



# TROPICAL UPDATE



5:00 PM EDT

Monday, August 9, 2021

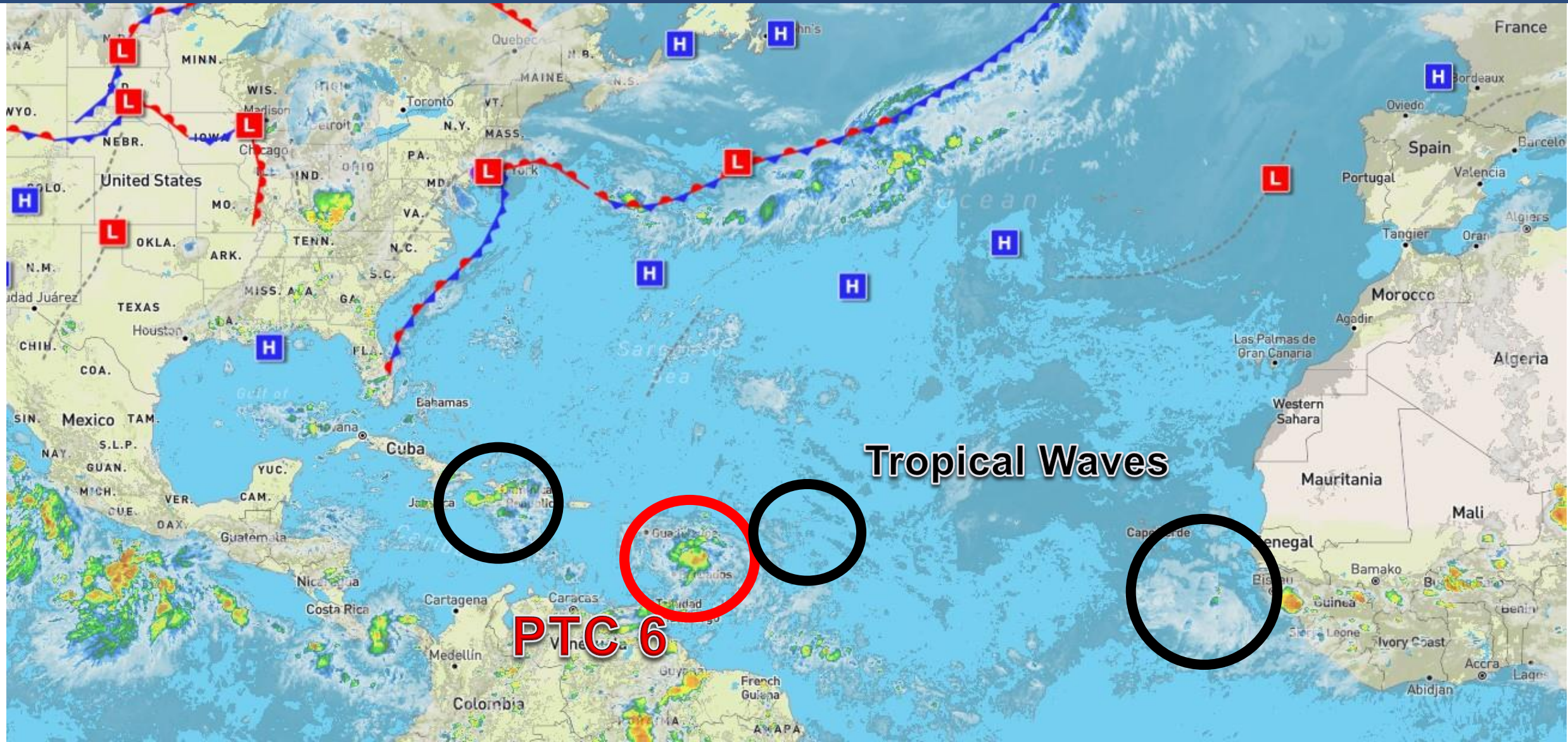
Potential Tropical Cyclone #6

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



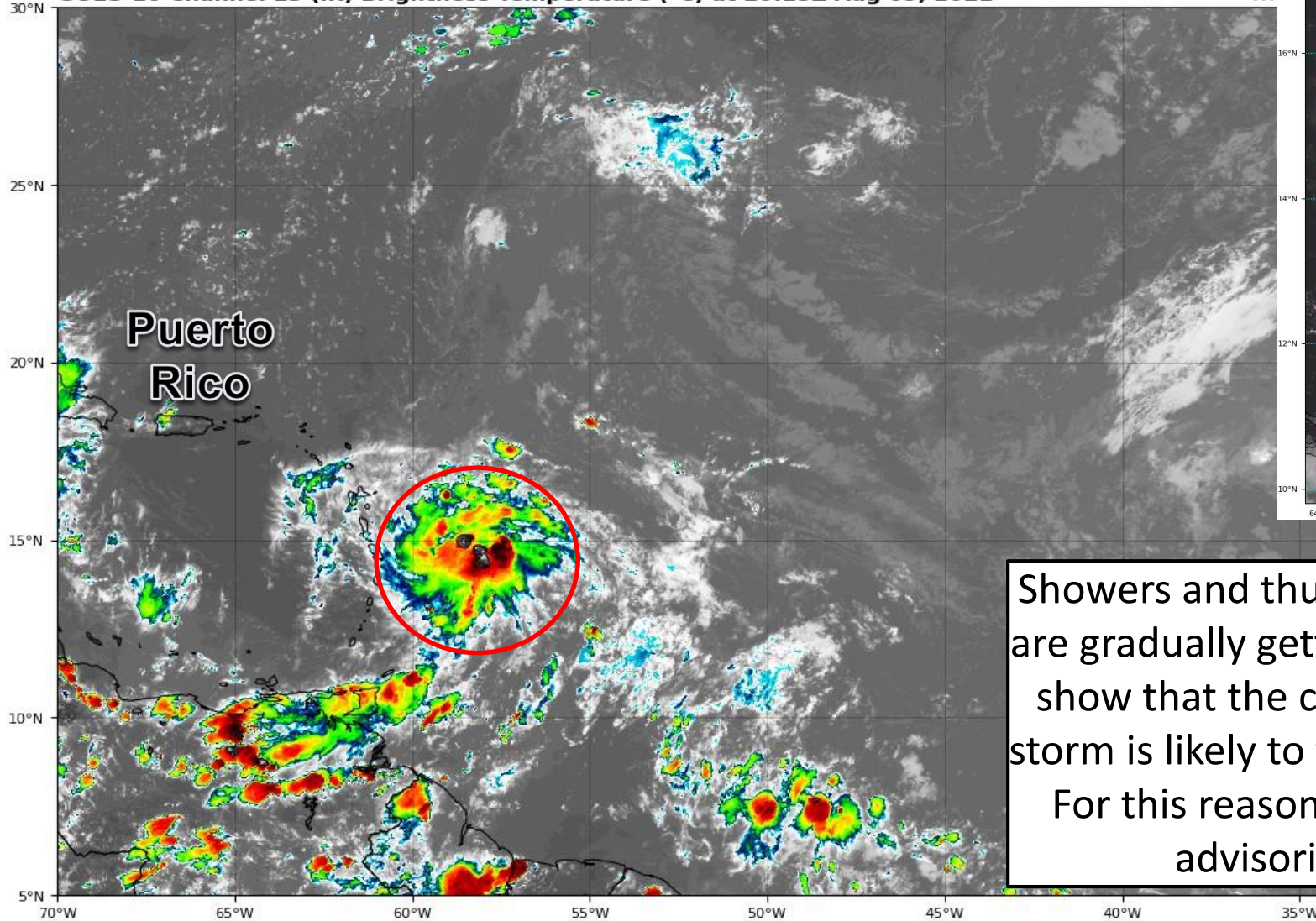




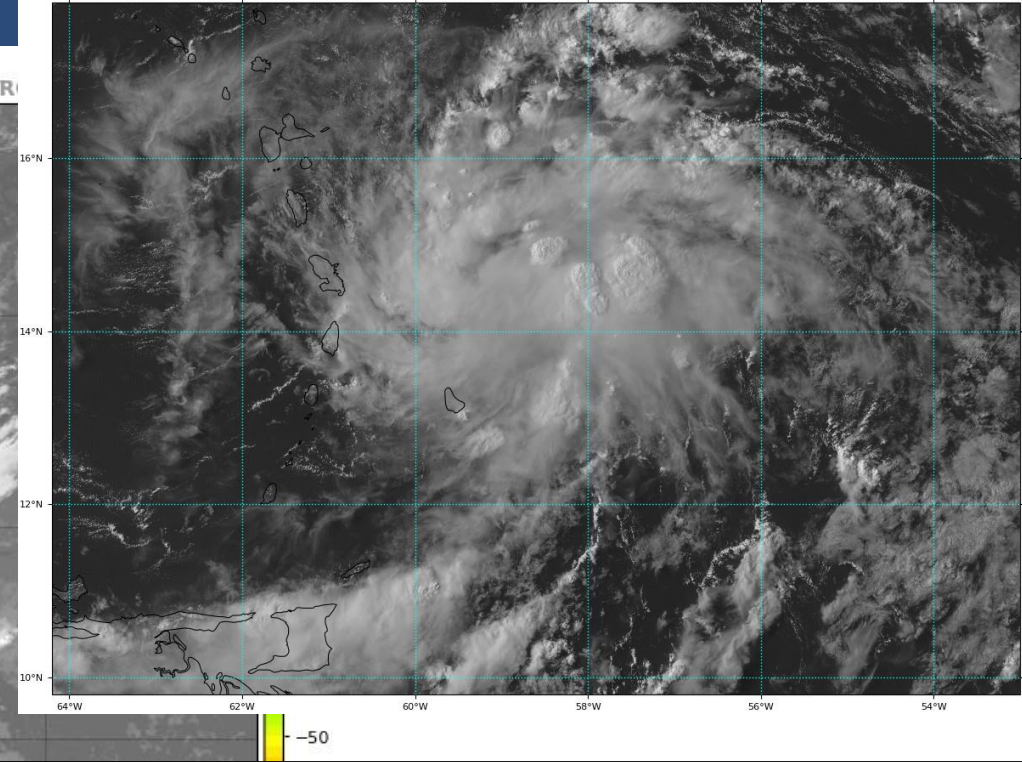
# Satellite Imagery

## Central Atlantic – PTC Six

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 20:15Z Aug 09, 2021



GOES-16 Channel 2 (visible) Reflectance at 20:05Z Aug 09, 2021

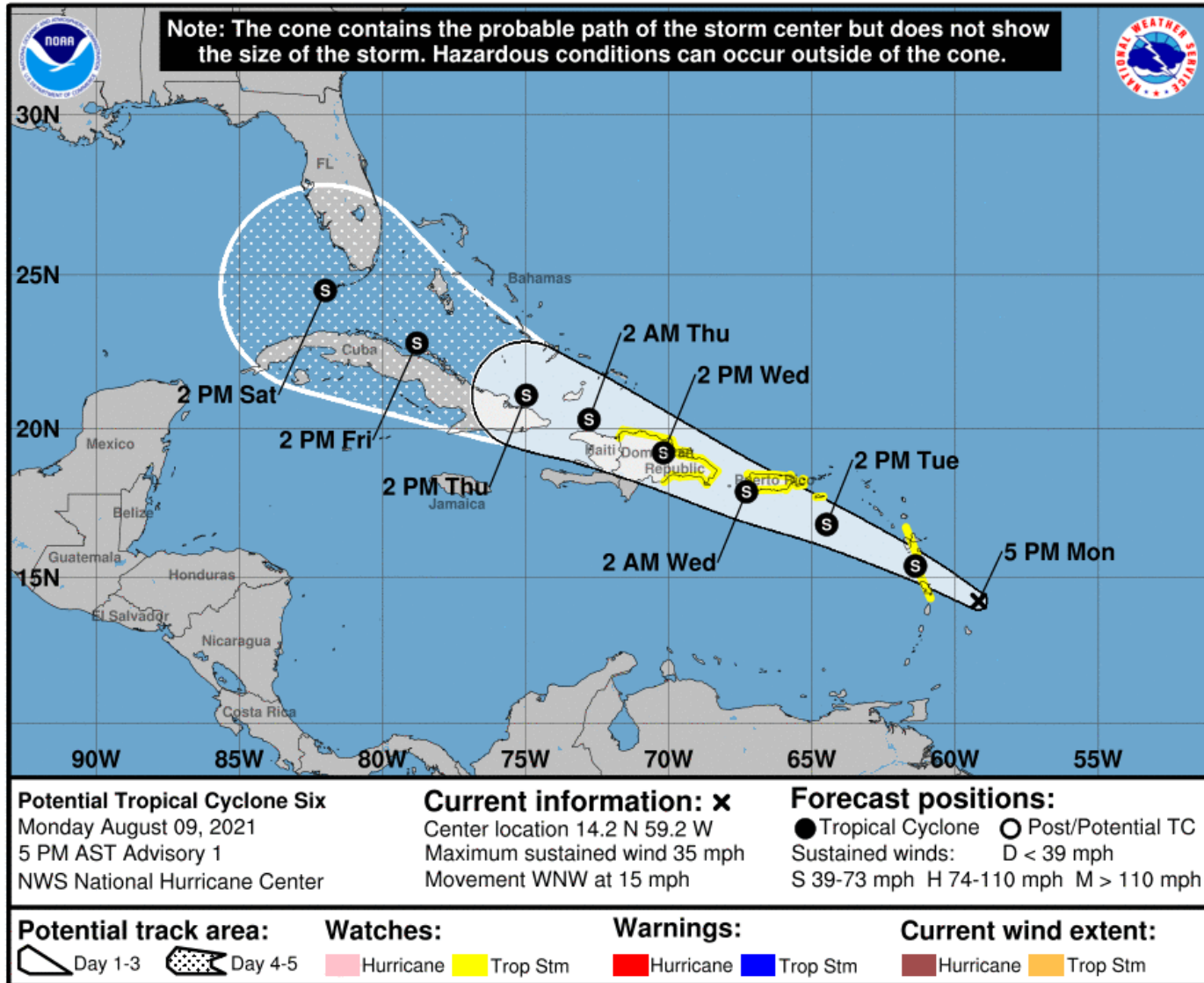


Showers and thunderstorms have been persistent today, and are gradually getting better organized. However, observations show that the circulation is still not well defined. A tropical storm is likely to form tonight as it moves through the islands. For this reason, the National Hurricane Center has begun advisories on Potential Tropical Cyclone Six.



# Official Forecast Track

From the National Hurricane Center



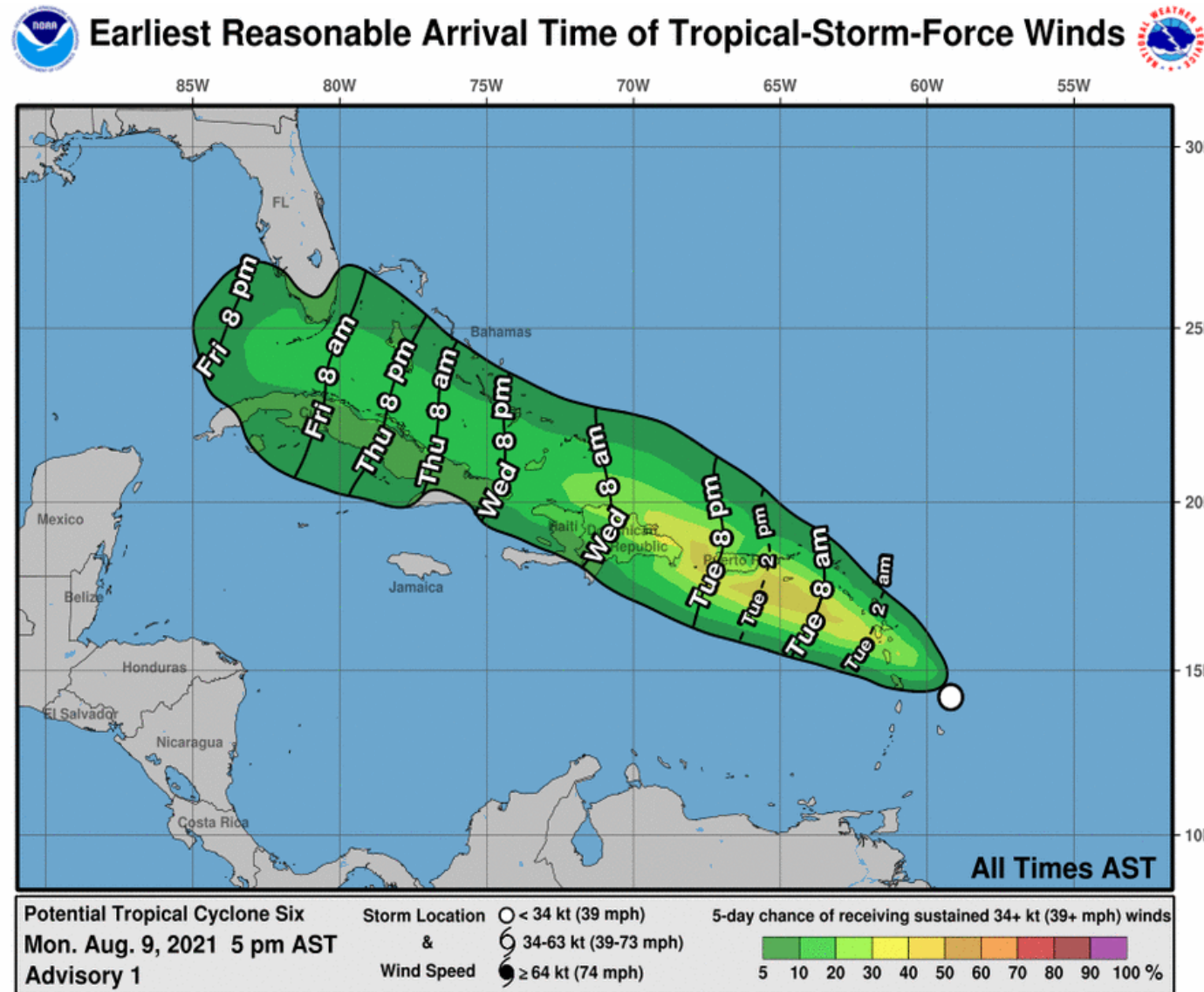
- Potential Tropical Cyclone Six is located about 50 miles north of Barbados in the Lesser Antilles.
- Six currently has maximum sustained winds around 35 mph, and some strengthening is forecast over the next 48 hours.
- Development into Tropical Storm Fred is expected tonight.
- Six is moving west-northwest at 15 mph, and this general motion will continue over the next few days.
- Later this week, Six will move over or near the mountainous terrain of Puerto Rico, Hispaniola, and/or Cuba. This makes the longer range intensity forecast uncertain, but significant strengthening is not forecast by NHC at this time.
- Six will be in the vicinity of South Florida on Friday night/Saturday.





# Time of Arrival & Wind Speed Probabilities

**EARLIEST REASONABLE** Time of Arrival of Tropical Storm Force Winds (>39 mph)



City	Chance for TS Winds	Changes Since Last Packet
Key West	12%	+/-0%
Marathon	13%	+/-0%
Naples	9%	+/-0%
Miami	4%	+/-0%
West Palm Beach	6%	+/-0%

There is only a 1 in 10 chance of tropical storm force winds at this time for the Florida Keys with chances less than that along coastal South Florida.

The earliest reasonable arrival time of tropical storm force winds in South Florida, if they were to occur, would be Friday morning. They are most likely to begin Friday night.



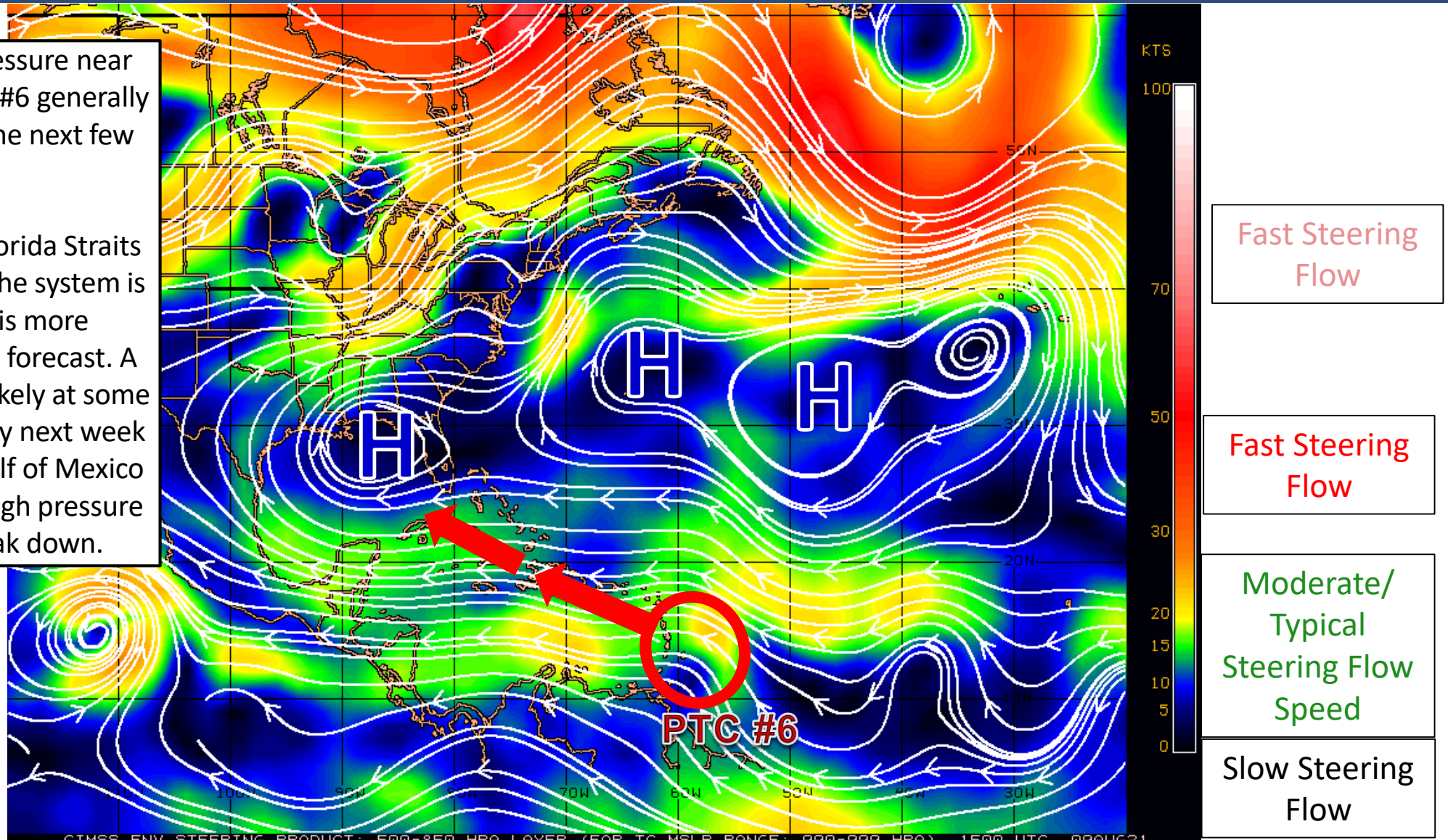
# Steering Currents

## What is Moving the System?

Color denotes the movement speed through the atmosphere and thin white lines denote direction. Tightly clustered white lines represent faster movement as well.

A large area of high pressure near Bermuda will move PTC #6 generally west-northwest over the next few days.

PTC #6 will reach the Florida Straits late in the week. Once the system is near Florida, there is more uncertainty in the track forecast. A northward turn seems likely at some point this weekend/early next week either in the eastern Gulf of Mexico or western Bahamas. High pressure over Florida will break down.





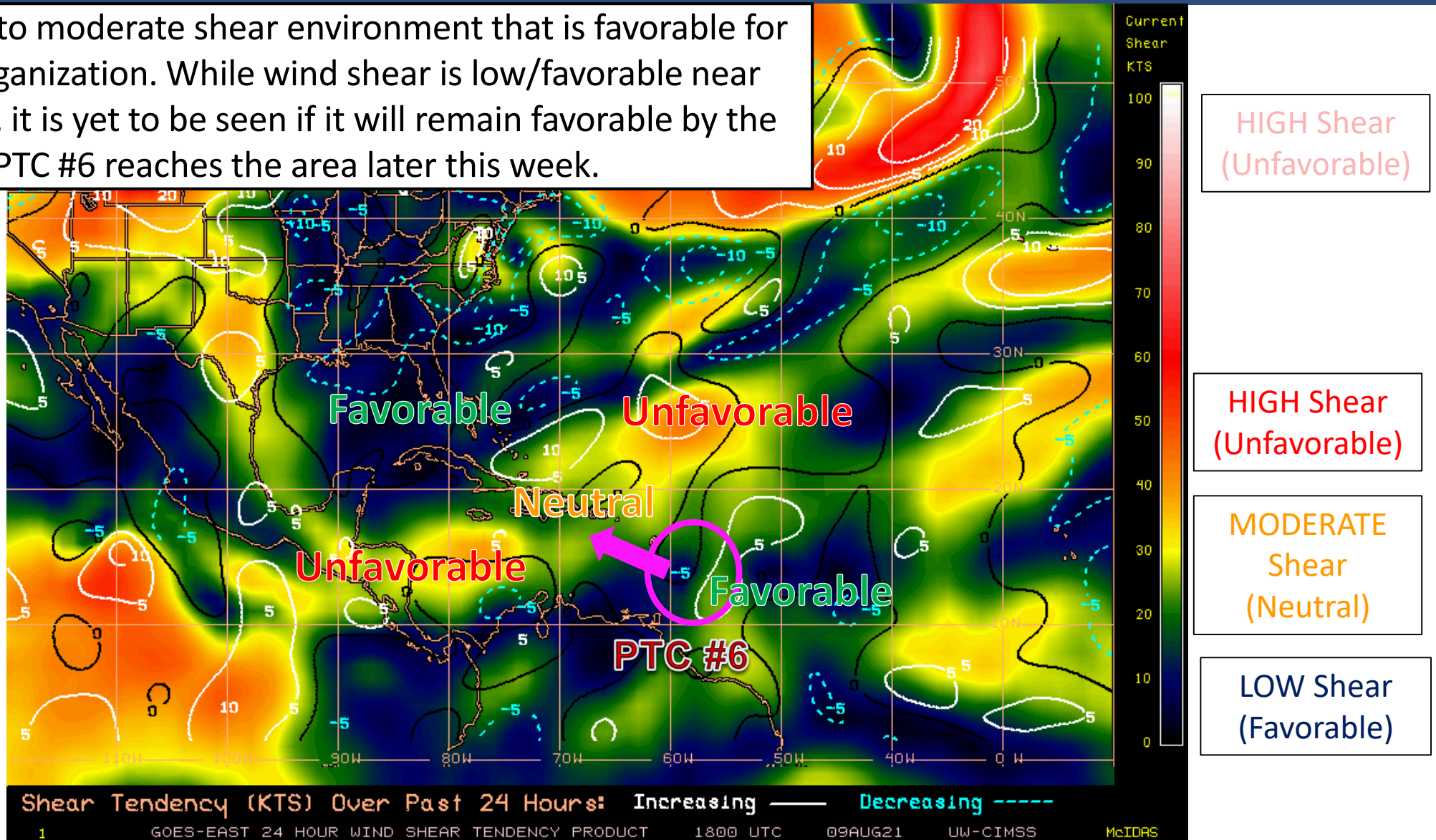


# Wind Shear

Is the environment favorable for the system?

Color denotes the amount of wind shear and the lines denote how it have changed over the last 24 hours (dotted lines show decreasing shear and solid lines show increasing).

PTC #6 is in a low to moderate shear environment that is favorable for slow/gradual organization. While wind shear is low/favorable near Florida right now, it is yet to be seen if it will remain favorable by the time PTC #6 reaches the area later this week.







# Dry Air & Saharan Dust

Is the environment favorable for the system?

Color denotes concentration of Saharan Dust or dry, stable air.





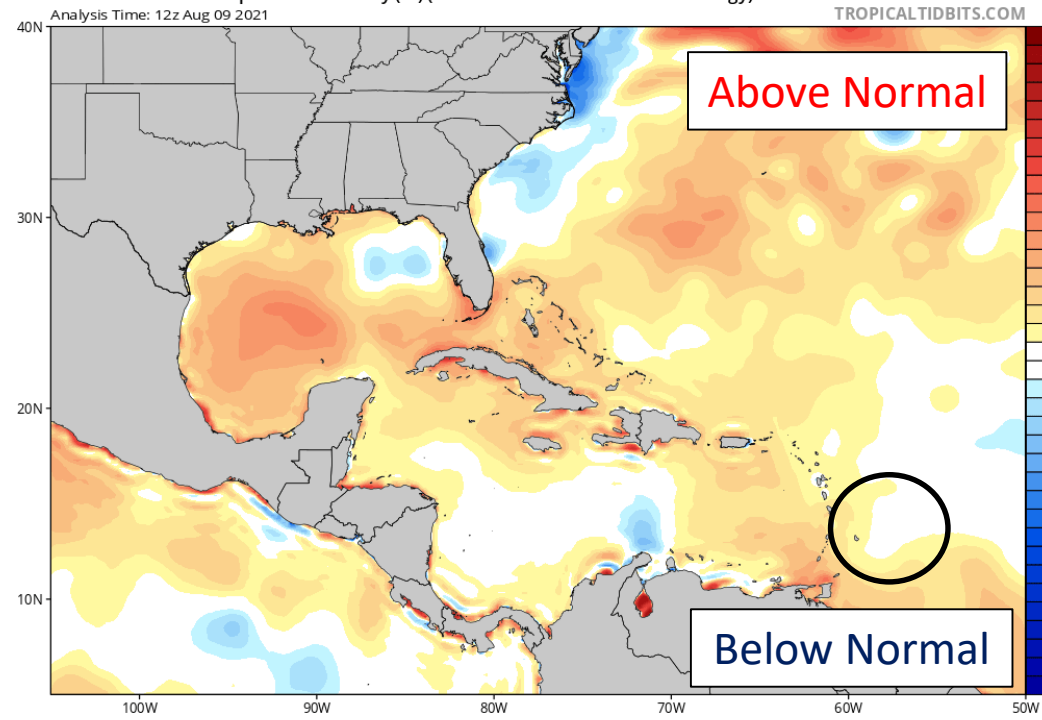


# Sea Surface Temperatures & Anomalies

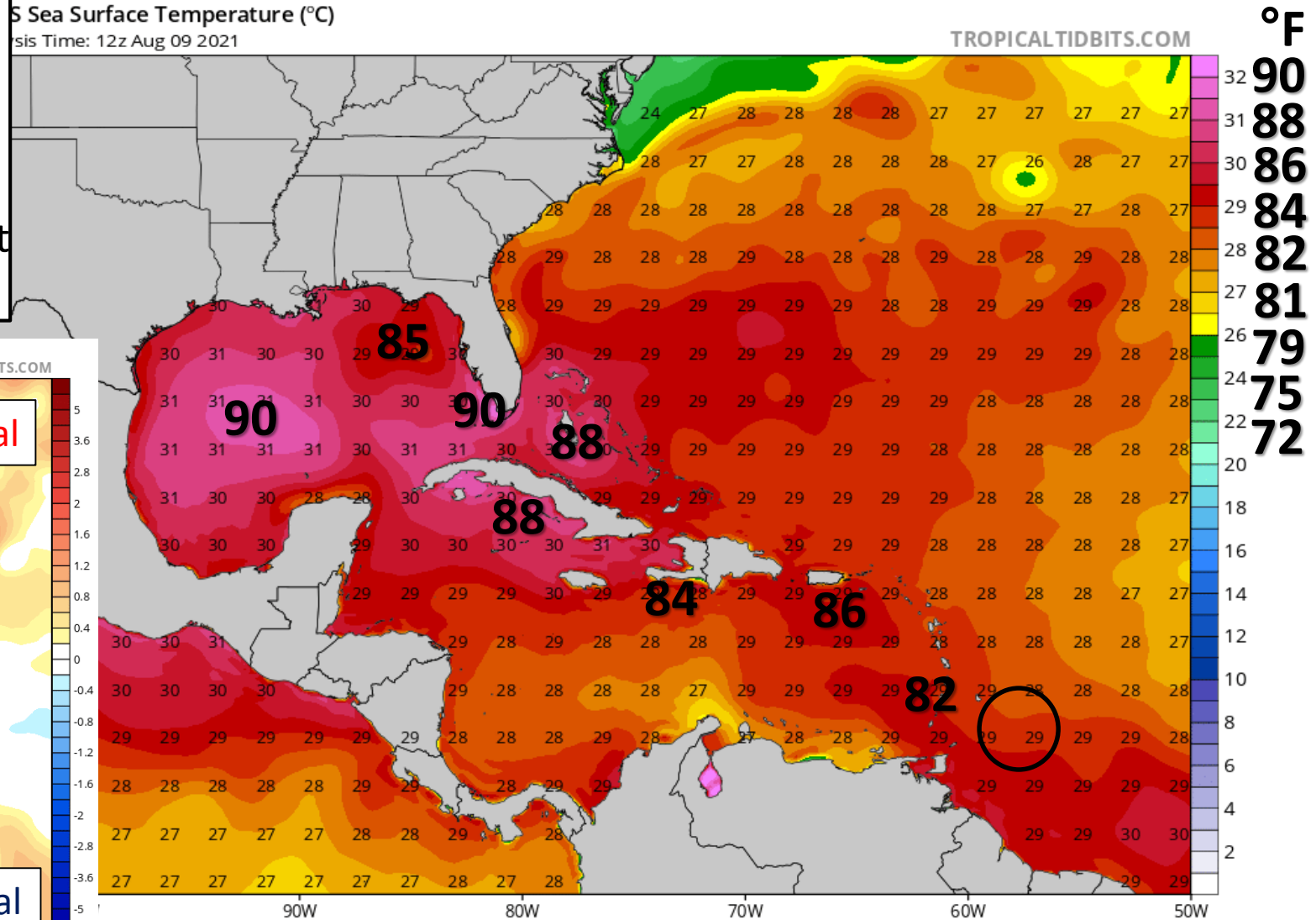
Is the ocean favorable for the system?

Water temperatures across much of the Caribbean, southwest Atlantic, and Gulf of Mexico are above normal and will support tropical development. Water temperatures will become more favorable for development as PTC #6 moves northwest.

CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)  
Analysis Time: 12z Aug 09 2021



Sea Surface Temperature (°C)  
Analysis Time: 12z Aug 09 2021







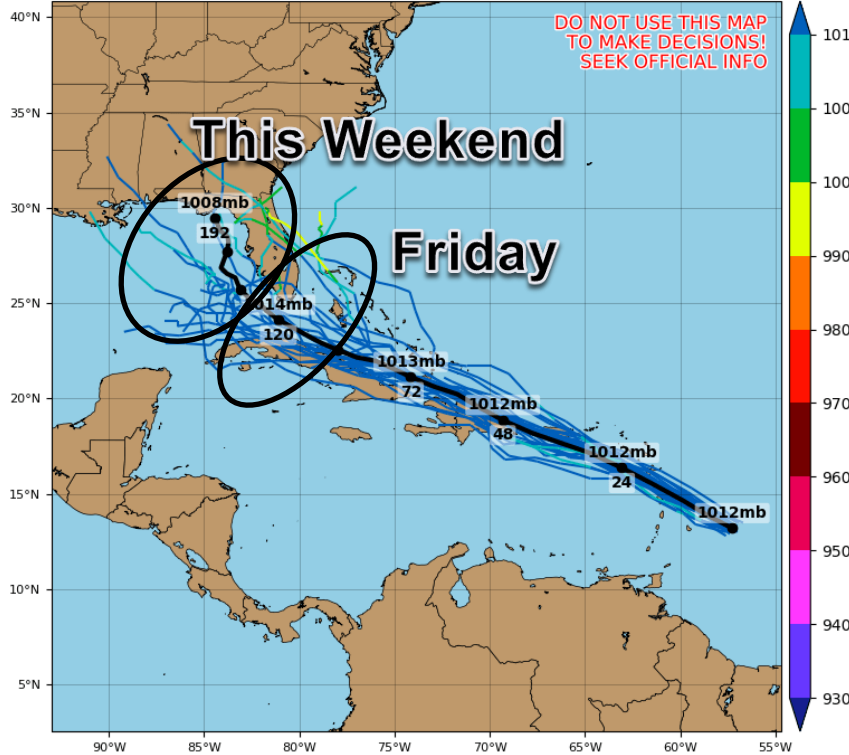
# Model Forecasts

## Ensembles, Dynamical, and Statistical Models

### Invest 94L GEFS Tracks & Min. MSLP (mb)

Initialized at 12z Aug 09 2021

Levi Cowan - tropicaltidbits.com



PTC #6 will be in the vicinity of South Florida/Florida Straits as early as Friday and bring increased rain chances.

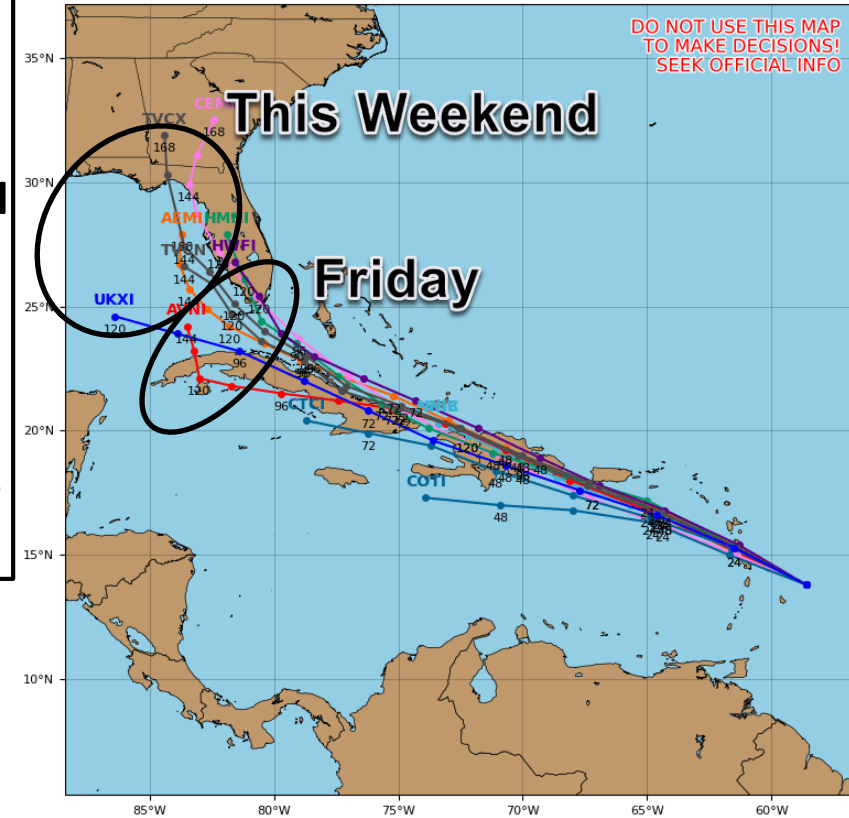
However, land interaction and dry air will likely limit significant development between now and Thursday.

94L could be in the Gulf of Mexico this weekend, and will need to continue to be monitored.

### Invest 94L Model Track Guidance

Initialized at 18z Aug 09 2021

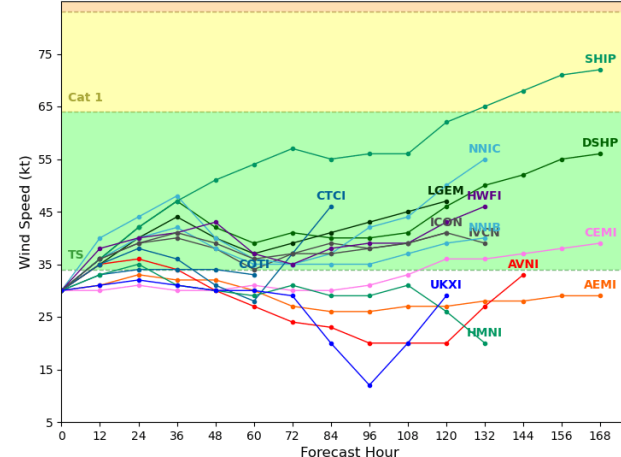
Levi Cowan - tropicaltidbits.com



### Invest 94L Model Intensity Guidance

Initialized at 18z Aug 09 2021

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# Key Messages

## From the National Hurricane Center



### Key Messages for Potential Tropical Cyclone Six

Advisory 1: 5:00 PM AST Mon Aug 09, 2021



1. The system is forecast to become a tropical storm as it moves through the Lesser Antilles tonight. Tropical storm conditions are possible in portions of the southern Leeward Islands tonight and Tuesday and in the Virgin Islands and Puerto Rico beginning Tuesday afternoon, and in the Dominican Republic by Wednesday.

2. Heavy rainfall could lead to flash, urban, and small stream flooding and potential mudslides across the U.S. Virgin Islands and Puerto Rico. The greatest threat for flooding impacts will be across the eastern and southeastern portions of Puerto Rico.

3. There is a risk of wind and rainfall impacts in portions of Hispaniola, the Turks and Caicos, the southeastern Bahamas, and Cuba later this week, although the forecast is more uncertain than usual since the system is still in its formative stage. Interests in these areas should monitor the system's progress and updates to the forecast.

4. Interests in the remainder of the Bahamas and Florida should monitor updates to the forecast for this system, but it is too soon to determine what if any impacts could occur there by late this week or this weekend given the uncertainty in the long-range forecast.



For more information go to [hurricanes.gov](https://hurricanes.gov)



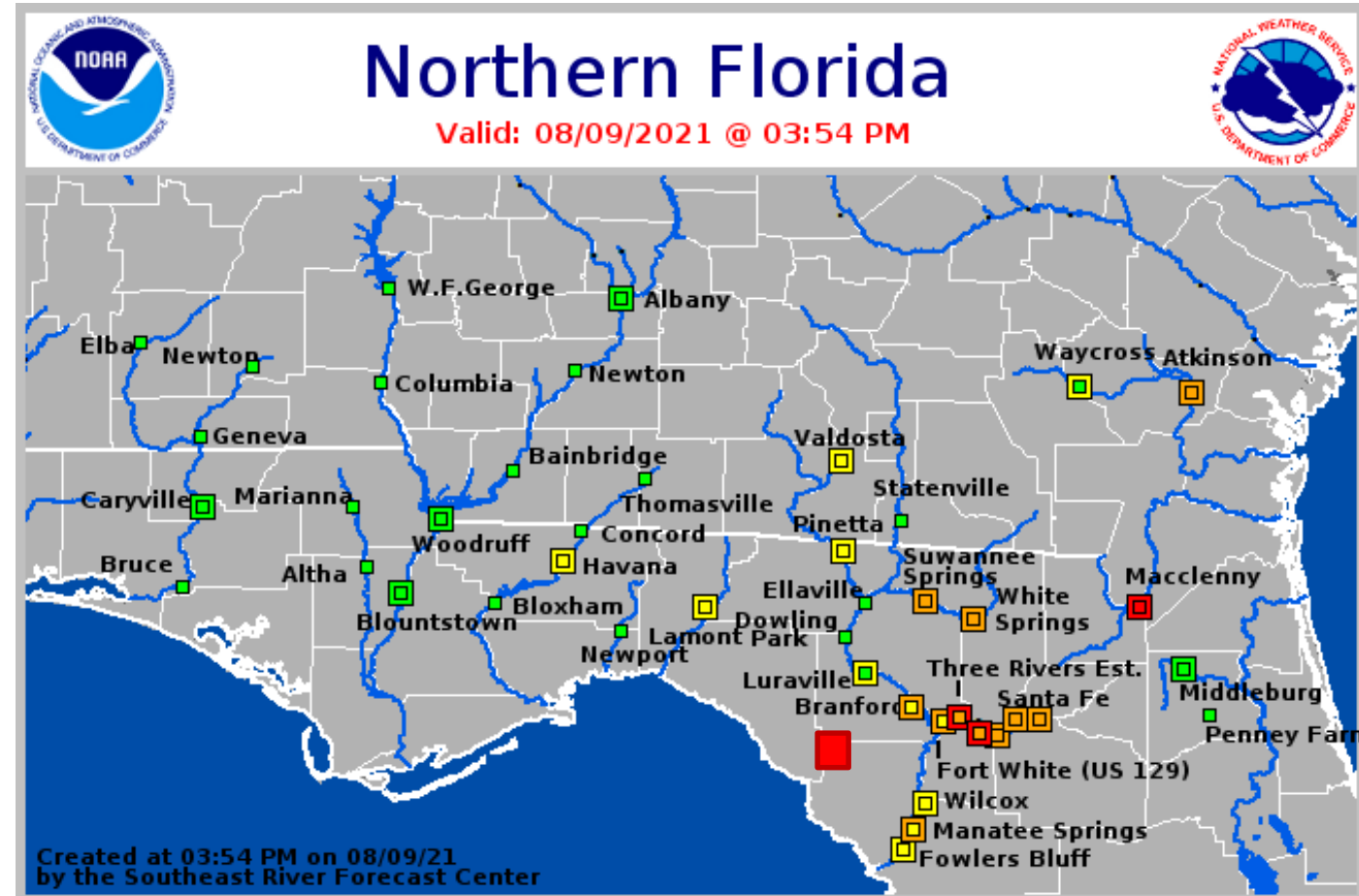
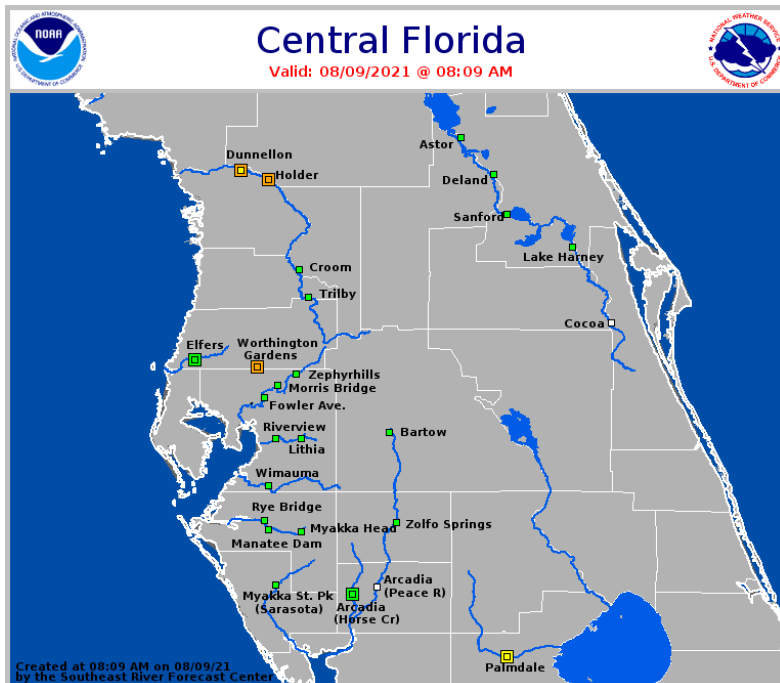


# Current & Forecast River Flooding

North Florida – Southeast River Forecast Center

**Extensive river flooding will continue across Northeast Florida this week.**

More details on river levels available at the [Southeast River Forecast Center website](https://www.srfc.noaa.gov/).





# Long-Range Flood Outlook

Next 7 Days – Ending Monday, August 16



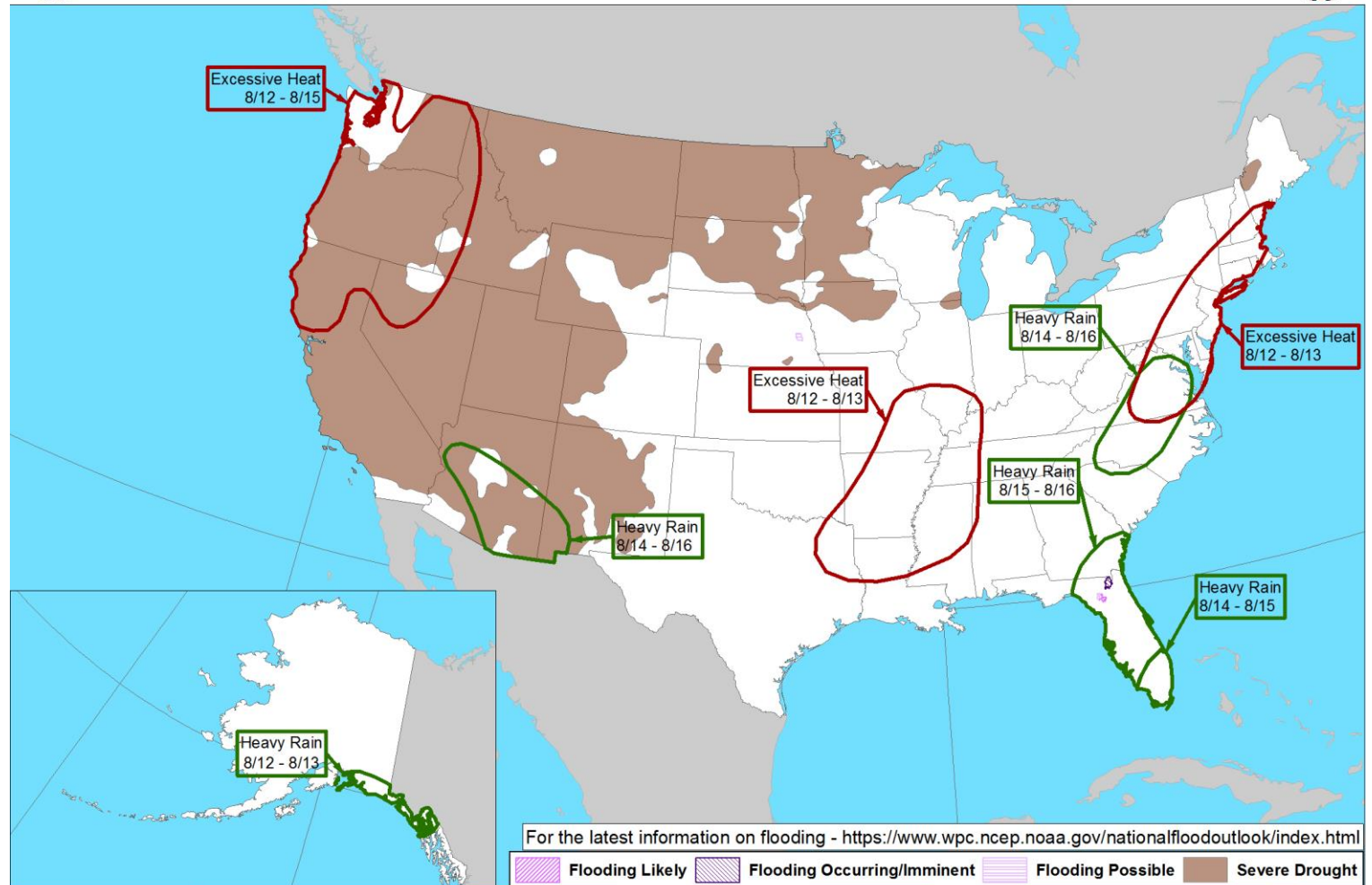
Day 3-7 U.S. Hazards Outlook  
Valid: 08/12/2021-08/16/2021



Heavy rainfall will be possible across South Florida later this week and Central and Northeast Florida this weekend/early next week.

Rivers across Northeast Florida are saturated and this region will be the most susceptible to additional flooding this weekend.

It is too early to determine exact rainfall totals.



Weather Prediction Center

Made: 08/09/2021 3PM EDT

Follow us:

[www.wpc.ncep.noaa.gov](https://www.wpc.ncep.noaa.gov)





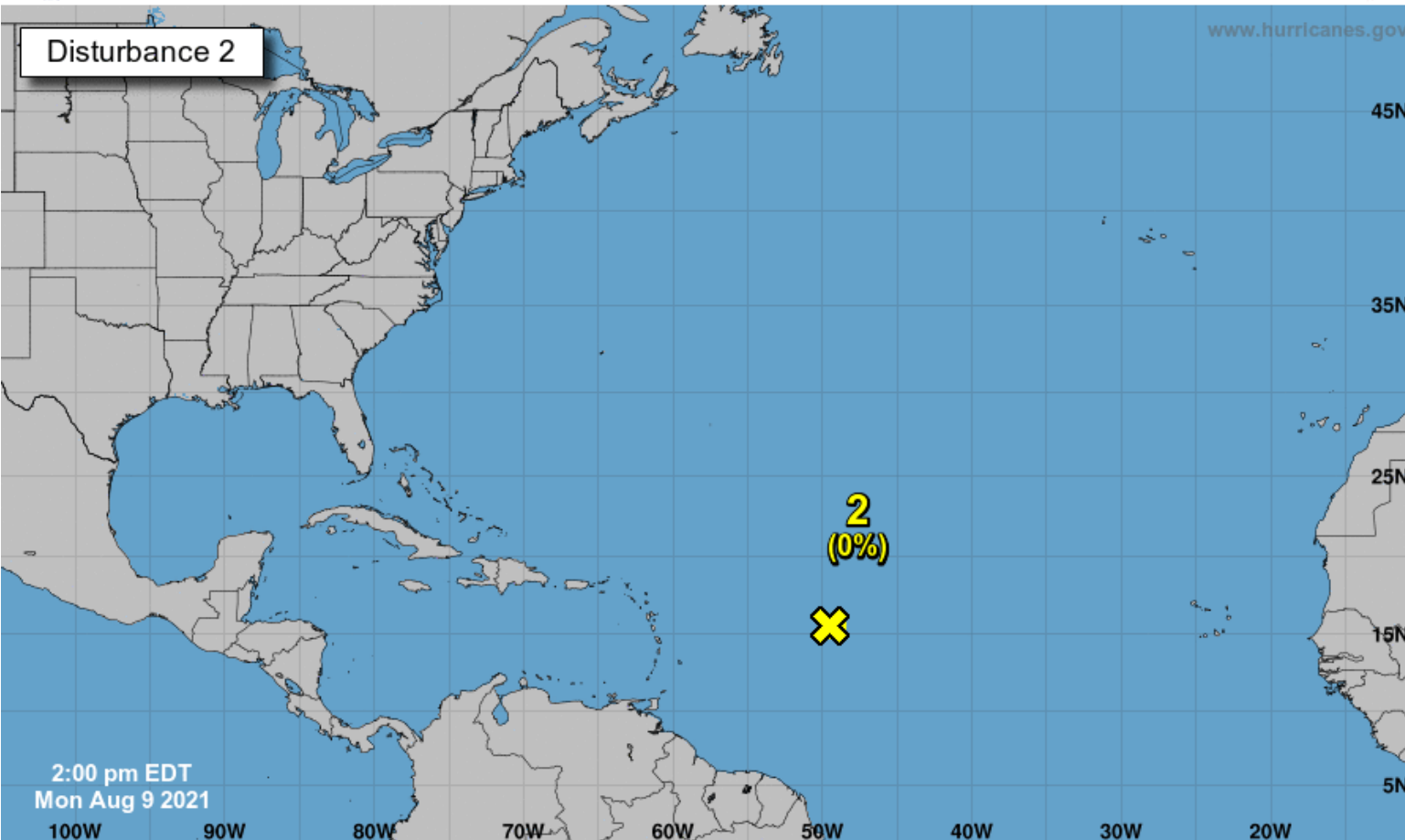
# Tropical Weather Outlook

Possible Areas of Development During the Next 5 Days ([LINK](#)) – Invest 93L



## Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Showers and thunderstorms in association with an elongated low pressure area located several hundred miles east of the Lesser Antilles have diminished. Environmental conditions have become unfavorable and development of this system is no longer expected.

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

**\*Formation chance through 5 days...low...near 0%**

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



# Overall Summary

## **Invest 93L – Central Tropical Atlantic**

- Development chances have ended. This will be the final update on this system as it has dissipated over the Central Atlantic.

## **Potential Tropical Cyclone Six (Formerly Invest 94L)**

- A tropical wave approaching the Lesser Antilles has continued to organize today and is expected to develop into Tropical Storm Fred overnight.
- The National Hurricane Center has started advisories on Potential Tropical Cyclone Six in the mean time to issue watches for various Caribbean islands.
- PTC #6 currently has maximum sustained winds of around 35 mph and is moving to the west-northwest at 15 mph.
- A little strengthening is forecast over the next few days as it continues west-northwest towards the Greater Antilles.
- Land interaction and dry air should limit strengthening mid-week as the system approaches South Florida on Friday and Saturday.
- However, it may move into the eastern Gulf of Mexico this weekend and will need to continue to be monitored.

## **Florida Outlook:**

- PTC #6 should be monitored, as it will bring increased rain chances to South Florida starting on Friday, and potentially to other regions of the state this weekend and into early next week. All of South Florida is in the forecast cone.
- It is too early to determine any other impacts to the state!!
- Land interaction and dry air will make significant development unlikely between now and Thursday.
- Widespread minor to moderate river flooding will continue this week in Northeast Florida.

Another briefing packet will be issued Tuesday morning. For the latest information on the tropics, please visit the National Hurricane Center website at [www.hurricanes.gov](http://www.hurricanes.gov).





# TROPICAL UPDATE



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State Meteorological Support Unit

Florida Division of Emergency Management

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