



Tropical Update



11:00 AM EDT

Tuesday, July 2, 2024

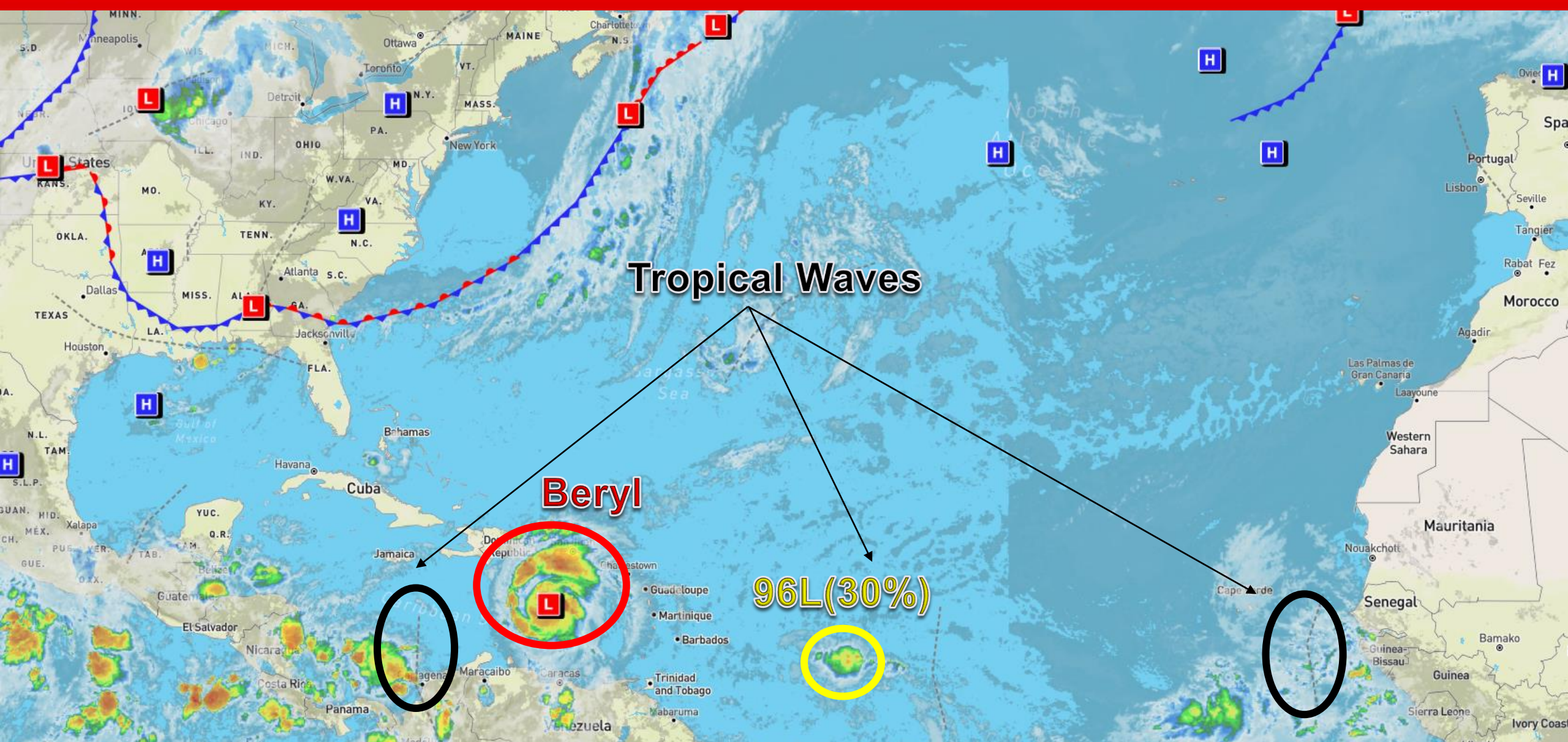
Beryl Continues to Make History Becoming Earliest Category 5 Hurricane On Record; Weakening Should Begin Later Today, But Still Expected to Be Near Major Hurricane Strength As It Moves Into Central Caribbean; Invest 96L Struggling to Produce Shower and Thunderstorm Activity (30%)

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

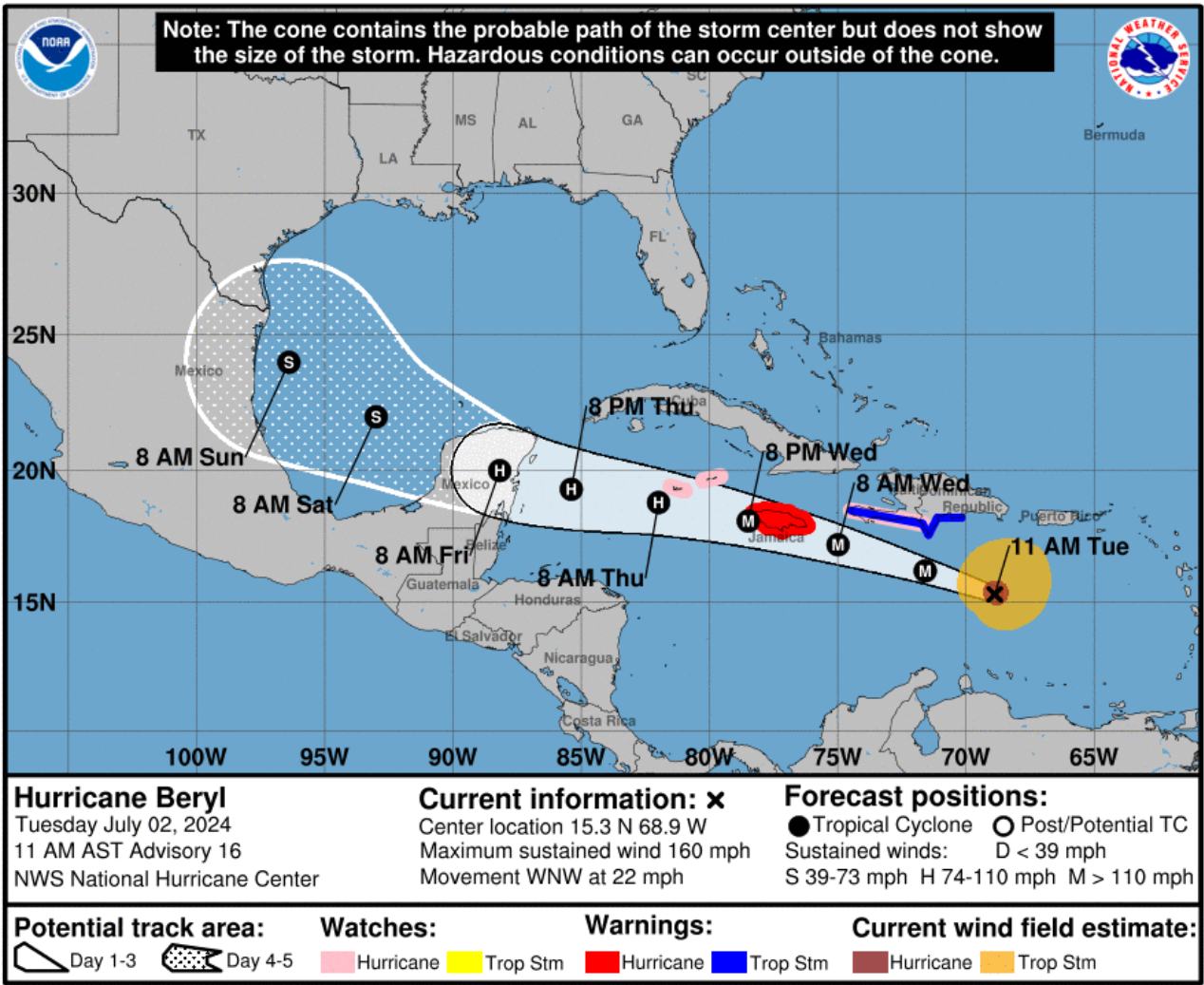
Chance of development: — None — Low — Medium — High





Major Hurricane Beryl

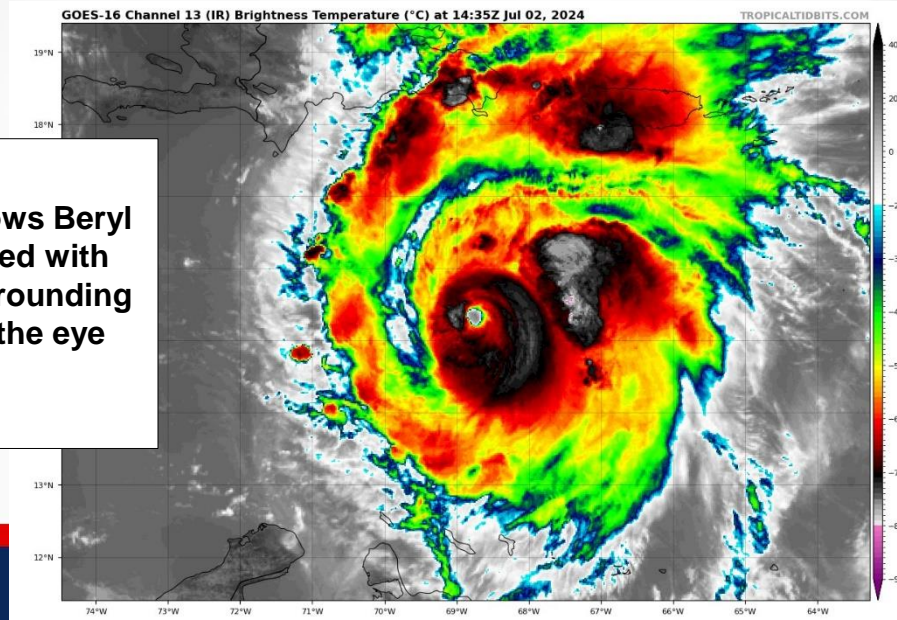
From the National Hurricane Center (NHC)



- **Location:** 235 miles Southeast of Isla Beata, Dominican Republic
- **Maximum Sustained Winds:** 160 mph (Category 5)
- **Current Movement:** WNW at 22 mph
- **FL Watches & Warnings:** None

This general west-northwest motion should continue through Wednesday, followed by a turn more toward the west on Thursday. On the forecast track, the center of Beryl will move quickly across the central Caribbean Sea today and is forecast to pass near Jamaica on Wednesday and the Cayman Islands on Thursday. The center is forecast to approach the Yucatan Peninsula of Mexico Thursday night. Weakening is forecast later today, but Beryl is expected to be near major hurricane strength as it moves into the central Caribbean and passes near Jamaica on Wednesday and the Cayman Islands on Thursday. Additional weakening is expected thereafter, though Beryl is forecast to remain a hurricane in the northwestern Caribbean.

Satellite imagery shows Beryl is very well organized with deep convection surrounding the eye and within the eye wall.





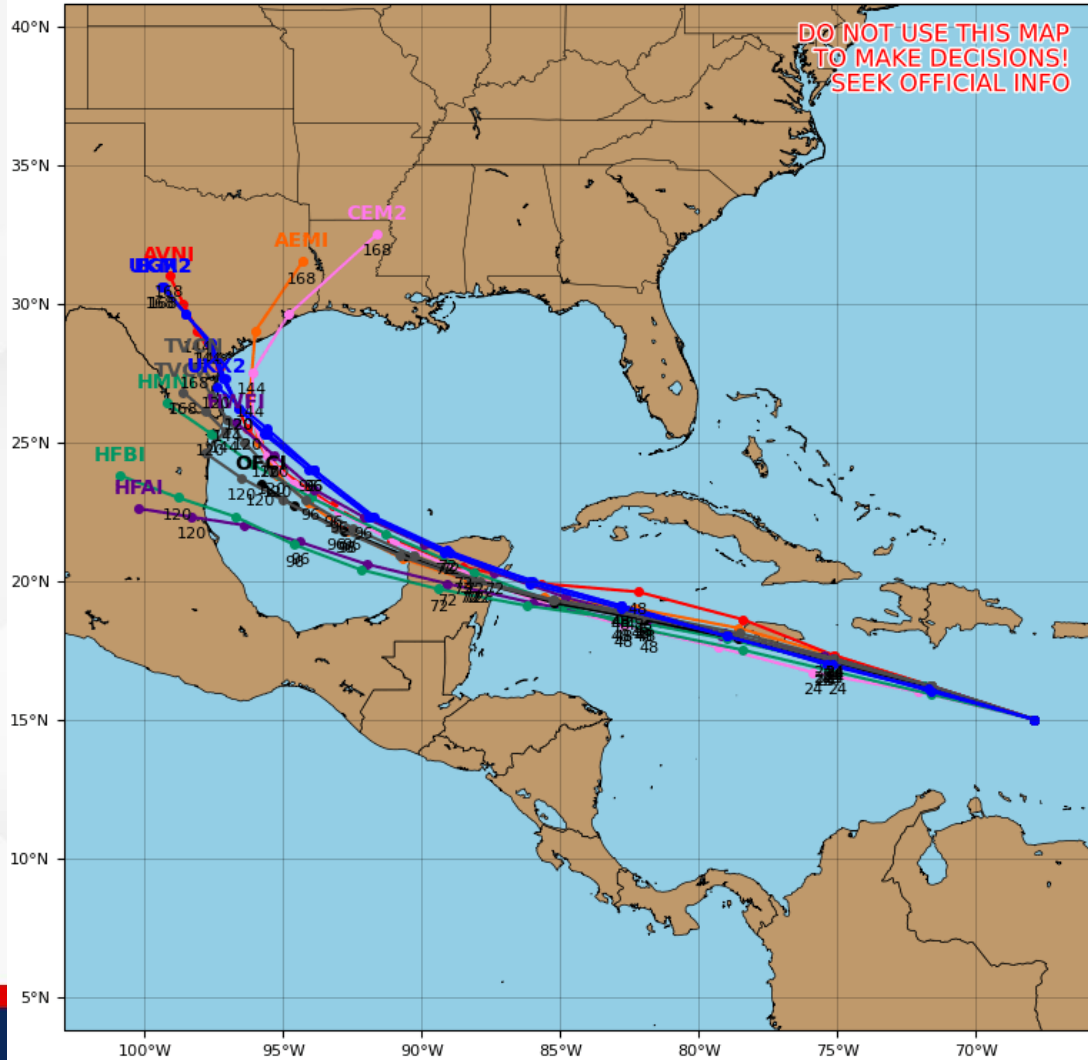
Model Forecasts – Next 5 Days

Major Hurricane Beryl

Hurricane BERYL Model Track Guidance

Initialized at 12z Jul 02 2024

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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 24-48 hours before turning slightly westward as it approaches the Yucatan Peninsula on Thursday. Beryl will continue to quickly move across the southeastern Caribbean Sea today, then pass near Jamaica on Wednesday and the Cayman Islands on 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.

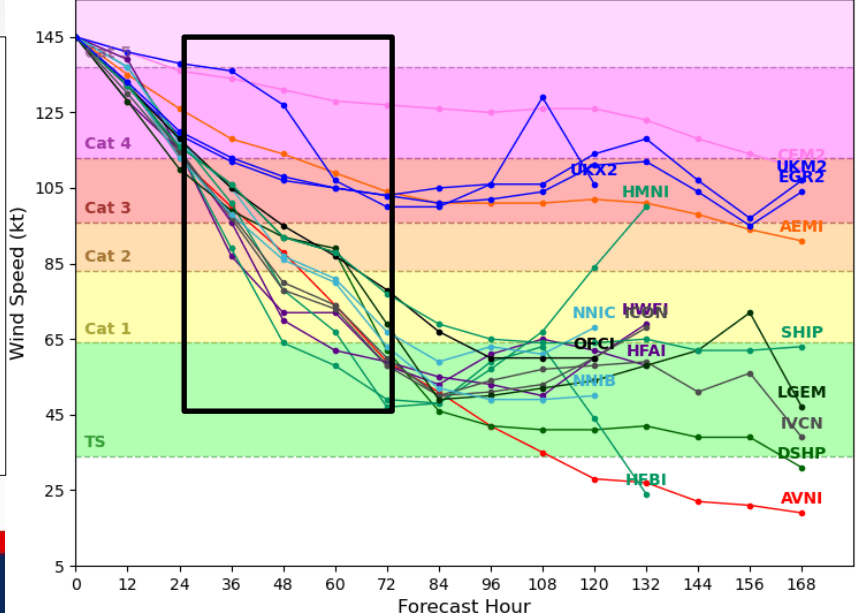
Beryl has made history as the earliest category 5 hurricane on record for the Atlantic basin. Computer model guidance shows Beryl gradually weakening through the next 24-48 hours as it moves into the central and western Caribbean Sea and interacts with a less favorable environment. There are multiple 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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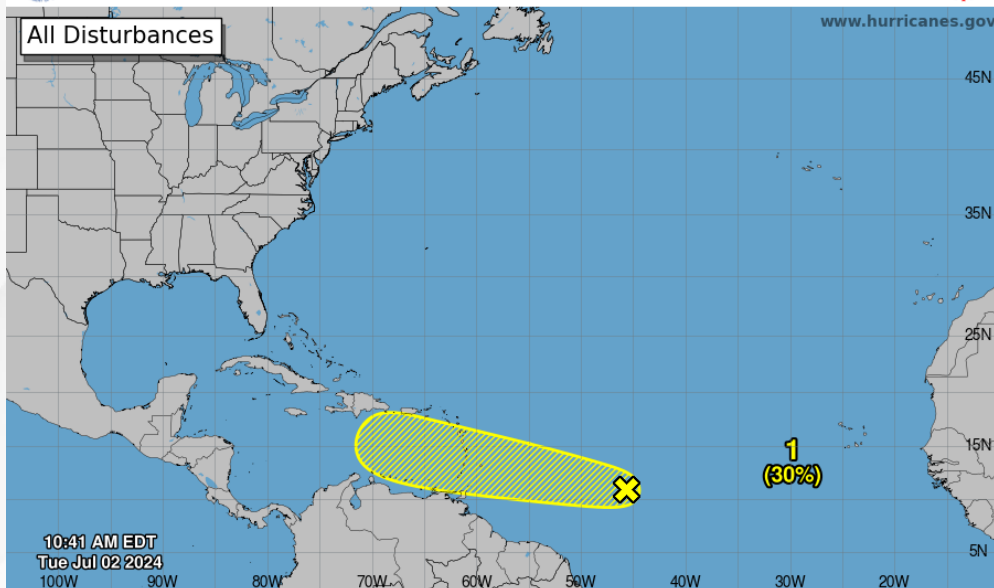
Tropical Weather Outlook

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



Seven-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

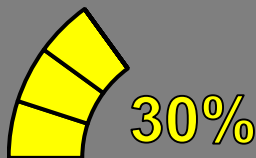


Current Disturbances and Seven-Day Cyclone Formation Chance: < 40% 40-60% > 60%
Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane
 Post-Tropical Cyclone or Remnants



20%

48 Hour Formation



30%

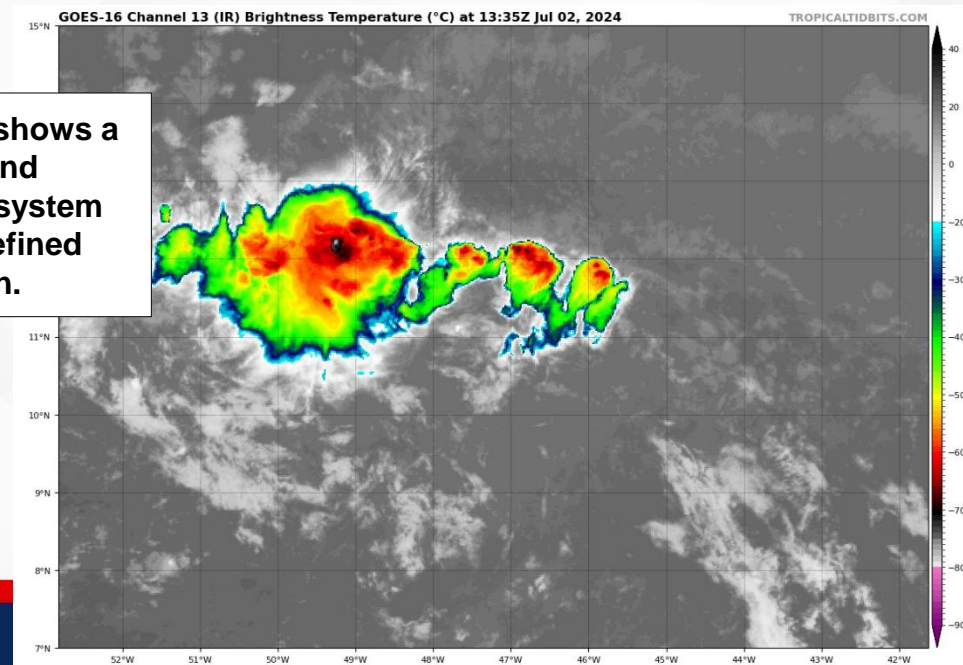
7 Day Formation

A tropical wave located about 1000 miles east-southeast of the Windward Islands is producing limited shower and thunderstorm activity. Environmental conditions are only marginally conducive for development of this system while it moves generally westward at 15-20 mph across the western tropical Atlantic and eastern Caribbean Sea. *This system poses no direct threat to Florida over the next 7-10 days but continues to be monitored.*

* Formation chance through 48 hours...**low...20%.**

* Formation chance through 7 days...**low...30%.**

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





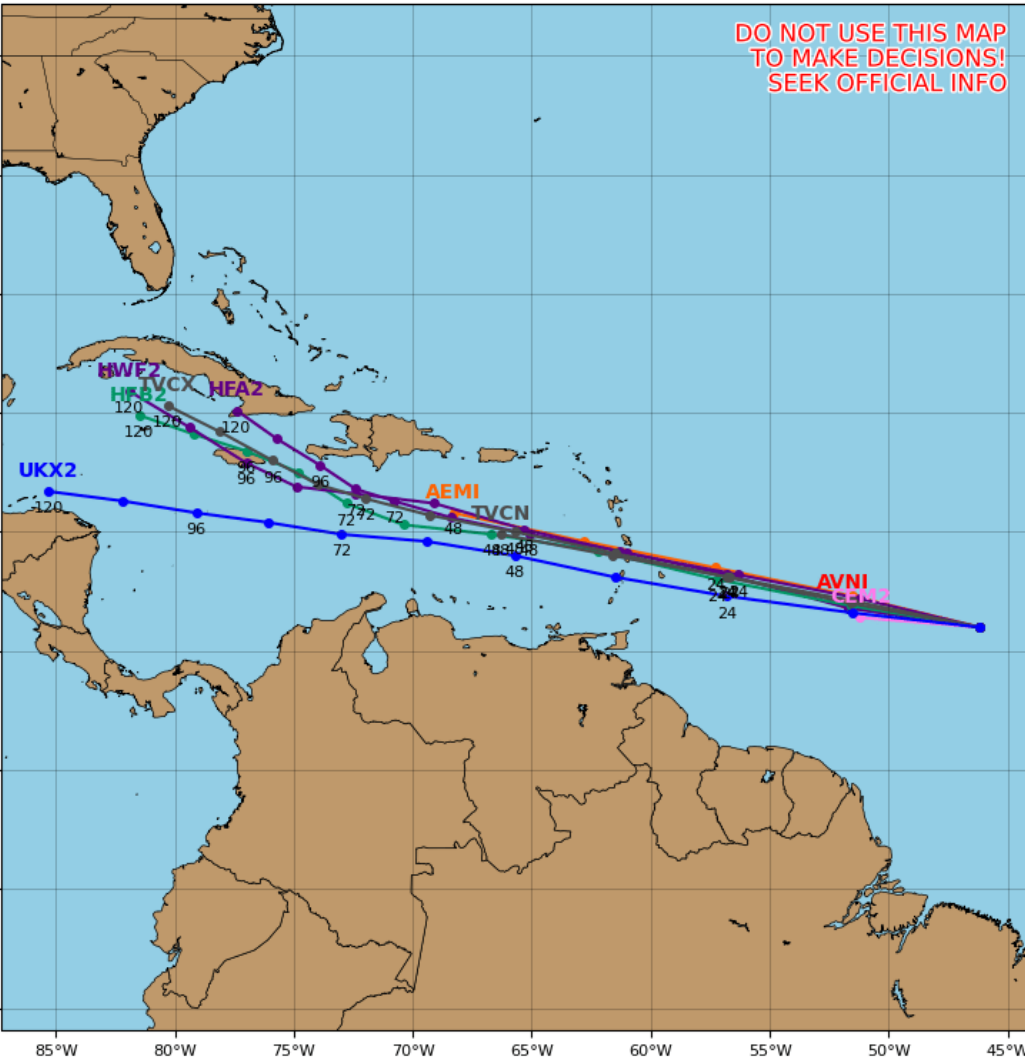
Model Forecasts – Next 5 Days

Invest 96L

Invest 96L Model Track Guidance

Initialized at 12z Jul 02 2024

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Computer model guidance remains within good agreement that Invest 96L will continue to move westward to west-northwestward across the central and western tropical Atlantic over the next 24 hours before approaching the Windward Islands. The system is forecast to move into the eastern Caribbean Sea by midweek, but then uncertainty regarding the system increases. There is a large range/spread beyond 72 hours 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.

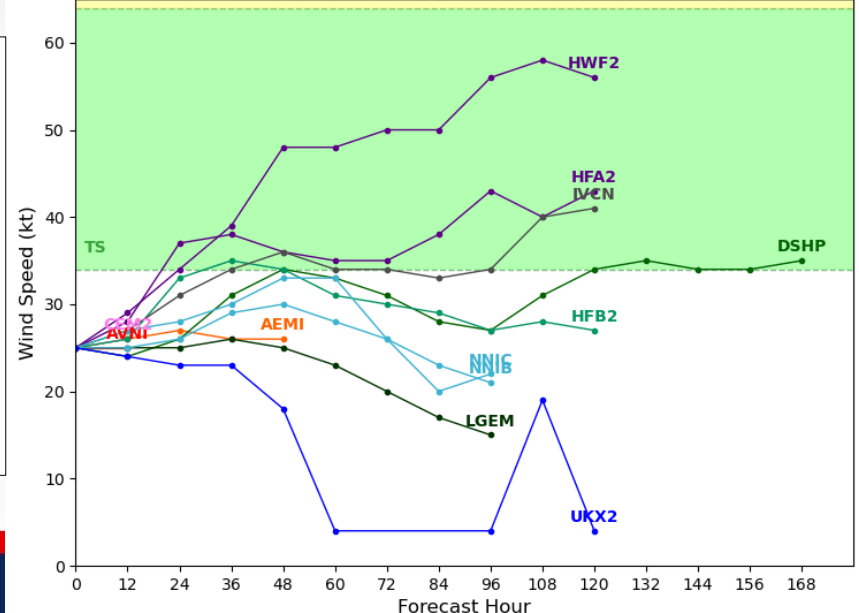
Computer models are indicating that there is a chance for some development of Invest 96L over the next couple of days. There is high uncertainty with this system as it moves behind Beryl and into less favorable conditions. As well, this system does not have a well-defined center of circulation, which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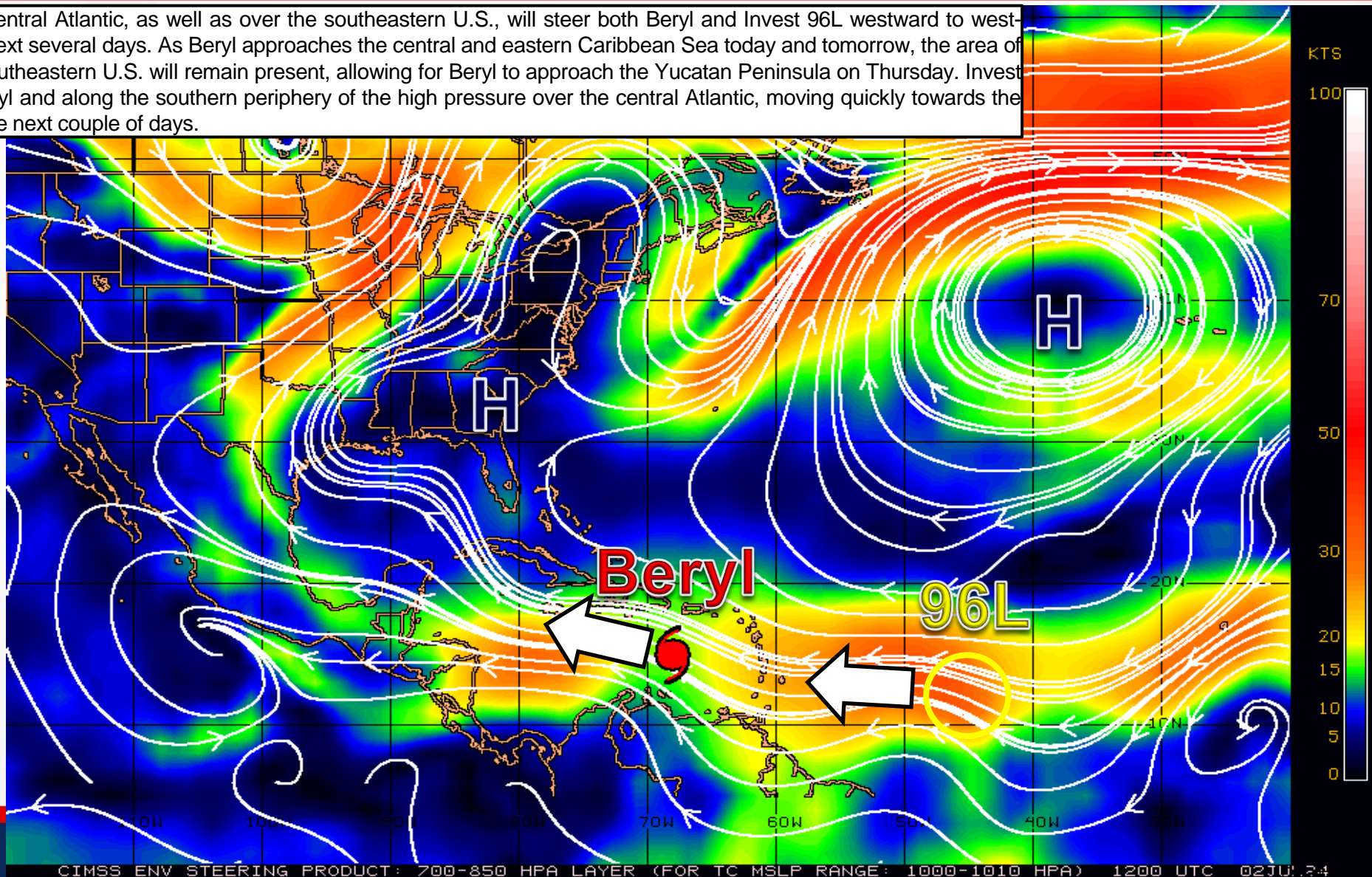


Steering Currents

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 approaches the central and eastern Caribbean Sea today and tomorrow, the area of high pressure over the southeastern U.S. will remain present, allowing for Beryl to approach the Yucatan Peninsula on Thursday. 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 over the next couple of days.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm

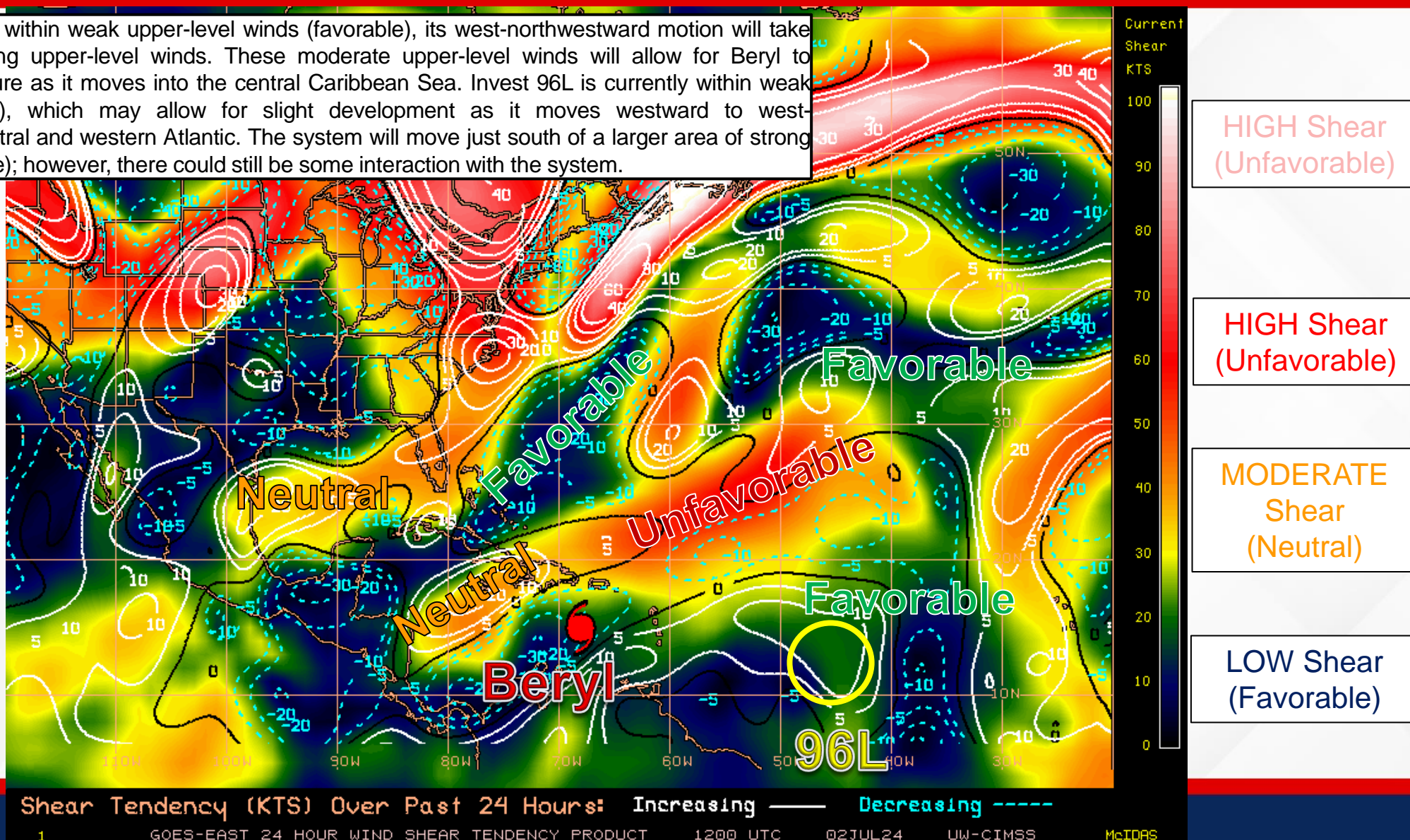


Wind Shear

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).

While Beryl currently remains within weak upper-level winds (favorable), its west-northwestward motion will take the system towards increasing upper-level winds. These moderate upper-level winds will allow for Beryl to weaken and disrupt its structure as it moves into the central Caribbean Sea. Invest 96L is currently within weak upper-level winds (favorable), which may allow for slight development as it moves westward to west-northwestward across the central and western Atlantic. 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.

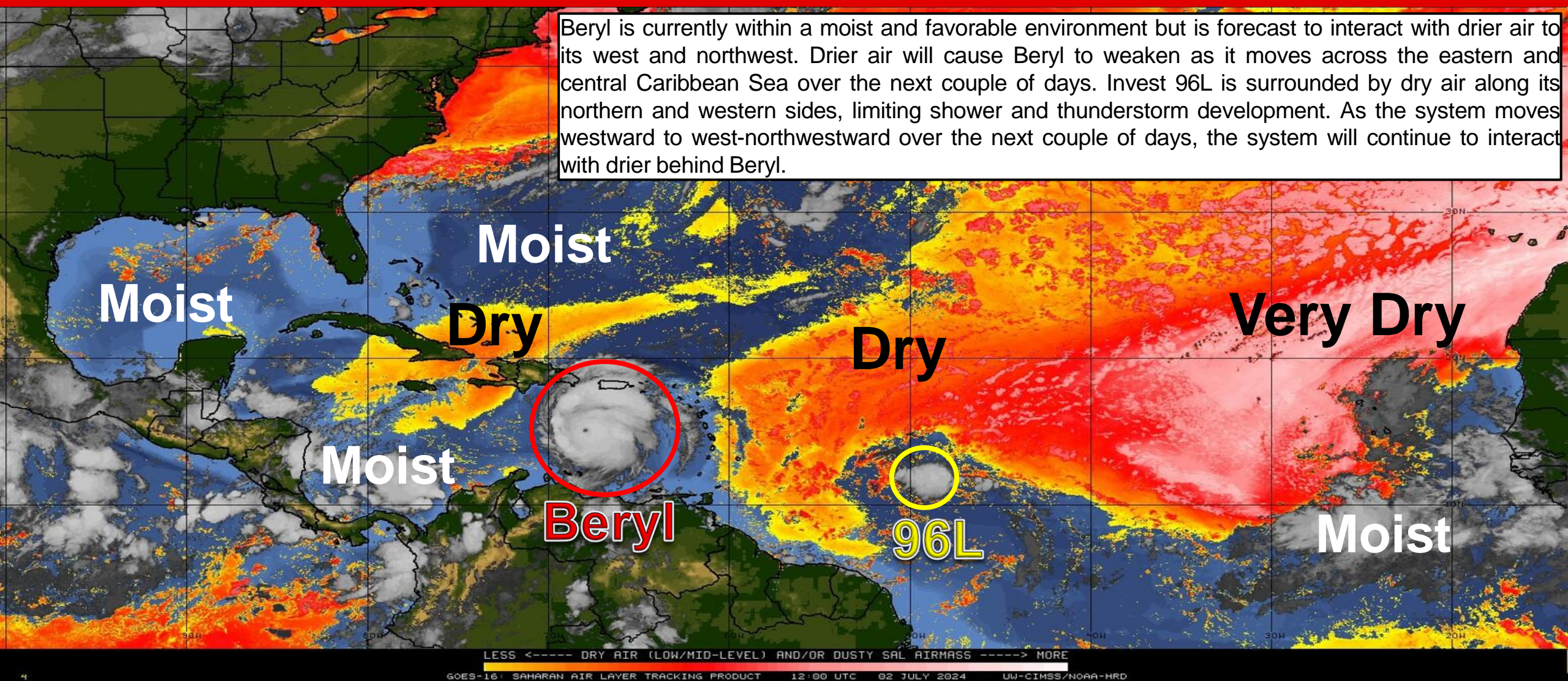




Dry Air & Saharan Dust

Is the environment favorable for the system?

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

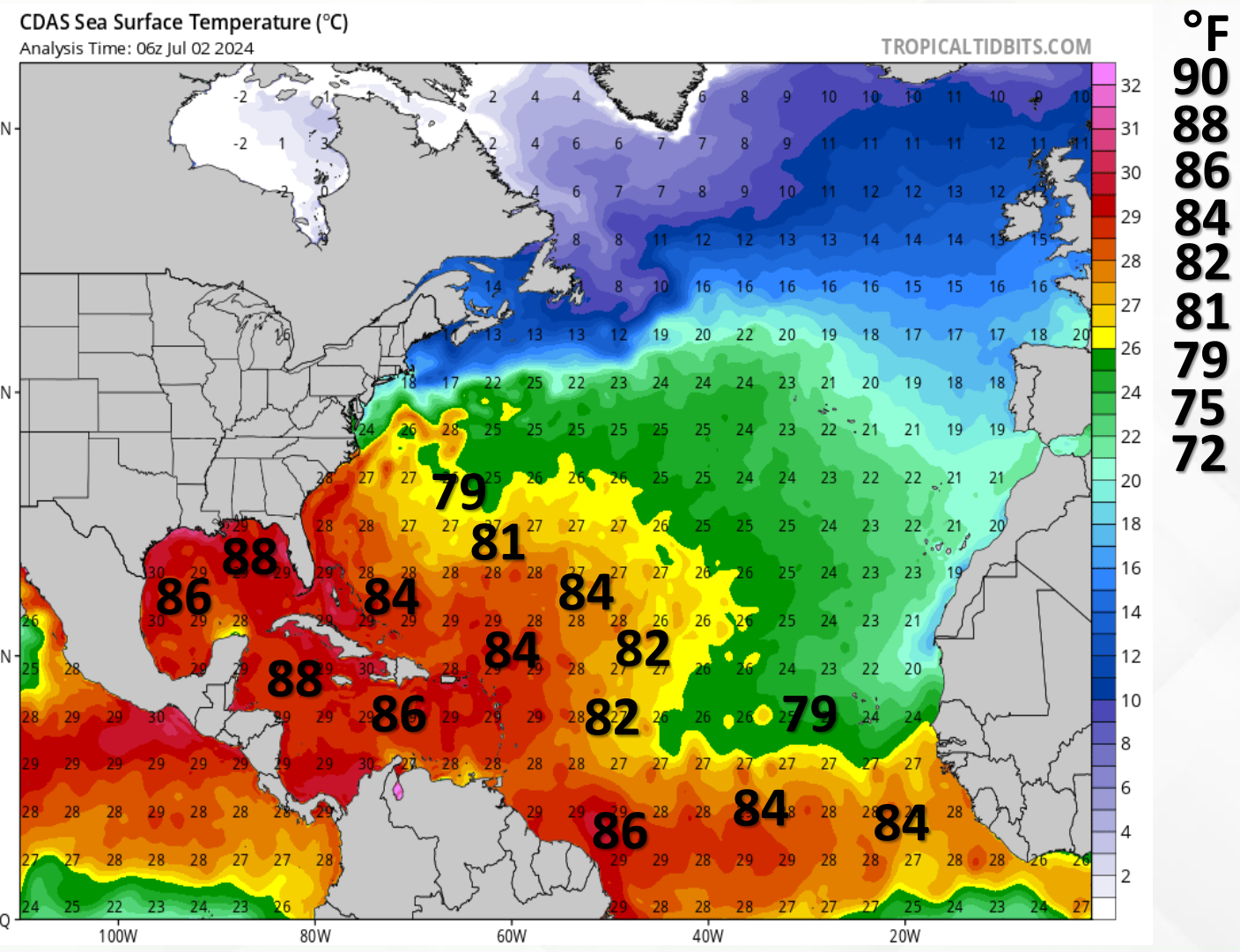
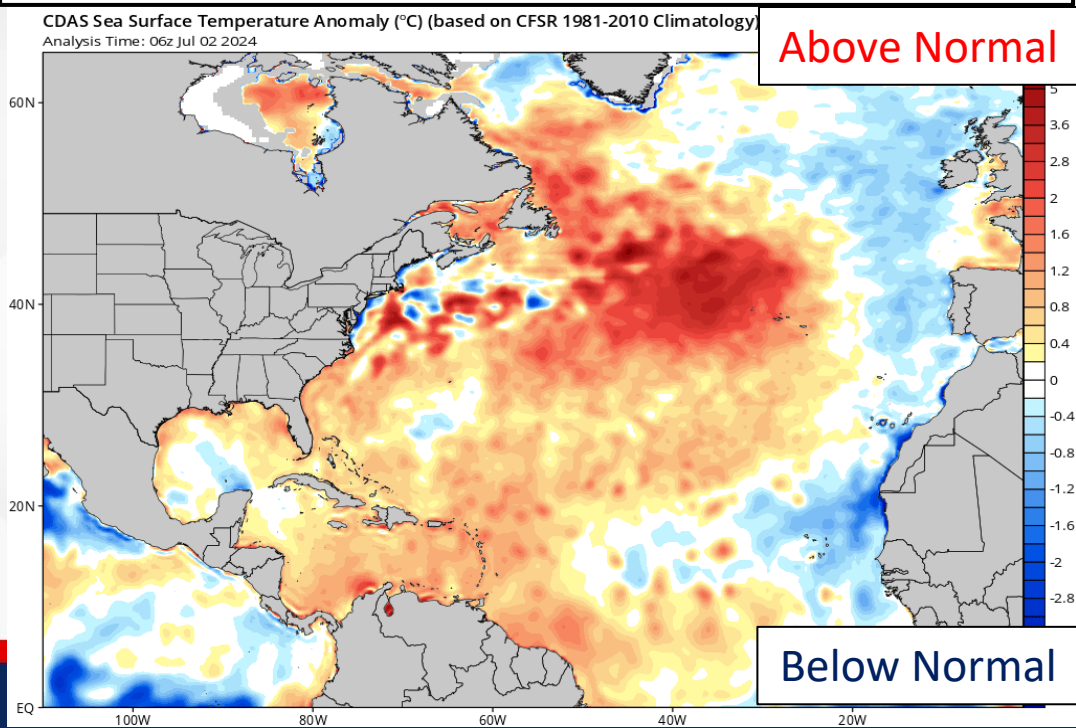




Sea Surface Temperatures & Anomalies

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 235 miles southeast of Isla Beata, Dominican Republic and moving west-northwestward at 22 mph.
- This general motion should continue through Wednesday, followed by a turn more toward the west on Thursday.
- On the forecast track, the center of Beryl will move quickly across the central Caribbean Sea today and is forecast to pass near Jamaica on Wednesday and the Cayman Islands on Thursday.
- The center is forecast to approach the Yucatan Peninsula of Mexico Thursday night.
- Hurricane Hunter and NOAA aircraft indicate maximum sustained winds near 160 mph with higher gusts. Beryl is the now earliest category 5 hurricane on record.
- Weakening is forecast later today, but Beryl is still expected to be near major hurricane strength as it moves into the central Caribbean and passes near Jamaica on Wednesday and the Cayman Islands on Thursday.
- Additional weakening is expected thereafter, though Beryl is expected 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:

- A tropical wave located about 1000 miles east-southeast of the Windward Islands is producing limited shower and thunderstorm activity.
- Environmental conditions are only marginally conducive for development of this system while it moves generally westward at 15-20 mph across the western and tropical Atlantic and eastern Caribbean Sea.
- The National Hurricane Center is outlooking a **low (20%) chance of development** over the next 48 hours, and a **low (30%) chance of development** over the next 7 days.
- *This system poses no threat to Florida over the next 7-10 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.
- The Weather Prediction Center (WPC) is outlooking a Marginal Risk (level 1 of 4) for Flash Flooding along the I-10 corridor where showers and thunderstorms capable of producing heavy downpours could bring localized instances of flooding across urban and low-lying/poor drainage areas, as well as recently saturated grounds.
- Scattered to numerous showers and thunderstorms can be expected throughout the Peninsula this afternoon and evening along the sea breeze collision.
- Organized severe weather is not expected, but locally strong to severe thunderstorms may bring frequent lightning, gusty winds (40-50 mph) and torrential downpours.
- Heat Advisories will go into effect late this morning along the Panhandle and western Big Bend where heat index values of 108-112 are expected this afternoon leading to dangerous hot and humid conditions.
- Heat index values across the rest of the state will reach the upper 90s to low 100s.
- The next name on the list is Debby (*DEH-bee*).

The next briefing packet will be issued Wednesday Morning. For the latest information, please visit the National Hurricane Center website.



Tropical Update



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Florida Division of Emergency Management

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