



# Tropical Update



11:00 AM EDT

Saturday, June 29, 2024

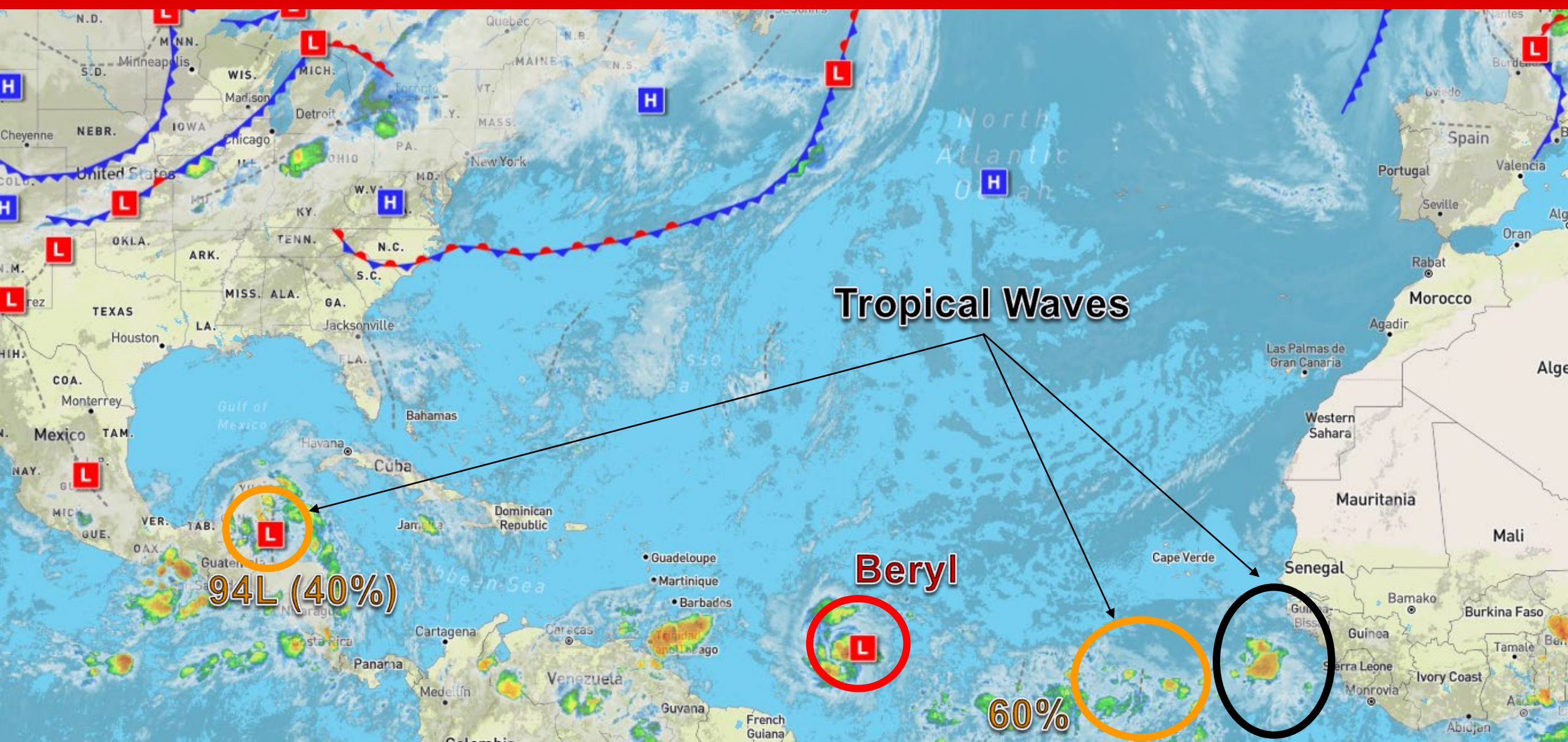
**Tropical Storm Beryl Expected to Become a Major Hurricane;  
Medium Chances of Tropical Development Near the Yucatan  
Peninsula (40%) & Across the Eastern Tropical Atlantic (60%)**

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

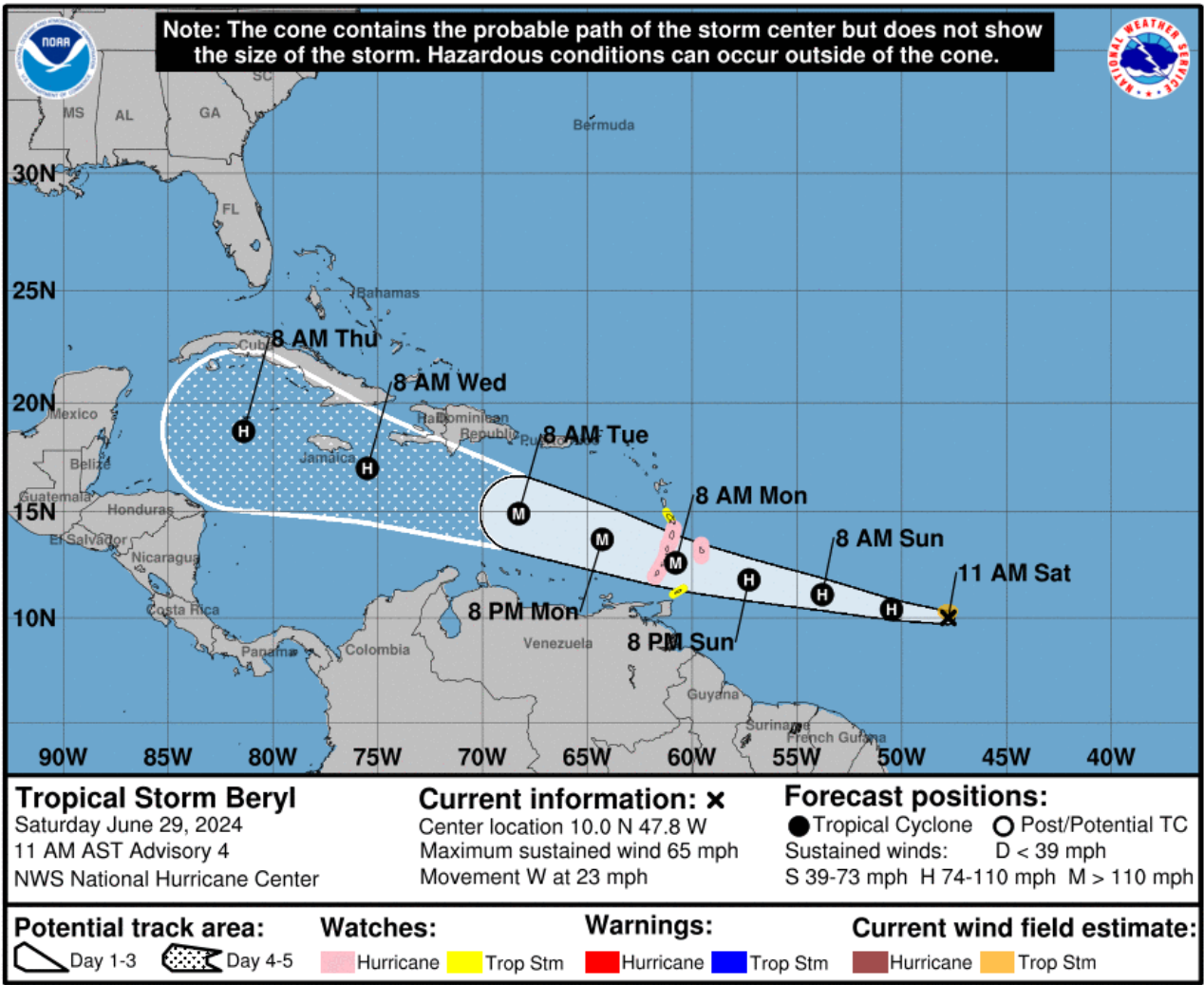




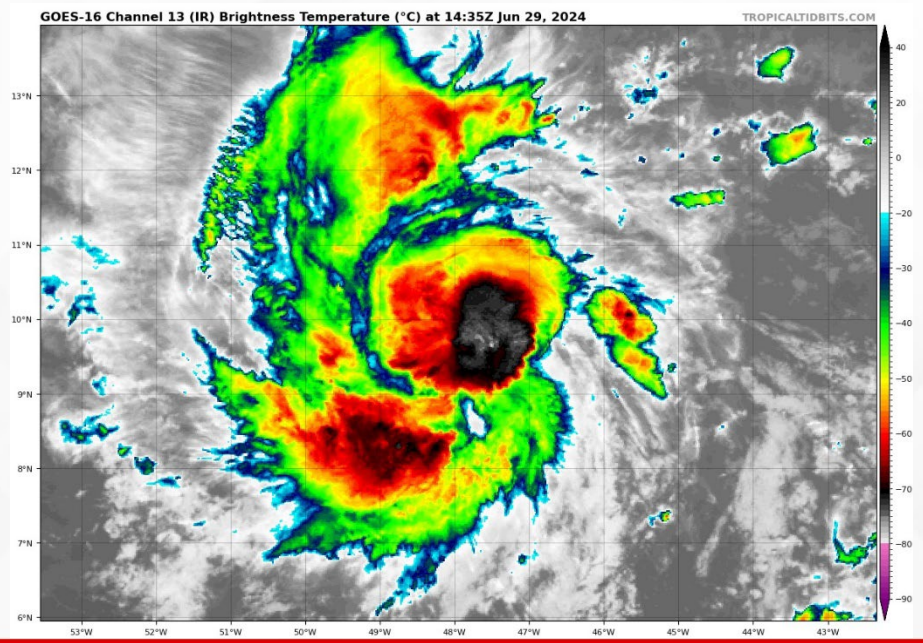


# Tropical Storm Beryl

From the National Hurricane Center (NHC)



- **Location:** 820 miles east-southeast of Barbados
  - **Maximum Sustained Winds:** 65 mph
  - **Current Movement:** W at 23 mph
  - **FL Watches & Warnings:** None
- A relatively quick westward to west-northwestward motion is expected during the next few days. On the forecast track, the system is expected to move across the Windward Islands late Sunday night and Monday. Rapid strengthening is now forecast, and Beryl is expected to become a major hurricane before it reaches the Windward Islands.



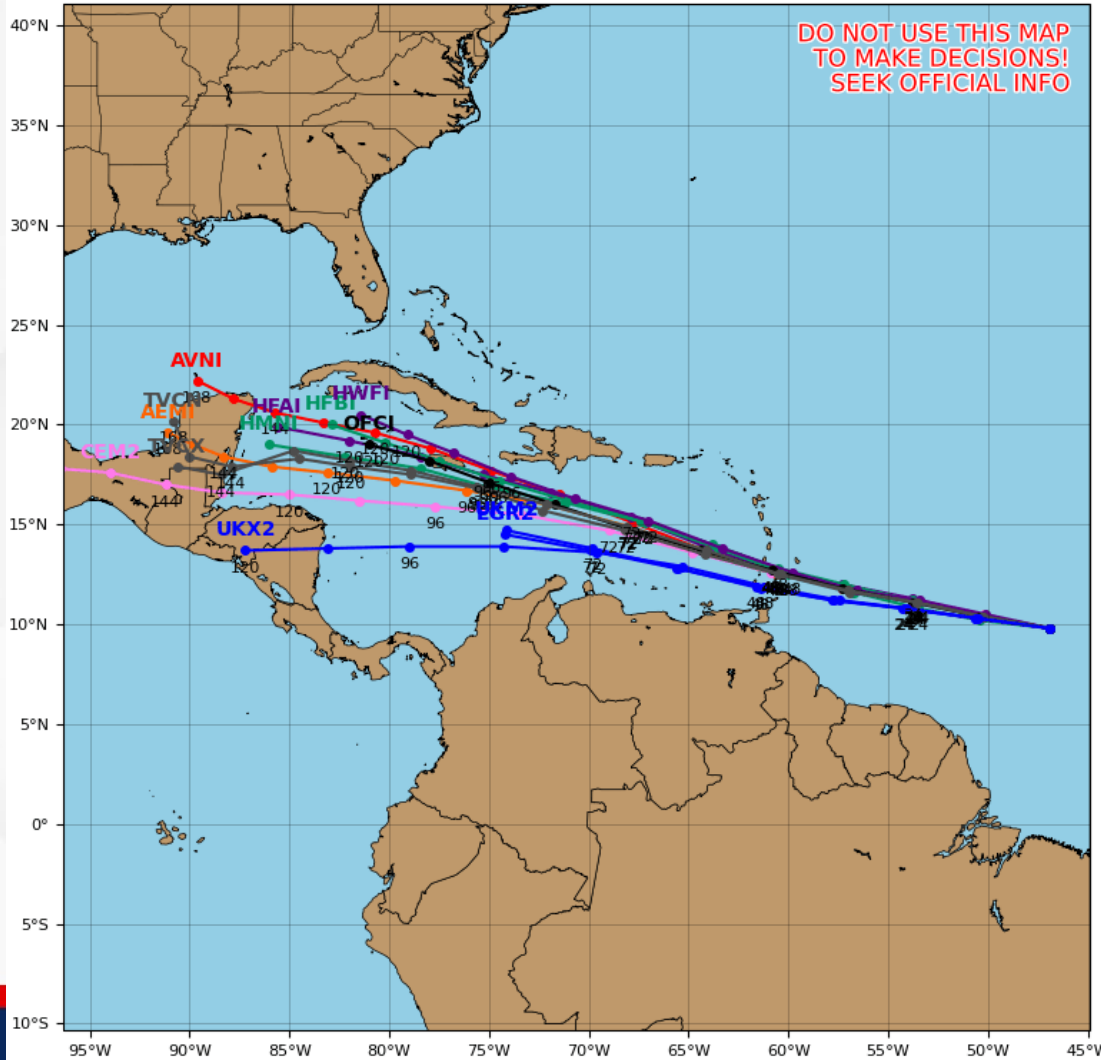


# Model Forecasts – Next 5 Days

## Tropical Storm Beryl

### Tropical Storm BERYL Model Track Guidance

Initialized at 12z Jun 29 2024 Levi Cowan - tropicaltidbits.com



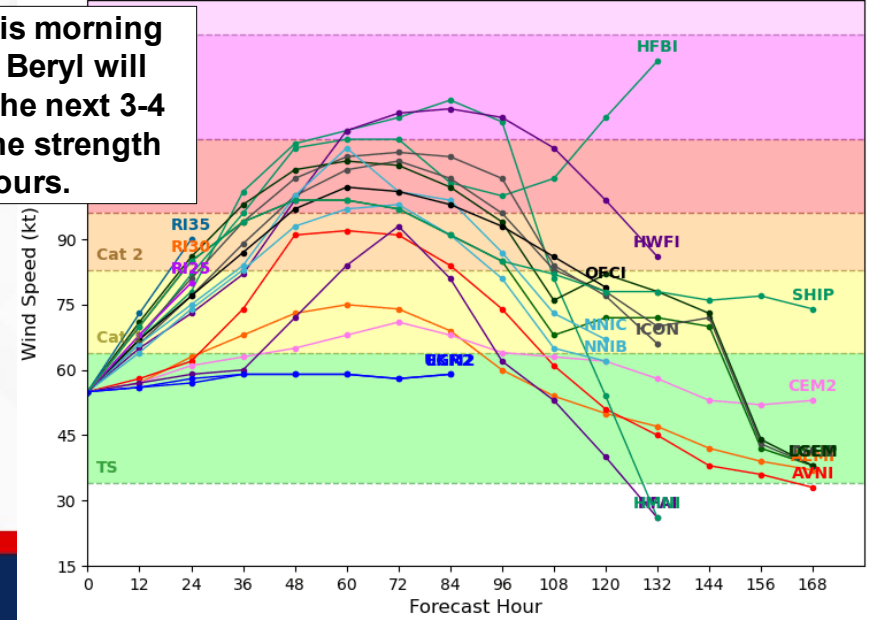
Computer model guidance this morning remains in very good agreement that Tropical Storm Beryl will maintain its general westward to west-northwestward motion over the next 2 to 3 days, with the system approaching the Windward Islands in the next 36 to 48 hours. Computer models increase in uncertainty during the 3 to 5-day timeframe in both forward speed and forecast track; however, the consensus shows Beryl moving slightly north of west over the central Caribbean Sea mid-next week.

Computer models are in very good agreement that Tropical Storm Beryl will become a Category 1 hurricane within the next 12 hours. Guidance remains in agreement that Beryl will continue to rapidly strengthen thereafter, and the system could strengthen to a Category 2 hurricane within the next 24-48 hours and strengthen to a Major Hurricane (Category 3) in the next 24-36 hours. Gradual strengthening will continue to be possible thereafter; however, strengthening upper-level winds may limit the system's overall intensity after 72 hours. Peak intensity forecasts will become clearer as Beryl moves past the Windward Islands.

### Tropical Storm BERYL Model Intensity Guidance

Initialized at 12z Jun 29 2024 Levi Cowan - tropicaltidbits.com

Computer model guidance this morning is in general agreement that Beryl will continue to strengthen over the next 3-4 days, likely reaching hurricane strength within the next 12-24 hours.





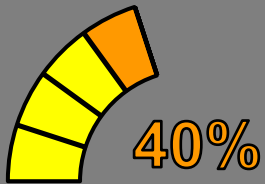
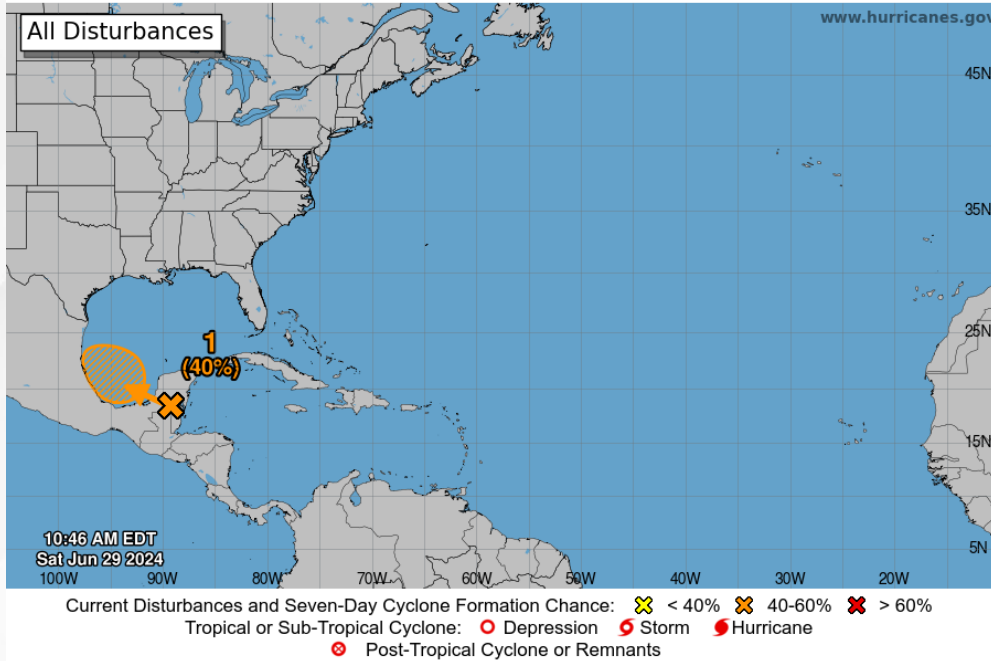


# Tropical Weather Outlook

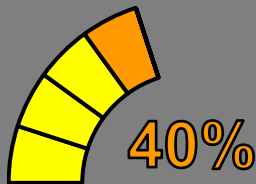
## Disturbance 1 – Invest 94L ([LINK](#))



### Seven-Day Graphical Tropical Weather Outlook National Hurricane Center Miami, Florida



48 Hour Formation



7 Day Formation

A broad area of low pressure is forecast to form over the Bay of Campeche tonight or early Sunday, where conditions appear generally conducive for further development. A tropical depression could form before the system moves inland again early next week over Mexico. Interests along the Gulf coast of Mexico should monitor the progress of this system. Regardless of development, heavy rainfall associated with the area of low pressure will affect portions of Central America and Mexico through early next week.

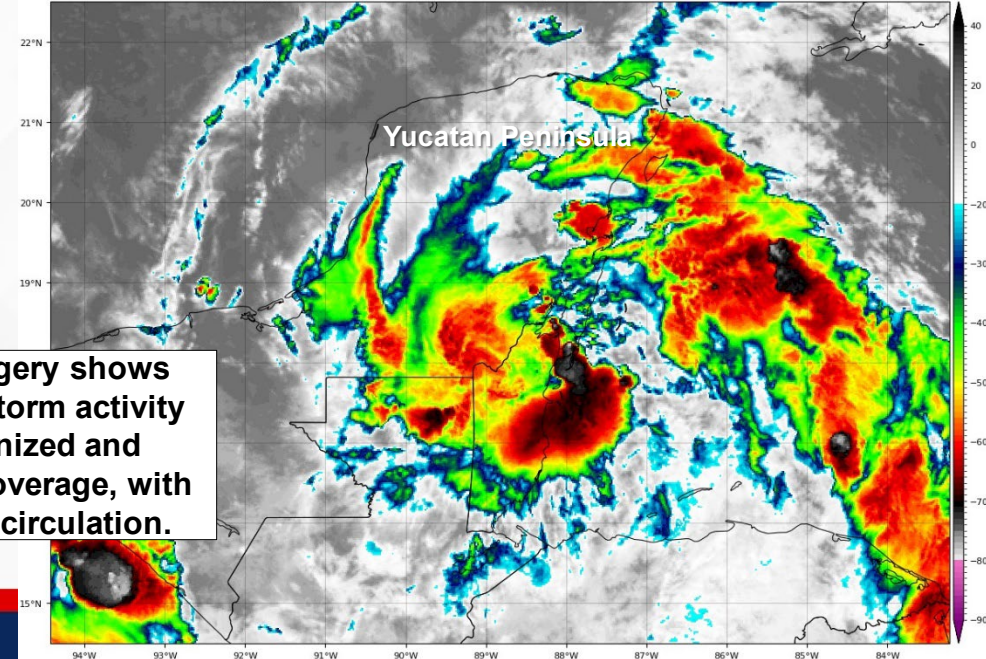
*This system poses no threat to Florida.*

\* Formation chance through 48 hours...**medium...40%**

\* Formation chance through 7 days...**medium...40%**

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 12:45Z Jun 29, 2024

TROPICALDIDBITS.COM

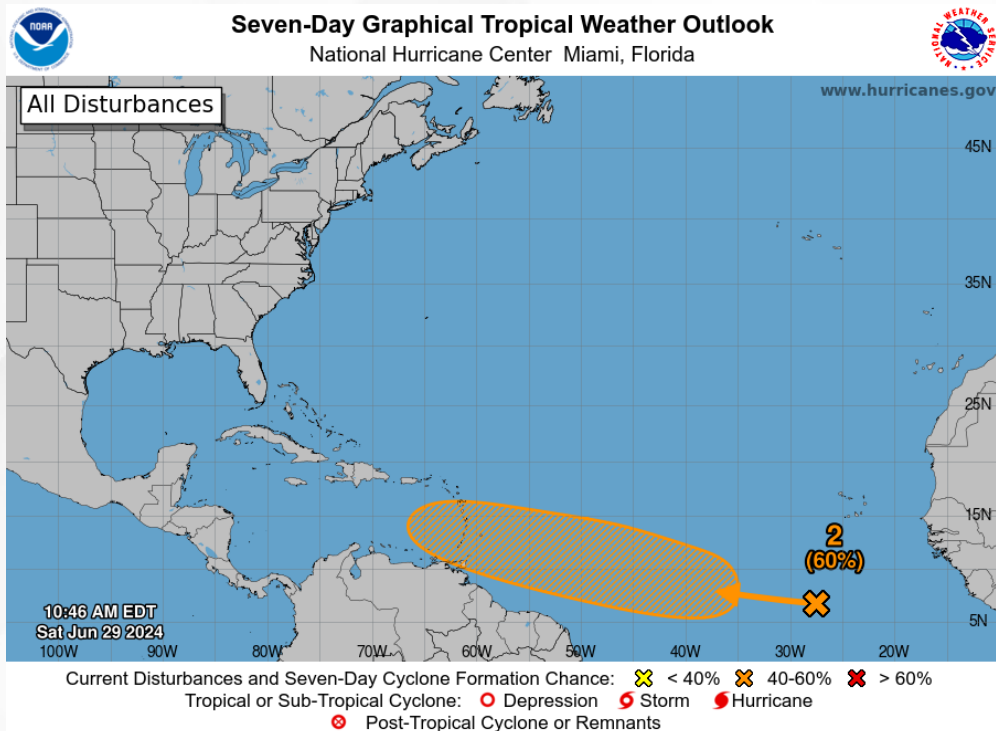


Current satellite imagery shows shower and thunderstorm activity remaining disorganized and widespread in areal coverage, with no defined center of circulation.

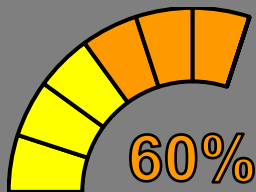


# Tropical Weather Outlook

Disturbance 2 – Eastern Tropical Atlantic ([LINK](#))



48 Hour Formation



7 Day Formation

An area of low pressure located several hundred miles southwest of the Cabo Verde Islands is producing an area of disorganized showers and thunderstorms. Environmental conditions appear conducive for additional development of this system, and a tropical depression could form by the middle of next week while it moves generally westward at 15-20 mph across the eastern and central tropical Atlantic.

*This system poses no threat to Florida over the next 7 to 10 days, at least.*

- \* Formation chance through 48 hours...**low...20%**
- \* Formation chance through 7 days...**medium...60%**





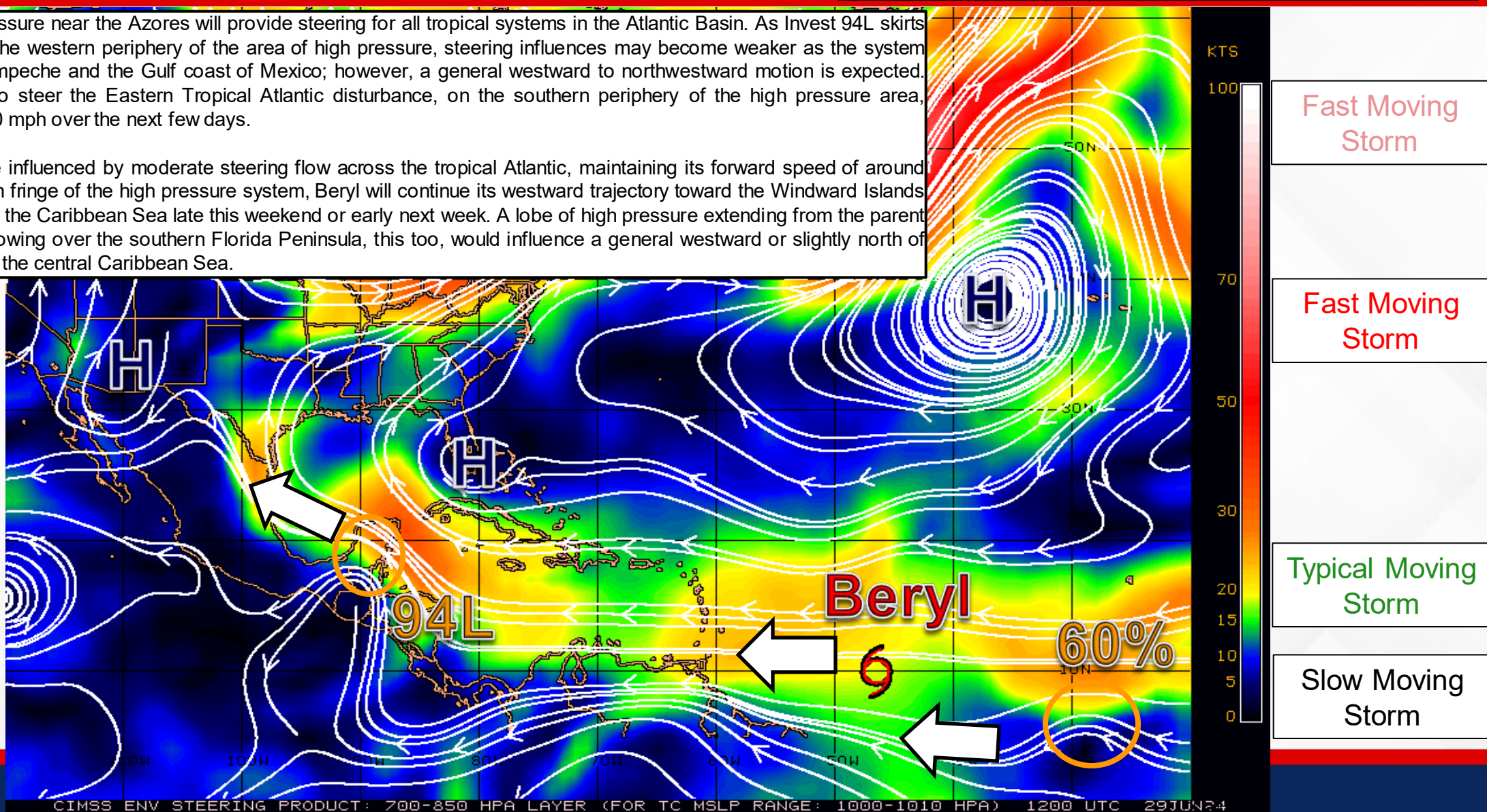
# Steering Currents

## 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.

The strong area of high pressure near the Azores will provide steering for all tropical systems in the Atlantic Basin. As Invest 94L skirts west-northwestward along the western periphery of the area of high pressure, steering influences may become weaker as the system approaches the Bay of Campeche and the Gulf coast of Mexico; however, a general westward to northwestward motion is expected. This high pressure will also steer the Eastern Tropical Atlantic disturbance, on the southern periphery of the high pressure area, generally westward at 15-20 mph over the next few days.

Tropical Storm Beryl will be influenced by moderate steering flow across the tropical Atlantic, maintaining its forward speed of around 15-25 mph. On the southern fringe of the high pressure system, Beryl will continue its westward trajectory toward the Windward Islands this weekend and enter into the Caribbean Sea late this weekend or early next week. A lobe of high pressure extending from the parent high pressure system is showing over the southern Florida Peninsula, this too, would influence a general westward or slightly north of west motion of Beryl across the central Caribbean Sea.





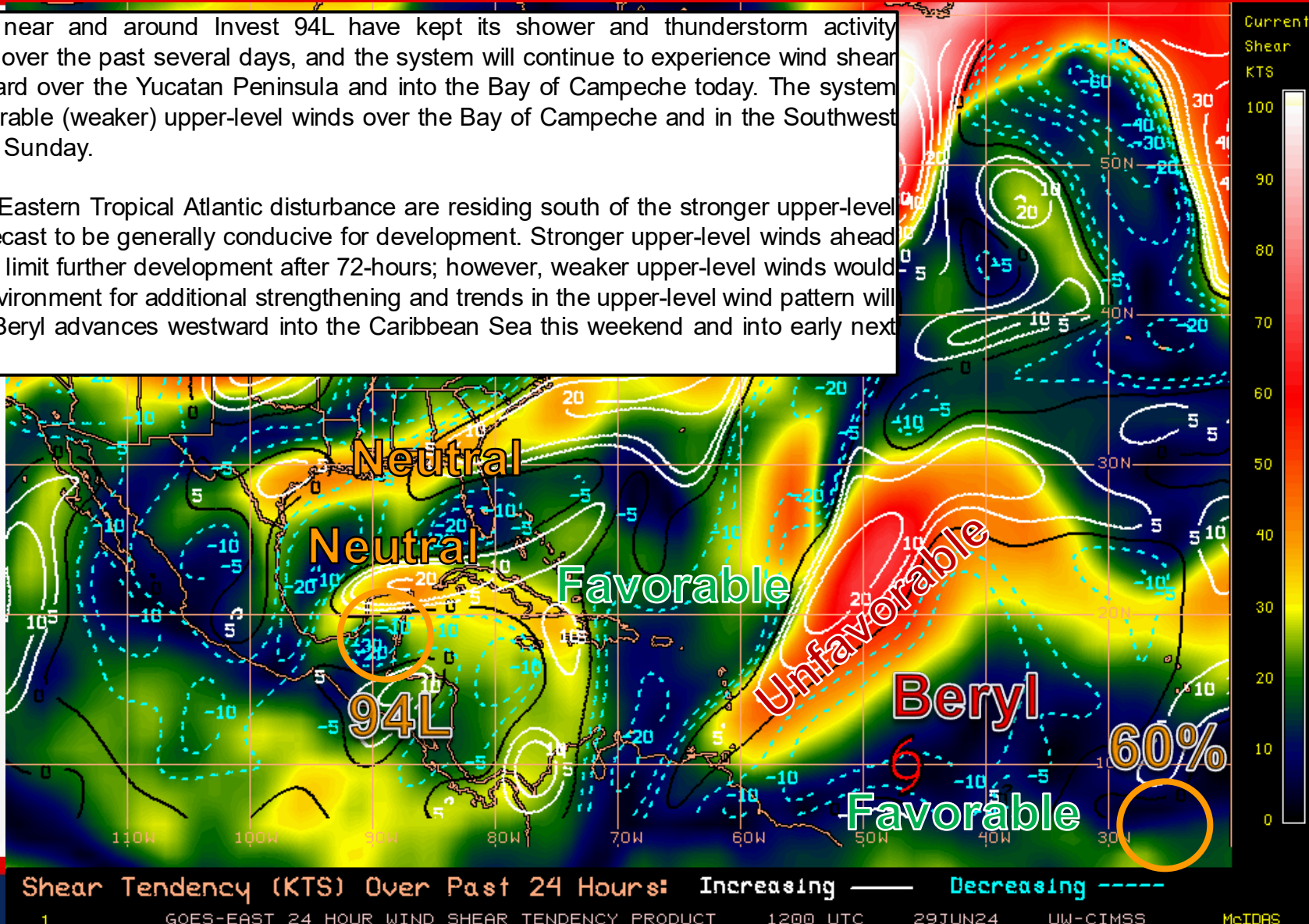
# Wind Shear

## 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).

Moderate upper-level winds near and around Invest 94L have kept its shower and thunderstorm activity disorganized and widespread over the past several days, and the system will continue to experience wind shear as it moves west-northwestward over the Yucatan Peninsula and into the Bay of Campeche today. The system may be greeted by more favorable (weaker) upper-level winds over the Bay of Campeche and in the Southwest Gulf of Mexico later today and Sunday.

Tropical Storm Beryl and the Eastern Tropical Atlantic disturbance are residing south of the stronger upper-level winds, and conditions are forecast to be generally conducive for development. Stronger upper-level winds ahead of Beryl in the Caribbean may limit further development after 72-hours; however, weaker upper-level winds would influence a more favorable environment for additional strengthening and trends in the upper-level wind pattern will continue to be monitored as Beryl advances westward into the Caribbean Sea this weekend and into early next week.



HIGH Shear  
(Unfavorable)

HIGH Shear  
(Unfavorable)

MODERATE  
Shear  
(Neutral)

LOW Shear  
(Favorable)

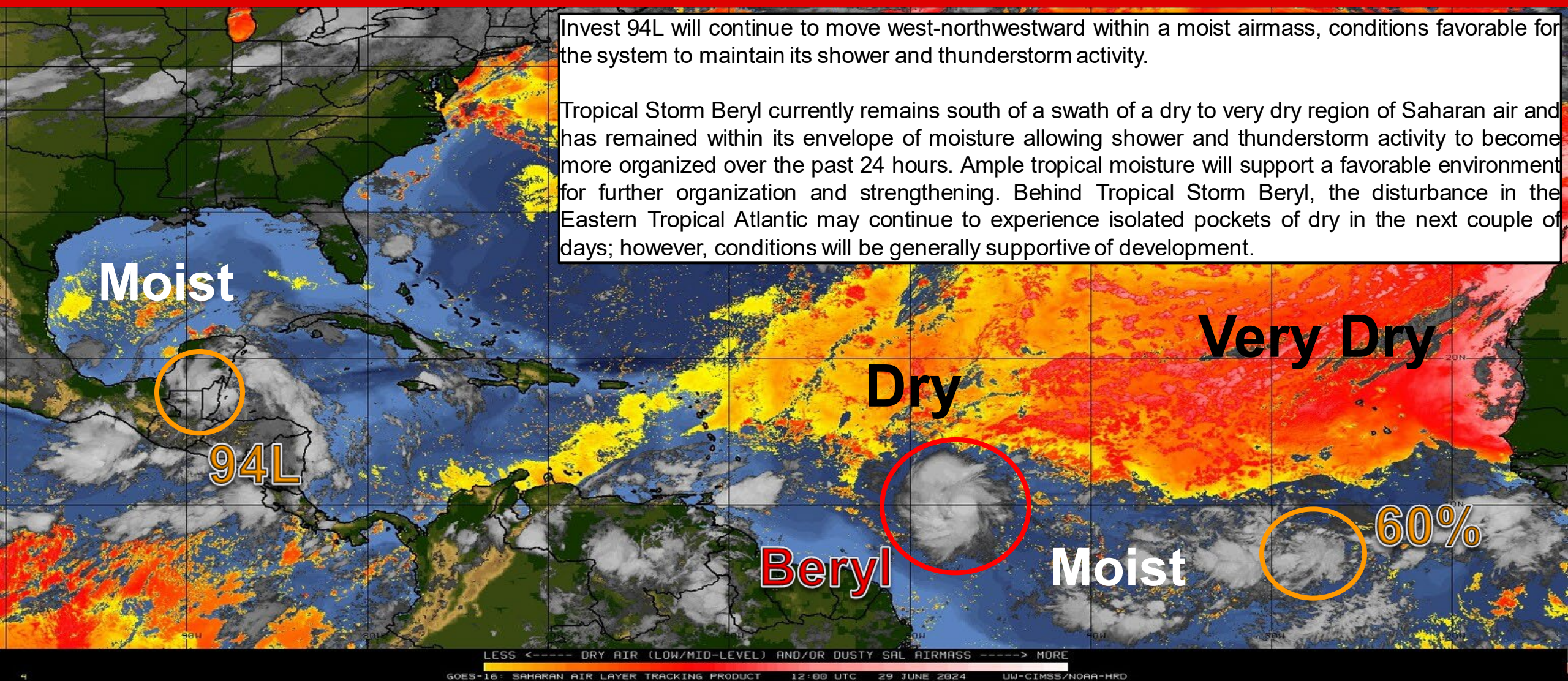




# Dry Air & Saharan Dust

Is the environment favorable for the system?

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







# Summary

## Tropical Storm Beryl:

- As of 11:00 AM EDT, the center of Tropical Storm Beryl was located about 820 miles east-southeast of Barbados and moving westward at 23 mph.
- A relatively quick westward to west-northwestward motion is expected during the next few days. On the forecast track, the system is expected to move across the Windward Islands late Sunday night and Monday.
- Maximum sustained winds have increased to near 65 mph, and rapid strengthening is now forecast.
- Beryl is expected to become a major hurricane before it reaches the Windward Islands.
- *Beryl poses no threat to Florida over the next 5-7 days, but this system will be monitored this weekend into next week.*

## Invest 94L – Western Caribbean/Southwestern Gulf of Mexico:

- A broad area of low pressure is forecast to form over the Bay of Campeche tonight or early Sunday, where conditions appear generally conducive for further development.
- A tropical depression could form before the system moves inland again early next week over Mexico.
- Regardless of development, heavy rainfall associated with the area of low pressure will affect portions of Central America and Mexico through early next week.
- The National Hurricane Center is outlooking a **medium (40%) chance of development** over the next 48 hours and 7 days; *this system poses no threat to Florida.*

## Eastern Tropical Atlantic Wave:

- An area of low pressure located several hundred miles southwest of the Cabo Verde Islands is producing an area of disorganized showers and thunderstorms.
- Environmental conditions appear conducive for additional development of this system, and a tropical depression could form by the middle of next week while it moves generally westward at 15-20 mph across the eastern and central tropical Atlantic.
- The National Hurricane Center is outlooking a **low (20%) chance of development** over the next 48 hours, and a **medium (60%) chance of development** over the next 7 days.
- *This system poses no threat to Florida over the next 7 to 10 days, at least.*

## Florida Outlook:

- High pressure and anonymously high moisture will give way to another day of scattered to numerous sea breeze showers and thunderstorms across the state (50-85% chance of rain).
- A few thunderstorms may be strong to severe during the daytime heating hours, and capable of producing frequent lightning and gusty winds (40 to 60 mph).
- Localized flooding and ponding water will be possible along the urban corridors and low-lying/poor drainage areas of the Sunshine State as slow-moving and training thunderstorms produce locally heavy rainfall rates and downpours.
- Heat Advisories are in effect this afternoon for the southern Florida Peninsula where temperatures will feel like 105 to 110-degrees; triple digit heat indices can be expected elsewhere.
- The next name on the list is Chris (*kris*).

The next briefing packet will be issued Sunday 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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