



TROPICAL UPDATE



11:00 AM EDT

Wednesday, July 22, 2020

Tropical Storm Gonzalo

& Invest 91L (50%)

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



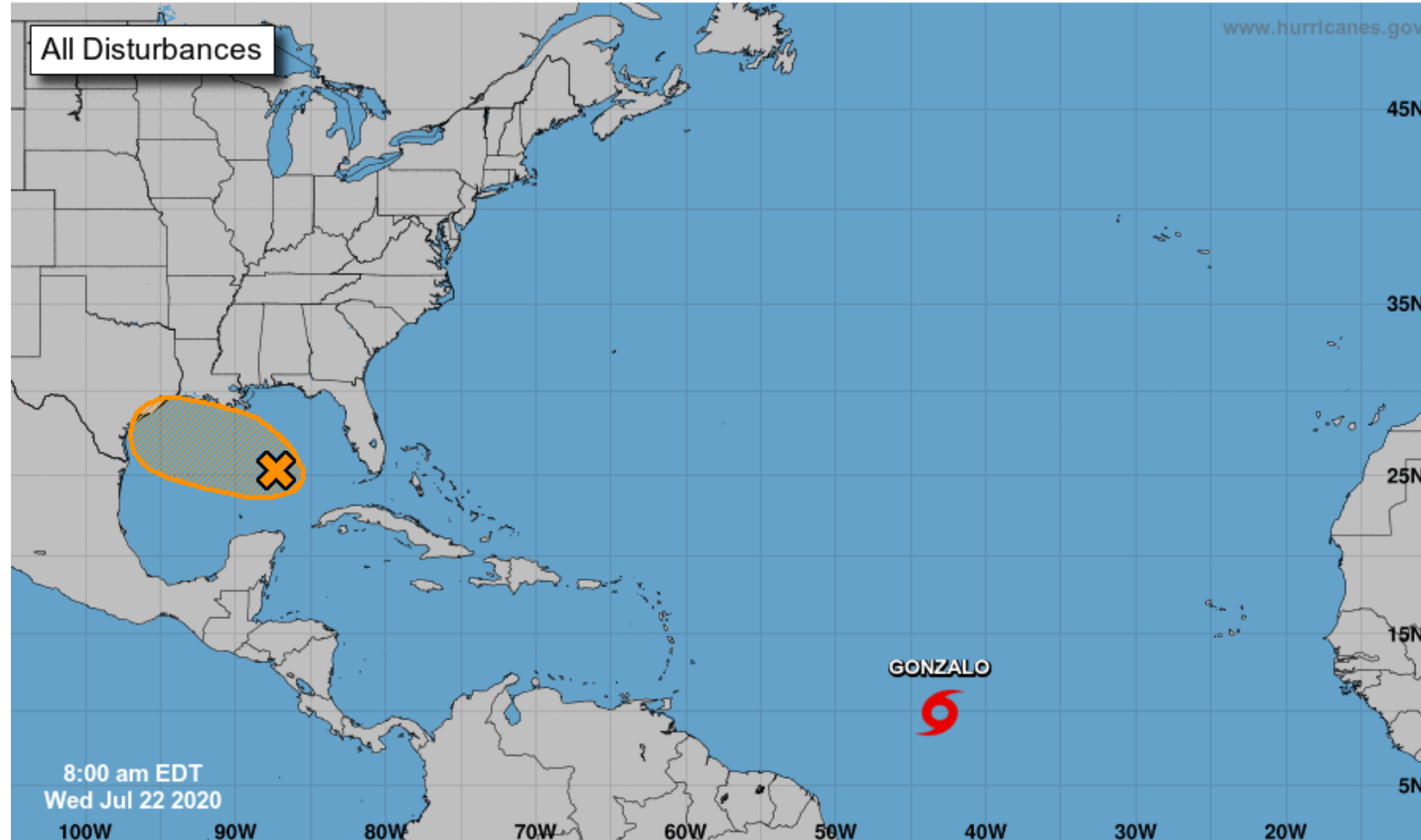


Tropical Weather Outlook

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

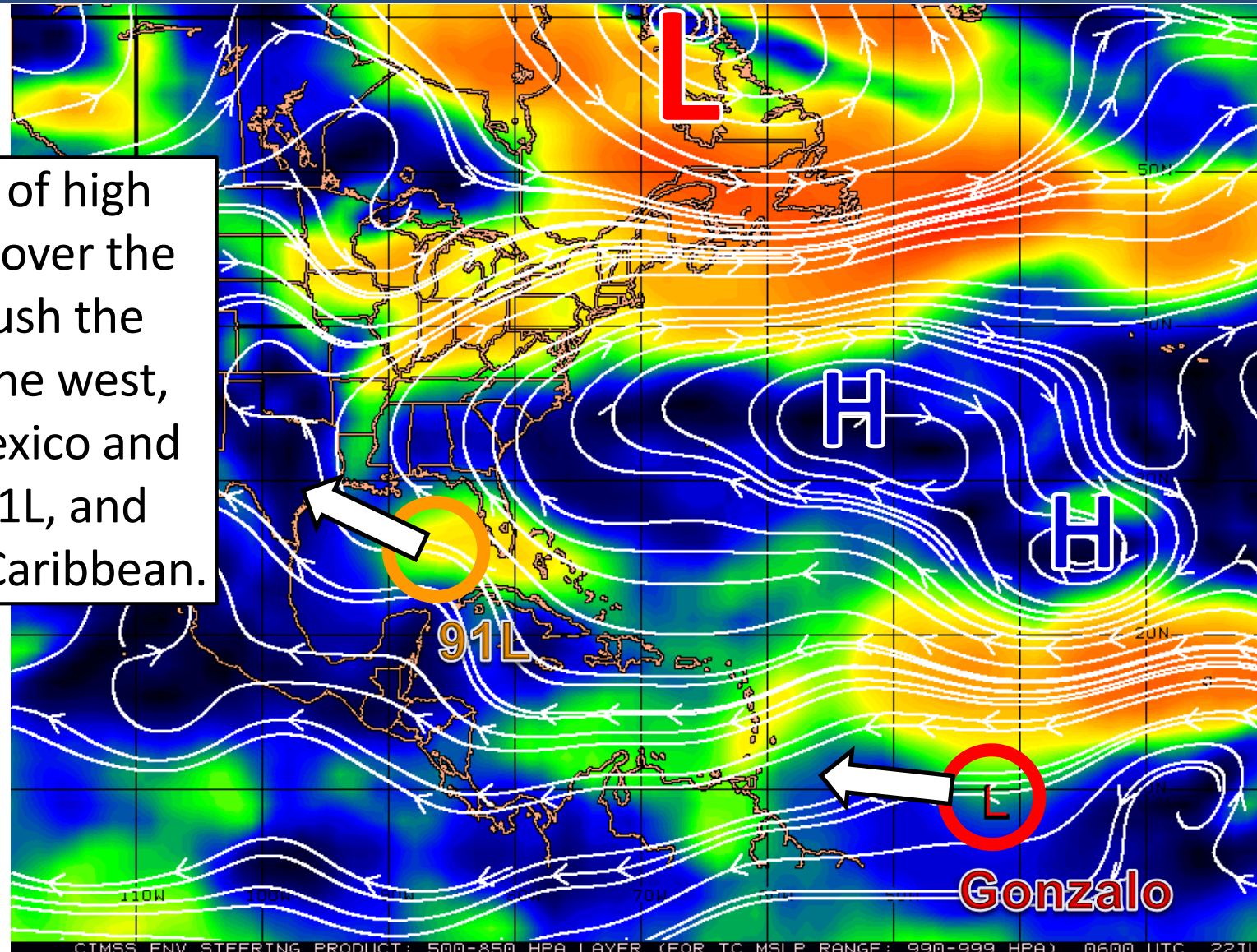


Steering Currents

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 the Atlantic. This will push the tropical systems to the west, across the Gulf of Mexico and towards Texas for 91L, and Gonzalo towards the Caribbean.



KTS
100
70
50
30
20
15
10
5
0

Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm



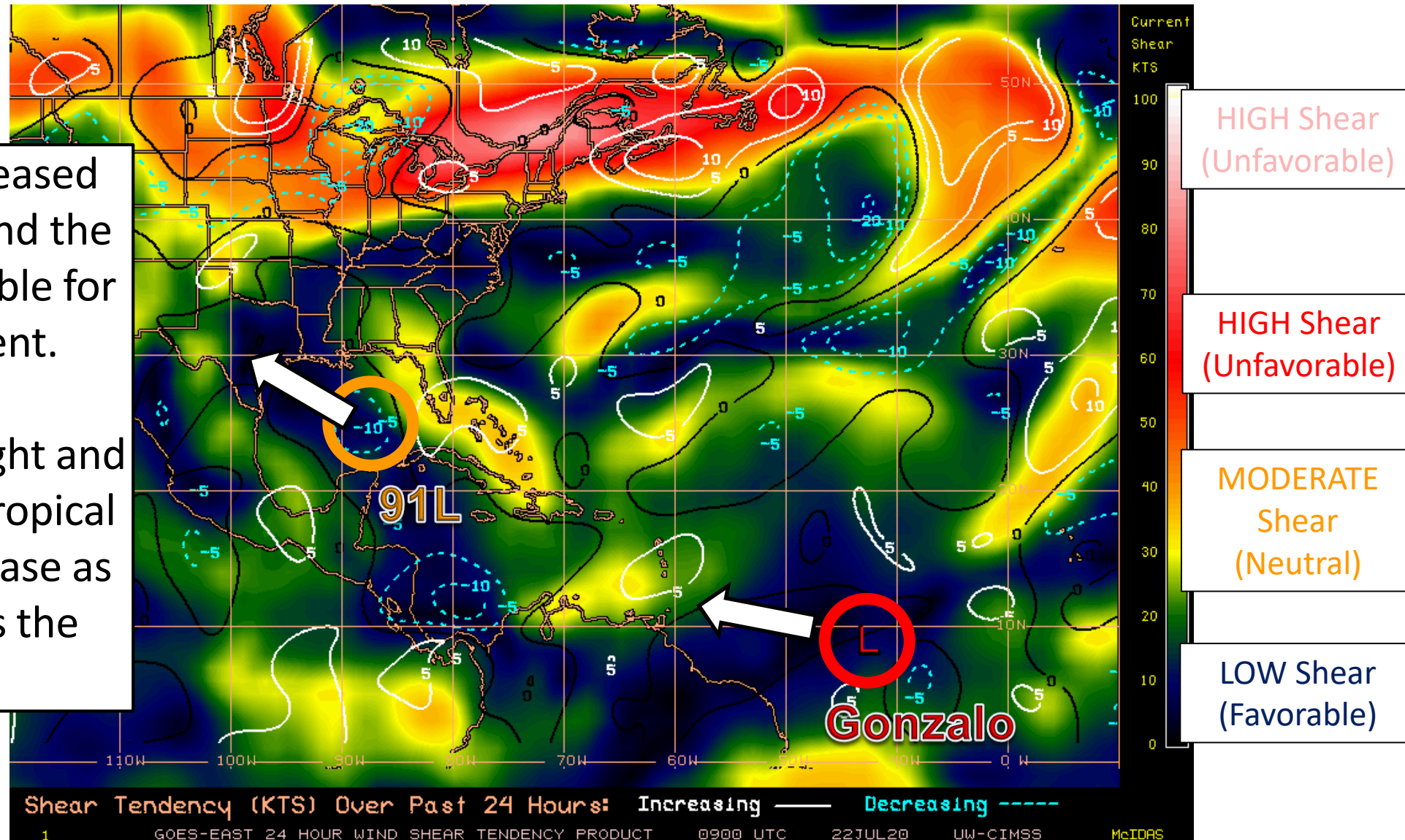
Wind Shear

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).

Wind shear has decreased over 91L in the Gulf and the environment is favorable for gradual development.

Wind shear remains light and favorable across the tropical Atlantic, but will increase as Gonzalo approaches the Caribbean.

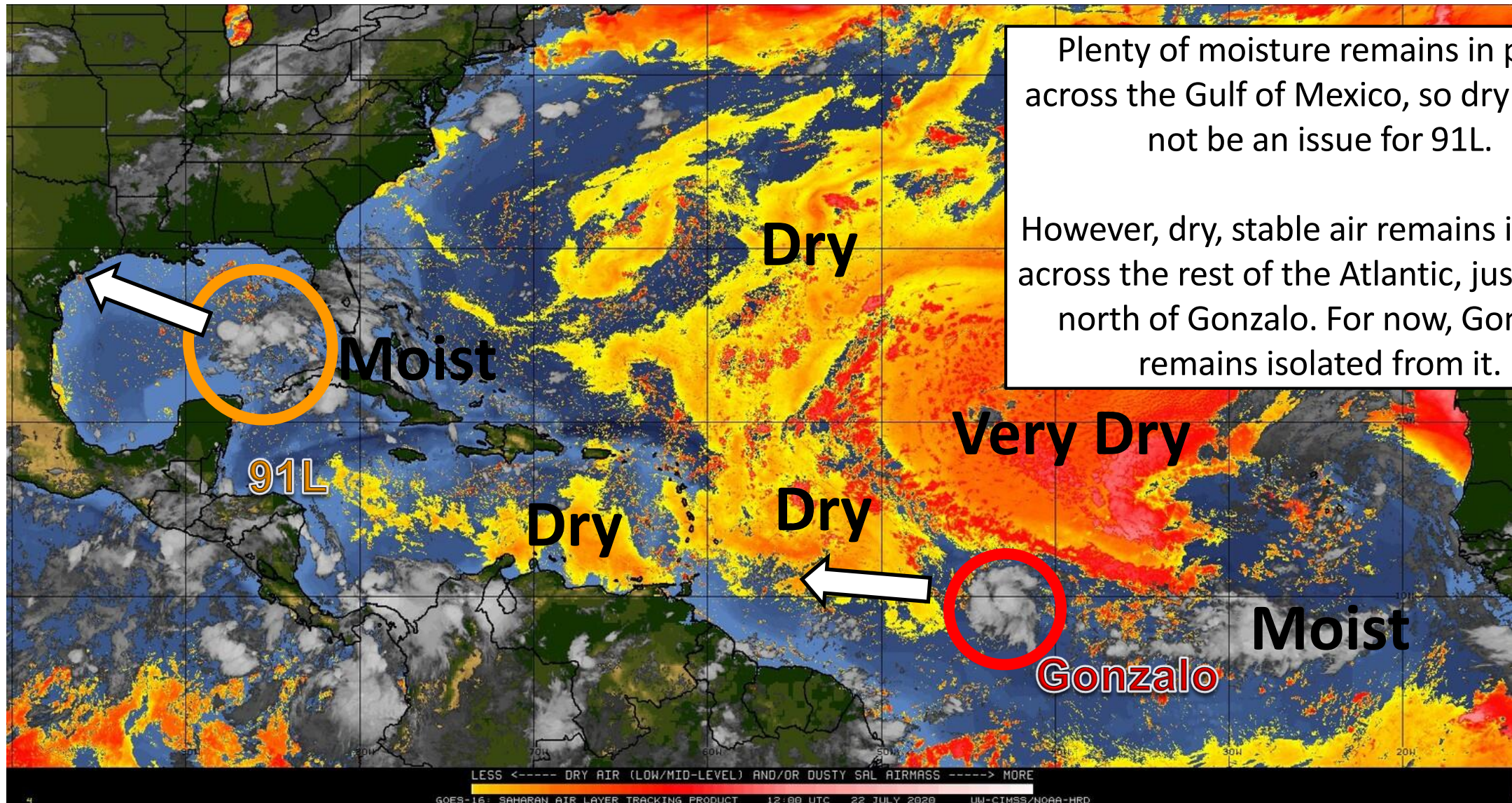




Dry Air & Saharan Dust

Is the environment favorable for the system?

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





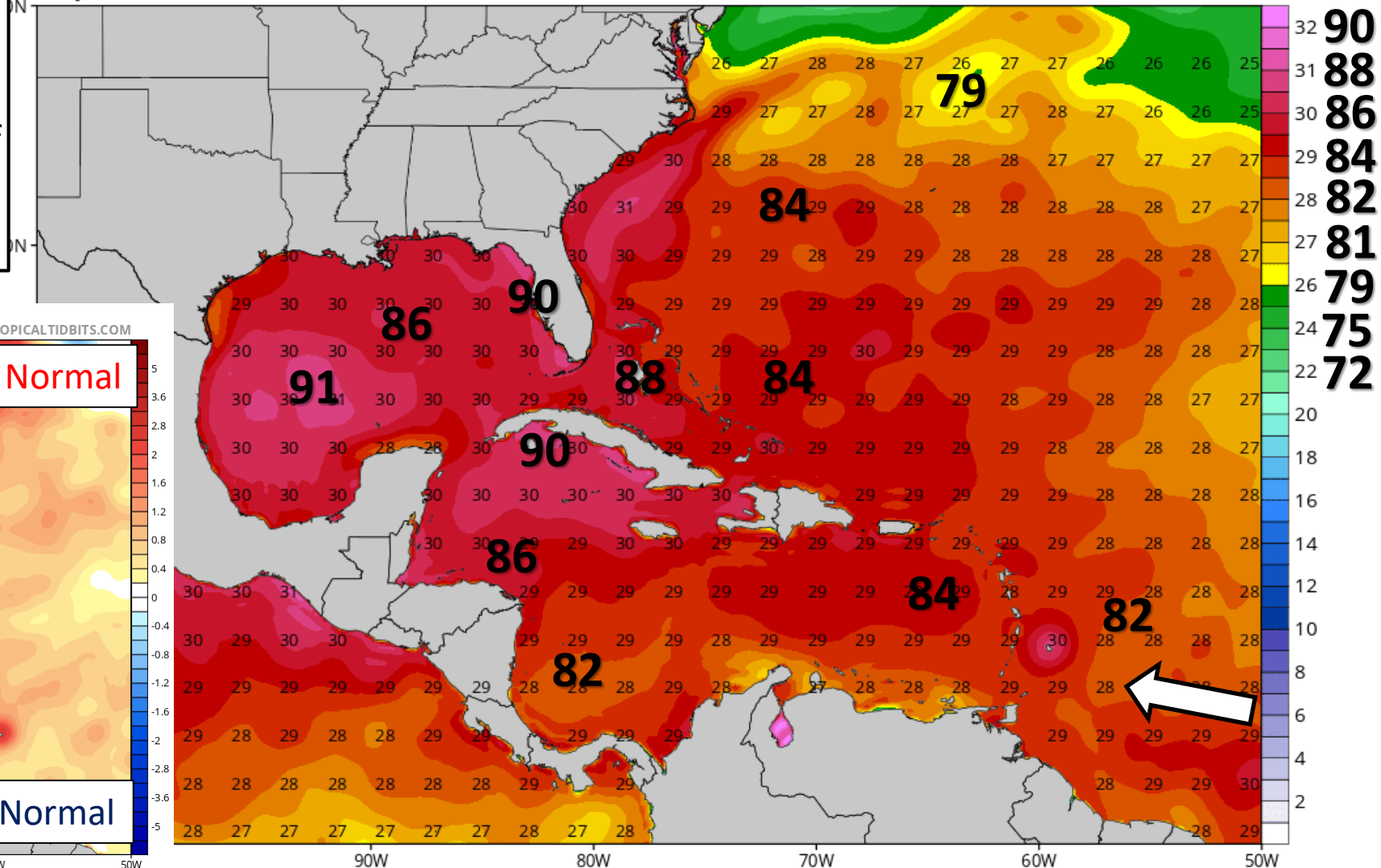
Sea Surface Temperatures & Anomalies

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 Gonzalo moves west, water temperatures will warm.

CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Jul 22 2020



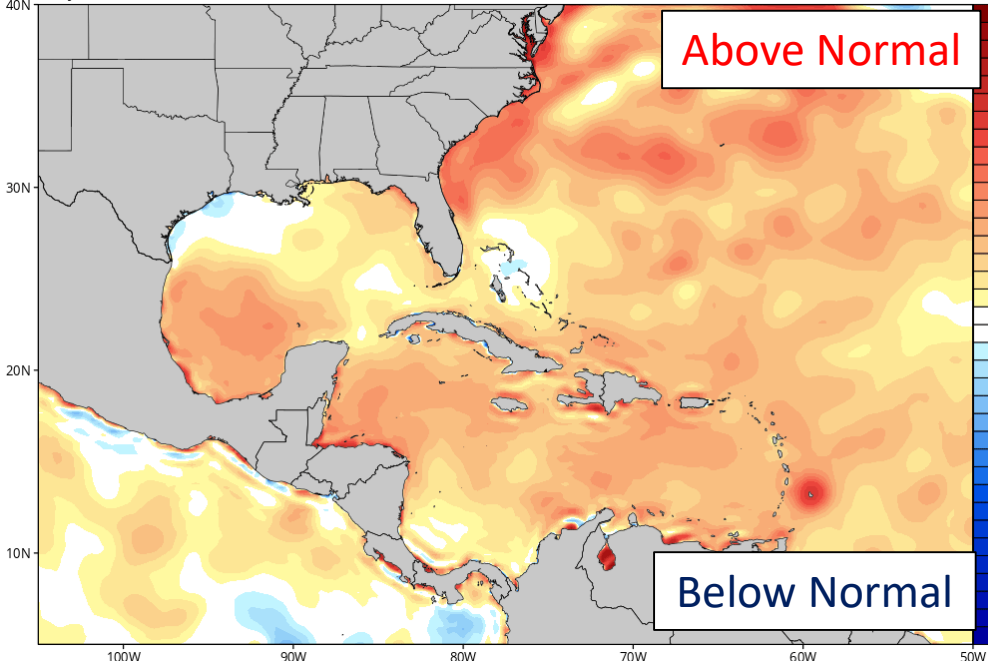
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°F
90
88
86
84
82
81
79
75
72

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

Analysis Time: 06z Jul 22 2020

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Above Normal

Below Normal

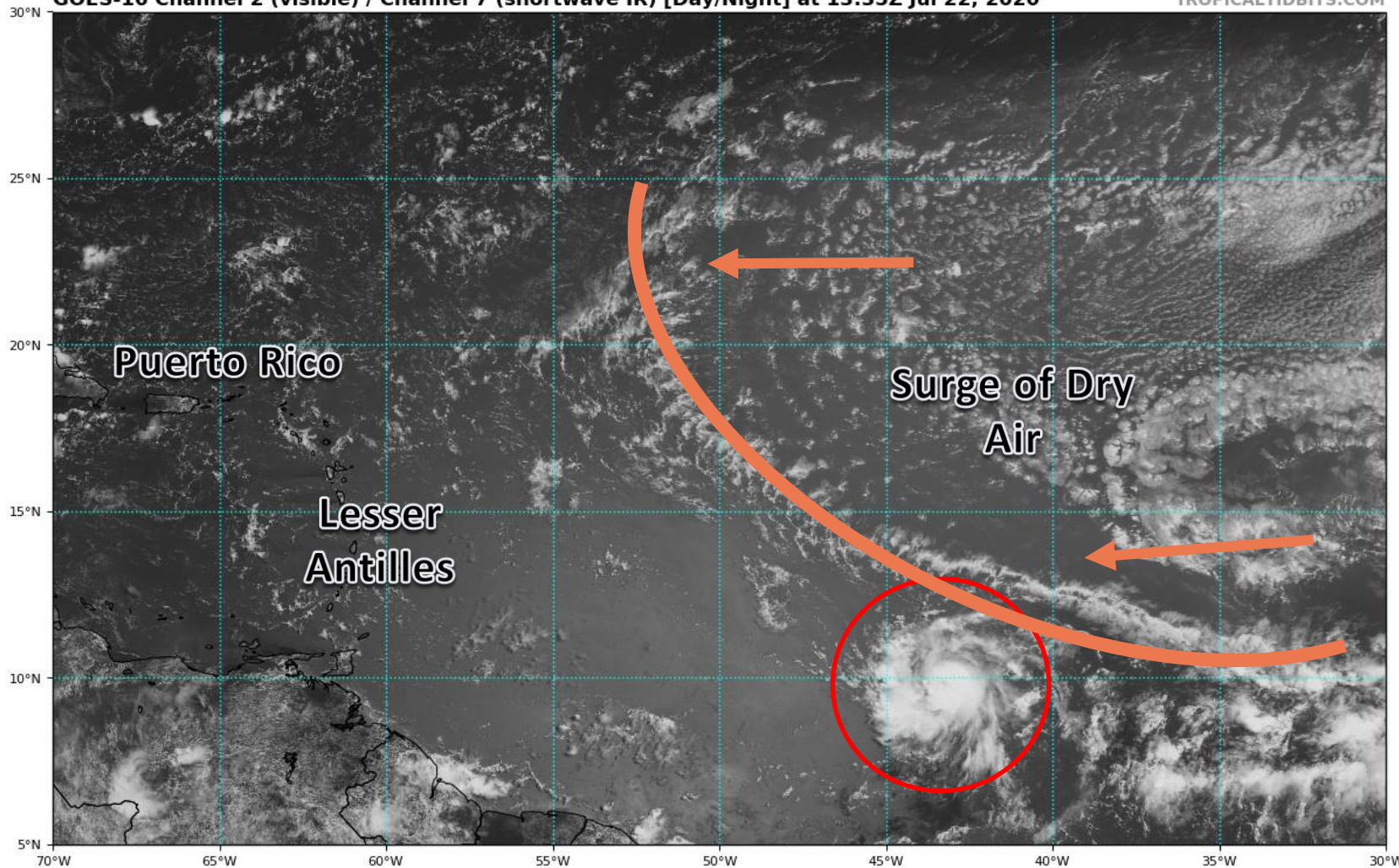


Satellite Imagery

Central Atlantic – Tropical Storm Gonzalo

GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 13:35Z Jul 22, 2020

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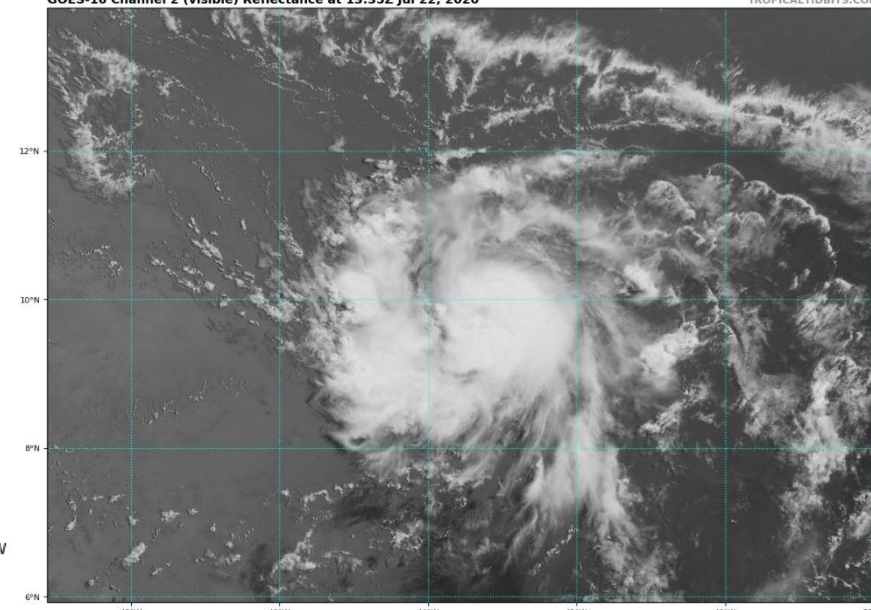


Tropical Storm Gonzalo has continued to organize, becoming more symmetric and attempting to develop an eyewall.

Dry air remains to the north of the system for now, but is catching up. For now, the system remains well insulated from the dry air mass.

GOES-16 Channel 2 (visible) Reflectance at 13:35Z Jul 22, 2020

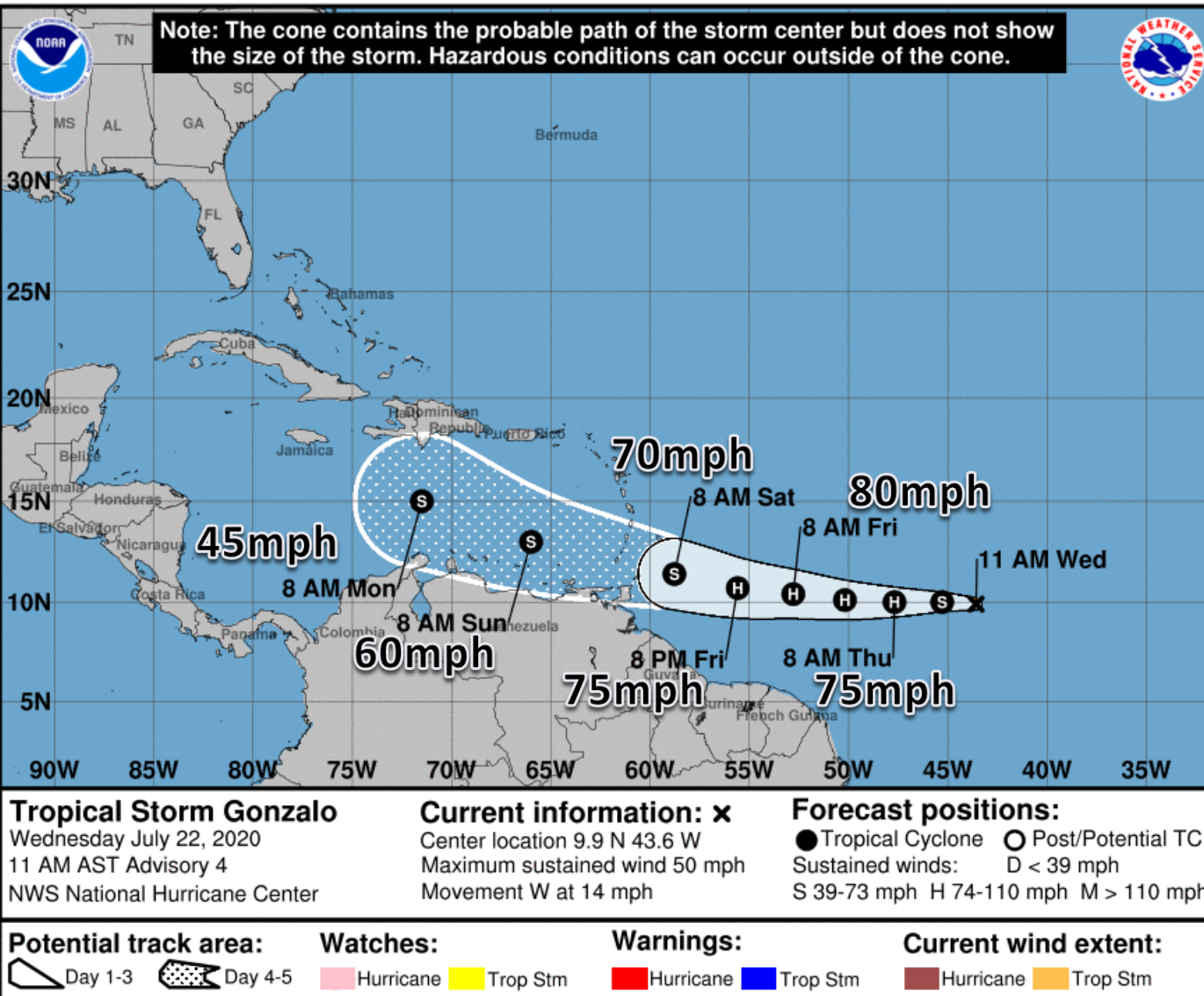
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Official Forecast Track

From the National Hurricane Center – Tropical Storm Gonzalo



- The center of Tropical Storm Gonzalo is about 1,200 miles east of Barbados in the southern Windward Islands.
- Maximum sustained winds are near 50mph and gradual strengthening is forecast over the next few days.
- Hurricane strength is likely by Thursday
- Gonzalo is moving to the west at 14 mph, and a gradual increase in forward speed is expected
- Gonzalo will move through the Caribbean early next week where some weakening is forecast



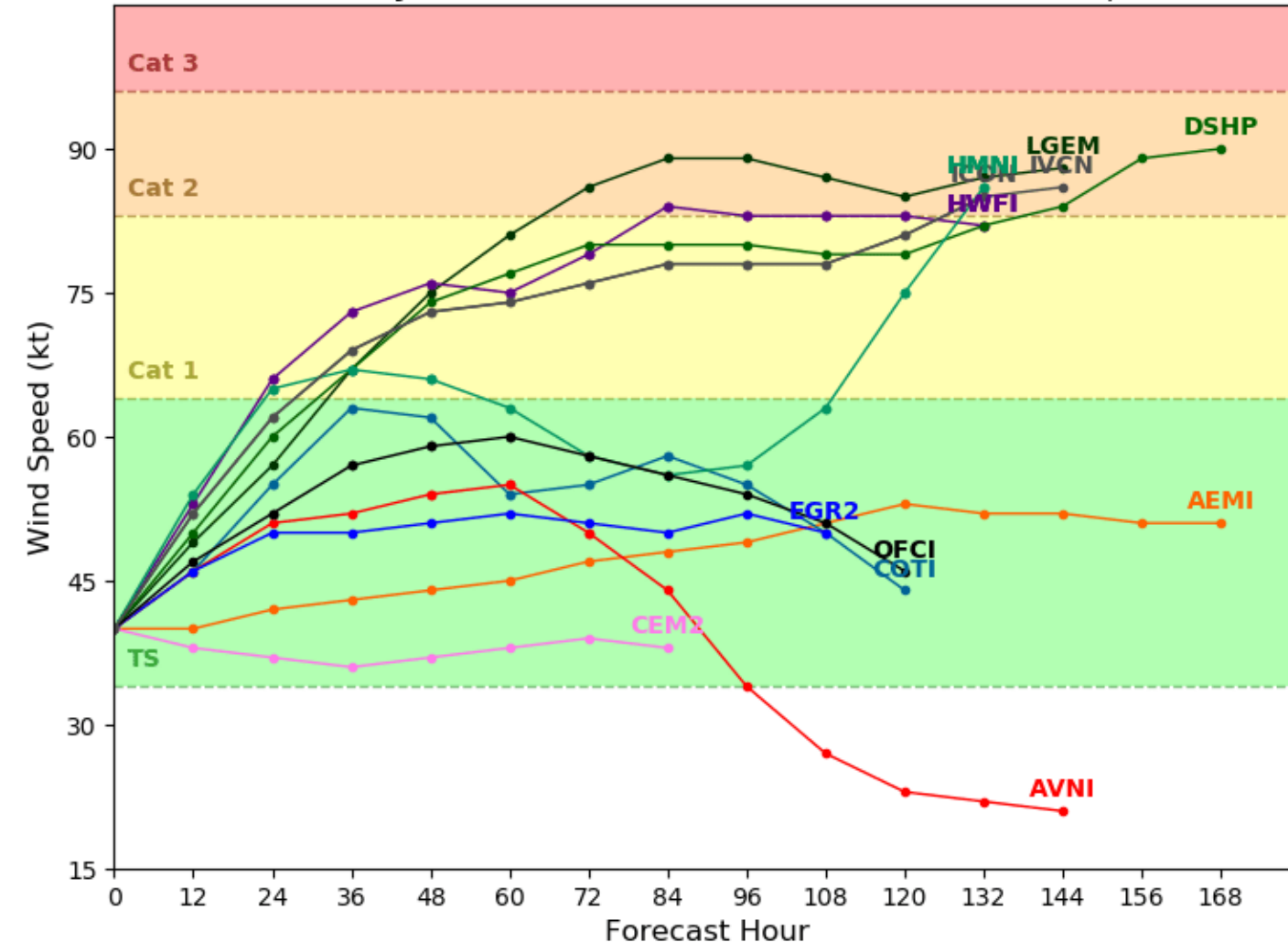
Model Forecast Intensity

Dynamical and Statistical Models – Tropical Storm Gonzalo

Tropical Storm GONZALO Model Intensity Guidance

Initialized at 12z Jul 22 2020

Levi Cowan - tropicaltidbits.com



There is a **SIGNIFICANT SPREAD** in the intensity forecast of this system.

The National Hurricane Center is forecasting a Category 1 hurricane, but as the system reaches the Caribbean, the possibilities range from a hurricane to a weak, remnant low.

Small systems in this part of the Atlantic are difficult to forecast! Stay tuned to the forecast.



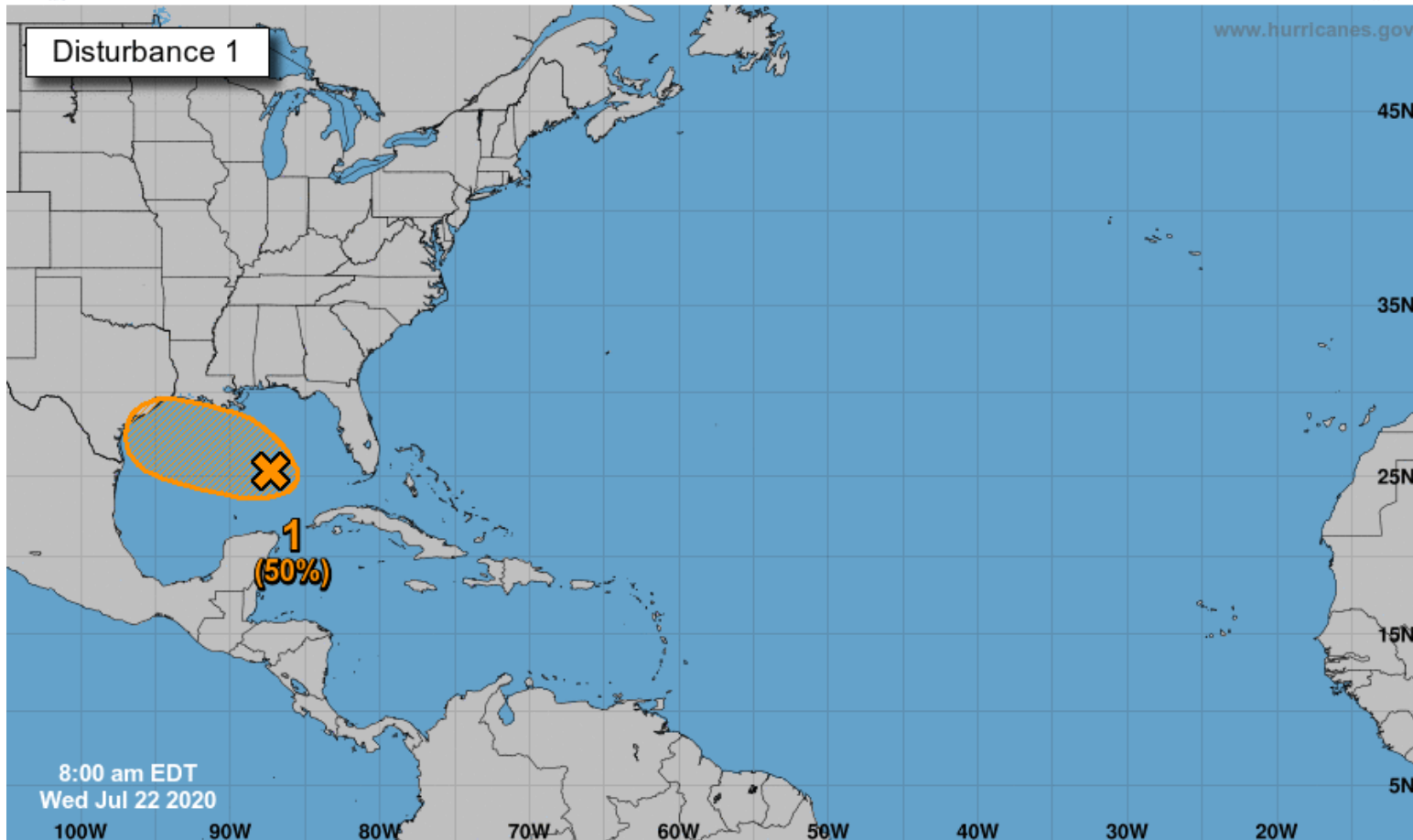
Tropical Weather Outlook

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 the eastern Gulf of Mexico, central and southern Florida, and western Cuba.

Gradual development of this system is possible while it moves west-northwestward, and a tropical depression could form during the next few days.

This disturbance is expected to move over the central Gulf today, and reach the northwestern Gulf on Thursday and Friday.

An Air Force Reserve Hurricane Hunter aircraft is scheduled to investigate the system later today, if necessary.

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

***Formation chance through 5 days...medium...50%**

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

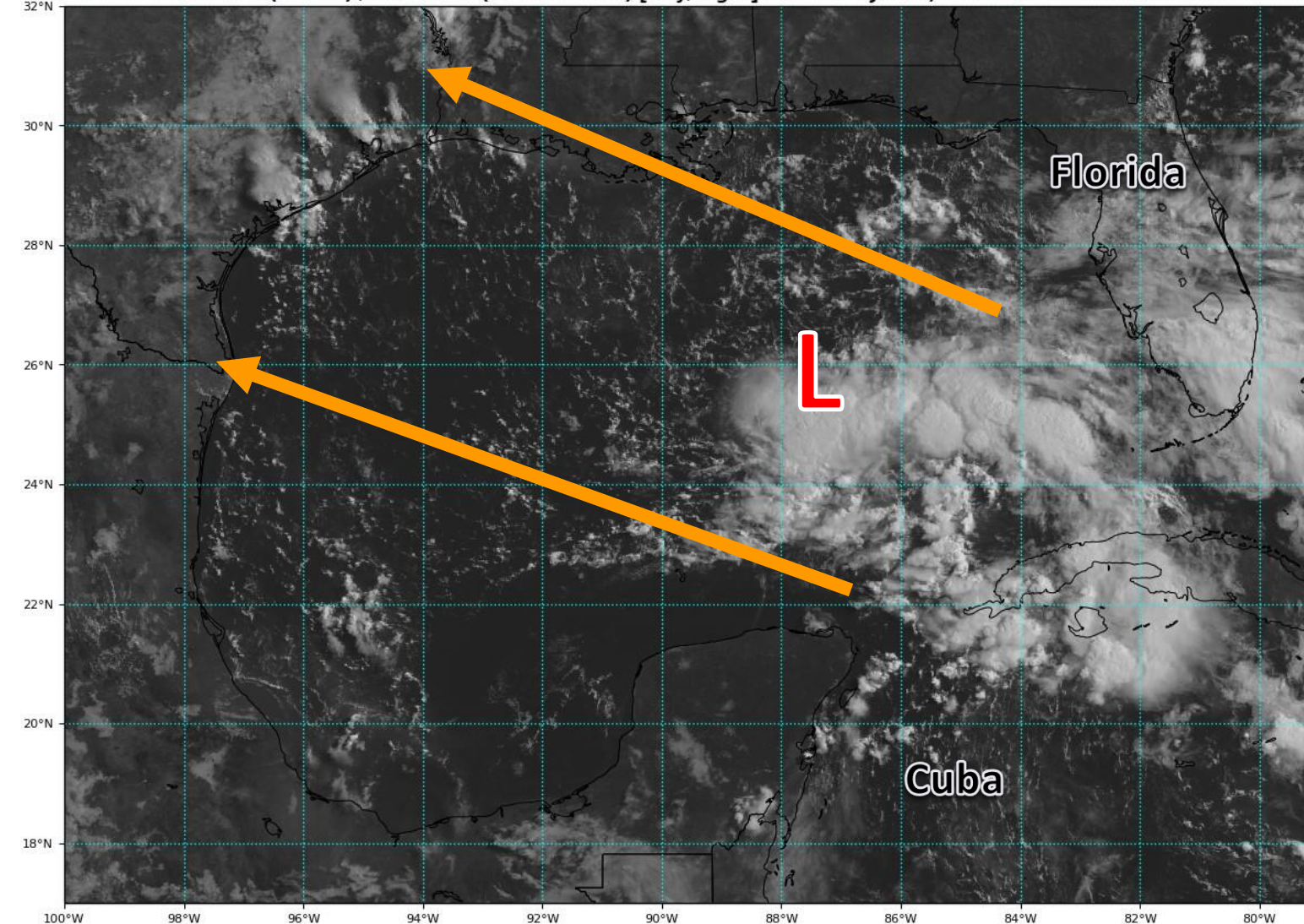


Satellite Imagery

Invest 91L (50%)

GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 13:45Z Jul 22, 2020

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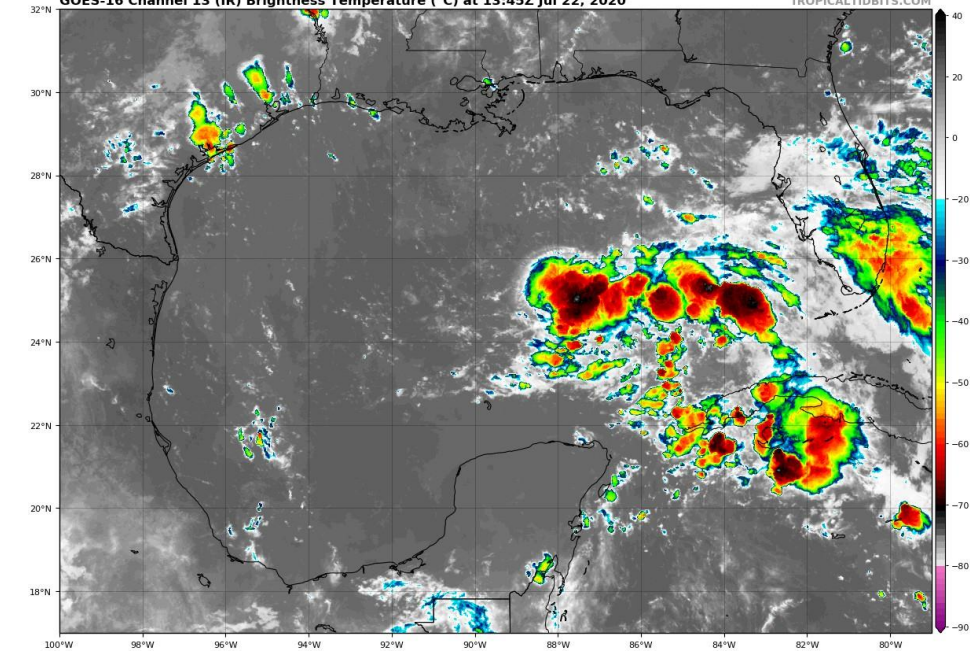


A small area of low pressure is located in the Central Gulf of Mexico, but it has become better define overnight.

Thunderstorms are developing near the center has it moves into more favorable conditions.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 13:45Z Jul 22, 2020

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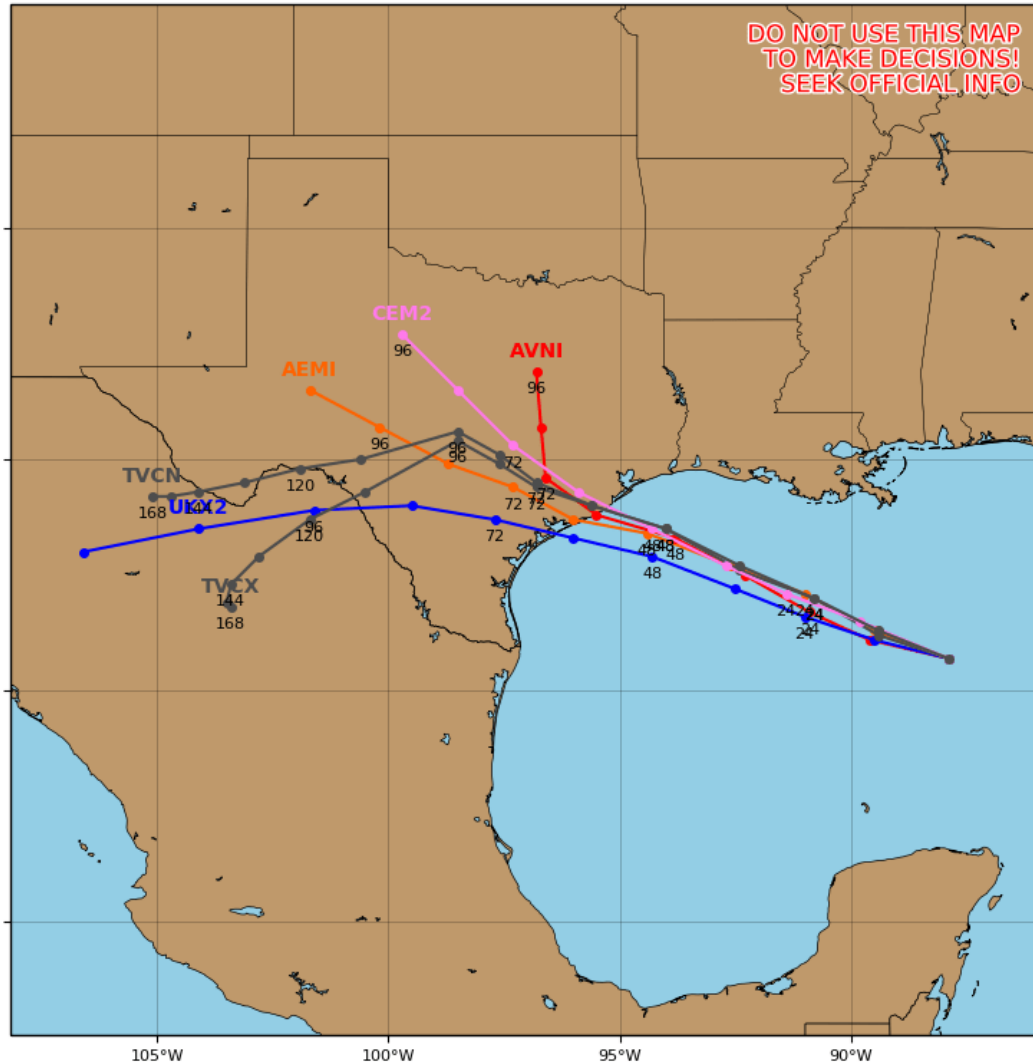
Model Forecast Tracks

Ensembles, Dynamical, and Statistical Models

Invest 91L Model Track Guidance

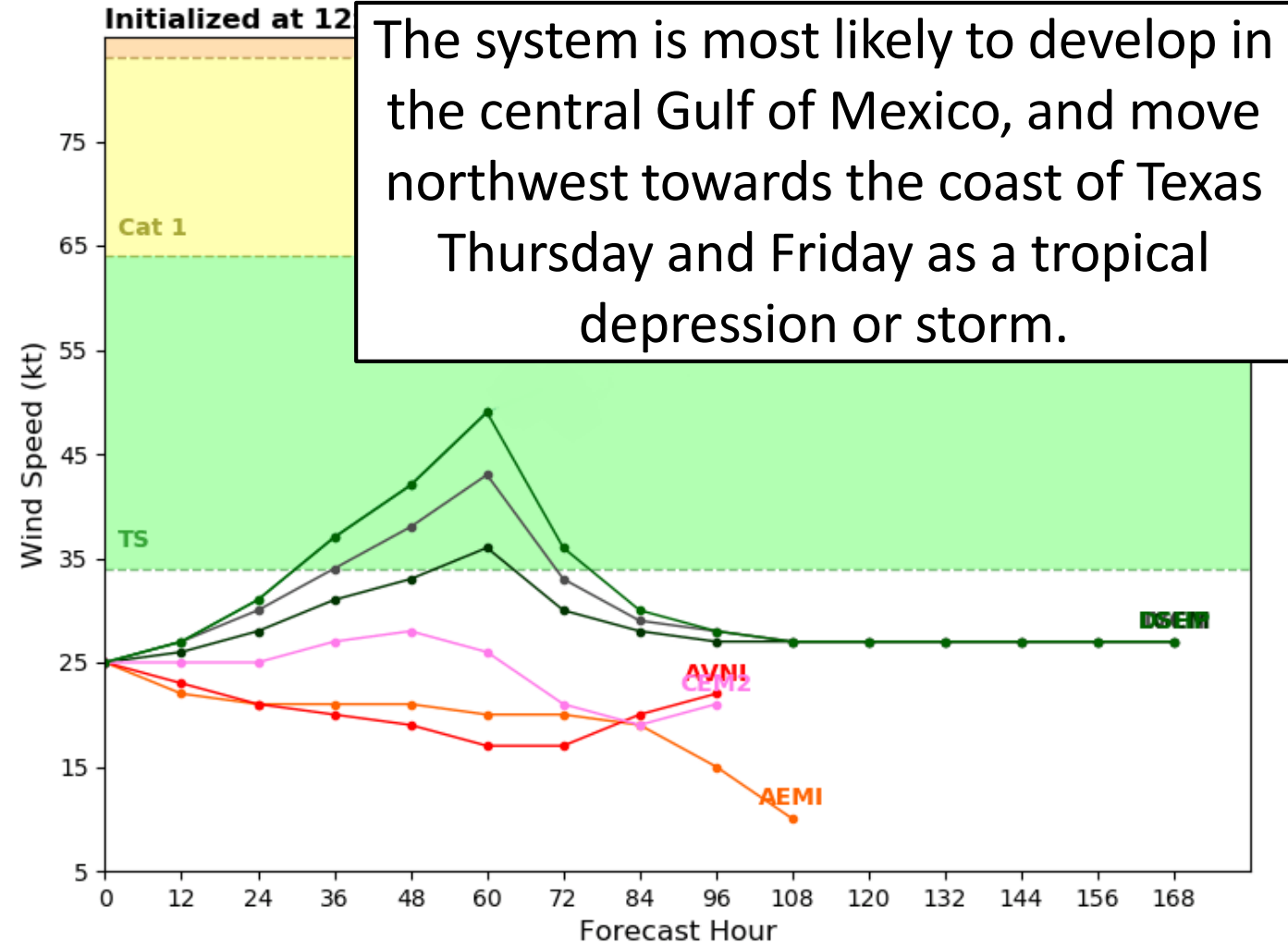
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Invest 91L Model Intensity Guidance

Initialized at 12z





Overall Summary

Invest 91L

- An area of low pressure is located in the central Gulf of Mexico and is gradually organizing.
- Conditions are favorable for development as it moves west-northwest towards Texas and Louisiana.
- Air Force Reserve Hurricane Hunter aircraft are scheduled to investigate the system this afternoon.
- The chance of development is 40% (medium) over the next 48 hours, and 50% (medium) over the next 5 days.
- The next name on the list is Hanna.

Tropical Storm Gonzalo

- Tropical Depression Seven continued to organize overnight, and at 9 AM ET, was upgraded to Tropical Storm Gonzalo.
- As of the 11 AM ET advisory, the center of Gonzalo is located about 1,200 miles east of Barbados in the southern Windward Islands, moving to the west at 14 mph.
- Maximum sustained winds are near 50 mph, and Gonzalo is forecast to be a hurricane by Thursday.
- There is a surge of dry air to the north of the system that may interfere with development this weekend as it moves into the Caribbean, but for the intensity forecast has higher uncertainty than usual.
- Gonzalo, or its remnants, will likely move into the western Caribbean next week.



Overall Summary

Florida Outlook:

- Tropical Storm Gonzalo poses no threat to Florida through early next week, but it should continue to be monitored.
-
- For Invest 91L in the central Gulf of Mexico: Increased rain chances are expected across the Peninsula today and Thursday, particularly in Southeast Florida and 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.**
 - An elevated rip current risk is ongoing at all Panhandle and Atlantic beaches through mid-week, with tides running about 1' above normal along the Gulf Coast.

The next briefing packet will be issued late Thursday morning. 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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