



Tropical Update



11:00 AM EDT

Wednesday, July 3, 2024

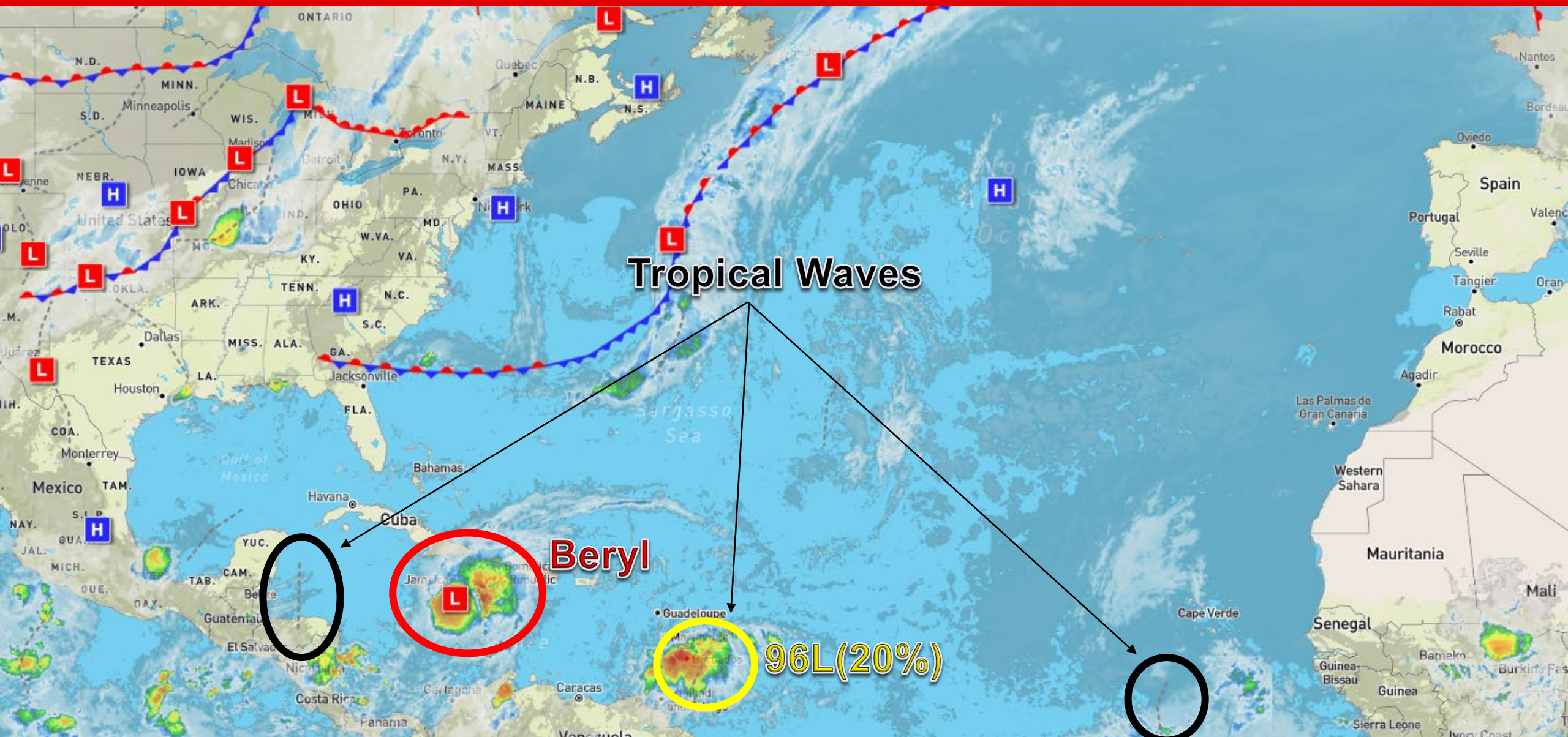
Beryl Expected To Weaken During The Next Day Or So But Remain Near Major Hurricane Strength As It Moves Through The Central Caribbean; Shower and Thunderstorm Activity Associated With Invest 96L Remains Disorganized (20%)

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

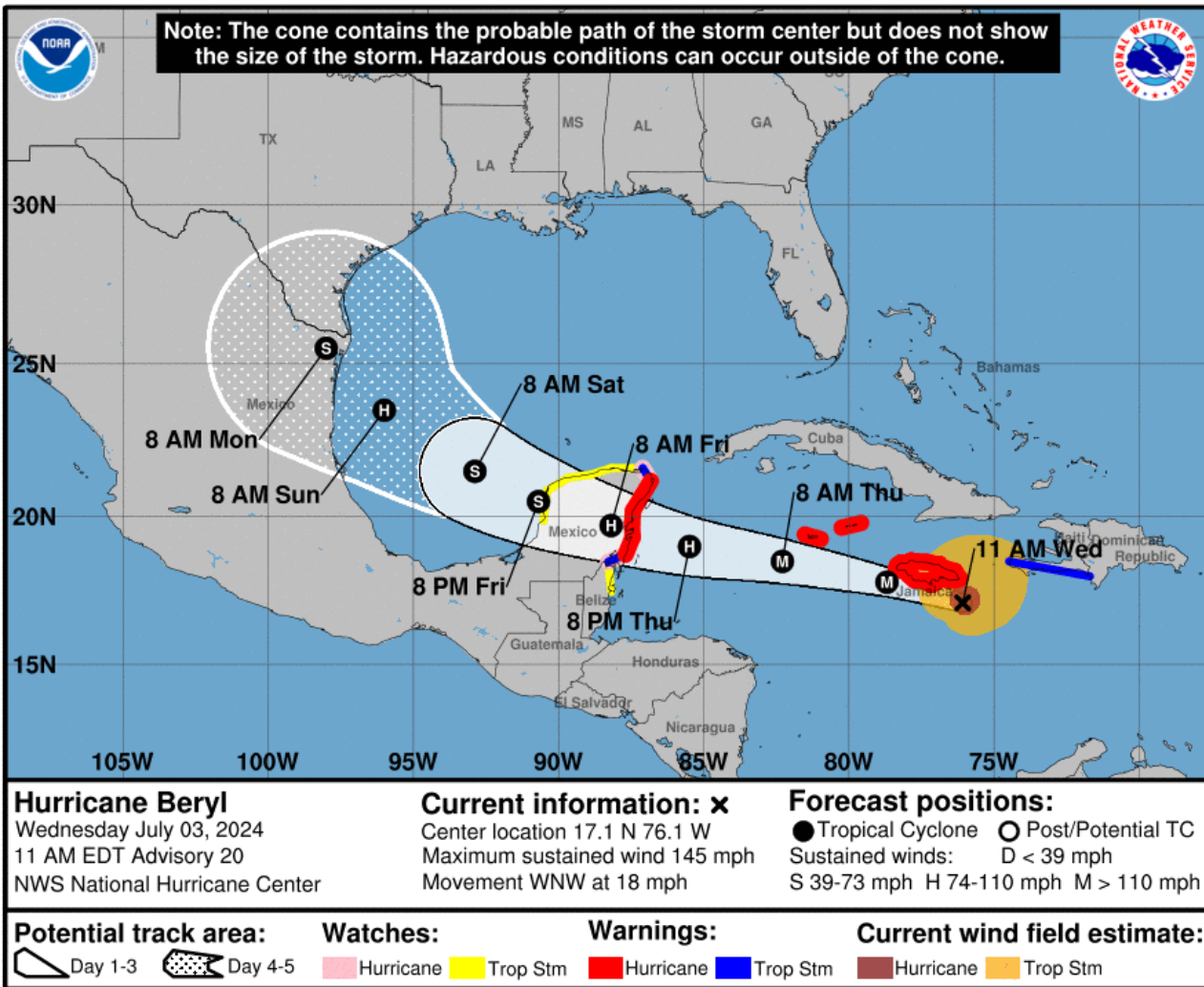
Chance of development: None Low Medium High





Major Hurricane Beryl

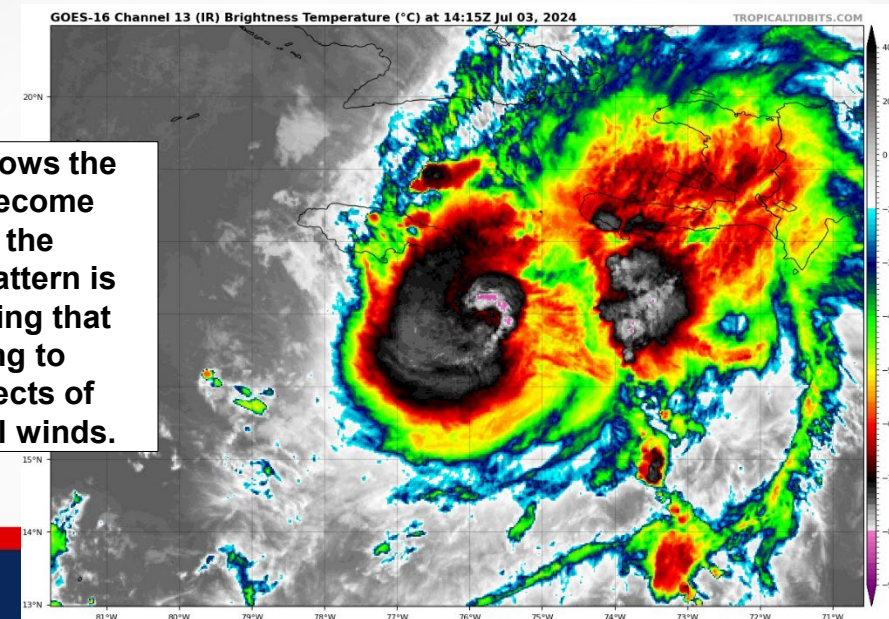
From the National Hurricane Center (NHC)



- **Location:** 75 miles Southeast of Kingston, Jamaica
- **Maximum Sustained Winds:** 145 mph (Category 4)
- **Current Movement:** WNW at 18 mph
- **FL Watches & Warnings:** None

This general motion should continue through today, followed by a turn more toward the west tonight or Thursday. On the forecast track, the center of Beryl will pass near or over Jamaica during the next several hours. After that, the center is expected to pass near or over the Cayman Islands tonight or early Thursday and move over the Yucatan Peninsula of Mexico Thursday night or early Friday. Some weakening is forecast during the next day or two; however, Beryl is forecast to be at or near major hurricane intensity while it passes near Jamaica later today and the Cayman Islands tonight or early Thursday. Additional weakening is expected thereafter, though Beryl is forecast to remain a hurricane in the northwestern Caribbean.

Satellite imagery shows the eye of Beryl has become cloud-filled and the hurricane's cloud pattern is elongated, suggesting that Beryl is beginning to experience the effects of stronger upper-level winds.



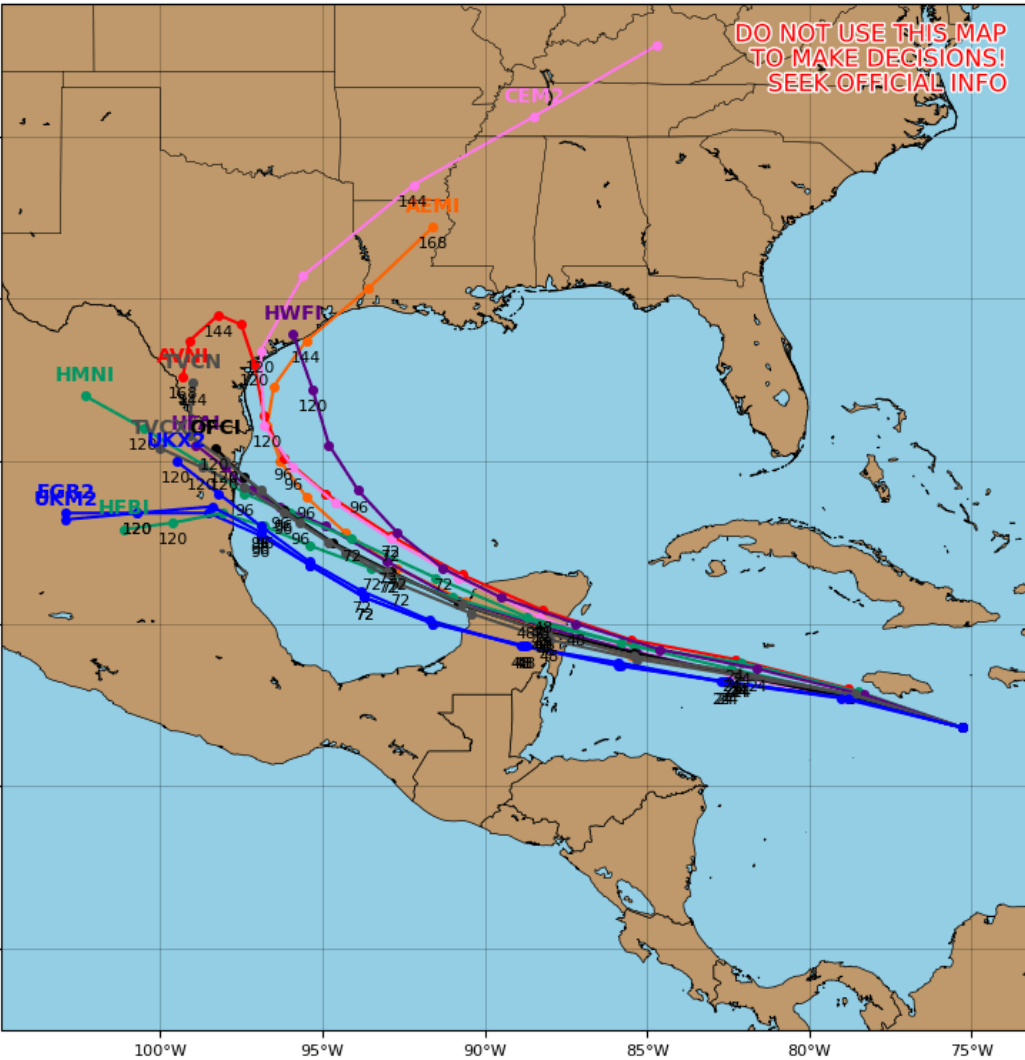


Model Forecasts – Next 5 Days

Major Hurricane Beryl

Hurricane BERYL Model Track Guidance

Initialized at 12z Jul 03 2024 Levi Cowan - tropicaltidbits.com



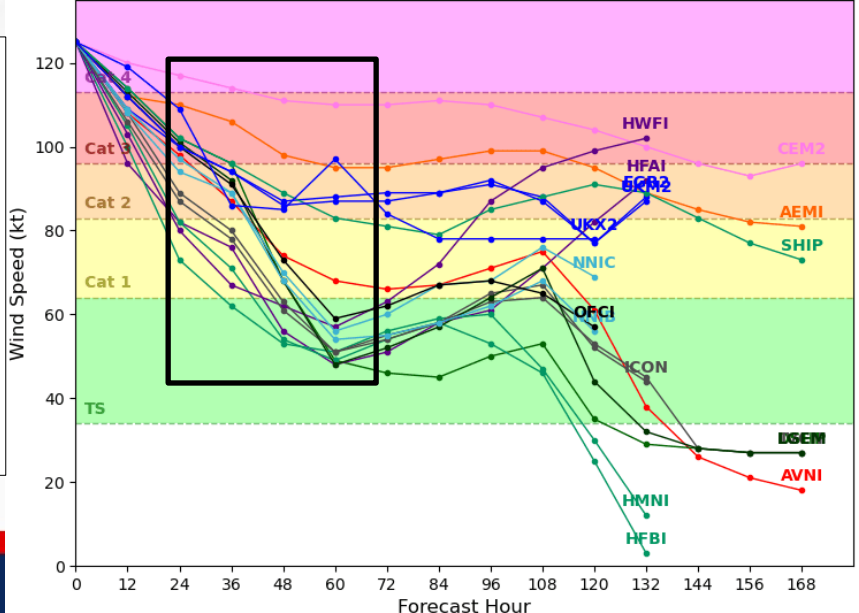
Computer model guidance remains within very good agreement about the direction of Beryl over the next few days. A general west-northwestward motion will continue through the next 12-24 hours before turning slightly westward as it approaches the Yucatan Peninsula tonight or Thursday. Beryl will continue to quickly move across the central Caribbean Sea today, passing near or over Jamaica within the next few hours and the Cayman Islands tonight or early Thursday. A large area of high pressure over the southern U.S. will help to steer Beryl on a westward to west-northwestward path over the next few days. There is large uncertainty with the system once it moves over the Yucatan and re-emerges along the Bay of Campeche and Gulf of Mexico later this week.

After making history as the earliest category 5 hurricane on record for the Atlantic basin, Beryl has now weakened to a Category 4 hurricane. Computer model guidance shows Beryl gradually weakening through the next 24-48 hours as it moves through the central and western Caribbean Sea and interacts with a less favorable environment. There are multiple factors including stronger upper-level winds, terrain and dry air that will ultimately lead to weakening. The uncertainty with the intensity forecast is how much will the system weaken as it approaches the Yucatan Peninsula on Thursday, as well as once the system re-emerges over the Gulf of Mexico later this week.

Computer model guidance is within agreement that Beryl will undergo weakening over the next several hours. The disagreement within computer model guidance is how much will the system weaken, as indicated by the large spread through 72 hours.

Hurricane BERYL Model Intensity Guidance

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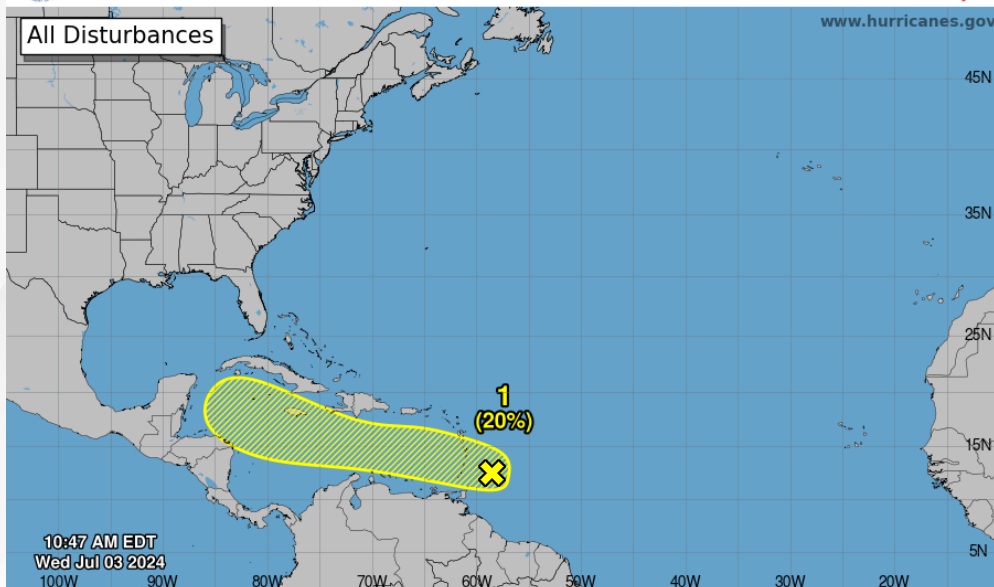
Tropical Weather Outlook

Disturbance 1 – Invest 96L ([LINK](#))



Seven-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



10%

48 Hour Formation



20%

7 Day Formation

Shower and thunderstorm activity remains disorganized in association with a tropical wave located a couple of hundred miles east of the Windward Islands. Development, if any, of this system should be slow to occur while it moves quickly westward to west-northwestward at 20-25 mph across the Caribbean Sea. Regardless of development, gusty winds, and locally heavy rainfall are possible across portions of the Lesser Antilles today. *This system poses no direct threat to Florida over the next 5-7 days but continues to be monitored.*

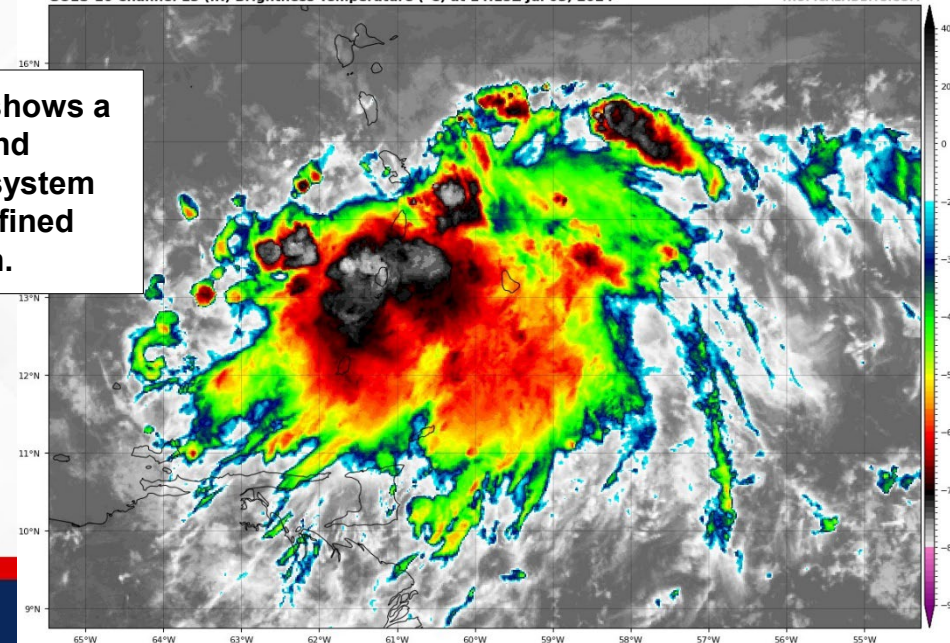
* Formation chance through 48 hours...**low...10%.**

* Formation chance through 7 days...**low...20%.**

Current satellite imagery shows a cluster of showers and thunderstorms, but this system does not have a well-defined center of circulation.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:15Z Jul 03, 2024

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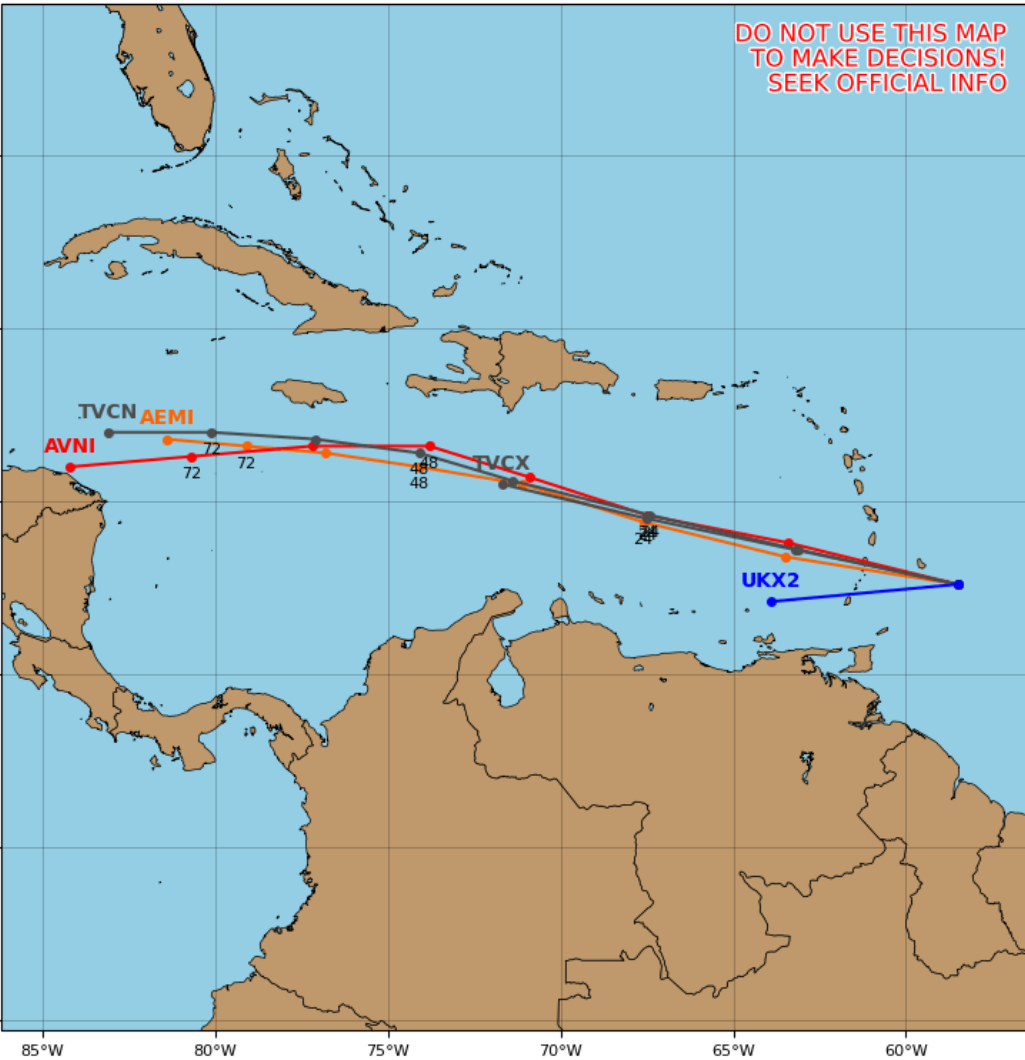
Model Forecasts – Next 5 Days

Invest 96L

Invest 96L Model Track Guidance

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Computer model guidance remains within good agreement that Invest 96L will continue to move westward to west-northwestward into the western Caribbean Sea over the next 24 hours. Uncertainty regarding the system increases thereafter. There is a large range/spread as the system moves through the central Caribbean Sea. This system does not currently have a well-defined center of circulation, which keeps the overall uncertainty of this system higher. Models generally agree Invest 96L will continue moving westward to west-northwestward through the Caribbean Sea through the rest of the week.

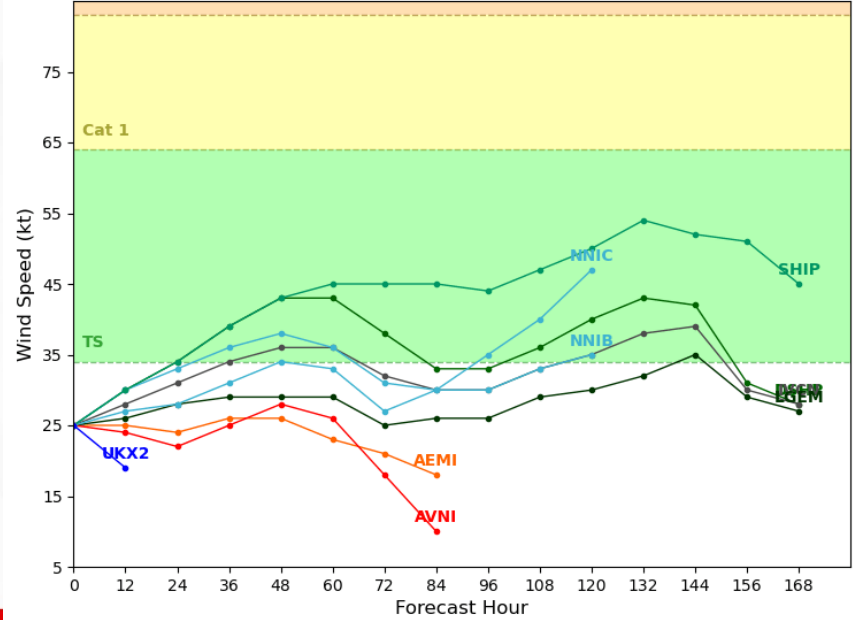
Computer models are indicating that there is a chance for some development of Invest 96L over the next few of days. There is high uncertainty with this system as it moves behind Beryl and into less favorable conditions. As well, this system does not have a well-defined center of circulation, which increases the forecast uncertainty.

Computer model guidance has a large spread and range, indicating higher uncertainty with Invest 96L. The lack of center of circulation with the system also increases the uncertainty.

Invest 96L Model Intensity Guidance

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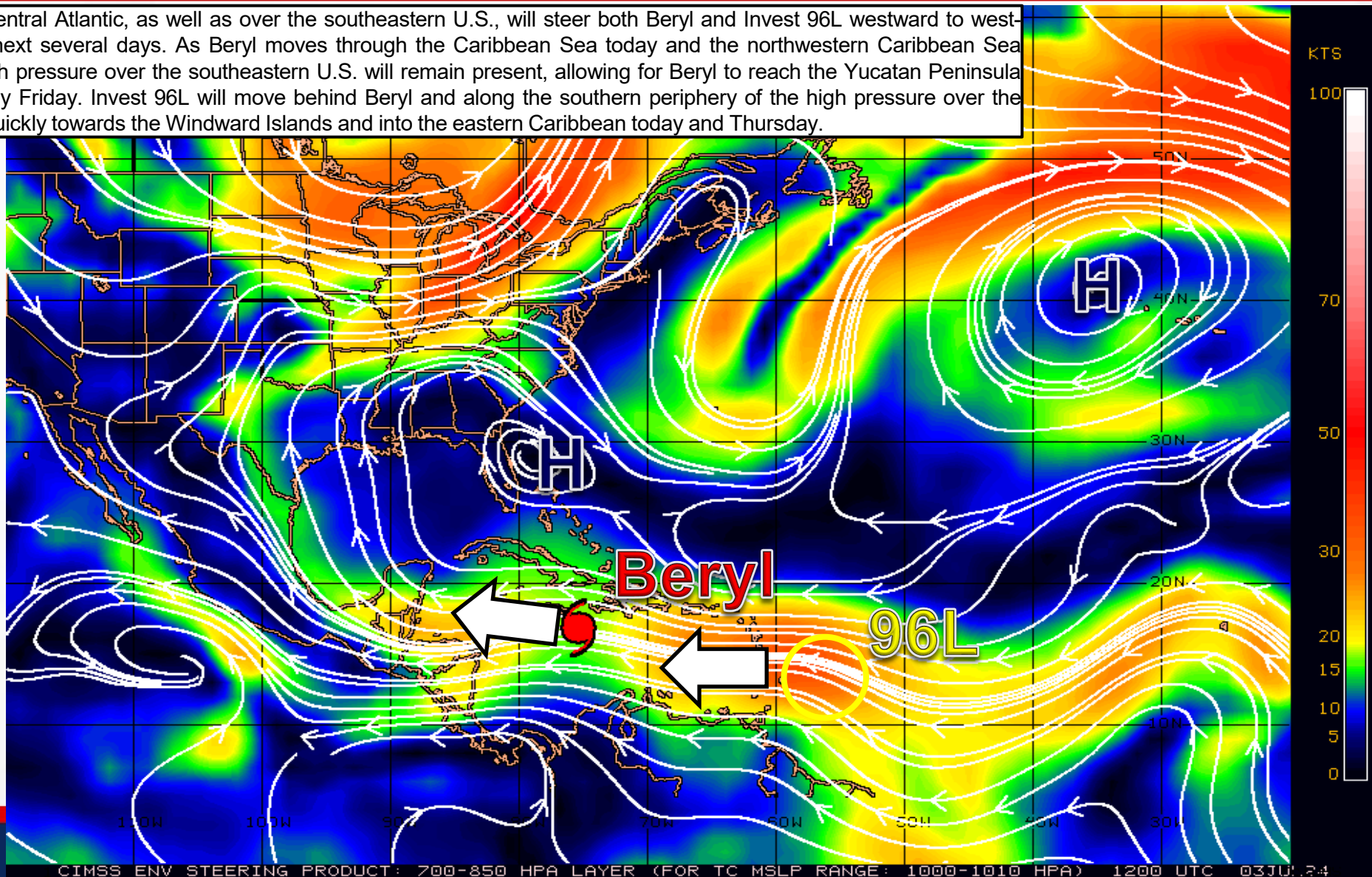


Steering Currents

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.

High pressure over the central Atlantic, as well as over the southeastern U.S., will steer both Beryl and Invest 96L westward to west-northwestward over the next several days. As Beryl moves through the Caribbean Sea today and the northwestern Caribbean Sea tomorrow, the area of high pressure over the southeastern U.S. will remain present, allowing for Beryl to reach the Yucatan Peninsula on Thursday night or early Friday. Invest 96L will move behind Beryl and along the southern periphery of the high pressure over the central Atlantic, moving quickly towards the Windward Islands and into the eastern Caribbean today and Thursday.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm

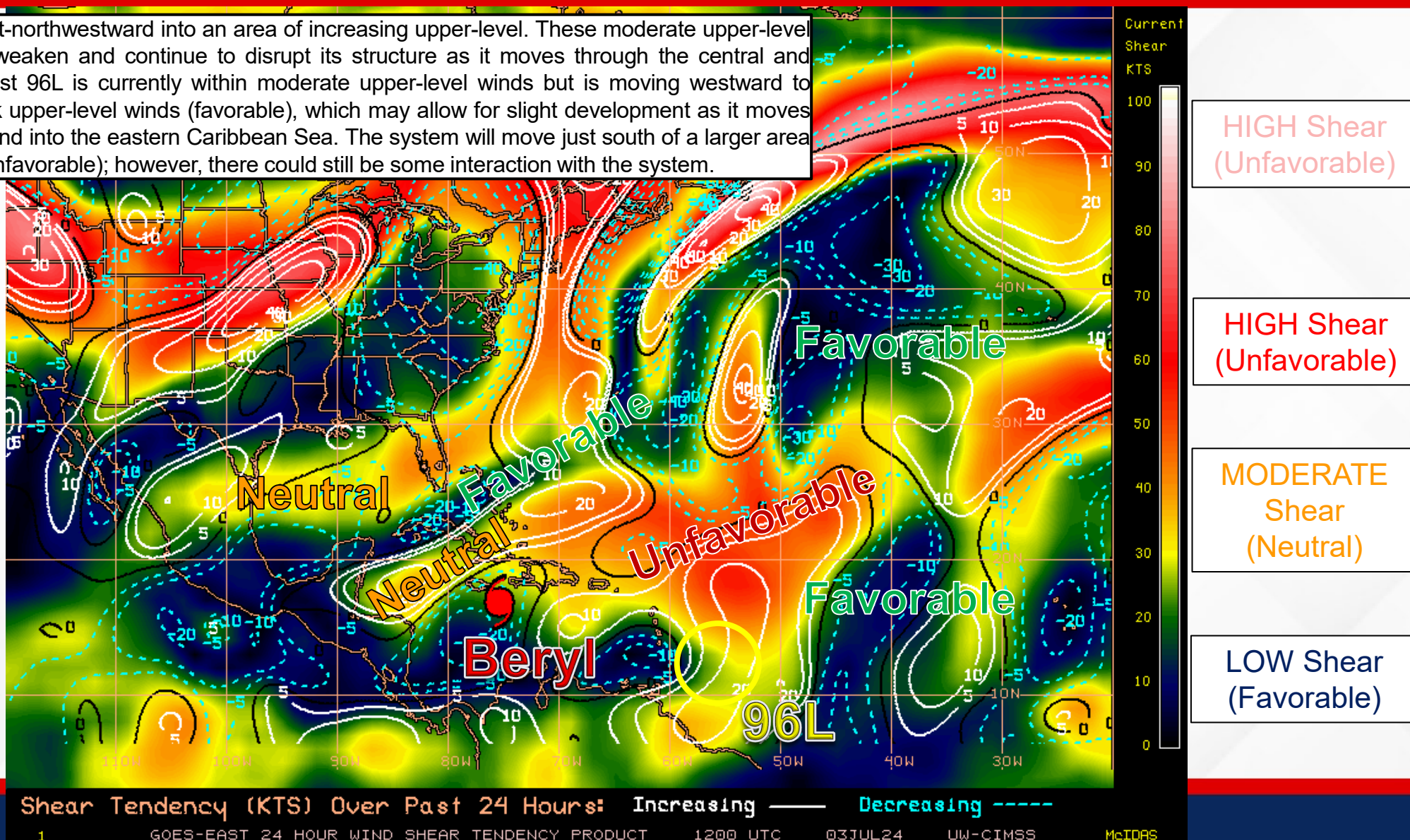


Wind Shear

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).

Beryl continues to moves west-northwestward into an area of increasing upper-level. These moderate upper-level winds will allow for Beryl to weaken and continue to disrupt its structure as it moves through the central and western Caribbean Sea. Invest 96L is currently within moderate upper-level winds but is moving westward to west-northwestward into weak upper-level winds (favorable), which may allow for slight development as it moves across the windward islands and into the eastern Caribbean Sea. The system will move just south of a larger area of strong upper-level winds (unfavorable); however, there could still be some interaction with the system.

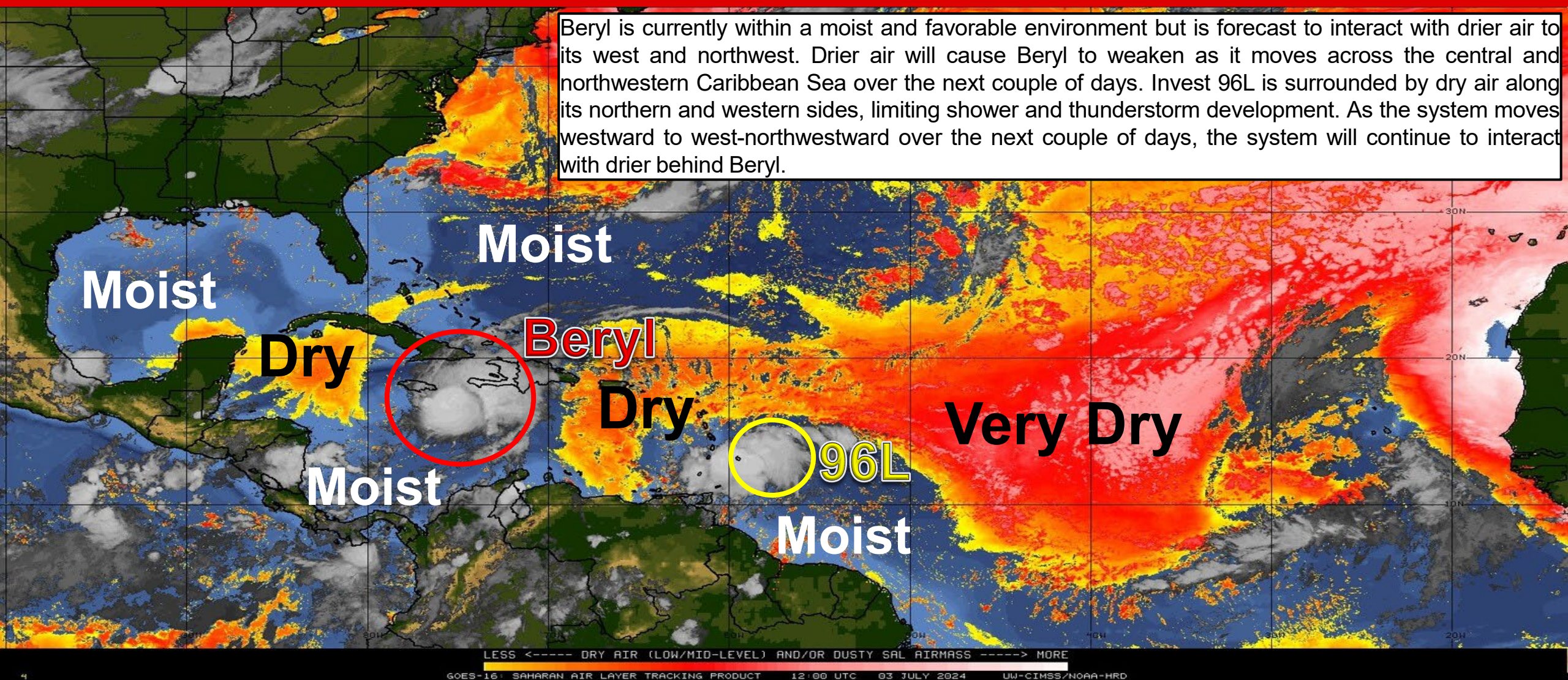




Dry Air & Saharan Dust

Is the environment favorable for the system?

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

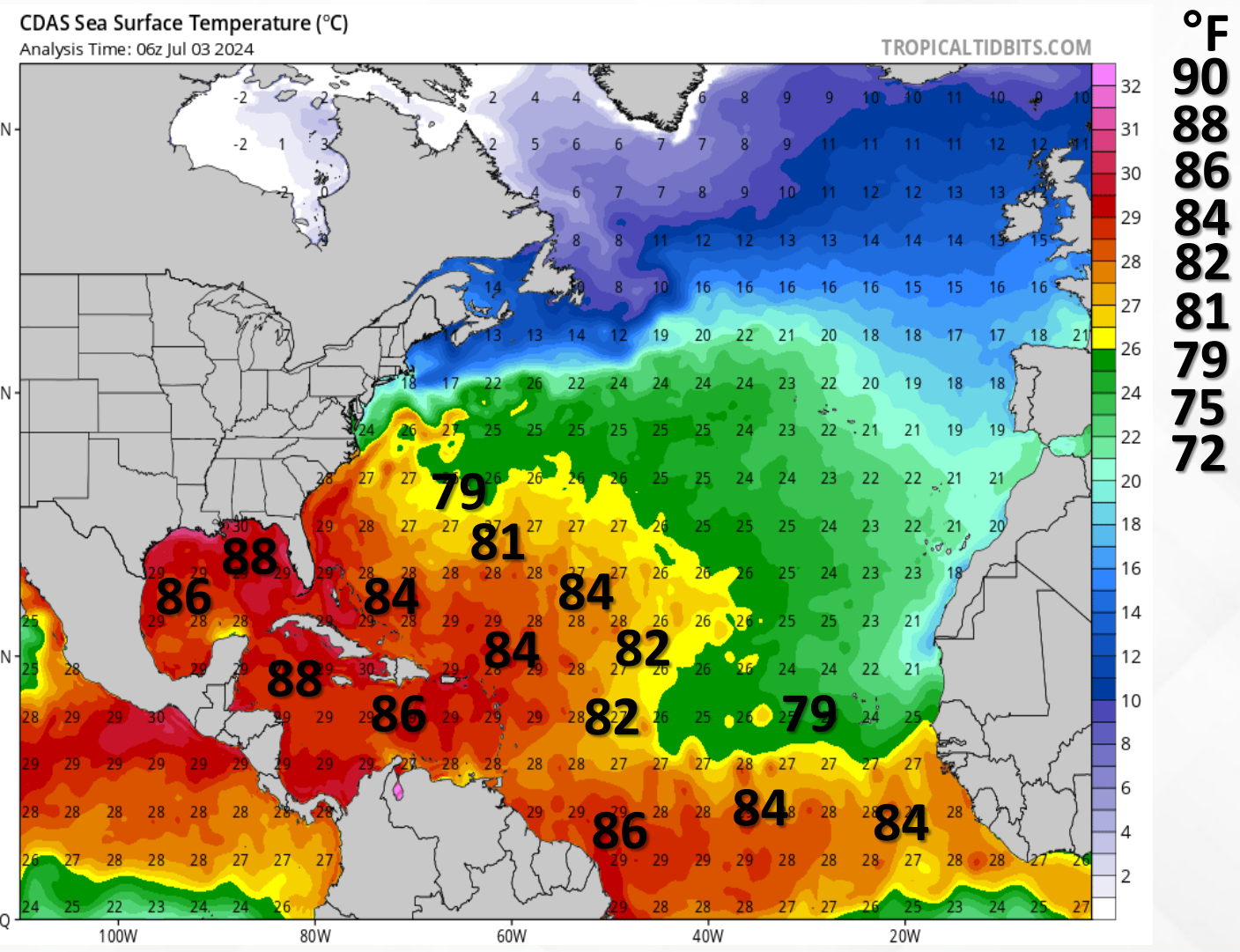
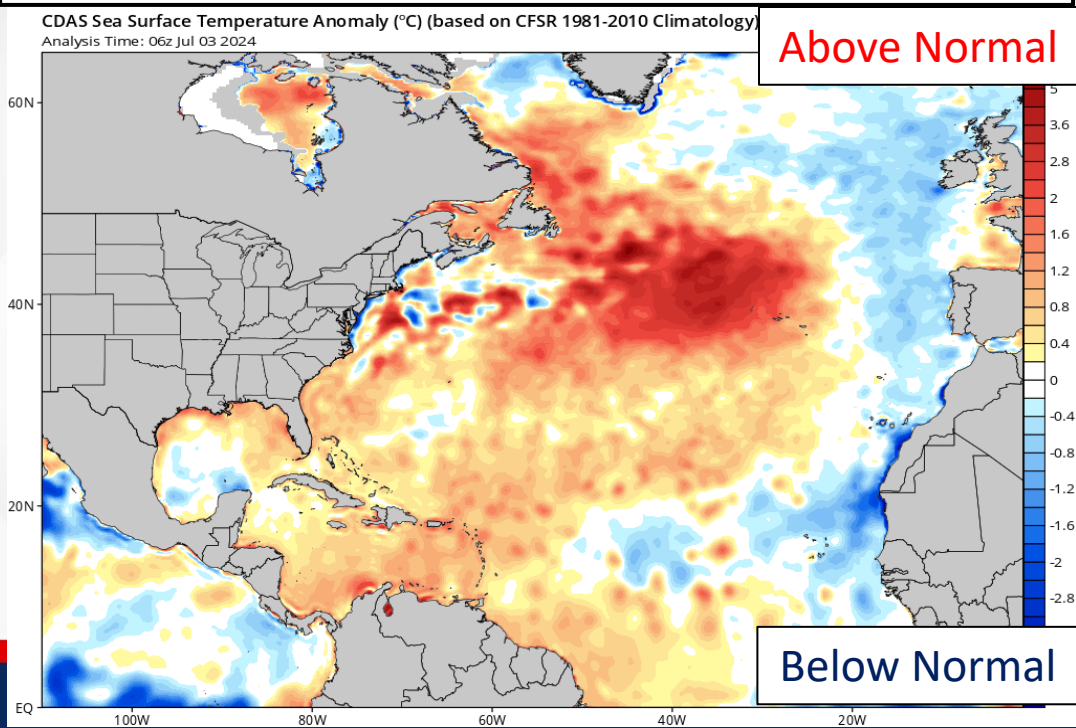




Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Temperatures across the Atlantic Basin are supportive of tropical cyclone development. Waters across the deep tropical Atlantic and Gulf of Mexico 0.5 to 1.5-degrees above normal for this time of year.





Summary

Major Hurricane Beryl:

- As of 11:00 AM EDT, Major Hurricane Beryl was located about 125 miles southeast of Kingston, Jamaica and moving west-northwestward at 20 mph.
- This general motion should continue through today, followed by a turn more toward the west tonight or Thursday.
- On the forecast track, the center of Beryl will pass near or over Jamaica during the next several hours.
- The center is expected to pass near or over the Cayman Islands tonight or early Thursday and move over the Yucatan Peninsula of Mexico Thursday night or early Friday.
- Hurricane Hunter and NOAA aircraft indicate maximum sustained winds near 145 mph with higher gusts (Category 4).
- Some weakening is forecast during the next day or two; however, Beryl is forecast to be at or near major hurricane intensity while it passes near Jamaica later today and the Cayman Islands tonight or early Thursday.
- Additional weakening is expected thereafter, though Beryl is forecast to remain a hurricane in the northwestern Caribbean.
- *Beryl poses no threat to Florida over the next 5-7 days, but this system will be monitored this weekend into next week.*

Invest 96L – Central Tropical Atlantic:

- Shower and thunderstorm activity remains disorganized in association with a tropical wave located a couple of hundred miles east of the Windward Islands.
- Development, if any, of this system should be slow to occur while it moves quickly westward to west-northwestward at 20-25 mph across the Caribbean Sea.
- Regardless of development, gusty winds, and locally heavy rainfall are possible across portions of the Lesser Antilles today.
- The National Hurricane Center is outlooking a **low (10%) chance of development** over the next 48 hours, and a **low (20%) chance of development** over the next 7 days.
- *This system poses no threat to Florida over the next 5-7 days but will continue to be monitored*

Florida Outlook:

- Showers will gradually move onshore and inland along the Panhandle and Big Bend this morning due to onshore winds ahead of a lingering frontal boundary.
- Plenty of moisture ahead of the lingering frontal boundary draped just north of the state line will help to aid shower and thunderstorm development along the sea breeze this afternoon and evening across the Panhandle and Big Bend.
- Scattered to numerous showers and thunderstorms can be expected throughout the Peninsula this afternoon and evening along the sea breeze collision.
- Despite no organized risk, showers and thunderstorms capable of producing heavy downpours could bring instances of localized instances of flooding across urban and low-lying/poor drainage areas, as well as recently saturated grounds.
- Organized severe weather is not expected, but locally strong to severe thunderstorms may bring frequent lightning, gusty winds (40-50 mph), and torrential downpours statewide.
- Heat index values across the rest of the state will reach the upper 90s and triple digits (100-112).
- Heat Advisories are in effect along the Florida Panhandle and into western portions of the Suwannee Valley as heat index values of 108-112 are expected this afternoon leading to dangerously hot and humid conditions. Additional Heat Advisories are in effect across portions of South Florida where heat index values of 108-110 are expected this afternoon.
- The next name on the list is Debby (*DEH-bee*).

The next briefing packet will be issued Thursday Morning. For the latest information, please visit the [National Hurricane Center website](#).



Tropical Update



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State Meteorological Support Unit

Florida Division of Emergency Management

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