



TROPICAL UPDATE



11:00 AM EDT

Thursday, October 1, 2020

Invest 91L - Western Caribbean (70%)

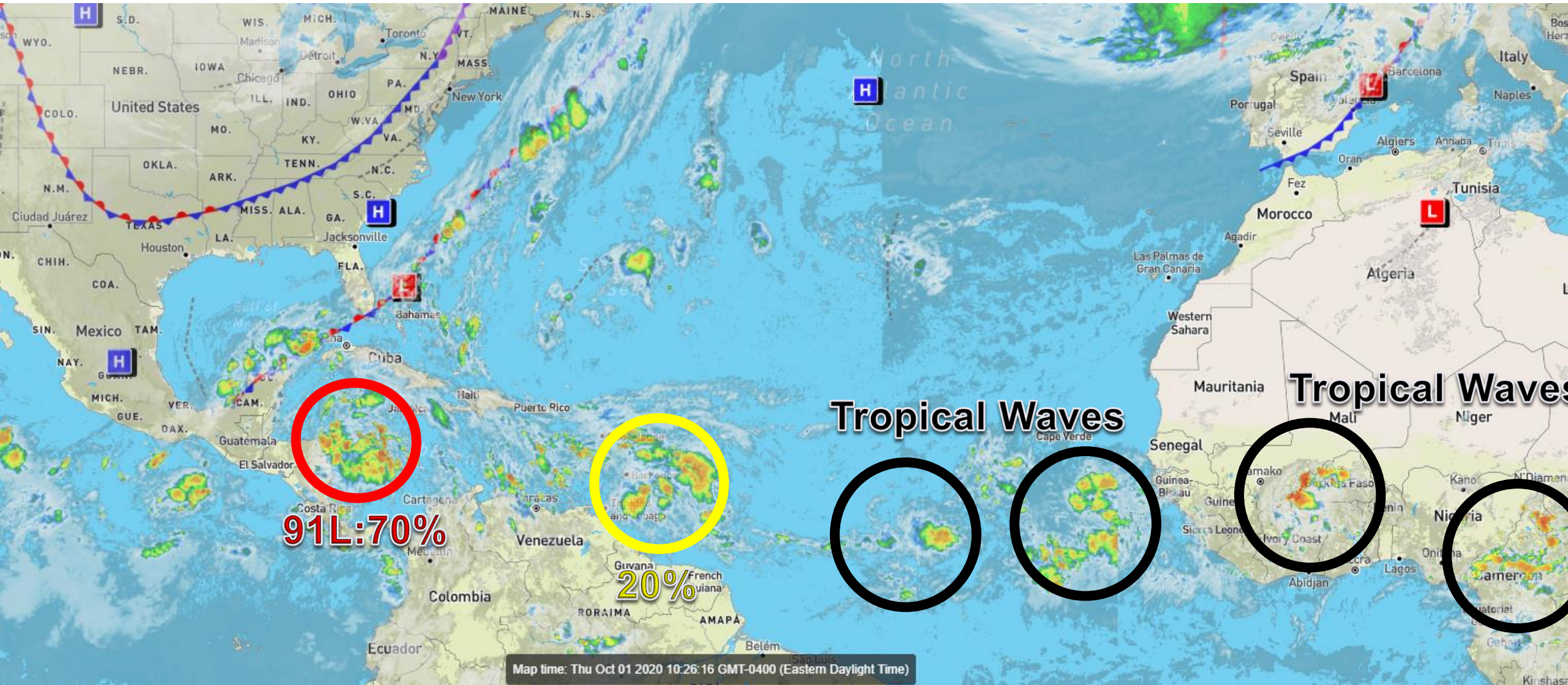
Lesser Antilles Wave (20%)

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.



Atlantic Basin Satellite Image

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





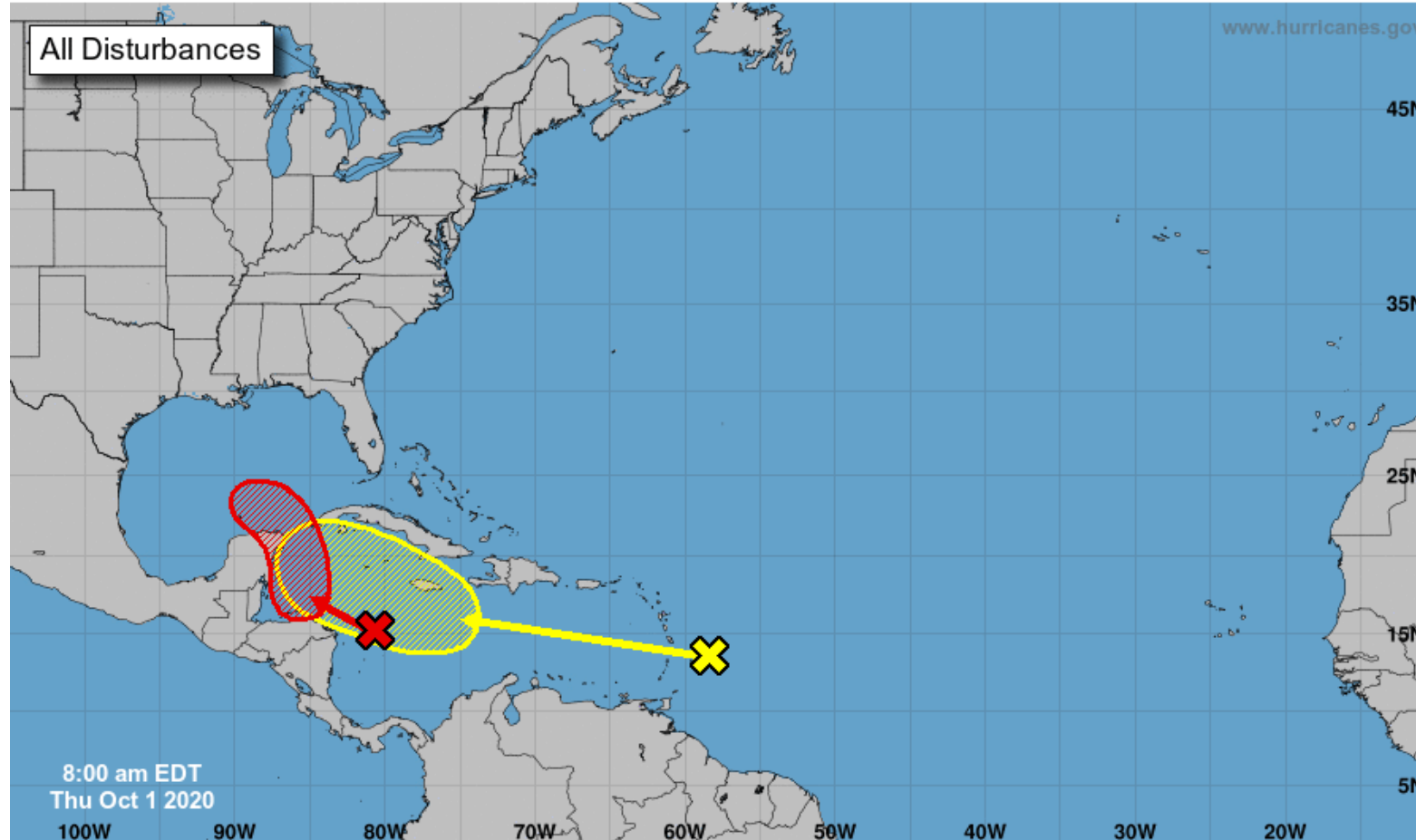
Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



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

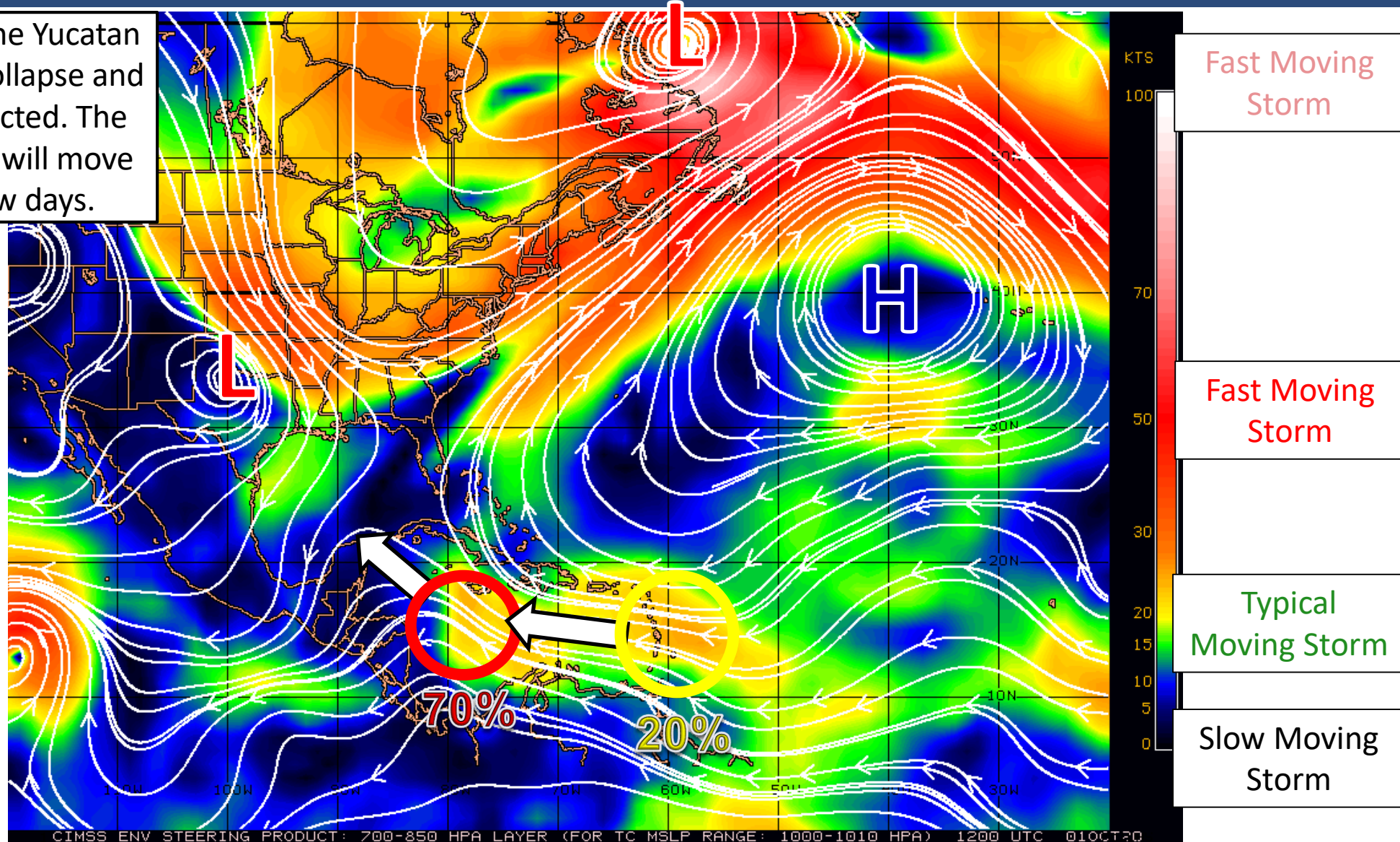


Steering Currents

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.

Once 91L (70%) approaches the Yucatan Peninsula, steering currents collapse and a slow, erratic motion is expected. The wave near the Lesser Antilles will move westward over the next few days.



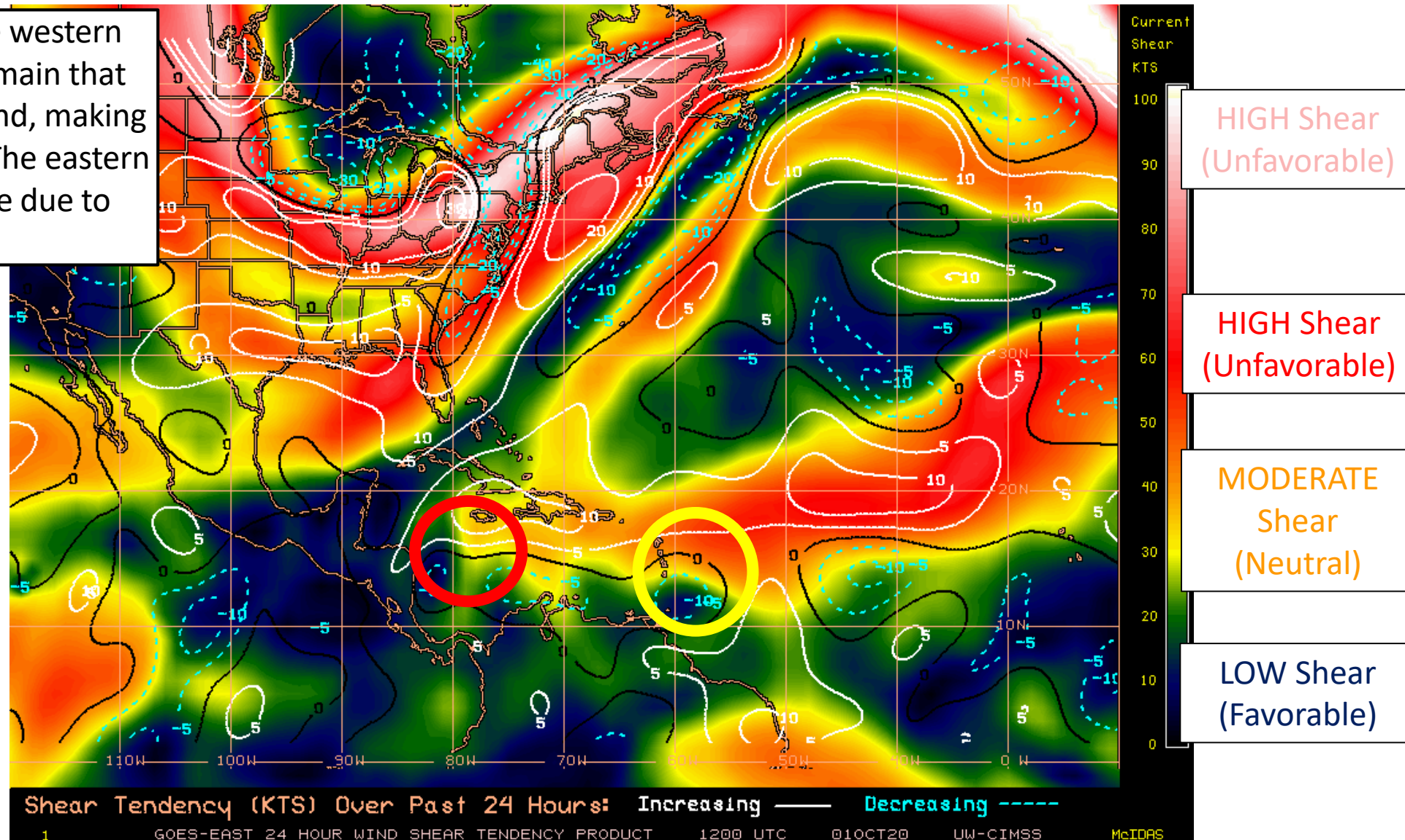


Wind Shear

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).

Wind shear is very low in the western Caribbean and forecast to remain that way into the upcoming weekend, making it favorable for development. The eastern Caribbean is not as favorable due to strong wind shear.

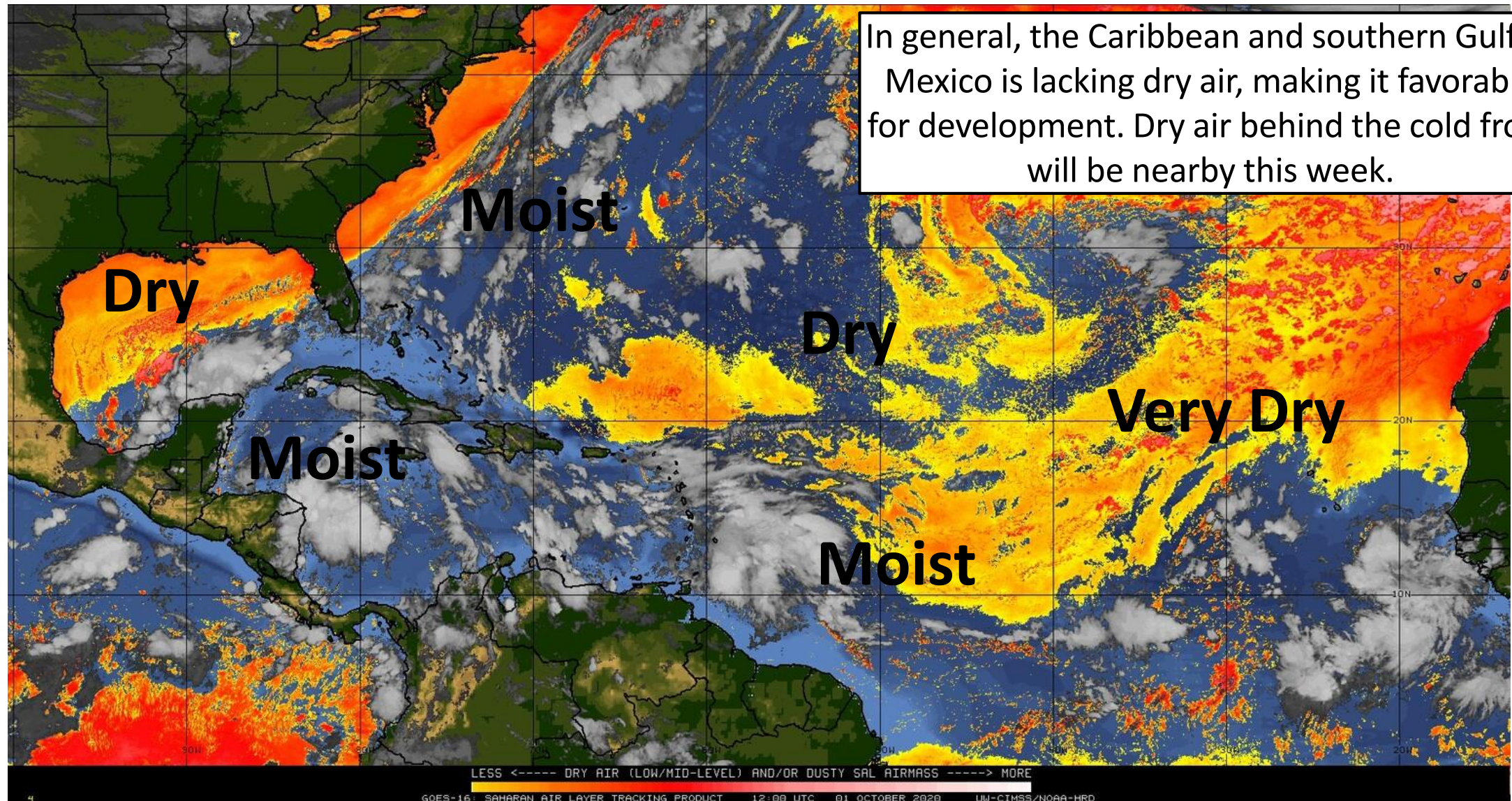




Dry Air & Saharan Dust

Is the environment favorable for the systems?

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



In general, the Caribbean and southern Gulf of Mexico is lacking dry air, making it favorable for development. Dry air behind the cold front will be nearby this week.

Moist

Dry

Dry

Very Dry

Moist

Moist

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

GOES-16: SAHARAN AIR LAYER TRACKING PRODUCT 12:00 UTC 01 OCTOBER 2020 UW-CIMSS/NOAA-HRD



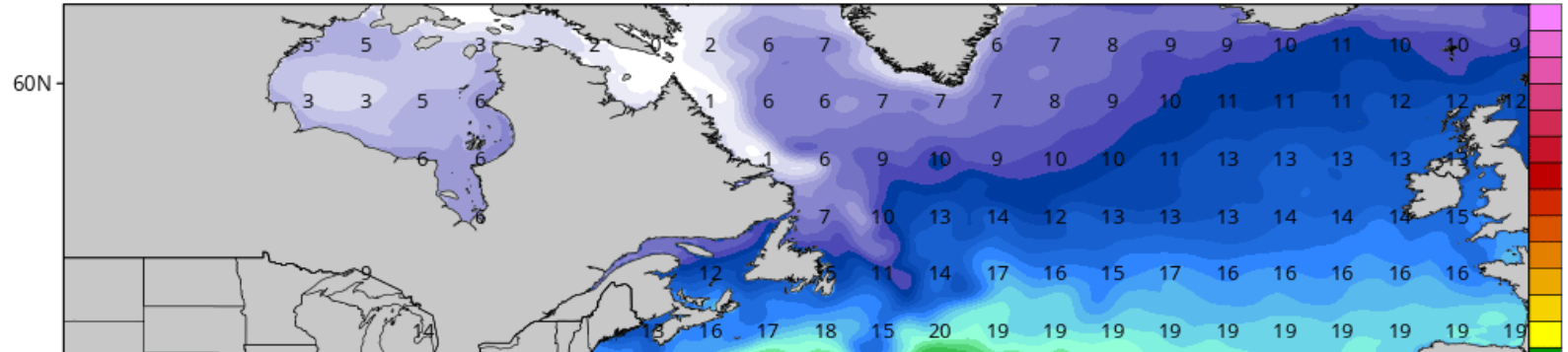
Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Water temperatures are supportive for tropical development across the entire Caribbean, with very warm, deep water. The recent stretch of storms has cooled waters in the northern Gulf of Mexico and near Bermuda.

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Oct 01 2020

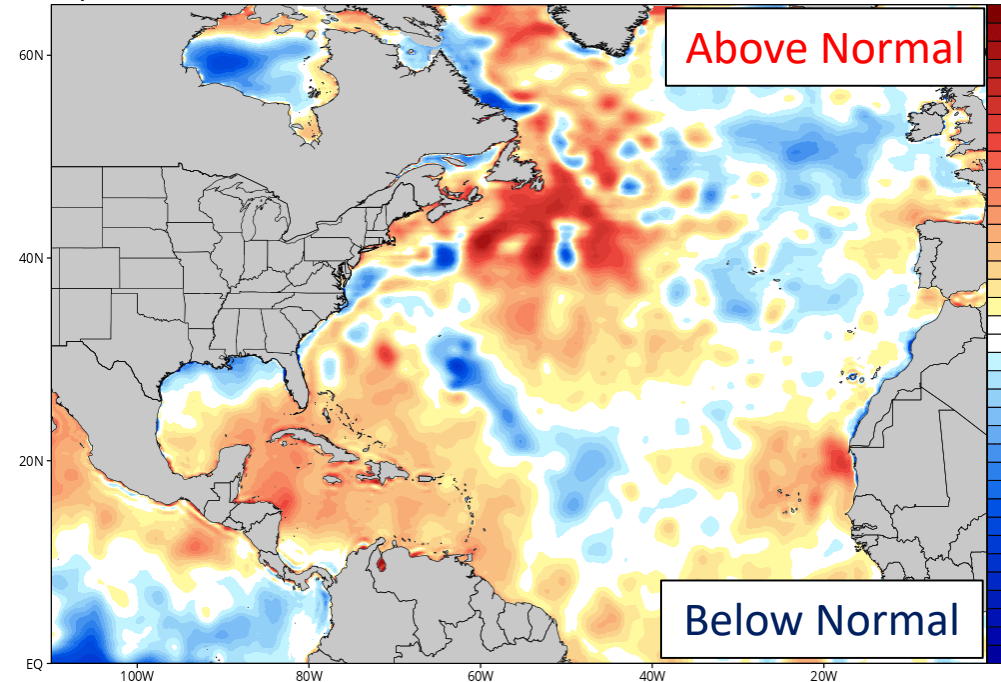


°F
90
88
86
84
82
81
79
75
72

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

Analysis Time: 06z Oct 01 2020

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Above Normal

Below Normal



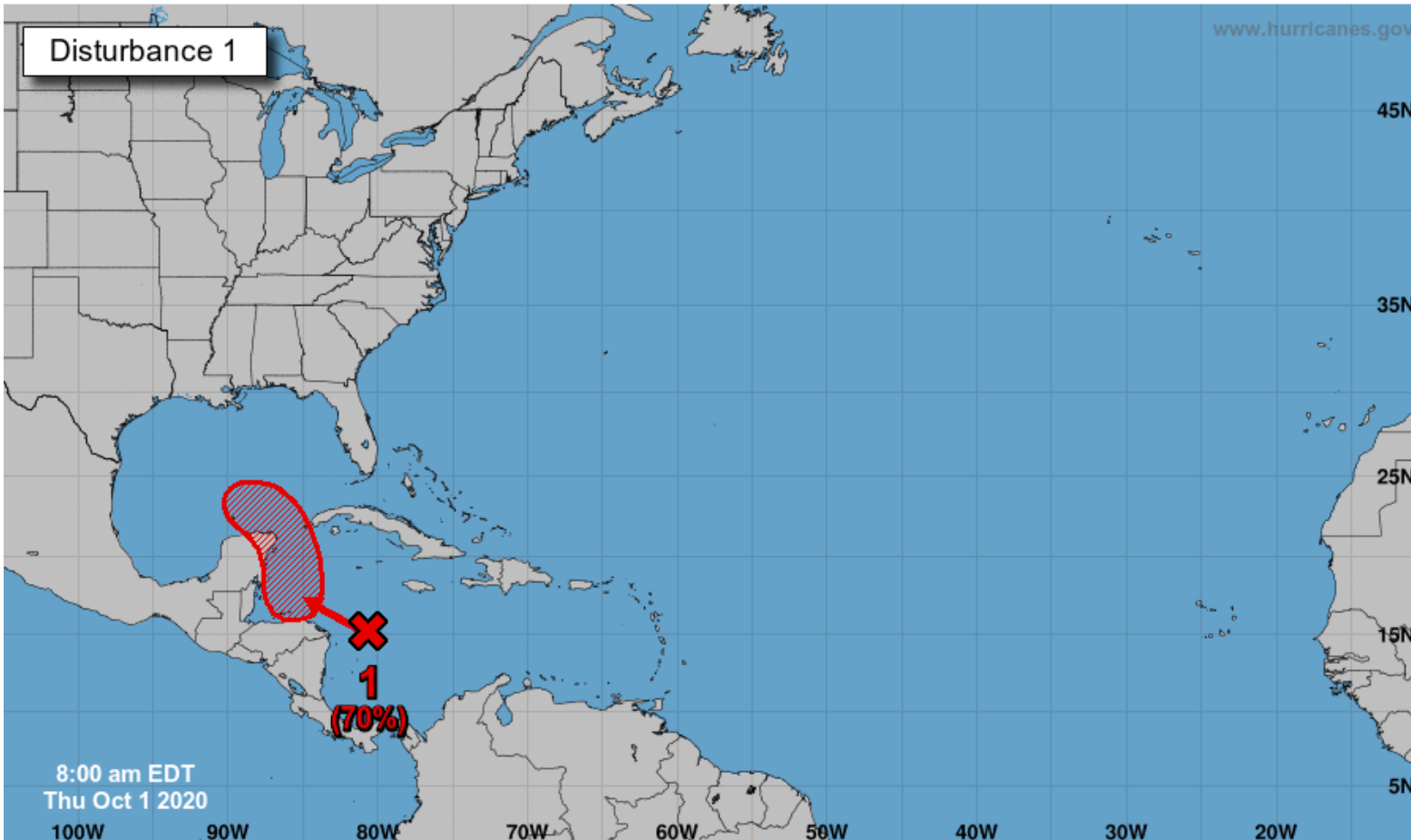
Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



A tropical wave located over the west-central Caribbean Sea is producing a large area of disorganized showers and thunderstorms.

Conditions are expected to be conducive for development of this system, and a tropical depression is likely to form over the northwestern Caribbean Sea or the south-central Gulf of Mexico, possibly before the system reaches the east coast of the Yucatan Peninsula on Saturday.

This system should be monitored closely this weekend, but is no immediate threat.

***Formation chance through 48 hrs...medium...40%**

***Formation chance through 5 days...high...70%**

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		

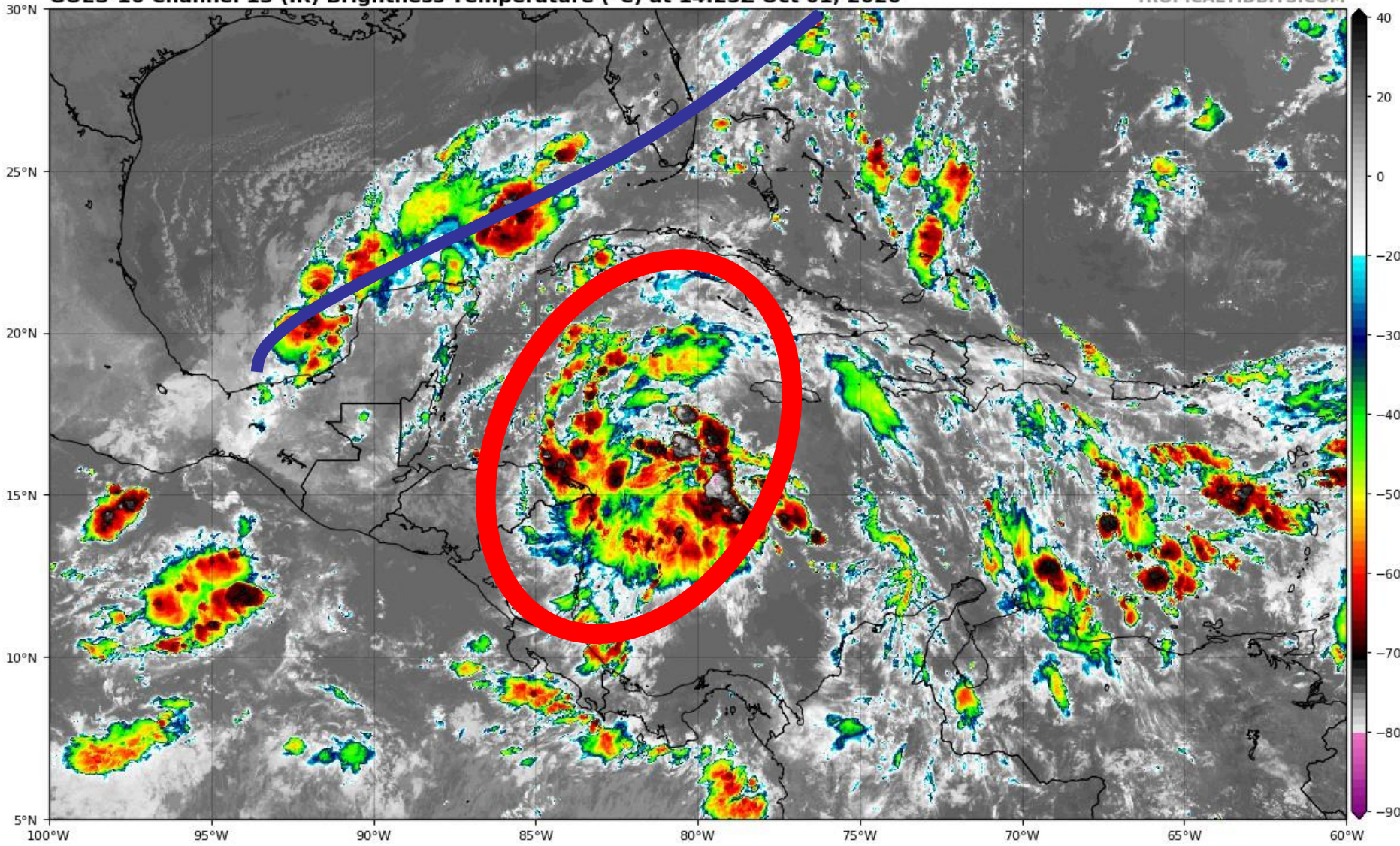


Satellite Imagery

Western Atlantic

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:25Z Oct 01, 2020

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A tropical wave currently in the western Caribbean is producing a large area of showers and a few thunderstorms, but remains disorganized. It is moving to the west.

A strong, early-season cold front has moved across the Gulf of Mexico and towards the Yucatan Peninsula.

These two systems will meet in the western Caribbean later this week and form an area of low pressure this weekend.



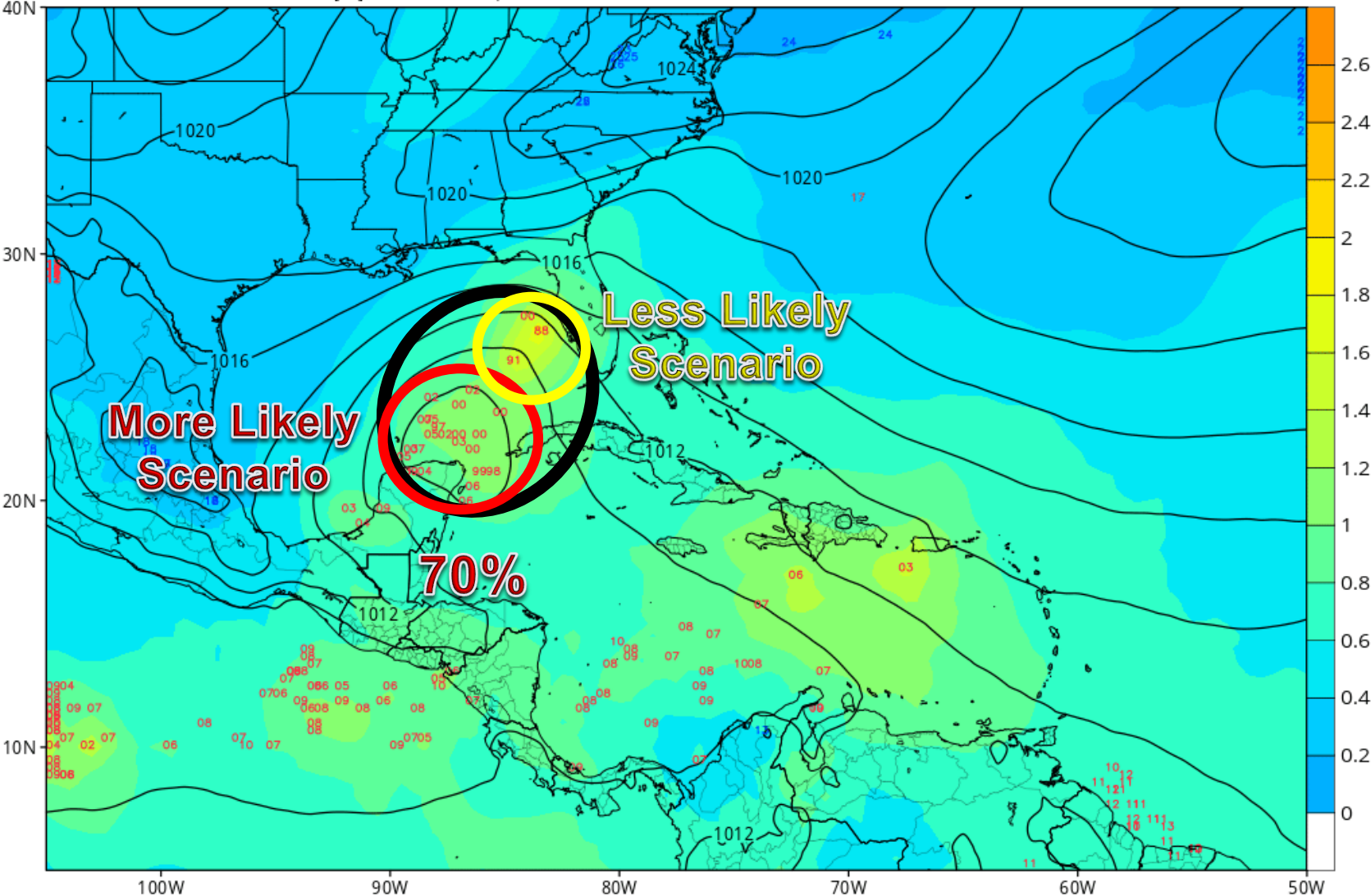
Possible Locations Sunday

Ensemble Models – Sunday Morning (Oct. 4)

GEFS Mean MSLP (mb), Ensemble Member Pressure Centers (Lows: red | Highs: blue), & Normalized Spread (σ)

Init: 06z Oct 01 2020 Forecast Hour: [78] valid at 12z Sun, Oct 04 2020

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Development chances are increasing for Invest 91L in the Caribbean. It may develop before reaching the Caribbean or in the southern Gulf of Mexico.

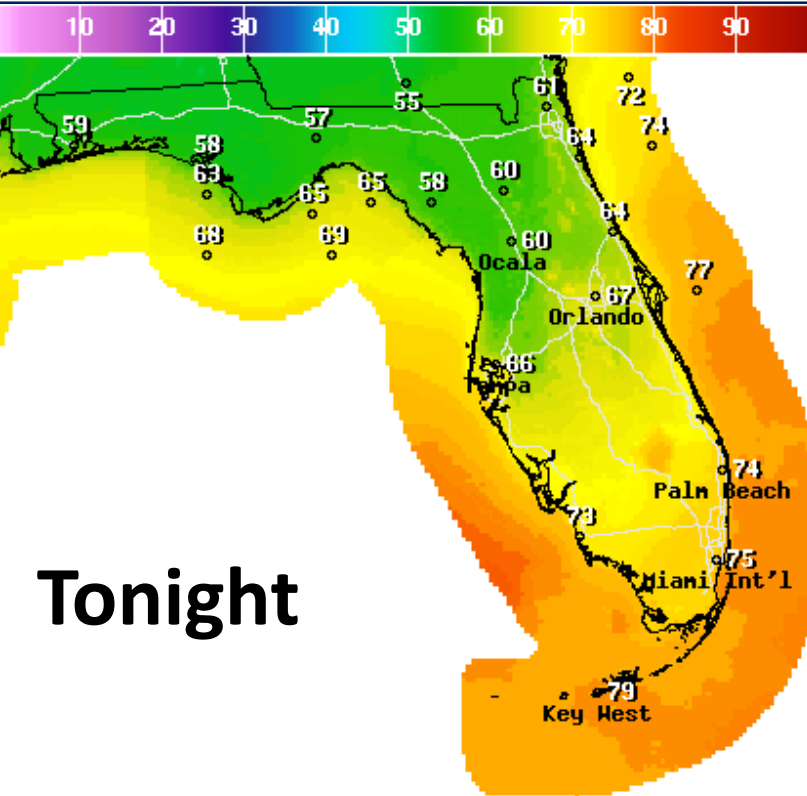
The most likely solution continues to be a weaker system drifting to the west near the Yucatan Peninsula or southern Gulf.

A further north solution, which is less likely but cannot be ruled out, would tend to bring more tropical moisture to the Peninsula this weekend or early next week.



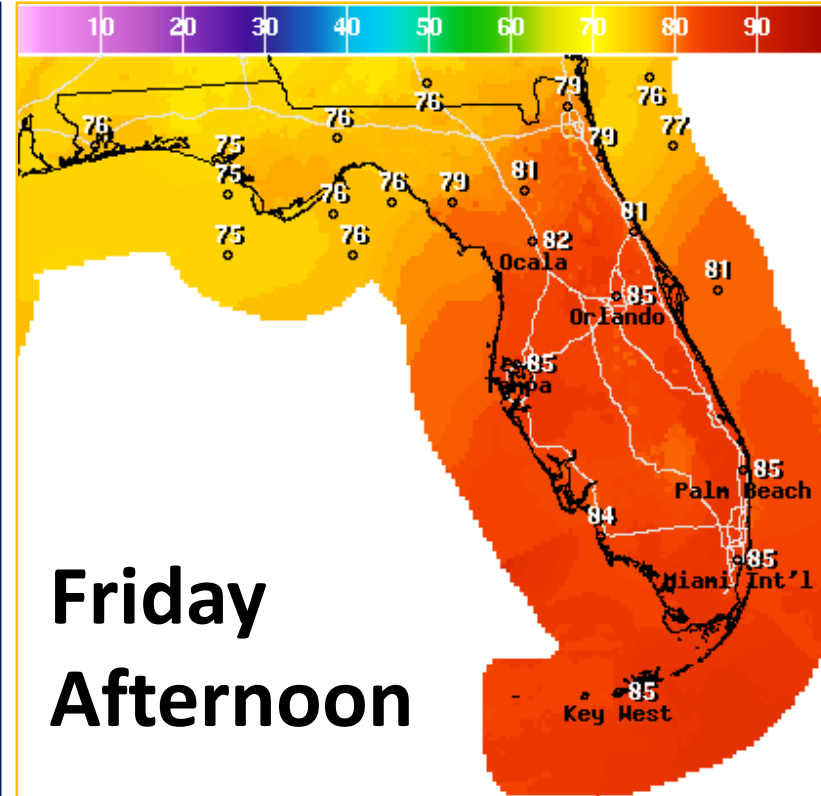
Forecast Temperatures

Tonight



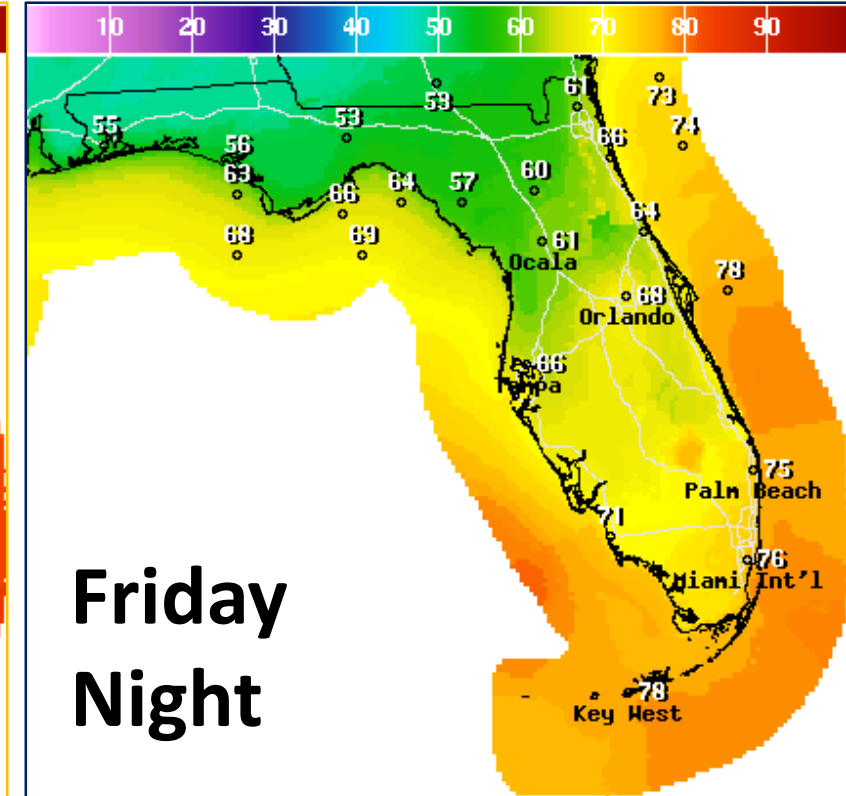
Low Temperature(F) Ending Fri Oct 02 2020 8AM EDT
(Fri Oct 02 2020 12Z)
National Digital Forecast Database
13z issuance Graphic created-Oct 01 9:14AM EDT

**Friday
Afternoon**



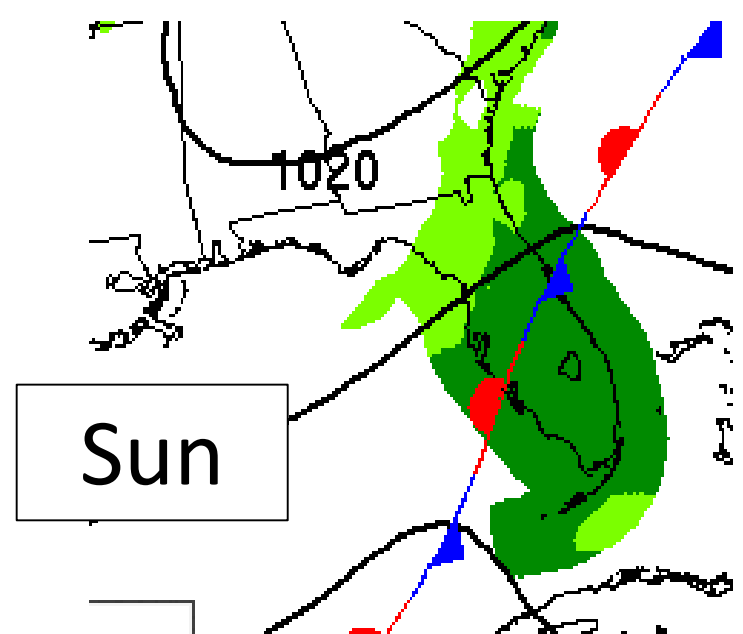
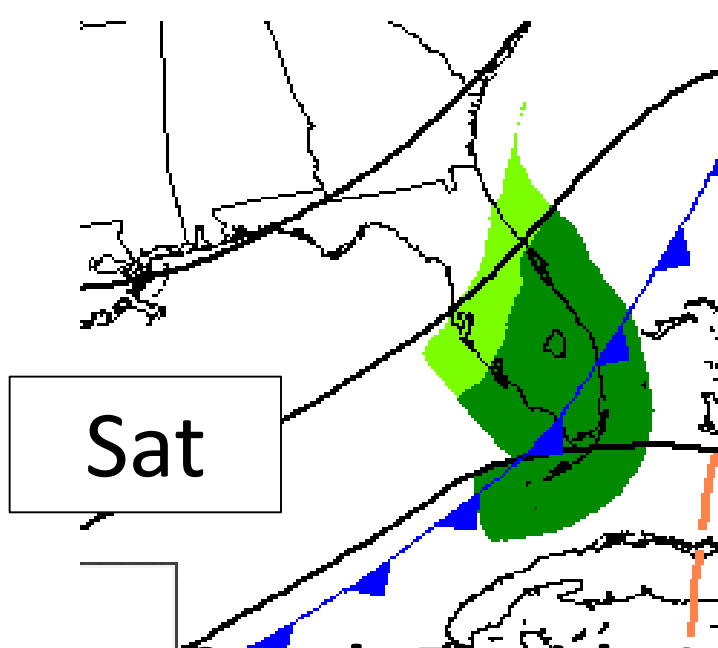
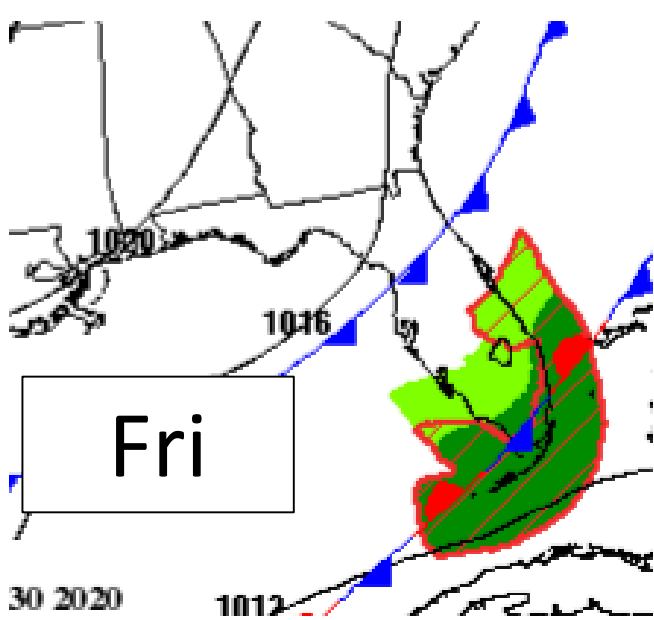
High Temperature(F) Ending Fri Oct 02 2020 8PM EDT
(Sat Oct 03 2020 00Z)
National Digital Forecast Database
14z issuance Graphic created-Oct 01 10:14AM EDT

**Friday
Night**

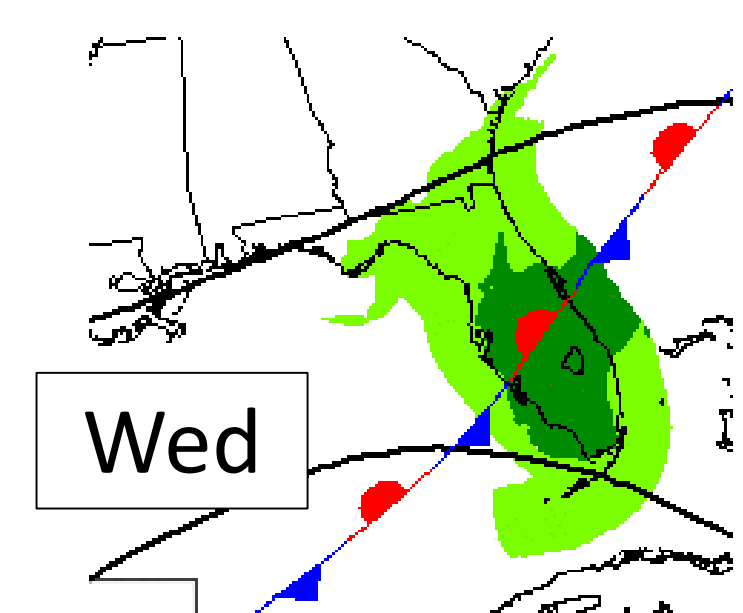
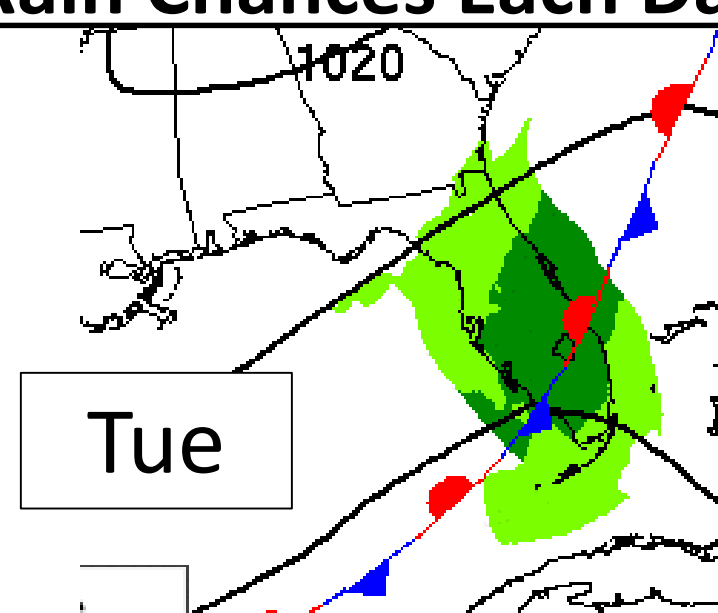
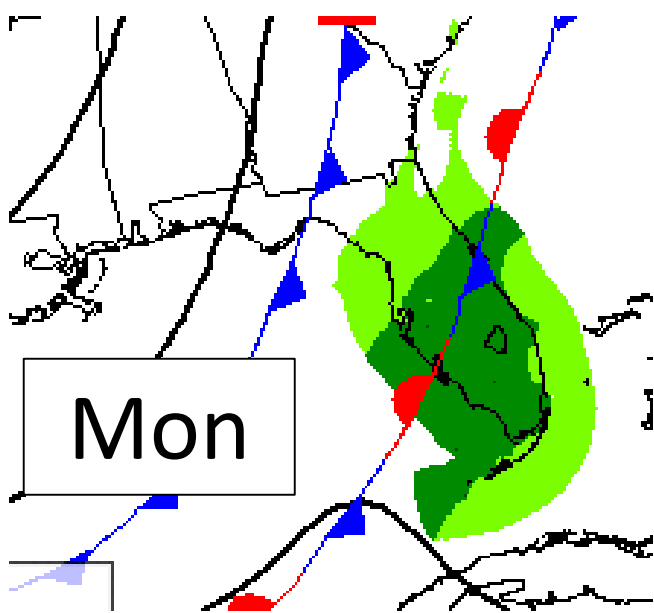


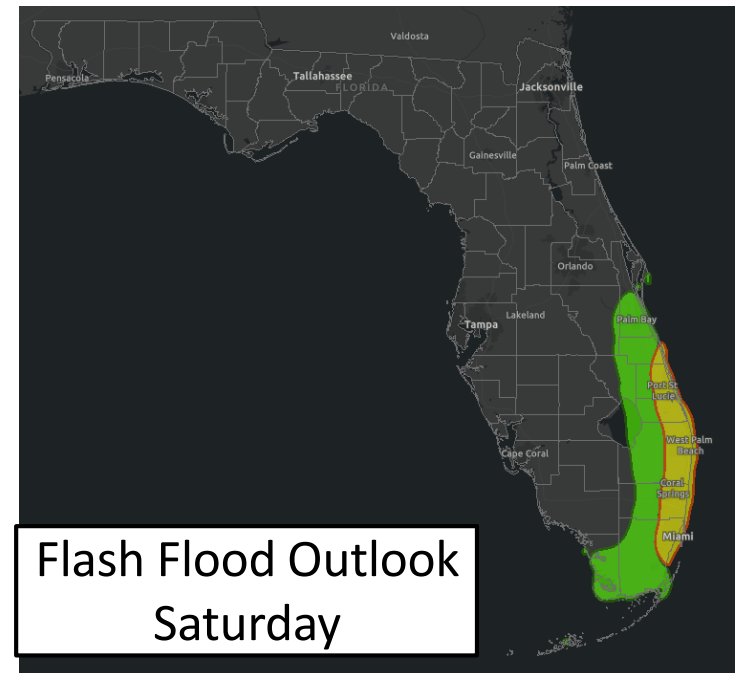
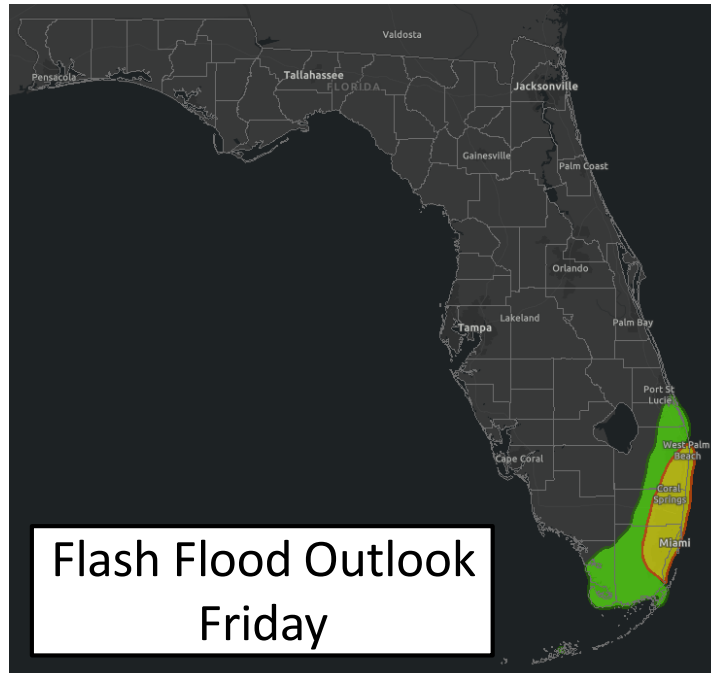
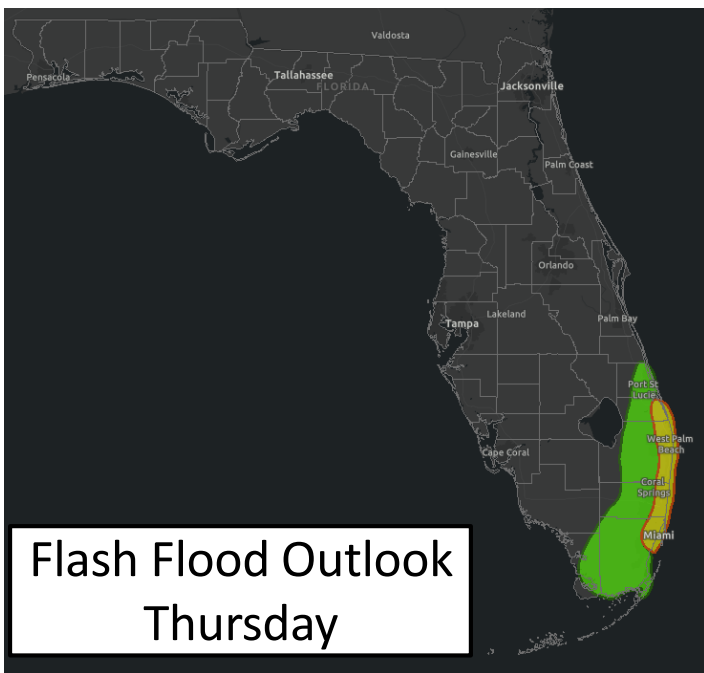
Low Temperature(F) Ending Sat Oct 03 2020 8AM EDT
(Sat Oct 03 2020 12Z)
National Digital Forecast Database
13z issuance Graphic created-Oct 01 9:14AM EDT

Low humidity will accompany the cooler temperatures in North & Central FL








Front Remains Stalled Across South Florida Into Next Week With High Rain Chances Each Day





Understanding WPC Excessive Rainfall Risk Categories

No Area/Label	MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)
Flash floods are generally not expected.	Isolated flash floods possible	Scattered flash floods possible	Numerous flash floods likely	Widespread flash floods expected
	Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.	Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.	Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.	Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.
Flash flooding near me?	Flash Flooding	Flash Flooding	Flash Flooding	Flash Flooding
	NO Flash Flooding	NO Flash Flooding	NO Flash Flooding	NO Flash Flooding
				

- Some flash flooding will be possible over the next several days from a stalled front over South Florida.
- The locally heavy rainfall threat will continue into the weekend across South Florida and the Treasure Coast

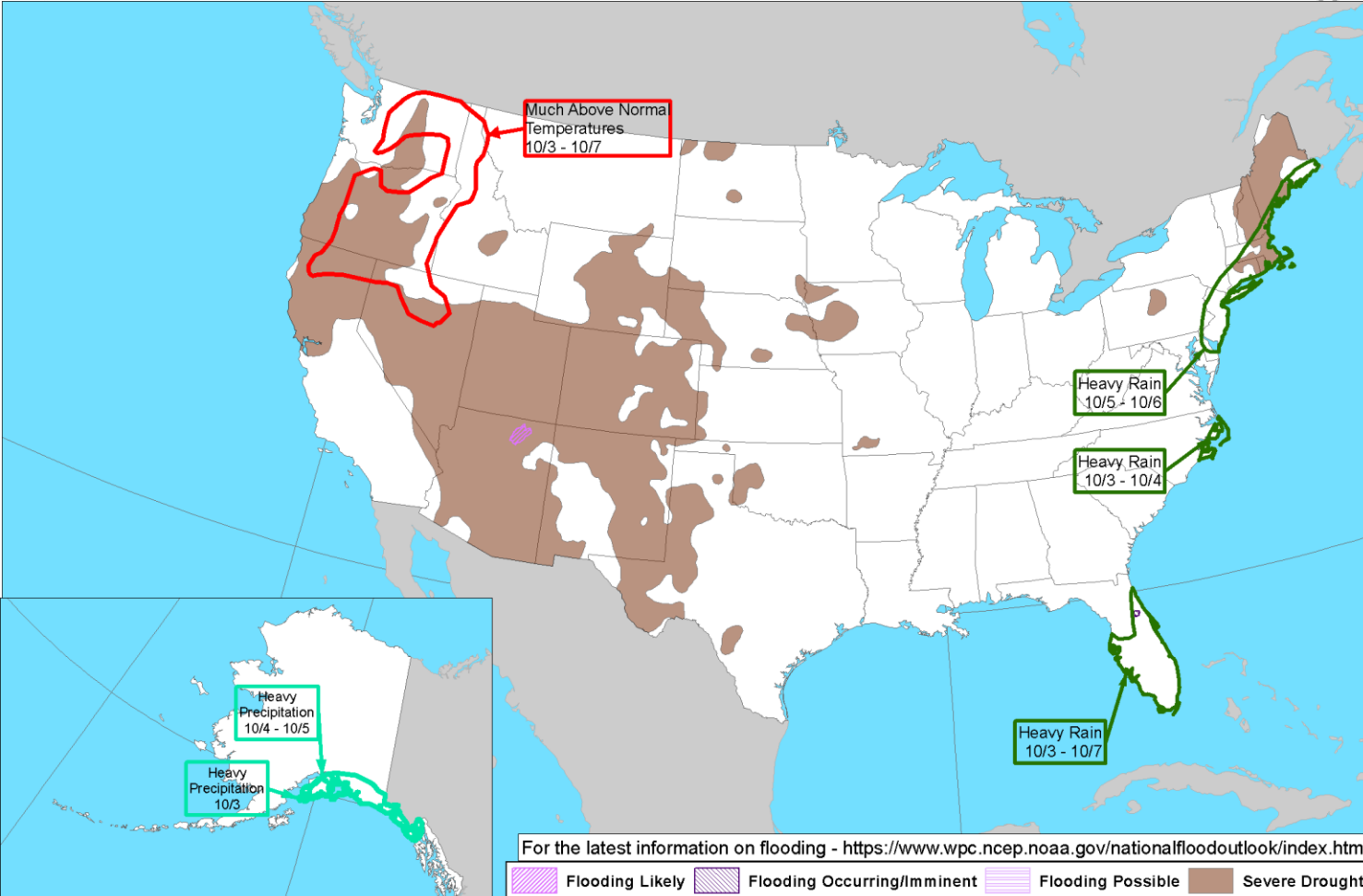


Hazard Outlook

From the [Weather Prediction Center](#)



Day 3-7 U.S. Hazards Outlook
Valid: 10/03/2020-10/07/2020



Heavy rainfall is possible with the stalled front in Central and South Florida well into next week. The greatest flood threat is likely to be along the I-95 corridor near the Treasure Coast and metro areas of Southeast Florida.

Weather Prediction Center

Made: 09/30/2020 3PM EDT

Follow us:

www.wpc.ncep.noaa.gov



Flood Watches in Effect

Martin & St. Lucie Counties:

Until 4 PM ET Friday

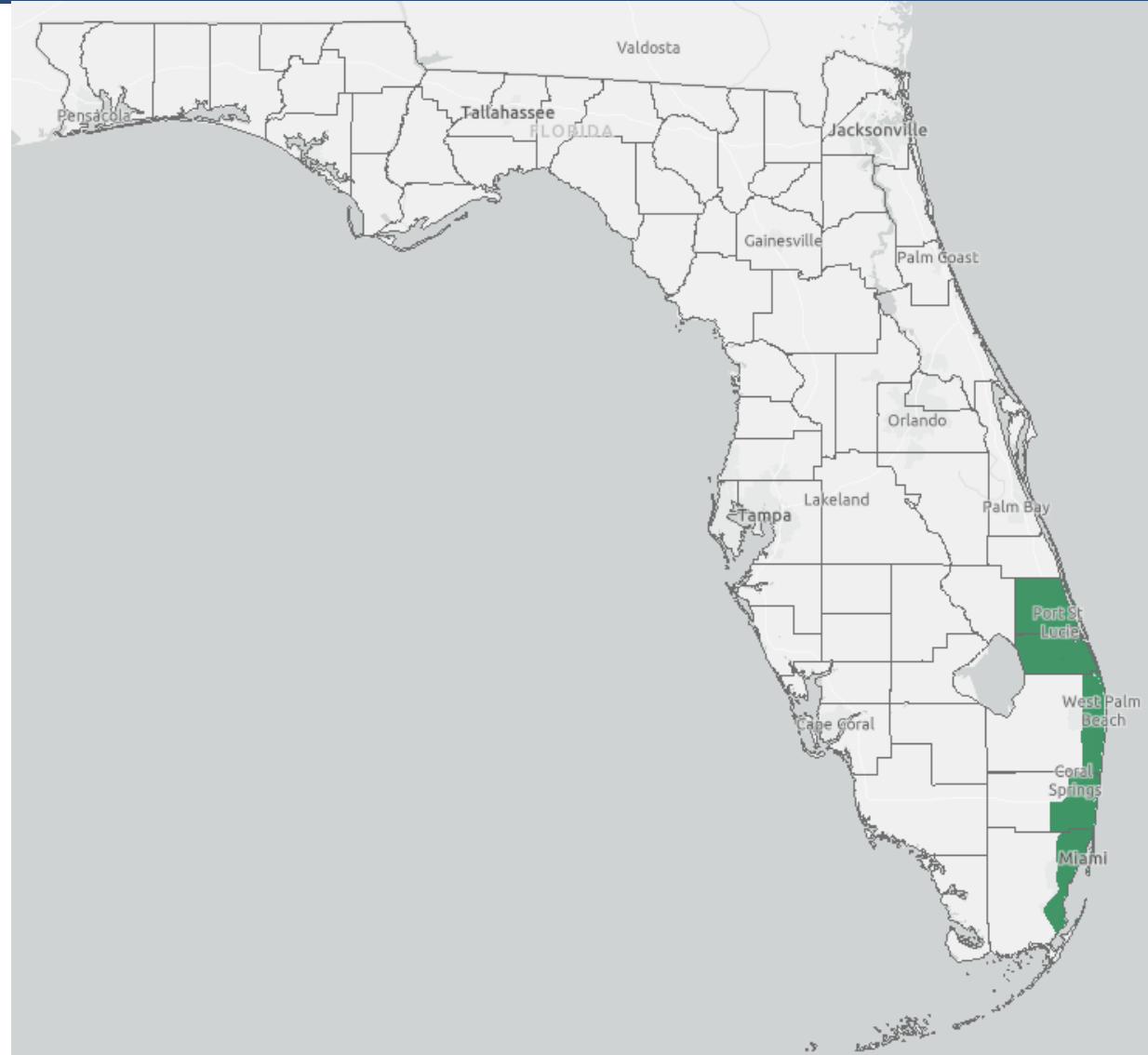
Coastal/Metro Palm Beach,

Coastal/Metro Broward, Coastal/Metro

Miami Dade Counties:

Through Sunday Evening

Areas along parts of the Treasure Coast and Southeast Florida saw 3-7" of rain overnight. Additional heavy rainfall could result in flooding.





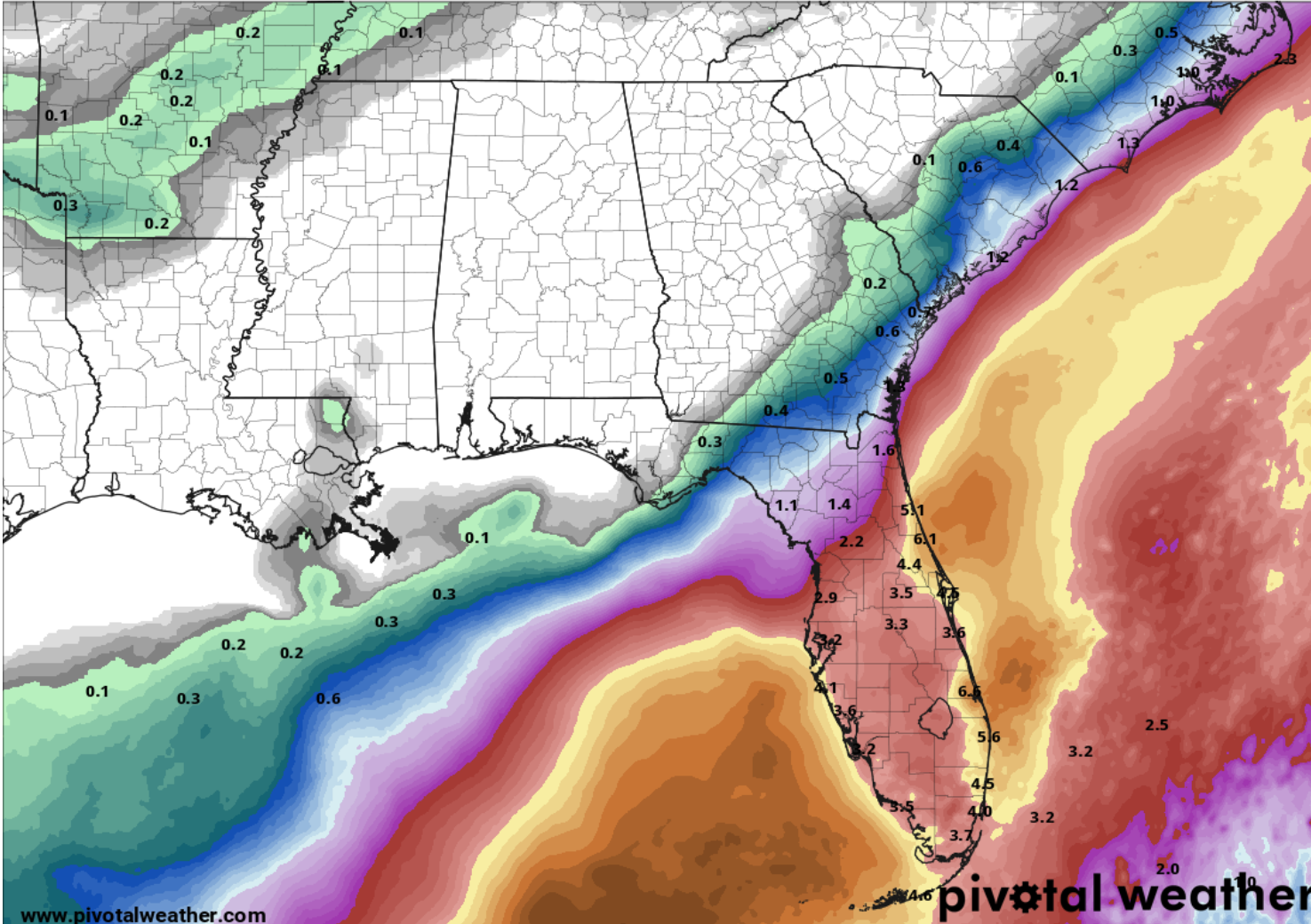
Rainfall Totals Next 7 Days

UNRELATED TO THE TROPICS

7-Day Precipitation (in)

Ending Thursday, Oct. 8, 2020 at 8 a.m. EDT

Init: Thu 2020-10-01 12z WPC



- Little to no rainfall across the Panhandle and western Big Bend over the next week.
- Heavy rainfall is expected in the Peninsula Florida from this weekend into early next week.
- A widespread 3-6" expected, locally 7-10".
- About 1" or less is expected in the eastern Big Bend and Northeast Florida



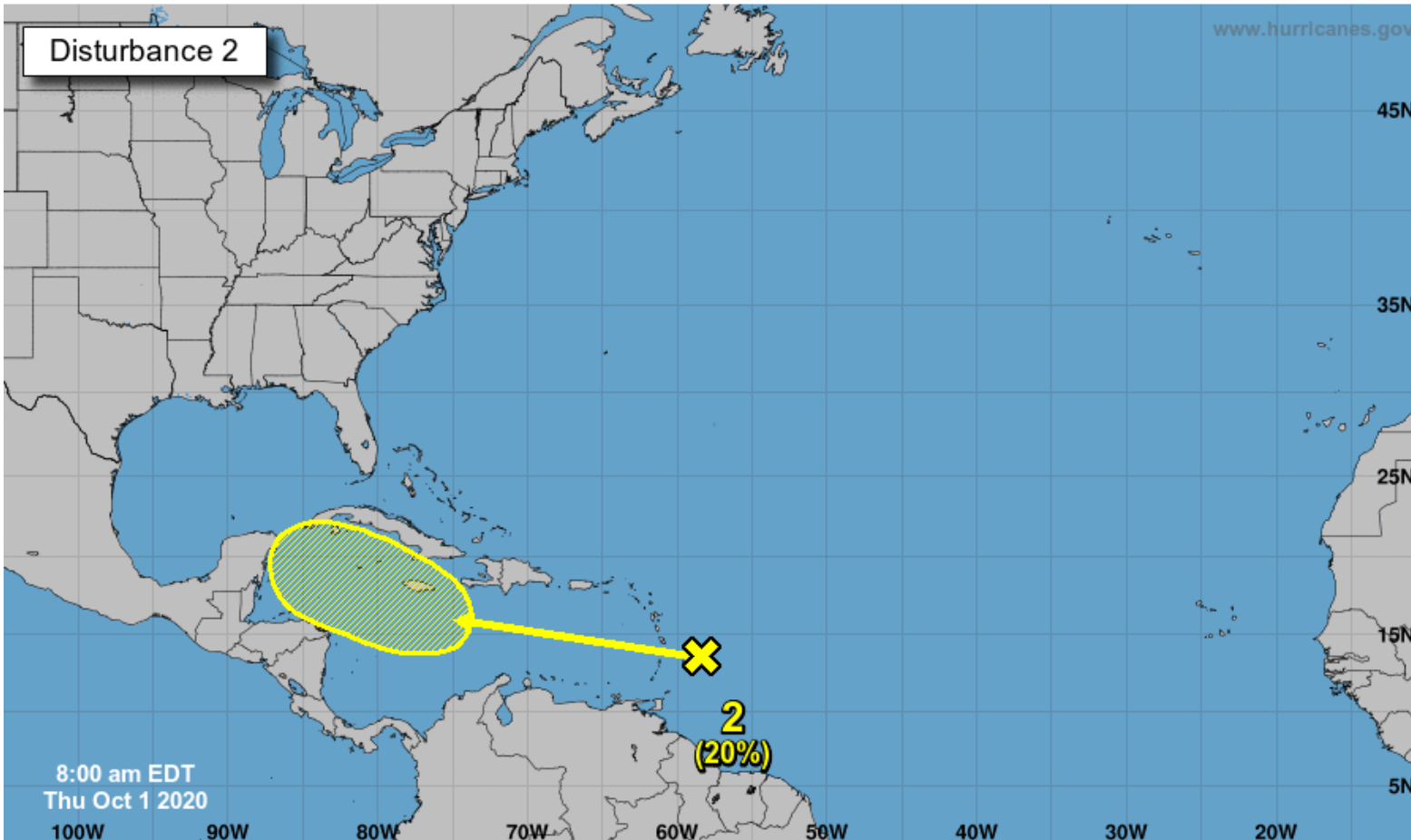
Tropical Weather Outlook

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Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Another tropical wave located just east of the Lesser Antilles is also producing a large area of disorganized showers and thunderstorms.

This wave is forecast to move westward at 15 to 20 mph during the next several days, and environmental conditions could become a little more conducive for development when the system is over the central or western Caribbean Sea early next week.

This system should be monitored early next week, but poses no immediate threat to Florida.

***Formation chance through 48 hrs...low...near 0%**

***Formation chance through 5 days...low...20%**

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



Overall Summary

Invest 91L - Western Caribbean

- A tropical wave and stalled front will develop into a low pressure area in the western Caribbean later this week or this weekend.
- Conditions are forecast to be favorable for development in the western Caribbean by this weekend and a tropical depression could form.
- The system is forecast to move slowly west-northwest near the Yucatan Peninsula into early next week.
- This system has a 40% (medium) chance of formation over the next 48 hours, but a 70% (high) chance in days 3-5 this weekend.
- The next name on the list is Gamma.

Lesser Antilles Wave

- Another tropical wave near the Lesser Antilles will move quickly westward into the Caribbean.
- Conditions could become slightly more favorable for development in the central or western Caribbean early next week.
- This system has a 0% (low) chance of formation over the next 48 hours, but a 20% (low chance) in 3-5 days.

Florida Outlook:

- **Neither system is forecast to produce direct impacts to Florida over the next 5 days, but they should continue to be monitored.**
- A stalled cold front and the nearby tropical moisture will create a several day stretch of high rain chances across South Florida.
- *South Florida will need to be monitored for a flood threat later in the week, particularly along the I-95 corridor in Southeast Florida. A widespread 3-6" is forecast with 7-10" possible locally over a few days.*
- Flood Watches are in effect along the Treasure Coast into Southeast Florida from St. Lucie County to Miami-Dade County.
- The heavy rainfall and flood threat will spread northward into Central Florida this weekend into next week.

The next briefing packet will be issued 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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