



TROPICAL UPDATE



2:00 PM EDT

Thursday, October 22, 2020

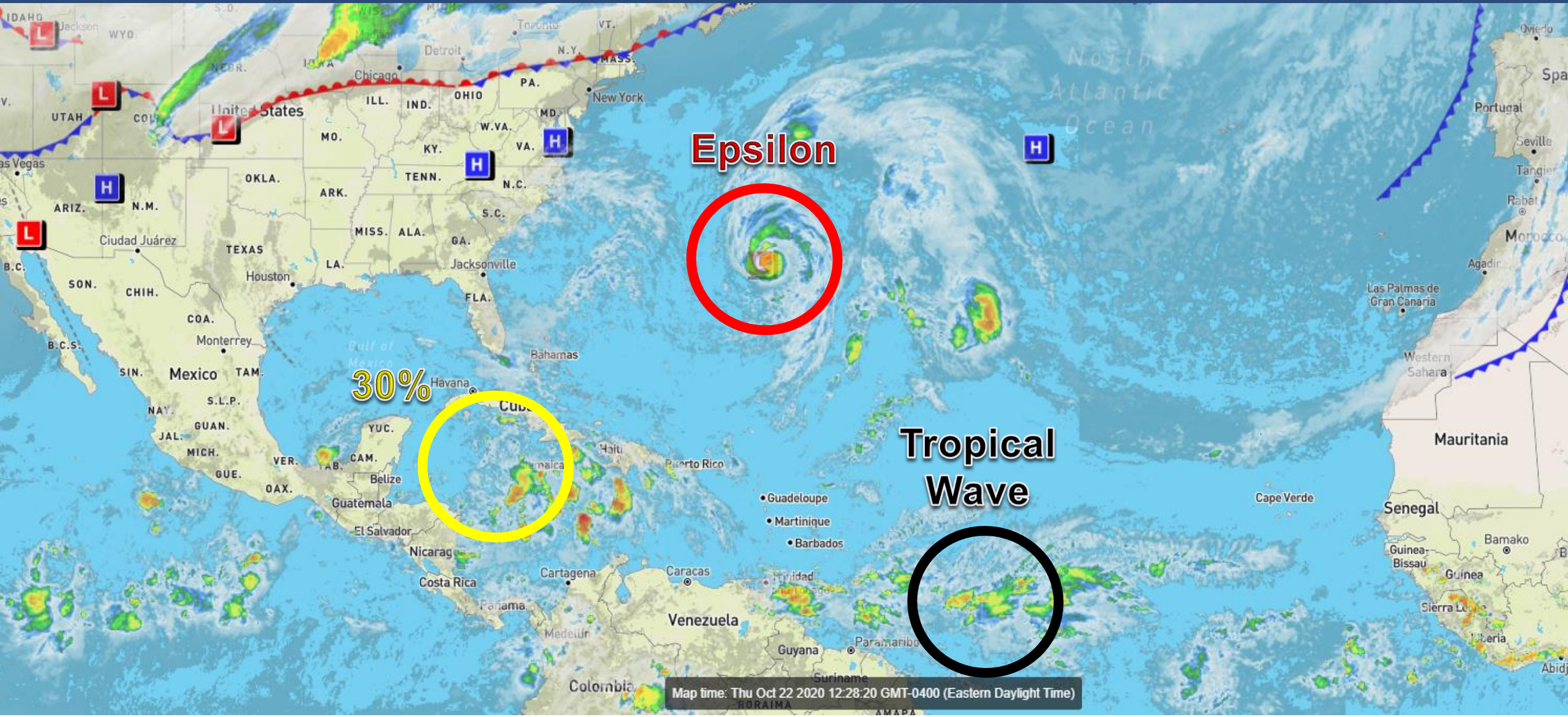
Hurricane Epsilon & Caribbean Low (30%)

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



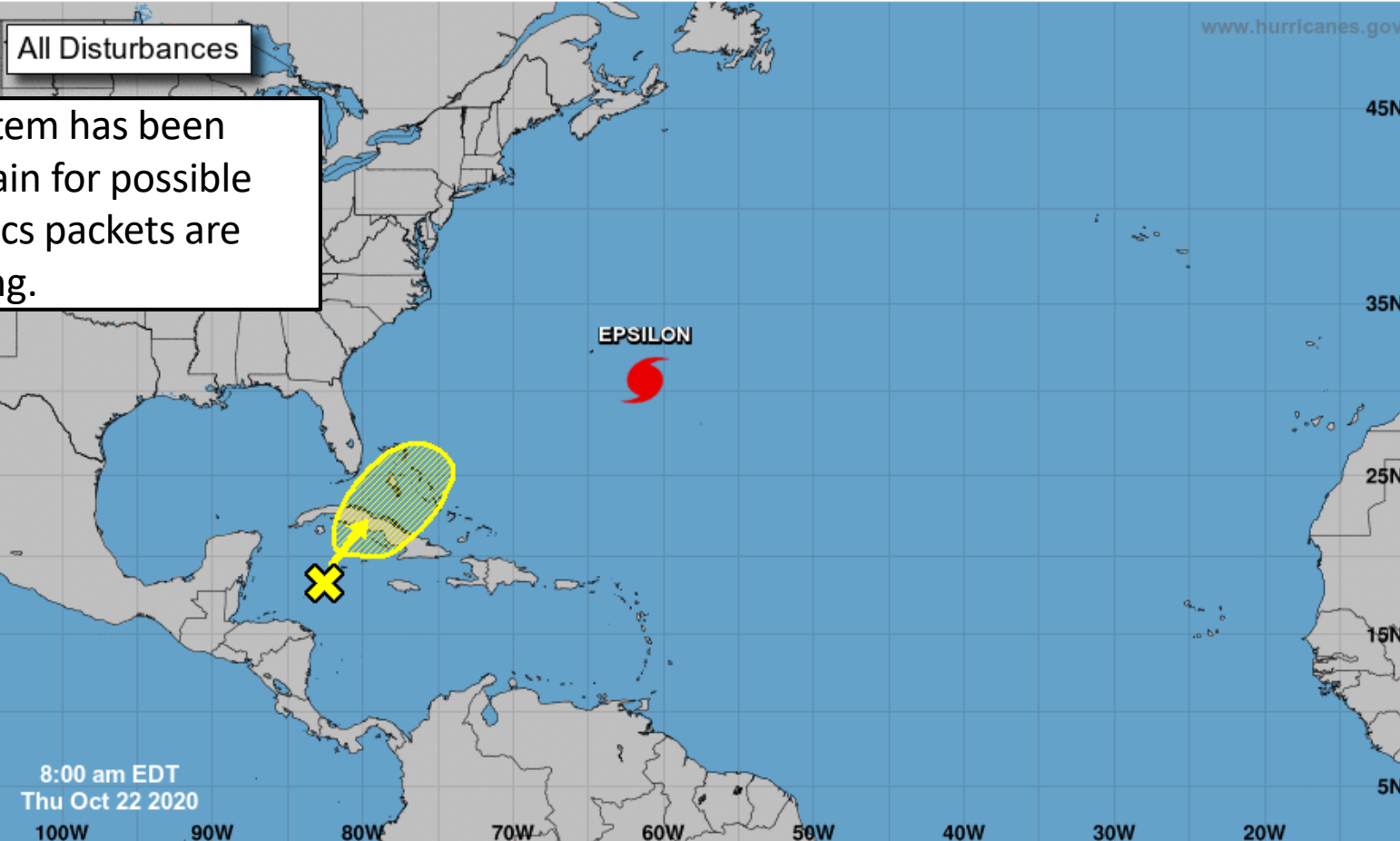


Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook National Hurricane Center Miami, Florida



The Caribbean system has been highlighted once again for possible development. Tropics packets are resuming.

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



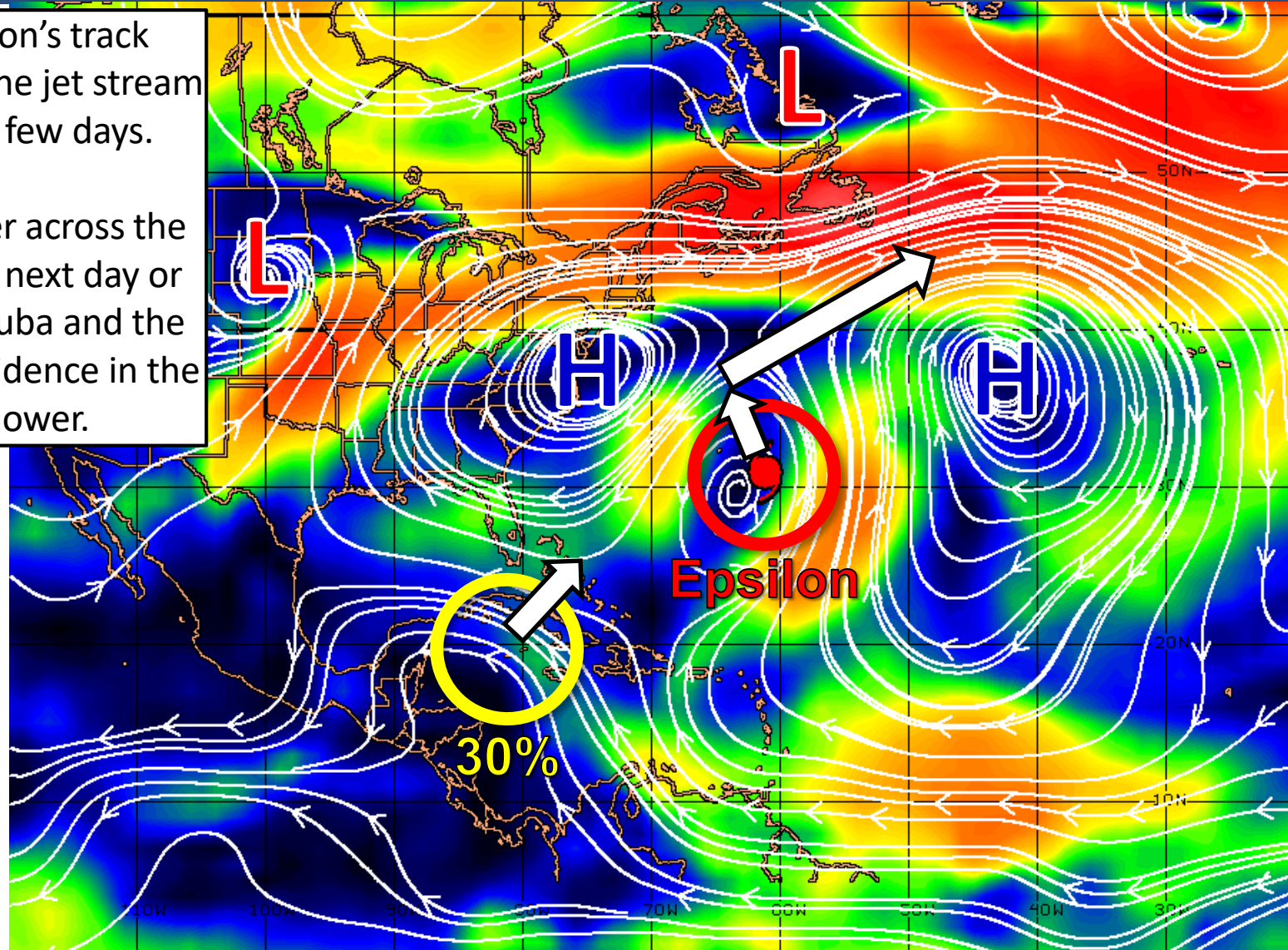
Steering Currents

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.

Confidence is high in Epsilon's track forecast as it gets caught by the jet stream to the north over the next few days.

The Caribbean Low will linger across the western Caribbean over the next day or so, then slowly move over Cuba and the Bahamas this weekend. Confidence in the track of this system is lower.



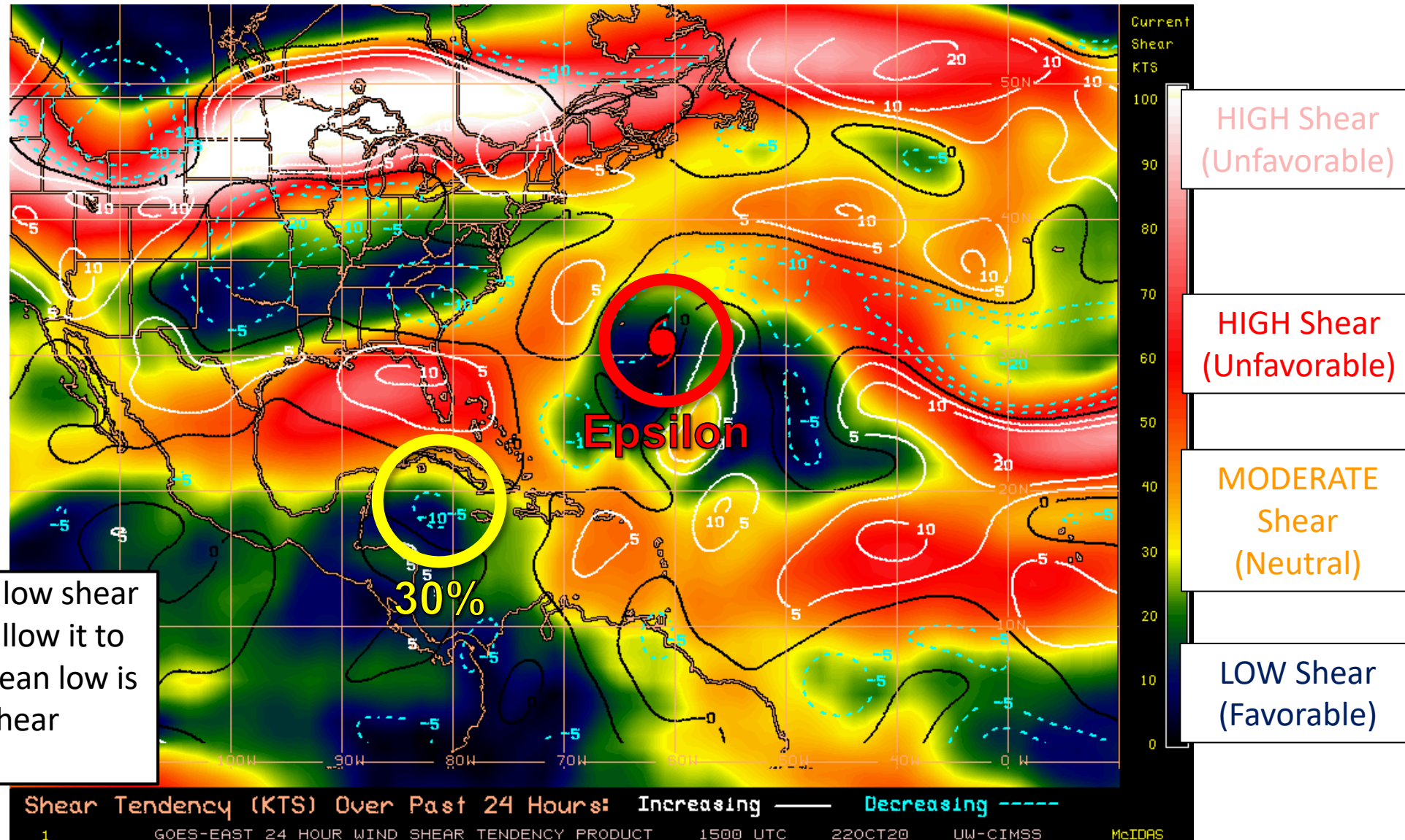
- Fast Moving Storm
- Fast Moving Storm
- Typical Moving Storm
- Slow Moving Storm



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).



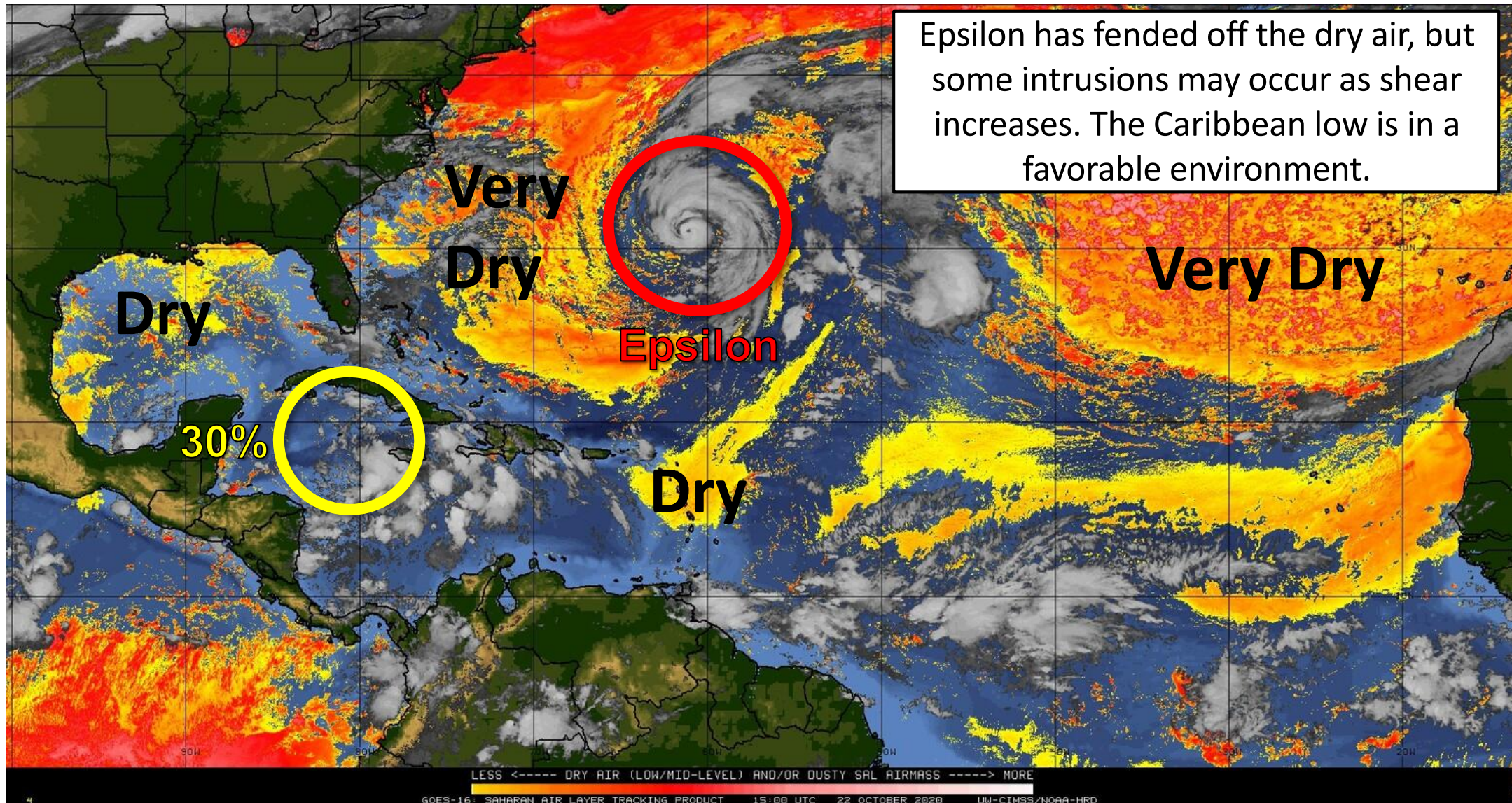
Epsilon remains in a relatively low shear environment, which should allow it to maintain intensity. The Caribbean low is also in a favorable low-shear environment.



Dry Air & Saharan Dust

Is the environment favorable for the system?

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





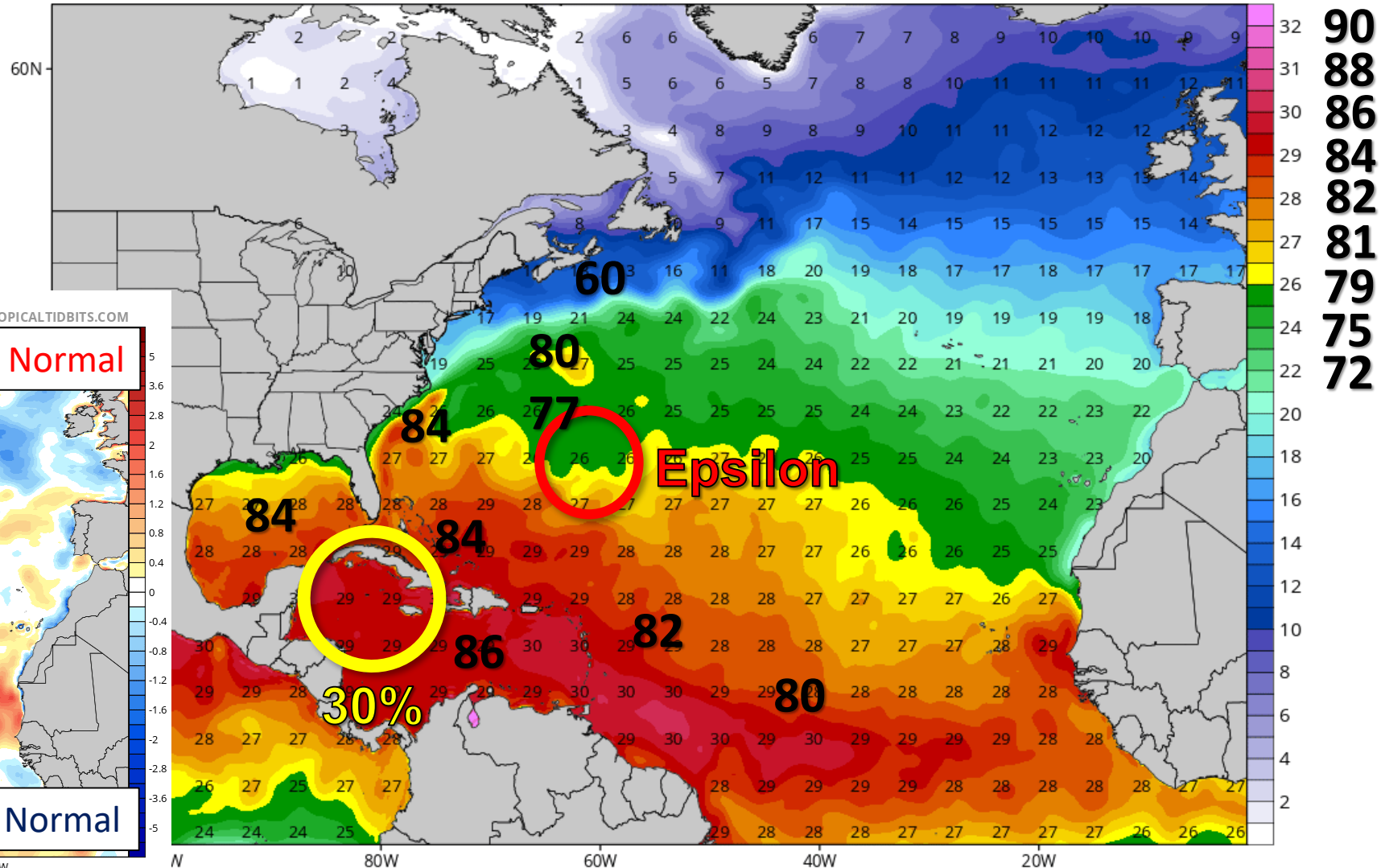
Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Waters become cooler ahead of Epsilon, but a cooler atmosphere overall may help it maintain its strength. The Caribbean remains well warm enough to support tropical systems.

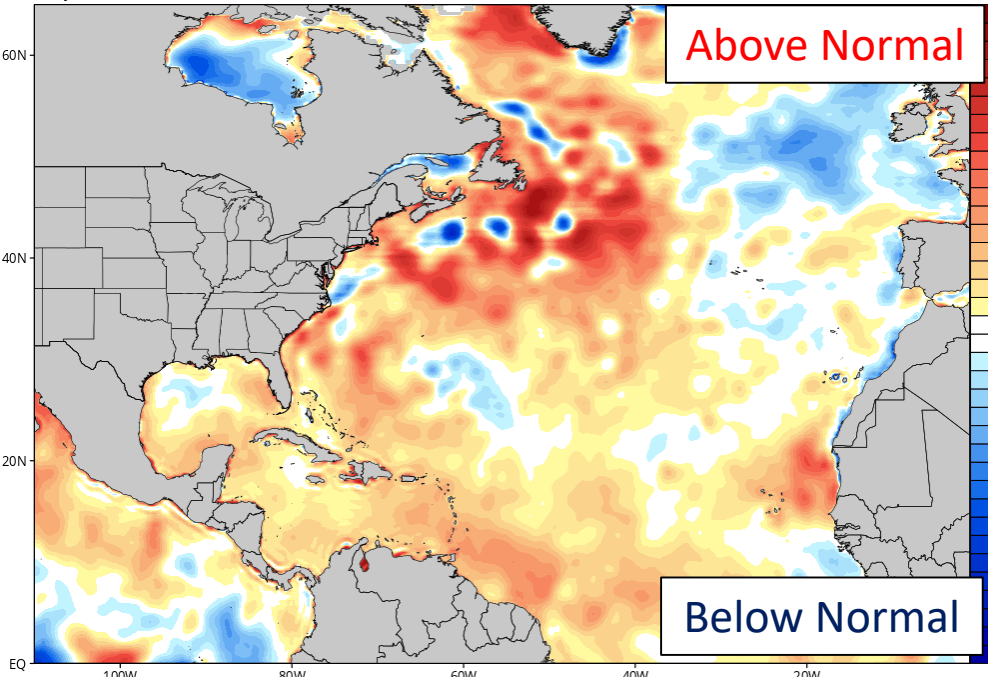
CDAS Sea Surface Temperature (°C)

Analysis Time: 00z Oct 22 2020



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

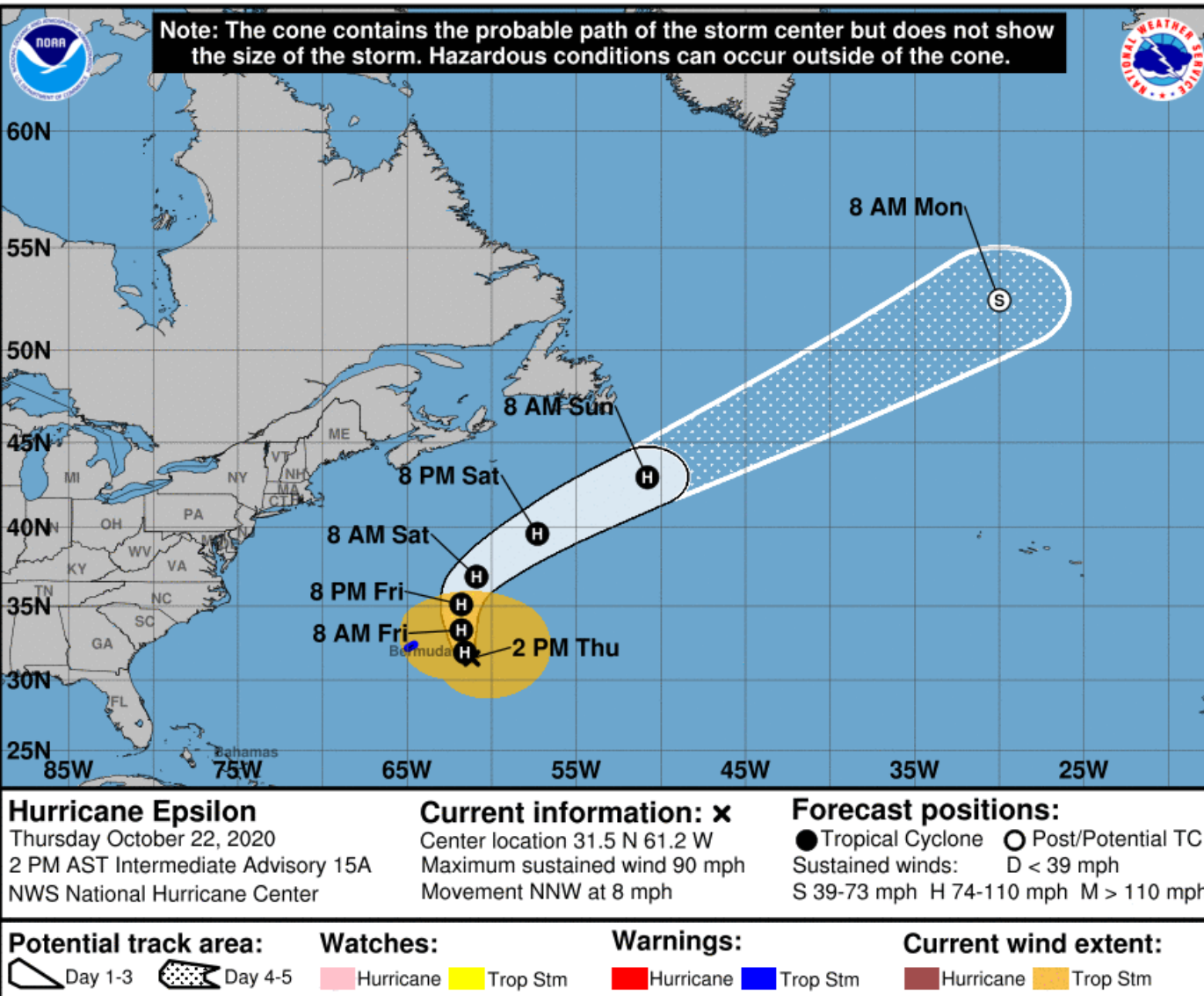
Analysis Time: 00z Oct 22 2020





Official Forecast Track

From the National Hurricane Center – Hurricane Epsilon



- The center of Hurricane Epsilon is located about 215 miles east-southeast of Bermuda.
- Epsilon became a major hurricane yesterday, but has weakened since. It now has winds of 90 mph (Category 1).
- Epsilon is moving to the north-northwest at 8 mph, and a turn toward the northeast is expected this weekend.
- Swells from Epsilon will impact the East Coast through this weekend, increasing the rip current risk and resulting in some beach erosion for the upcoming weekend.



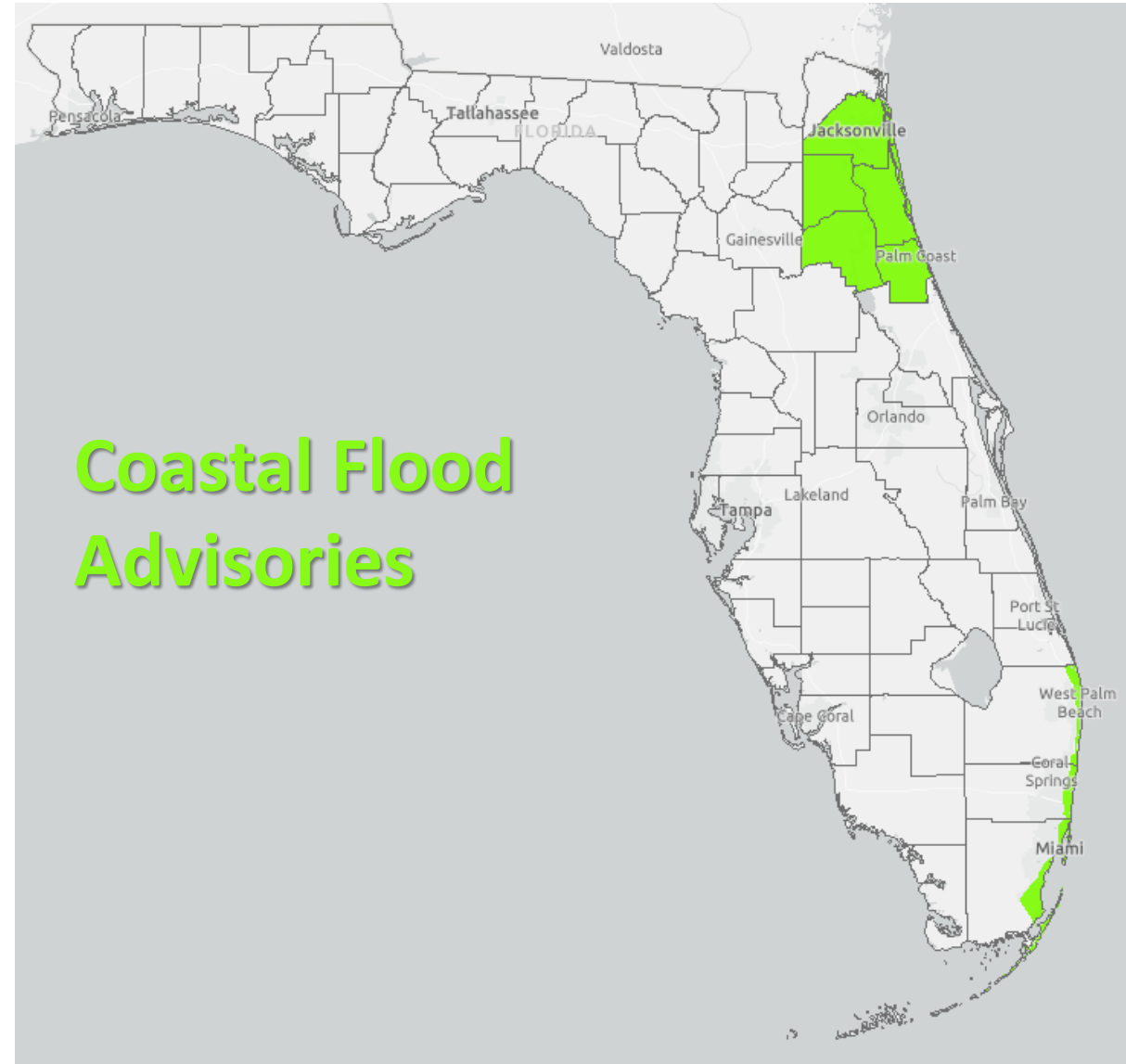
Coastal Flood Threat

Through this Evening

Swells from Hurricane Epsilon, the King Tides, and the persistent easterly winds will result in minor coastal flooding along parts of Northeast Florida, the tidal St. Johns River, Southeast Florida, and the Upper Florida Keys.

Flooding along the coast will be exacerbated by any heavy rainfall at high tide.

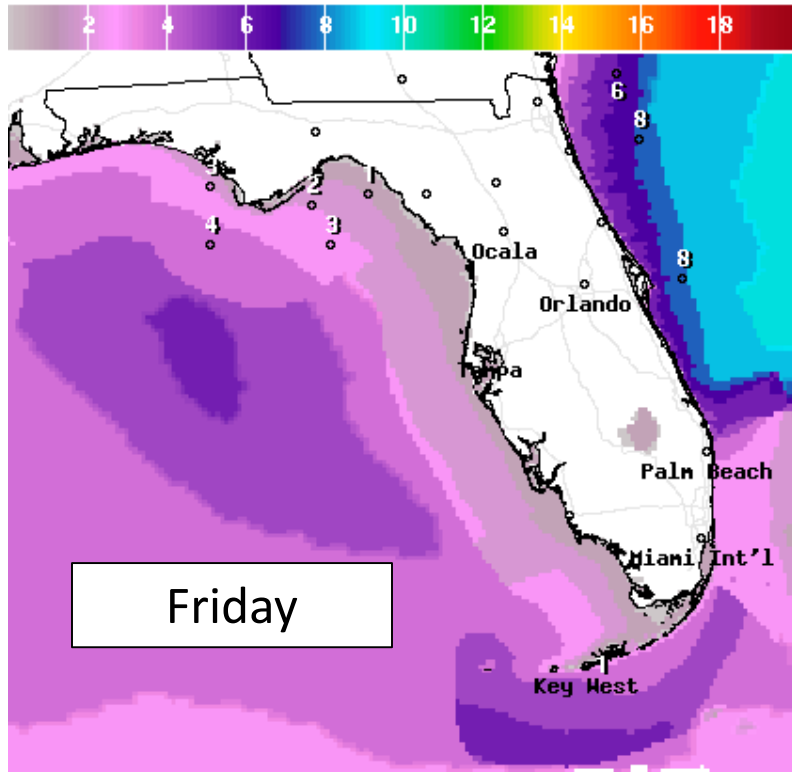
**Coastal Flood
Advisories**





Forecast Wave Heights

Next 3 Days



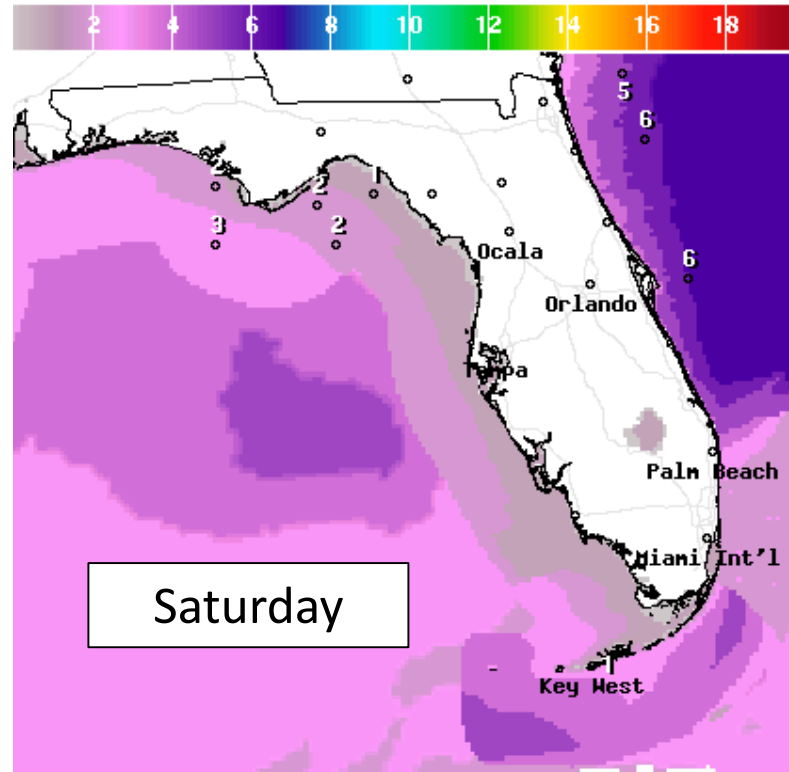
Wave Height(ft) Ending Fri Oct 23 2020 8PM EDT
(Sat Oct 24 2020 00Z)



National Digital Forecast Database

16z issuance

Graphic created-Oct 22 12:59PM EDT



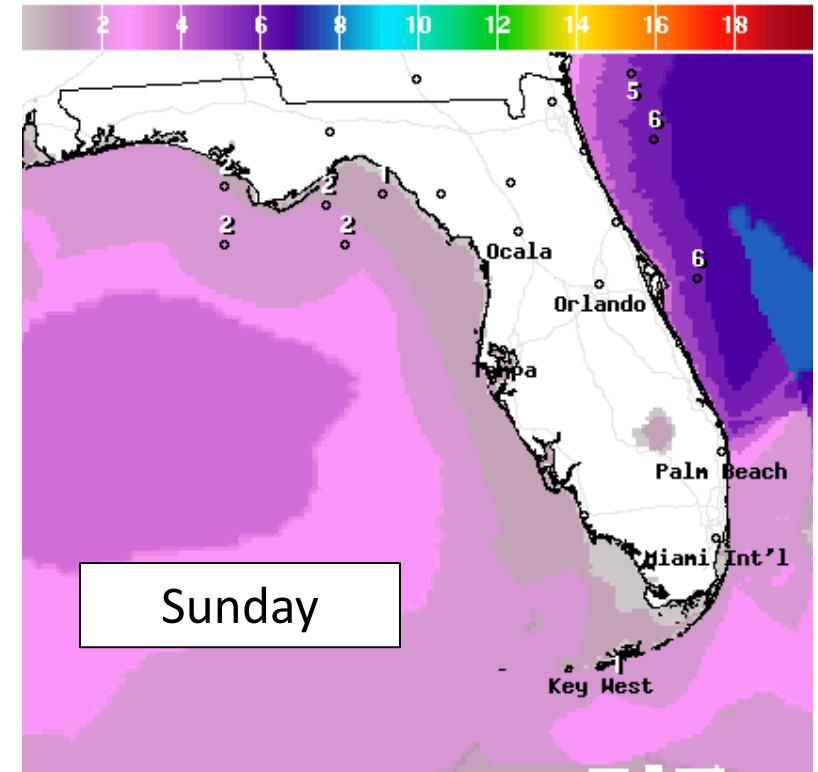
Wave Height(ft) Ending Sat Oct 24 2020 8PM EDT
(Sun Oct 25 2020 00Z)



National Digital Forecast Database

16z issuance

Graphic created-Oct 22 1:00PM EDT



Wave Height(ft) Ending Sun Oct 25 2020 8PM EDT
(Mon Oct 26 2020 00Z)



National Digital Forecast Database

13z issuance

Graphic created-Oct 22 9:58AM EDT



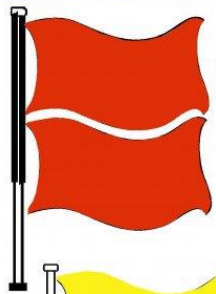
High surf of 4-8' is expected along many East Coast beaches through this weekend as winds remain breezy and swells from Hurricane Epsilon arrive. This could result in some beach erosion over the weekend. Dangerous rip currents are expected. The breezy winds will also result in possibly dangerous rip currents along the Panhandle.



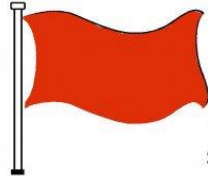
Rip Current Outlook

Today

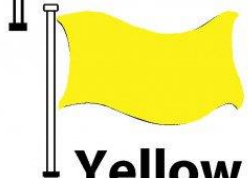
BEACH FLAG WARNING SYSTEM



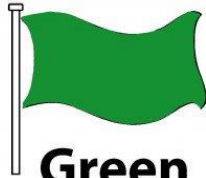
Double Red
Water Closed to
Public Use



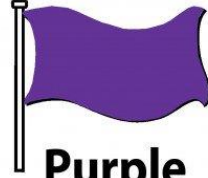
Red
High Hazard
(rough conditions,
such as strong surf
and or currents)



Yellow
Medium Hazard
(light surf and or
currents)

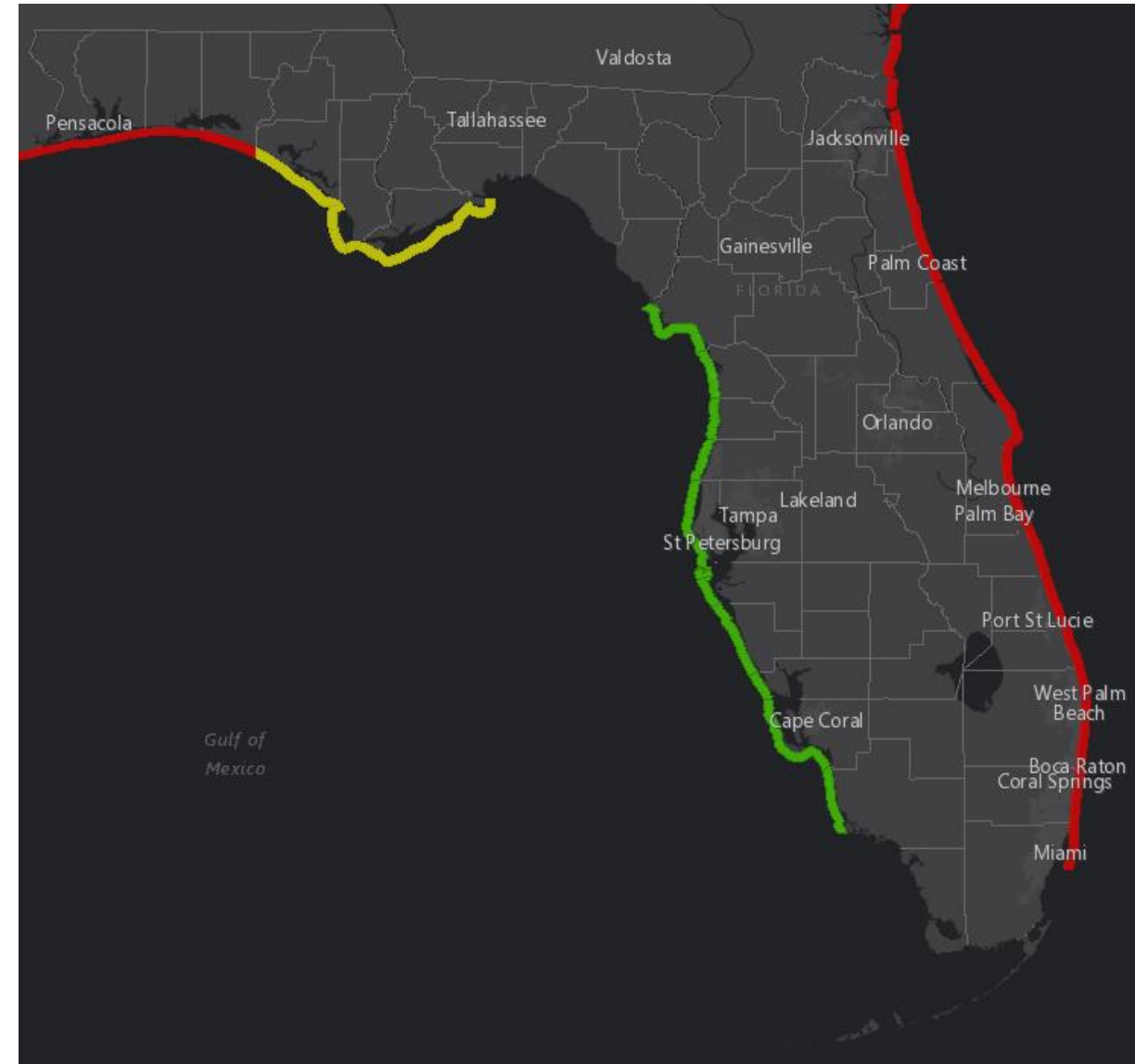


Green
Low Hazard
(calm conditions)



Purple
Marine Pest
(jellyfish, stingrays
& dangerous fish)

Long period swells from distant Hurricane Epsilon will keep the rip current risk high at Atlantic beaches.





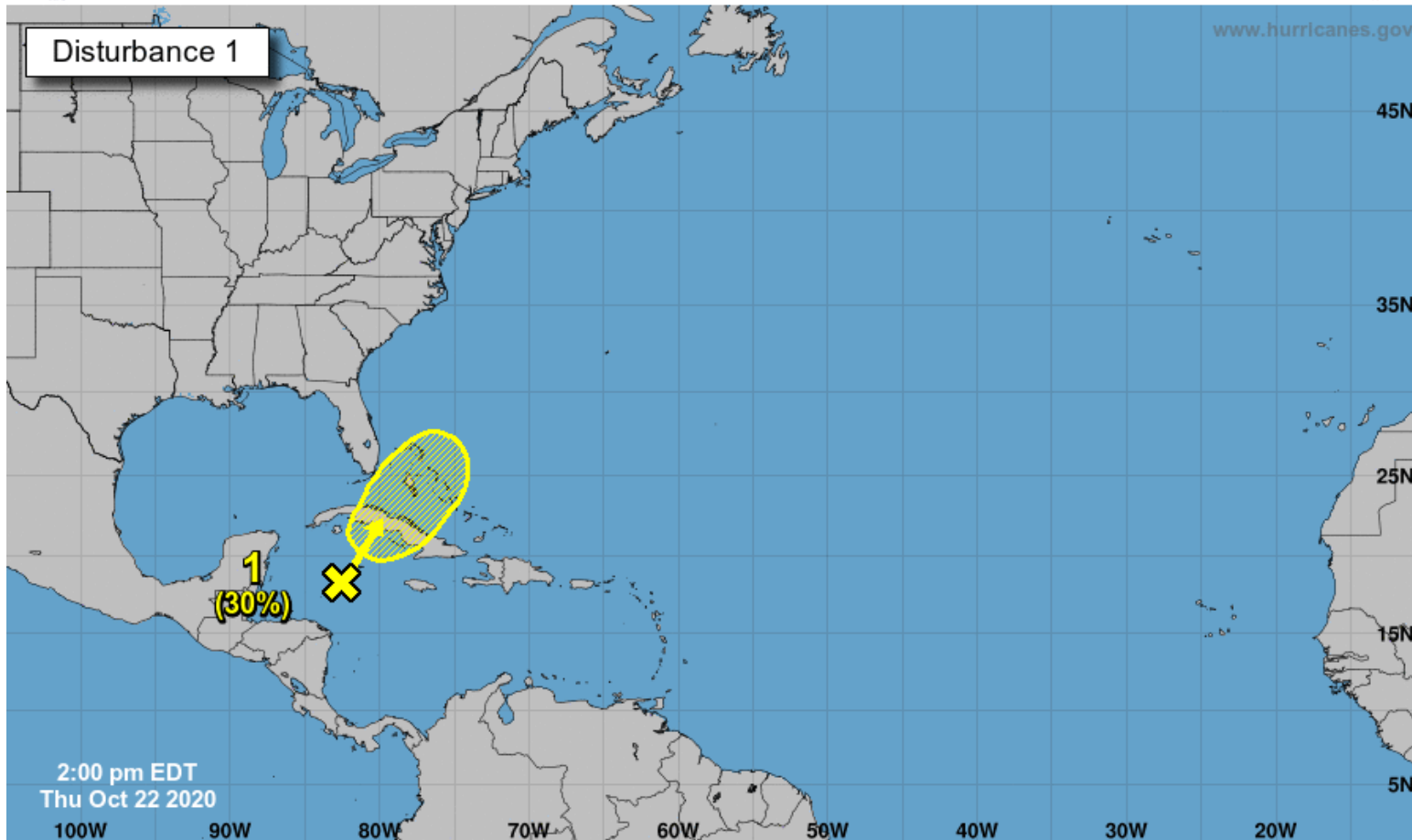
Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



A trough of low pressure located over the western Caribbean Sea is producing a large area of disorganized showers and thunderstorms which primarily extend near Jamaica, the Cayman Islands, and Cuba.

Some slow development of this system is possible during the next few days while it moves northeastward near western or central Cuba, the Straits of Florida, and the Bahamas through the weekend.

Regardless of development, locally heavy rainfall is possible over portions of Cuba, South Florida, and the Bahamas through early next week.

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

***Formation chance through 5 days...low...30%**

Current Disturbances and Five-Day Cyclone Formation Chance:
 Tropical or Sub-Tropical Cyclone:
 < 40% 40-60% > 60%
 Depression Storm Hurricane
 Post-Tropical Cyclone or Remnants



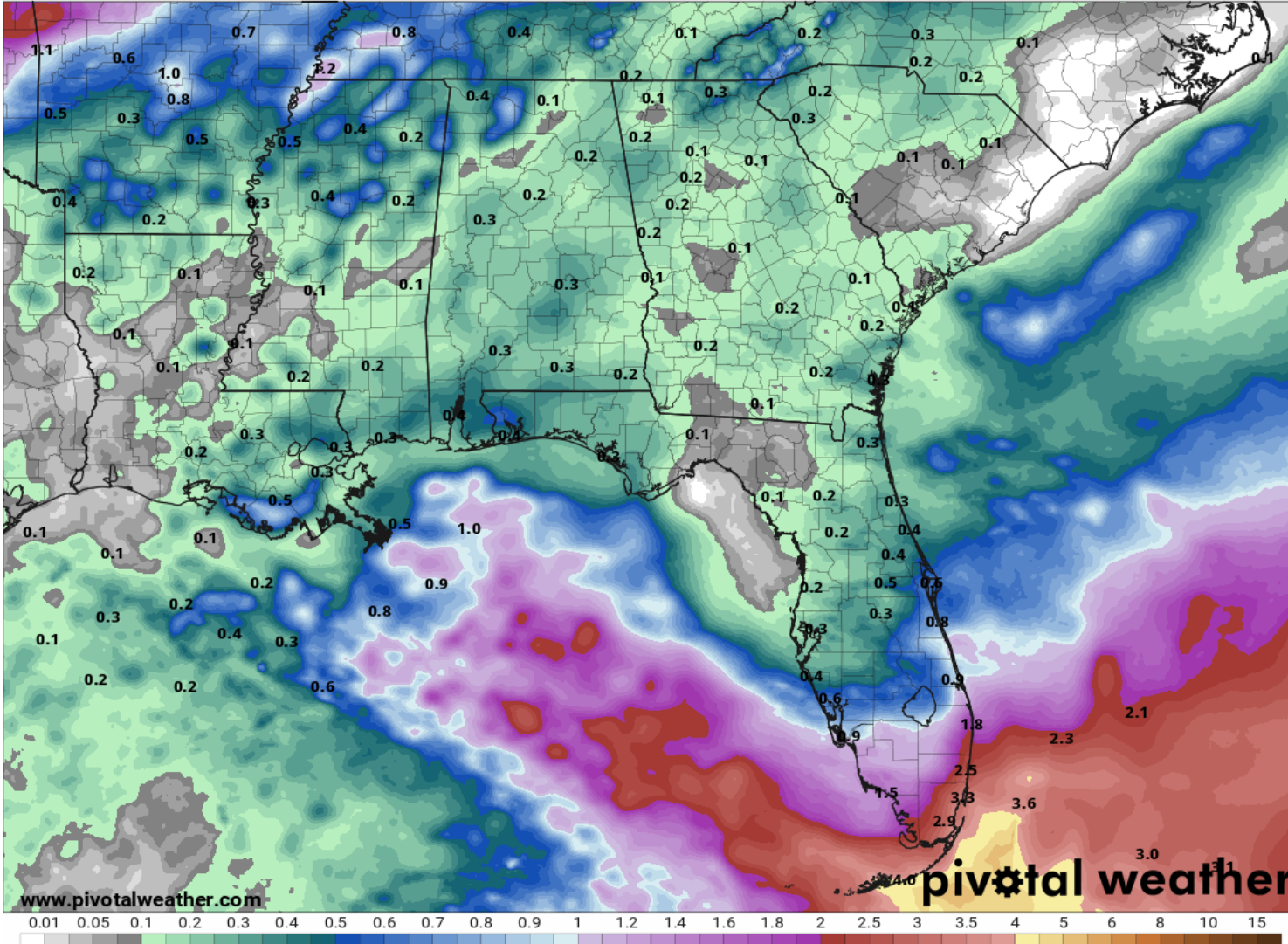
Rainfall Totals Next 5 Days

Ending 8 AM ET Tuesday

120-Hour Precipitation (in)

Ending Tuesday, Oct. 27, 2020 at 8 a.m. EDT

Init: Thu 2020-10-22 12z WPC



Rainfall totals of 2-4", locally higher, are expected across Southeast Florida with generally 1-2" elsewhere across South Florida.

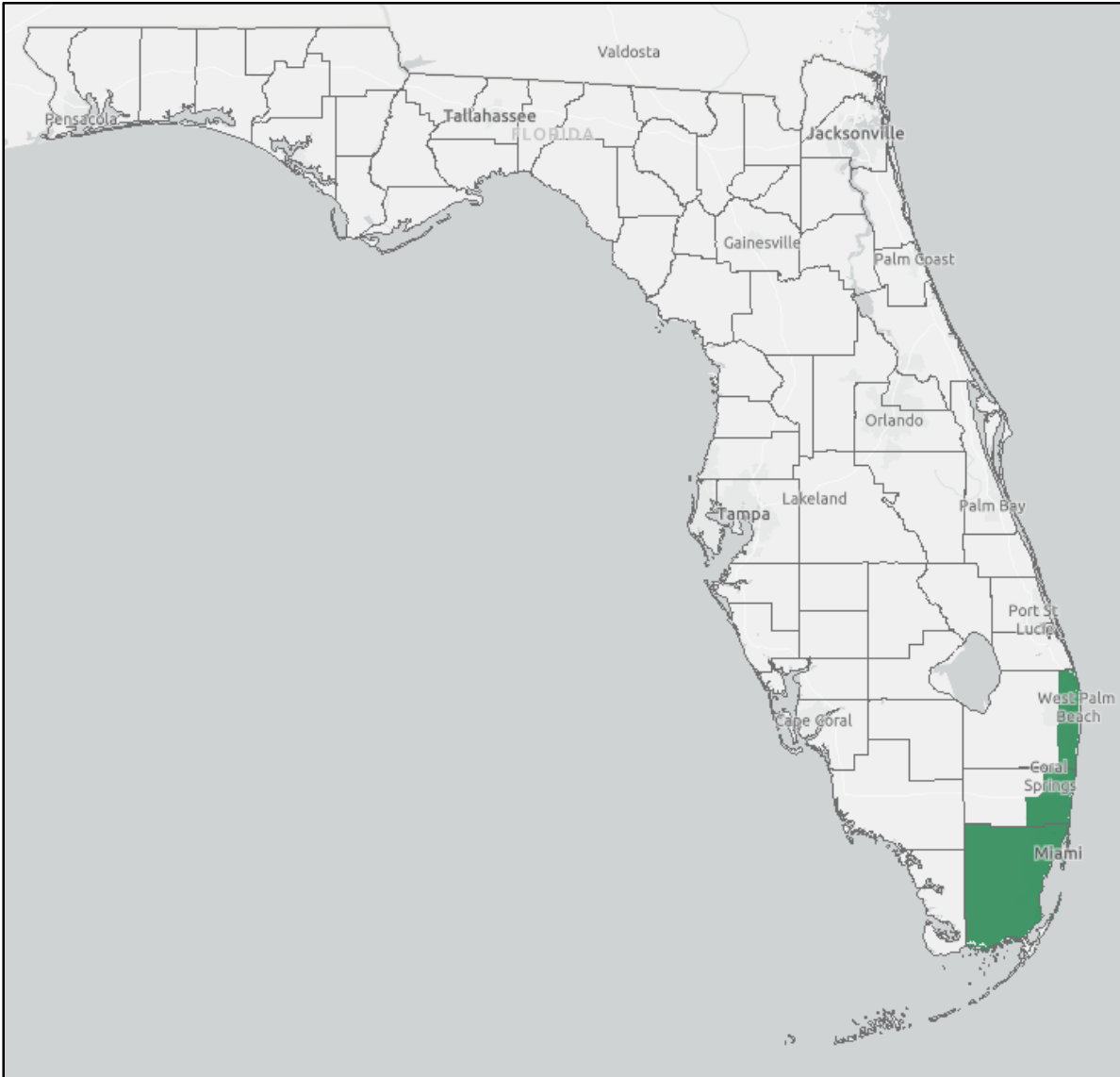
Some parts of metro Southeast Florida have seen 4-8" of rain in the last 3 days.

Rainfall will be much lighter and much more scattered elsewhere in the state.



Flood Watches

Links: [NWS Miami](#)



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

***WHEN:** Until 8 PM ET tonight

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

Periods of heavy rainfall are possible into Thursday. Additional rain accumulations of 1 to 2 inches, with isolated amounts greater than 4 inches 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.



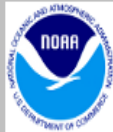
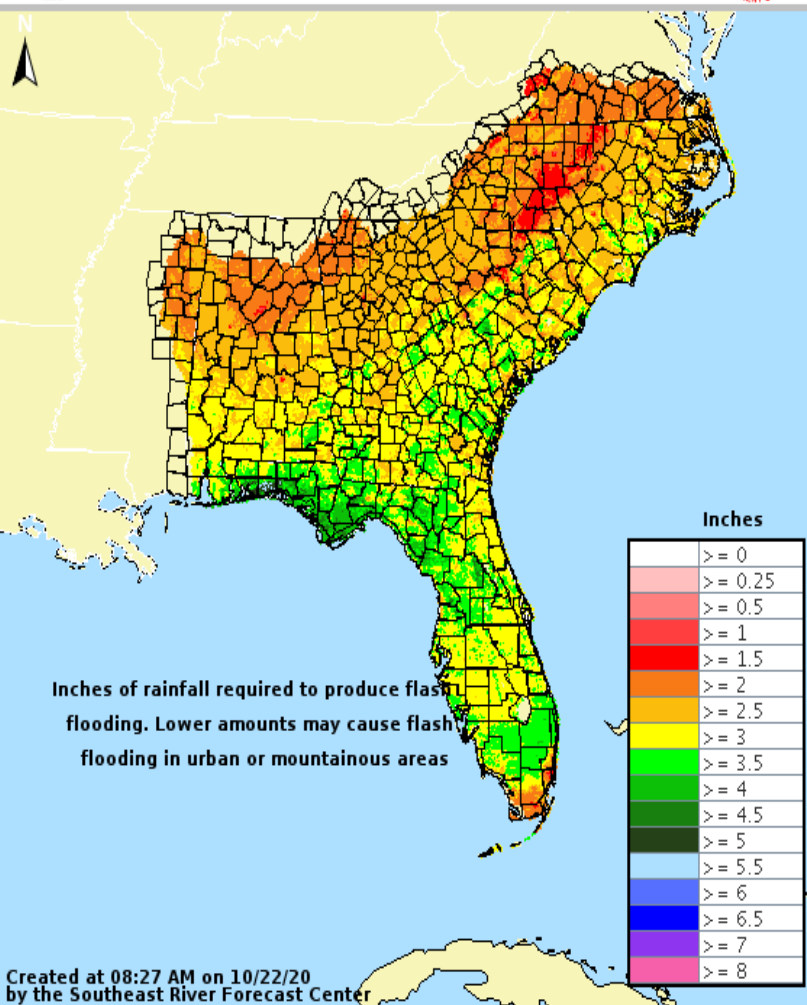
Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?



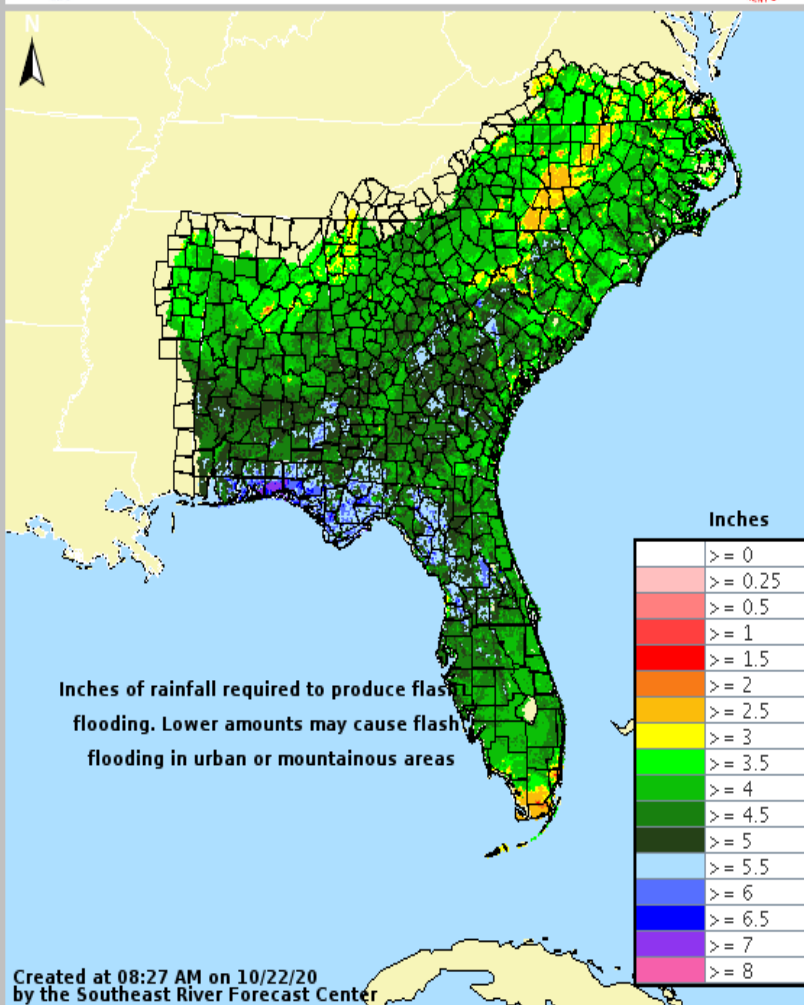
1-hr Flash Flood Guidance

Valid: 10/22/2020 @ 08:27 AM



6-hr Flash Flood Guidance

Valid: 10/22/2020 @ 08:27 AM



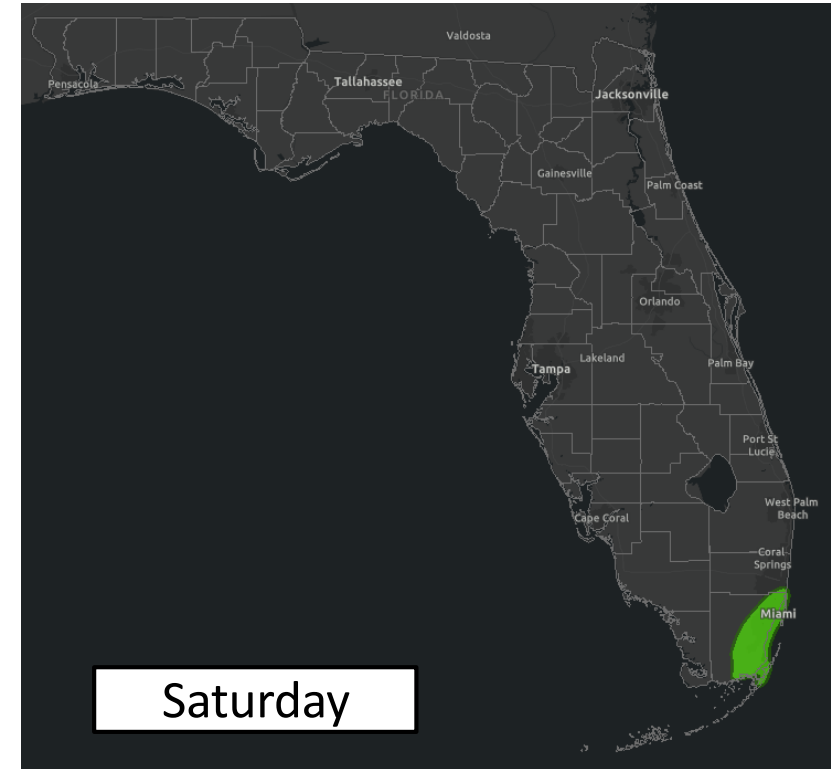
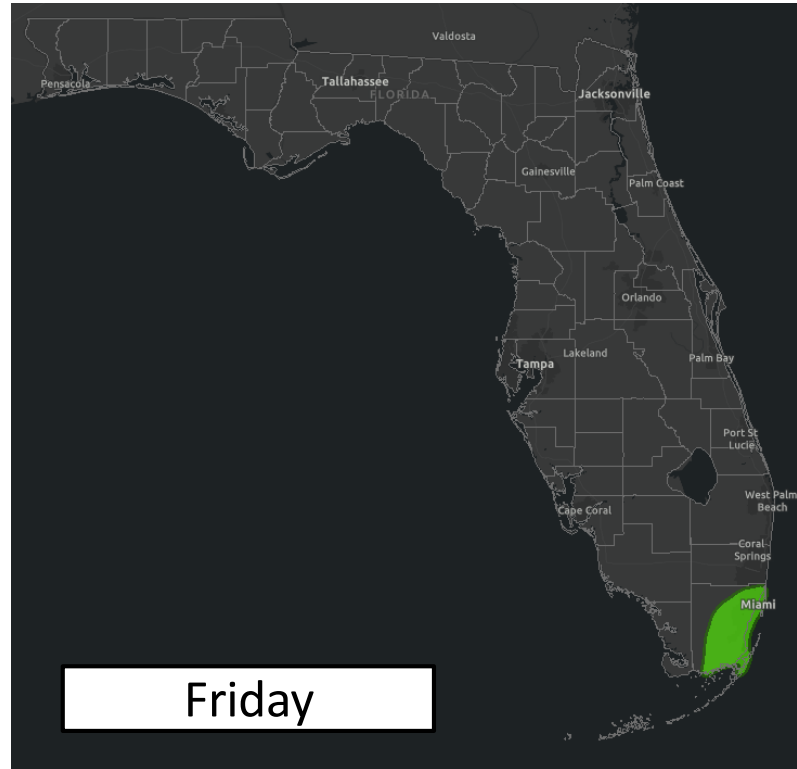
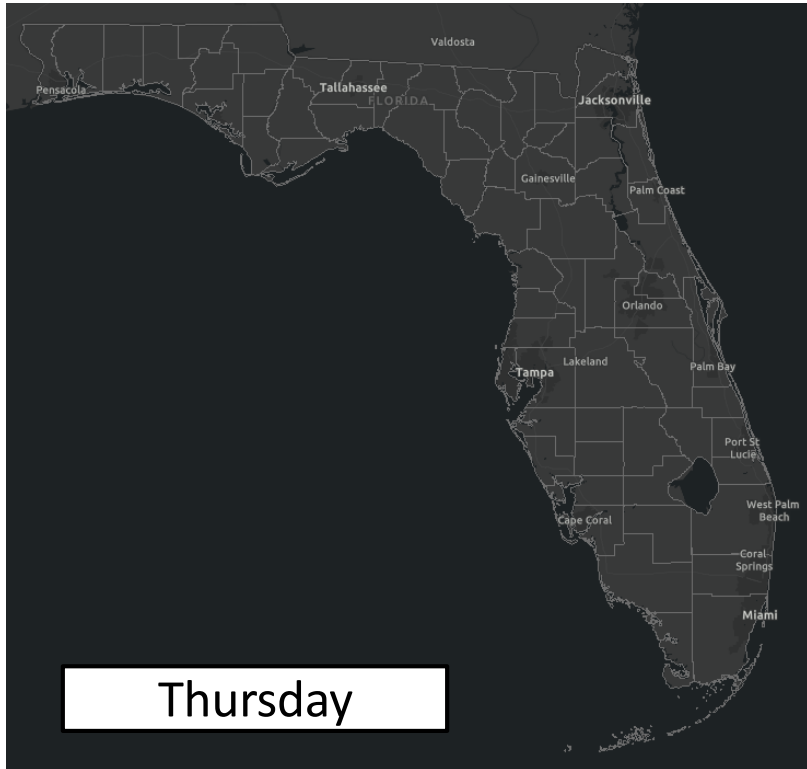
Across Southeast Florida, it will only take about 1.5-3" within 1 hour or about 2-4" within 6 hours to cause flash flooding.

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%

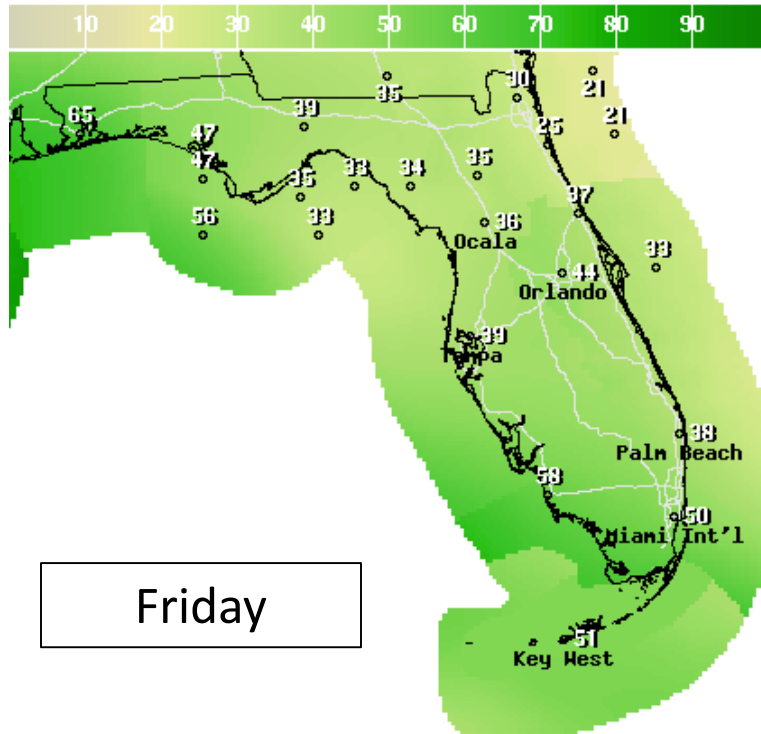
MRGL: 5%-10%

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



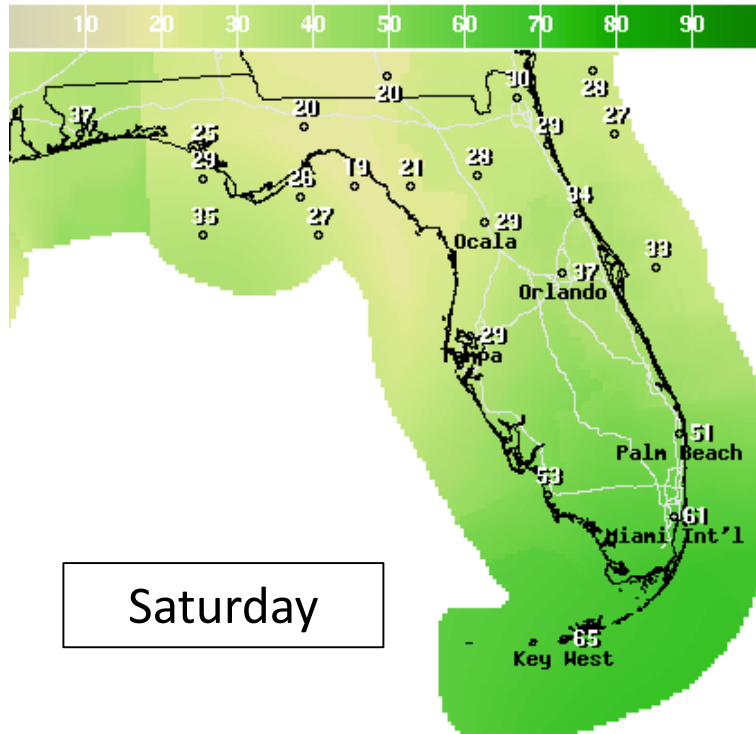
Forecast Rain Chances

Next 3 Days



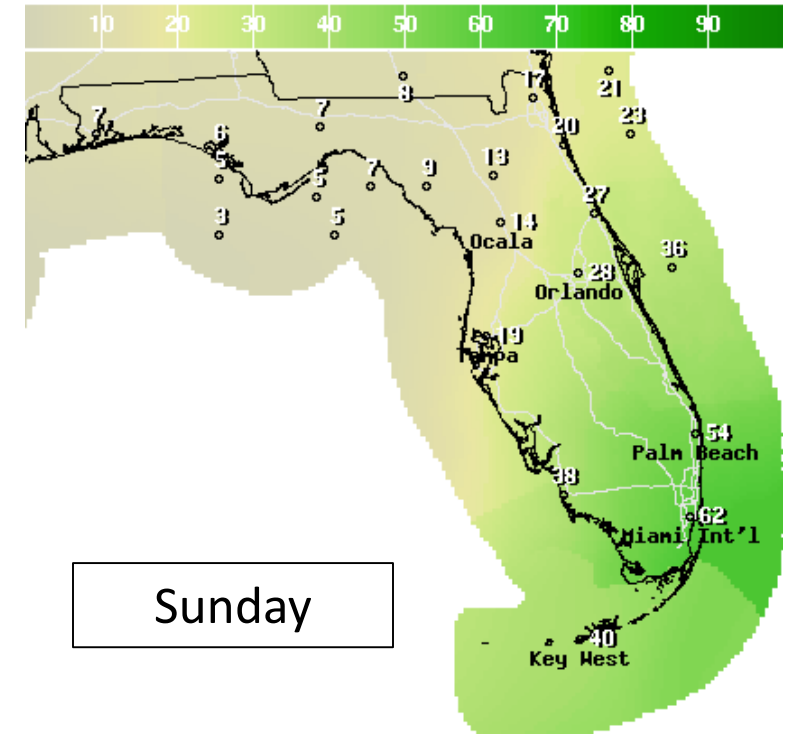
Friday

12Hr Prob.Precip(%) Ending Fri Oct 23 2020 8PM EDT
(Sat Oct 24 2020 00Z)
National Digital Forecast Database
16z issuance Graphic created-Oct 22 1:01PM EDT



Saturday

12Hr Prob.Precip(%) Ending Sat Oct 24 2020 8PM EDT
(Sun Oct 25 2020 00Z)
National Digital Forecast Database
16z issuance Graphic created-Oct 22 1:01PM EDT



Sunday

12Hr Prob.Precip(%) Ending Sun Oct 25 2020 8PM EDT
(Mon Oct 26 2020 00Z)
National Digital Forecast Database
13z issuance Graphic created-Oct 22 10:02AM EDT

Numerous showers and storms will remain possible across South Florida through this weekend as the Caribbean system moves into the Bahamas. How close the system gets to South Florida will cause these rain chances to either increase or decrease. Scattered showers and storms are possible elsewhere in the state.



Overall Summary

Hurricane Epsilon

- The center of Epsilon is located about 215 miles east-southeast of Bermuda.
- Epsilon became a major hurricane yesterday, but has since weakened. Maximum sustained winds are near 90 mph (Category 1).
- Epsilon is moving to the north-northwest at 8 mph, and a turn northeast is expected over the weekend.
- Little change in strength is forecast over the next day or so, followed by a slow weakening this weekend.

Western Caribbean/Bahamas

- The National Hurricane Center has highlighted this area once again for possible development.
- A trough of low pressure over the western Caribbean will move northeastward toward Cuba and the Bahamas this weekend.
- Some slow development is possible over the next few days. This system has a 10% (low) chance of formation during the next 48 hours and a 30% (low) chance during the next 5 days.

Florida Outlook:

- Epsilon poses no threat to Florida. Swells from Epsilon will impact the East Coast through the upcoming weekend, increasing the rip current risk and continuing the minor coastal flooding and beach erosion currently ongoing.
- Locally heavy rainfall and an isolated flash flood threat are possible across South Florida through the upcoming weekend. Flood Watches are in effect for coastal Southeast Florida.

The next briefing packet will be issued on Friday. 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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