



# TROPICAL UPDATE



11:00 AM EDT

Tuesday, July 28, 2020

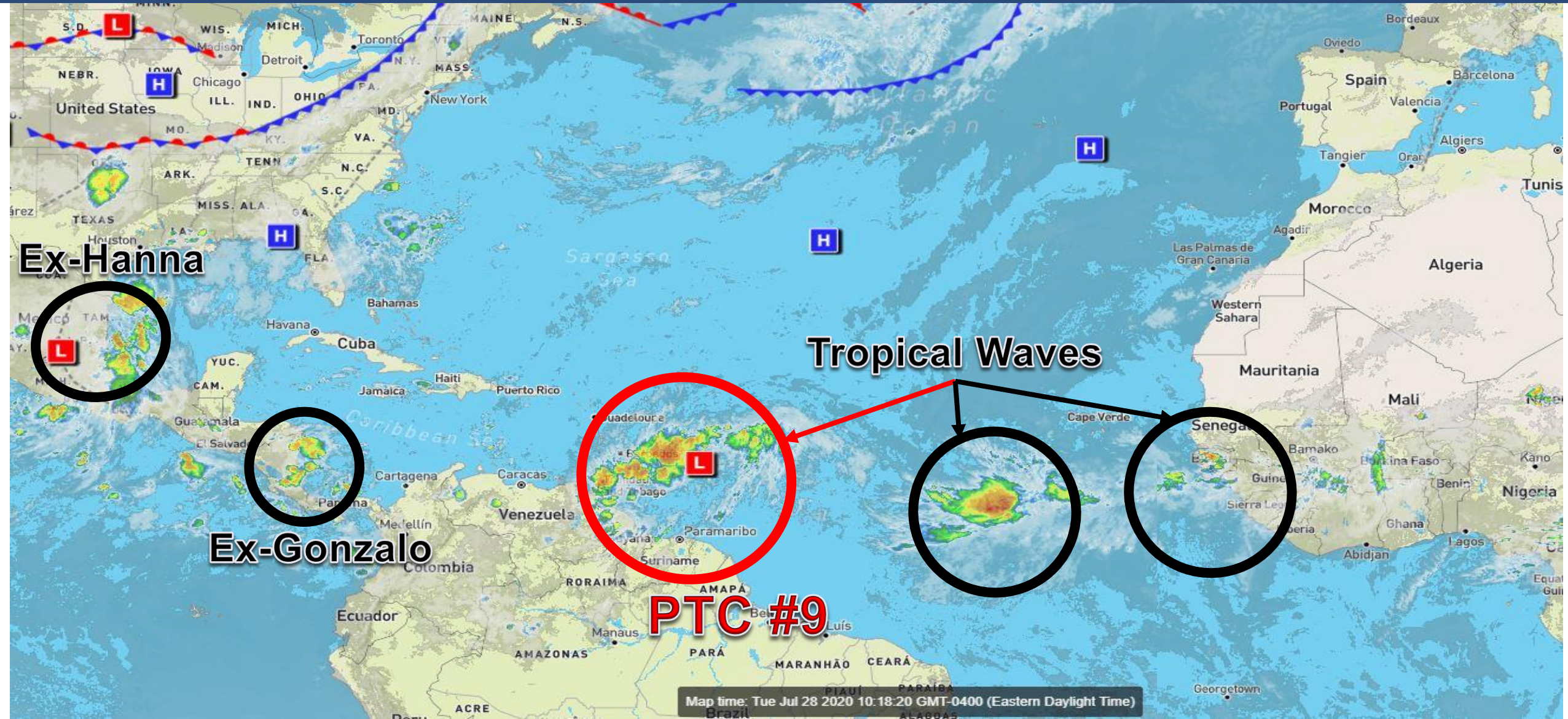
## Potential Tropical Cyclone Nine

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](http://www.hurricanes.gov).



# Atlantic Basin Satellite Image

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





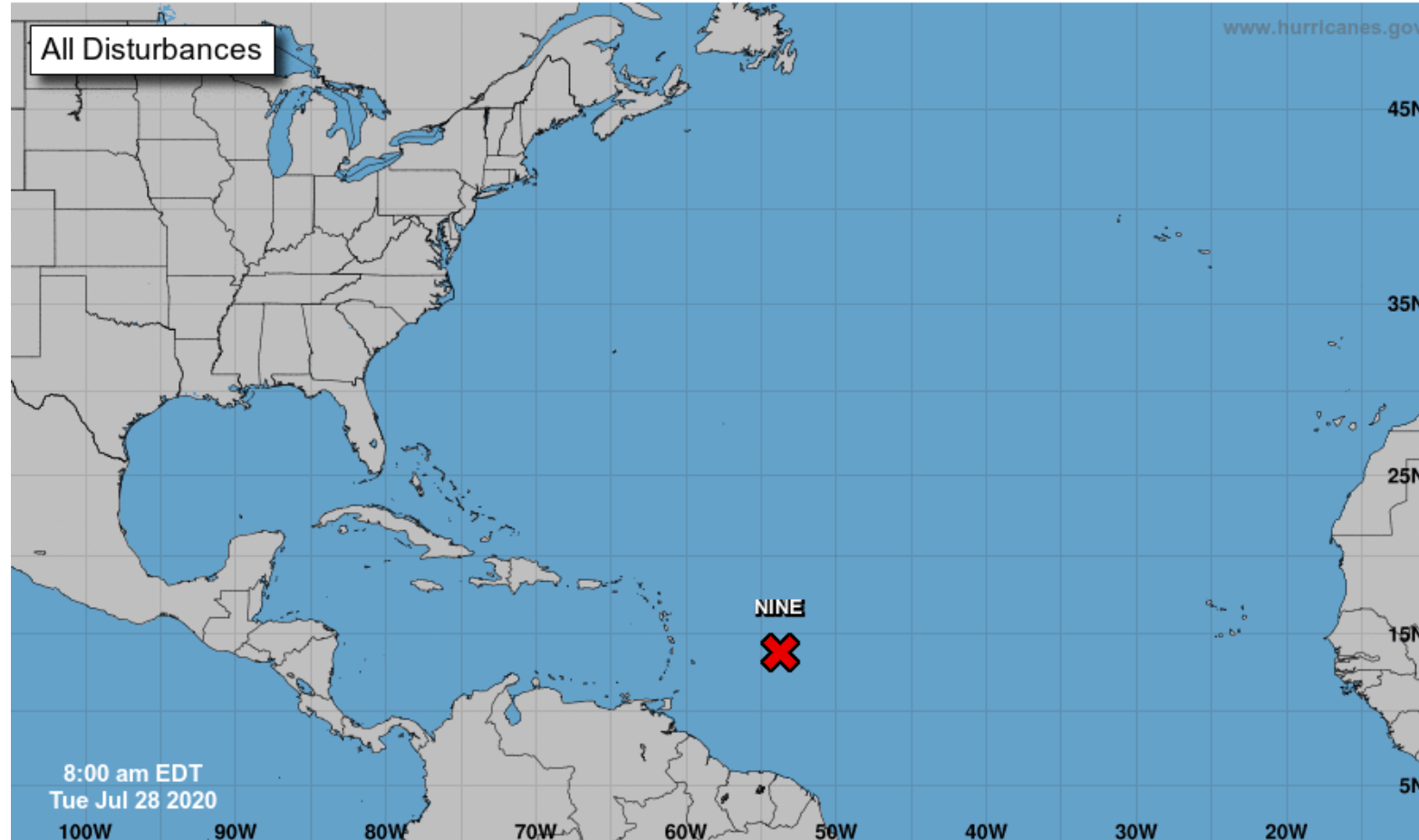


# Tropical Weather Outlook

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

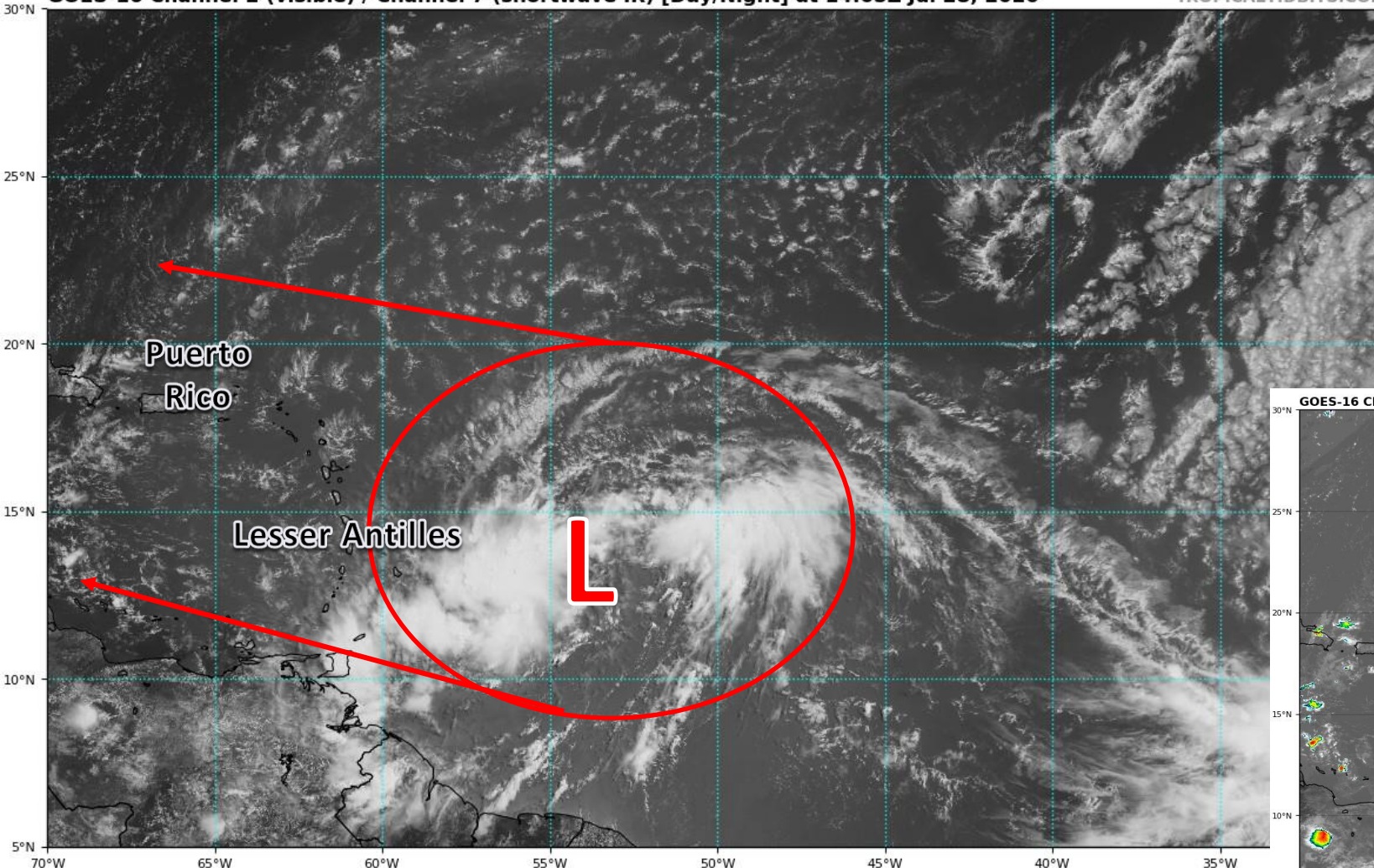


# Satellite Imagery

## Central Atlantic – PTC #9

GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 14:05Z Jul 28, 2020

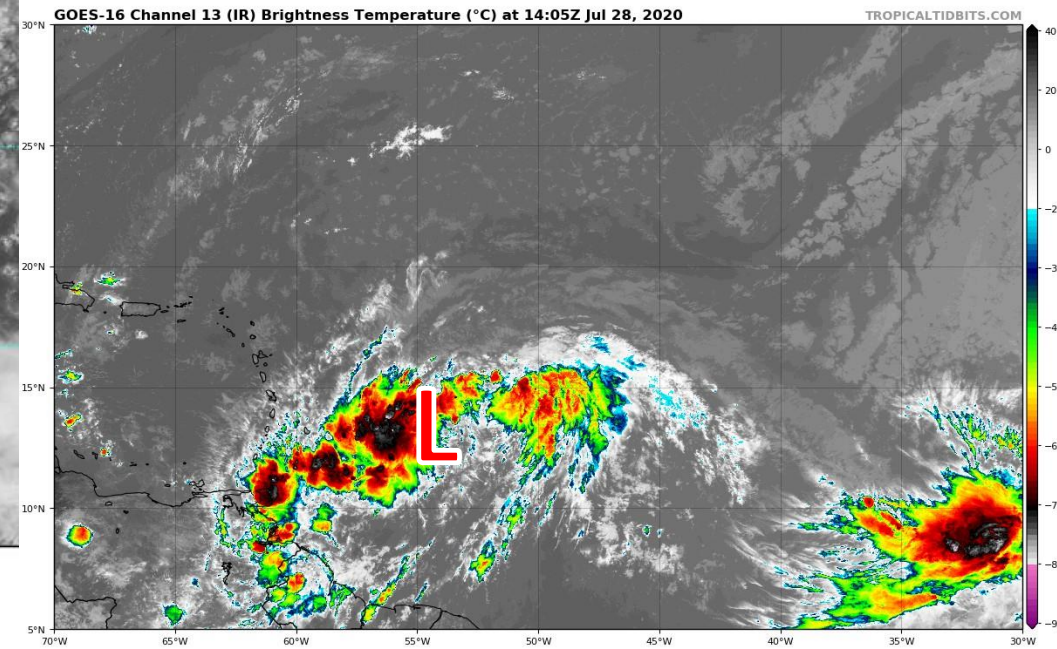
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The system continues to have a large, broad circulation- several hundred miles across. However, it has started to consolidate on the southwest side and a low pressure area appears to be forming there.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:05Z Jul 28, 2020

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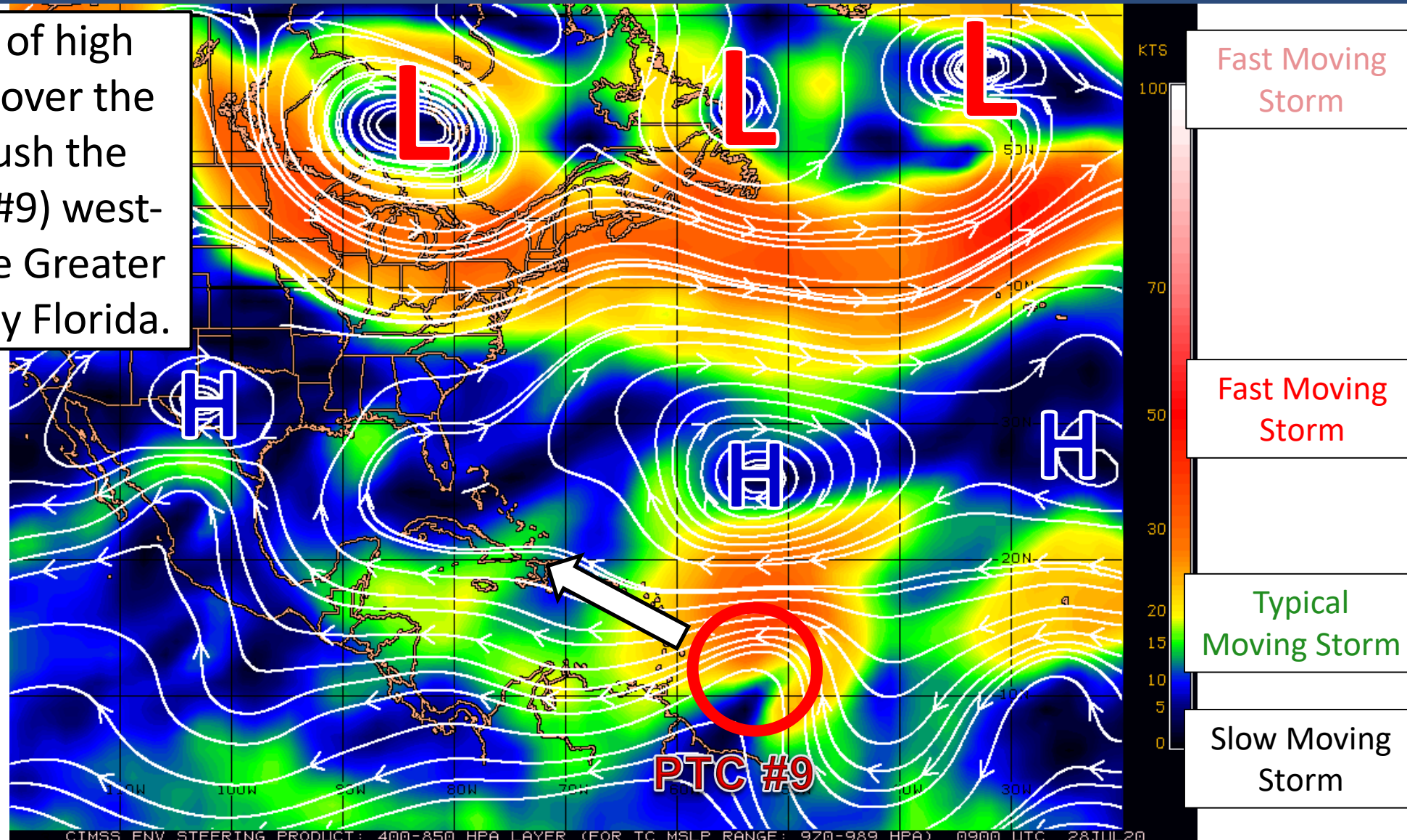


# Steering Currents

What is moving the system?

A large, strong area of high pressure is centered over the Atlantic. This will push the tropical system (PTC #9) west-northwest toward the Greater Antilles and eventually Florida.

Color denotes the movement speed through the atmosphere and thin white lines denote direction. Tightly clustered white lines represent faster movement as well.





# Official Forecast Track

From the National Hurricane Center – PTC #9



- The center of Potential Tropical Cyclone Nine is estimated to be about 585 miles east of the Leeward Islands.
- Maximum sustained winds are around 40 mph.
- Potential Tropical Cyclone Nine is moving to the west at 23 mph, and a west-northwest movement is expected over the next few days
- The system will near Puerto Rico in about 48 hours and Florida in 5 days.



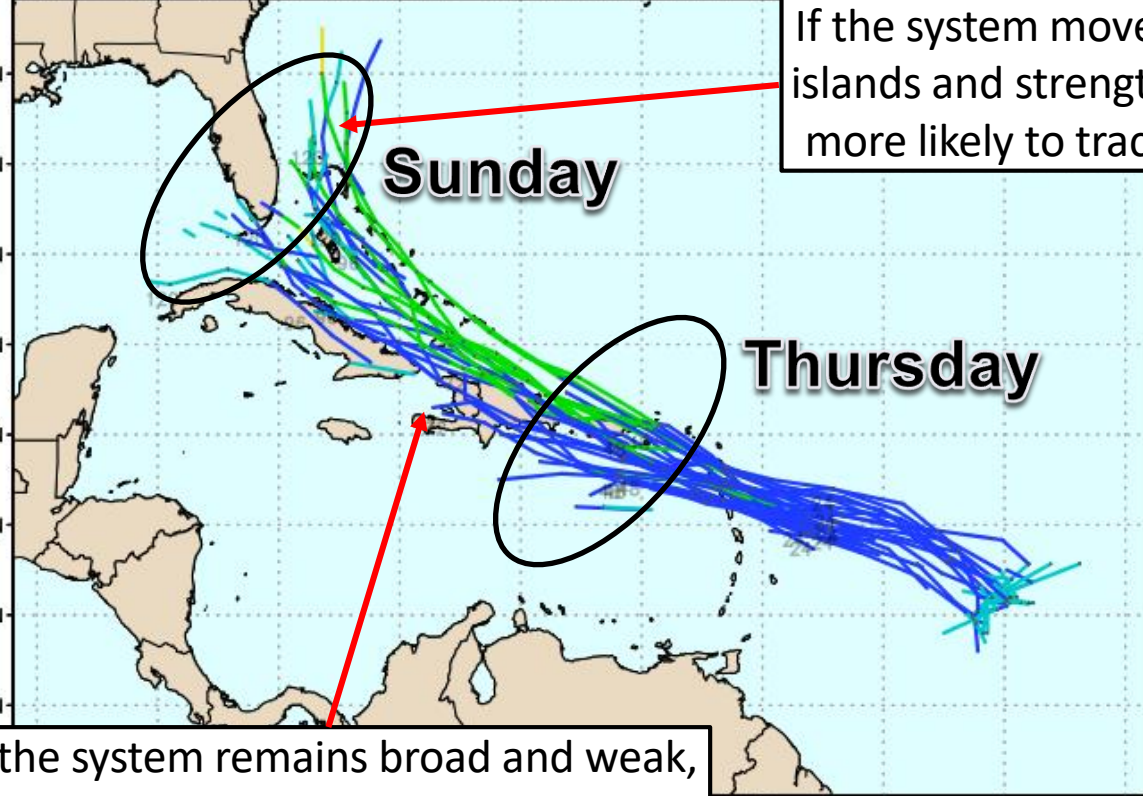


# Model Forecast Tracks

## Ensembles, Dynamical, and Statistical Models

**\*\*Until a more defined center forms, these models tracks are only guessing the starting location and are prone to more significant errors than usual\*\***

ECMWF Ens. (0-120h only), init: 2020072800, AL92 Invest color = max wind (kt)



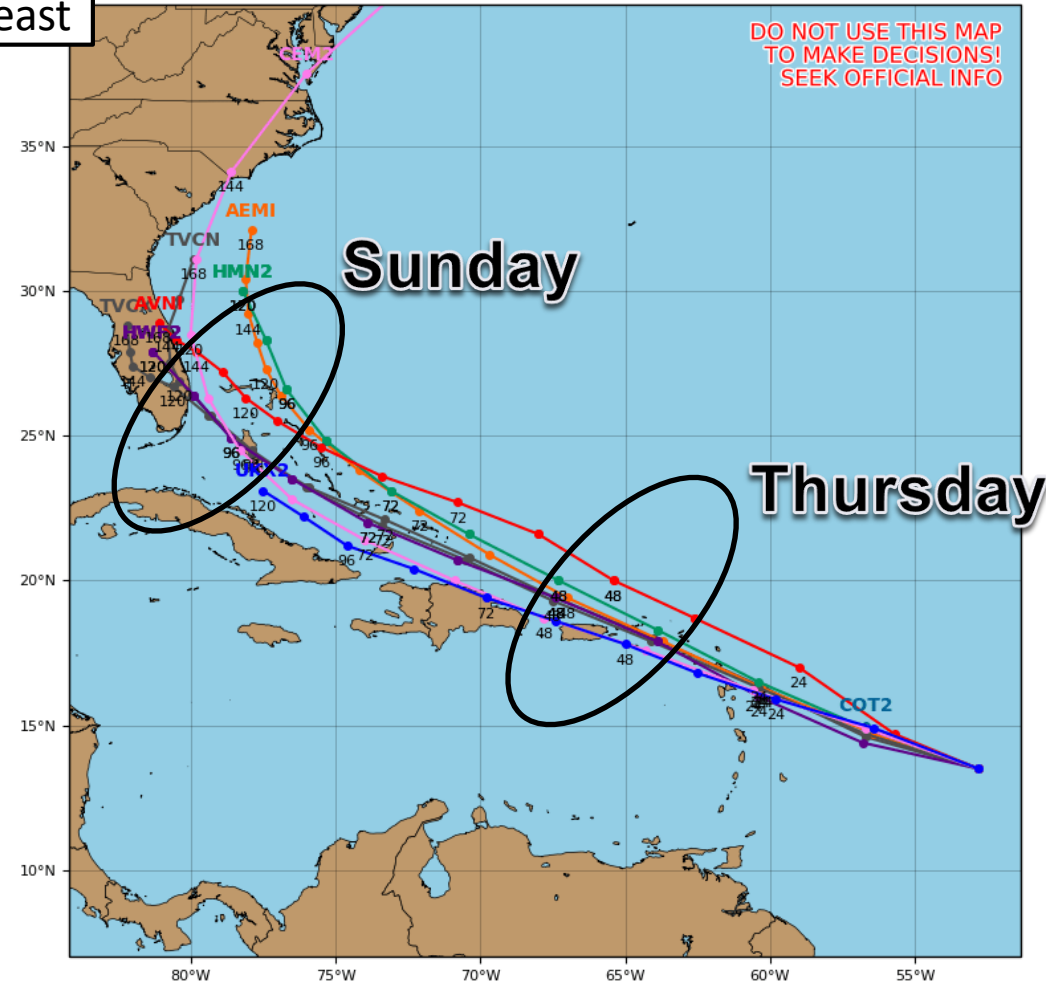
If the system moves north of the islands and strengthens quickly, it is more likely to track further east

If the system remains broad and weak, it will track further south through the Caribbean and possibly over the islands. This will limit the development, but will be more likely to bring rainy weather to Florida early next week.

### Invest 92L Model Track Guidance

Initialized at 12z Jul 28 2020

Levi Cowan - tropicaltidbits.com



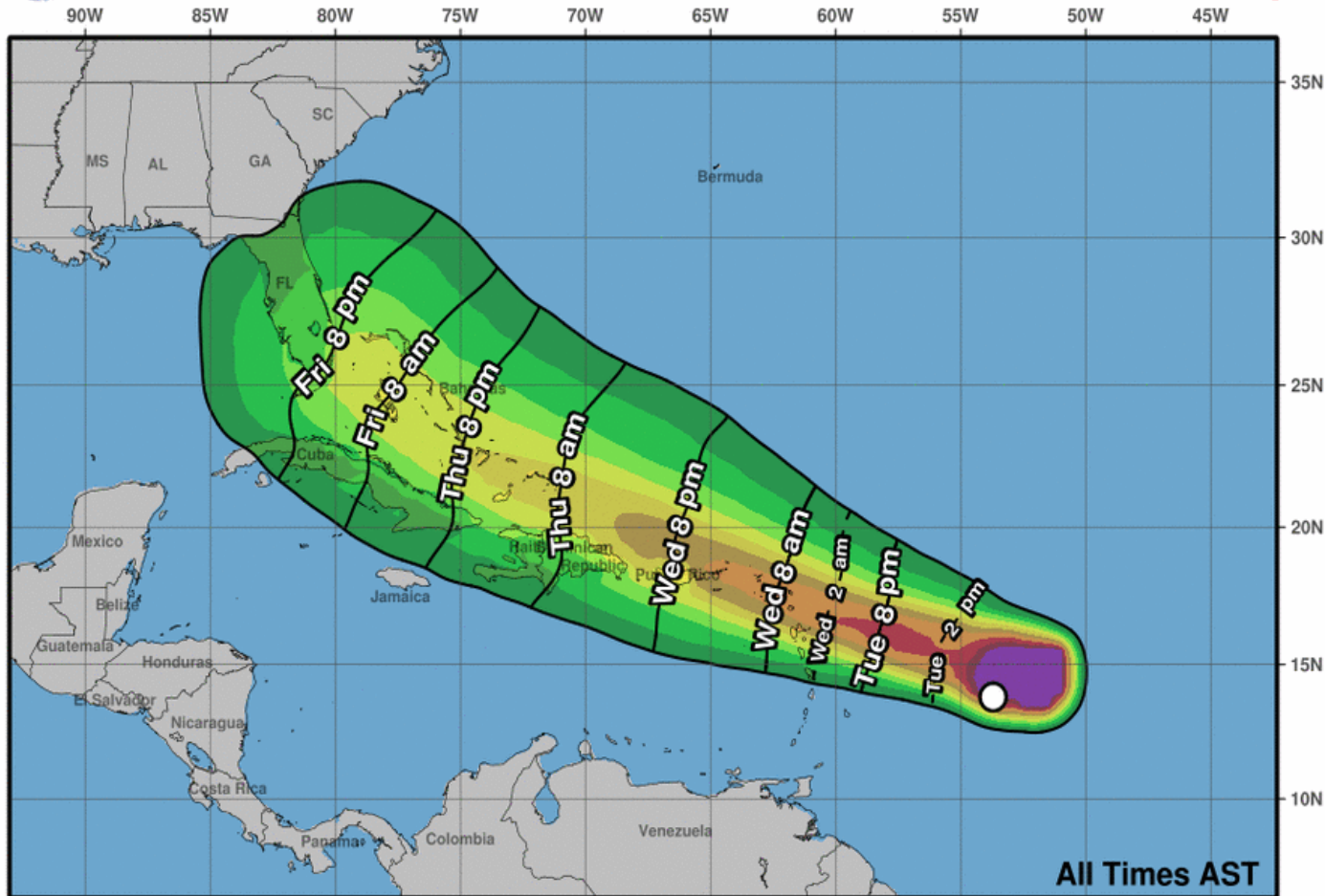


# Time of Arrival & Wind Speed Probabilities

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



**Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds**



Potential Tropical Cyclone Nine  
Tue. Jul. 28, 2020 11 am AST  
Advisory 1

Storm Location &  
Wind Speed  
○ < 34 kt (39 mph)  
○ 34-63 kt (39-73 mph)  
● ≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (39+ mph) winds  
5 10 20 30 40 50 60 70 80 90 100 %

**Key West: 15%**  
**Miami: 19%**  
**West Palm Beach: 29%**  
**Ft. Pierce: 26%**  
**Daytona Beach: 10%**  
**Jacksonville: 7%**

The most likely chance of tropical storm force winds starting will be Saturday Night and Sunday in Southeast Florida, but could arrive AS EARLY AS Friday night.



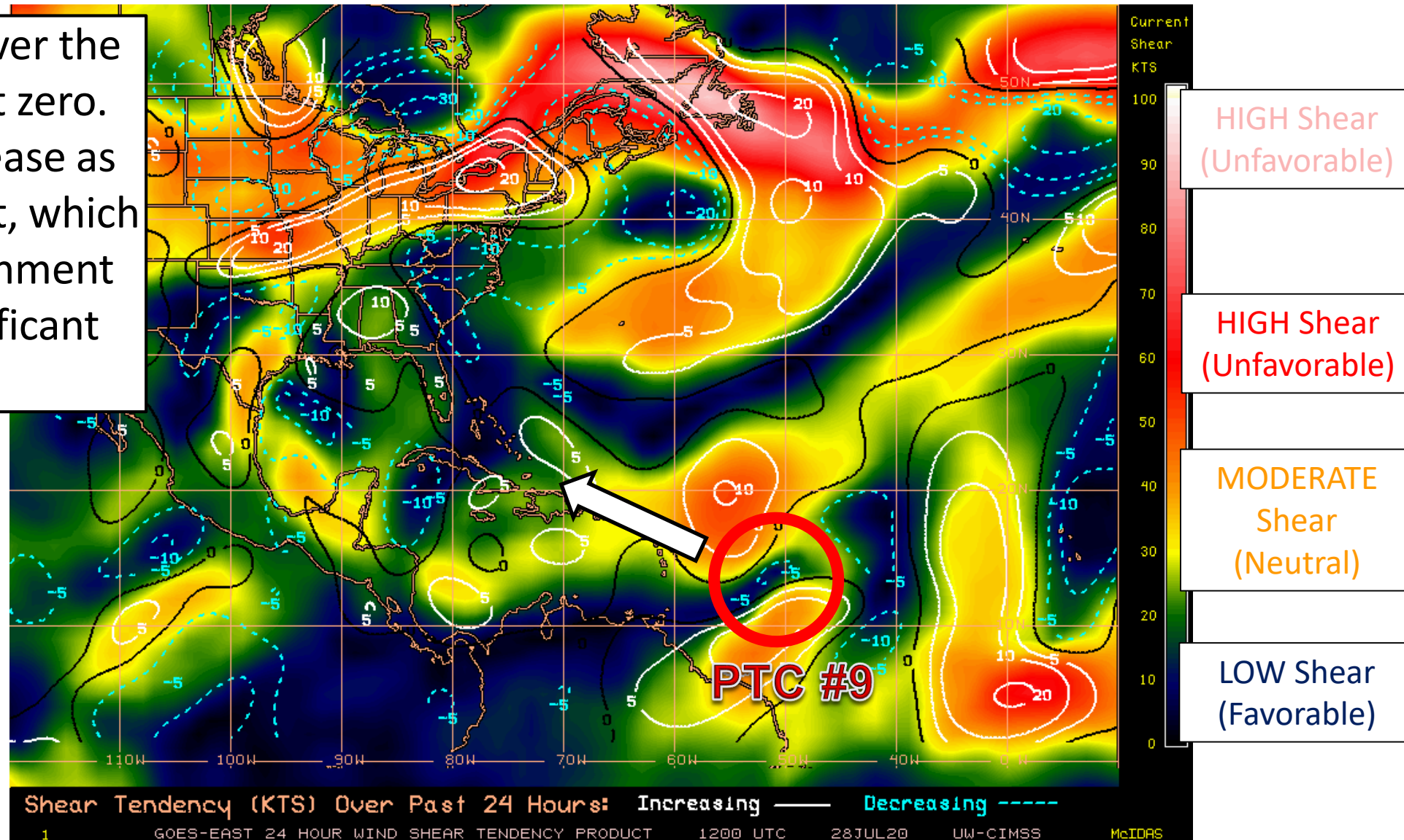


# Wind Shear

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 directly over the system is low, but not zero. Wind shear may increase as the system moves west, which may make the environment unfavorable for significant intensification.



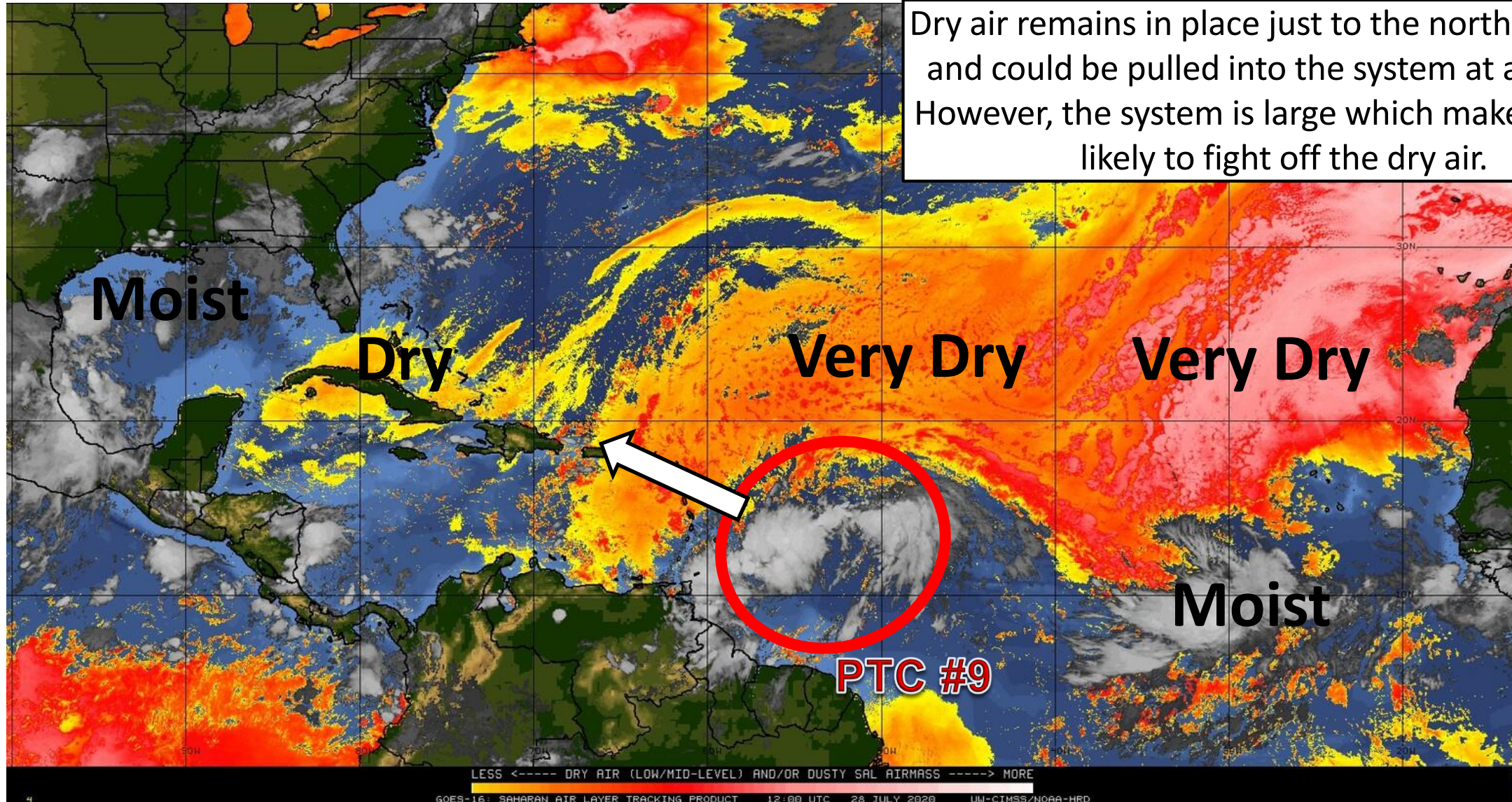




# Dry Air & Saharan Dust

Is the environment favorable for the system?

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



Dry air remains in place just to the north of PTC #9 and could be pulled into the system at any time. However, the system is large which makes it more likely to fight off the dry air.





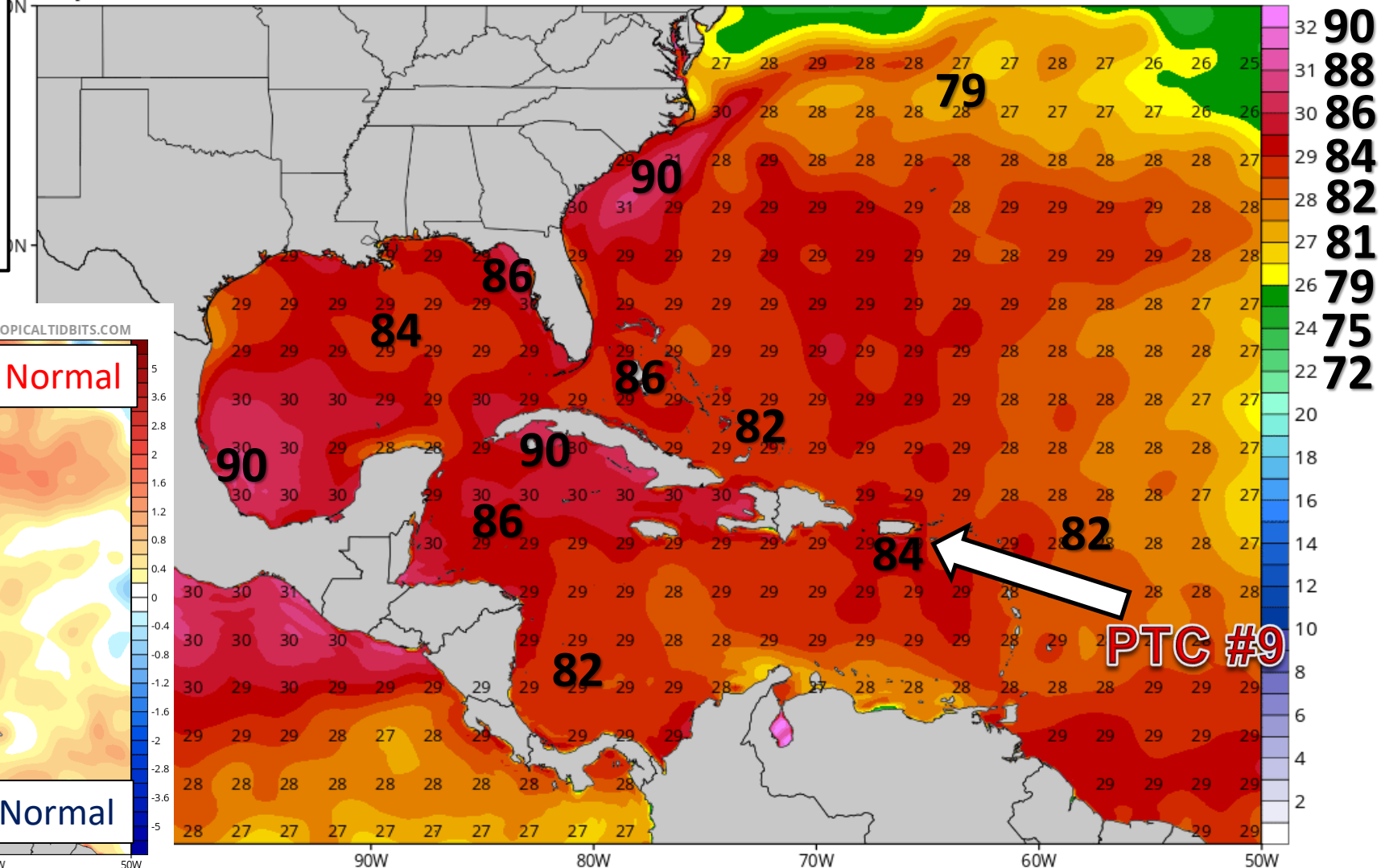
# Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Water temperatures are supportive for tropical development across the entire Atlantic basin, and will continue to warm as PTC #9 moves west. Water temperatures are above normal across much of the Atlantic.

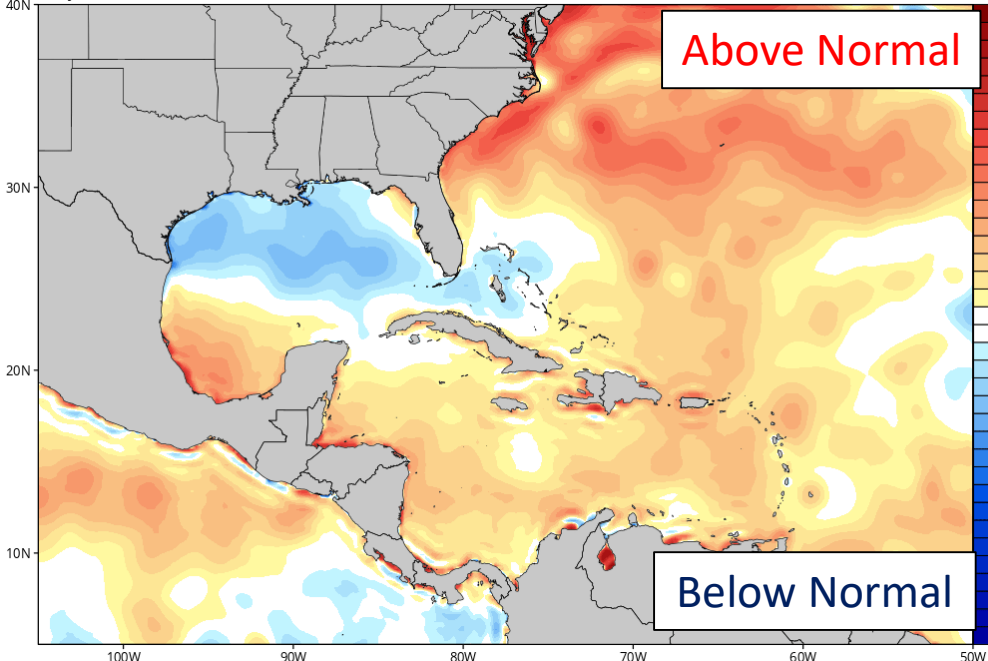
CDAS Sea Surface Temperature (°C)

Analysis Time: 06z Jul 28 2020



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

Analysis Time: 06z Jul 28 2020





# Model Forecast Intensity

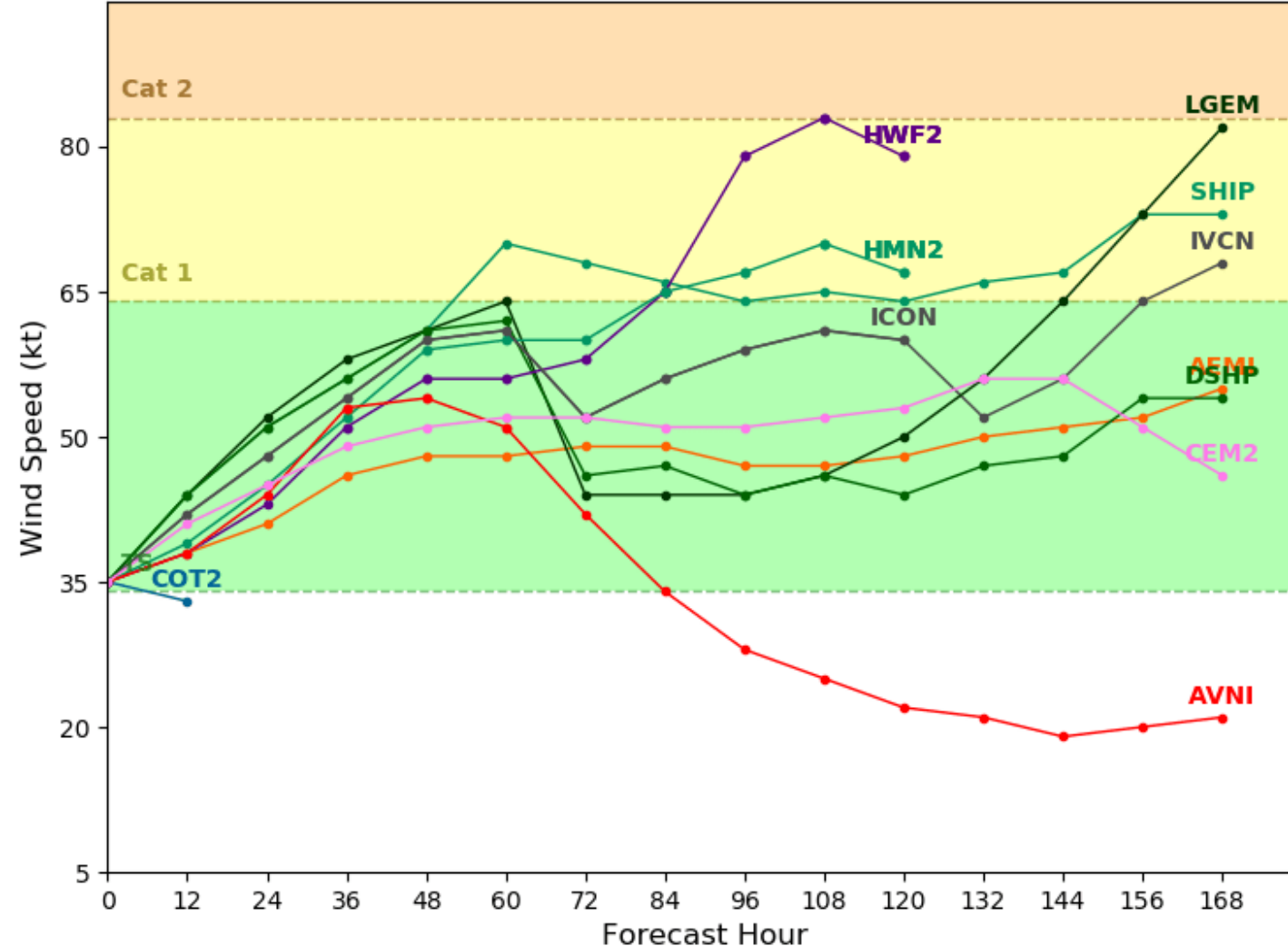
## Dynamical and Statistical Models – PTC #9

**\*\*Until a more defined center forms, these models tracks are prone to more significant errors than usual\*\***

### Invest 92L Model Intensity Guidance

Initialized at 12z Jul 28 2020

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Gradual organization is forecast by most models as the system moves to the northwest.

Land interaction with Hispaniola would weaken the system.





# Overall Summary

## Potential Tropical Cyclone Nine (Formerly Invest 92L)

- The tropical wave near the eastern Caribbean is starting to become better organized. At 11 AM ET Tuesday, due to the close proximity of impacts to the Lesser Antilles and Puerto Rico, the National Hurricane Center began advisories on Potential Tropical Cyclone Nine.
- The system will continue to move west and west-northwest over the northeastern Caribbean through the next couple of days, arriving in Puerto Rico Thursday, the Bahamas on Friday, and South Florida on Sunday.
- Environmental conditions are forecast to become more conducive for development, and gradual organization is forecast. The system is already producing tropical storm force winds, and only a slight increase in organization would result in a tropical storm forming (90% chance).
- The track near the mountainous islands of the Great Antilles and the potential for unfavorable wind shear this weekend makes the intensity forecast uncertain at the moment.
- The next name on the list is Isaias (ees-ah-EE-ahs).

## Florida Outlook:

- **PTC #9 poses a direct threat to Florida starting on Sunday. It is too early to determine exact impacts, but heavy rainfall and gusty winds are becoming increasing likely in the Florida Peninsula.**

The next briefing packet will be issued Tuesday afternoon. For the latest information on the tropics, please visit the National Hurricane Center website at [www.hurricanes.gov](http://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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