TROPICAL UPDATE

11:00 AM EDT

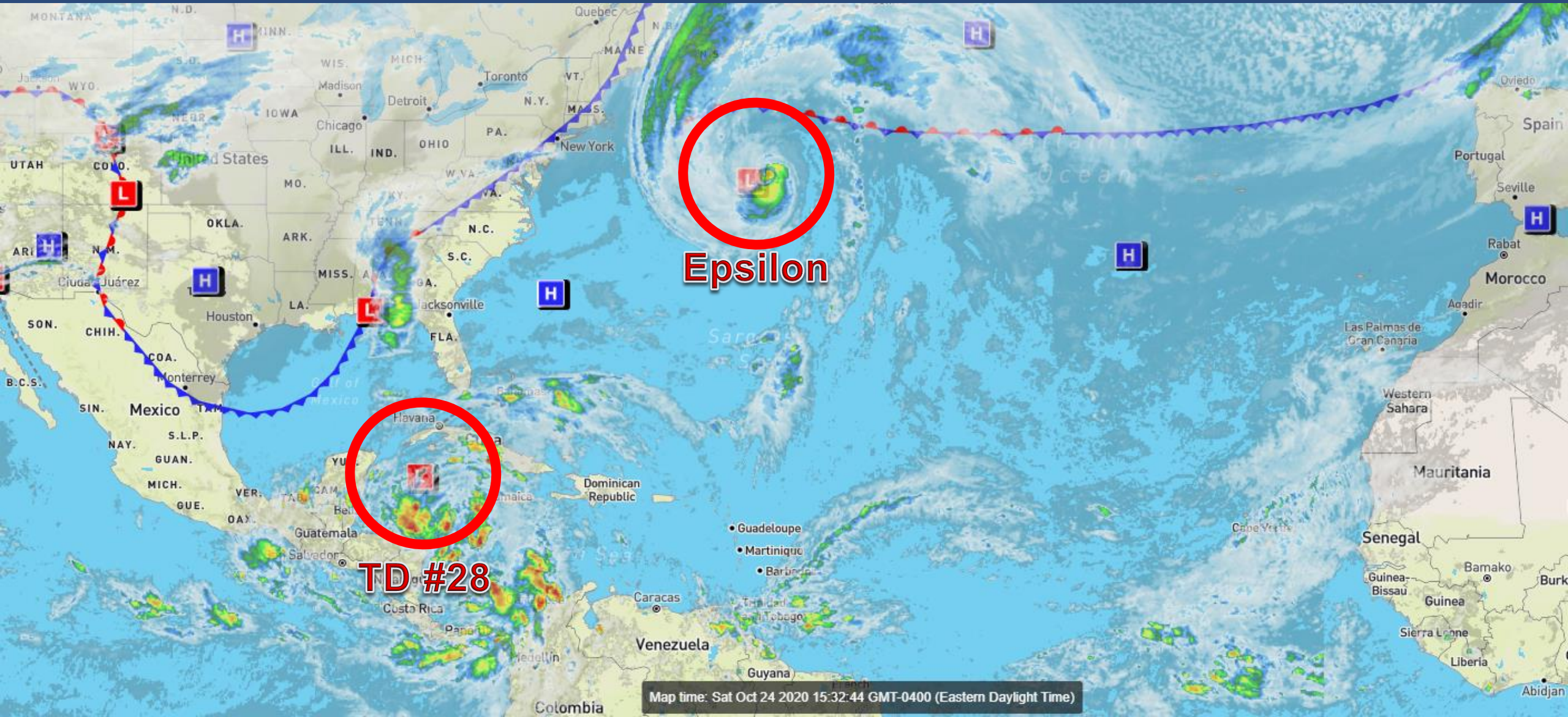
Saturday, October 24, 2020

Hurricane Epsilon & Tropical Depression #28

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.

Atlantic Basin Satellite Image

Chance of development: None Low Medium High



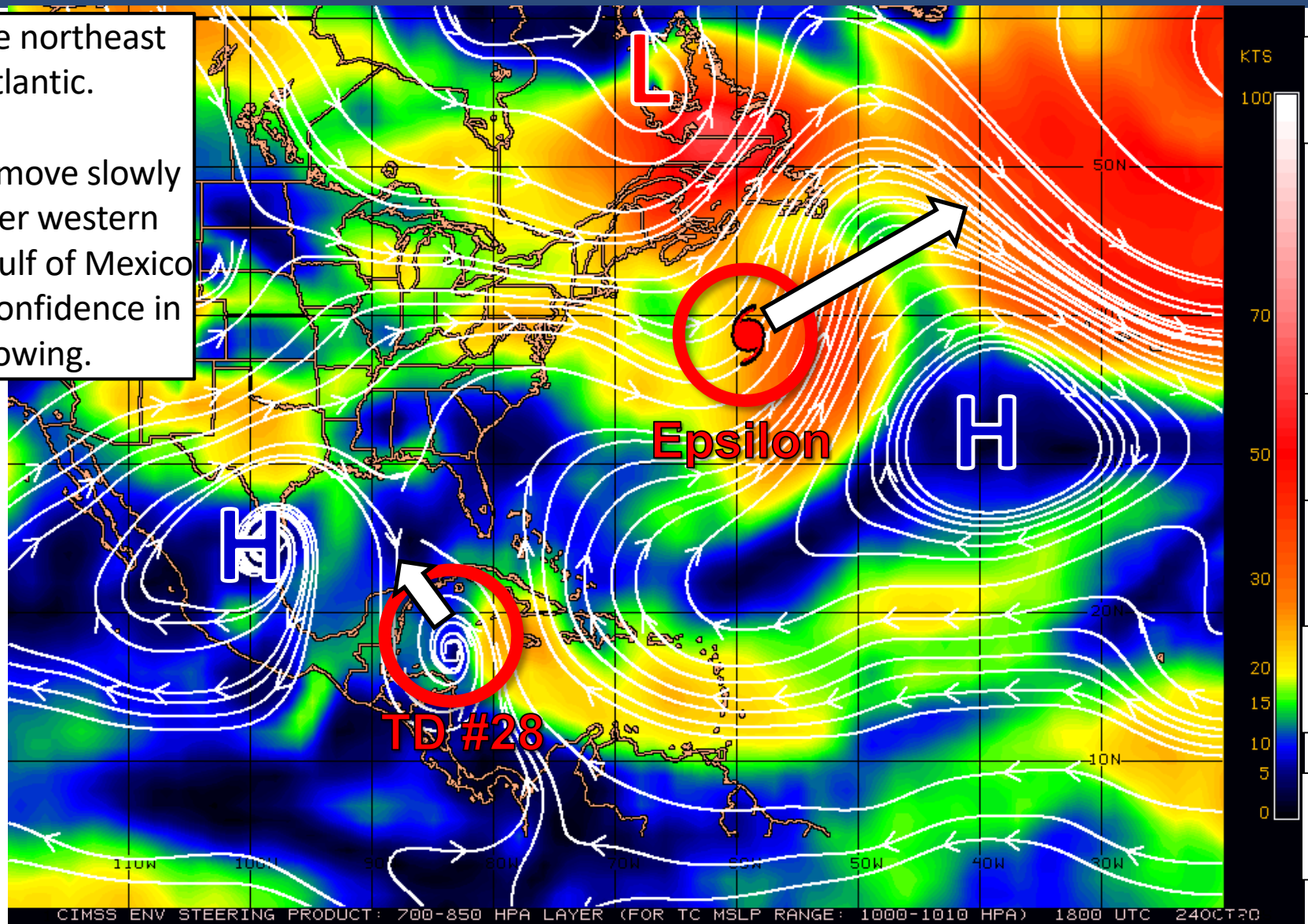
Steering Currents

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.

Epsilon will accelerate to the northeast over the open North Atlantic.

Tropical Depression #28 will move slowly north or northwestward over western Cuba into the southeastern Gulf of Mexico over the next several days. Confidence in this track is low, but growing.



Fast Moving Storm

Fast Moving Storm

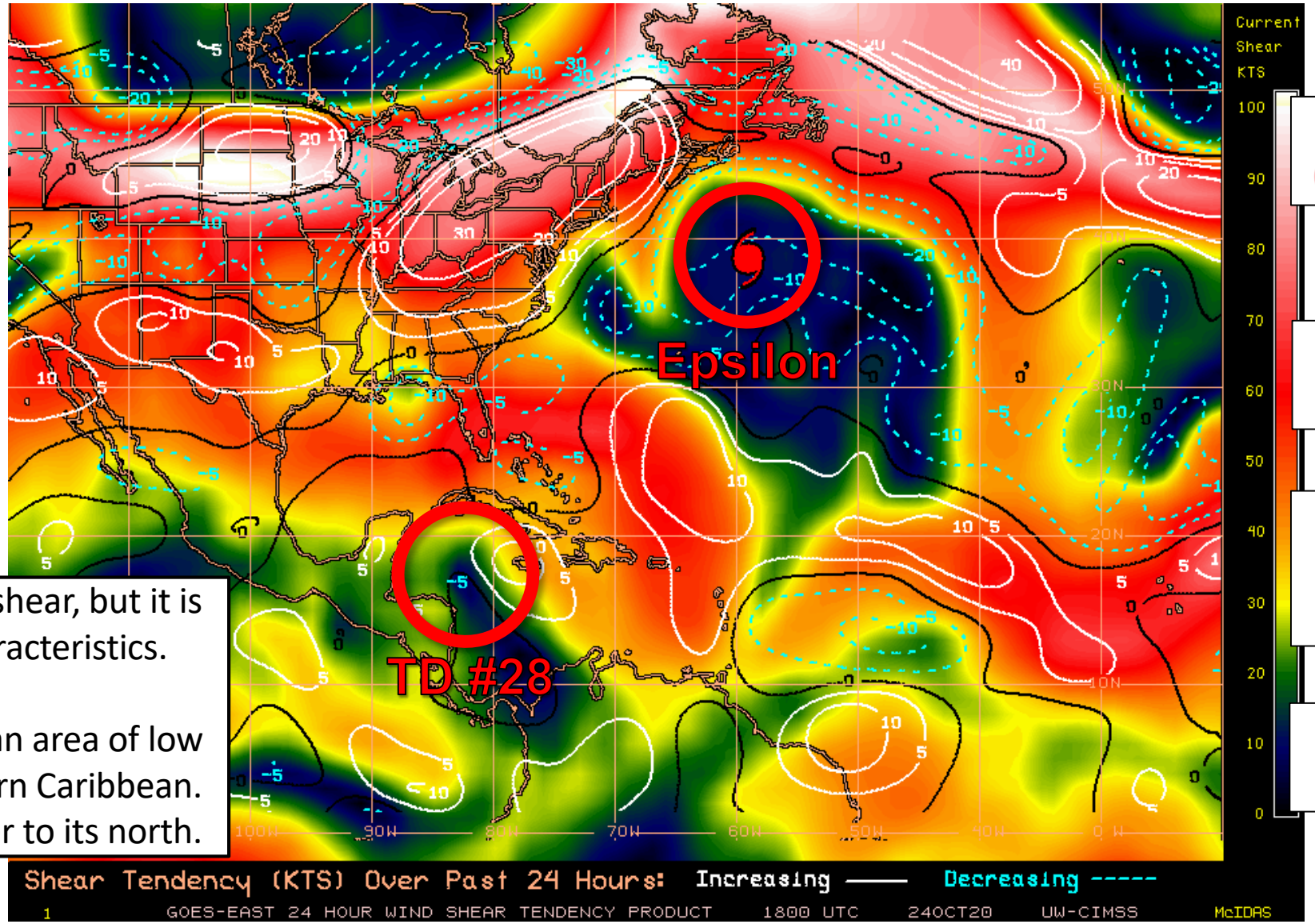
Typical Moving Storm

Slow Moving Storm

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.



HIGH Shear (Unfavorable)

HIGH Shear (Unfavorable)

MODERATE Shear (Neutral)

LOW Shear (Favorable)

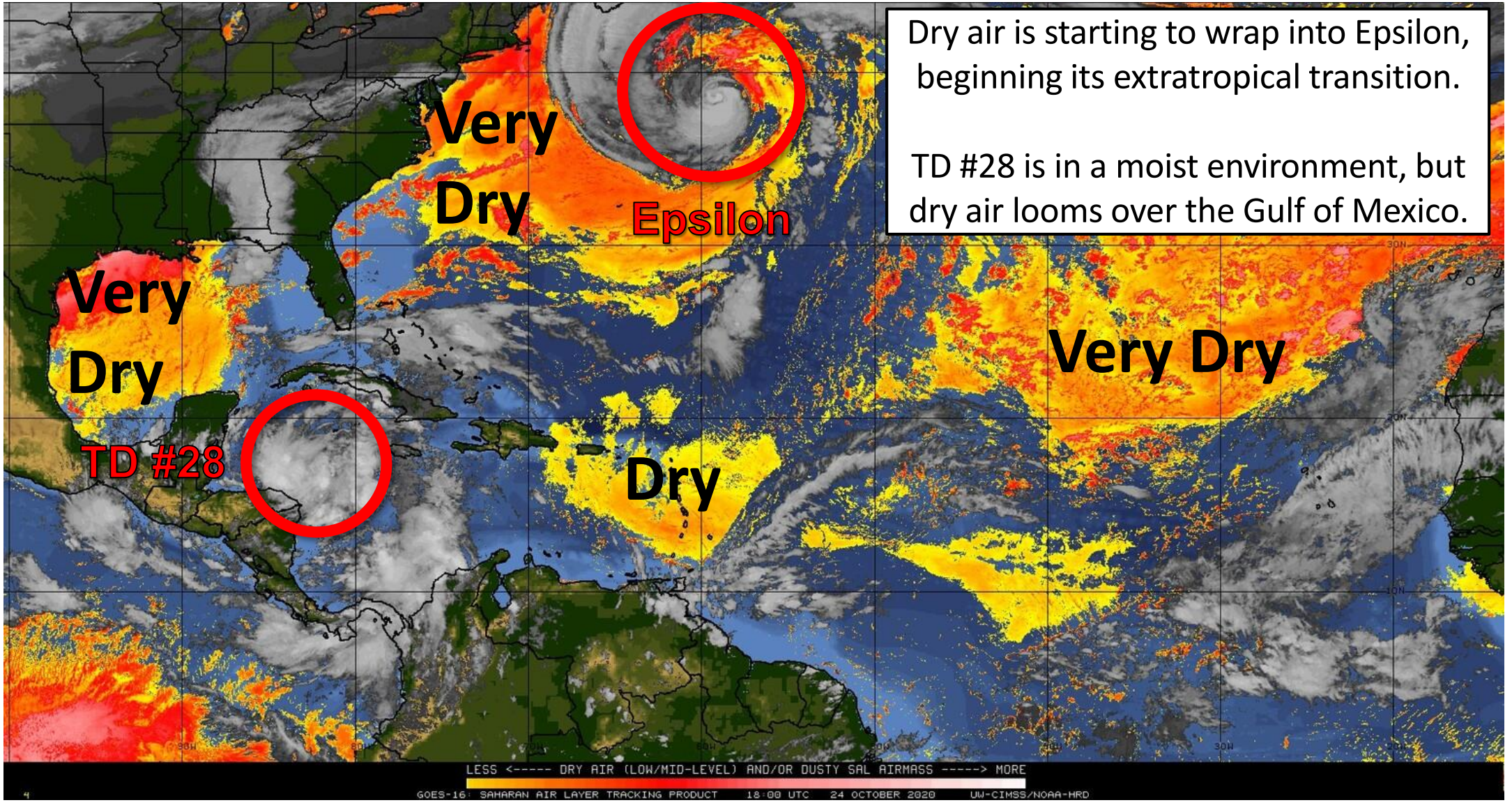
Epsilon is still fending off the shear, but it is starting to lose tropical characteristics.

Tropical Depression #28 is in an area of low wind shear in the northwestern Caribbean. However, shear is much higher to its north.

Dry Air & Saharan Dust

Is the environment favorable for the system?

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



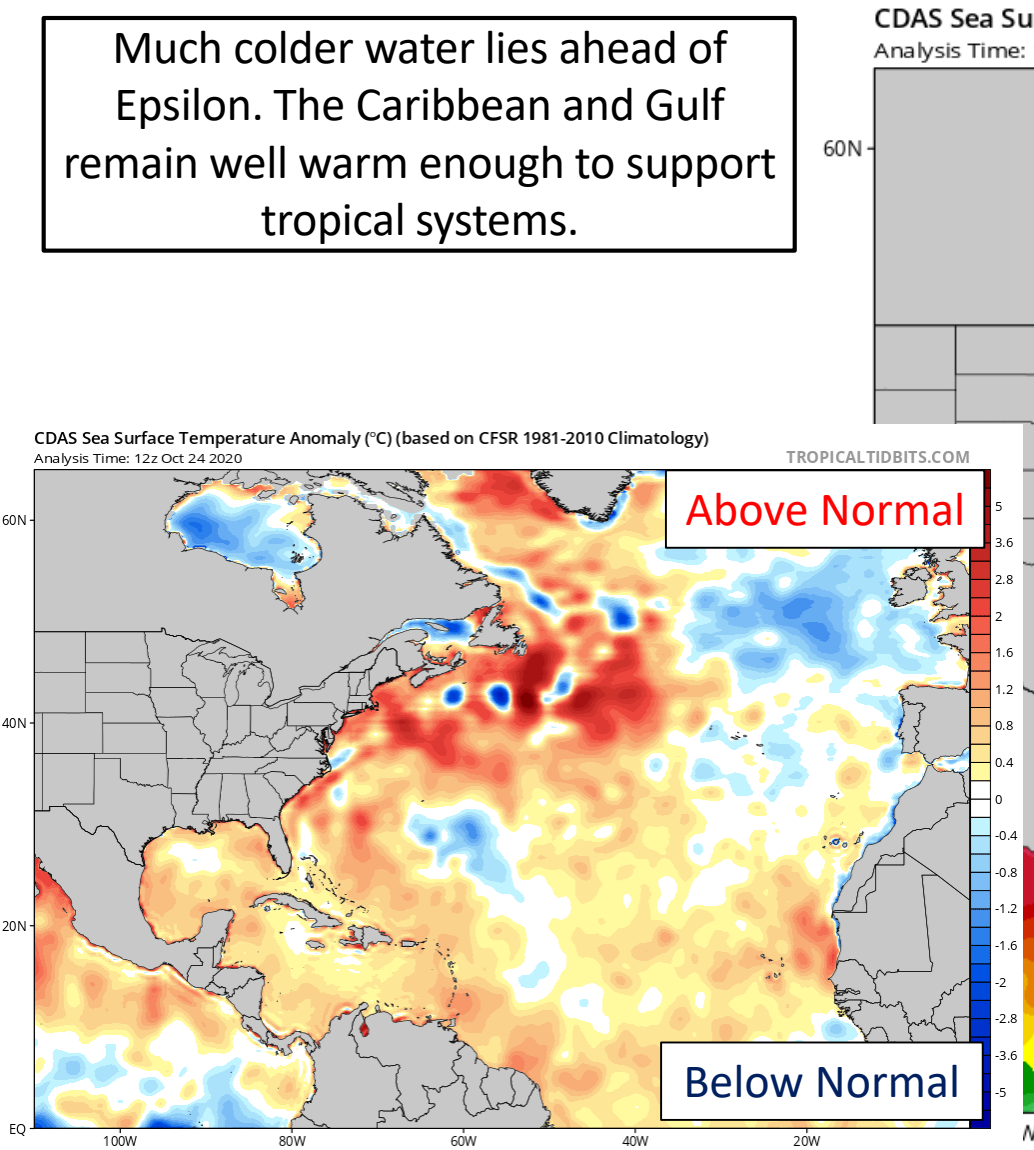
Dry air is starting to wrap into Epsilon, beginning its extratropical transition.

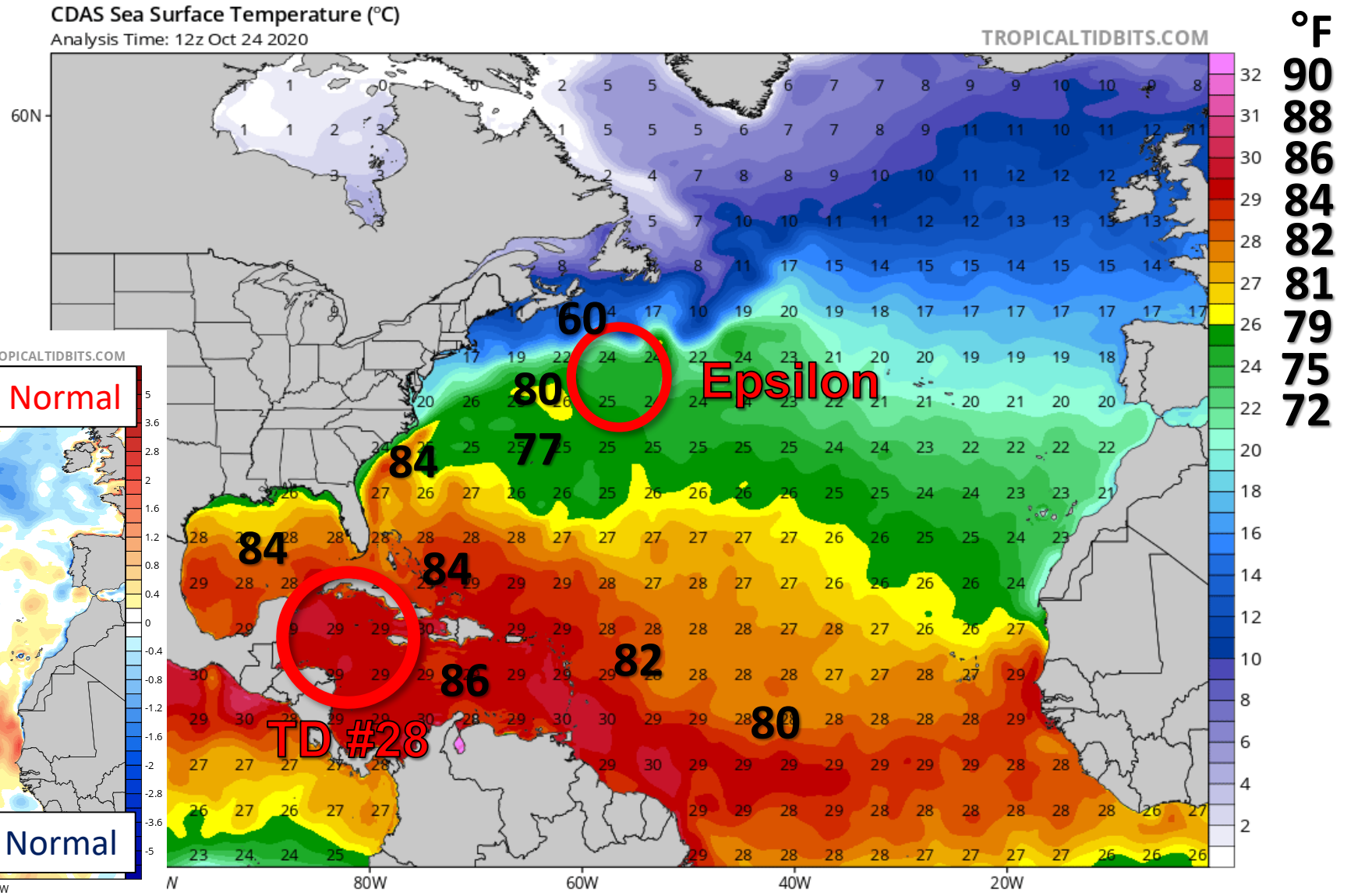
TD #28 is in a moist environment, but dry air looms over the Gulf of Mexico.

Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

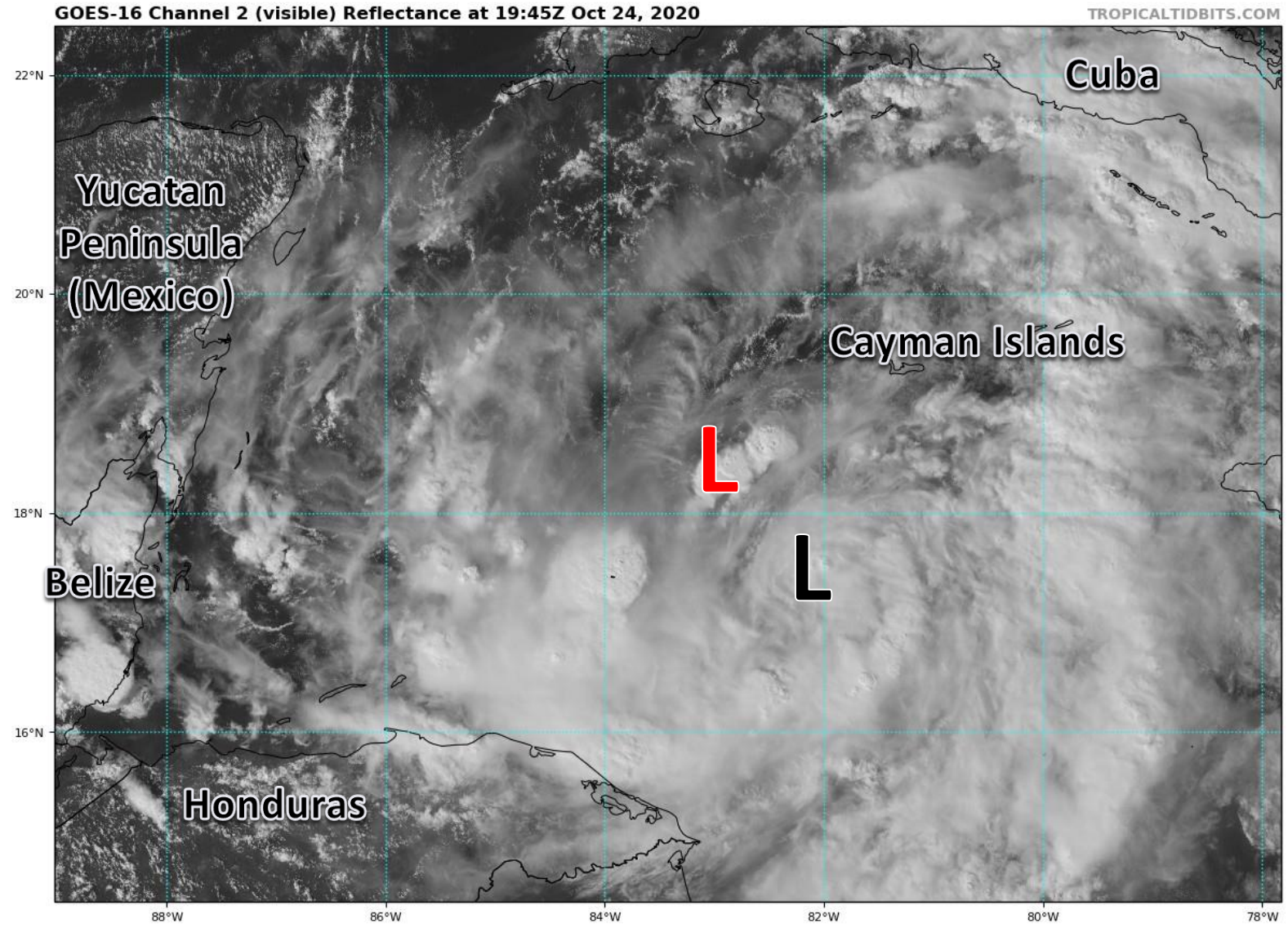
Much colder water lies ahead of Epsilon. The Caribbean and Gulf remain well warm enough to support tropical systems.



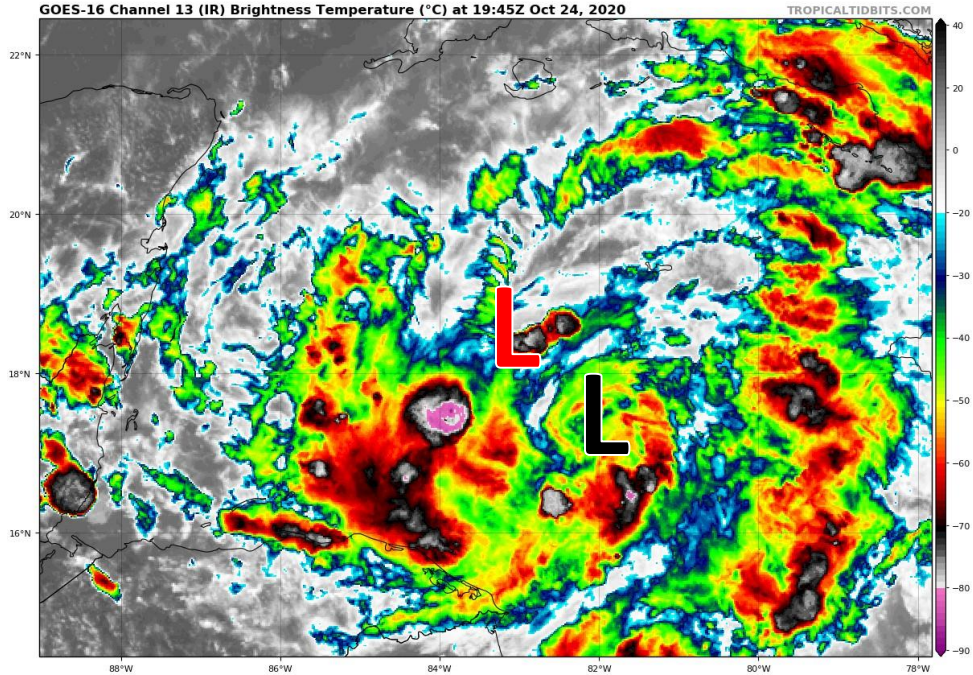


Satellite Imagery

Tropical Depression #28

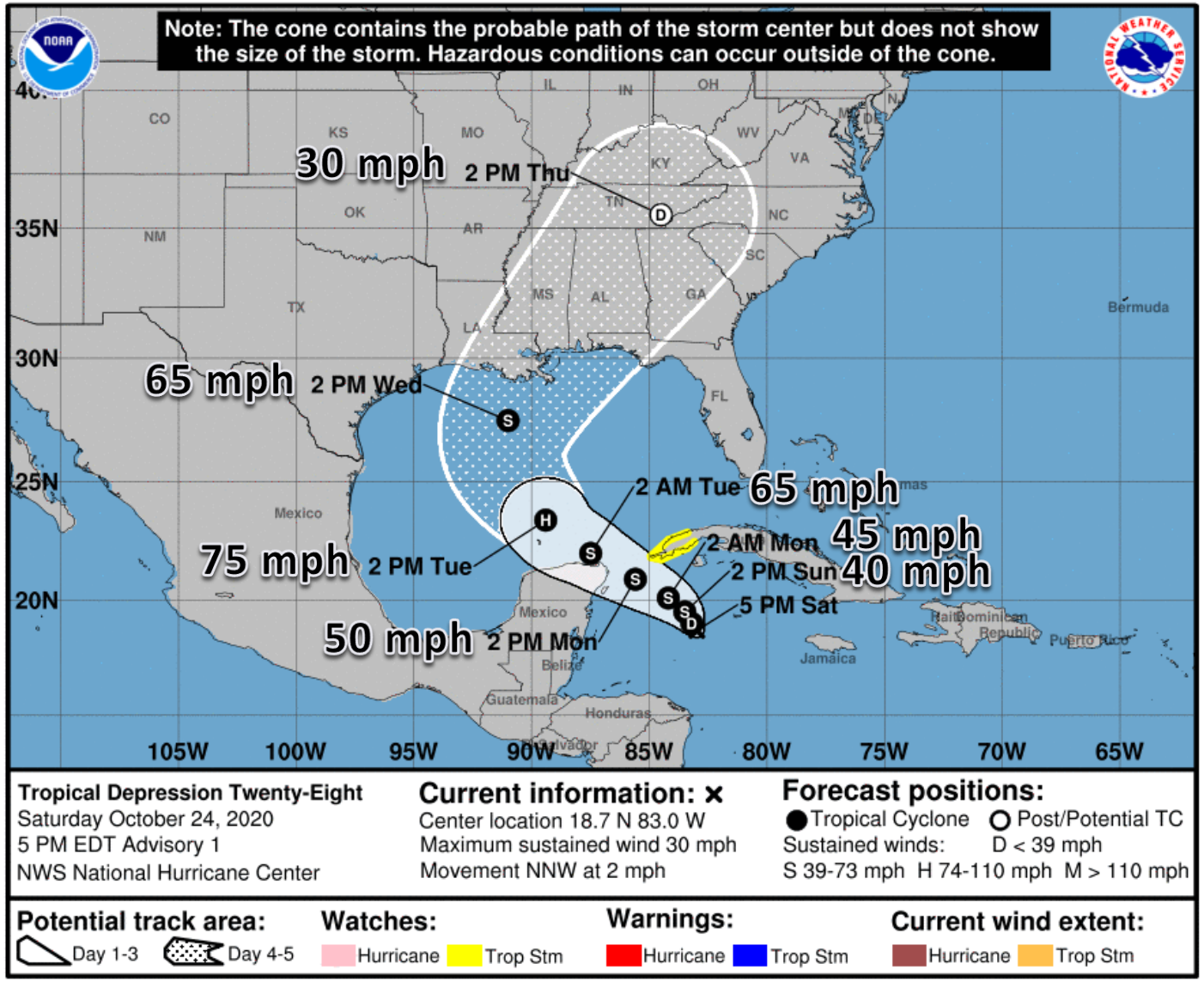


The low-level center (red “L”) is displaced from most of the thunderstorms and from the mid-level center (black “L”). This displacement results in the possibility of center reformations/relocations. Thus, the forecast for the system still remains uncertain until a center can become established.



Official Forecast Track

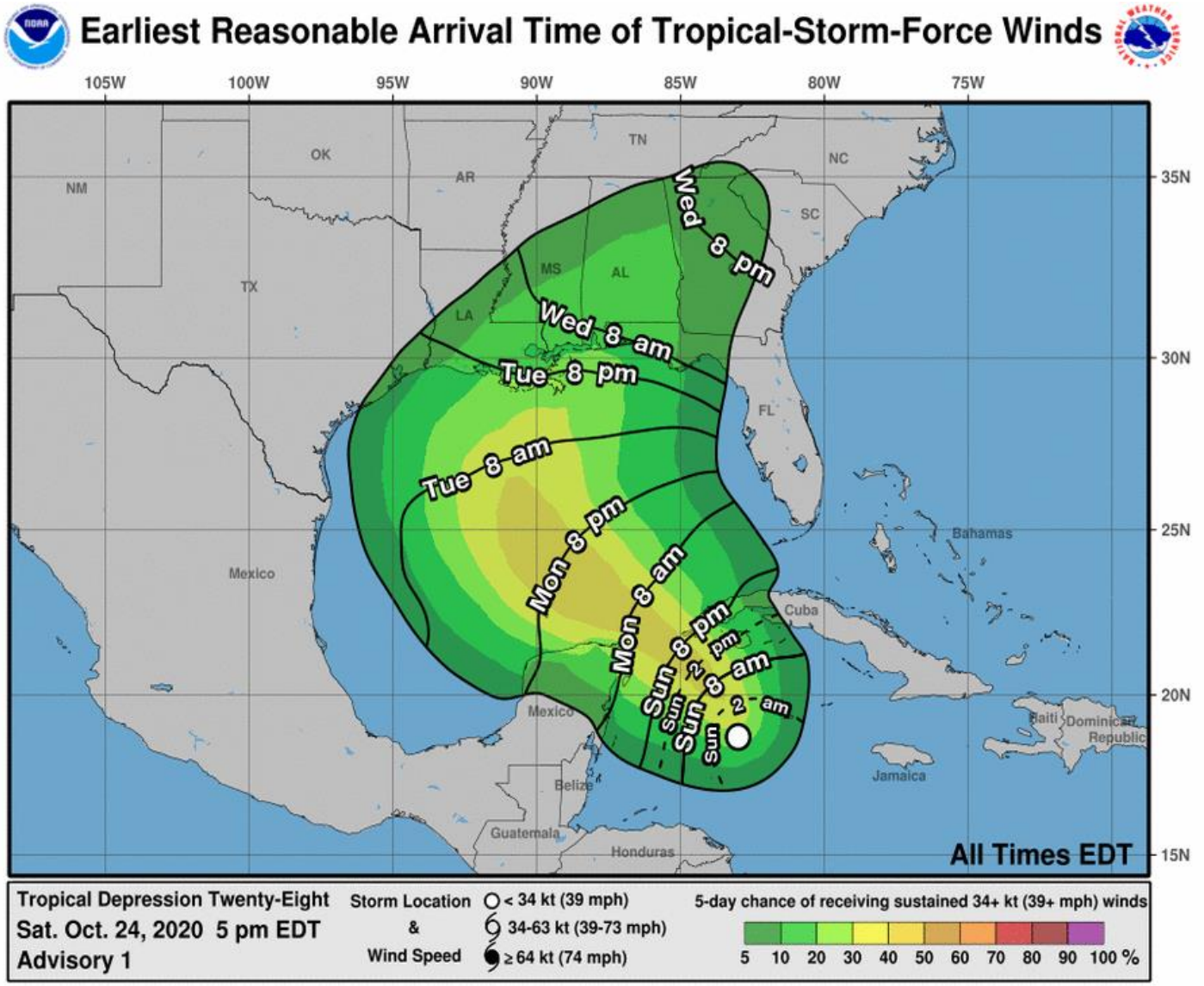
From the National Hurricane Center – Tropical Depression #28



- The center of Tropical Depression #28 is about 255 miles south-southeast of the western tip of Cuba.
- TD #28 has maximum sustained winds of 30 mph. Slow strengthening is forecast over the next 72 hours, and TD #28 should become a tropical storm on Sunday and a hurricane on Tuesday.
- TD #28 is drifting north-northwest at 2 mph. This system should gradually turn west-northwestward and increase in speed by Monday.
- A turn back toward the northeast is expected Tuesday night with landfall along the northern Gulf Coast Wednesday night.

Time of Arrival & Wind Speed Probabilities

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



Pensacola NAS: 21%
Pensacola: 20%
Milton: 19%
Destin: 15%
Panama City: 12%
Apalachicola: 9%
Tallahassee: 8%
Key West: 3%

Tropical storm force winds could begin as early as Wednesday morning in the Panhandle, but would most likely begin Wednesday evening.

Key Messages

From the National Hurricane Center

Key Messages for Tropical Depression Twenty-Eight

Advisory 1: 5:00 PM EDT Sat Oct 24, 2020

1. The depression is forecast to strengthen to a tropical storm Sunday and could bring tropical storm conditions to extreme western Cuba on Monday, where a Tropical Storm Watch is in effect. There is also a risk of tropical storm conditions in the northern Yucatan Peninsula of Mexico Monday night and Tuesday.

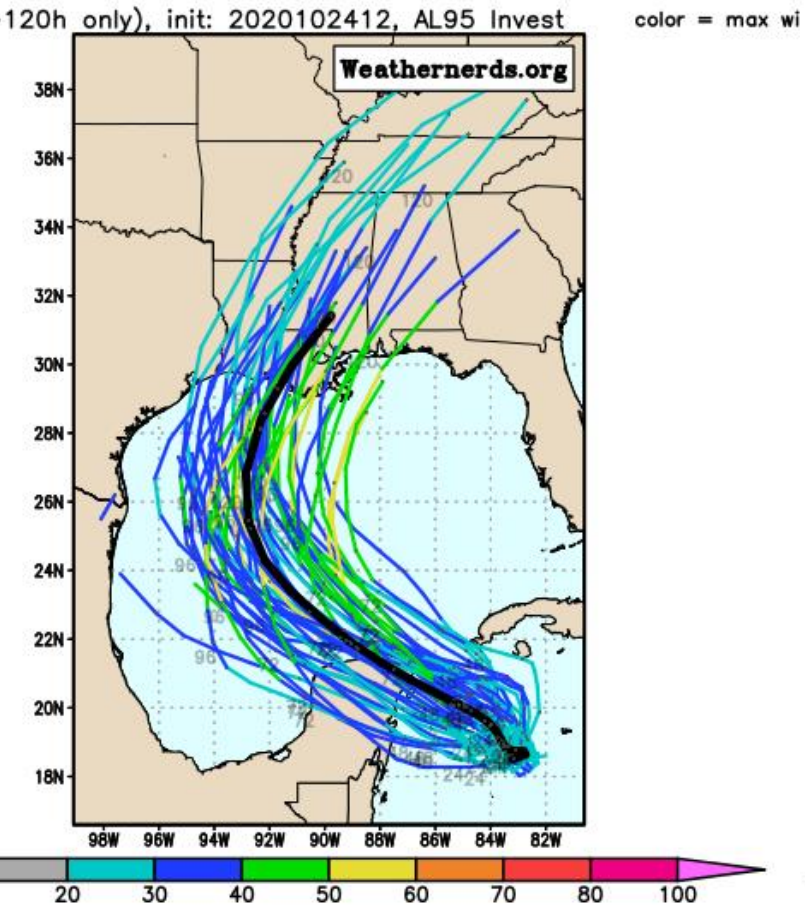
2. Through Wednesday, heavy rainfall is expected across portions of central and western Cuba, the Cayman Islands, Jamaica, the northeast Yucatan peninsula of Mexico, southern Florida and the Keys. This rainfall may lead to flash flooding in urban areas.

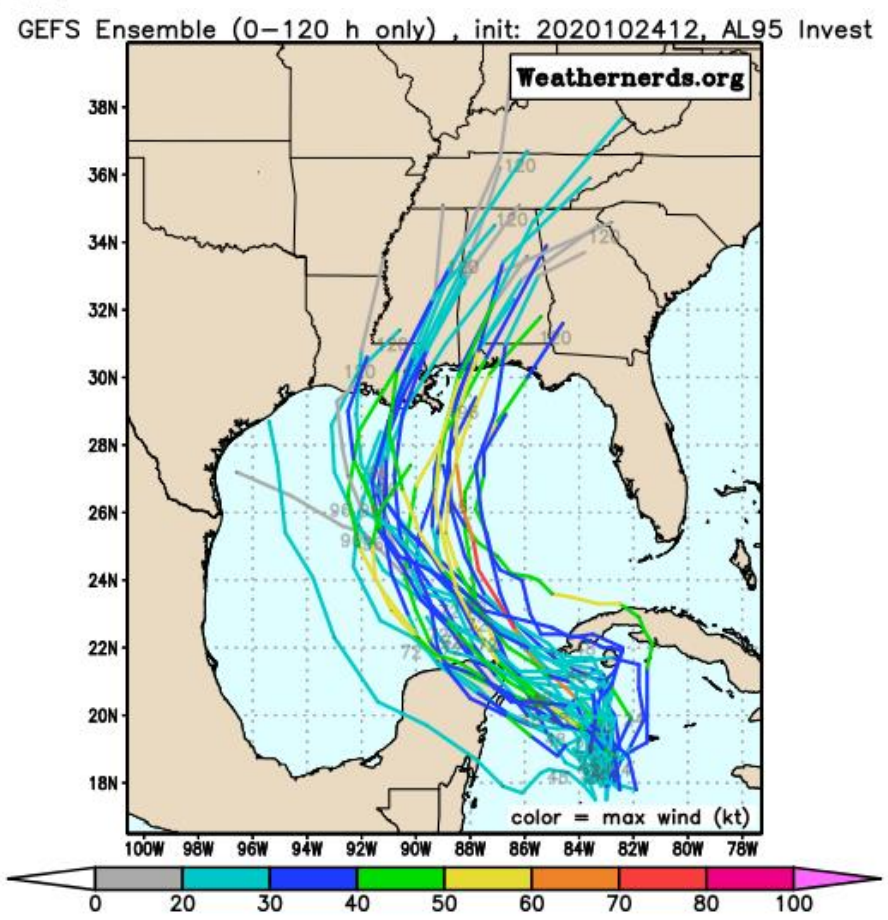
3. The system is forecast to approach the northern Gulf Coast as a tropical storm on Wednesday, and could bring storm surge, rainfall, and wind impacts to areas from Louisiana to the Florida Panhandle. Residents in these areas should monitor the progress of the depression and updates to the forecast.

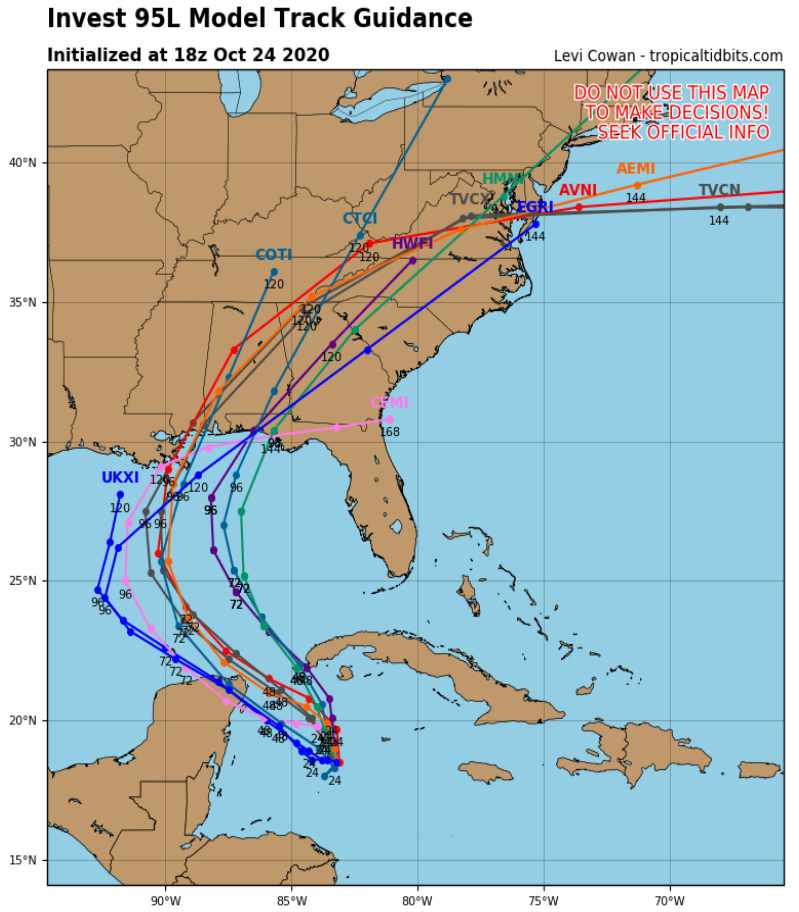
For more information go to hurricanes.gov

Model Forecast Tracks

Ensemble & Dynamical Models



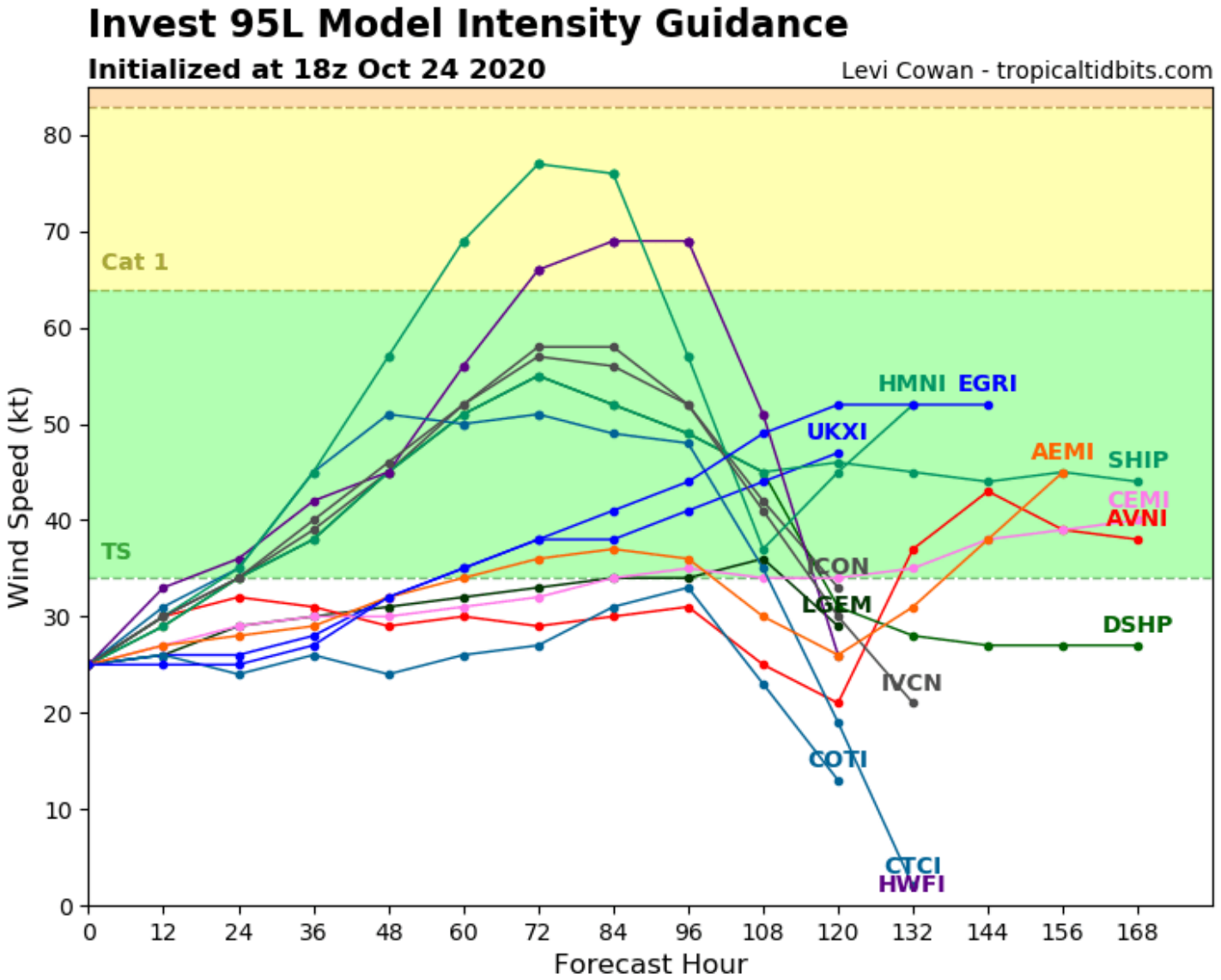




It's important to note that there is still a good amount of spread in the forecast models, showing that there remains uncertainty in the track forecast. The position of TD #28 as well as timing of the cold front forecast to approach from the west middle of the week will have implications on where TD #28 will eventually end up. In addition, center reformations/relocations could still occur and may change forecasts.

Model Forecast Intensity

Dynamical and Statistical Models

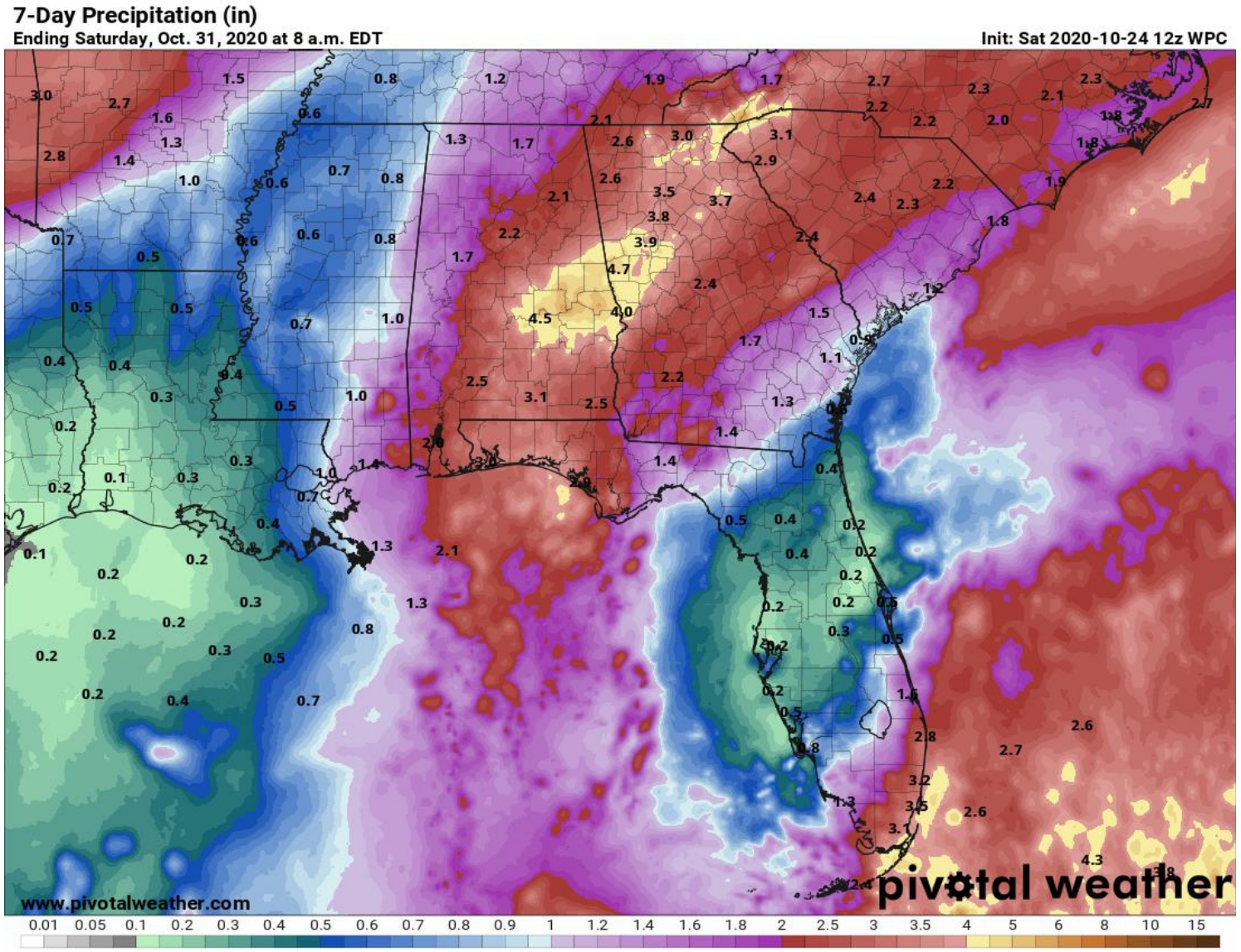


There is a relatively wide range in possible intensities with Tropical Depression #28. However, most models agree it will at least become a moderate tropical storm, though some models do suggest a Category 1 hurricane in the southern Gulf.

Wind shear and dry air do appear to be present in the Gulf of Mexico next week, which could limit intensification before landfall. However, this remains a rather low confidence forecast.

Rainfall Totals Next 7 Days

Ending 8 AM ET Saturday



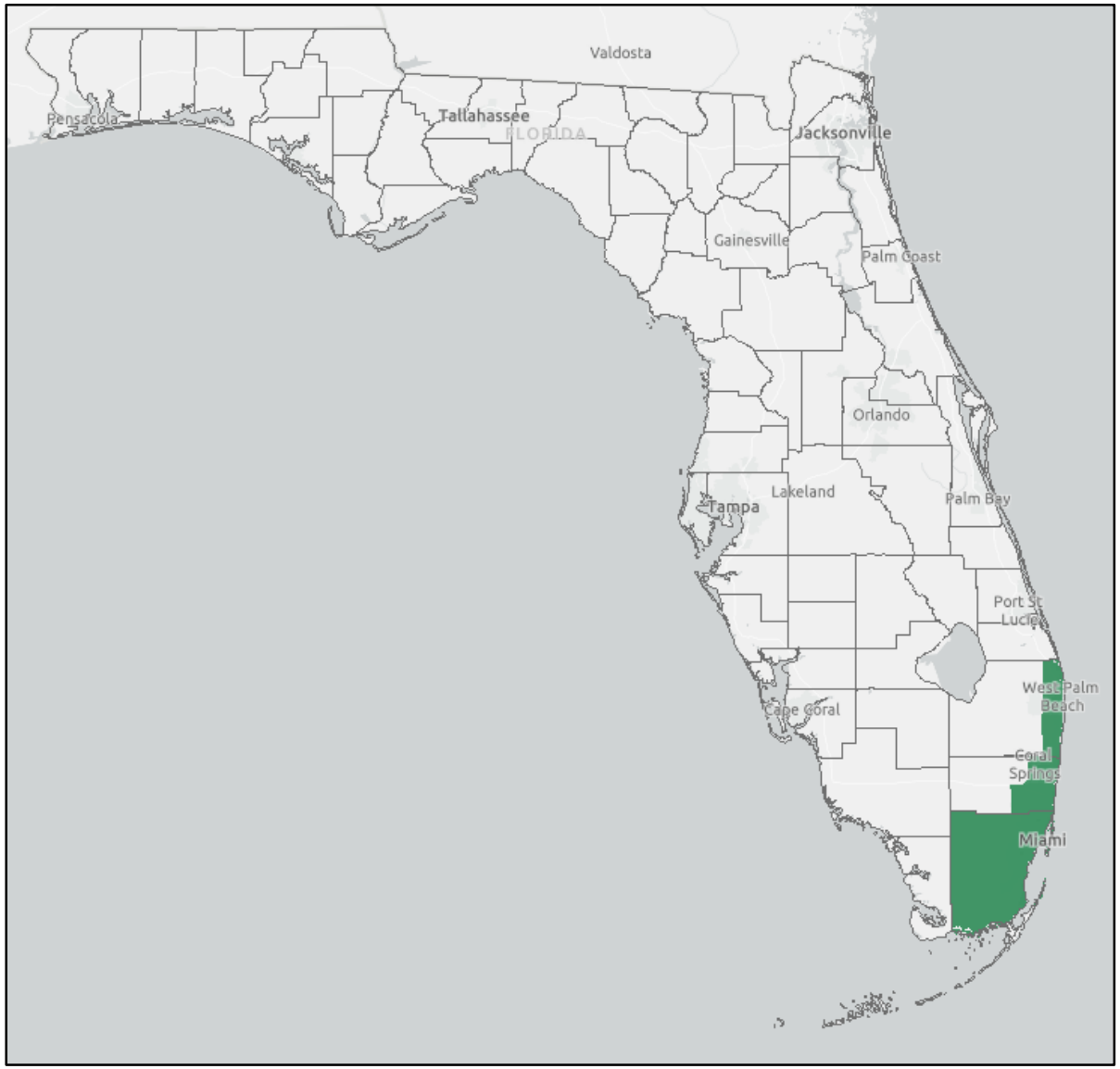
Rainfall totals of 3-5”+, locally higher, are expected across Southeast Florida.

Some parts of metro Southeast Florida and the Keys have seen 6-10” of rain in the last 5 days.

Most of the rain will also be on TD #28’s east side, especially if it is a sheared system. 2-4” of rain is currently expected across the Panhandle next week.

Flood Watches

Links: NWS Miami



A Flood Watch remains in effect for parts of Southeast Florida.

*WHEN: Through Sunday evening

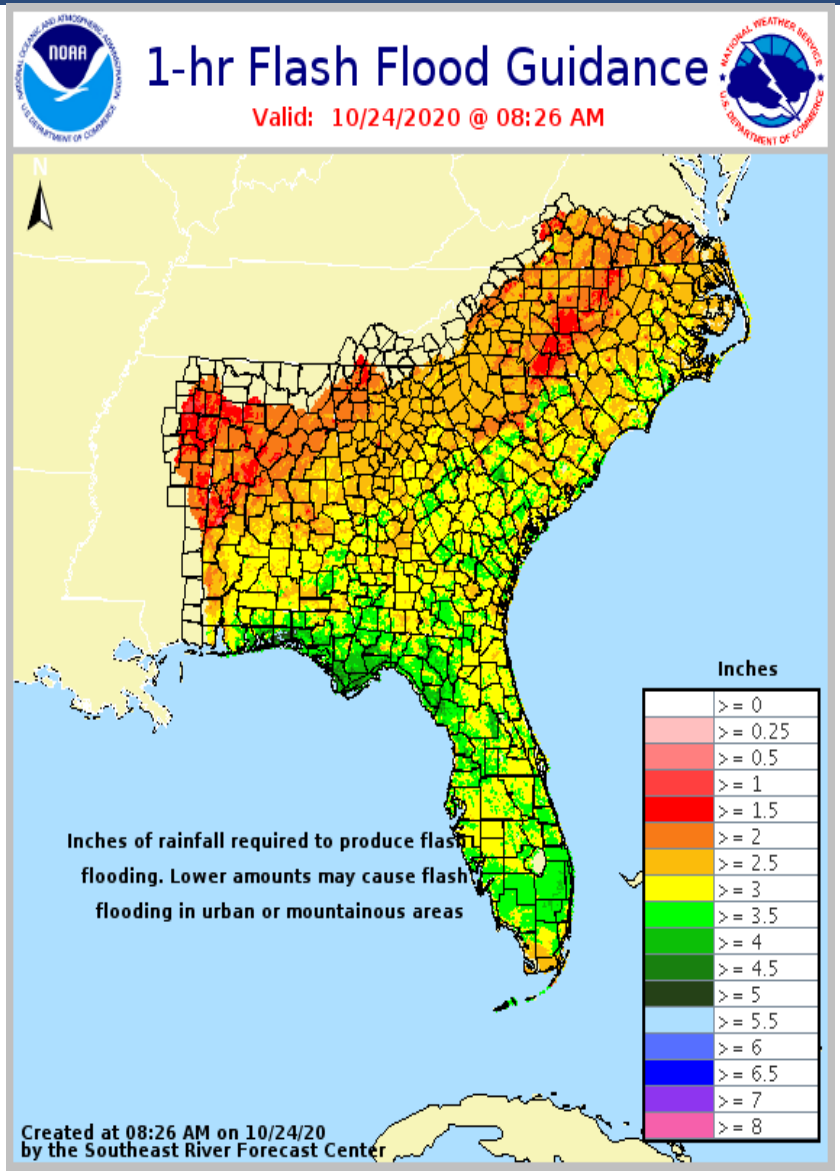
*WHERE: coastal & metro Palm Beach, coastal & metro Broward, and all of Miami-Dade Counties

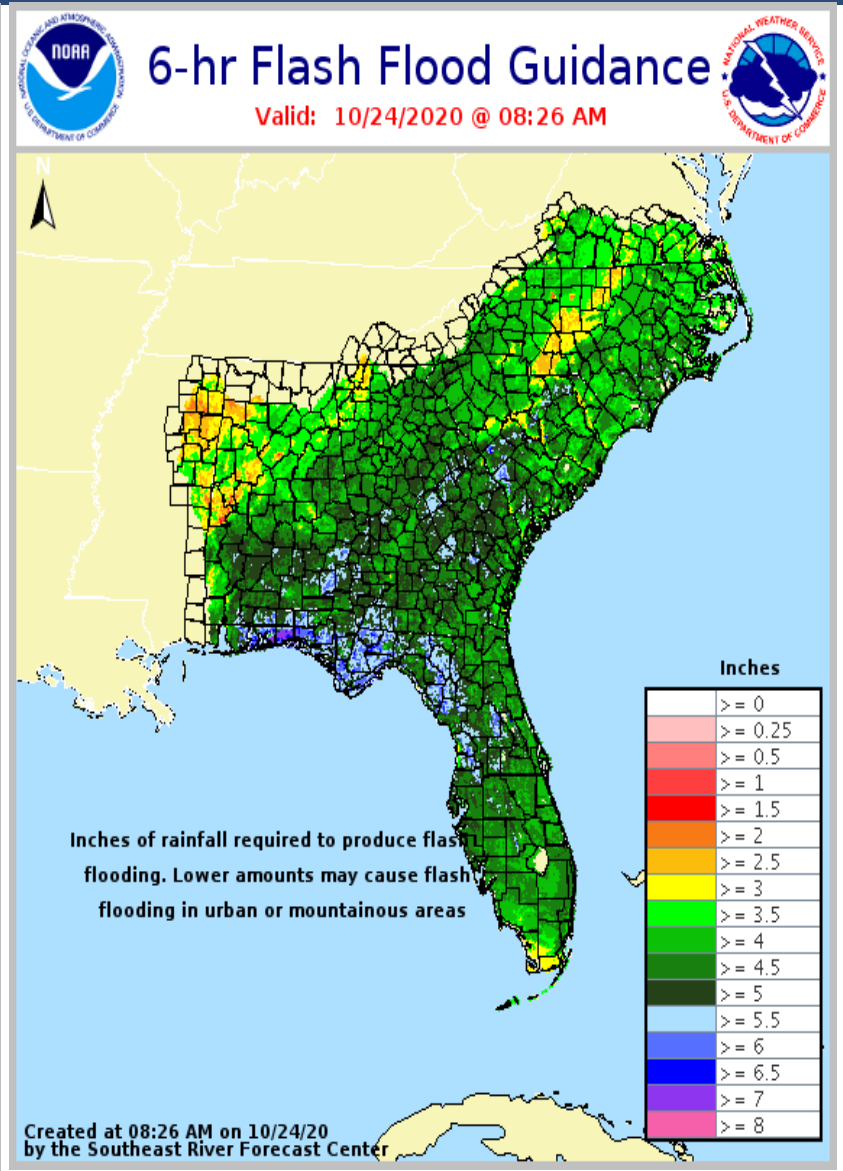
Periods of heavy rainfall are possible through the weekend. Additional rain accumulations of 3 to 6 inches, with isolated higher amounts possible.

Heavy rainfall may produce flooding and/or flash flooding in urban locations as well as small creeks, streams, and canals. This is especially true for areas that recently received heavy rainfall, and for areas near the coast due to the combination of heavy rain and astronomically high tides.

Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?



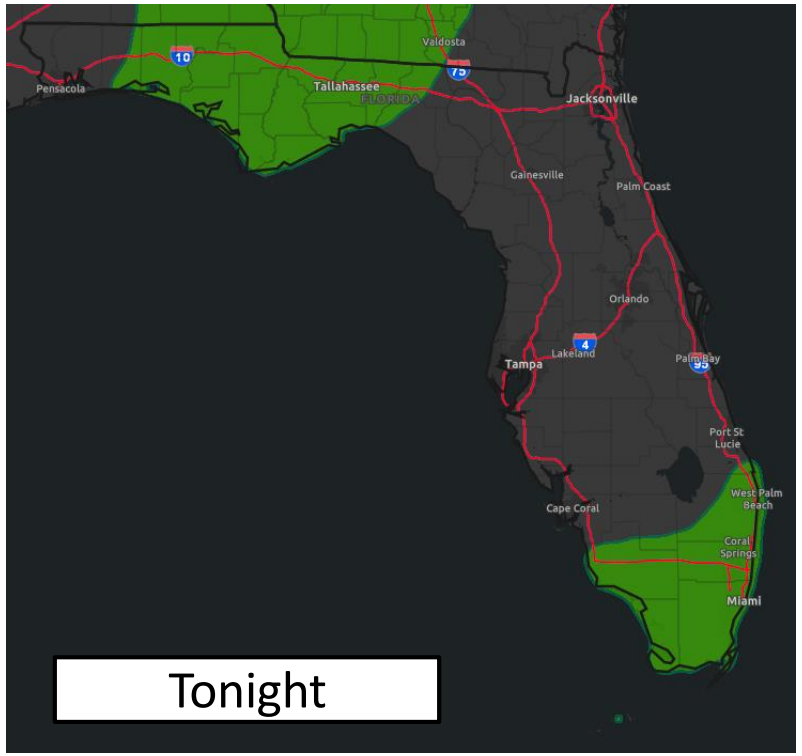


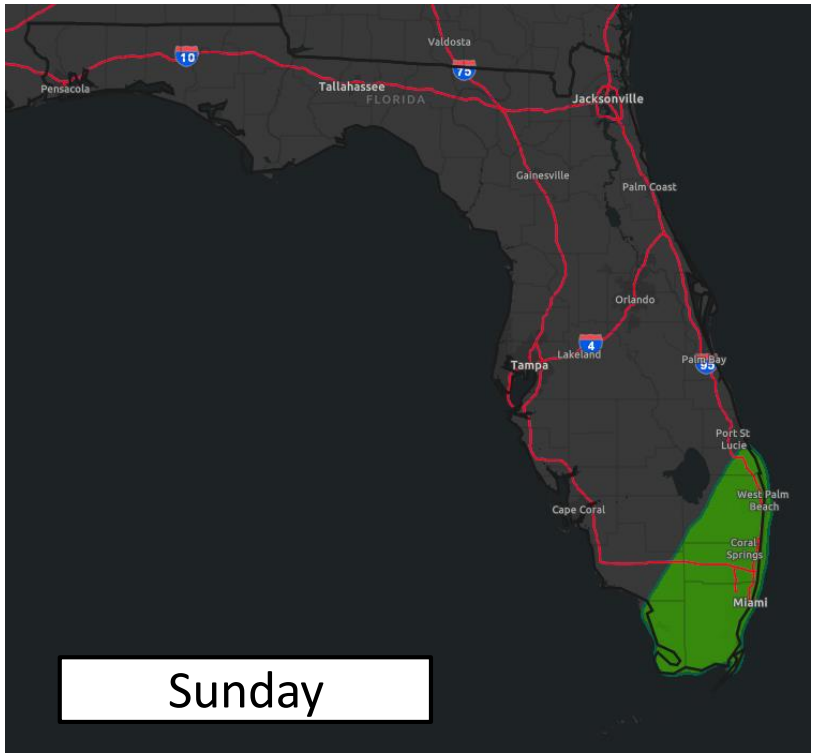
Across Southeast Florida, it will only take about 1.5-3” within 1 hour or about 2-4” within 6 hours to cause flash flooding.

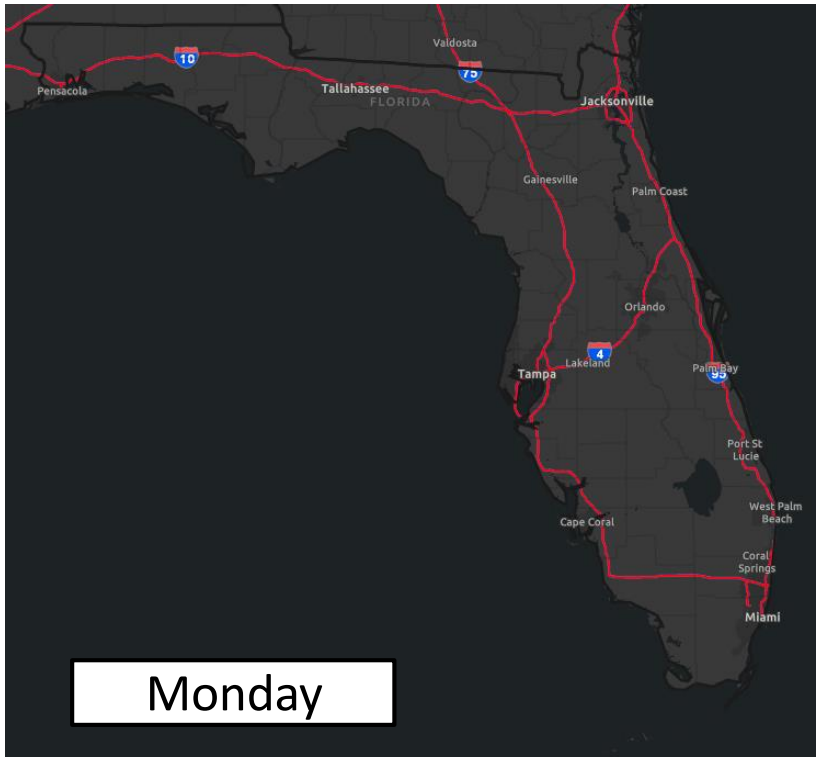
Soils remain super-saturated in this area, and rainfall will more easily run off, causing flooding concerns.

Flash Flood Outlooks

From the Weather Prediction Center







Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line

HIGH: > 50%

SLGT: 10%-20%

MDT: 20%-50%

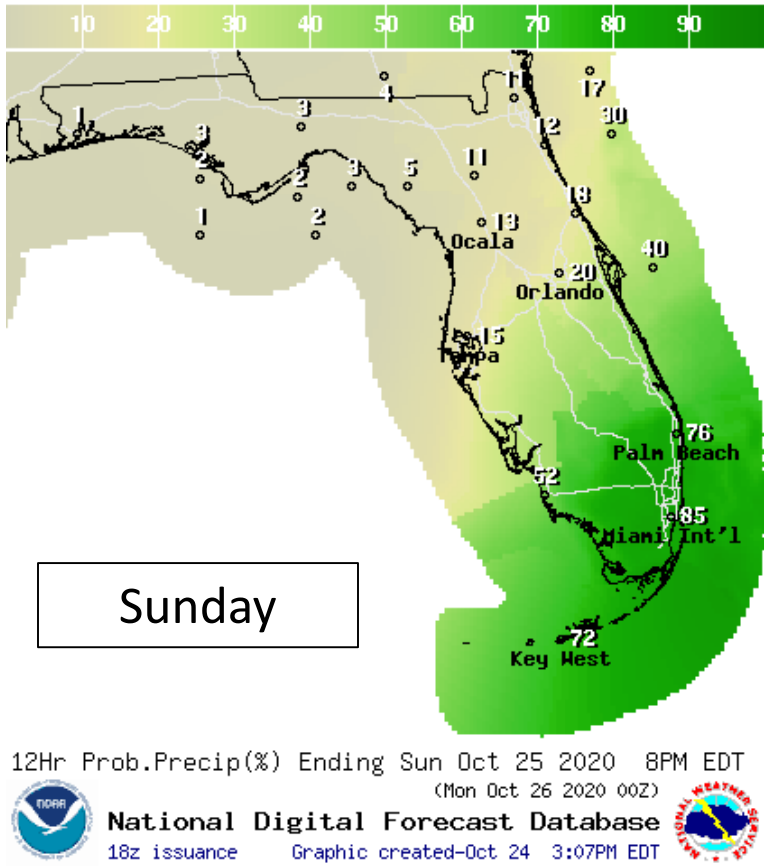
MRGL: 5%-10%

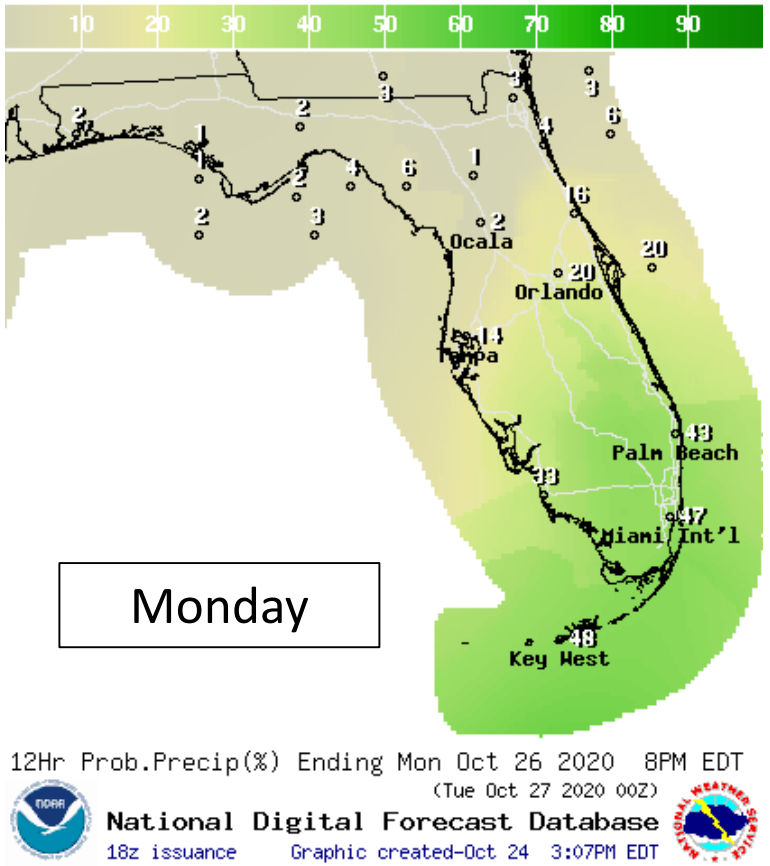
Because of the recent heavy rainfall, an isolated case of flash flooding is possible across parts of Southeast Florida into this weekend.

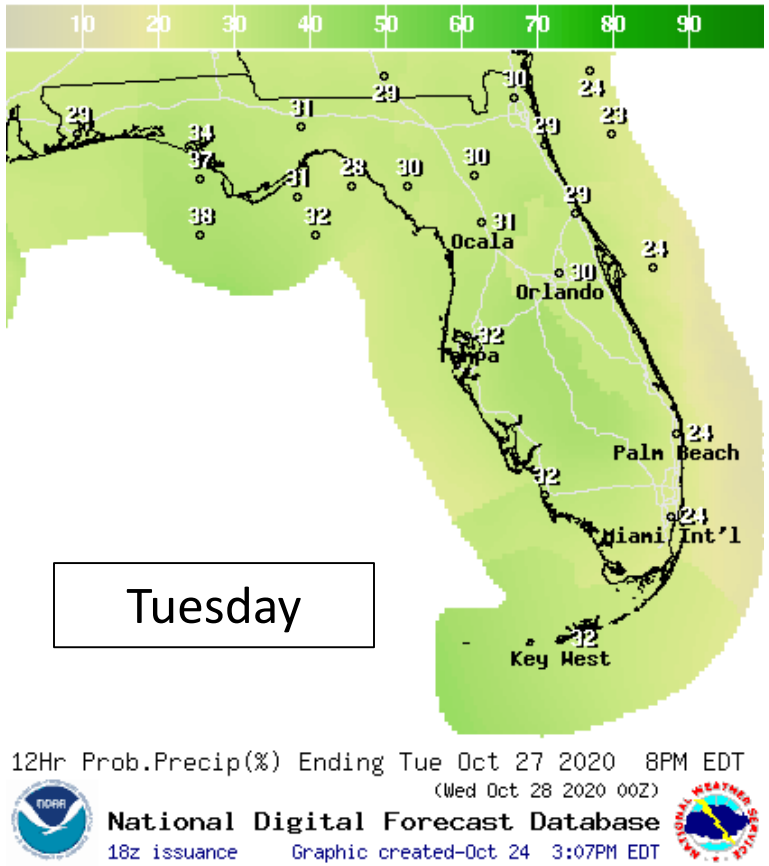
Locally heavy rainfall is also possible today in North Florida associated with a cold front.

Forecast Rain Chances

Next 3 Days



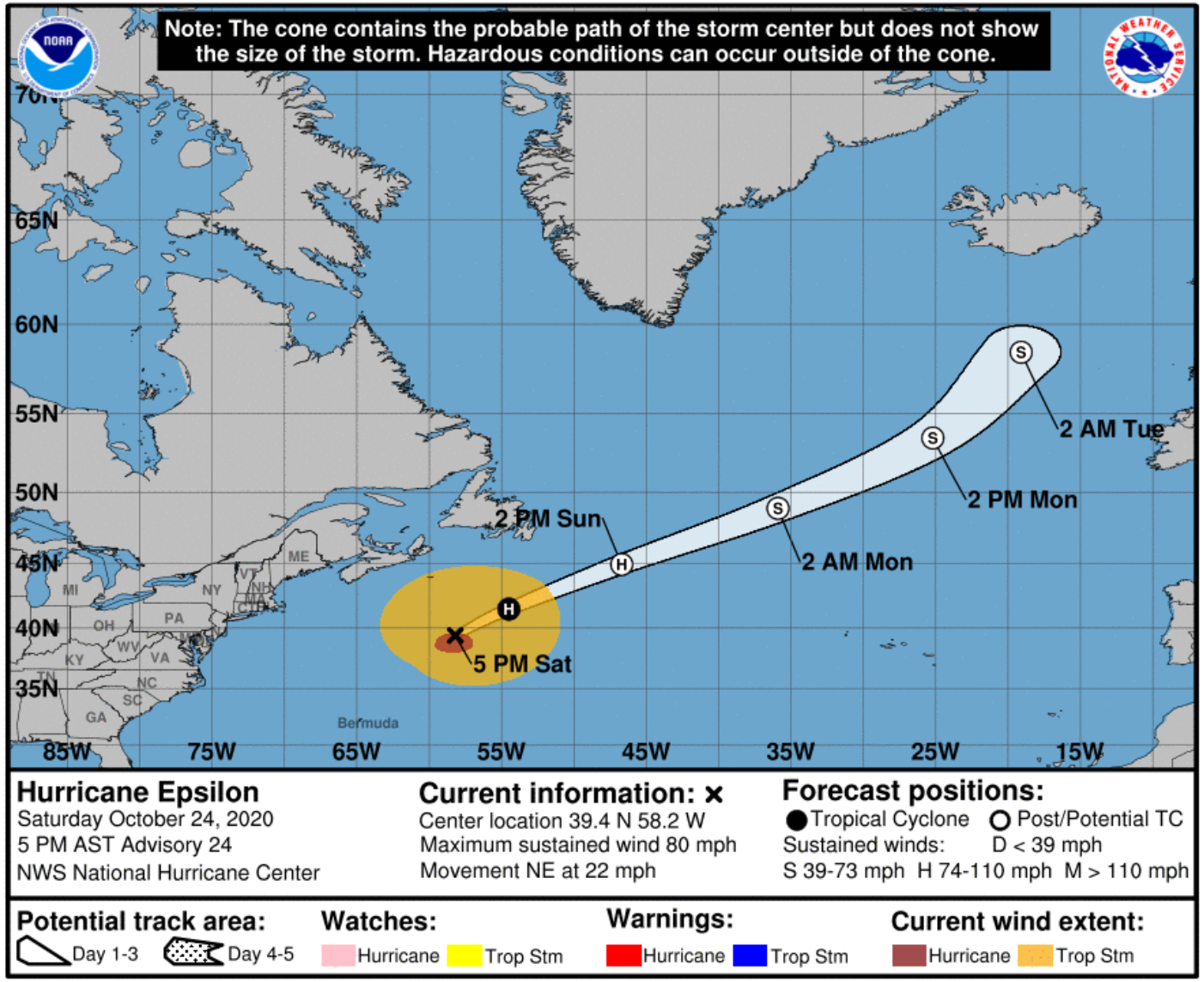




Numerous showers and storms will remain possible across South Florida through this weekend as the Caribbean system moves into the Bahamas. The forecast into next week is more uncertain and greatly depends on the track of Tropical Depression #28. In general, rain chances will decrease across South Florida and increase in North Florida later in the week.

Official Forecast Track

From the National Hurricane Center – Hurricane Epsilon

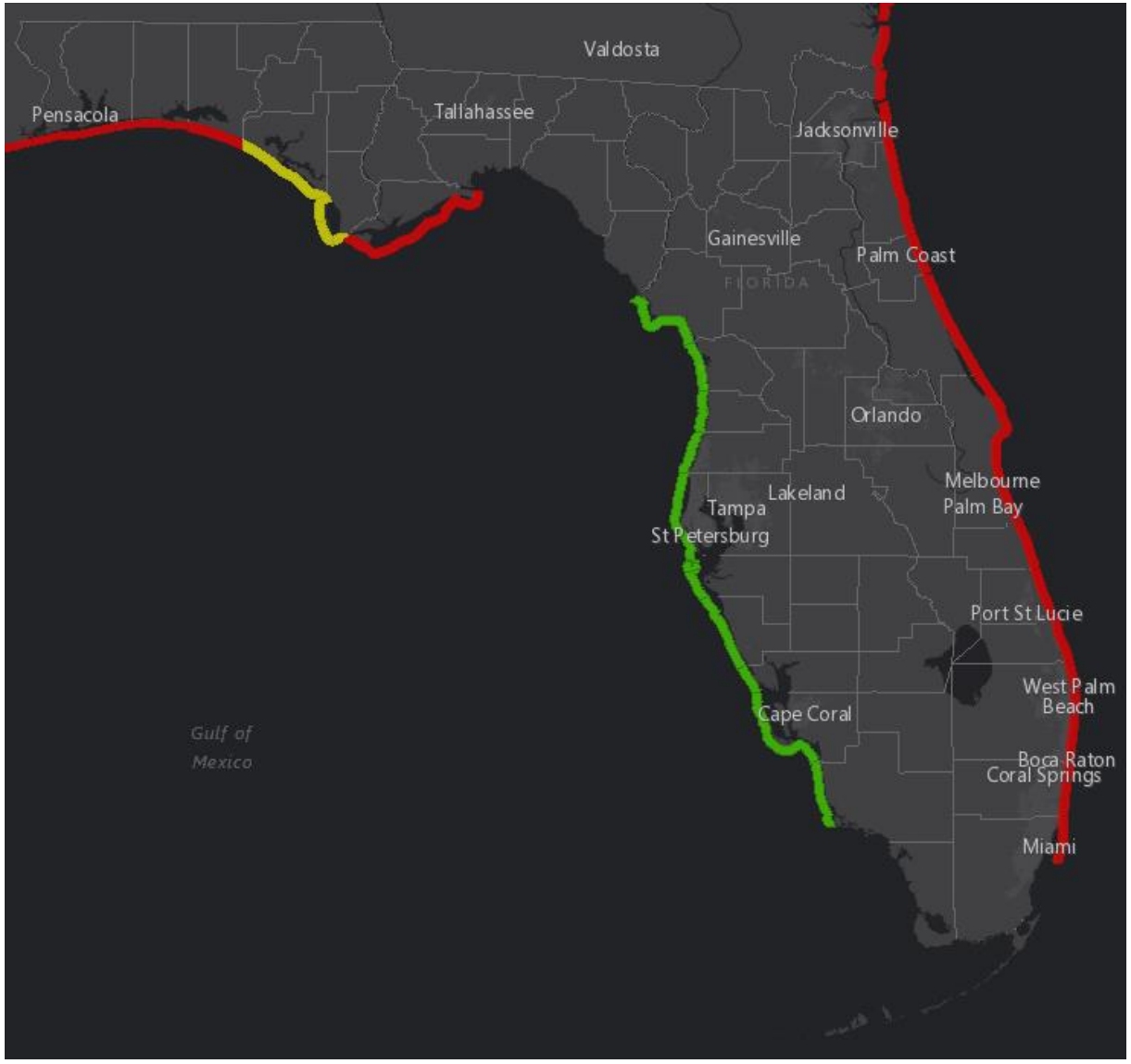


- The center of Hurricane Epsilon is located about 565 miles south-southwest of Cape Race, Newfoundland.
- Epsilon has maximum sustained winds of 80 mph (Category 1).
- Epsilon is moving to the northeast at 22 mph, and a faster forward motion is expected over the next several days.
- Swells from Epsilon will impact the East Coast through this weekend, resulting in dangerous rip currents.

Rip Current Outlook

Today

Long period swells from distant Hurricane Epsilon will keep the rip current risk high at Atlantic beaches. Breezy easterly winds will create dangerous rip currents at Panhandle beaches.



Overall Summary

Tropical Depression #28

- Hurricane Hunters have found that Invest 95L has a well-defined (though broad) circulation, and advisories have been initiated on Tropical Depression #28.
- The center of Tropical Depression #28 is located about 255 miles south-southeast of the western tip of Cuba, drifting north-northwest at 2 mph.
- A gradual turn toward the west-northwest is expected by Monday, followed by a sharp turn toward the northeast late Tuesday.
- Maximum sustained winds are near 30 mph, and slow strengthening is forecast through the next 72 hours.
- TD #28 is forecast to become a tropical storm on Sunday and possibly reach hurricane strength by Tuesday.
- Dry air and increasing wind shear may result in some weakening, or at least limited intensification prior to landfall.
- Landfall on the northern Gulf Coast is forecast Wednesday night as it accelerates ahead of a cold front.

Hurricane Epsilon

- The center of Epsilon is located about 565 miles south-southwest of Cape Race, Newfoundland, moving northeast at 22 mph.
- Epsilon remains a Category 1 hurricane with maximum sustained winds near 80 mph, and slow weakening and a transition to a post-tropical system is expected by Sunday.

Florida Outlook

Florida Outlook:

- Epsilon poses no threat to Florida. Swells from Epsilon will impact the East Coast through the upcoming weekend, resulting in a high rip current risk.
- Moisture from Tropical Depression #28 will continue to bring the threat of heavy rainfall to South Florida and the Keys. Flood Watches remain in effect for coastal Southeast Florida.
- No significant wind impacts are expected in the Florida Keys. Gusty winds could still accompany any stronger showers or storms.
- Heavy rainfall is possible across the Panhandle and Big Bend by mid-week. About 2-4” of rain is possible, but these totals could change based on the track of TD #28.
- Dangerous rip currents and building waves will be possible this week along Gulf Coast beaches.
- Storm surge, gusty winds, and isolated tornadoes may be possible as well; however, it remains too early to determine the extent of these threats.
- It’s important to not focus on the center of the cone as impacts will extend well outside of the cone.
- The forecast remains low confidence and is subject to change.

The next briefing packet will be issued Sunday morning. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.

TROPICAL UPDATE

Created by:

Cameron Young, Assistant State Meteorologist

Cameron.Young@em.myflorida.com

State Meteorological Support Unit

Florida Division of Emergency Management

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