



TROPICAL UPDATE



11:00 AM EDT

Saturday, August 22, 2020


Tropical Storm Laura – Near Puerto Rico


Tropical Storm Marco – Western Caribbean

Tropical Wave Near Africa (10%)

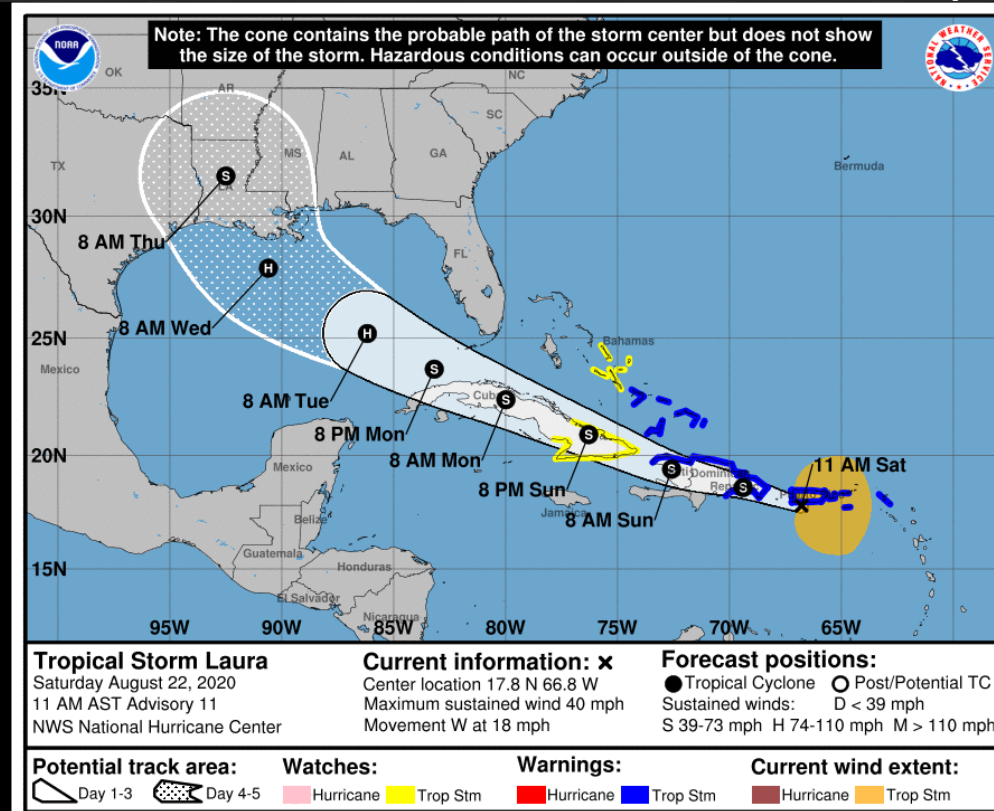
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an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

Tropical Storm Laura Saturday, August 21

	MINIMAL	Low	MODERATE	HIGH	EXTREME
 WINDS					
 STORM SURGE					
 FLASH FLOODING					
 TORNADOES					

	Low	MODERATE	HIGH
 RIP CURRENTS			

National Hurricane Center Map



Overview/Recent Changes:

No significant changes at 11 AM ET. Only the lower Florida Keys barely remain in the cone at this time. There is a minimal to low threat of gusty winds, storm surge, flash flooding, and tornadoes. The main threat area is in the Florida Keys, but it remains too early to discuss exact threats to the Panhandle.



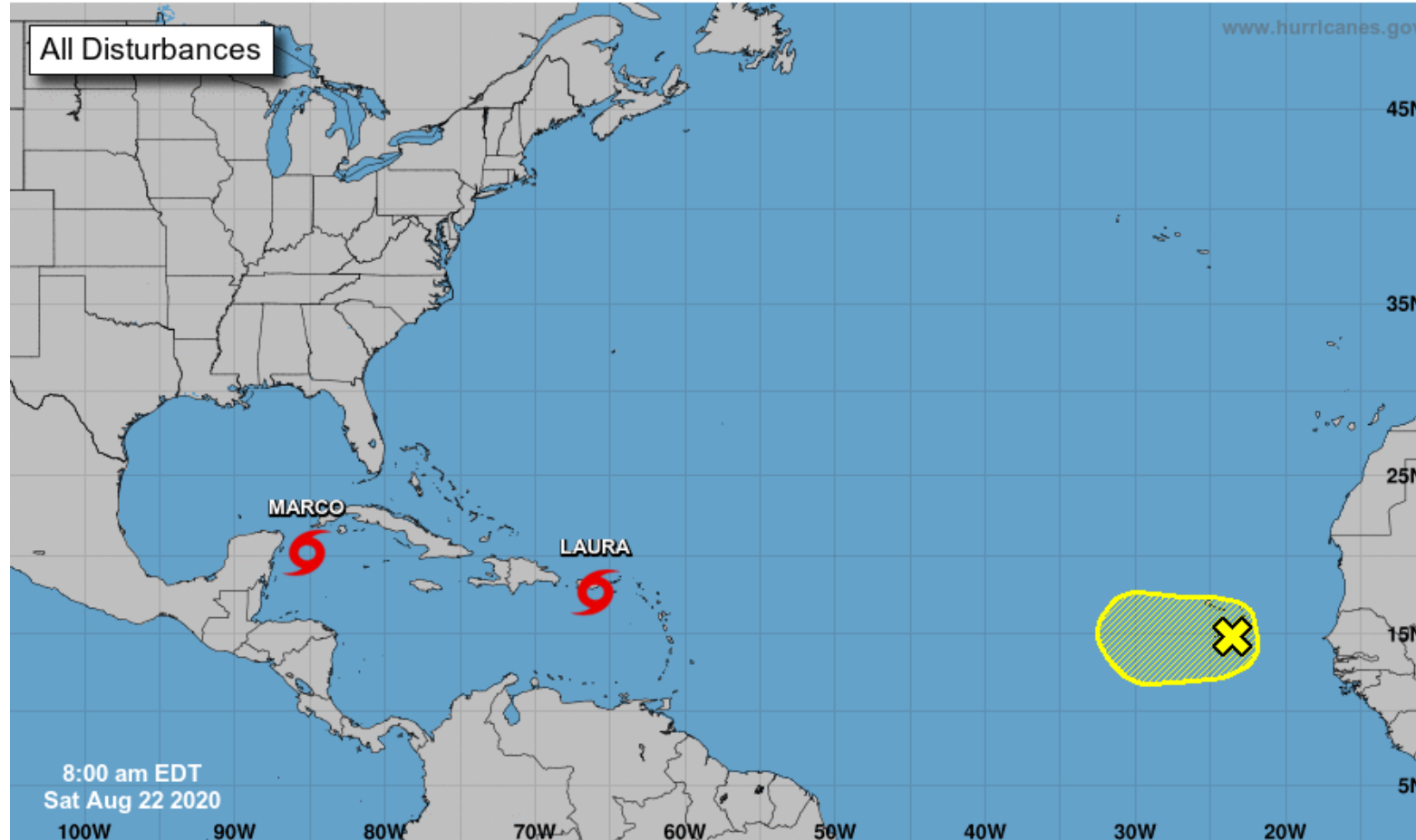
Tropical Weather Outlook

Possible Areas of Development During the Next 5 Days ([LINK](#))



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



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

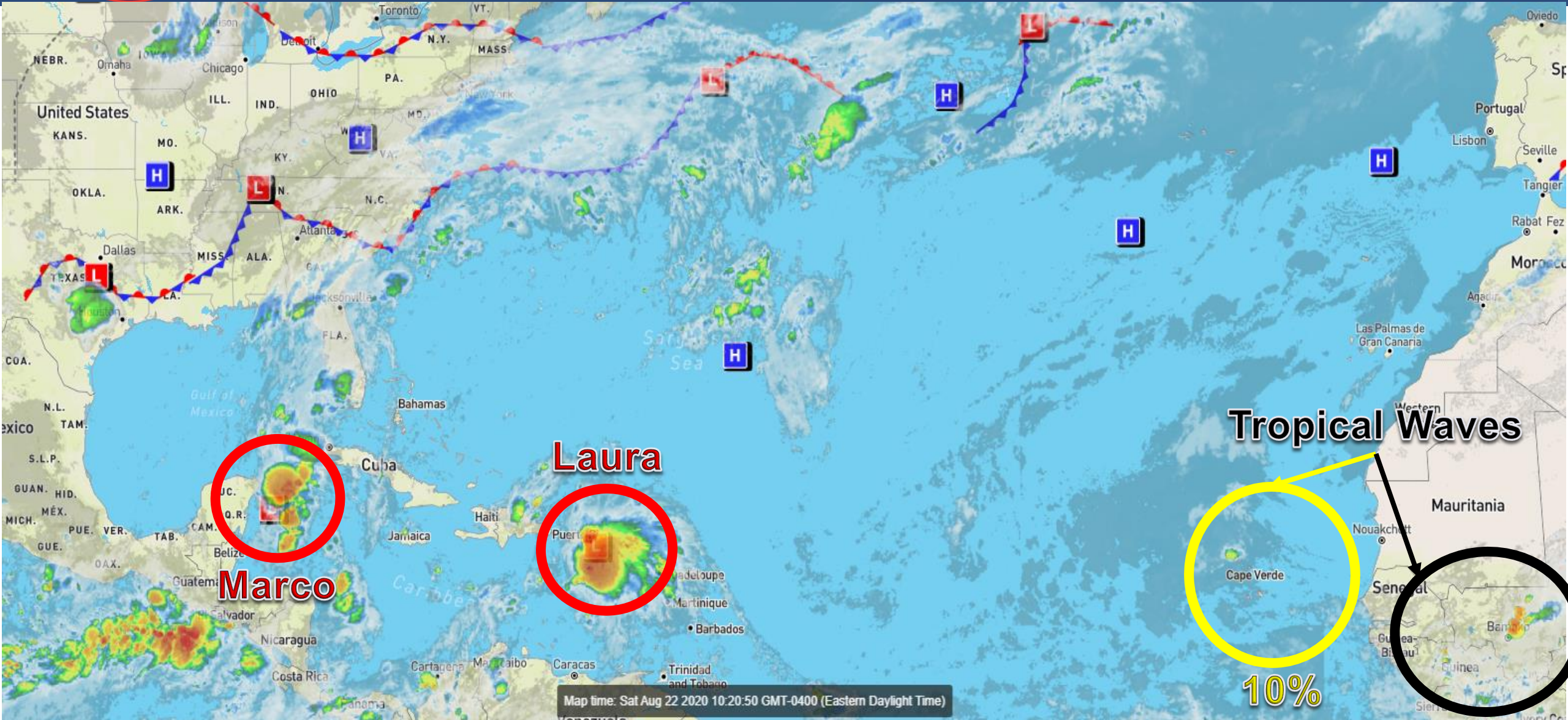
Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants



Atlantic Basin Satellite Image

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





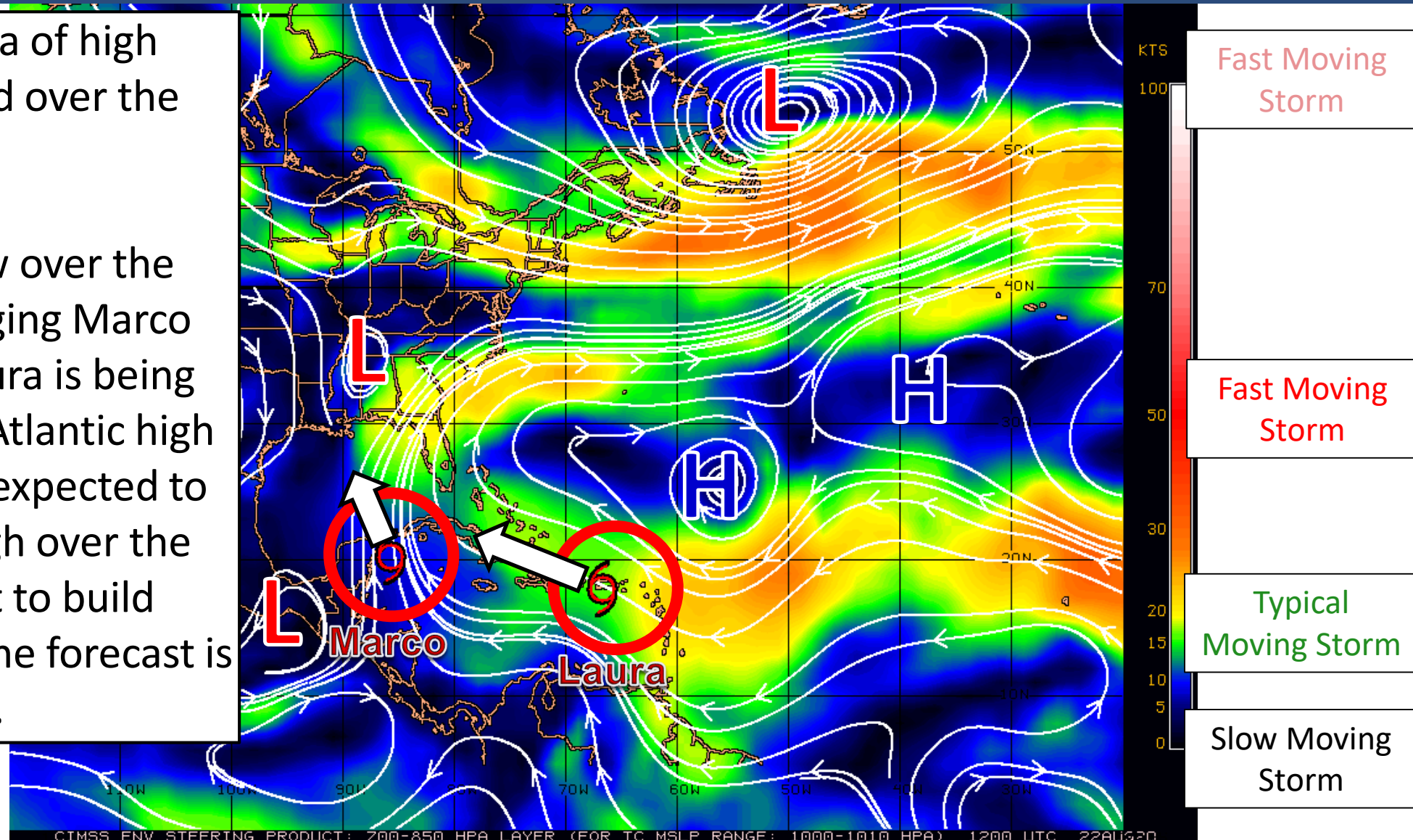
Steering Currents

What is moving the systems?

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, strong area of high pressure is centered over the Atlantic.

The upper level low over the Southeast US is tugging Marco northward while Laura is being steered by the large Atlantic high pressure. The low is expected to weaken, and the high over the Atlantic is forecast to build westward. However, the forecast is uncertain.



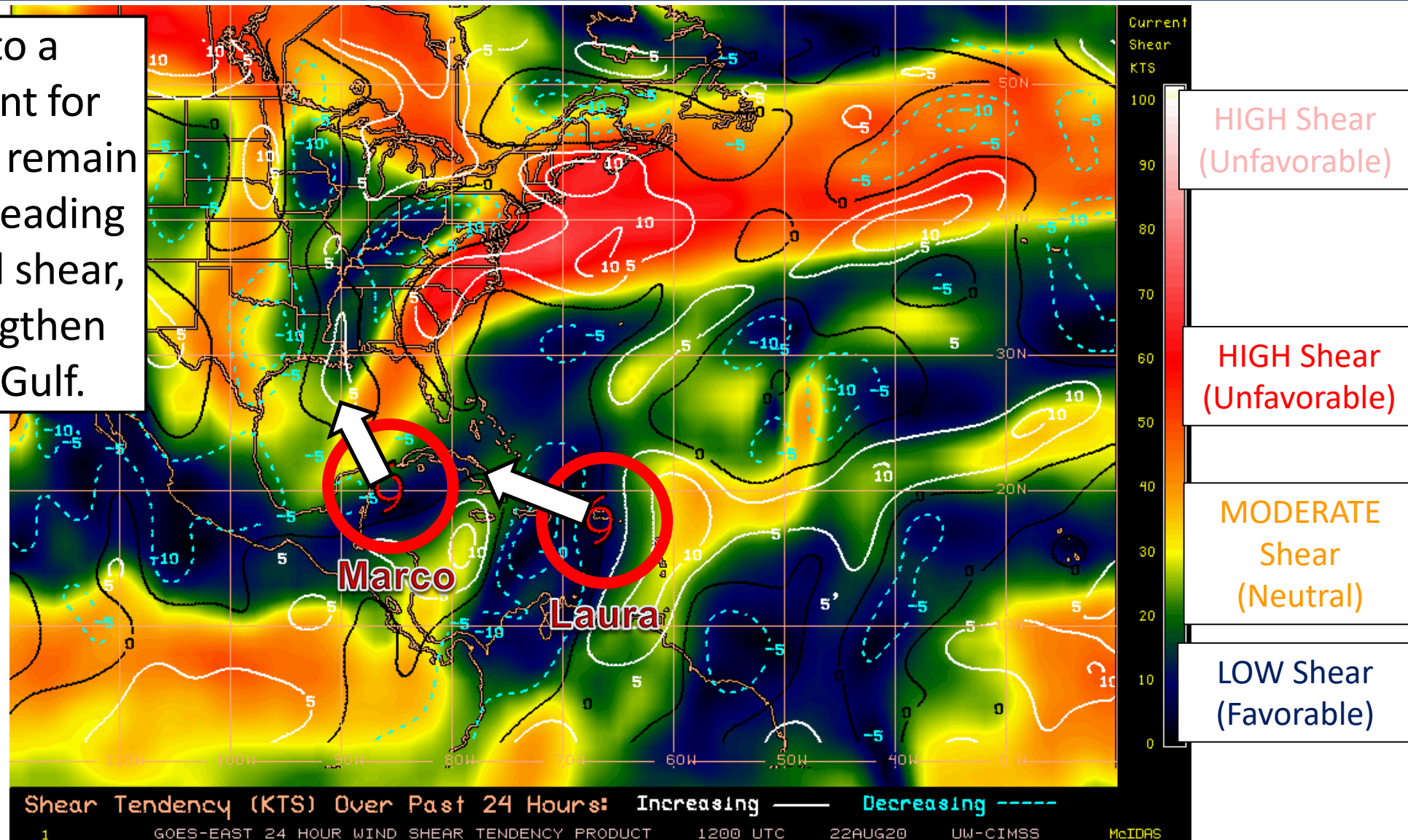


Wind Shear

Is the environment favorable for the systems?

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).

Laura is moving into a favorable environment for intensification, if it can remain over water. Marco is heading into some higher wind shear, but it still could strengthen before entering the Gulf.

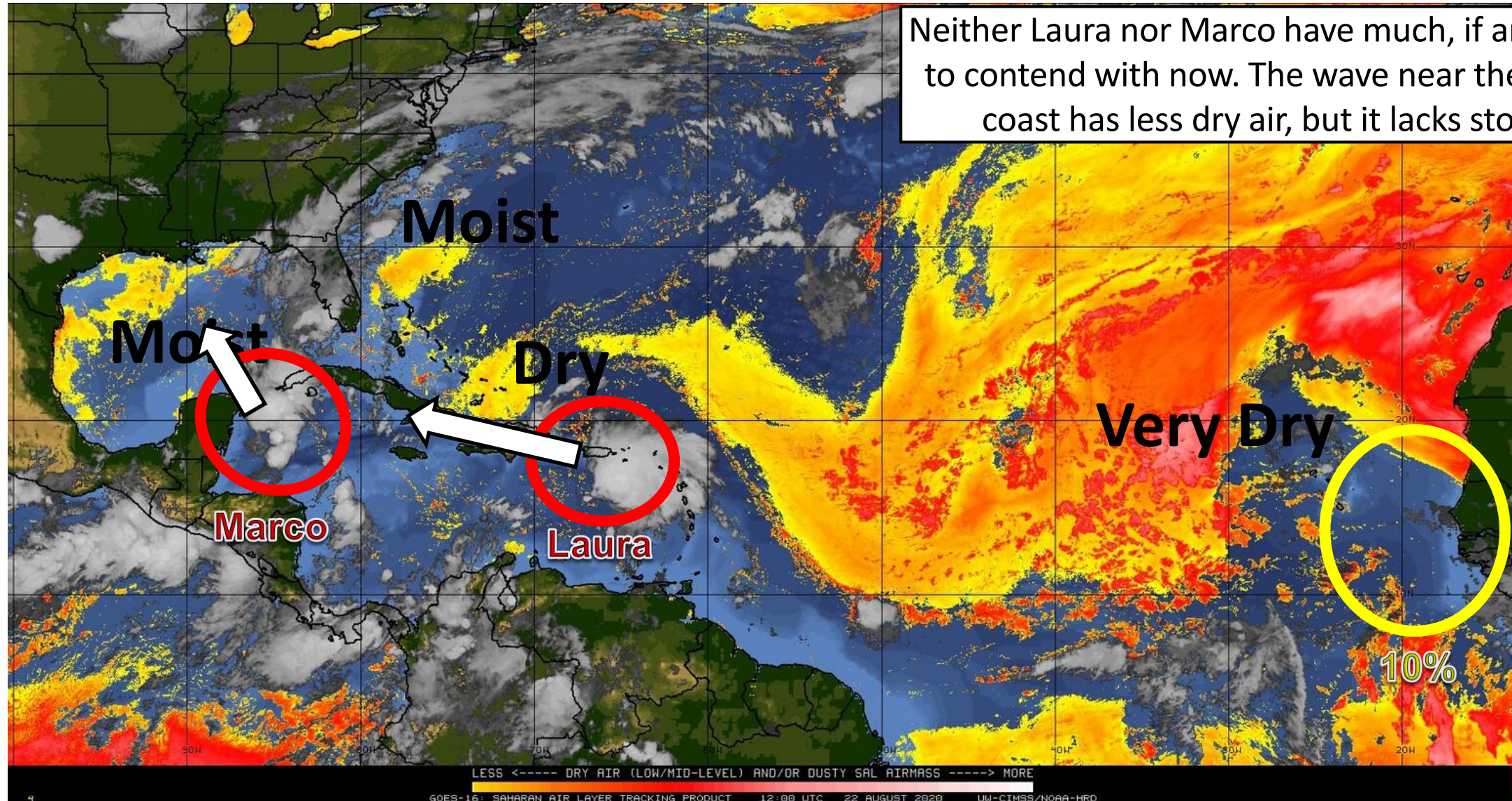




Dry Air & Saharan Dust

Is the environment favorable for the systems?

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



Neither Laura nor Marco have much, if any, dry air to contend with now. The wave near the African coast has less dry air, but it lacks storms.



Sea Surface Temperatures & Anomalies

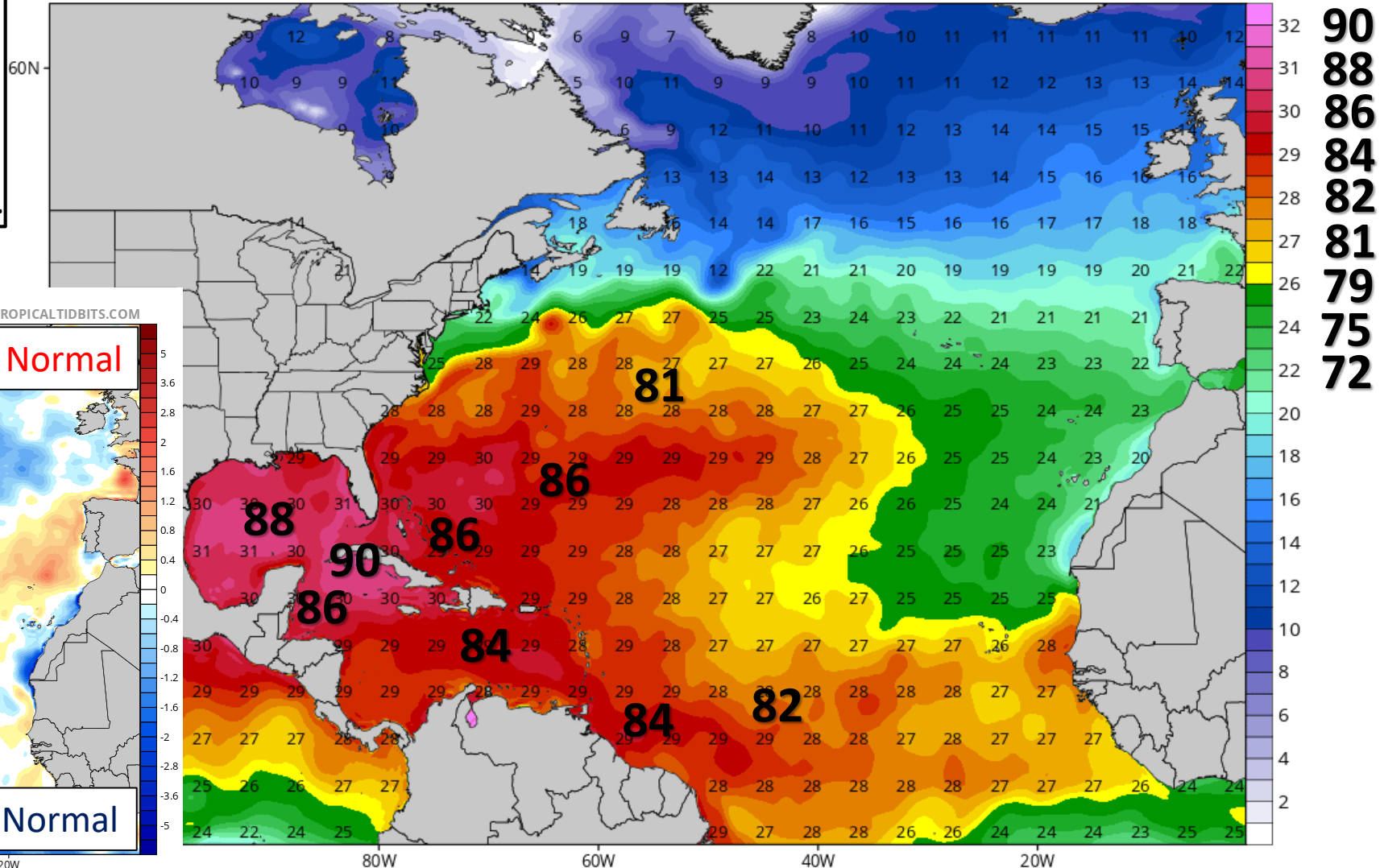
Is the ocean favorable for the systems?

Water temperatures will warm the further west the systems move and are warmest in the Gulf of Mexico.

Water temperatures are generally above normal, supporting tropical development.

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Aug 22 2020



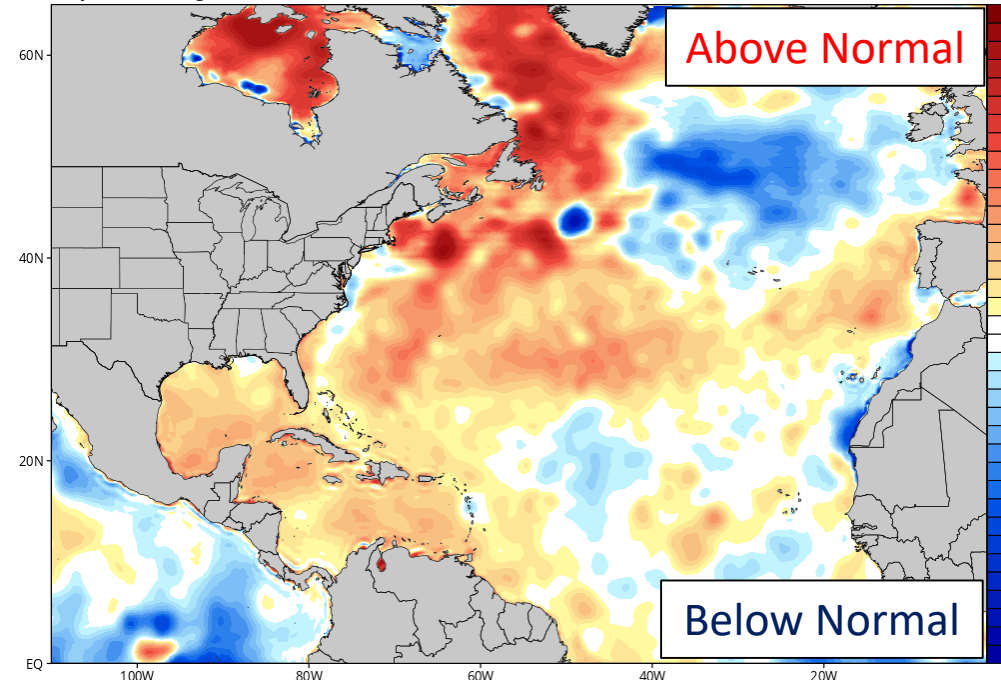
CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

Analysis Time: 06z Aug 22 2020

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Above Normal

Below Normal



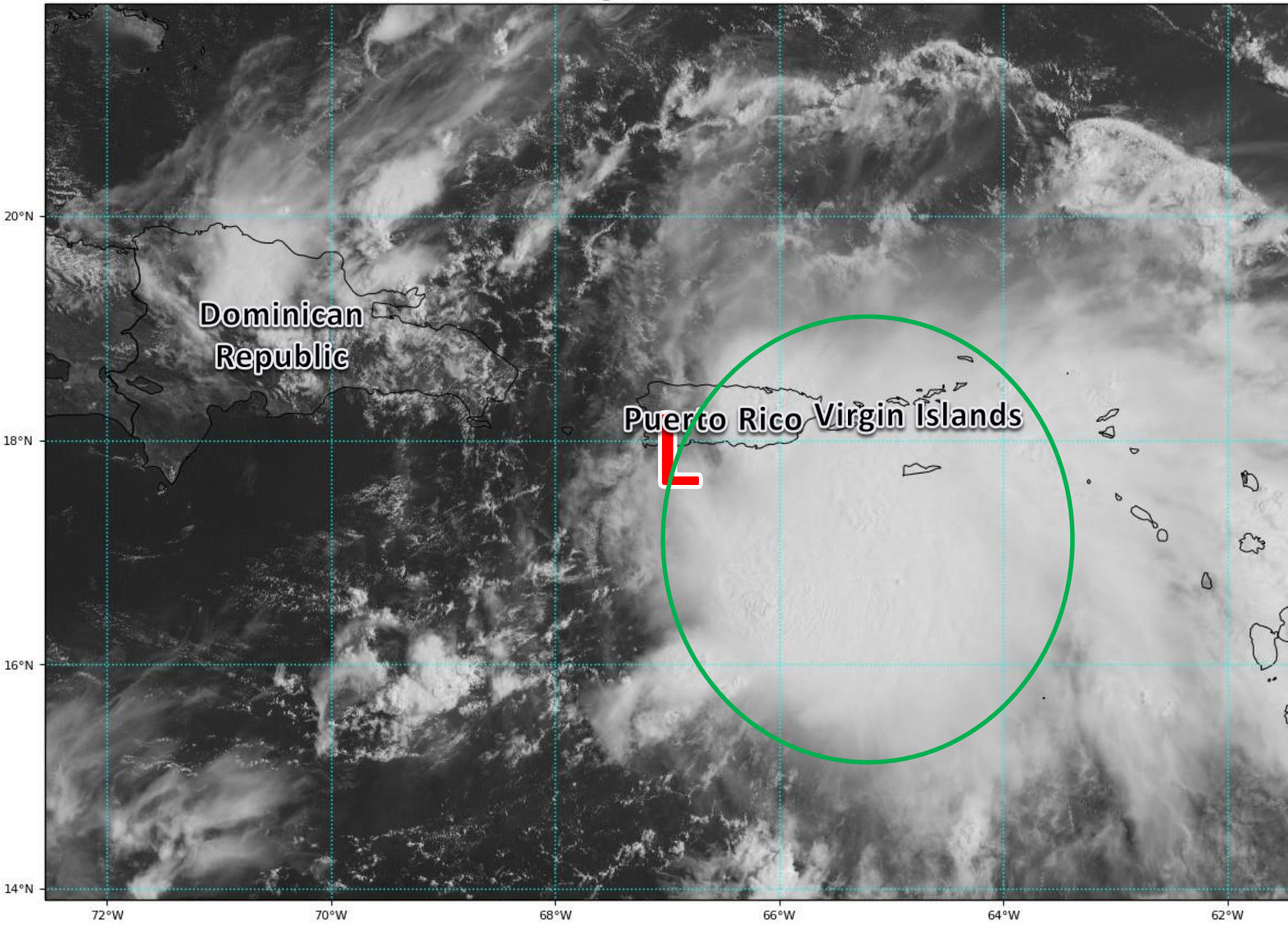


Satellite Imagery

Near Puerto Rico– Tropical Storm Laura

GOES-16 Channel 2 (visible) Reflectance at 13:55Z Aug 22, 2020

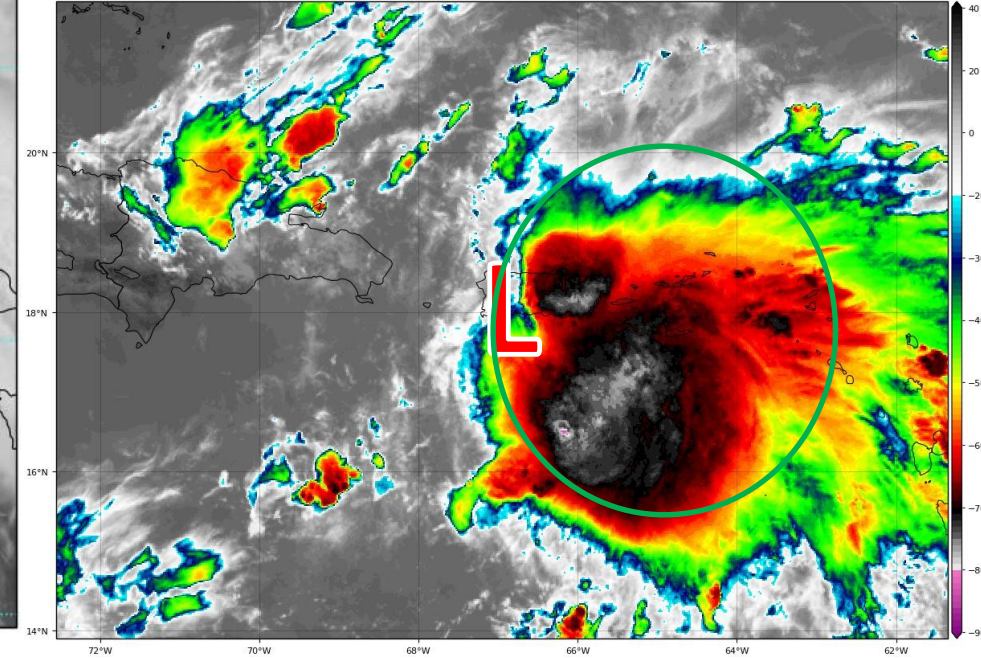
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Tropical Storm Laura has become somewhat better organized overnight with thunderstorms closer to the center. However, they remain offset to east. This is likely due to its fast forward motion inducing shear on itself.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 13:55Z Aug 22, 2020

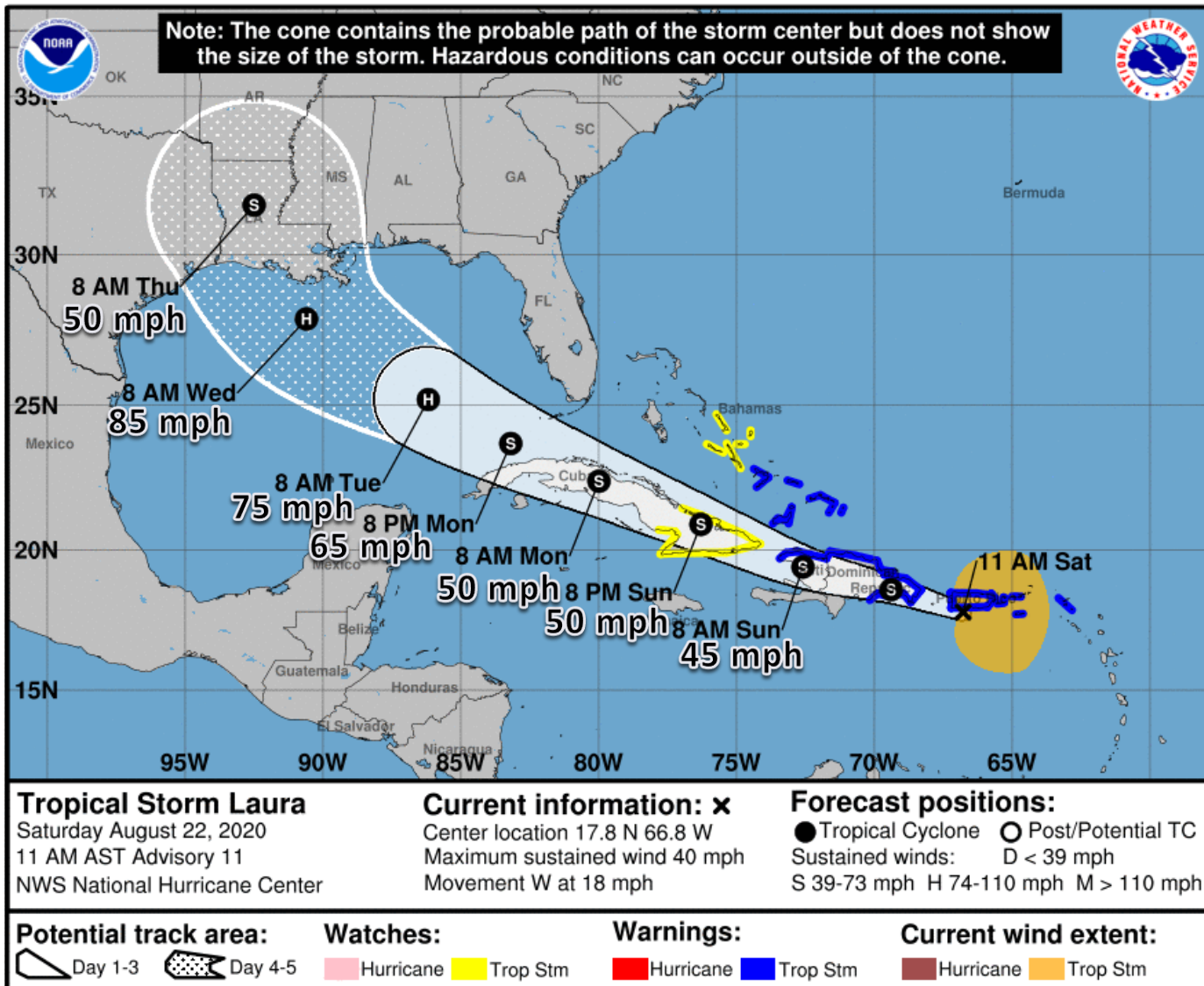
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Official Forecast Track

From the National Hurricane Center – Tropical Storm Laura



- The center of Tropical Storm Laura is located about 20 miles southwest of Ponce, Puerto Rico.
- Maximum sustained winds are near 40 mph. Only slight strengthening is possible near Hispaniola and Cuba, but this will only happen if it avoids the islands.
- Laura is moving toward the west at 18 mph, and a west-northwestward motion should continue for the next few days.
- Laura will likely make its closest approach to the lower Florida Keys on Monday.
- Possible land interaction and center reformations cause more uncertainty for Laura's future over the next 2-3 days.
- Once in the Gulf of Mexico, there is uncertainty as to how close Laura gets to Marco. If it remains away from Marco and survives the Caribbean, the environment appears favorable for strengthening into a hurricane.



Damaging Wind Threat Overview

Tropical Storm Laura

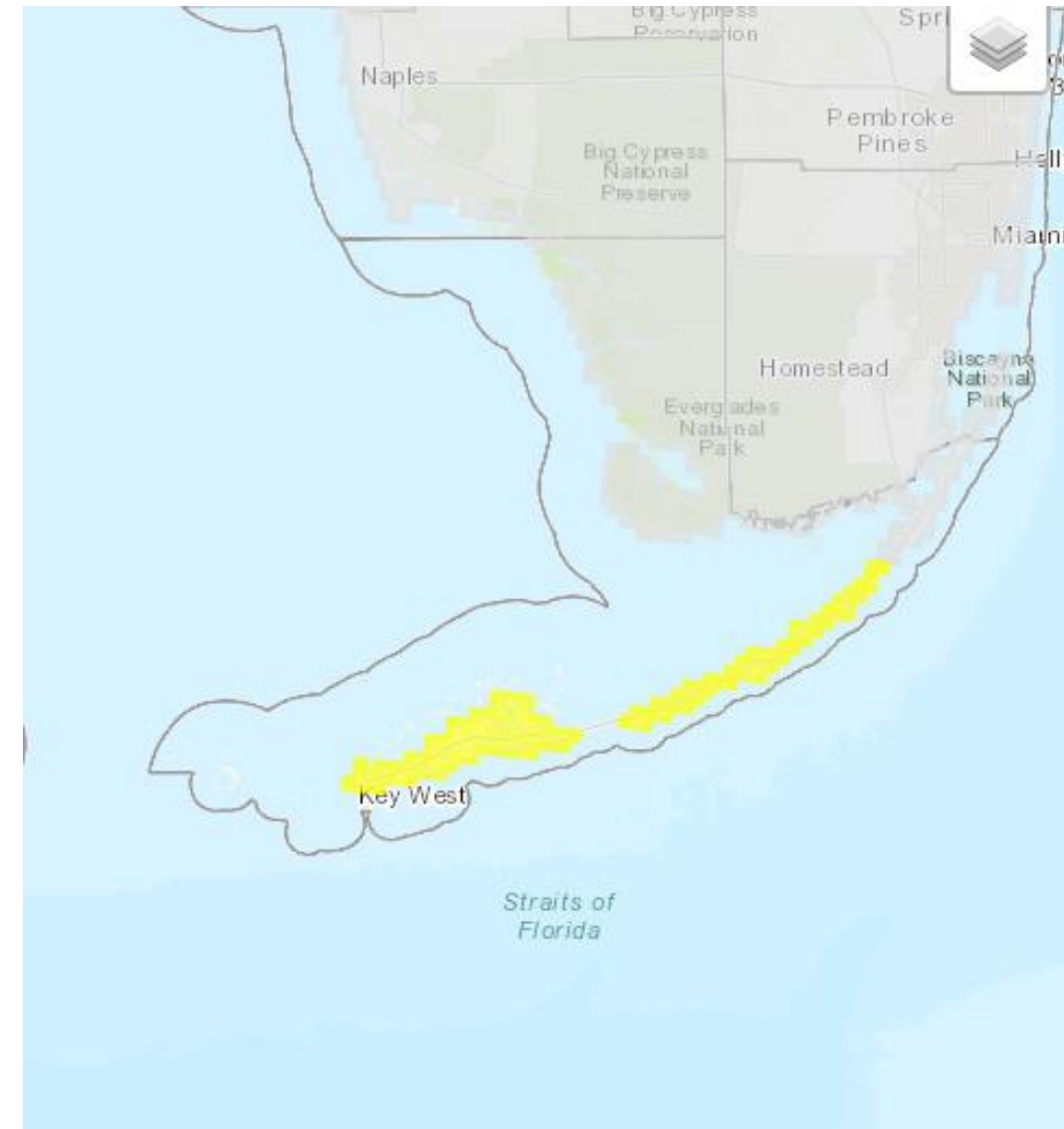
The greatest wind threat is across the Florida Keys, slightly higher near the lower Florida Keys and Key West.

It is too early to determine the wind threat to Northwest Florida.

<https://www.weather.gov/srh/tropical?office=mfl>

Click on "Threats and Impacts" Tab

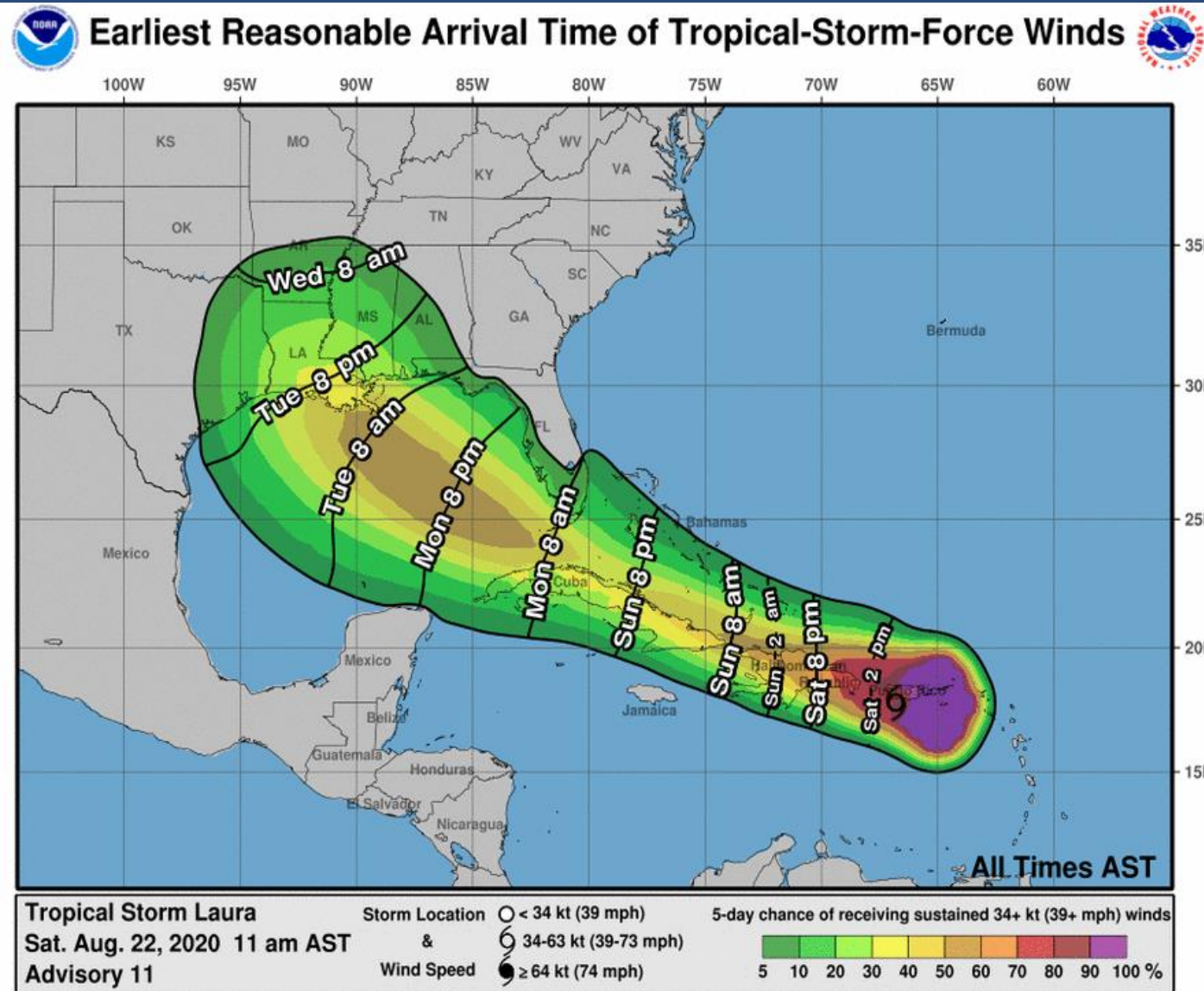
Wind Threat
Potential for wind greater than 110 mph
Potential for wind 74 to 110 mph
Potential for wind 58 to 73 mph
Potential for wind 39 to 57 mph
Wind less than 39 mph





Time of Arrival & Wind Speed Probabilities

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



Key West: 45% (+13)
Marathon: 34% (+10)
Miami: 7% (+2)
Fort Lauderdale: 13% (+4)
West Palm Beach: 10% (+3)
Fort Pierce: 7% (+1)
Naples: 23% (+6)
Fort Myers: 7% (+/-0)
Tampa: 13% (+2)
Cedar Key: 9% (+1)
Apalachicola: 13% (-1)
Panama City: 14% (-1)
Destin: 8% (-3)
Pensacola: 12% (-3)

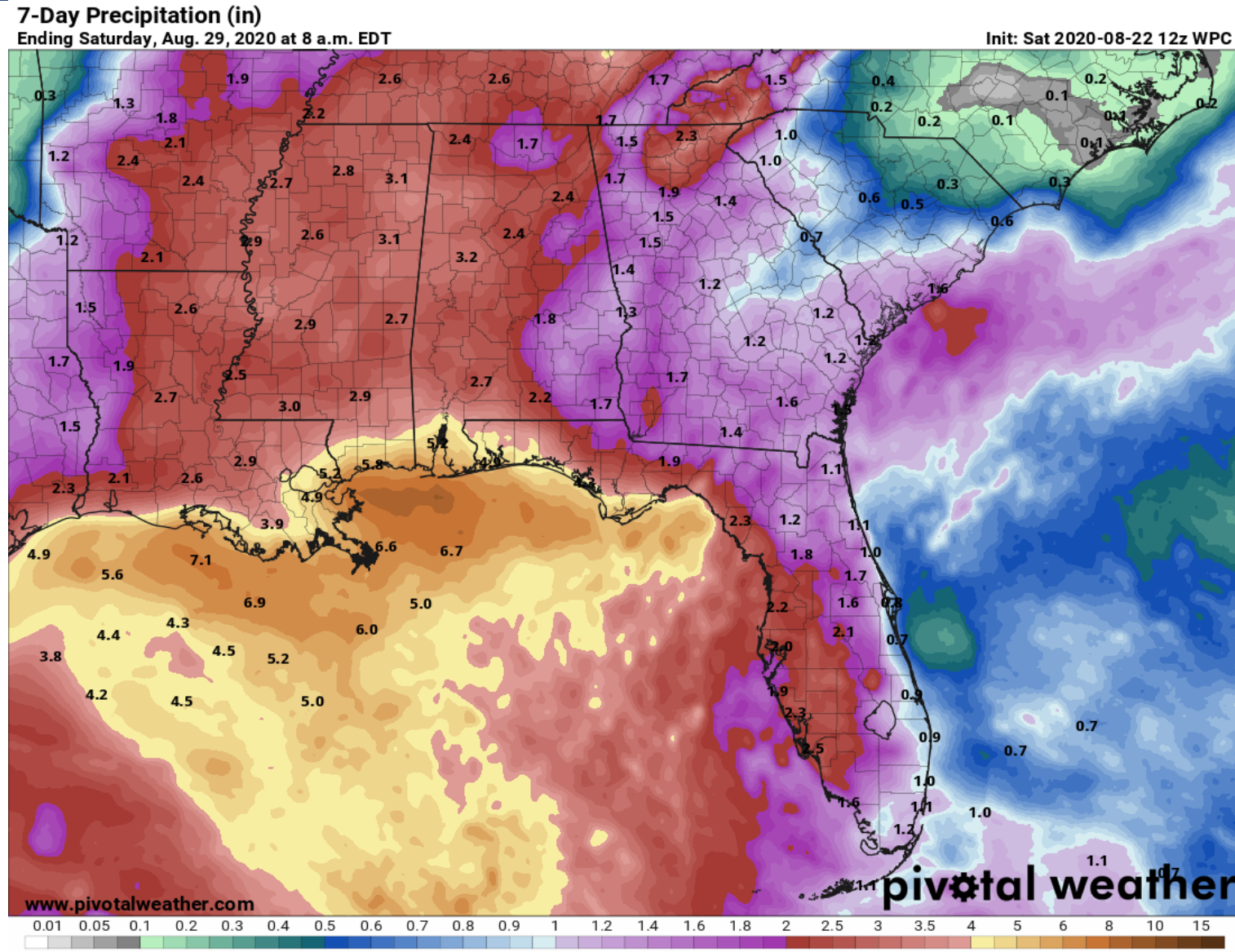
Tropical storm force winds may begin on Monday in the Florida Keys and far South Florida. If tropical storm force winds occur in the Panhandle, it may be as early as Tuesday morning, but most likely Tuesday night.

Chances for Tropical Storm Force winds have increased in the Keys, increased slightly in South Florida, and decreased in North Florida.



Forecast Rainfall Totals Next 7 Days

- A widespread 2-4" expected across the state this week, with the highest totals in the Panhandle and Big Bend
- Locally 6" especially along the Panhandle and Big Bend coast.
- Storms will be very efficient rainfall producers, and could produce 2-4" of rain within an hour.
- There is an isolated flash flood threat each day across much of the state.
- The flash flood threat may increase next week in the Panhandle.
- The highest rainfall totals could shift or change, depending on the track and intensity of Laura.





Storm Surge Threat Overview

Tropical Storm Laura

With a tropical storm moving over Cuba or through the Florida Straits, only minor coastal flooding is expected.

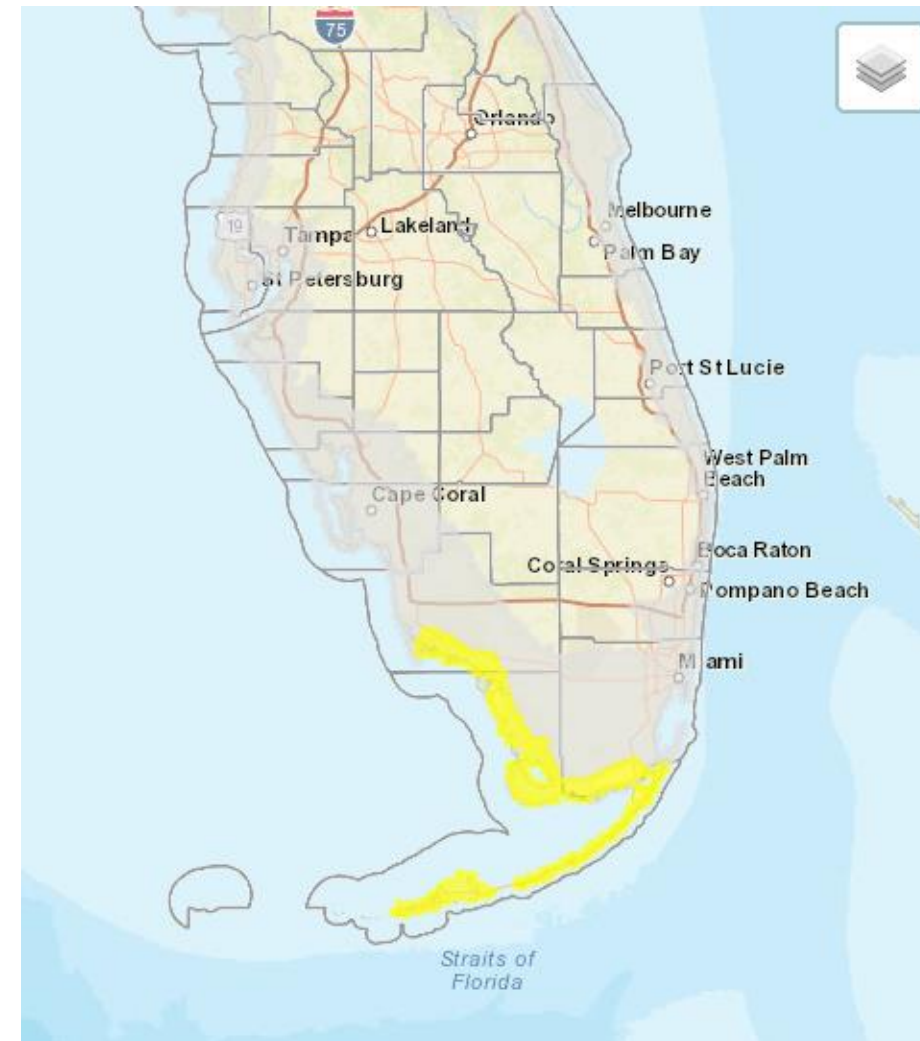
Storm surge is expected to be less than 3' at this time.

It is too early to determine the surge threat, if any, in Northwest Florida.

Storm Surge Threat
Potential for storm surge flooding greater than 9 ft above ground
Potential for storm surge flooding greater than 6 ft above ground
Potential for storm surge flooding greater than 3 ft above ground
Potential for storm surge flooding greater than 1 ft above ground
Little to no storm surge flooding

[https://www.weather.gov/srh/tropical?
office=mfl](https://www.weather.gov/srh/tropical?office=mfl)

Click on "Threats and Impacts" Tab





Tornado Threat Overview

Tropical Storm Laura

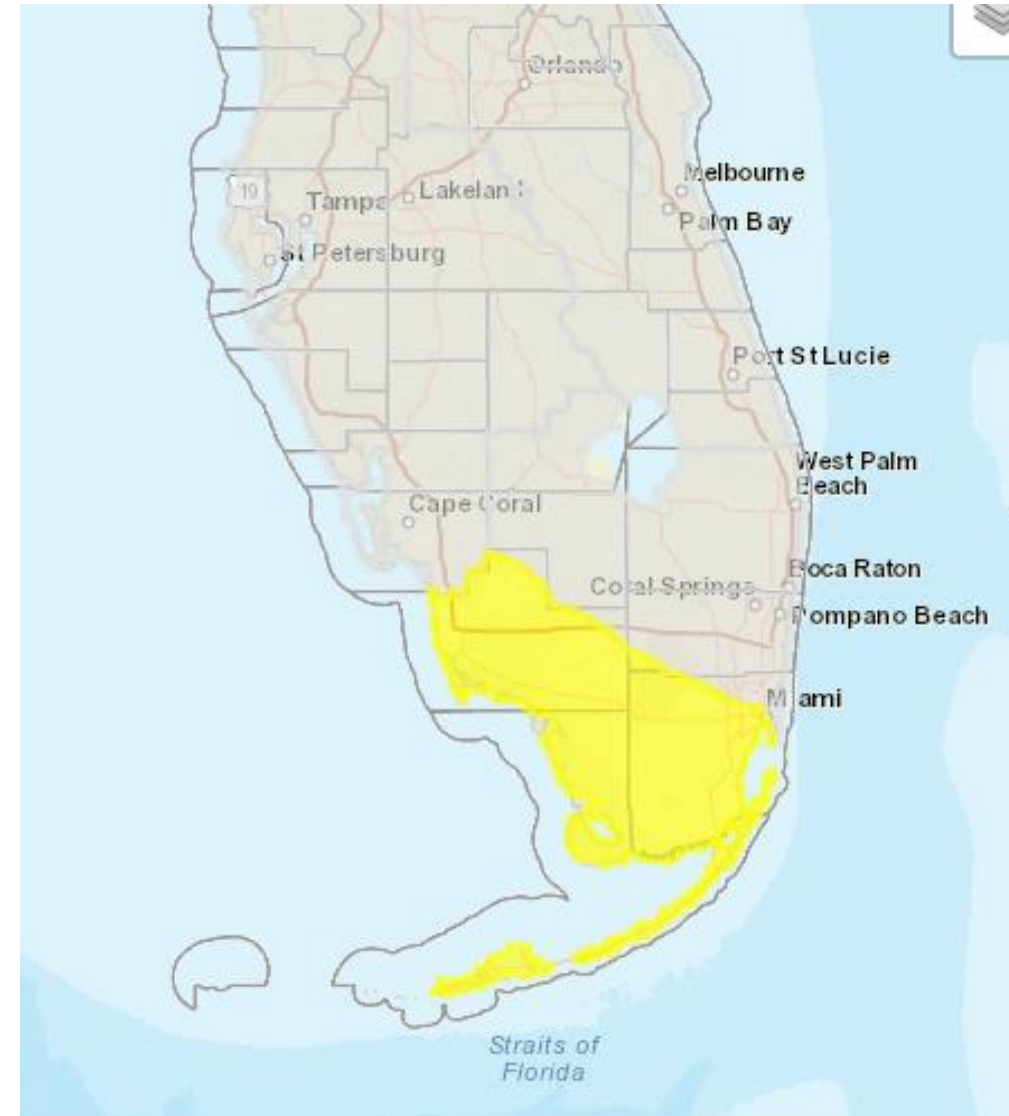
Isolated tornadoes are possible in the outer bands of Laura across the Florida Peninsula, particularly Sunday night and Monday near and south of Lake Okeechobee.

It is too early to determine the tornado threat in Northwest Florida.

[https://www.weather.gov/srh/tropical?
office=mfl](https://www.weather.gov/srh/tropical?office=mfl)

Click on “Threats and Impacts” Tab

Tornado Threat
Potential for outbreak of tornadoes
Potential for many tornadoes
Potential for several tornadoes
Potential for a few tornadoes
Tornadoes not expected





Key Messages

From the National Hurricane Center



Key Messages for Tropical Storm Laura

Advisory 11: 11:00 AM AST Sat Aug 22, 2020



1. Tropical storm conditions are expected across portions of the the Virgin Islands and Puerto Rico today. Tropical storm conditions are also expected along the northern coasts of the Dominican Republic and Haiti, and the Turks and Caicos and southeastern Bahamas Saturday into Sunday. Heavy rainfall is likely across these areas and could cause mudslides and flash and urban flooding through Sunday, with widespread river flooding possible in Puerto Rico.

2. Tropical storm conditions are possible over portions of the central Bahamas Sunday night, as well as portions of eastern and central Cuba Sunday and Sunday night.

3. The details of the long-range track and intensity forecasts remain more uncertain than usual since Laura is forecast to move near or over portions of the Greater Antilles through Monday. However, Laura is forecast to strengthen over the Gulf of Mexico and could bring storm surge, rainfall, and wind impacts to the northern U.S. Gulf Coast by the middle of next week. Interests there should monitor the progress of Laura and updates to the forecast during the next few days.



For more information go to hurricanes.gov

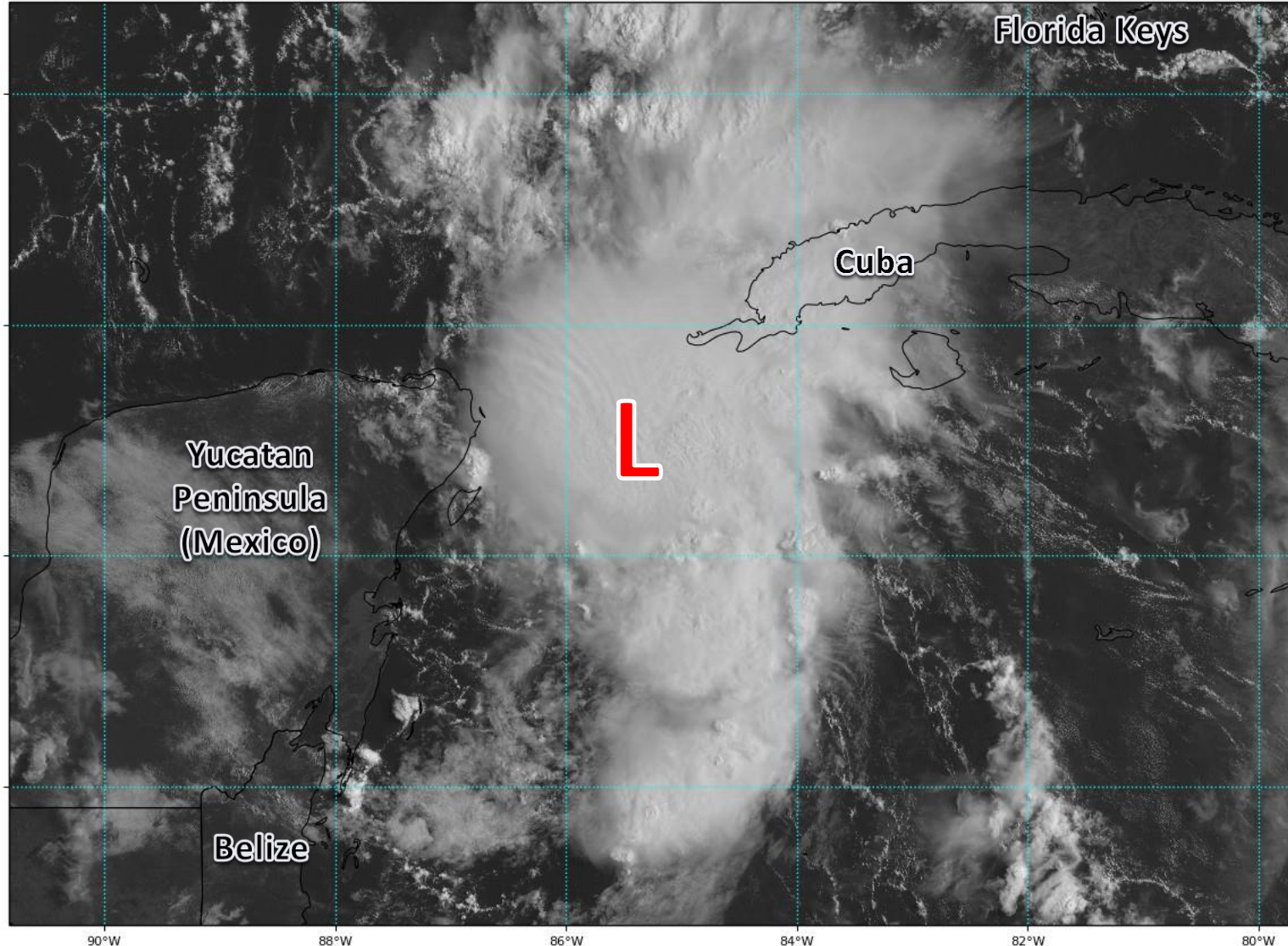


Satellite Imagery

Near Yucatan Peninsula & Cuba – Tropical Storm Marco

GOES-16 Channel 2 (visible) Reflectance at 14:07Z Aug 22, 2020

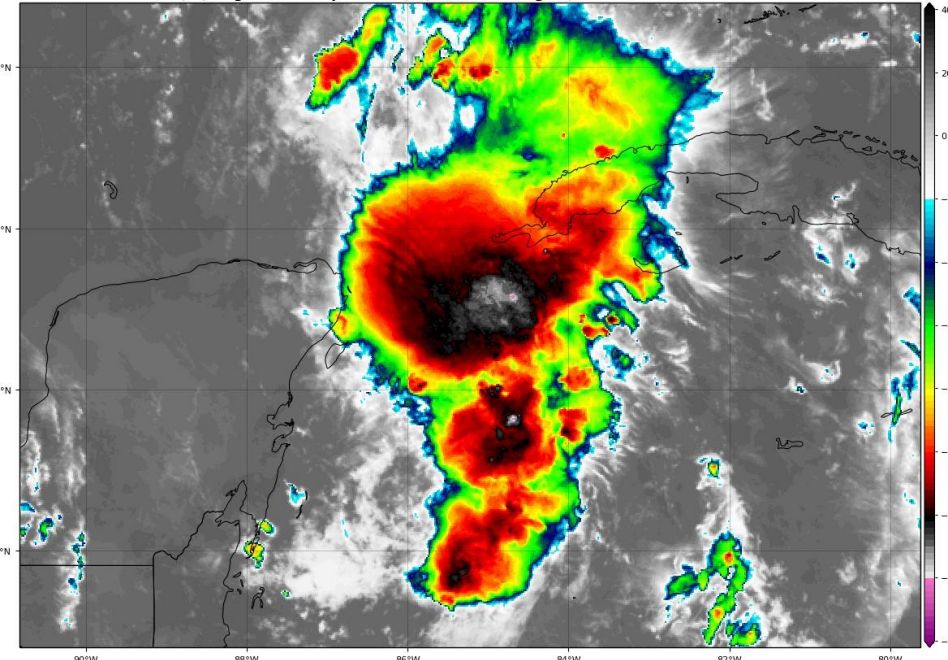
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Tropical Storm Marco is producing a small but concentrated area of showers and thunderstorms over its center. Intensification is forecast over the next couple days before it encounters stronger wind shear in the Gulf of Mexico.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:22Z Aug 22, 2020

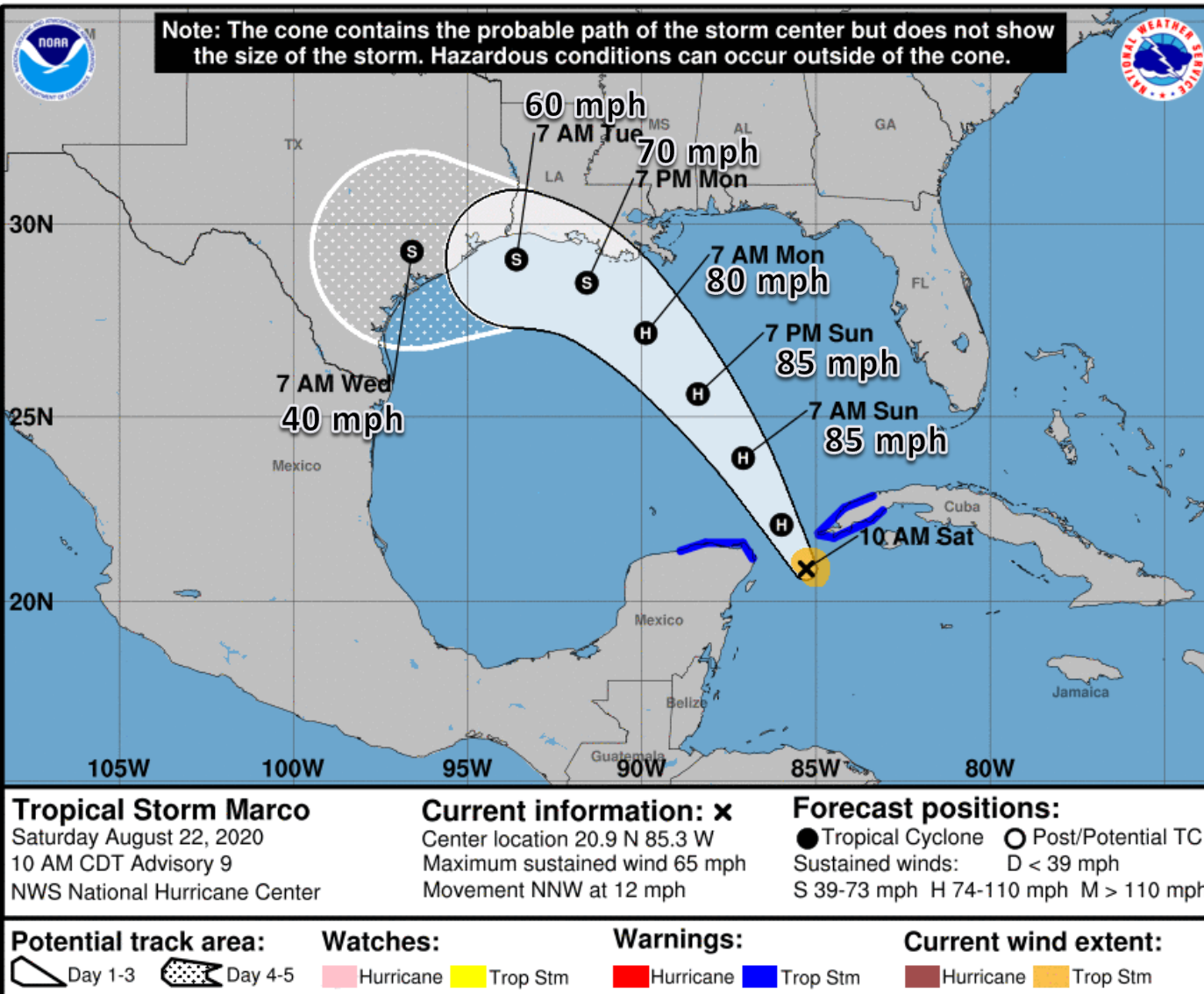
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Official Forecast Track

From the National Hurricane Center – Tropical Storm Marco

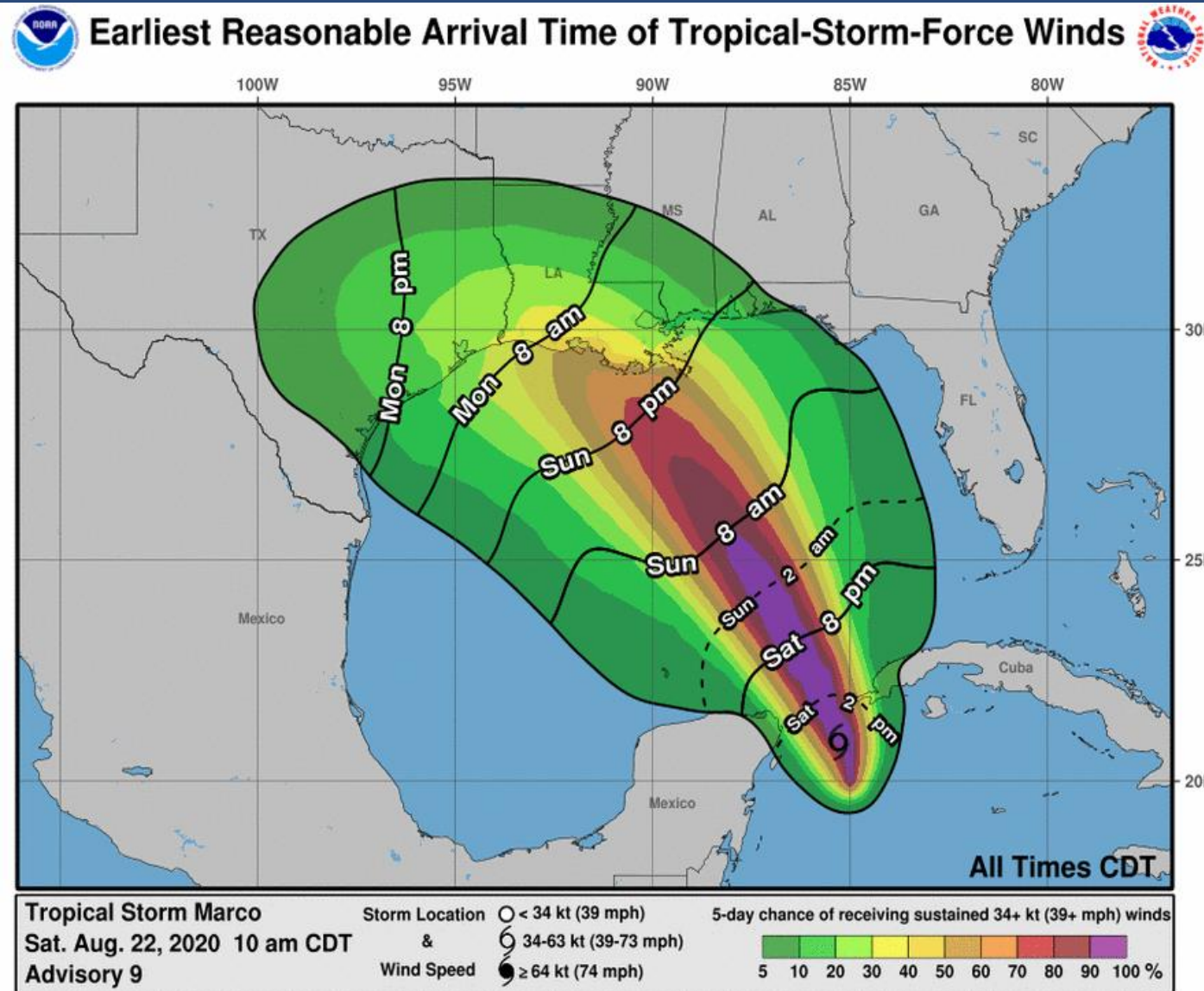


- The center of Marco is located about 75 miles SSW of the western tip of Cuba.
- Maximum sustained winds have increased to near 65 mph, and Marco is forecast to become a hurricane today. Some weakening is possible early next week as shear is forecast to increase.
- Marco is moving toward the NNW at 12 mph. A turn toward the northwest is expected this weekend followed by a turn toward the west-northwest next week.
- Landfall along the Louisiana and Texas coastline is still forecast.
- However, Marco has consistently been on the right side of the cone since it has been stronger and moving fairly quickly. There remains uncertainty, especially if Marco continues to rapidly intensify.



Time of Arrival & Wind Speed Probabilities

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



Tropical storm force winds could begin along the northwestern and central US Gulf Coast as early as Sunday night, but will more likely begin Monday.

Pensacola: 5%

Destin: 3%

Panama City: 6%

Apalachicola: 4%



Tropical Weather Outlook

Possible Area of Development During the Next 5 Days ([LINK](#))



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

Disturbance 1

1
(10%)

Showers and thunderstorms have decreased this morning in association with a tropical wave near the Cabo Verde Islands. Additional development is unlikely to occur as environmental conditions are expected to become unfavorable as the system moves westward over the tropical Atlantic

This system does not need to be monitored for impacts at this time.

***Formation chance through 48 hrs...low...10%**

***Formation chance through 5 days...low...10%**

8:00 am EDT
Sat Aug 22 2020

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

Tropical or Sub-Tropical Cyclone: ○ Depression ⚡ Storm ⚡ Hurricane

⊗ Post-Tropical Cyclone or Remnants



Overall Summary

Tropical Storm Laura – Near Puerto Rico

- Tropical Storm Laura is located near Puerto Rico, moving W at 18 mph.
- Maximum sustained winds are near 40 mph. Only slight strengthening is forecast before it moves over Hispaniola and Cuba.
- The center of Laura will likely pass south of the Florida Keys on Monday, then approach the central US Gulf Coast on Wednesday.
- The forecast track and intensity are more uncertain in the Gulf of Mexico due to possible interaction with Tropical Storm Marco and land interaction in the Caribbean, but a hurricane is currently forecast in the Gulf of Mexico.

Tropical Storm Marco – Near Yucatan Peninsula

- The center of Tropical Storm Marco is located about 75 miles SSW of the western tip of Cuba, moving north-northwest at 12 mph.
- Maximum sustained winds are near 65 mph. Further strengthening is forecast, and Marco should become a hurricane later today.
- Marco has consistently been to the right of the official NHC forecast as it has moved more northerly than forecast. A turn toward the northwest is still expected this weekend, but there remains much uncertainty.
- There is uncertainty also regarding how Marco and Laura interact and/or influence each other's tracks and intensities.

Tropical Wave near the Coast of Africa

- A tropical wave moving off the coast of Africa may gradually develop this weekend, but the chances for development have decreased.
- The National Hurricane Center gives the system a 10% (low) chance of development.



Florida Summary

Florida Outlook:

- Tropical Storm Laura poses a threat to Florida next week.
- Tropical storm force winds could begin on Monday in the Florida Keys and on Tuesday in the Panhandle, if they occur.
- Locally heavy rainfall expected across the state, even before Laura nears the state. A widespread 2-4" of rainfall is expected over the next 7 days statewide, especially in the Panhandle and along the Gulf Coast, locally 6" possible.
- Isolated tornadoes will be possible in some of the outer bands across South Florida and the Keys Sunday and Monday, then in North Florida late Monday into Tuesday.
- Dangerous rip currents are expected along some Atlantic beaches late this weekend into early next week and along the Gulf Coast early next week (in conjunction with swells from TS Marco).
- The forecast across North Florida remains uncertain, as the track continues to shift and Laura will likely move over Hispaniola and Cuba. In addition there may be possible interactions between TS Laura & TS Marco.
- No impacts are expected from the wave over Africa.

The next briefing packet will be issued this afternoon with the 5 PM advisory. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE



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State Meteorological Support Unit

Florida Division of Emergency Management

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