



TROPICAL UPDATE



11:00 AM EDT

Tuesday, July 21, 2020

Tropical Wave in the Gulf (40%)
& Invest 99L (80%)

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



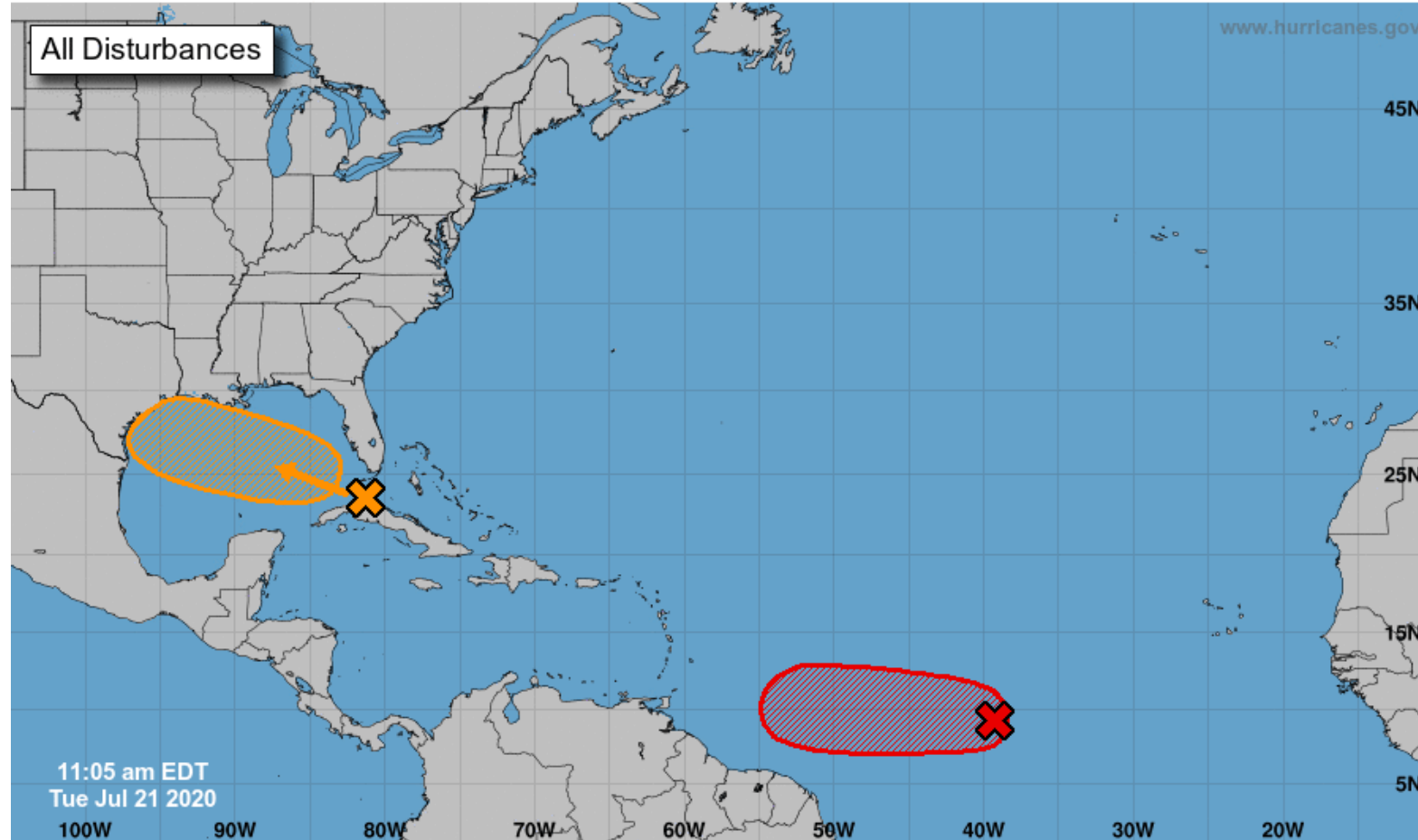


Tropical Weather Outlook

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



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



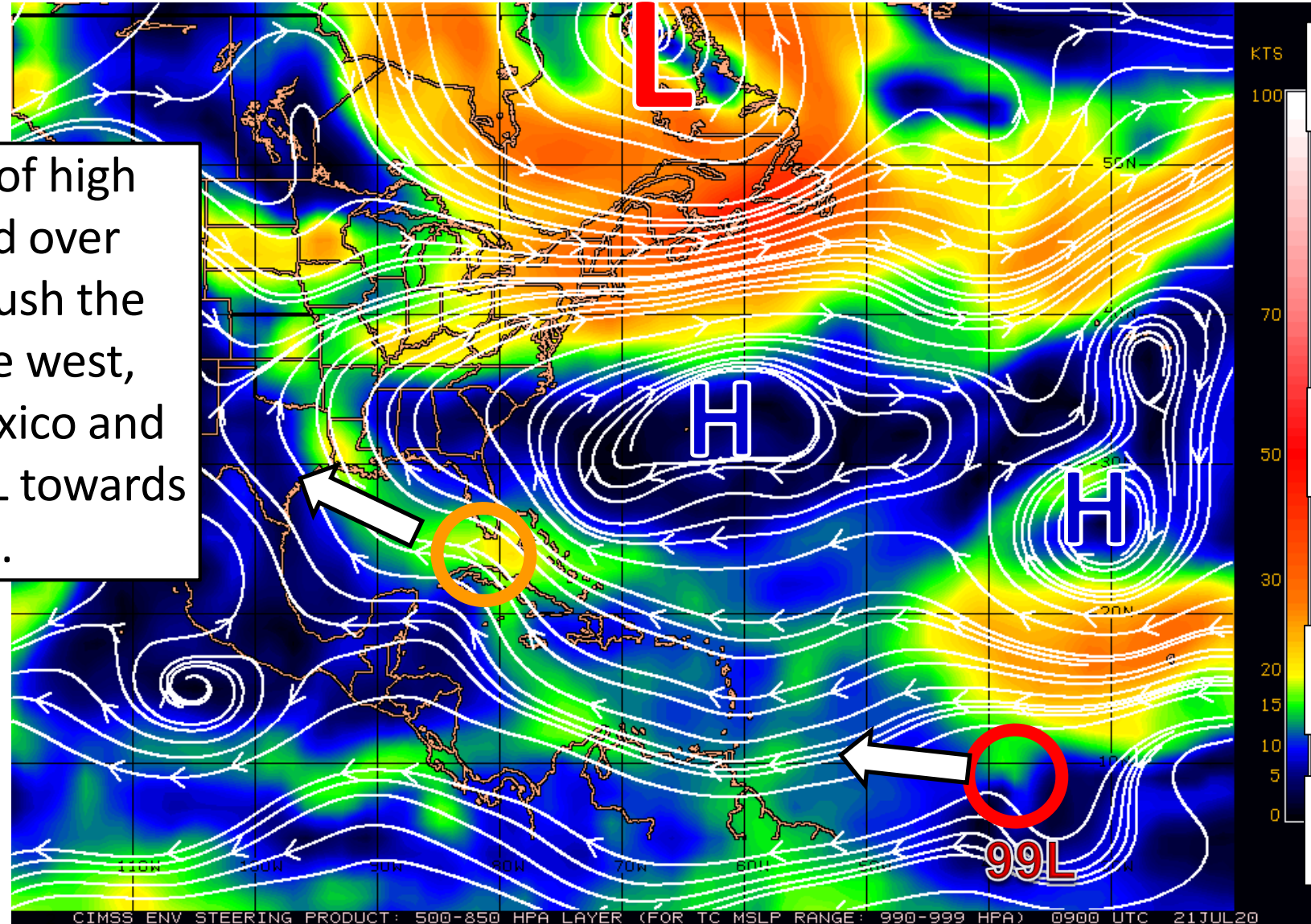
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%
Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane
 Post-Tropical Cyclone or Remnants



Steering Currents

What is moving the 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, strong area of high pressure is centered over Bermuda. This will push the tropical waves to the west, across the Gulf of Mexico and towards Texas, and 99L towards the Caribbean.

Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm



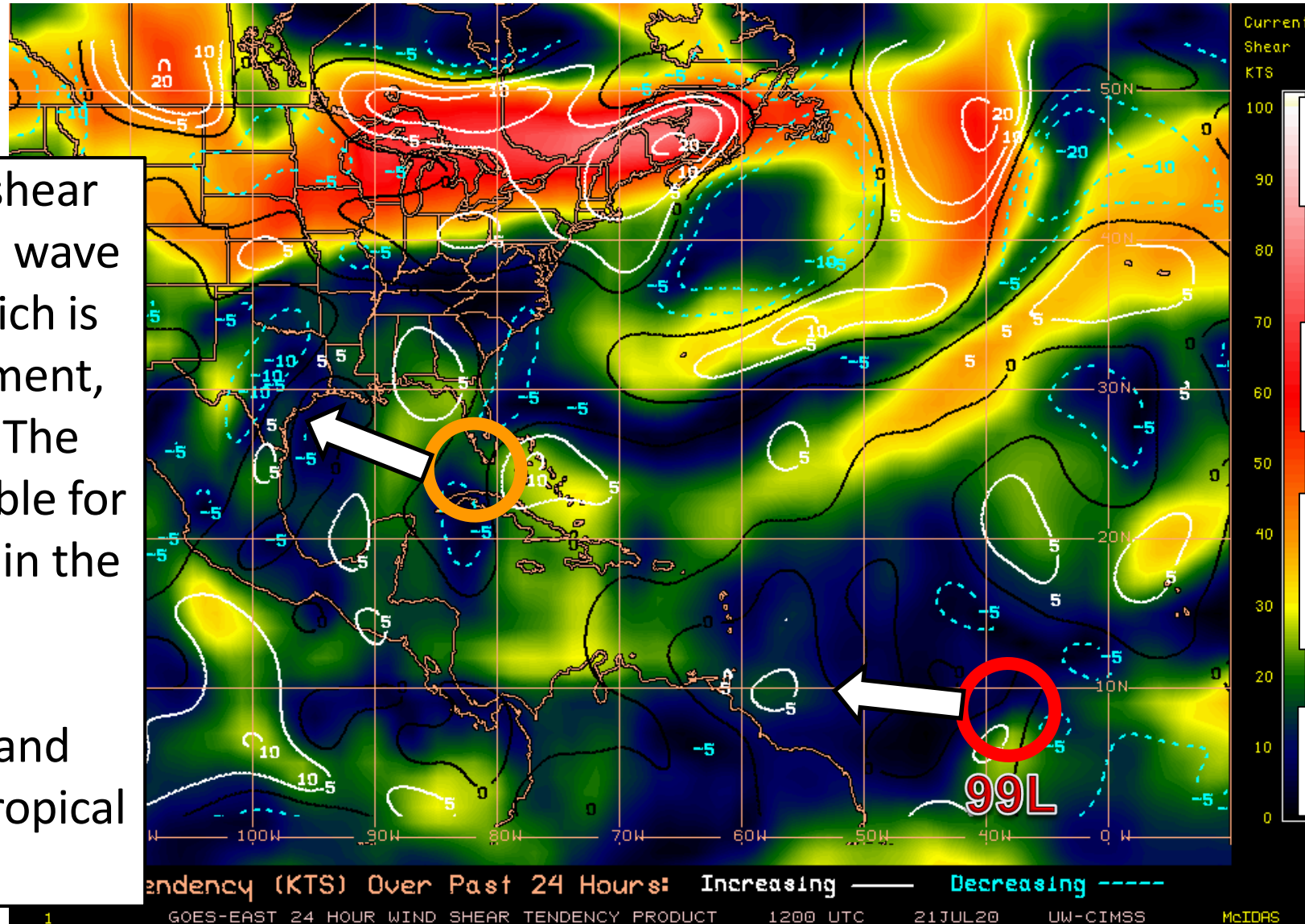
Wind Shear

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).

There is some wind shear impacting the tropical wave near Florida now which is limiting any development, but it is decreasing. The environment is favorable for gradual development in the Gulf of Mexico.

Wind shear is light and favorable across the tropical Atlantic.



HIGH Shear
(Unfavorable)

HIGH Shear
(Unfavorable)

MODERATE
Shear
(Neutral)

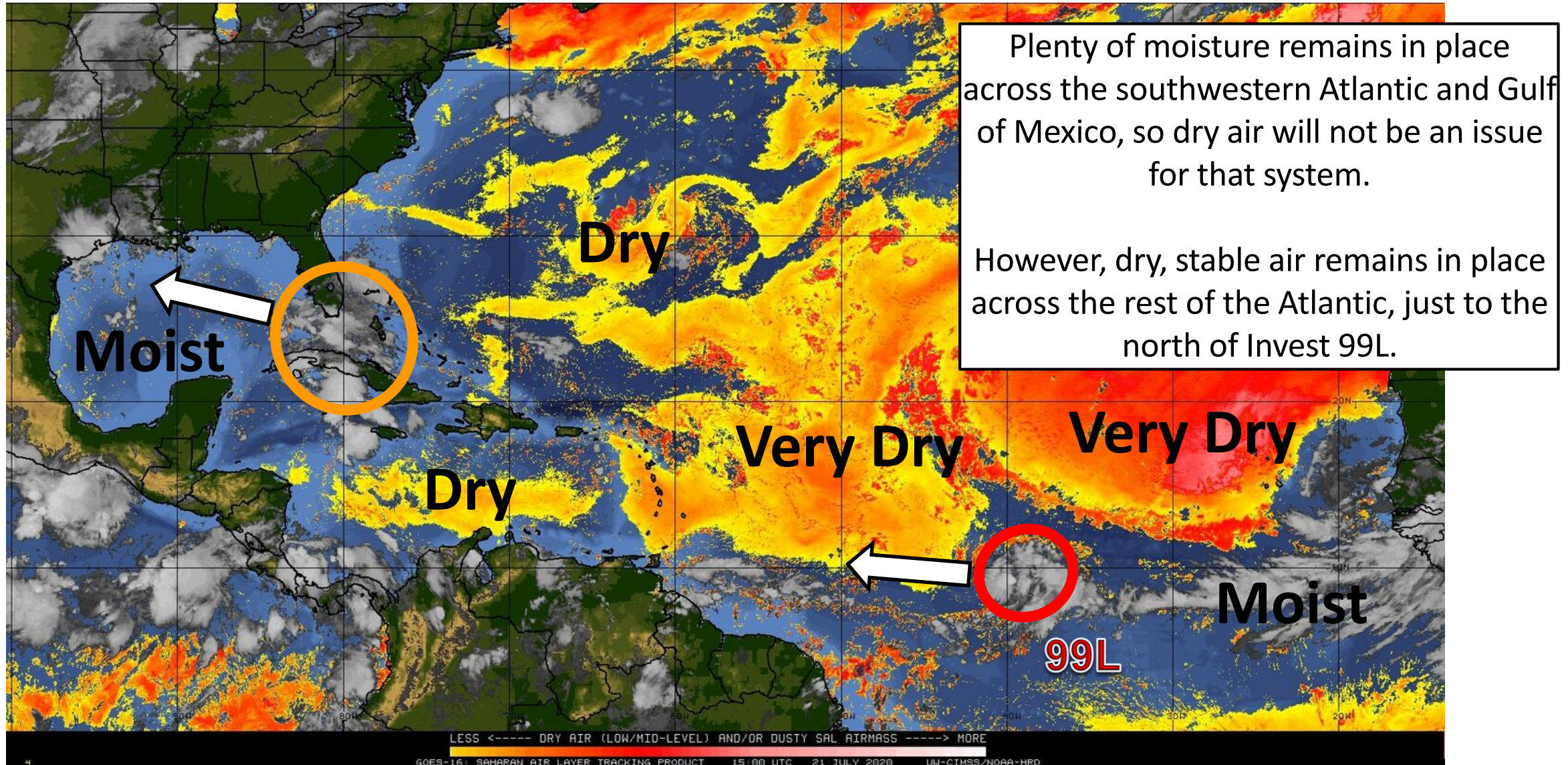
LOW Shear
(Favorable)



Dry Air & Saharan Dust

Is the environment favorable for the system?

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





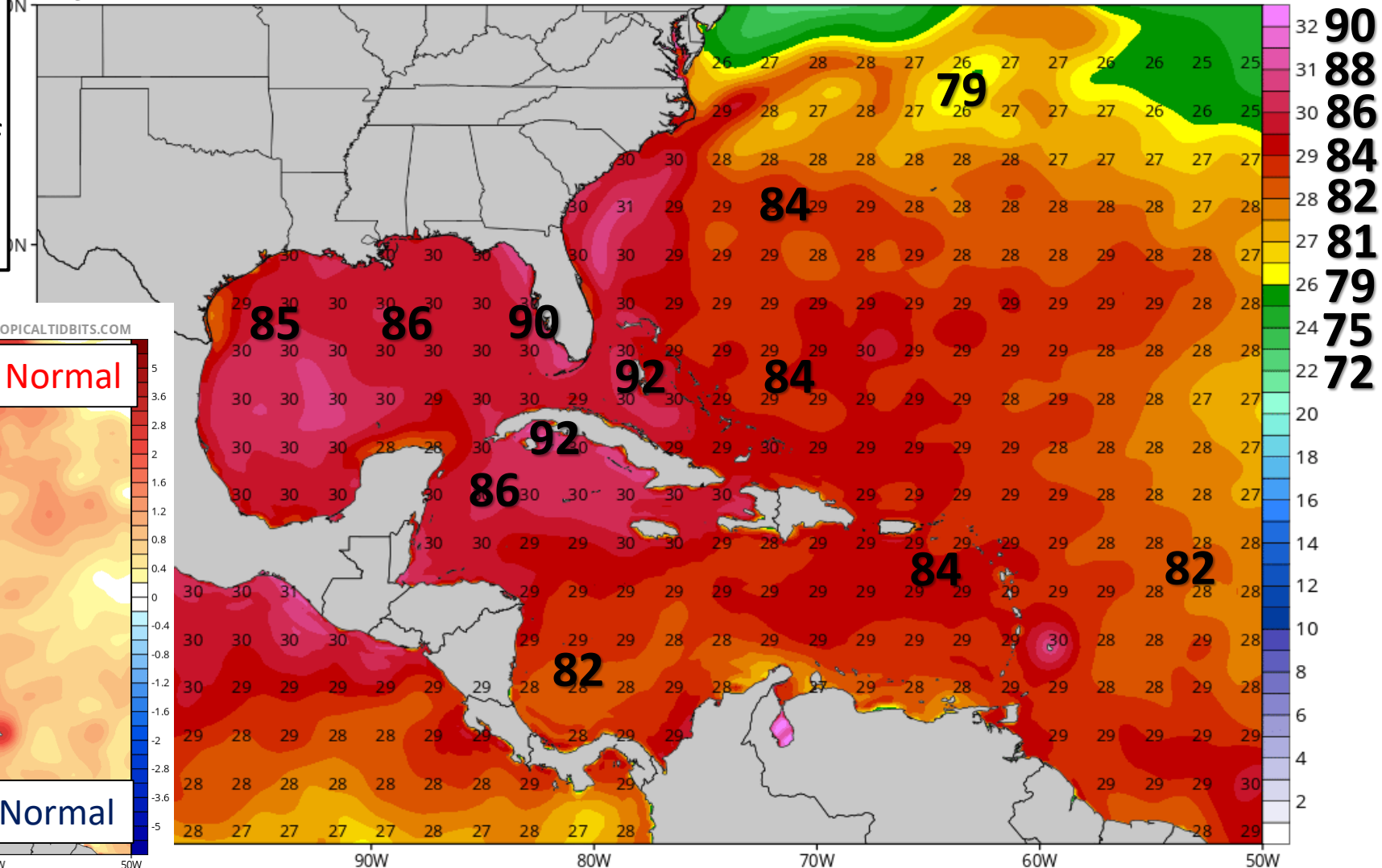
Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Water temperatures are plenty warm to support tropical development across the entire western Atlantic, and are above normal for this time of year. As 99L moves west, water temperatures will warm.

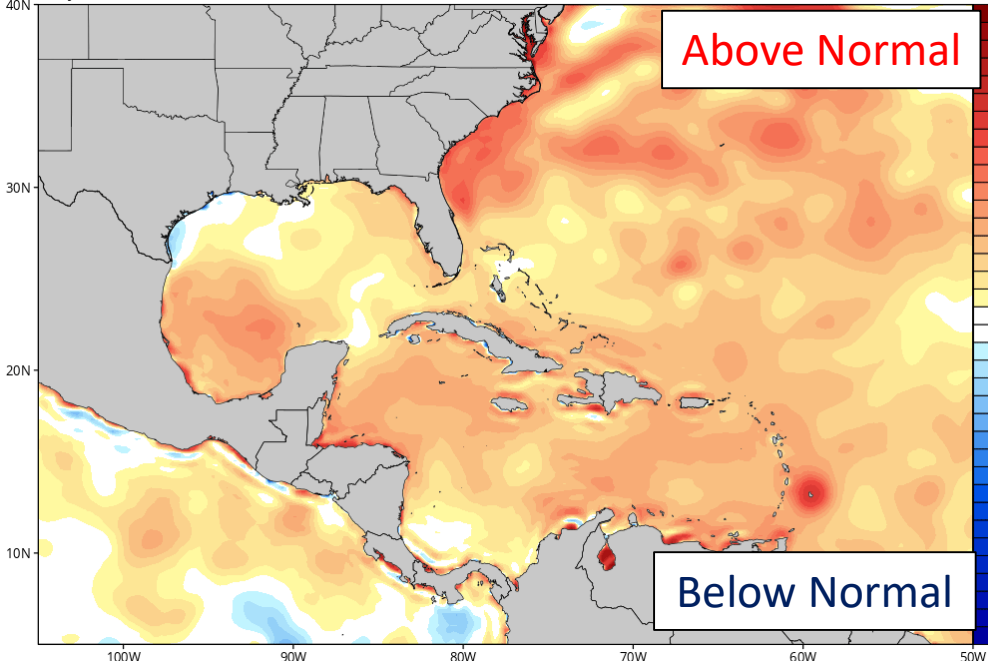
CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Jul 21 2020



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

Analysis Time: 06z Jul 21 2020





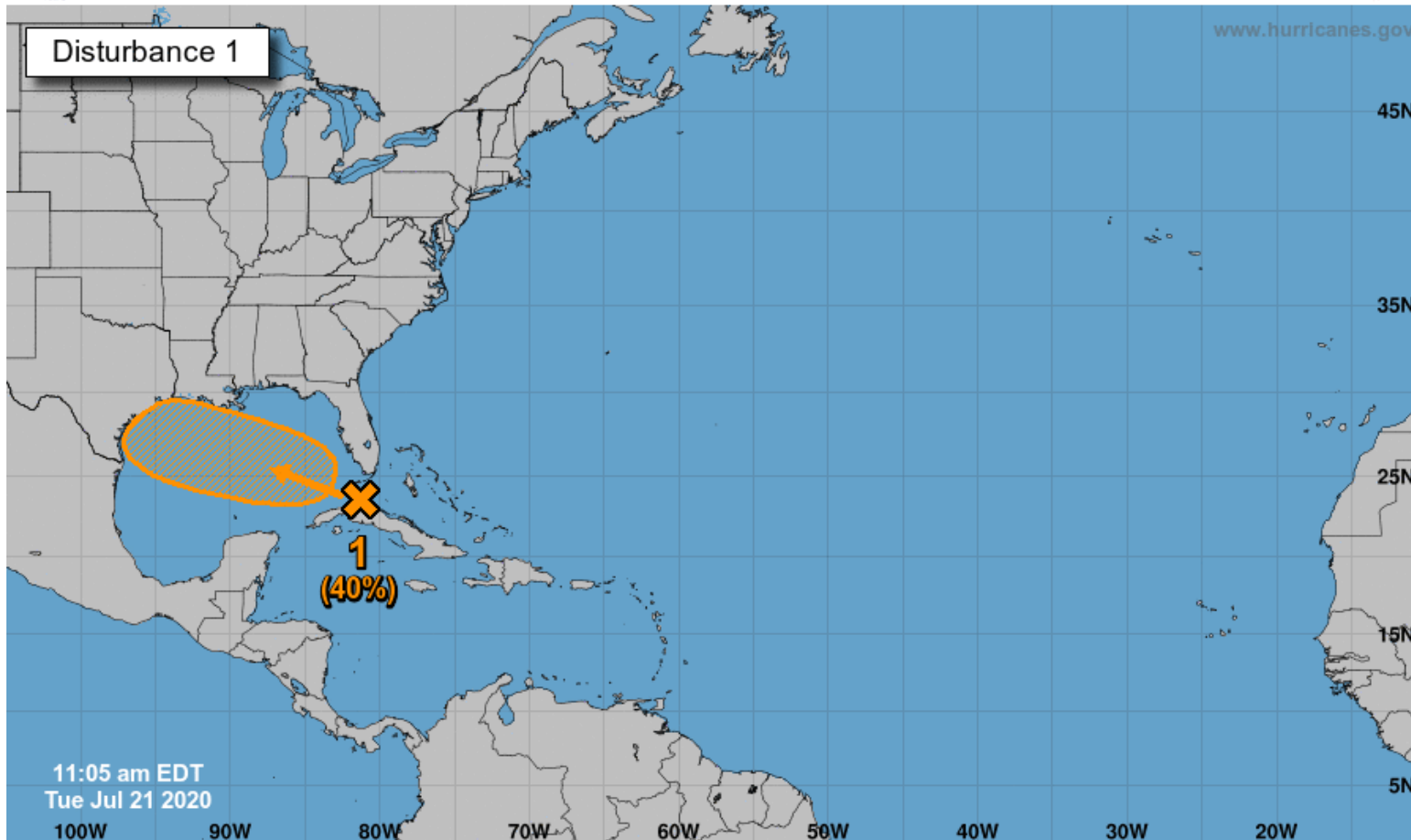
Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



A tropical wave is producing a large area of disorganized showers and thunderstorms over western Cuba, the northwestern Bahamas, southern Florida, and the adjacent Atlantic and Caribbean waters.

Gradual development of this system is possible while it moves west-northwestward during the next few days. This system is expected to move over the southeastern Gulf of Mexico later today, the central Gulf on Wednesday, and the northwestern Gulf on Thursday and Friday.

The Air Force Reserve Hurricane Hunter aircraft scheduled to investigate the system this afternoon has been cancelled.

***Formation chance through 48 hours...low...30%**

***Formation chance through 5 days...medium...40%**

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



Satellite Imagery

Tropical Wave in the Gulf (40%)

GOES16 Vis: 2020-07-21-1335 UTC

Florida

L

Bahamas

Cuba

Weathernerds.org

A small area of low pressure is located just west of Key West, but most of the showers and thunderstorms are well to the east of the center due to wind shear. More favorable conditions are expected later this week as the system moves west across the Gulf of Mexico.

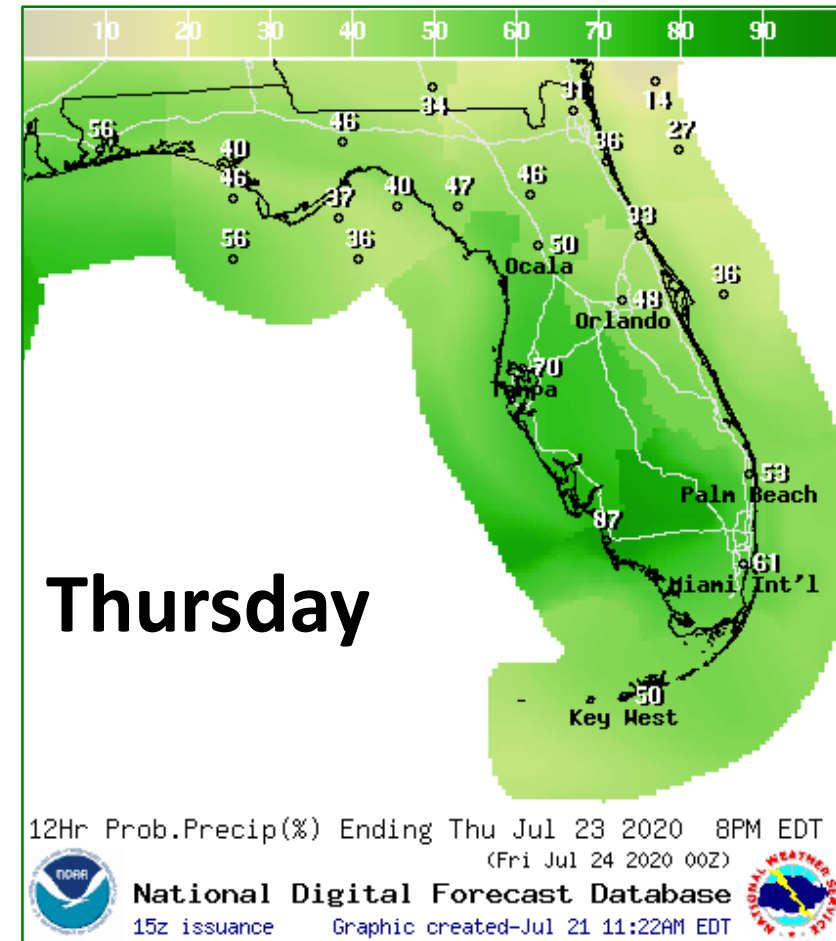
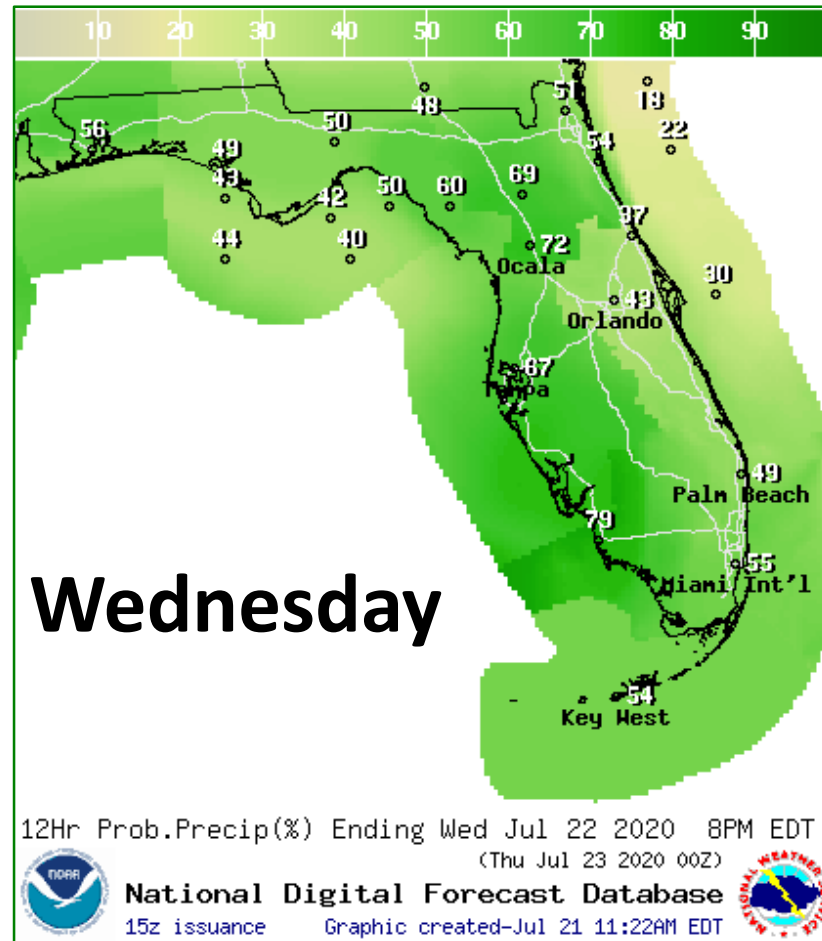
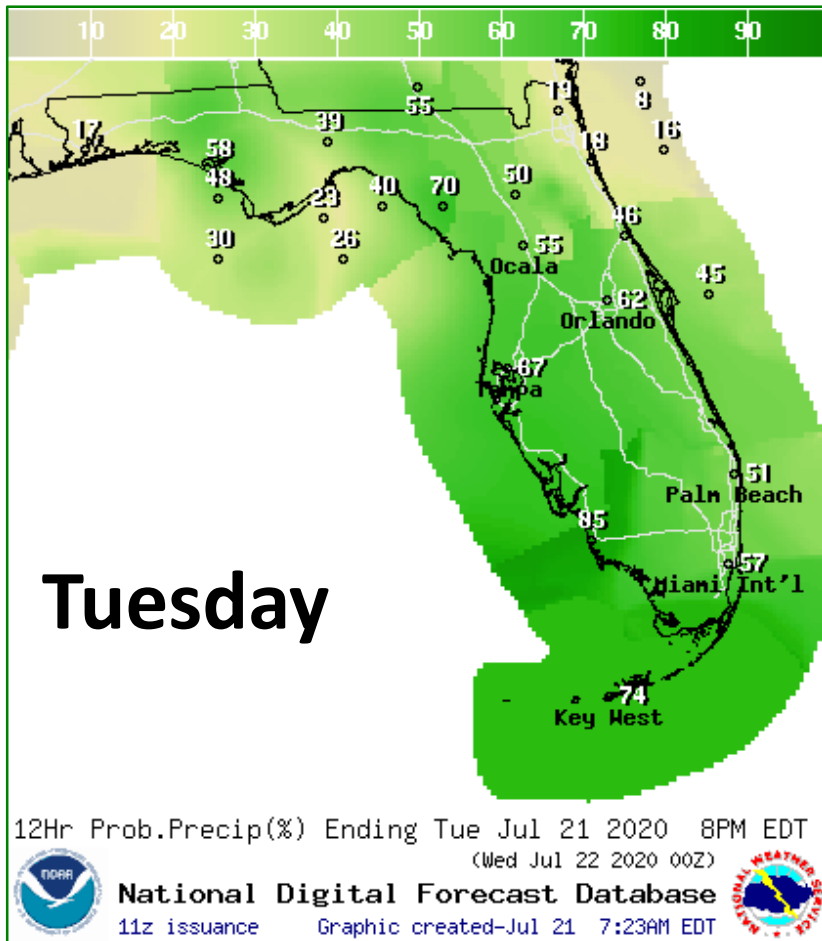
GOES16 IR: 2020-07-21-1335 UTC



Weathernerds.org



Rain Chances Next 3 Days



Increased rain chances along the West Coast and Keys continue this week with more seasonal chances across the rest of the state.

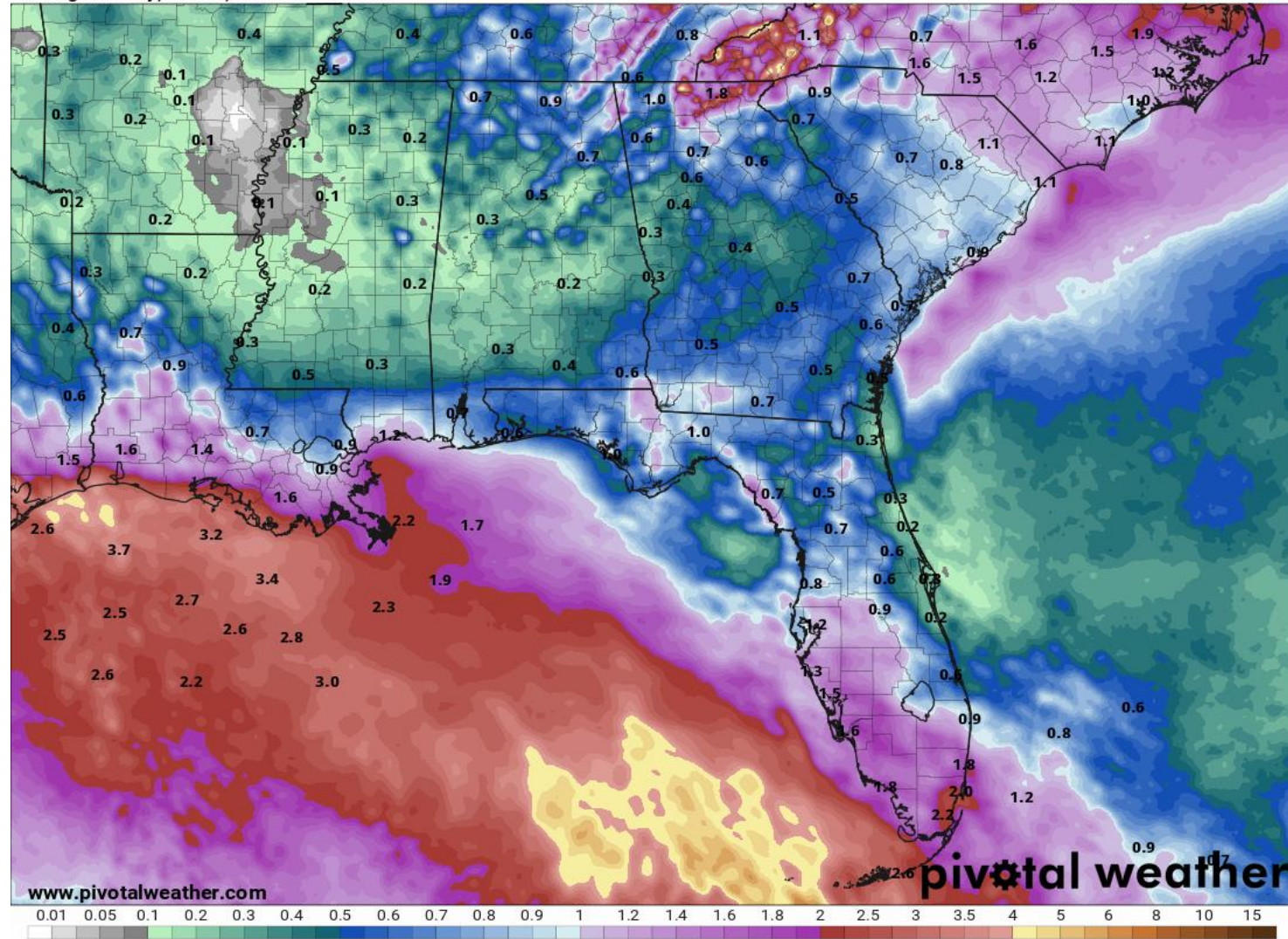


Forecast Rainfall Totals Next 7 Days

- Additional 1-3" across the West Coast, South Florida, and the Florida Keys
- Locally heavier rainfall amounts 4-6", especially in the Keys
- Isolated flash flooding possible through the next few days
- Better rain chances across North Florida over the next few days as well

7-Day Precipitation (in)
Ending Tuesday, Jul. 28, 2020 at 8 a.m. EDT

Init: Tue 2020-07-21 12z WPC





Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



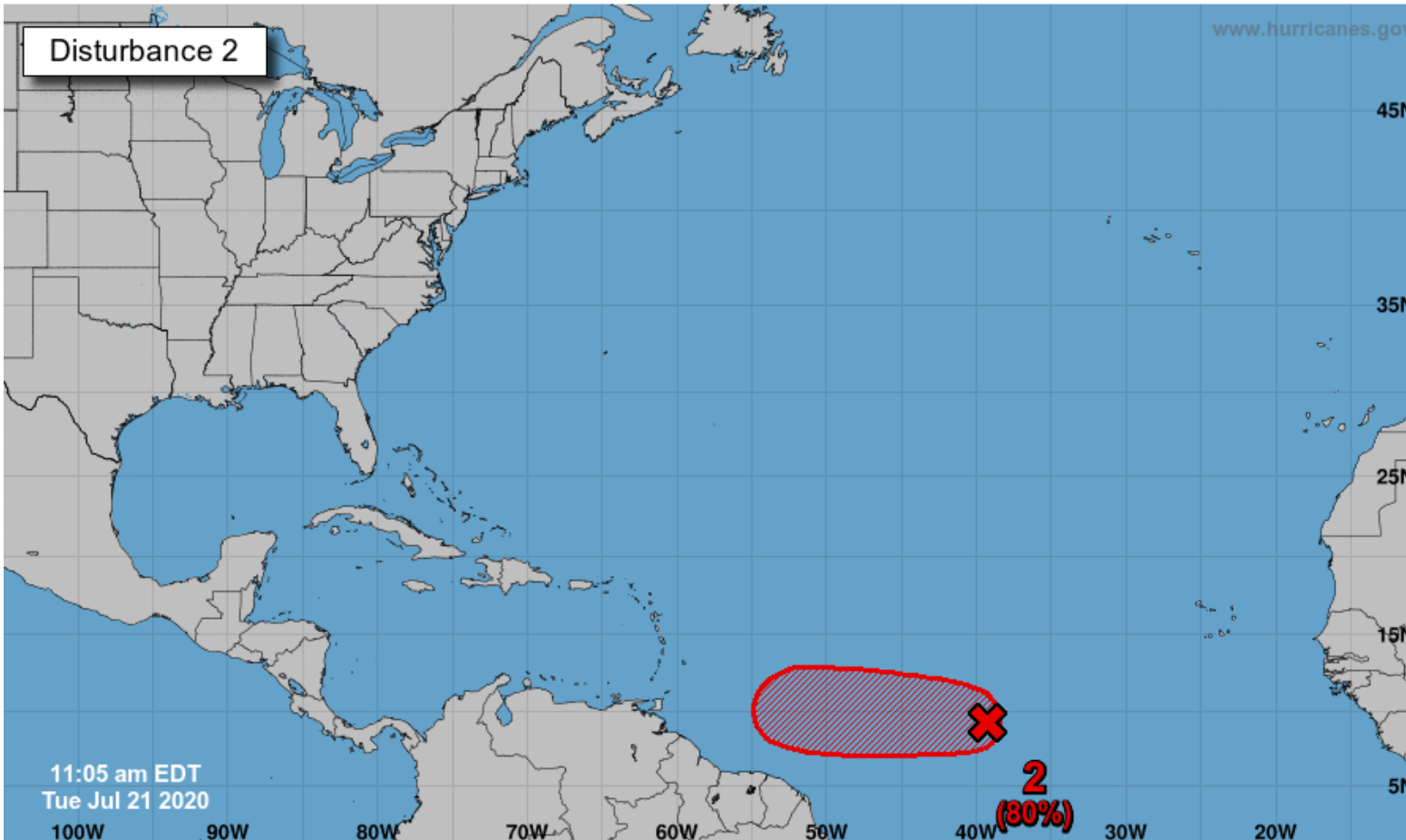
Showers and thunderstorms have become better organized in association with a low pressure system located about midway between the west coast of Africa and the Lesser Antilles.

Environmental conditions are expected to be somewhat conducive for development, and a tropical depression could form later today while the low moves westward at around 10-15 mph over the tropical Atlantic.

By the weekend, however, less favorable conditions should limit additional development.

***Formation chance through 48 hours...high...80%**

***Formation chance through 5 days...high...80%**



Current Disturbances and Five-Day Cyclone Formation Chance:
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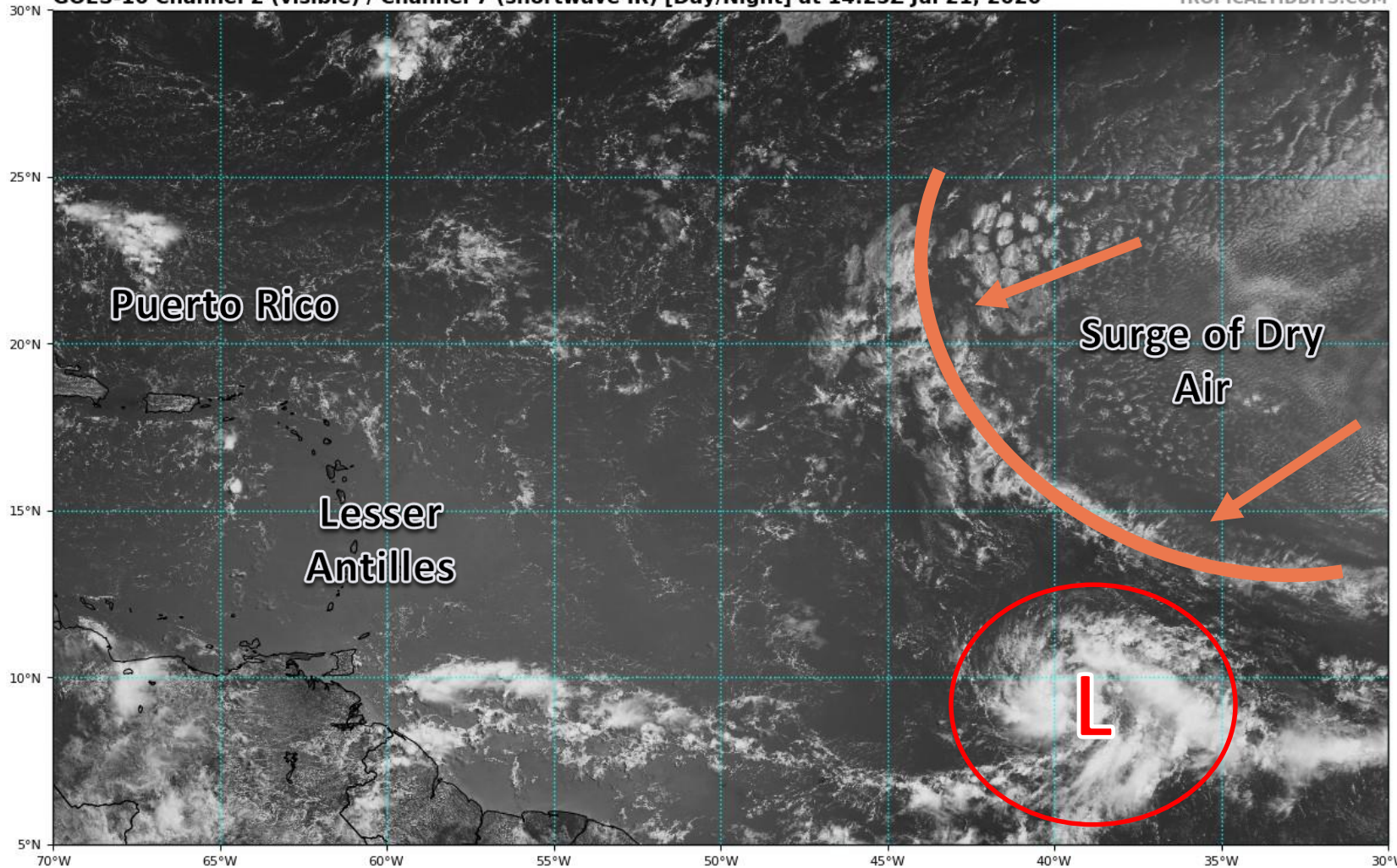


Satellite Imagery

Central Atlantic – Invest 99L (80%)

GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 14:25Z Jul 21, 2020

TROPICALTIDBITS.COM

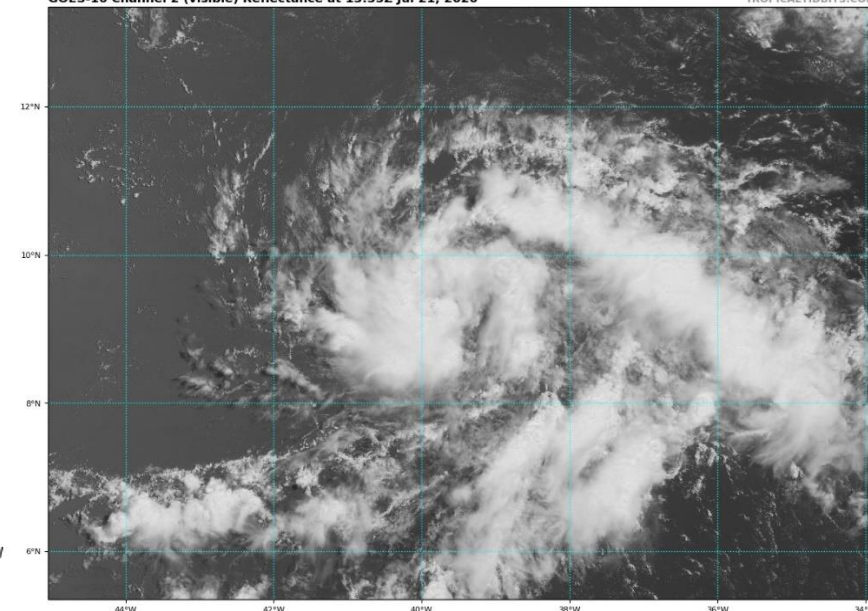


Invest 99L continued to organize overnight, and now has banding features wrapping around a well-defined low pressure. A tropical cyclone is forming.

Dry air remains to the north of the system for now, but is trying to catch up.

GOES-16 Channel 2 (visible) Reflectance at 13:35Z Jul 21, 2020

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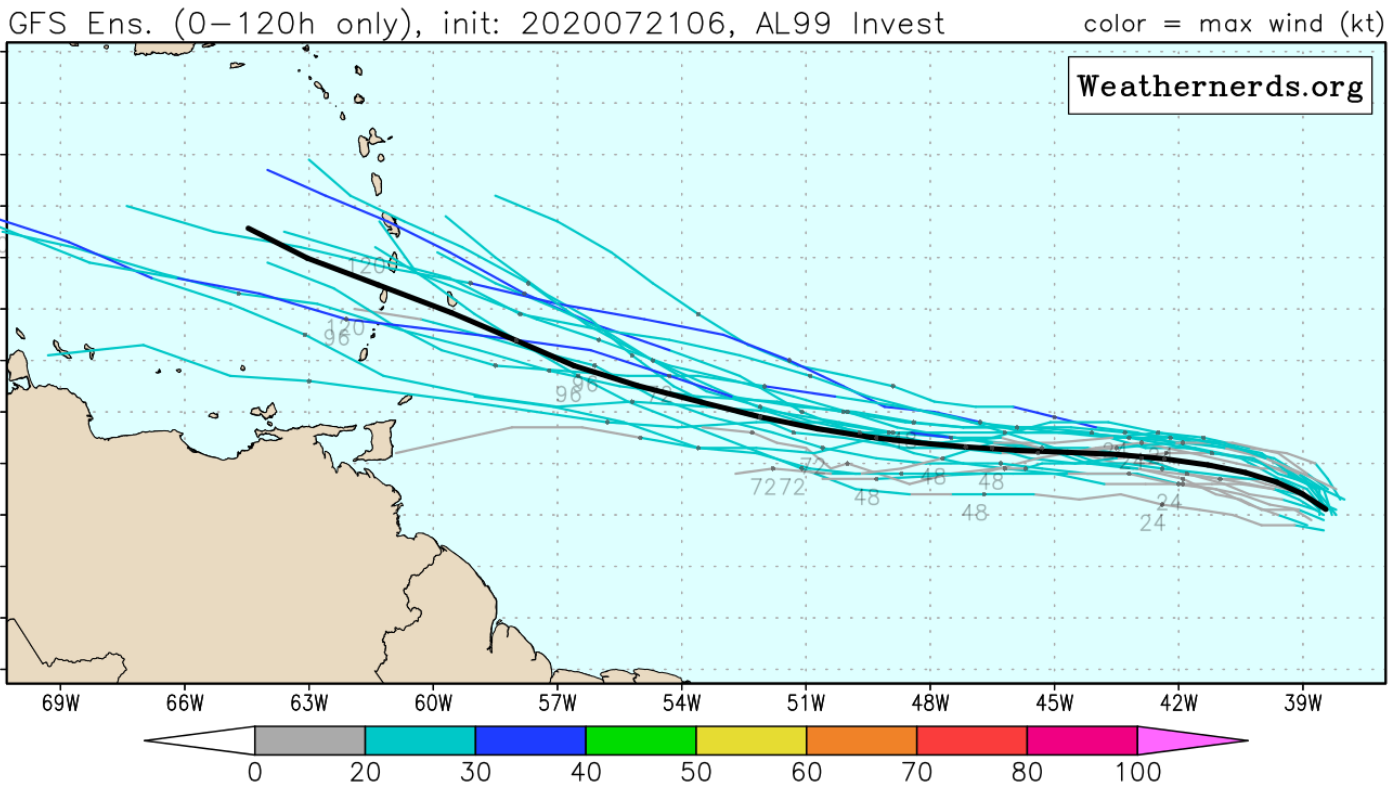




Model Forecast Tracks

Ensembles, Dynamical, and Statistical Models

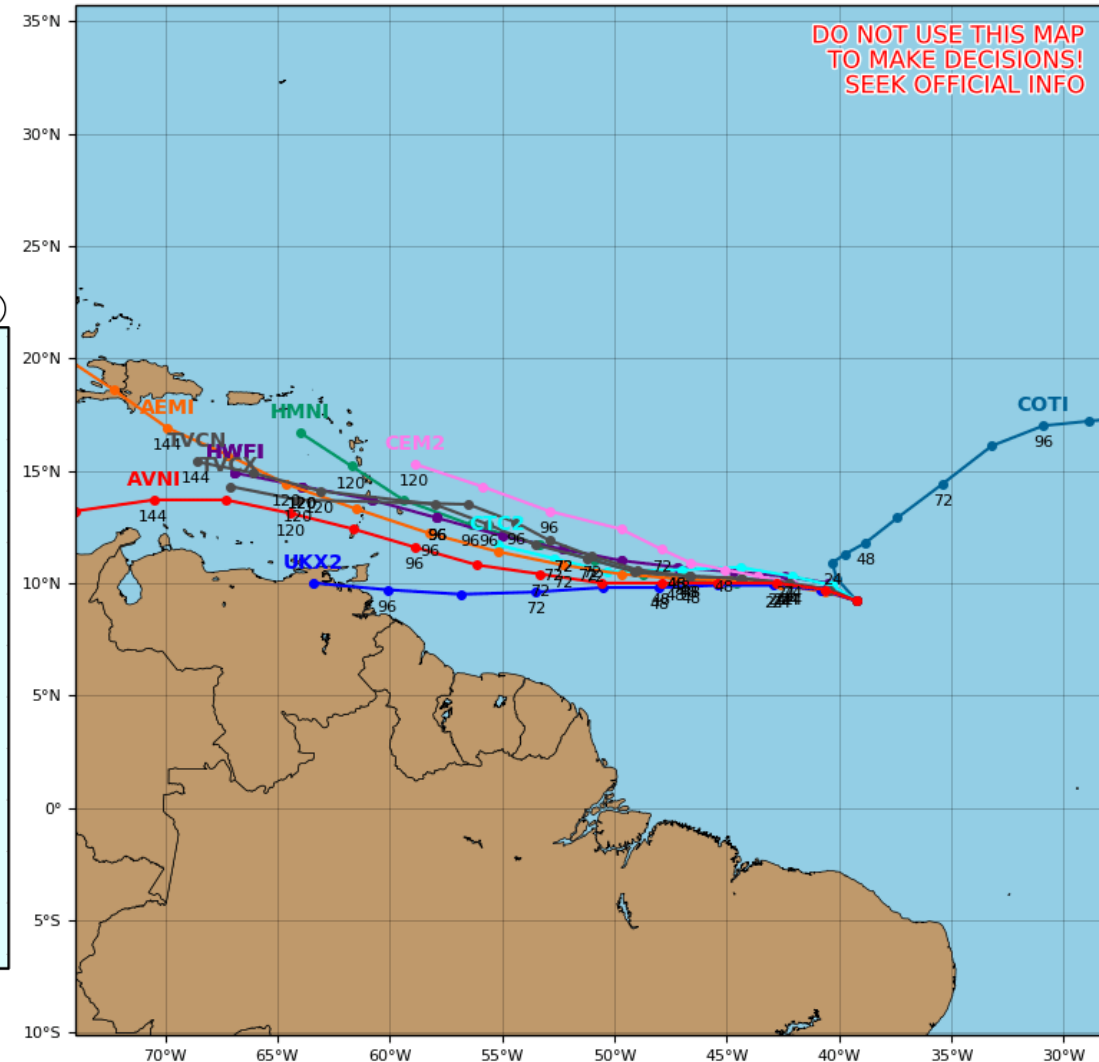
Invest 99L will continue to move to the west-northwest this week. This weekend, the system will move into a more hostile environment in the eastern Caribbean. What happens to the system once it reaches the Caribbean will determine its future path, but it may continue to the west-northwest, across the Caribbean next week.



Invest 99L Model Track Guidance

Initialized at 12z Jul 21 2020

Levi Cowan - tropicaltidbits.com





Overall Summary

Tropical Wave Entering the Gulf of Mexico

- A tropical wave located near Key West, FL is producing disorganized showers and thunderstorms across Cuba, The Bahamas, and the Florida Peninsula.
- Conditions are not favorable for development over the next 24 hours, but it will continue to move west-northwest into better conditions in the Gulf of Mexico.
- The Air Force Reserve Hurricane Hunter aircraft scheduled to investigate the system this afternoon has been cancelled.
- A tropical system may develop late this week as it near Texas and Louisiana.
- The chance of development is 30% (low) over the next 48 hours, but 40% (medium) over the next 5 days.

Invest 99L – Tropical Wave Between Africa and the Caribbean

- An area of low pressure continues to organize about halfway between the Caribbean and Africa.
- Satellite imagery and recent satellite wind data indicate that the low pressure system may be becoming a tropical depression, and advisories could be started later today.
- There is a surge of dry air to the north of the system that may interfere with development later this week, but for the next 48 hours or so, the environment remains favorable.
- The system will reach the Caribbean this weekend as it moves to the west and west-northwest at 10-15 mph.
- The National Hurricane Center gives this system an 80% (high) chance of development over the next 48 hours.
- The next name on the list is Gonzalo (gohn-SAH-loh).



Overall Summary

Florida Outlook:

- Invest 99L, the tropical wave between Africa and the Caribbean, poses no threat to Florida through early next week, but it should continue to be monitored.
- For the tropical wave near Key West today: Increased rain chances are expected across the Peninsula over the next 48 hours, particularly in Southwest Florida and Keys.
- Rain chances will continue tonight along the East Coast and the Keys.
- Some thunderstorms will be strong, with gusty winds around 45 mph, frequent lightning, waterspouts, and heavy rainfall.
- An isolated case of flash flooding can't be ruled out, with street flooding in urban areas. **Significant impacts are not expected.**
- Rainfall totals in Southwest Florida and the Keys from this system will be 1-3" widespread, and locally 4-6".
- An elevated rip current risk is ongoing at all Panhandle and Atlantic beaches, with tides running about 1" above normal along the Gulf Coast.
- Outside of thunderstorms, winds will be breezy from the southeast at 10-20 mph, gusting to 30 mph statewide.

The next briefing packet will be issued late Wednesday morning, or sooner if advisories are started on Invest 99L. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov. Daily Weather Packets are published each day in WebEOC Info Message #3518.



TROPICAL UPDATE



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State Meteorological Support Unit

Florida Division of Emergency Management

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