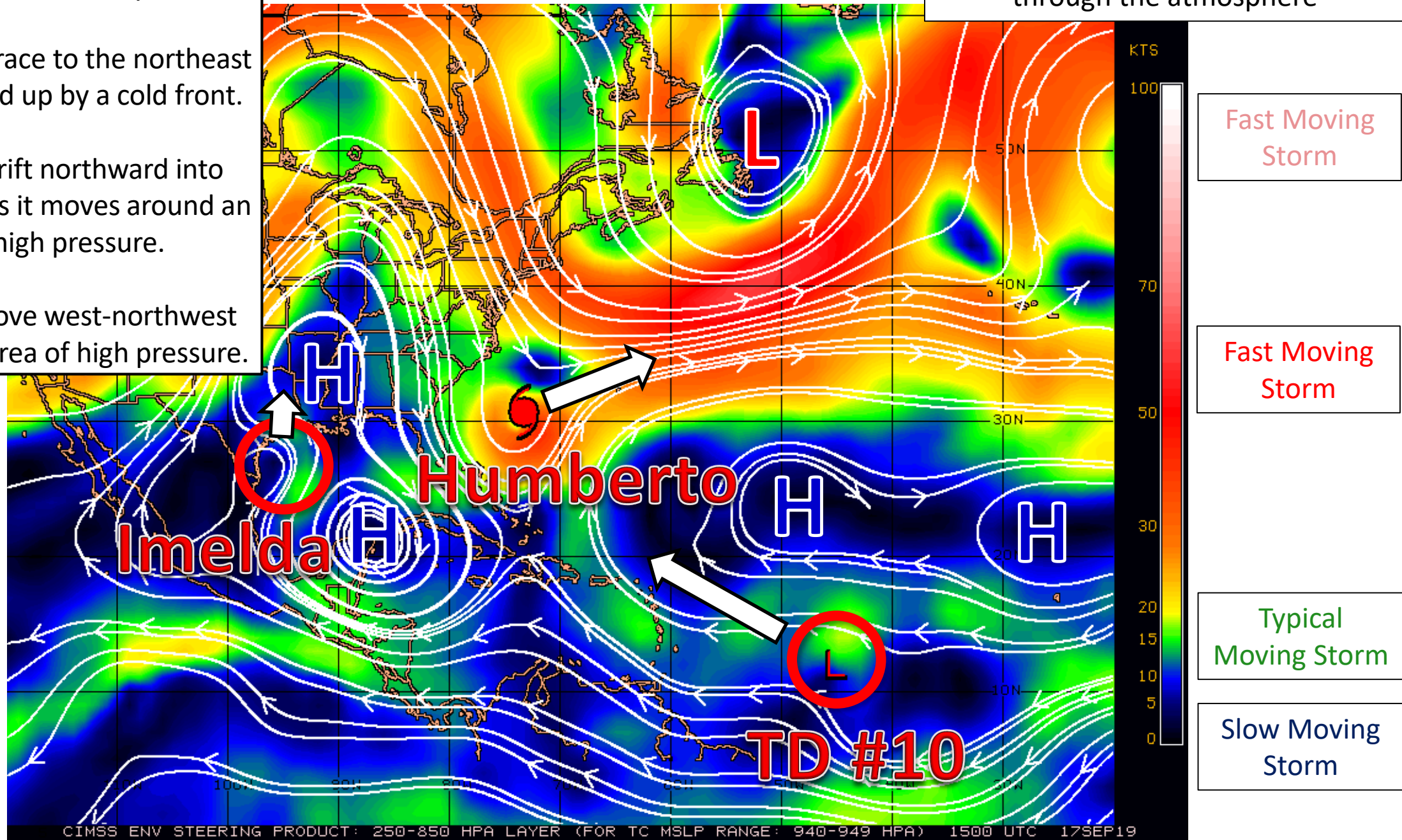
Color denotes the movement speed through the atmosphere

Over the next few days....

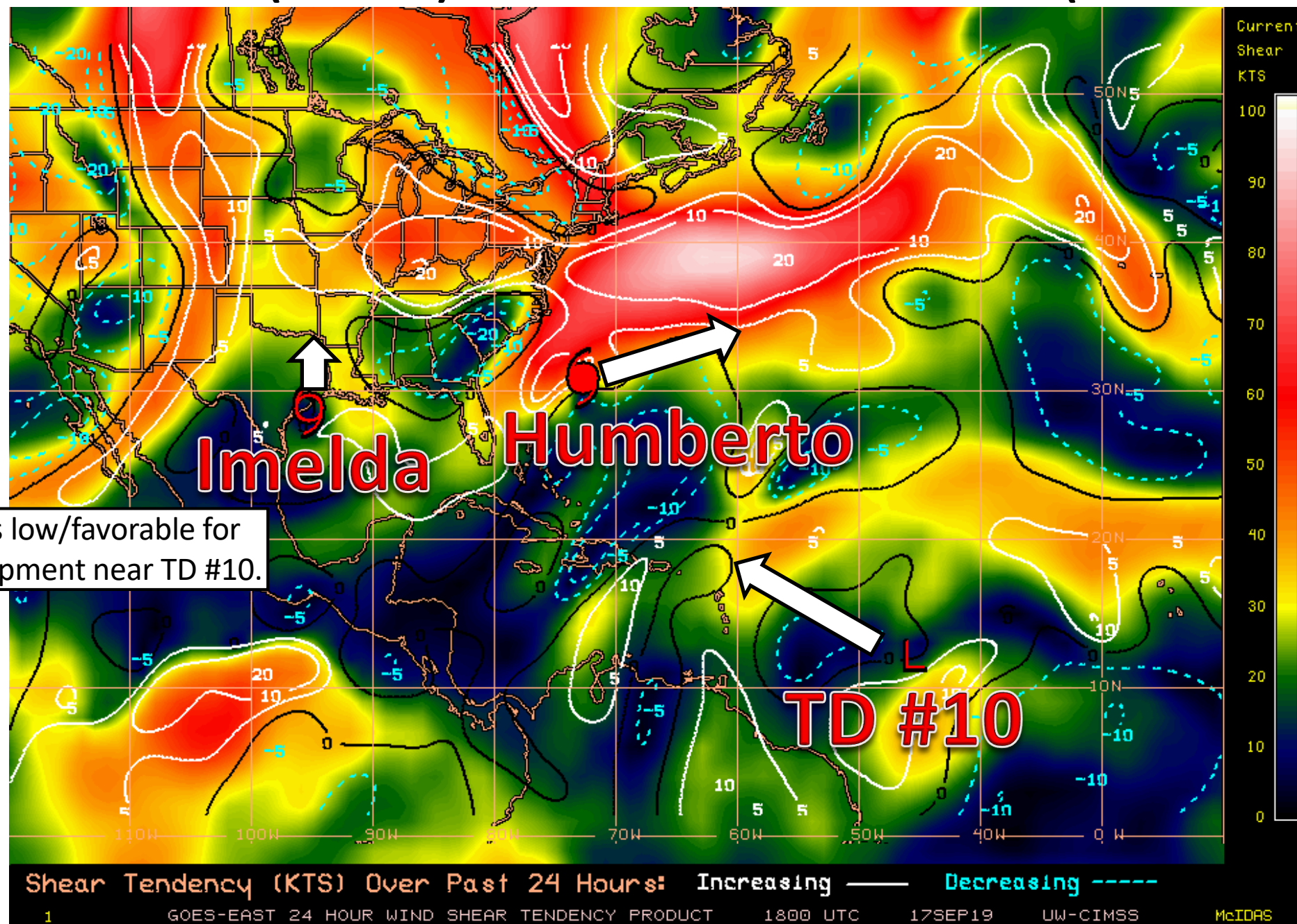
Humberto will race to the northeast as it gets picked up by a cold front.

Imelda will drift northward into eastern Texas as it moves around an area of high pressure.

TD #10 will move west-northwest under a large area of high pressure.



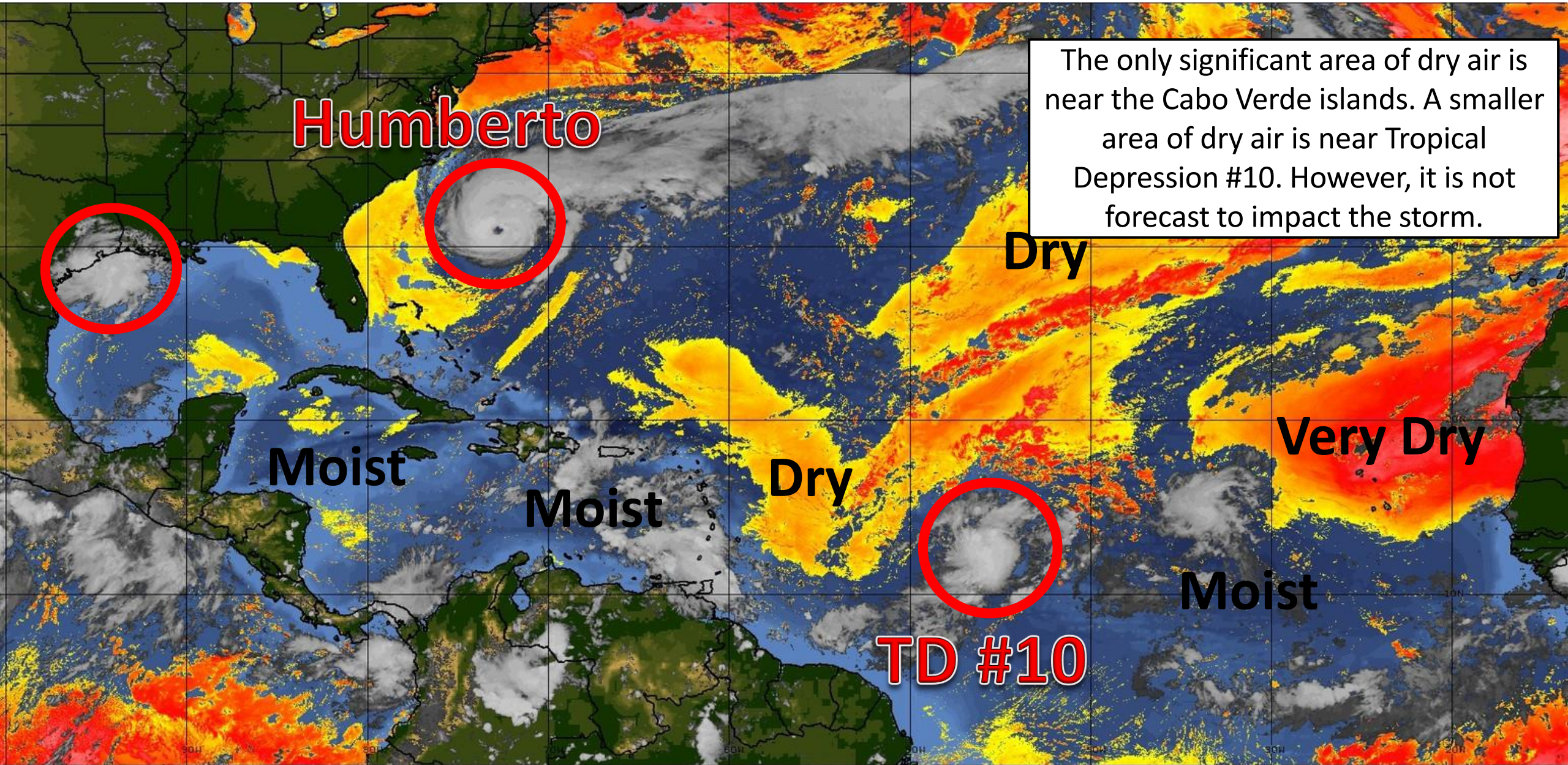
# Wind Shear (shaded) and Wind Shear Tendencies (contoured)



Wind shear is low/favorable for gradual development near TD #10.



# Dry Air & Saharan Dust



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

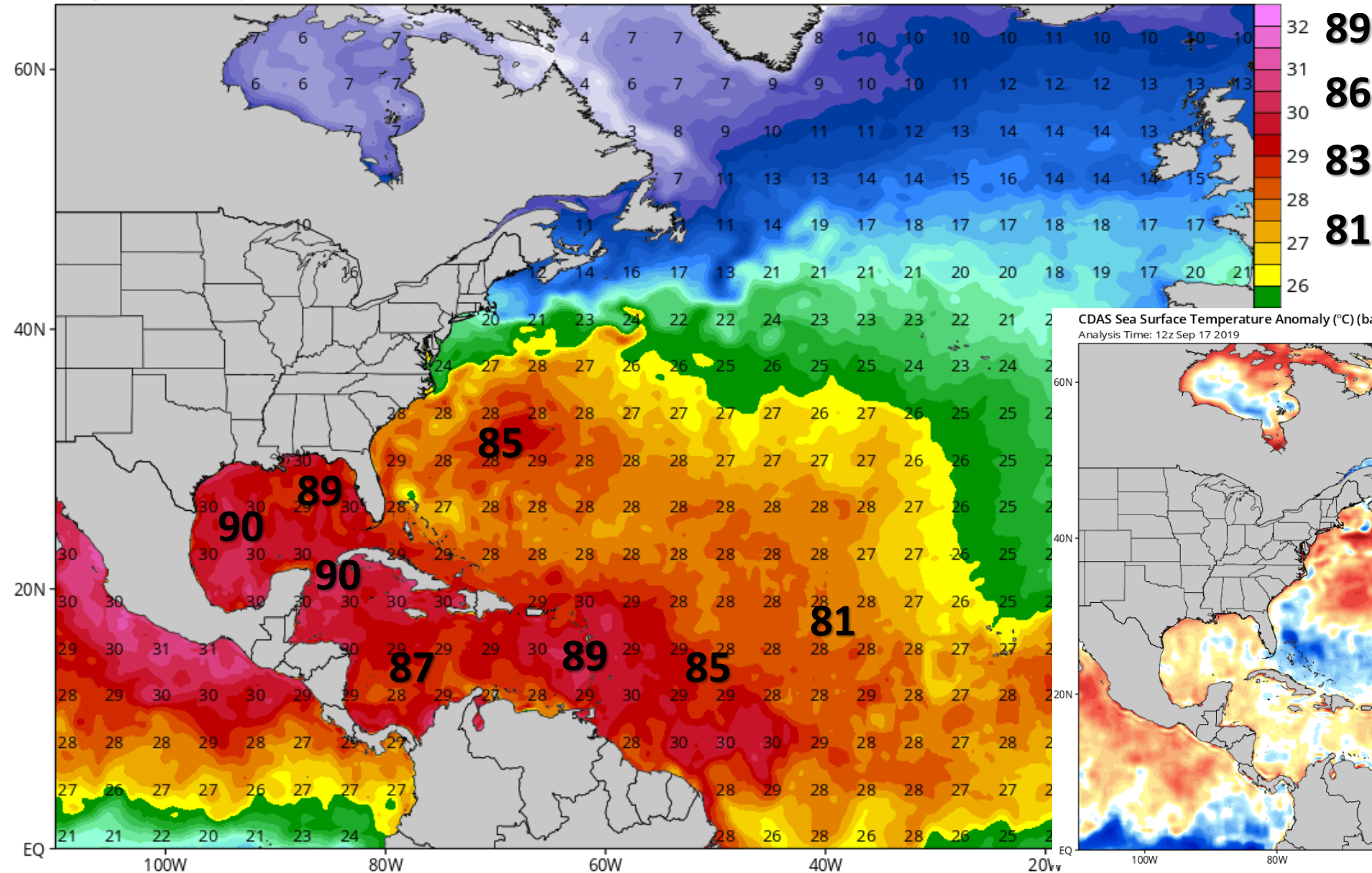


# North Atlantic Sea Surface Temperatures and Anomalies

CDAS Sea Surface Temperature (°C)

Analysis Time: 12z Sep 17 2019

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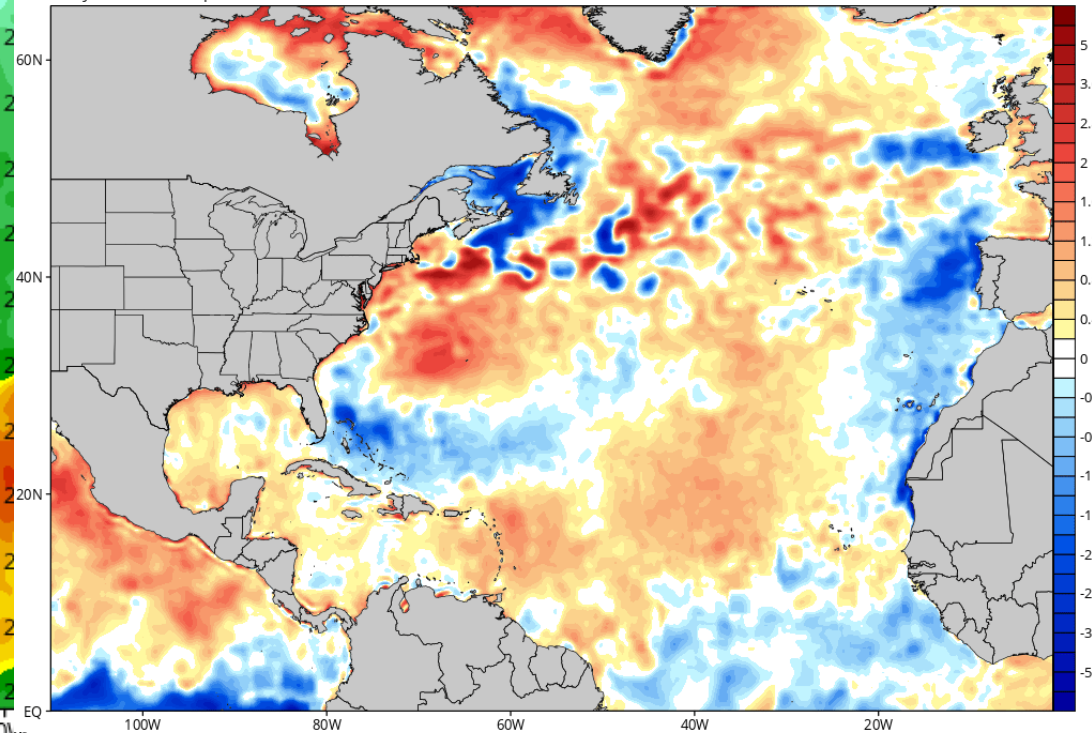


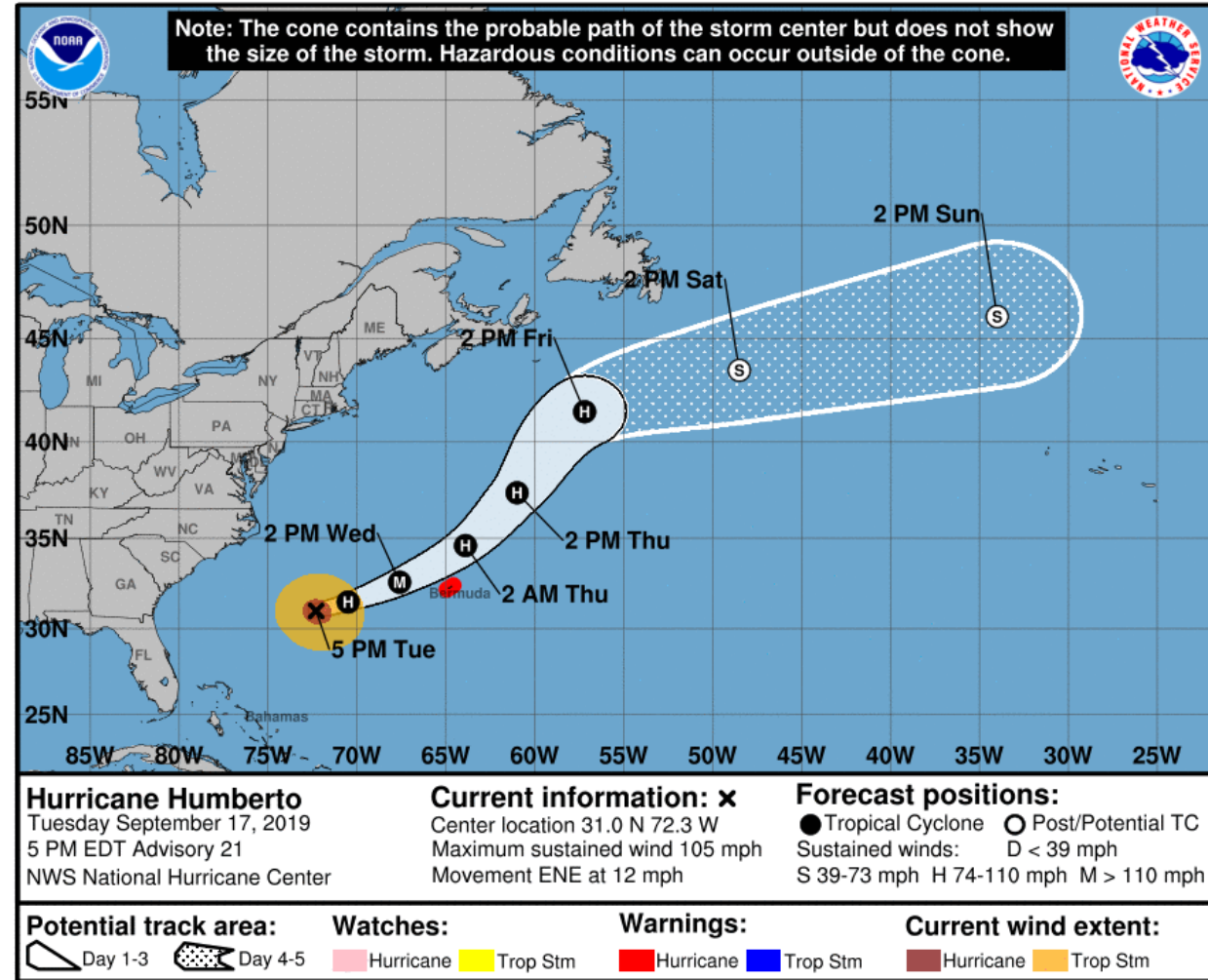
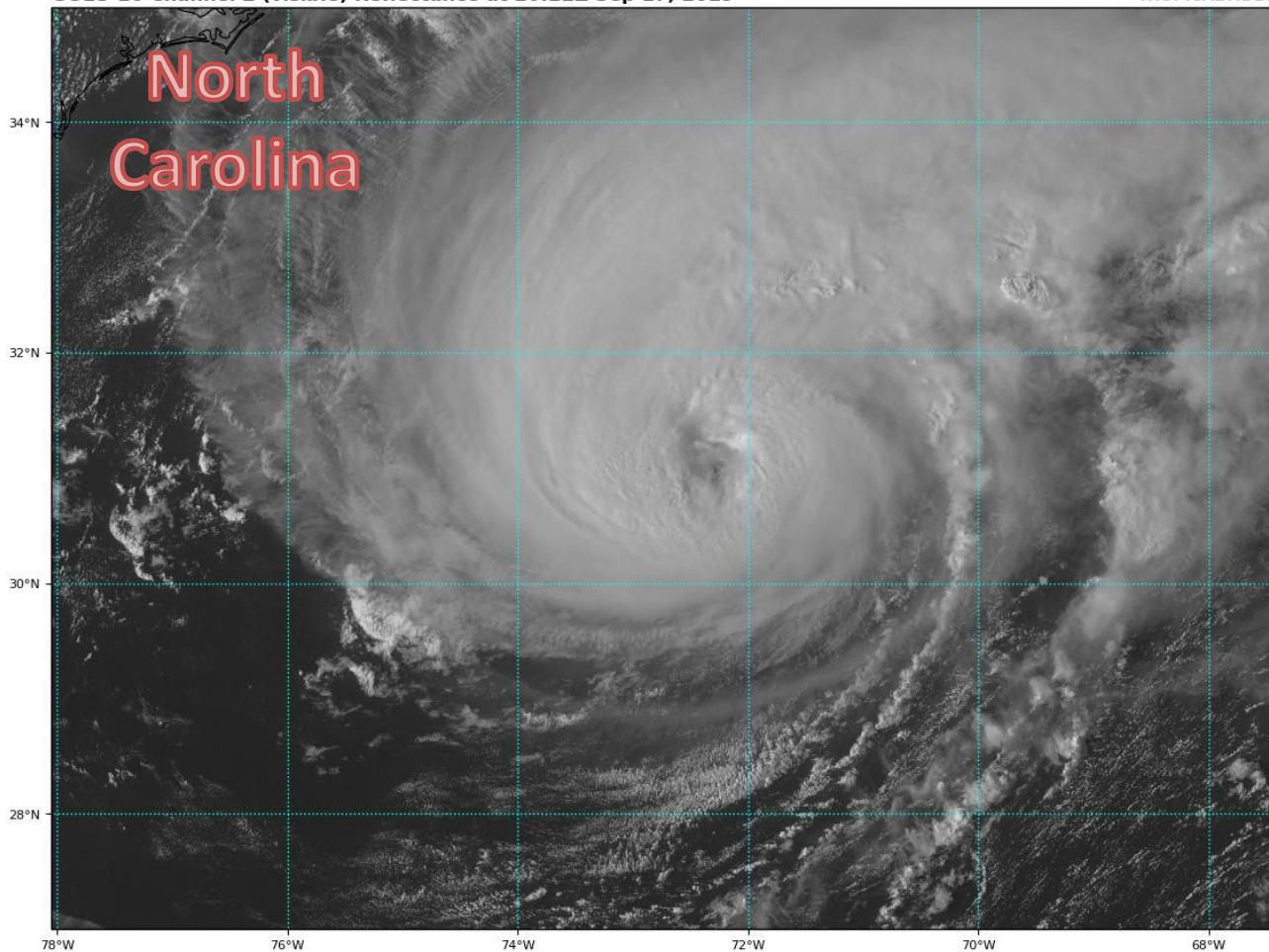
Water temperatures are warm enough to support tropical development basin-wide, and are running a little above normal in the Gulf, Caribbean, and tropical Atlantic. The cooler waters near the Bahamas are as a result of Dorian.

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

Analysis Time: 12z Sep 17 2019

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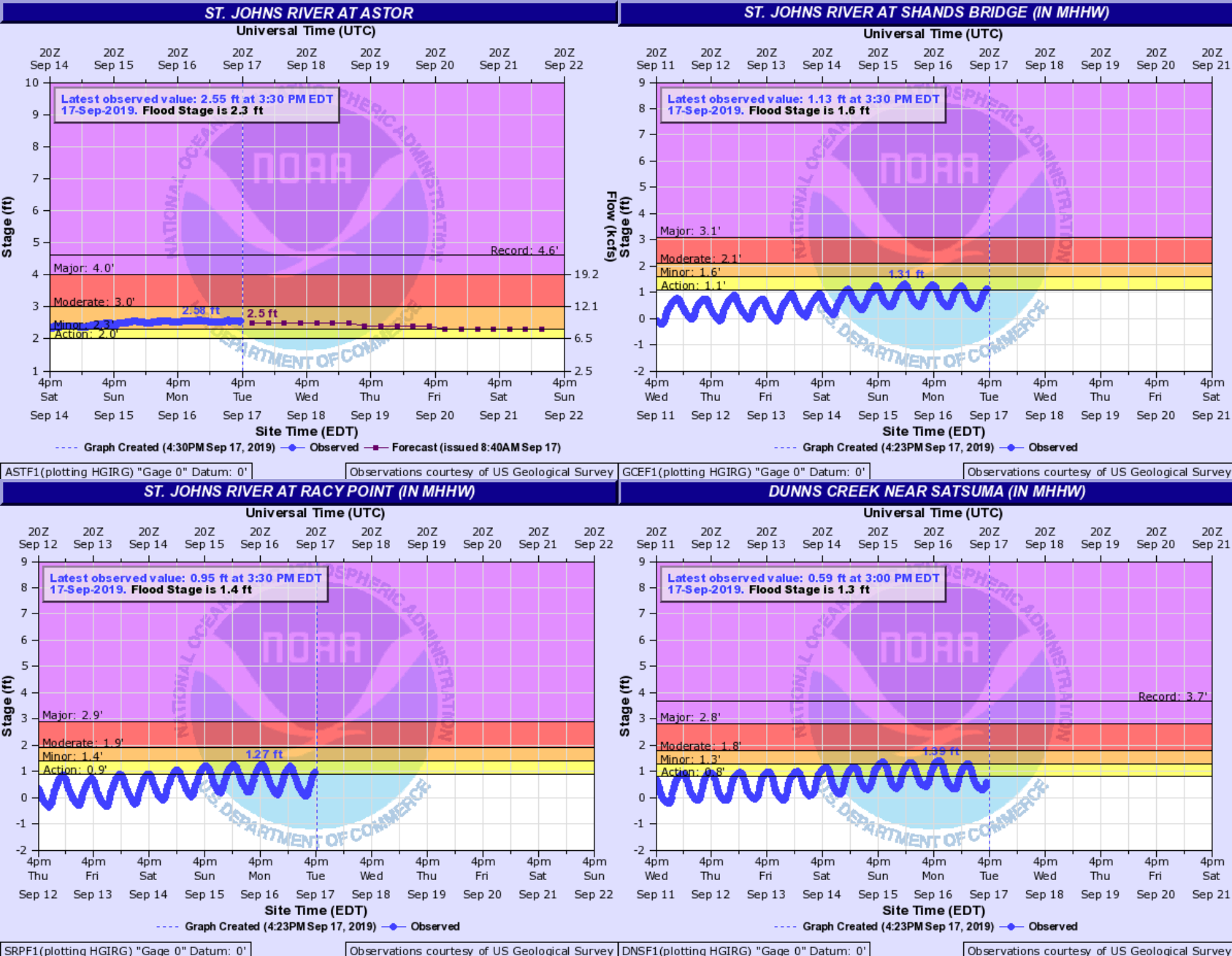




**Hurricane Humberto:** Humberto is currently located about 450 miles west of Bermuda and moving to the east-northeast at 12 mph. Humberto will continue to the northeast and gradually accelerate. Maximum sustained winds have increased to 105 mph (Category 2 Hurricane), and further strengthening is forecast to a Major Hurricane.

This storm will remain well away from the East Coast of the United States but pass very near to Bermuda Wednesday night.





# St. Johns River at Astor

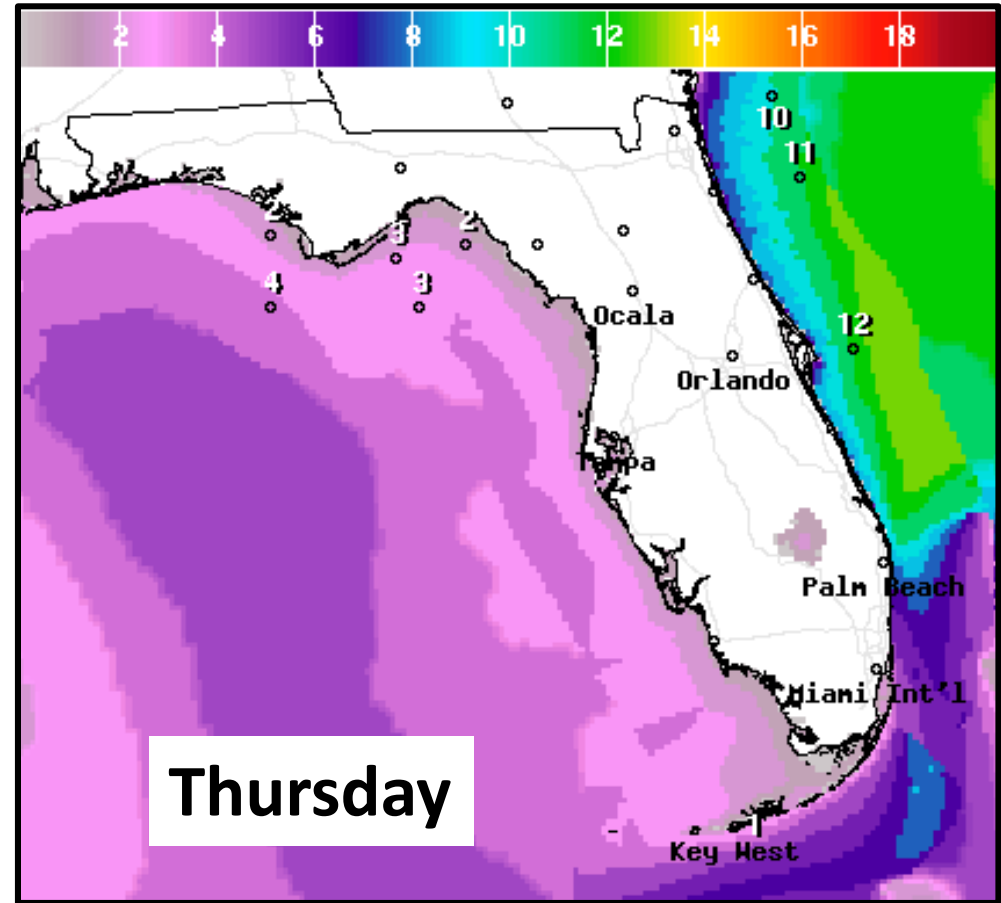
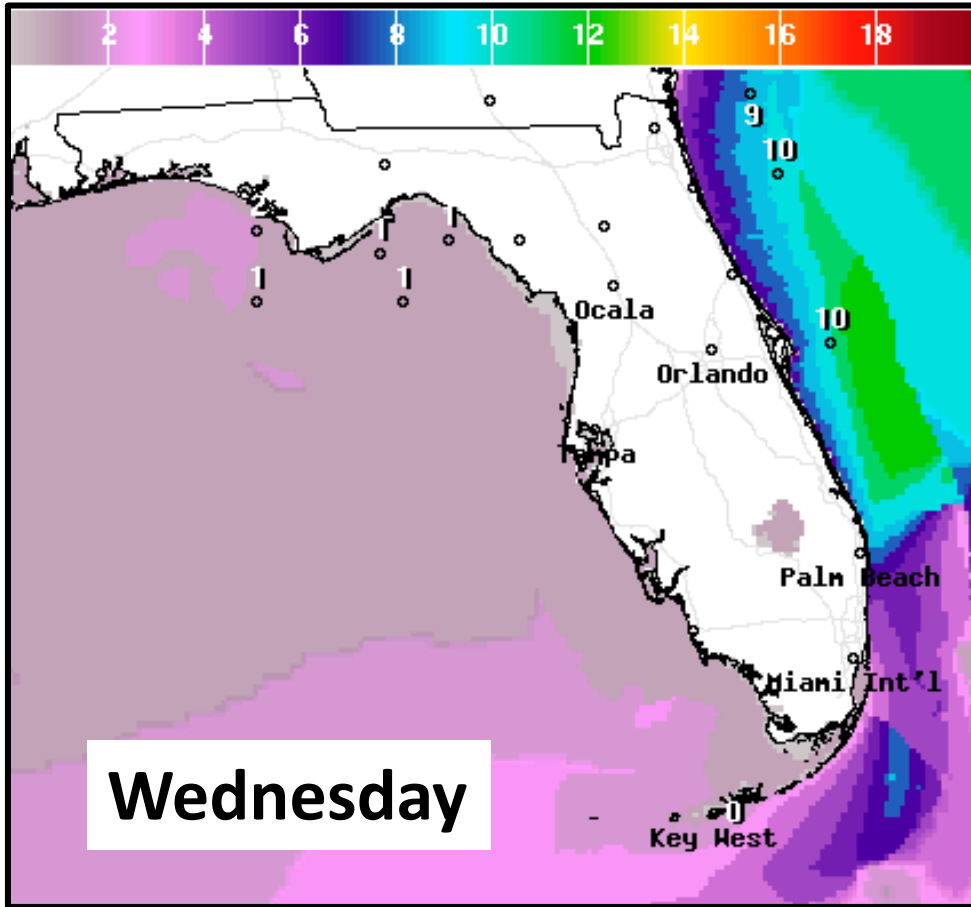
The St. Johns River at Astor remains in minor flood stage. Minor flooding is occurring, and minor flooding is forecast to continue throughout the week.

Minor flooding is also occurring at high tide in the lower St. Johns River today due to the persistent onshore winds of the last few days. Tides are running 1-1.5' above normal, and expected to continue through at least Wednesday morning.

## Coastal Flood Statement



# Forecast Wave Heights



Breaking waves of 4-8' will build late in the week to 6-10'. A cold front will move through on Thursday reinforcing the breezy onshore winds even after Humberto moves into the North Atlantic. Minor beach erosion is likely to continue.





Breezy winds and swells from Humberto will keep the rip current risk **HIGH** at all Atlantic beaches all week.

### BEACH WARNING FLAGS

BANDERAS DE ADVERTENCIA EN LA PLAYA



**Water Closed to Public**  
Agua Cerrada al Publico



**High Hazard**  
High Surf and/or Strong Currents  
Peligro Alto, Resaca Alta y/o Corrientes Fuertes



**Medium Hazard**  
Moderate Surf and/or Currents  
Peligro Medio, Resaca Moderada y/o Corrientes Fuertes



**Low Hazard**  
Calm Conditions, Exercise Caution  
Peligro Bajo, Condiciones Calmas, Tenga Cuidado

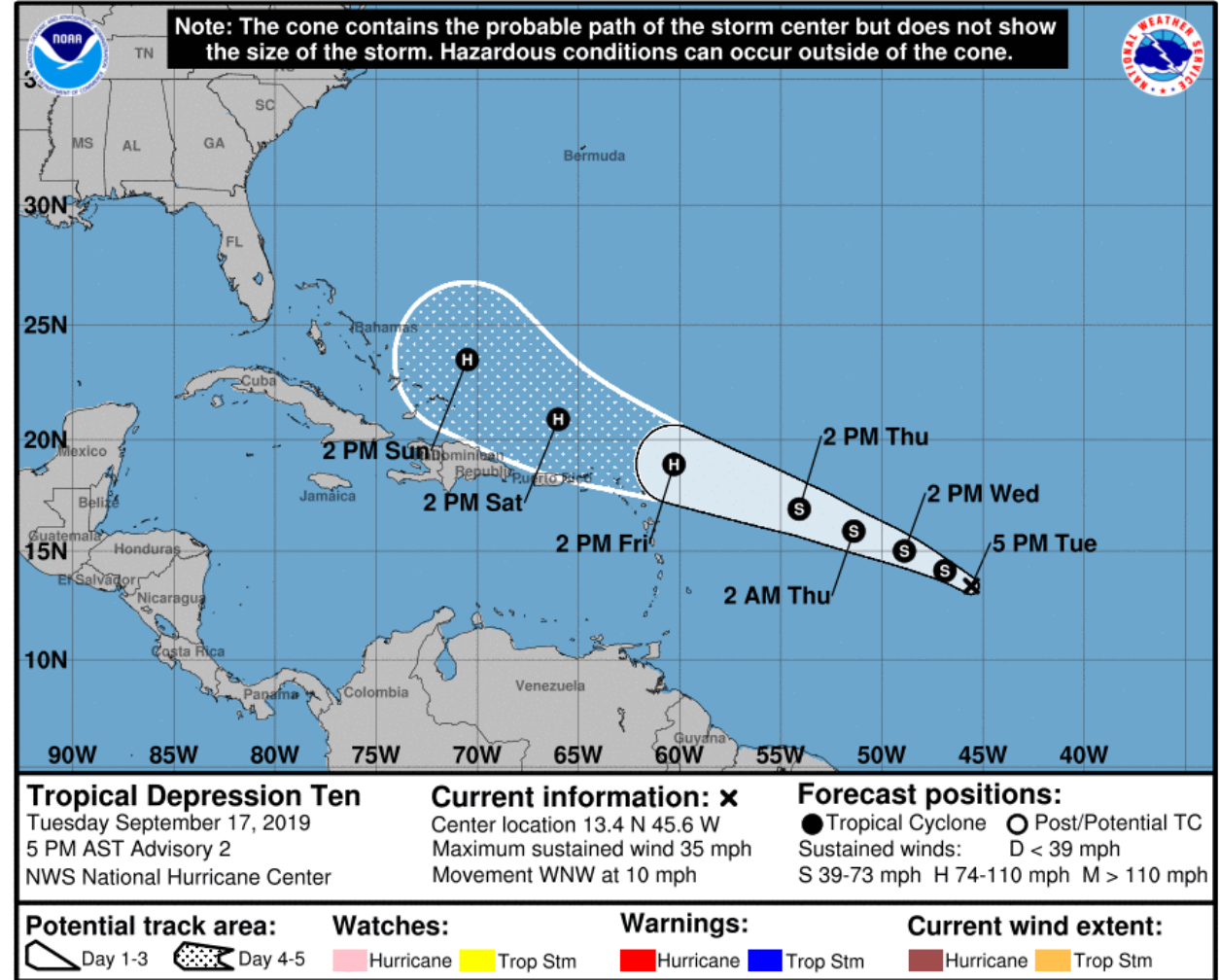
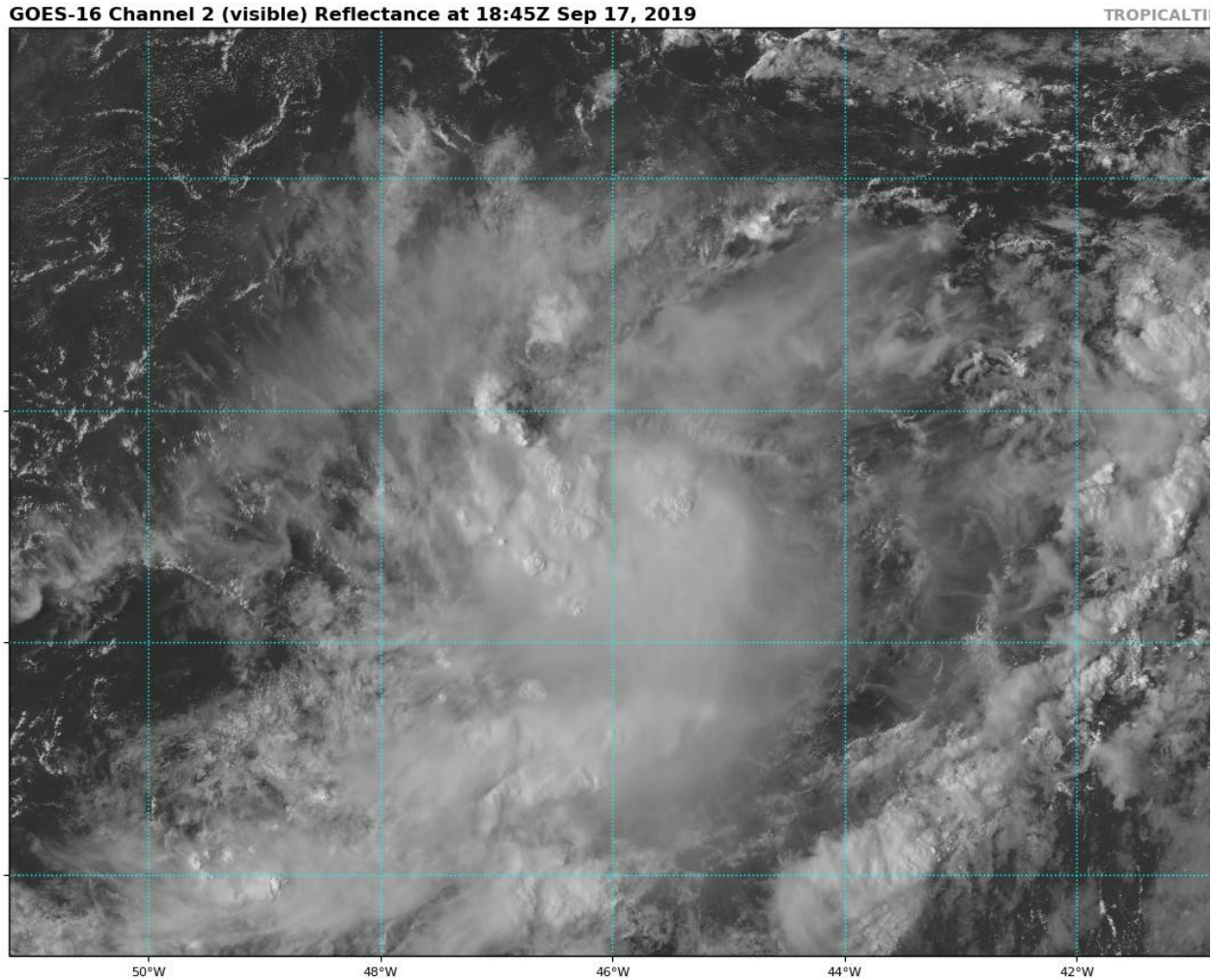


**Stinging Marine Life**  
Man o' War, Jellyfish, Stingrays  
Animal Marino que causa picaduras Fragata Portuguesa, Medusas, Rayas

Absence of Flags Does Not Assure Safe Waters  
La Ausencia de Banderas No Asegura Aguas Seguras







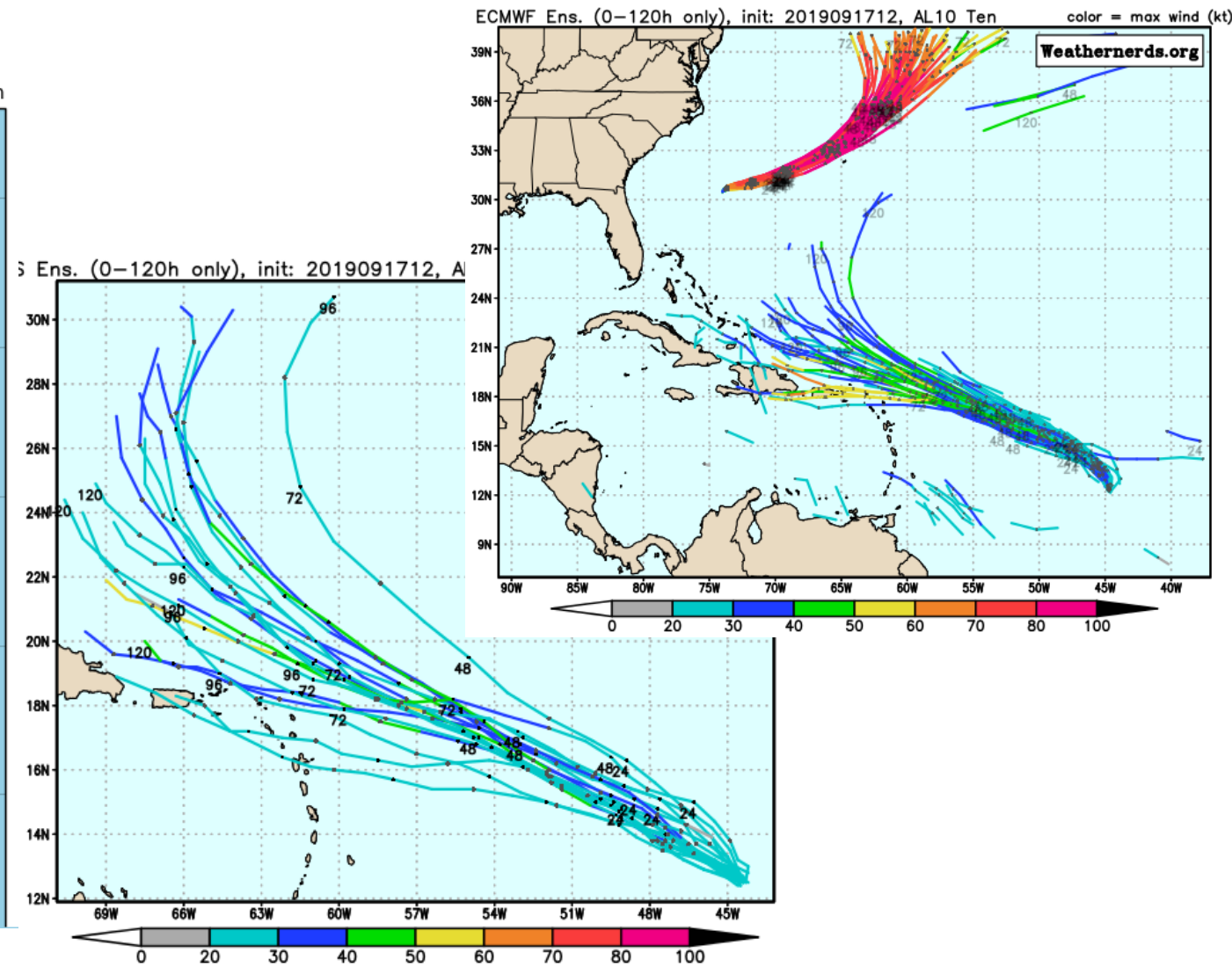
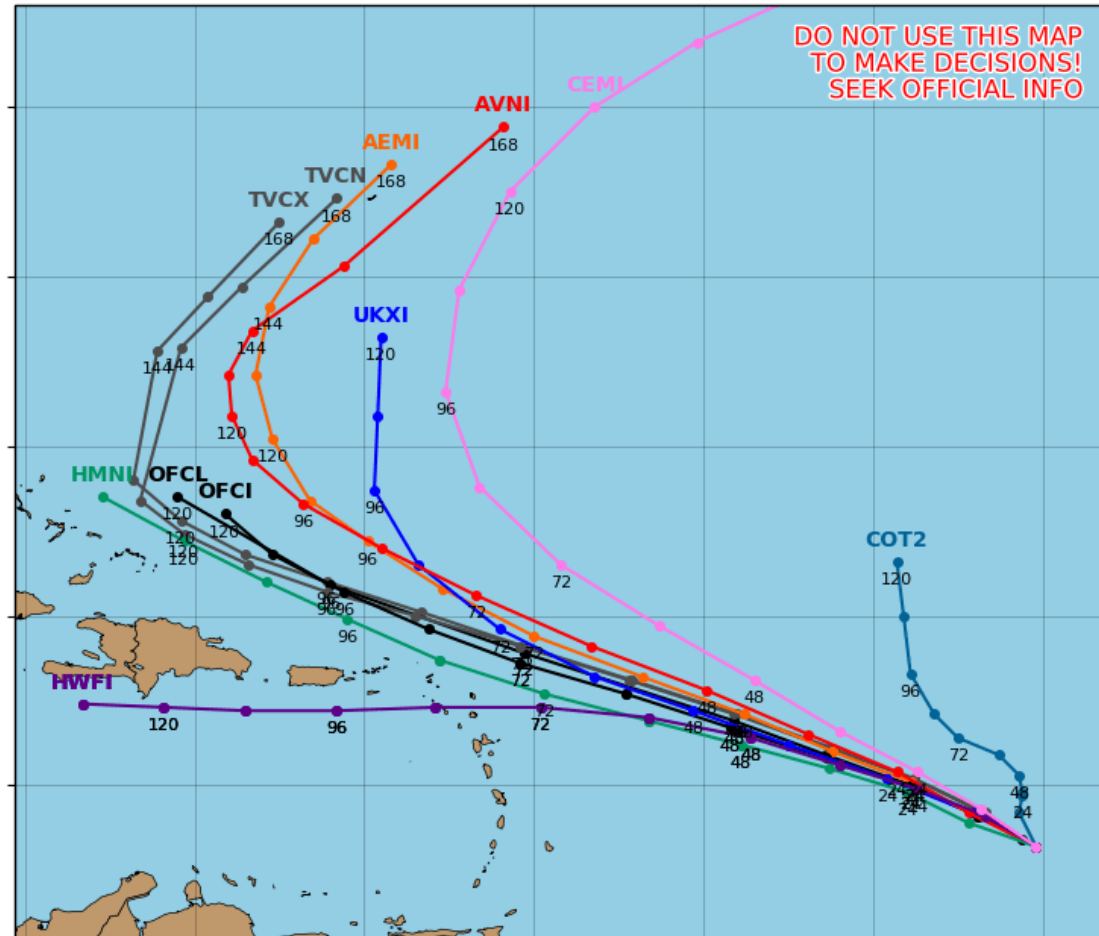
**Tropical Depression Ten:** Tropical Depression Ten is located about 1110 miles east of the Lesser Antilles and is moving to the west-northwest at 10 mph. TD #10 did not change in strength or organization today. However, it is still forecast to become Tropical Storm Jerry by tomorrow. As the system moves west-northwest, additional strengthening to a hurricane is forecast by the weekend. There is some uncertainty in the track near day 4-5, as the system is likely to turn north.



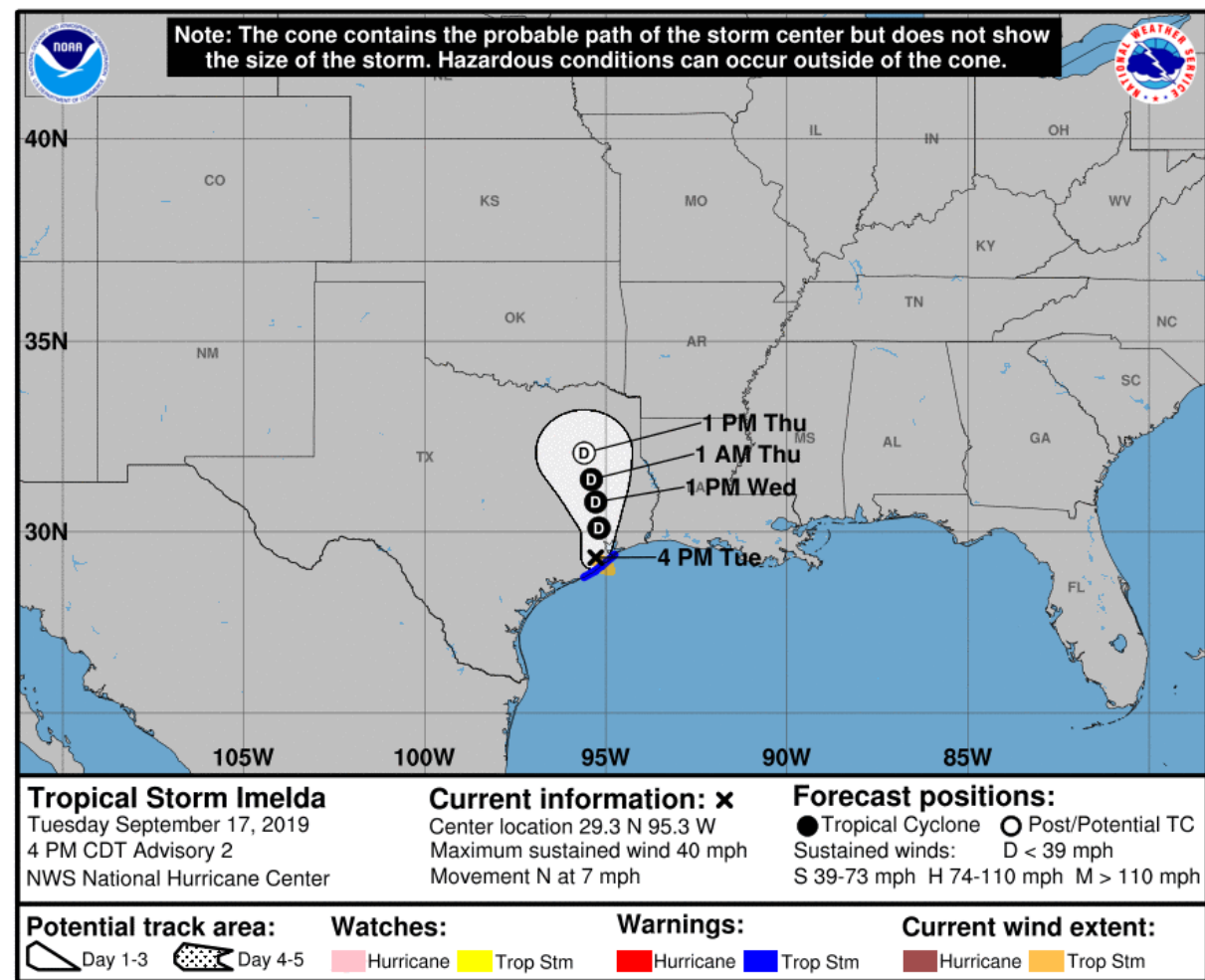
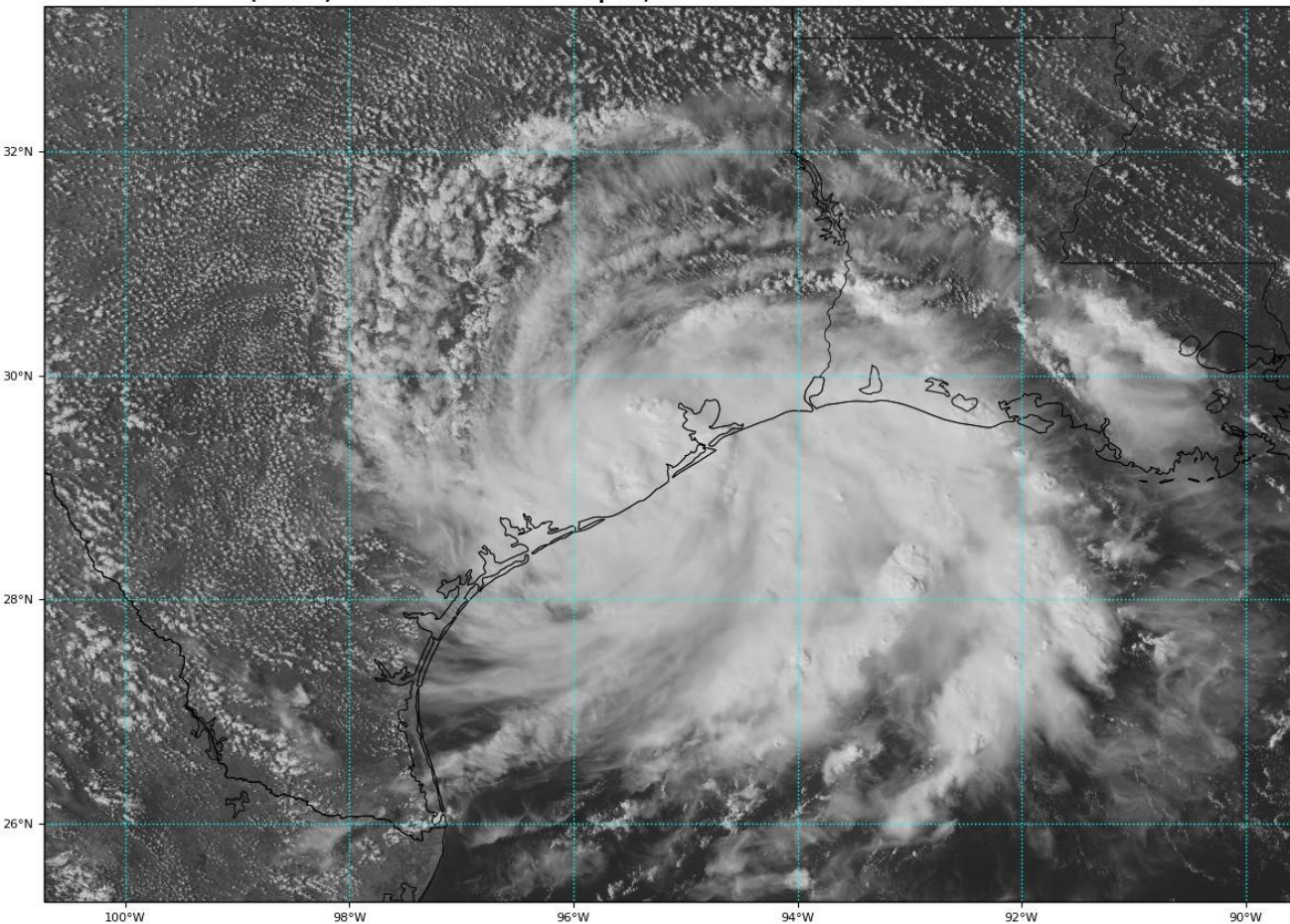
# Tropical Depression 10L Model Track Guidance

Initialized at 18z Sep 17 2019

Levi Cowan - tropicaltidbits.com



Models are in good agreement on track until days 4 and 5 when Tropical Depression #10 is near and north of Puerto Rico. A turn towards the north may occur by days 6 and 7, and is thus not reflected in the 5-day forecast cone from the National Hurricane Center.



**Tropical Storm Imelda**: An area of low pressure in the western Gulf of Mexico quickly organized today into Tropical Depression Eleven and then Tropical Storm Imelda. Imelda made landfall in Texas around 3 PM ET with maximum sustained winds of 40 mph. Imelda will drift slowly inland over southeastern Texas over the next few days bringing heavy rainfall before eventually dissipating.

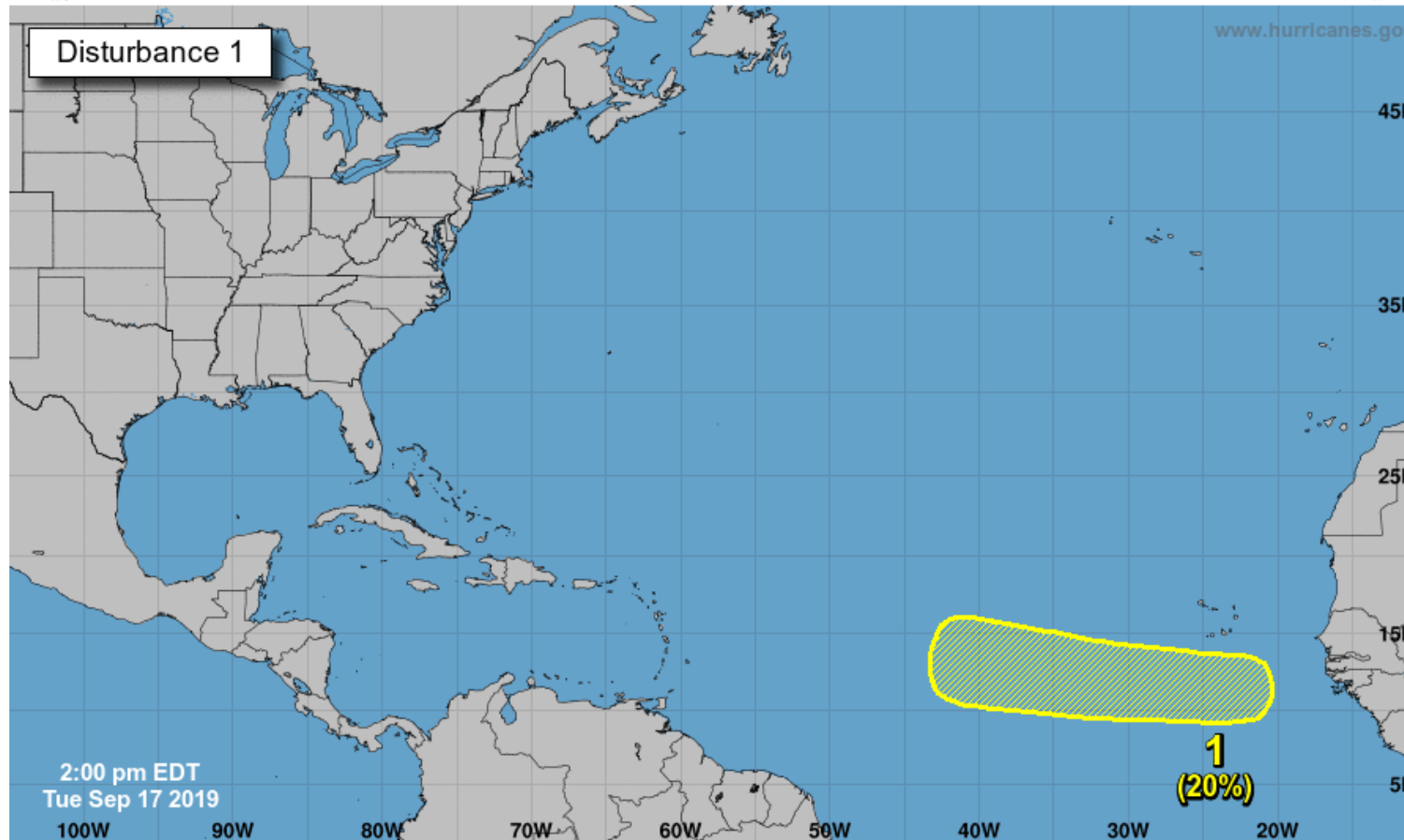
**This system poses no threat to Florida.**





# 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

**African Wave**: A tropical wave is forecast to move off of the west coast of Africa on Thursday. Some gradual development will be possible over the weekend while the system moves generally westward at 10 to 15 mph.

\* Formation chance through 48 hours...low...near 0 percent.

\* Formation chance through 5 days...low...20 percent.

# Summary

## **Hurricane Humberto**

- Humberto is located about 450 miles west of Bermuda, and is moving east-northeast at 8 mph. This northeastward motion will continue for the next few days along with a gradual increase in forward speed.
- Maximum sustained winds have increased to 105 mph (Category 2). Additional strengthening is expected, along with an increase in the size of the storm.
- This system will remain well away from the U.S. East Coast, but will pass very near to Bermuda Wednesday night.

## **Tropical Storm Imelda**

- The area of low pressure (formerly Invest 98L) over the western Gulf of Mexico quickly developed today into Tropical Depression Eleven and then Tropical Storm Imelda.
- Imelda made landfall in Southeast Texas around 2:30 PM ET with maximum sustained winds of 40 mph. Imelda is now located about 30 miles south of Houston, TX.
- Imelda will drift inland as it weakens and bring heavy rainfall for the next few days to southeastern Texas and southwestern Louisiana.

## **Tropical Depression Ten**

- TD #10 is located about 1110 miles east of the Leeward Islands and moving to the west-northwest at 10 mph. The system will continue to the west-northwest, moving near the northern Leeward Islands in about 3 days. There is more disagreement in model track towards day 5 as the system may make a turn to the north.
- Maximum sustained winds are at 35 mph. Gradual strengthening is forecast, with the system becoming a tropical storm by tomorrow and a hurricane by Friday.
- The next name on the list is Jerry.

## **African Wave**

- A tropical wave will move off the coast of Africa on Thursday. Some gradual development is possible this weekend in the tropical Atlantic.
- NHC gives it a near 0% (low) chance over the next 48 hours and a 20% (low) chance of development from days 3-5.

## **Florida Outlook:**

- High surf and dangerous rip currents are expected at Atlantic beaches for much of this week thanks to Humberto and a cold front that will move through on Thursday.
- Minor coastal flooding at high tide in the St. Johns River and its tributaries through Wednesday morning.
- There will be no impacts to Florida from Imelda.
- It is too early to determine if there will be any impacts from Tropical Depression 10 or the African Wave. The systems should be monitored.

The next tropics packet will be issued Thursday 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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