



TROPICAL UPDATE



5:00 PM EDT

Wednesday, July 29, 2020

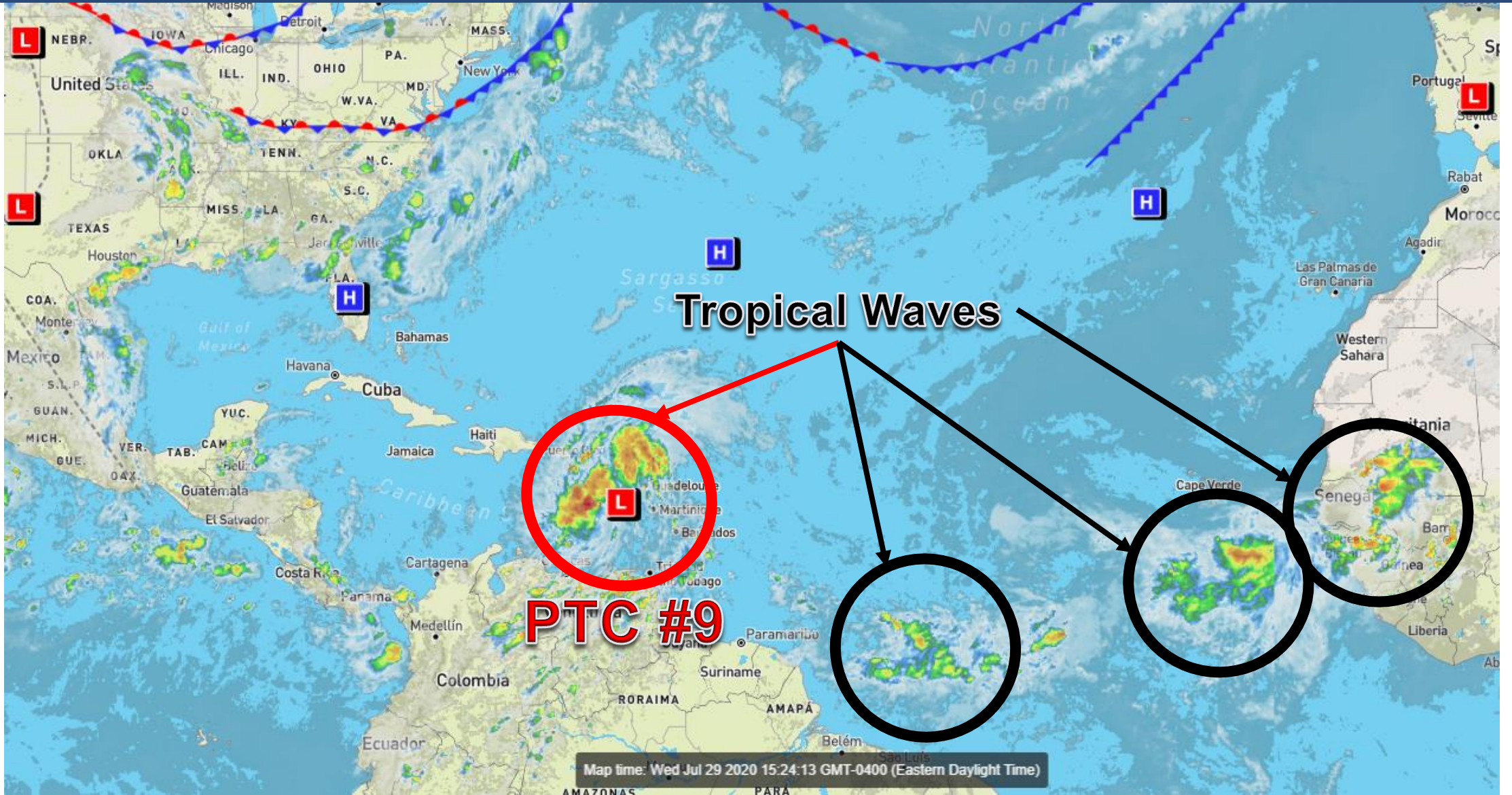
Potential Tropical Cyclone Nine (90%)

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

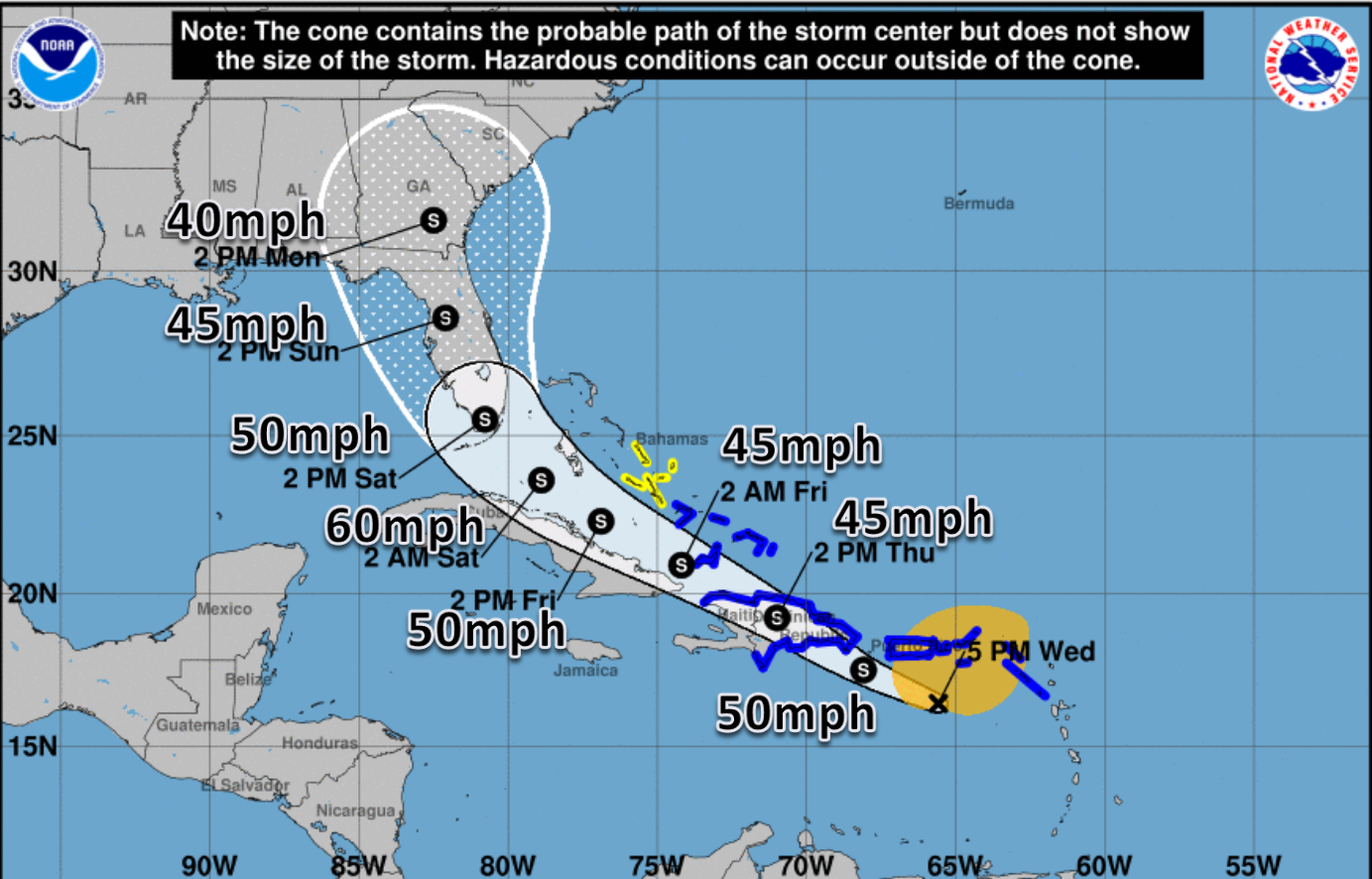
Chance of development: None Low Medium High





Official Forecast Track

From the National Hurricane Center – PTC #9



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

Potential Tropical Cyclone Nine
 Wednesday July 29, 2020
 5 PM AST Advisory 6
 NWS National Hurricane Center

Current information: x
 Center location 16.4 N 65.6 W
 Maximum sustained wind 45 mph
 Movement WNW at 23 mph

Forecast positions:
 ● Tropical Cyclone ○ Post/Potential TC
 Sustained winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110 mph

Potential track area: Day 1-3 (dotted), Day 4-5 (dashed)
Watches: Hurricane (pink), Trop Stm (yellow)
Warnings: Hurricane (red), Trop Stm (blue)
Current wind extent: Hurricane (brown), Trop Stm (orange)

- The center of Potential Tropical Cyclone Nine is estimated to be about 320 miles east-southeast of Santo Domingo, Dominican Republic.
- Maximum sustained winds are around 45 mph.
- Potential Tropical Cyclone Nine is racing to the west-northwest at 23 mph, and a west-northwest movement is expected over the next few days
- The system will likely make landfall on Hispaniola Thursday morning, then move near or over Cuba Friday, and approach the Florida Keys on Saturday
- There is an equal chance of the system passing to the west over the Gulf of Mexico, over the Peninsula, or to the east of the Peninsula over the Atlantic. Considerable uncertainty remains.
- NHC’s intensity forecast accounts for the center being over land. However, if the center is offshore, the actual intensities may differ.

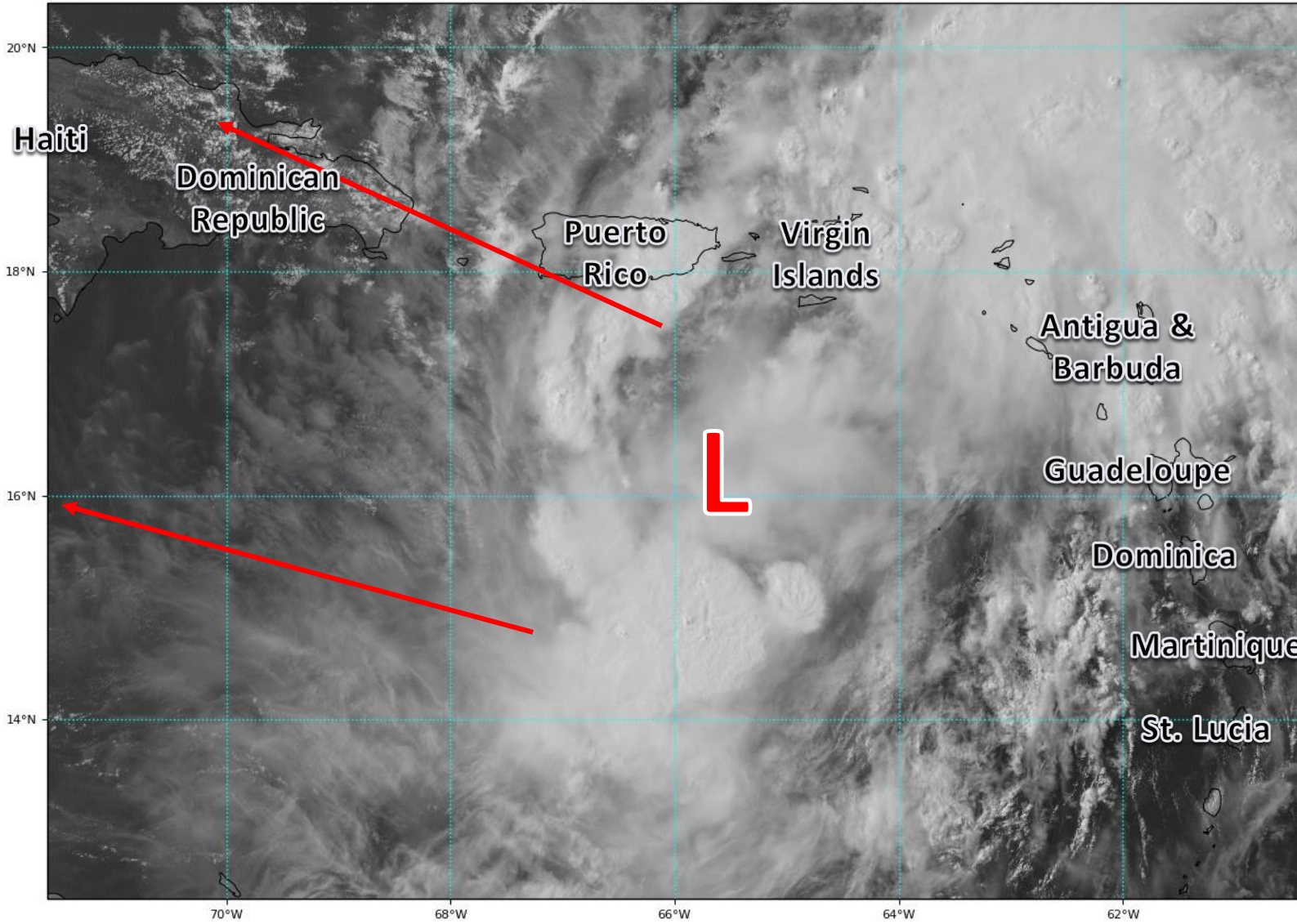


Satellite Imagery

Central Atlantic – PTC #9

GOES-16 Channel 2 (visible) Reflectance at 19:45Z Jul 29, 2020

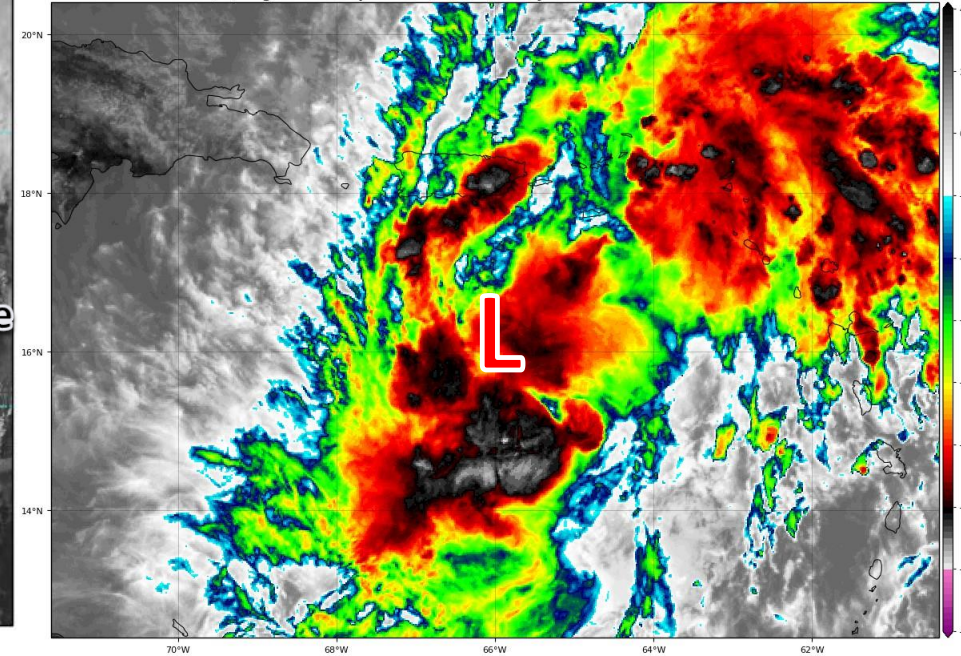
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The system continues to have a large, broad circulation. It has continued to become better organized today, and a low pressure area may be forming. However, it appears that the system is not quite closed off yet, and for that reason, it is not yet Tropical Storm Isaias

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 19:45Z Jul 29, 2020

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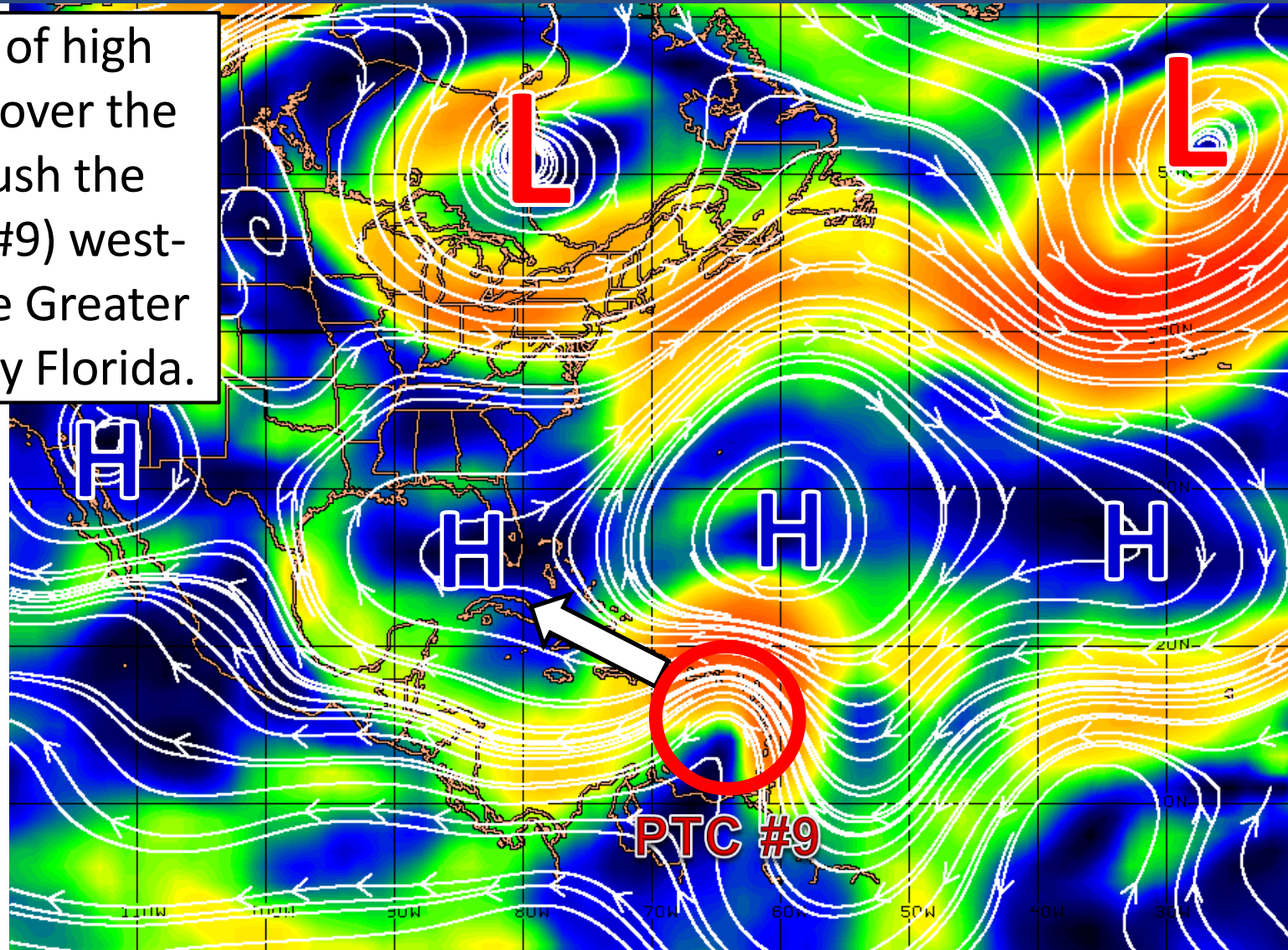


Steering Currents

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 system (PTC #9) west-northwest toward the Greater Antilles and eventually Florida.



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



Model Forecast Tracks

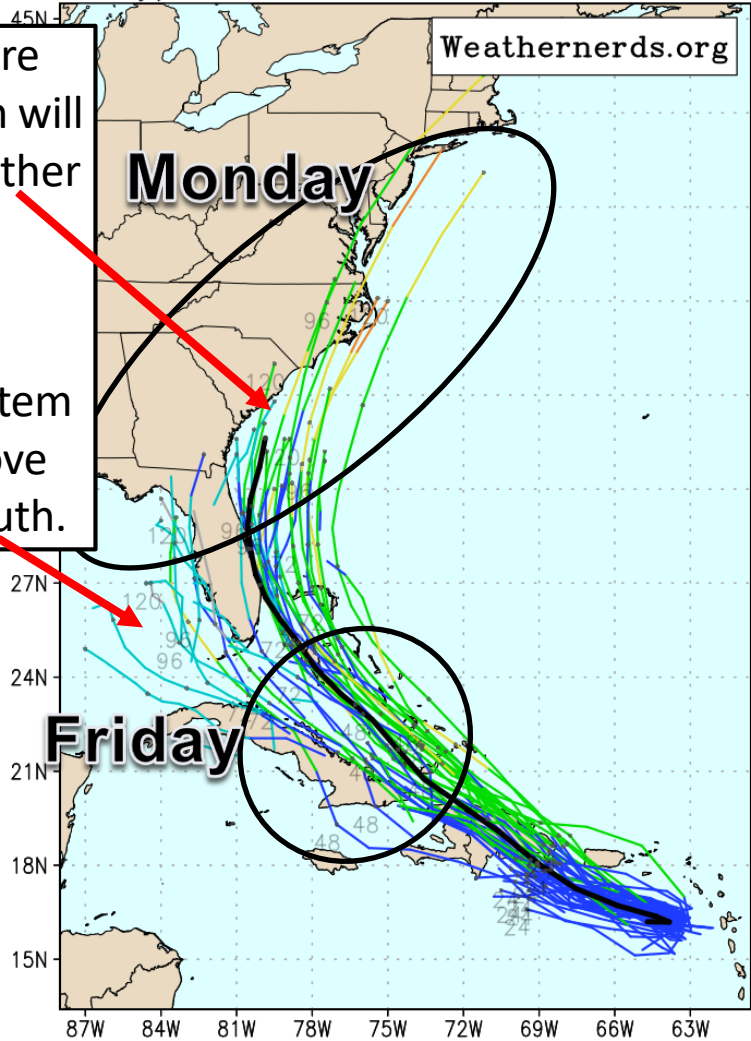
Ensembles, Dynamical, and Statistical Models

ECMWF Ens. (0-120h only), init: 2020072912, AL09 Nine

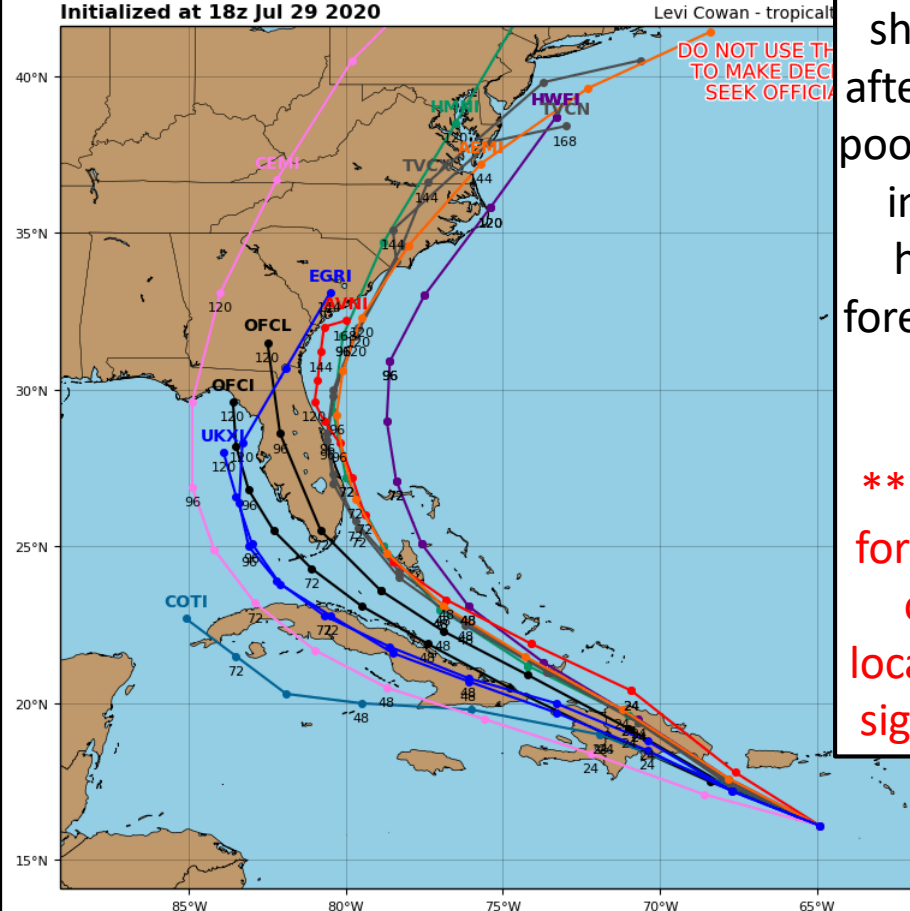
color = max wind (kt)

A stronger, more organized system will tend to move farther east/north.

A weaker, disorganized system will tend to move farther west/south.



Potential Tropical Cyclone NINE Model Track Guidance
 Initialized at 18z Jul 29 2020



Significant uncertainty remains in the track forecast as models shifted east this morning and afternoon. With this system still poorly defined and forecast land interaction, models will not have a good handle on the forecast track or intensity of the storm.

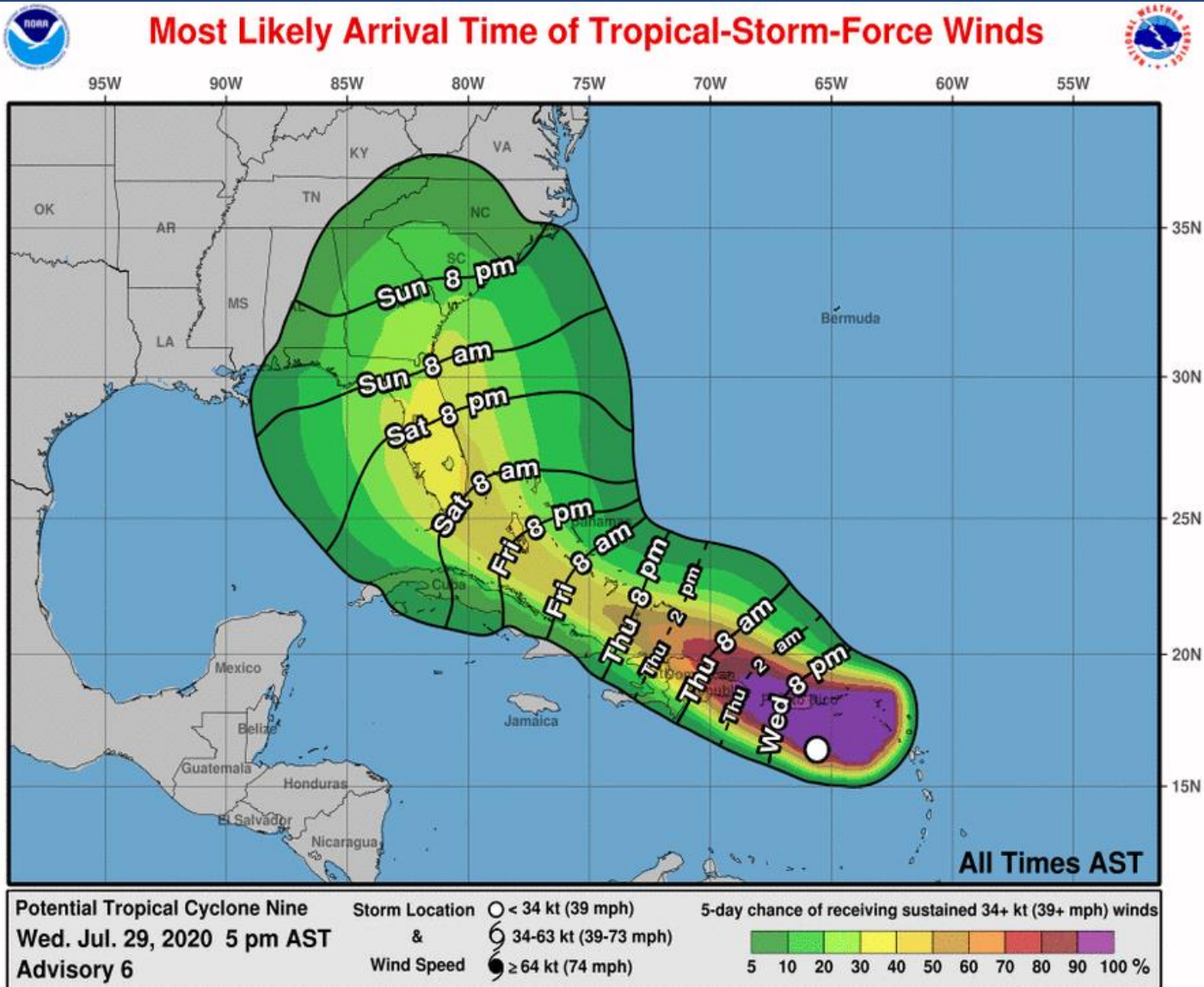
****Until a more defined center forms, these models tracks are only guessing the starting location and are prone to more significant errors than usual****





Time of Arrival & Wind Speed Probabilities

MOST LIKELY Time of Arrival of Tropical Storm Force Winds (>39 mph)



- Key West: 30%**
- Miami: 34%**
- Naples: 42%**
- West Palm Beach: 44%**
- Ft. Lauderdale: 46%**
- Ft. Pierce: 41%**
- Daytona Beach: 29%**
- Orlando: 32%**
- Tampa: 38%**
- Jacksonville: 25%**
- Apalachicola: 22%**
- Tallahassee: 20%**
- Panama City: 19%**
- Pensacola: 7%**

The most likely chance of tropical storm force winds starting will be Saturday Night in Southeast Florida, but could arrive AS EARLY AS Friday night if the track speeds up.

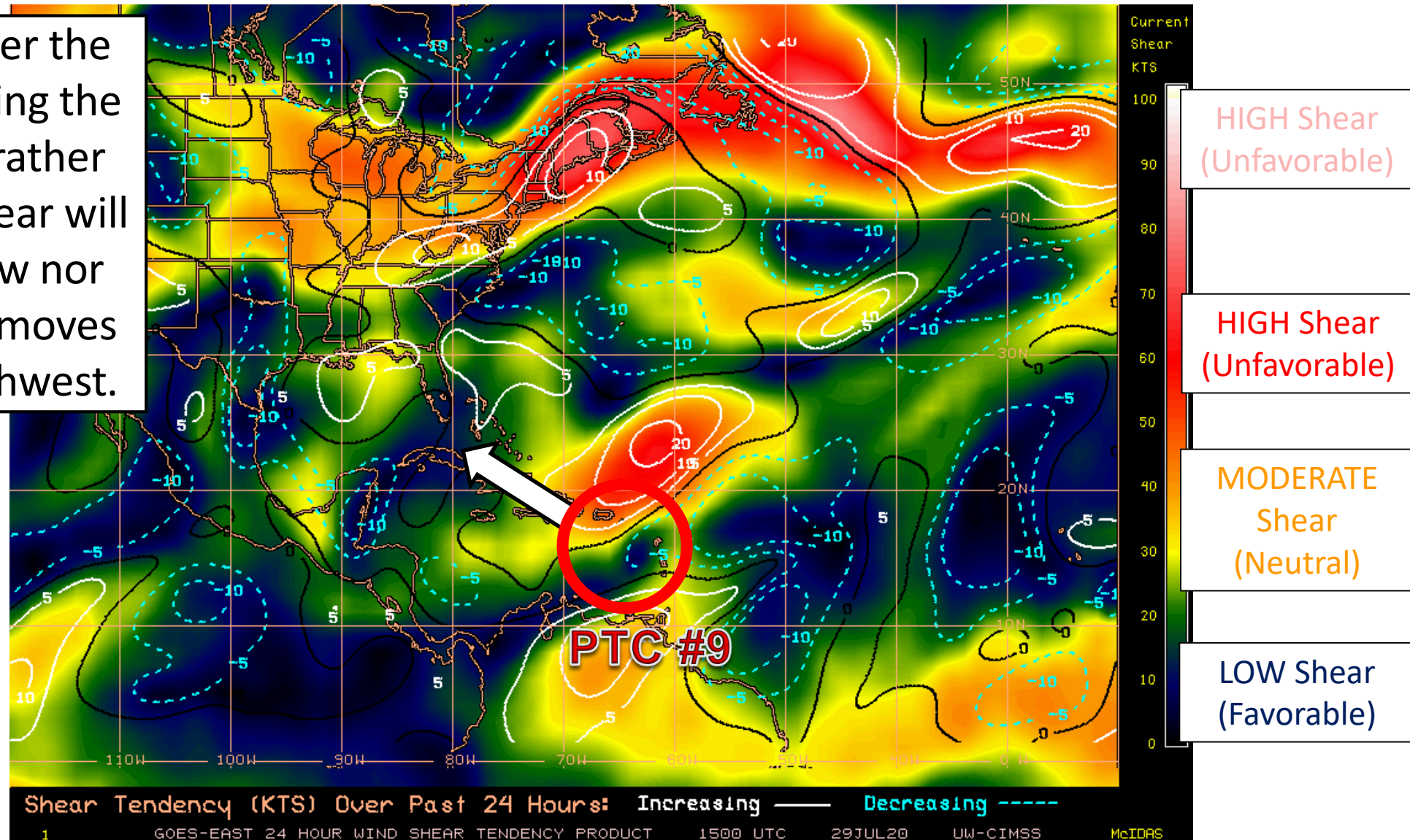


Wind Shear

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 is high over the system, which is keeping the system in check and rather disorganized. Wind shear will not be particularly low nor particularly high as it moves toward the west-northwest.

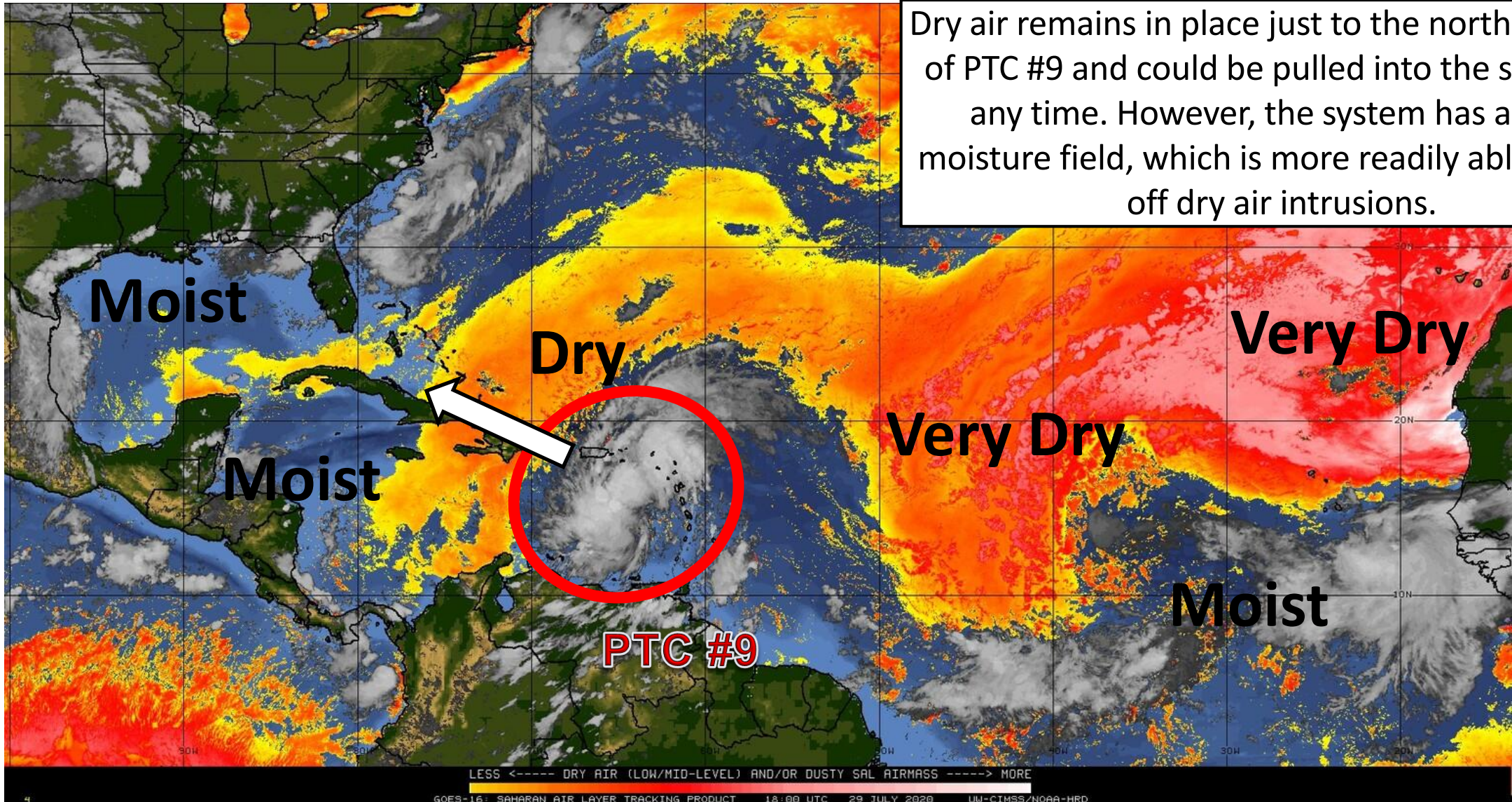




Dry Air & Saharan Dust

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 and west of PTC #9 and could be pulled into the system at any time. However, the system has a large moisture field, which is more readily able to fend off dry air intrusions.



Sea Surface Temperatures & Anomalies

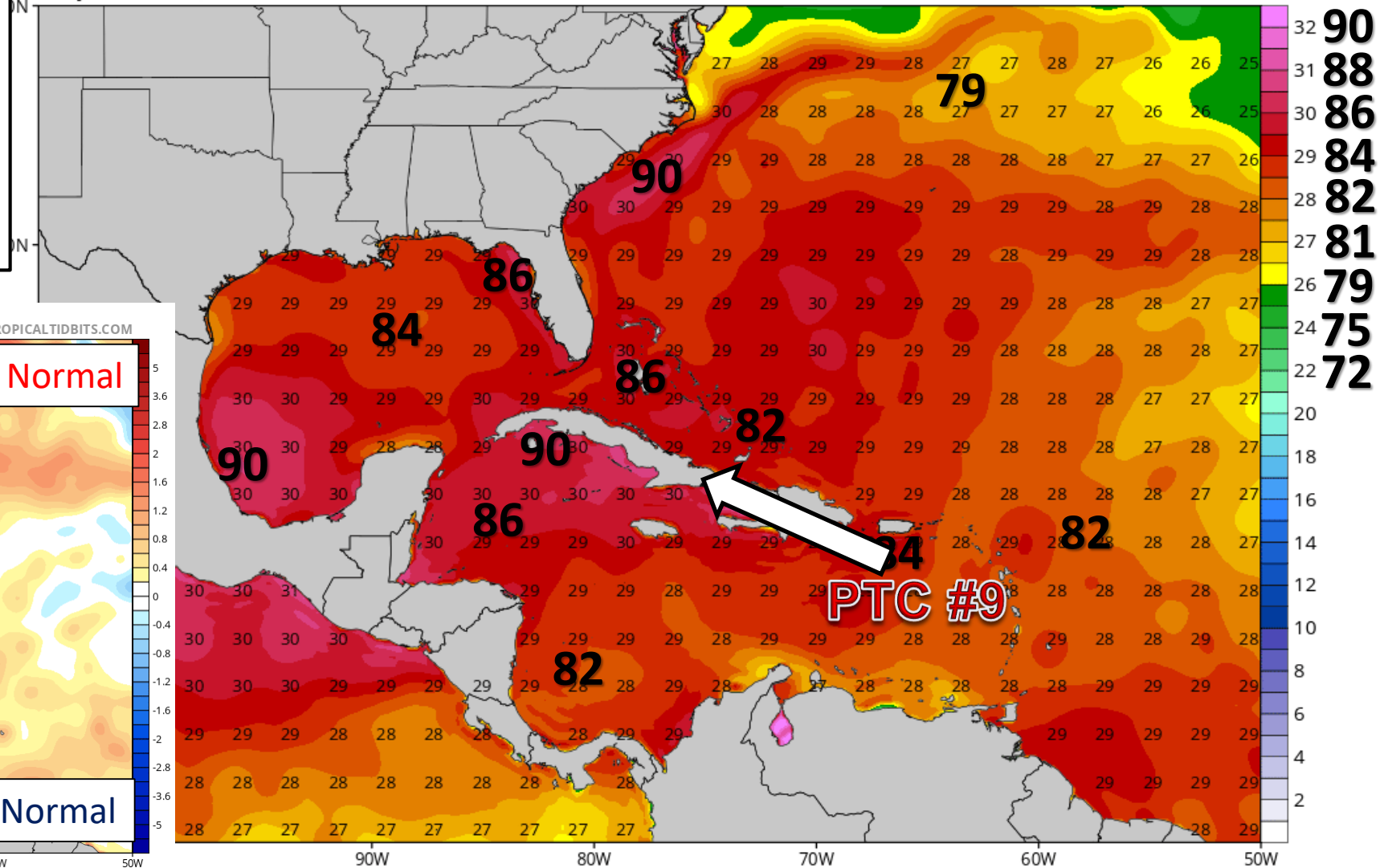
Is the ocean favorable for the system?

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 29 2020

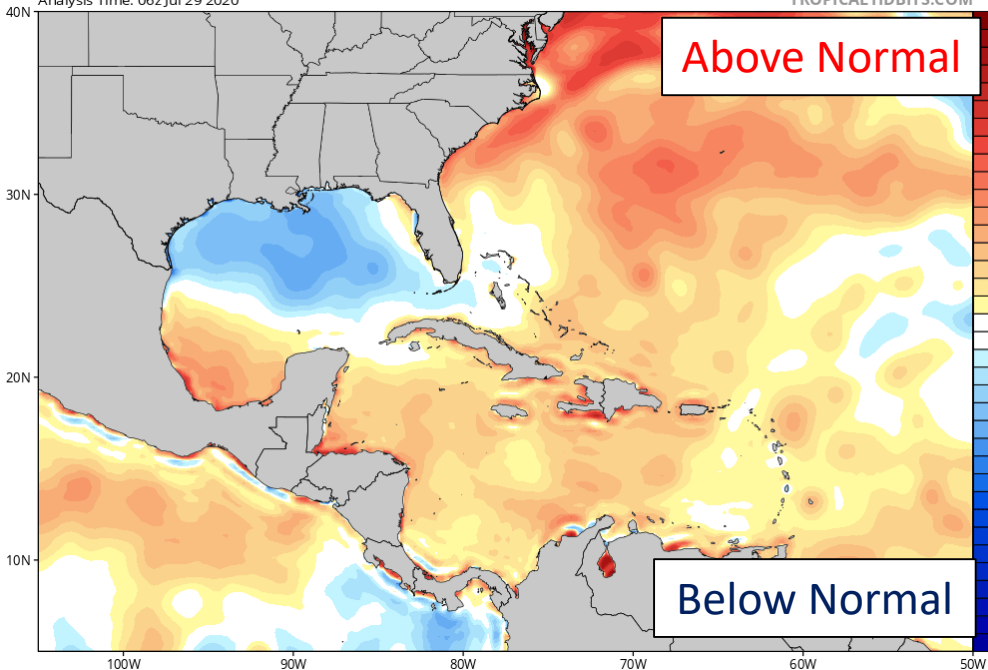
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CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

Analysis Time: 06z Jul 29 2020

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Model Forecast Intensity

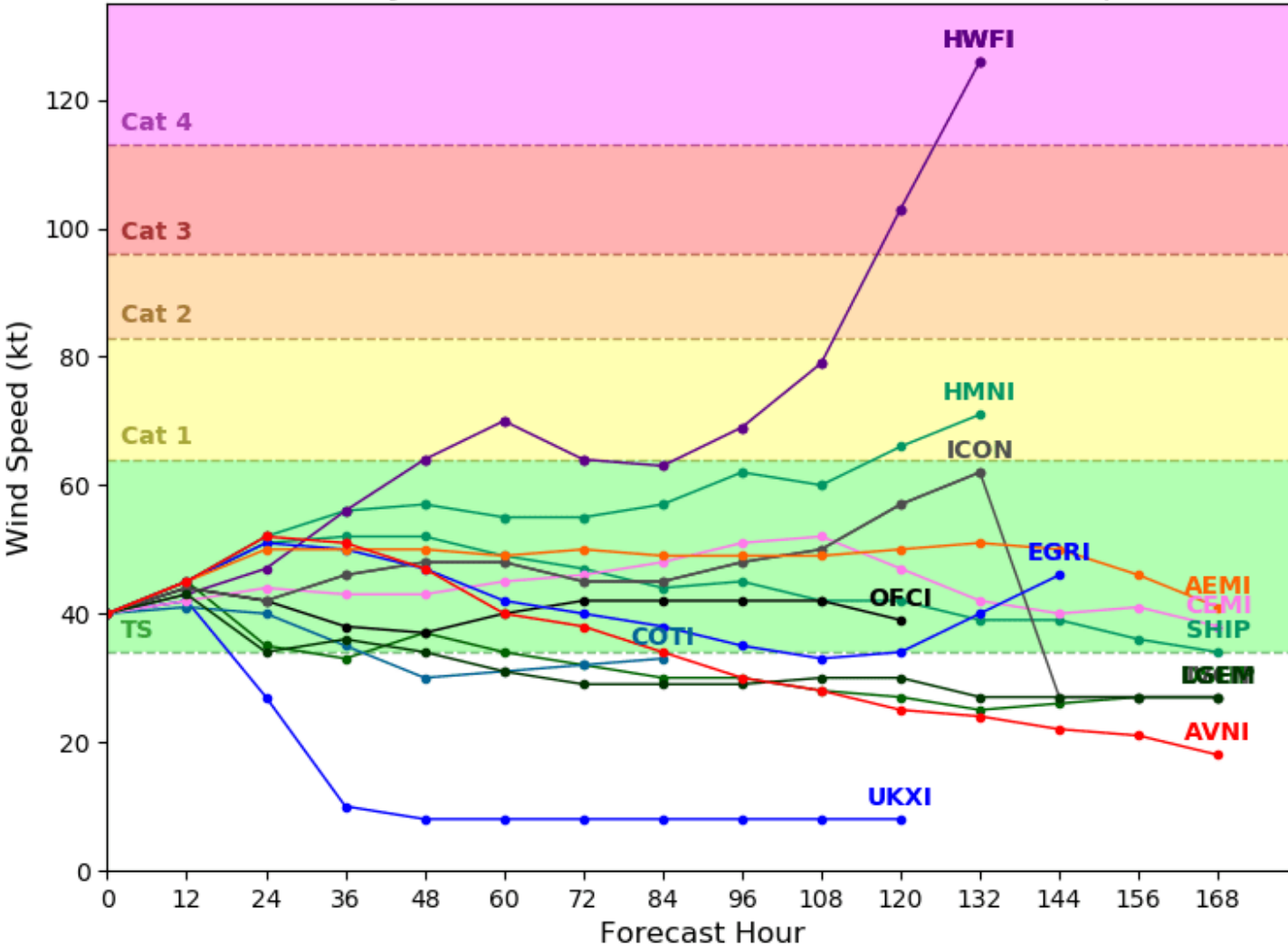
Dynamical and Statistical Models – PTC #9

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

Potential Tropical Cyclone NINE Model Intensity Guidance

Initialized at 18z Jul 29 2020

Levi Cowan - tropicaltidbits.com

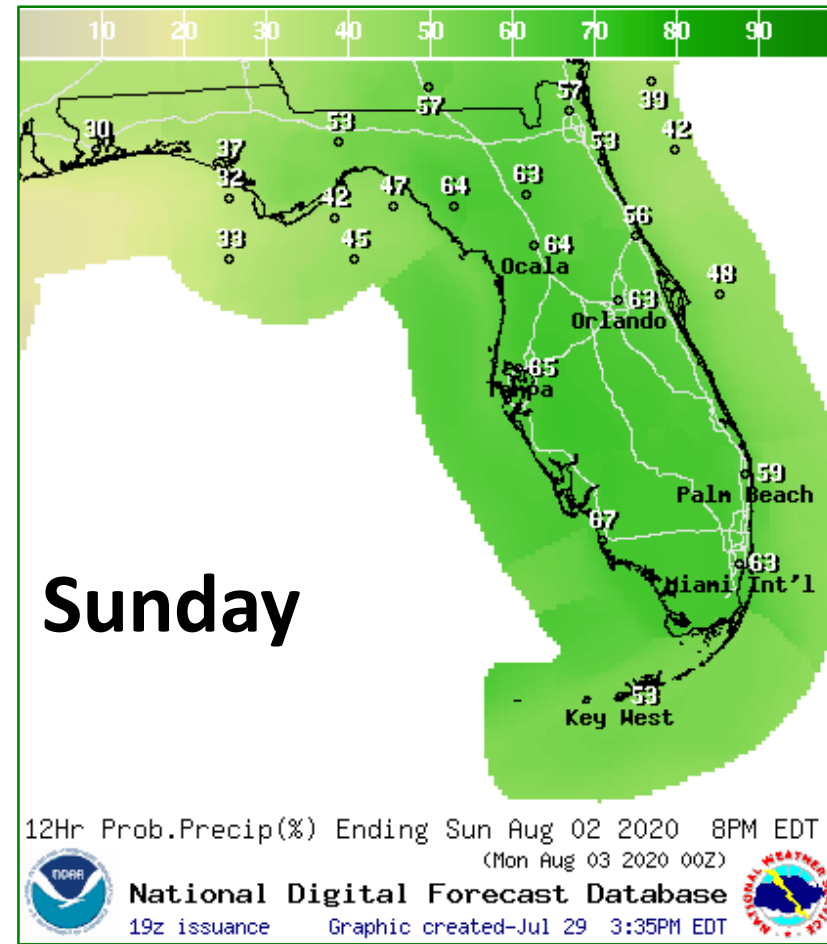
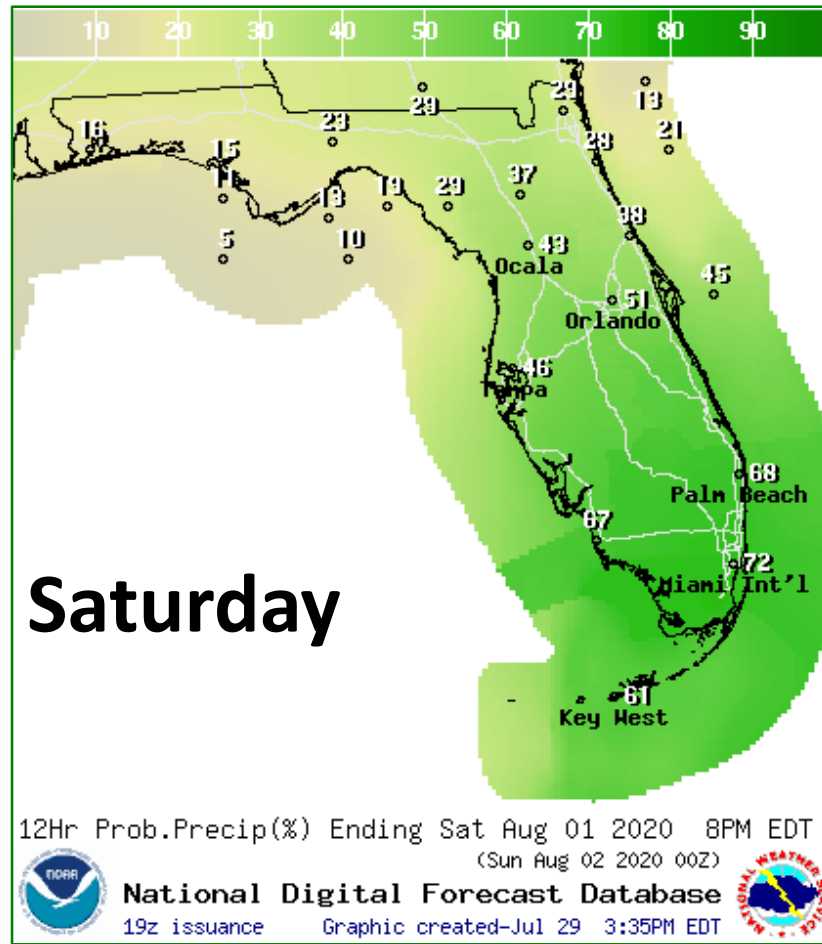
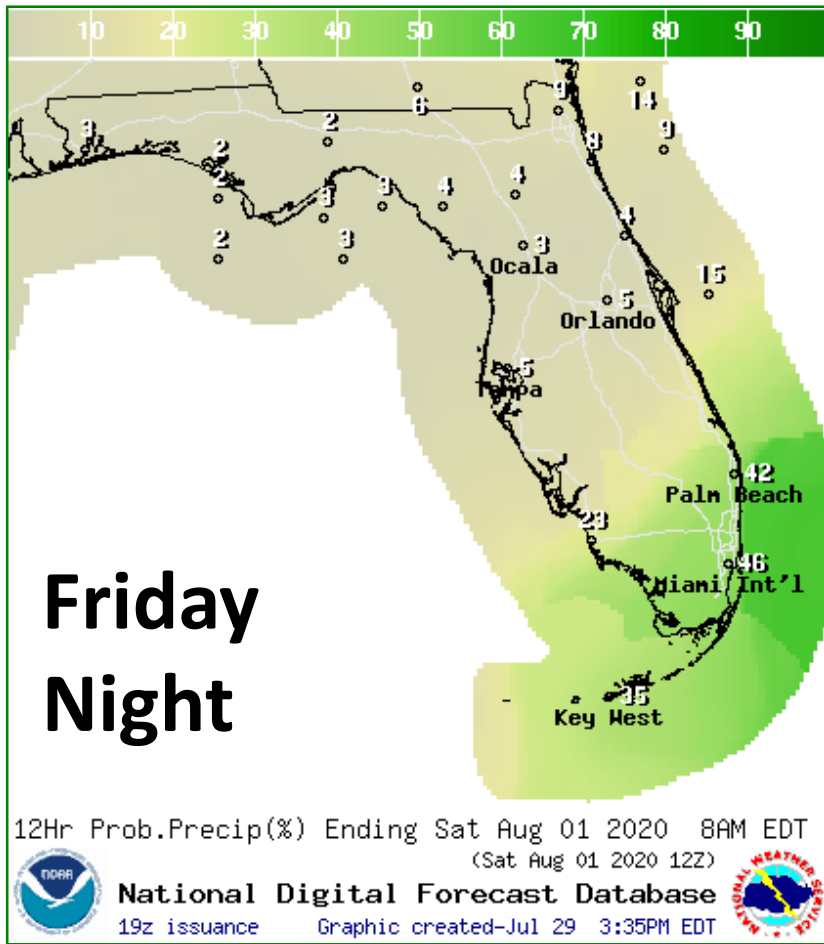


Gradual organization is forecast by most models as the system moves to the northwest.

Most models keep this PTC #9 at tropical storm intensity. However, this forecast is highly dependent upon land interaction with Hispaniola and Cuba and future wind shear or dry air interactions.



Rain Chances Next 3 Days



Rain chances in Southeast Florida will begin increasing Friday night, then across the Peninsula on Saturday, and into North Florida by Sunday.

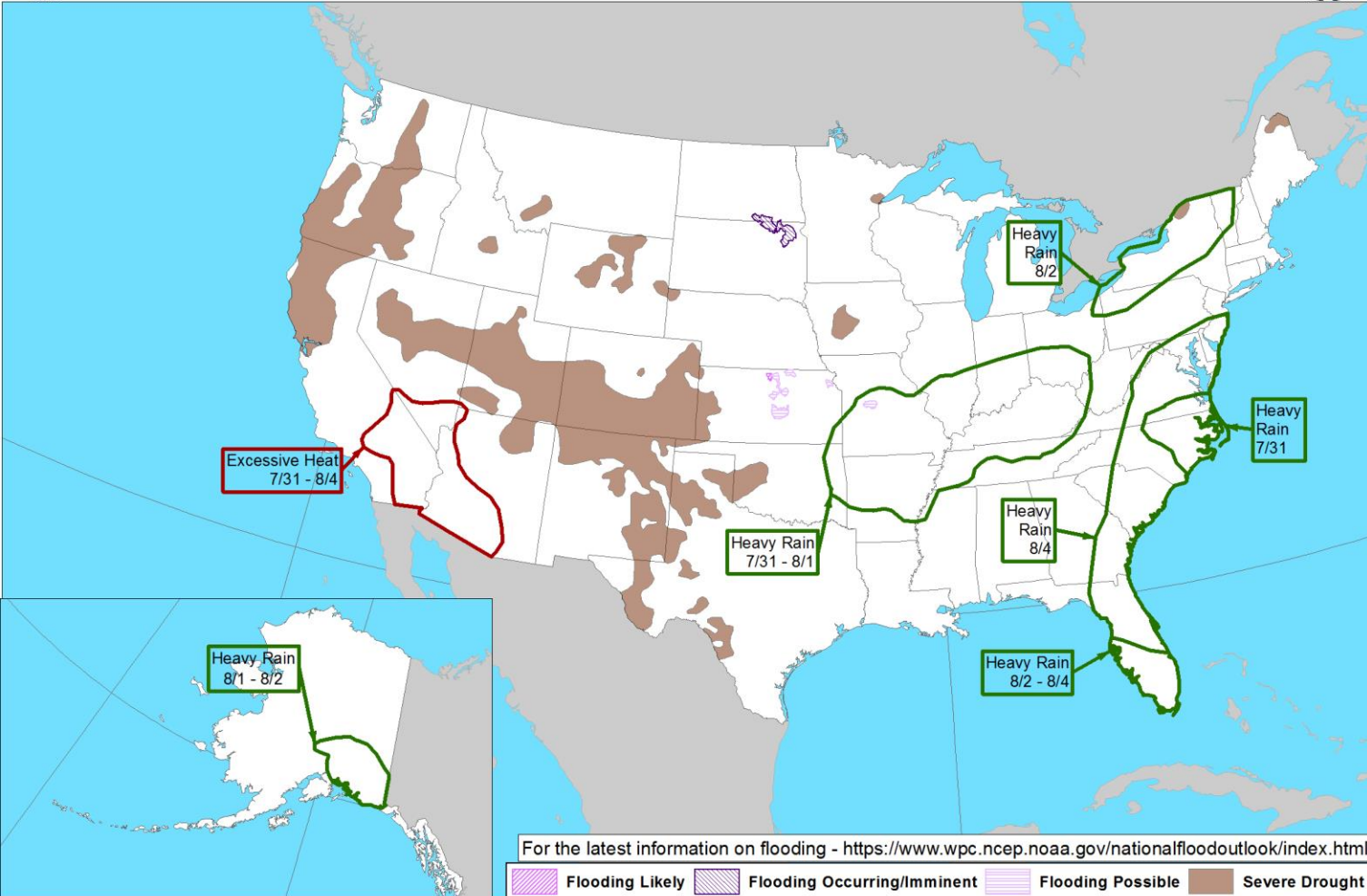


Hazard Outlook Next Week

From the [Weather Prediction Center](#)



Day 3-7 U.S. Hazards Outlook
Valid: 07/31/2020-08/04/2020

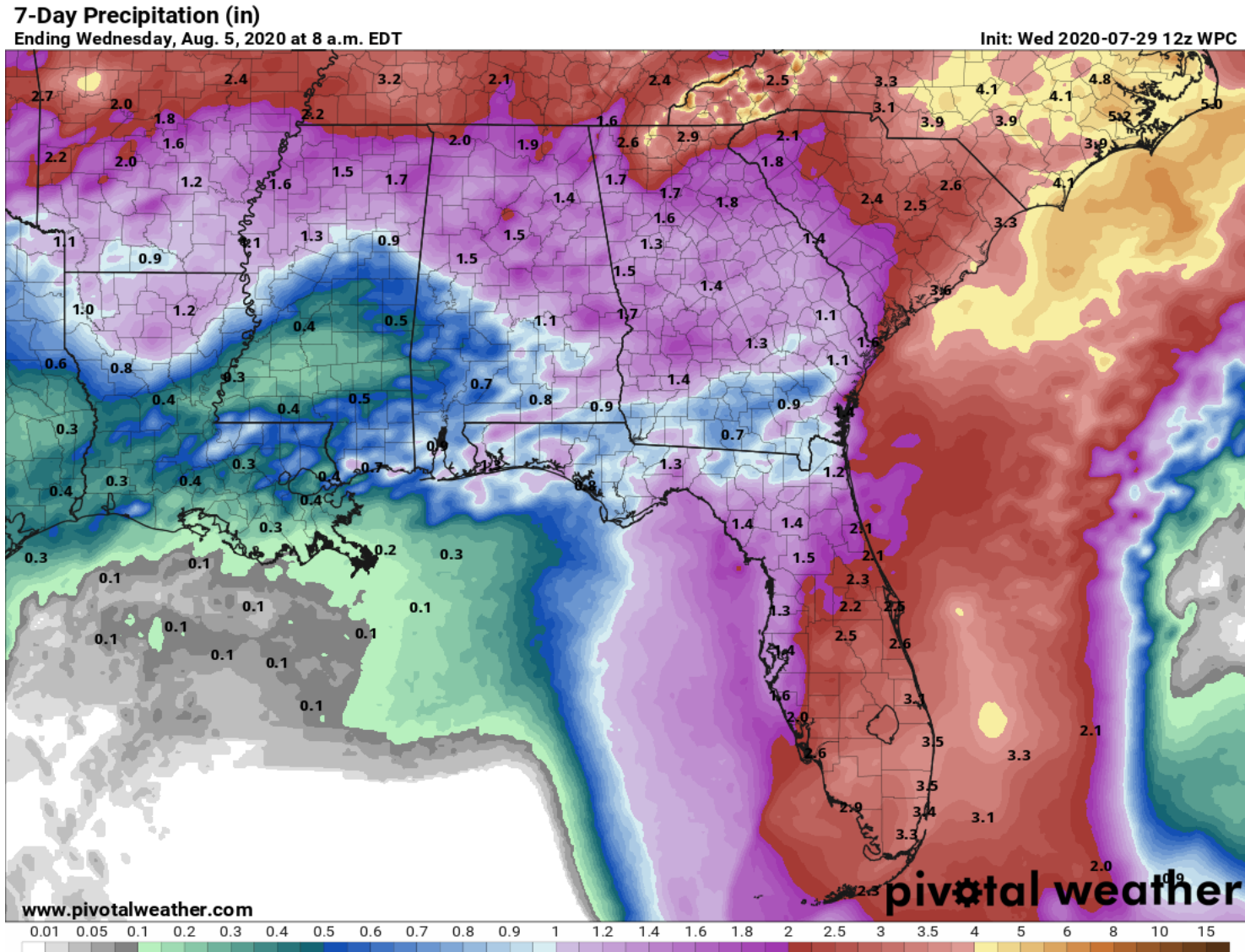


With the storm turning north and slowing down, multiple days of a heavy rain threat seem possible across the Florida Peninsula early next week.



Forecast Rainfall Totals Next 7 Days

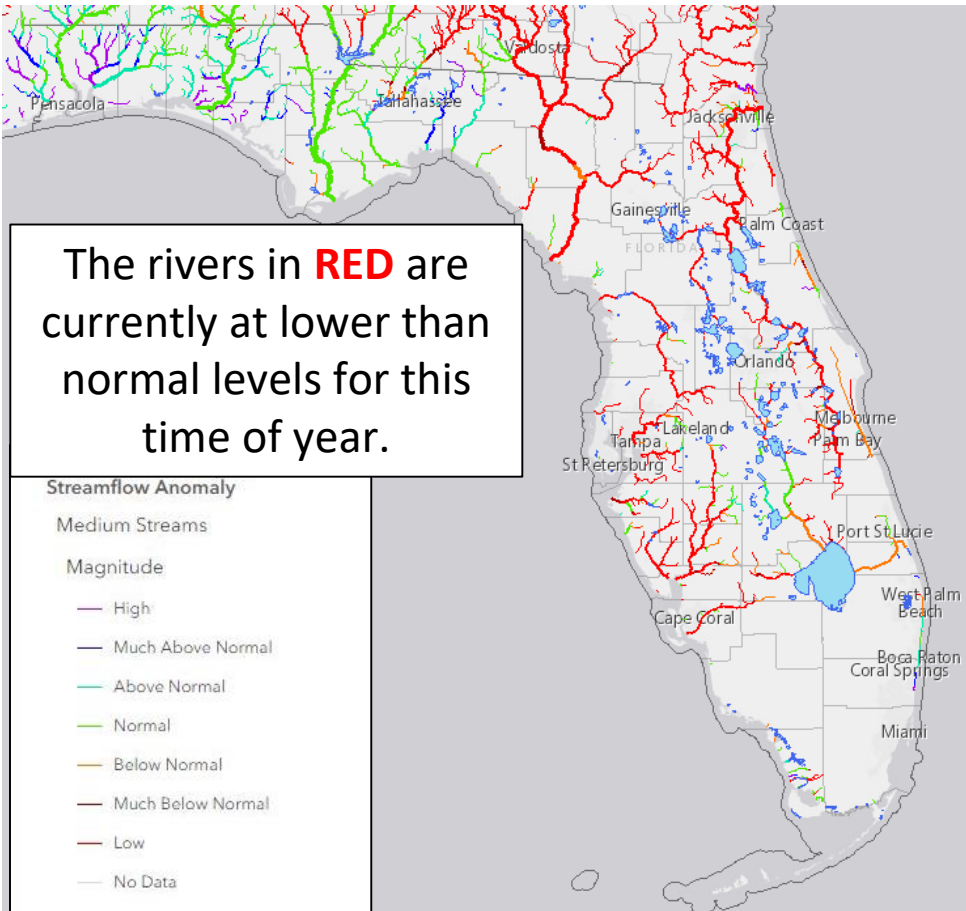
- About 2-5" of rain are possible south of I-4
- Localized totals double these amounts will be possible.
- Rainfall totals and consequent flash flood threat will be dependent on track of PTC 9 / Isaias
- A western track would lead to higher rainfall totals across the Peninsula, Big Bend, and Northeast Florida
- An eastern track would lower rain totals and keep most of the rain offshore.



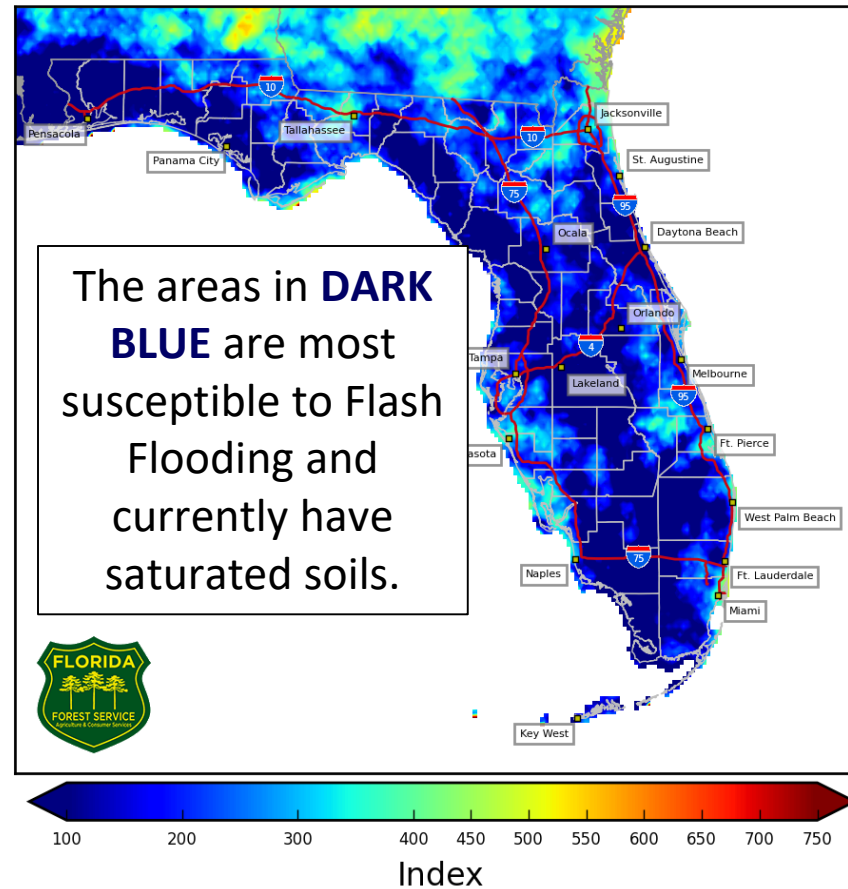


Streamflow Anomaly – Soil Moisture

KB Drought Index – [Full Report from the Florida Forest Service](#)



4 km Resolution KBDI
Statewide
July 29, 2020



Streamflows are near the below normal across the entire Peninsula, but soils remain quite saturated. If heavier rainfall occurs, then flash flooding will be a concern.

Most rivers are able to handle 3-5" of rainfall, but flooding concerns may rise if heavier rainfall occurs.



Overall Summary

Potential Tropical Cyclone Nine

- PTC #9 continues to gradually become better organized, but it still does not have a defined center. It remains likely that this will become Tropical Storm Isaias tonight (90% chance).
- The system will continue to move rapidly west-northwestward, arriving in Hispaniola Thursday morning, the Bahamas or Cuba by Friday, and the Keys by Saturday. Impacts may begin before the center arrives.
- Maximum sustained winds are near 45 mph, and some gradual strengthening is possible until landfall in Hispaniola.
- The track near the mountainous islands of the Greater Antilles and the potential for unfavorable wind shear and dry air over the next couple days makes the intensity forecast more uncertain than usual at the moment. The uncertainty in the intensity rolls over into the track uncertainty as well.
- The system is likely to slow down as it approaches Florida this weekend.
- Changes in the track and intensity forecast should be expected over the next few advisories as the system develops. More confidence in the forecast is expected once the system becomes better organized and once the system passes north of the Greater Antilles.



Overall Summary

Florida Outlook:

- **PTC #9 poses a direct threat to Florida starting as early as Friday night, but more likely beginning Saturday morning.**
- Heavy rainfall of 2-5” with localized totals possibly double that will be possible across Central & South Florida. It is too early to tell what rainfall impacts may occur in North Florida.
- Soils remain saturated from the fairly active wet season across much of the Peninsula, which could lead to an elevated flash flood threat this weekend and early next week.
- Streamflows in the Peninsula are running near to below normal, and it may take more than 4-6” of rain to cause issues along the rivers in the Peninsula.
- The threat of tropical storm force winds across the state is increasing, but exactly where tropical storm force winds occur is uncertain.
- If the storm passes to the west of the Peninsula, then there may be an isolated tornado threat across the Peninsula.
- It remains too early to get specific about storm surge impacts to the state, but this will continue to be monitored.
- Elevated surf and dangerous rip currents will be likely at most Florida beaches this weekend.
- Tropical Storm Watches may be issued tomorrow for the Keys and South Florida, depending on the track of the storm.

The next briefing packet will be issued Thursday morning with the 11 AM ET advisory. 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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