



Tropical Update



5:00 PM EDT

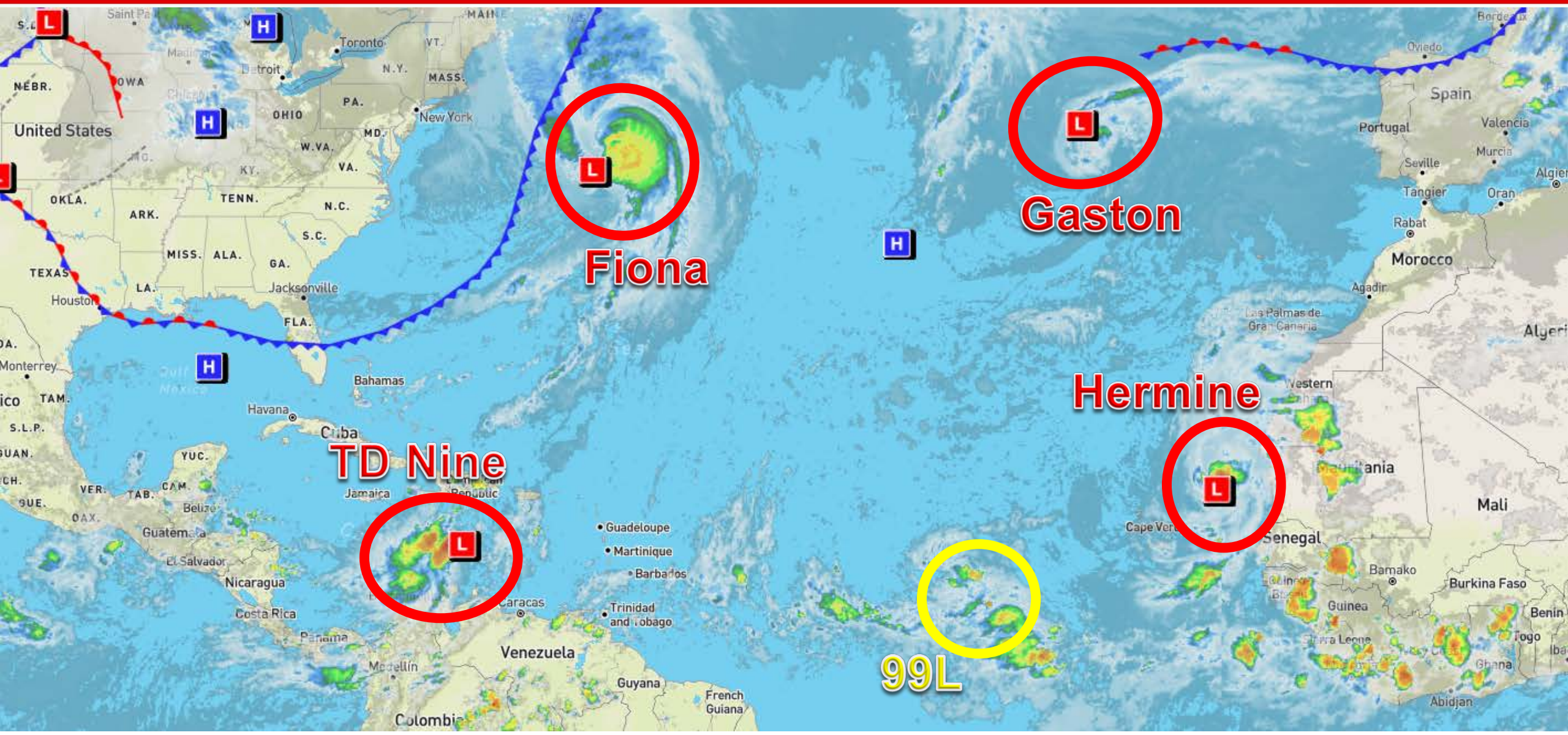
Friday, September 23, 2022

Tropical Depression Nine, Major Hurricane Fiona, Tropical Storm Gaston, & Tropical Storm Hermine

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.



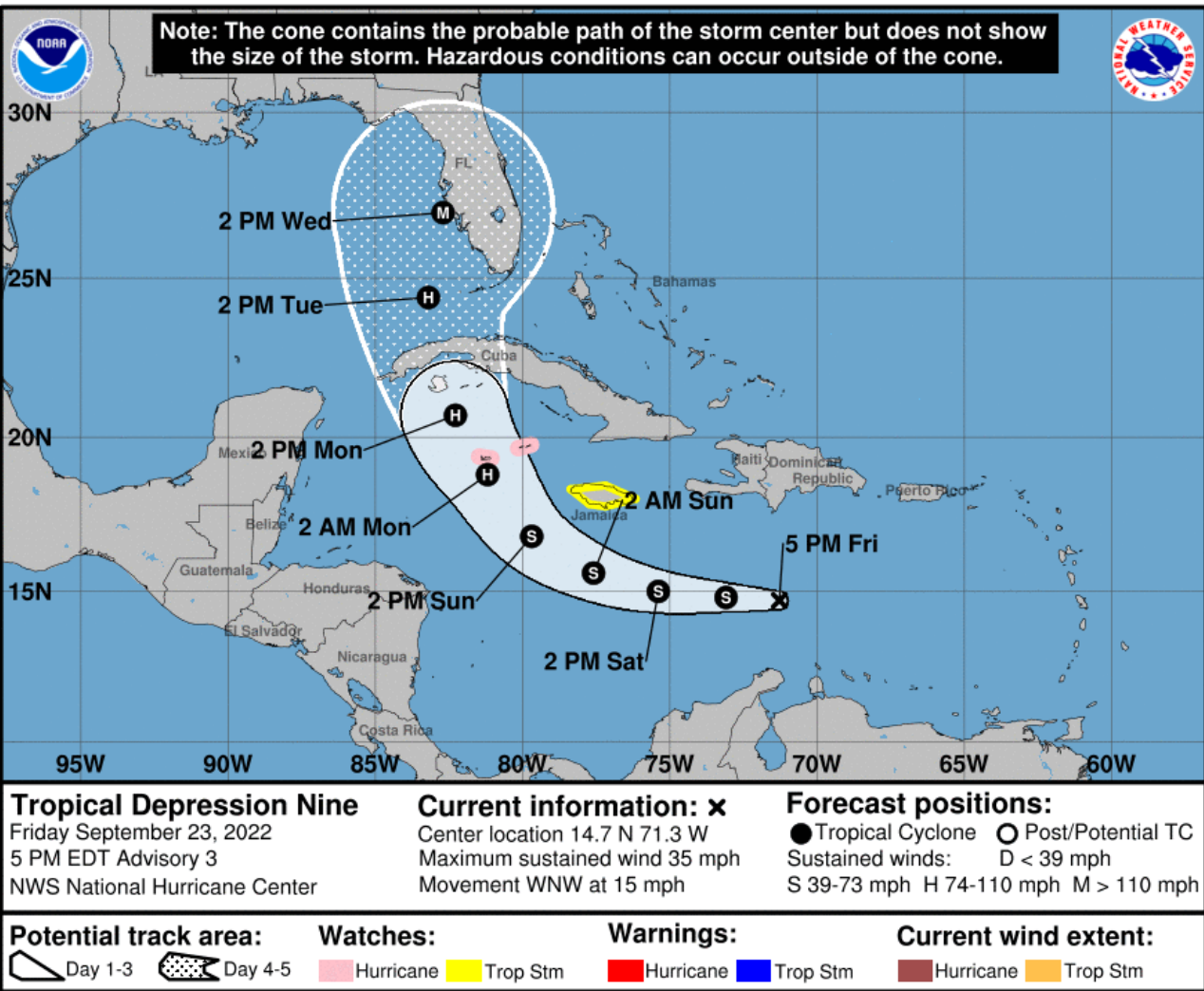
Chance of development: None Low Medium High





Forecast Cone

Tropical Depression Nine ([LINK](#))



- **Location:** 430 east-southeast of Kingston, Jamaica or about 960 miles southeast of Key West, Florida
- **Maximum Sustained Winds:** 35 mph
- **Current Movement:** WNW at 15 mph
- **FL Watches/Warnings:** None

A westward motion is expected to begin tonight and continue through Saturday night, followed by a turn toward the northwest and north-northwest on Sunday and Monday. On the forecast track, the center of the cyclone is forecast to move across the central Caribbean Sea through Saturday, pass south of Jamaica on Saturday night and Sunday, and approach the Cayman Islands on Sunday night and early Monday. Some slow strengthening is forecast during the next day or so, and the depression is expected to become a tropical storm by tonight. More significant intensification is forecast on Sunday and Monday, and the system is forecast to become a hurricane by early Monday.

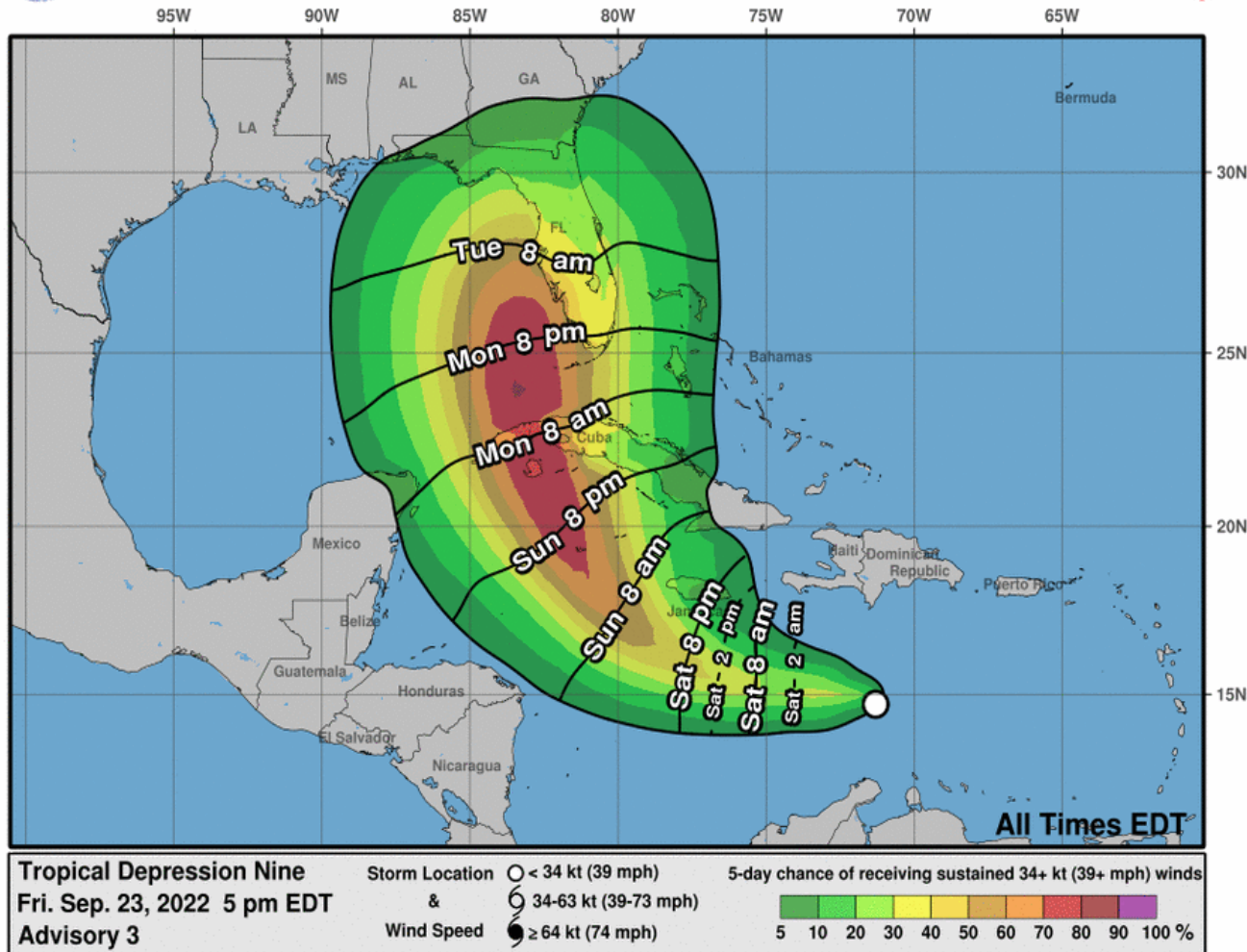
Tropical Depression Nine poses no direct threat to Florida through the weekend, but tropical rains may begin to overspread across the Florida Keys and southern Peninsula Monday and tropical storm-force winds may arrive as early as later Monday afternoon and evening across the Florida Keys and southern Peninsula.



Tropical Storm-Force Wind Probabilities

Tropical Depression Nine ([LINK](#))

Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Key West – 60% (+6%)
Marathon – 55% (+2%)
Homestead ARB – 30% (+0%)
Naples – 60% (+7%)
Miami – 37% (+8%)
West Palm Beach – 35% (+1%)
Tampa – 51% (+14%)
Orlando – 29% (+7%)
Cedar Key – 39% (16%)
Gainesville – 25% (+11%)
Tallahassee – 13% (+4%)

The numbers in parenthesis show the change in probability since the last briefing packet.

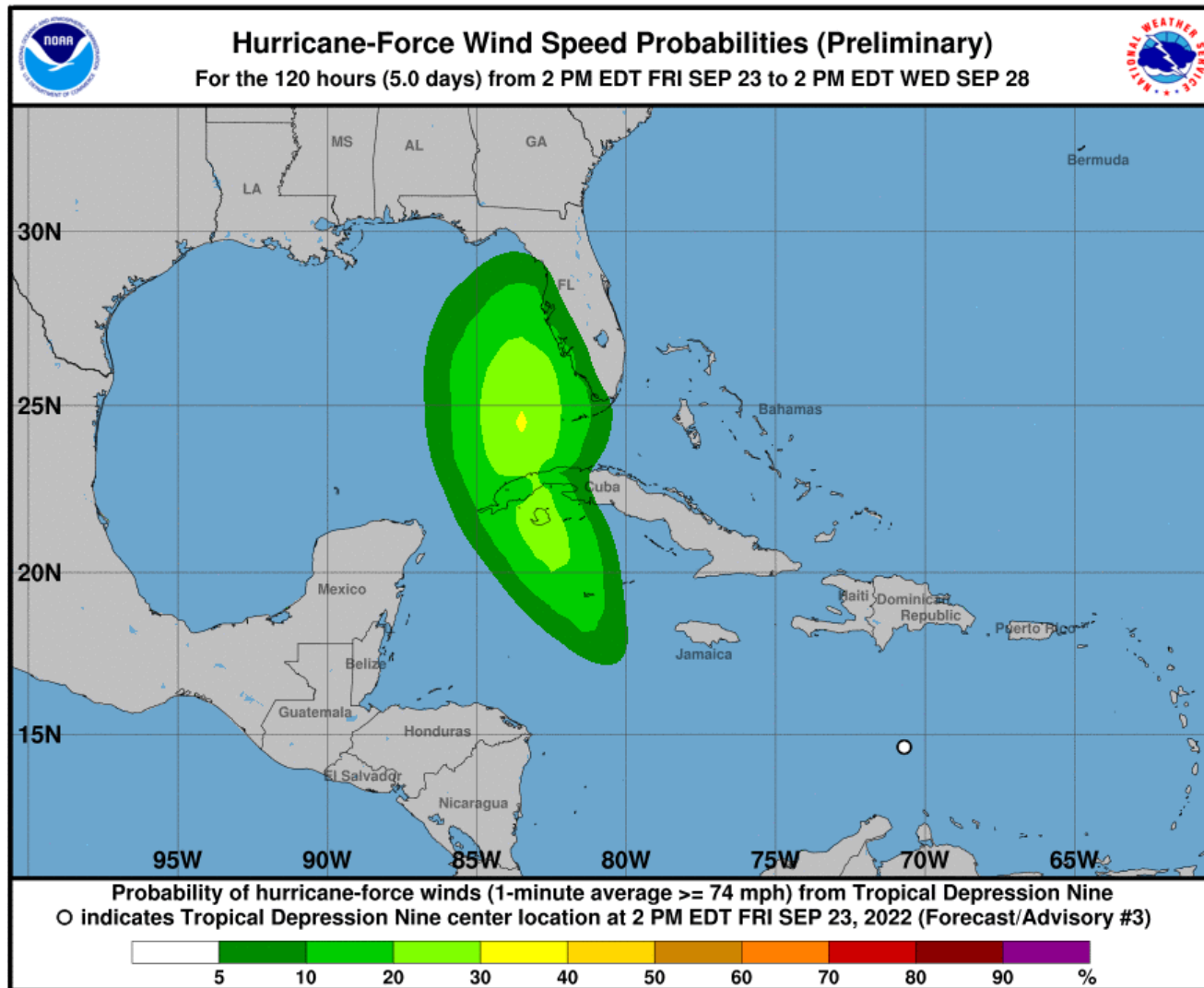
Tropical storm-force winds may begin as early as late Monday afternoon along the Florida Keys and southern Peninsula, and the Southwest Florida Coast Monday night. Tropical storm-force winds may begin as early as Monday night into Tuesday morning across the Peninsula (from south to north).

Tropical storm-force winds may most likely begin late Monday into early Tuesday along the Florida Keys.

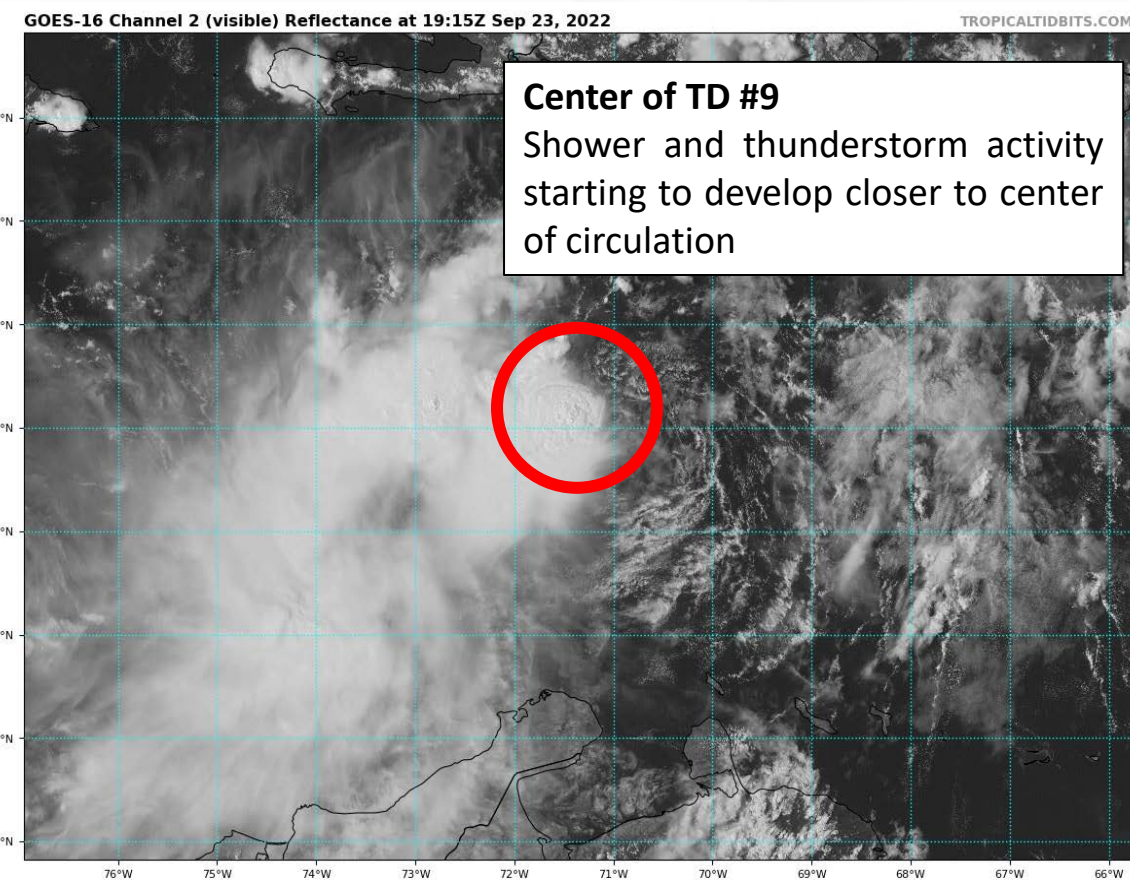


Hurricane-Force Wind Probabilities & Satellite Imagery

Tropical Depression Nine ([LINK](#))



A Hurricane Watch has been issued for the Cayman Islands and a Tropical Storm Watch has been issued for Jamaica. There is now a 2 in 10 chance of the Lower and Middle Keys and the Southwest Florida Coast of seeing hurricane-force winds.



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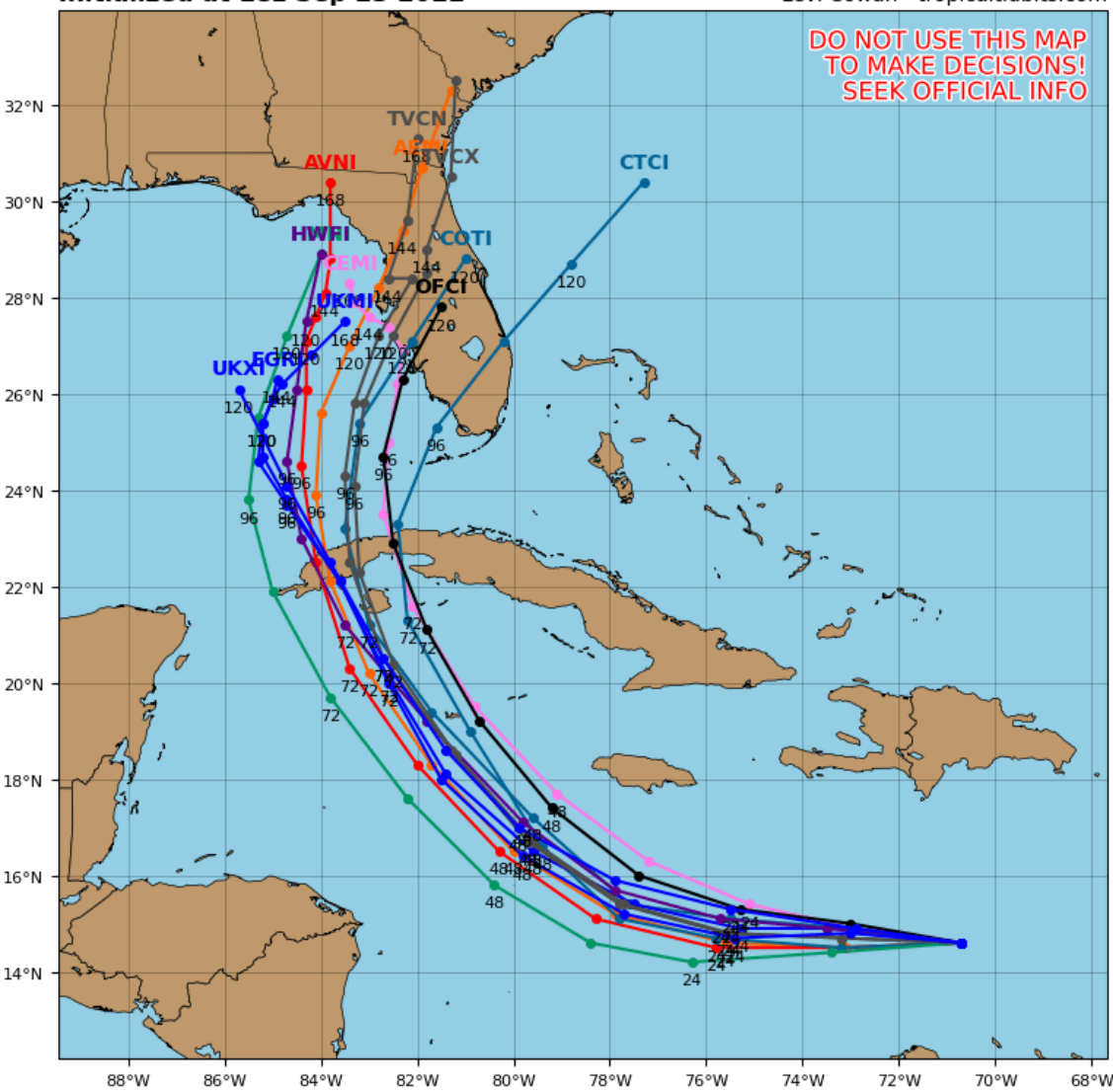
Model Forecasts – Next 5 Days

Tropical Depression Nine

Tropical Depression 09L Model Track Guidance

Initialized at 18z Sep 23 2022

Levi Cowan - tropicaltidbits.com



Computer models this afternoon are in decent agreement over the next 24-36 hours that a turn westward may begin tonight and continue on that course through Saturday as an area of high pressure develops to its north. As TD #9 reaches the western periphery of the high pressure, an upper-level disturbance over the eastern United States may result in a turn toward the northwest and north-northwest over the next 2-4 days.

The trend this afternoon has shown a westward shift, resulting in the continued uncertainty later in the forecast period. Forecast uncertainty increases once TD #9 passes over the western portion of Cuba and emerges over the southern Gulf of Mexico overnight Monday into Tuesday morning.

There is additional uncertainty with respect to TD #9's forward speed, with a trend toward a slower forward motion. The initialization of TD #9's organized center of circulation coupled with the interaction with an upper-level disturbance will ultimately determine the system's forward speed, track, and maximum intensity.

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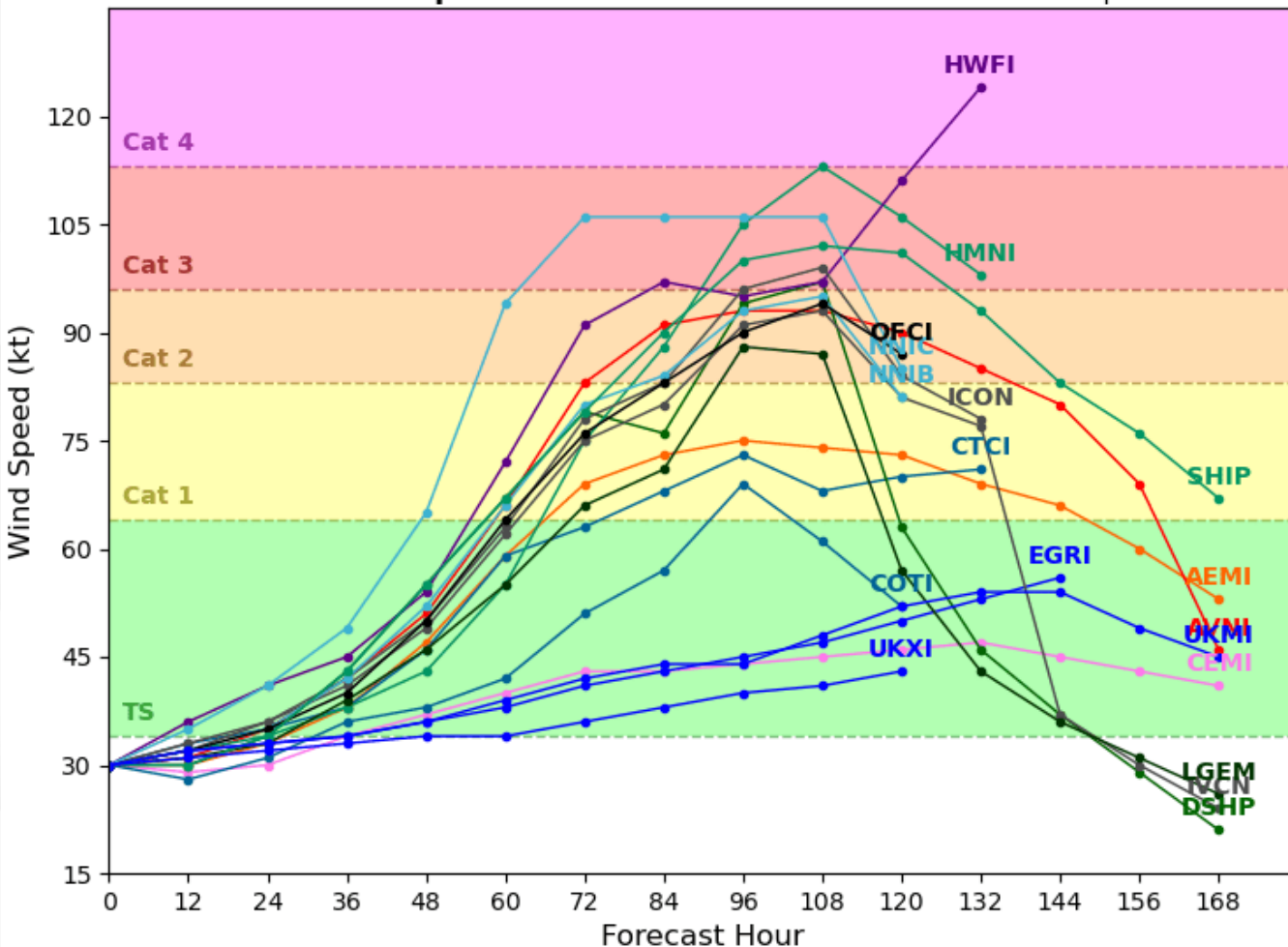


Model Forecast Intensity

Tropical Depression 09L Model Intensity Guidance

Initialized at 18z Sep 23 2022

Levi Cowan - tropicaltidbits.com



Recent satellite trends are showing that TD #9 may be nearing an environment more conducive for strengthening and organization, with weaker northerly winds (less wind shear impacting the system). Computer models are in agreement that atmospheric and oceanic conditions appear very conducive for strengthening through early next week. TD #9 will be greeted by a very moist air mass and warm sea surface temperatures, and is forecast to rapidly intensify over the northwestern Caribbean Sea and continue strengthening while it approaches western Cuba on Monday. TD #9 may strengthen into a tropical storm over the next 12-24 hours.

Once the system emerges over the southern Gulf of Mexico early next week, additional strengthening is forecast and TD #9 may become a major hurricane by the middle of next week.



Key Messages

From the National Hurricane Center



Key Messages for Tropical Depression Nine

Advisory 3: 5:00 PM EDT Fri Sep 23, 2022



1. The depression is expected to produce heavy rainfall, flash flooding and possible mudslides in areas of higher terrain in Aruba, Bonaire, and Curacao. Heavy rains are also likely to spread into Jamaica, the Cayman Islands, and Cuba in the coming days.

2. A Tropical Storm Watch has been issued for Jamaica, with tropical storm conditions possible on the island by Sunday. A Hurricane Watch has been issued for the Cayman Islands, with hurricane conditions possible by early Monday and tropical storm conditions possible by late Sunday.

3. Early next week the system is forecast to move near or over western Cuba as a strengthening hurricane and then approach the Florida peninsula at or near major hurricane strength, with the potential for significant impacts from storm surge, hurricane-force winds, and heavy rainfall. While it is too soon to determine the exact magnitude and location of these impacts, residents in Cuba, the Florida Keys, and the Florida peninsula should ensure they have their hurricane plan in place and closely monitor forecast updates through the weekend.



For more information go to hurricanes.gov

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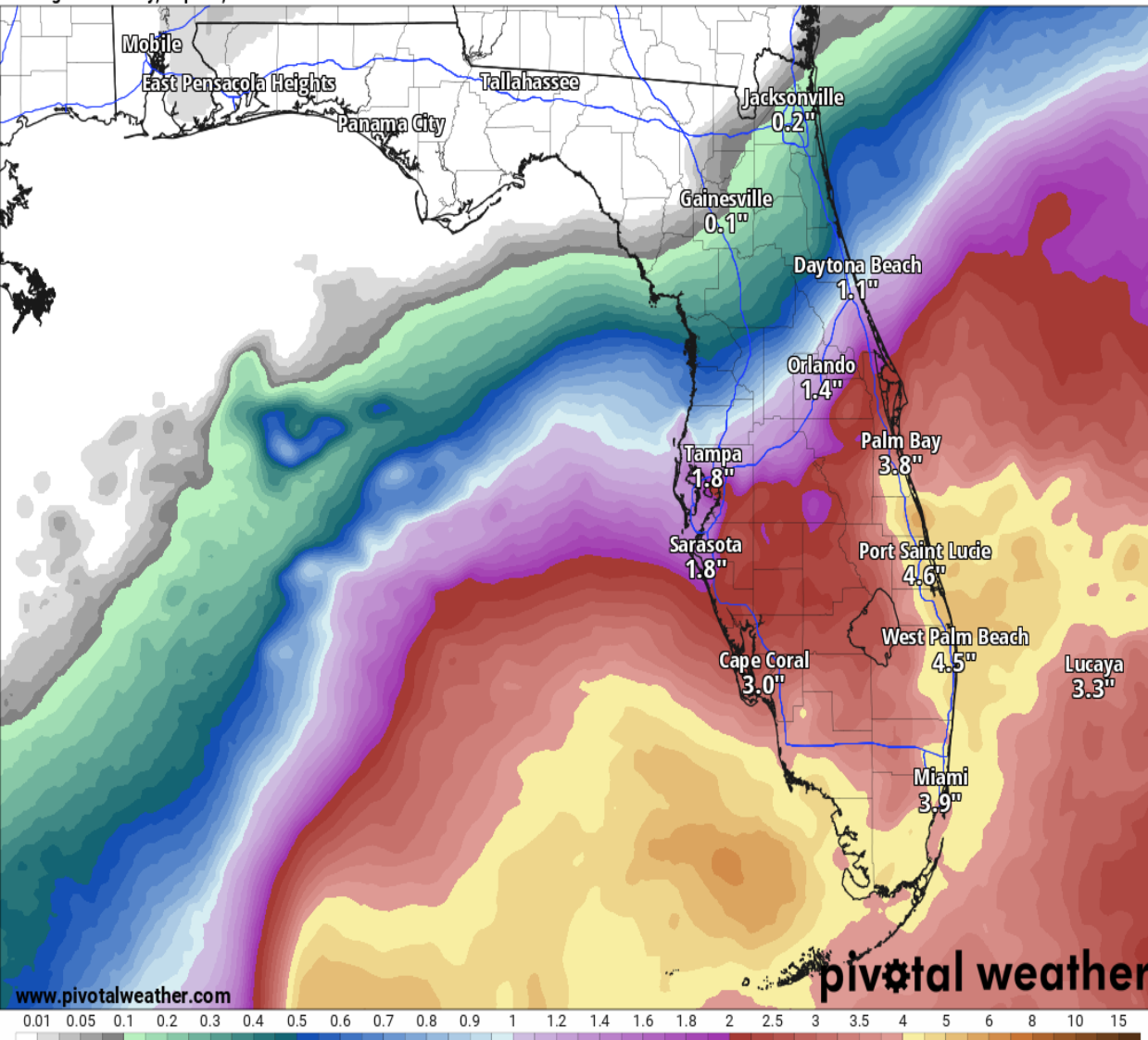
5-Day Forecast Rainfall

From the Weather Prediction Center

120-Hour Precipitation (in)

Ending Wednesday, Sep. 28, 2022 at 8 a.m. EDT

Init: Fri 2022-09-23 12z WPC



While it is still too early to determine where the heaviest rainfall totals will occur, widespread rainfall totals of 2-4" can be expected over the next 5 days (mainly along and south of the I-4 corridor). The heaviest rainfall totals are currently forecast along the Peninsula coastline, with locally 6-10" possible.

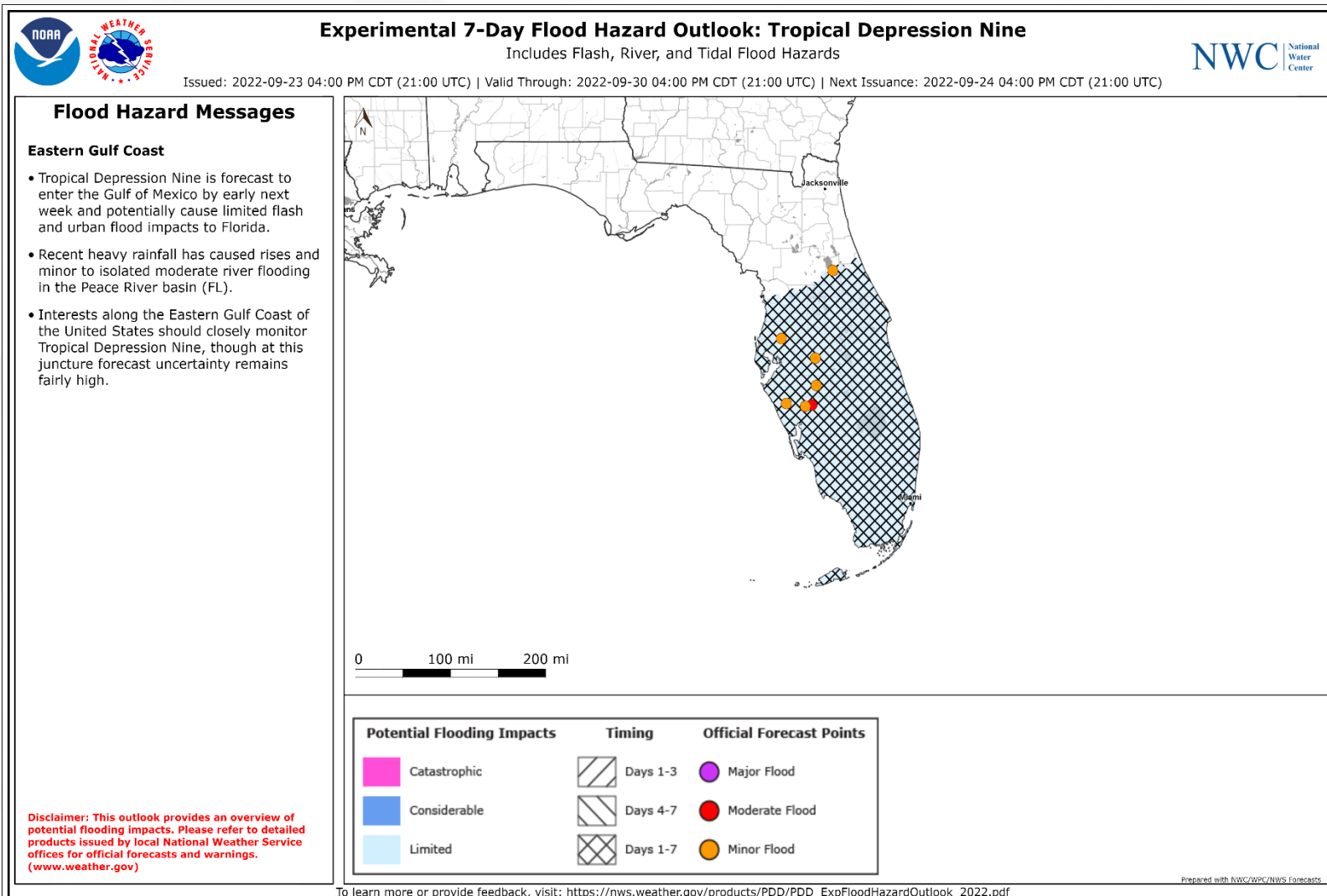
It is important to note that the exact track of TD #9 will greatly influence where the heaviest rainfall occurs. A further westward, slower track would result in heavier rainfall totals overspreading northward, with an eastward, quicker track confining heavy rainfall to the Peninsula and along the immediate coastlines.

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Tropical Flood Hazard Outlook

From the National Water Center



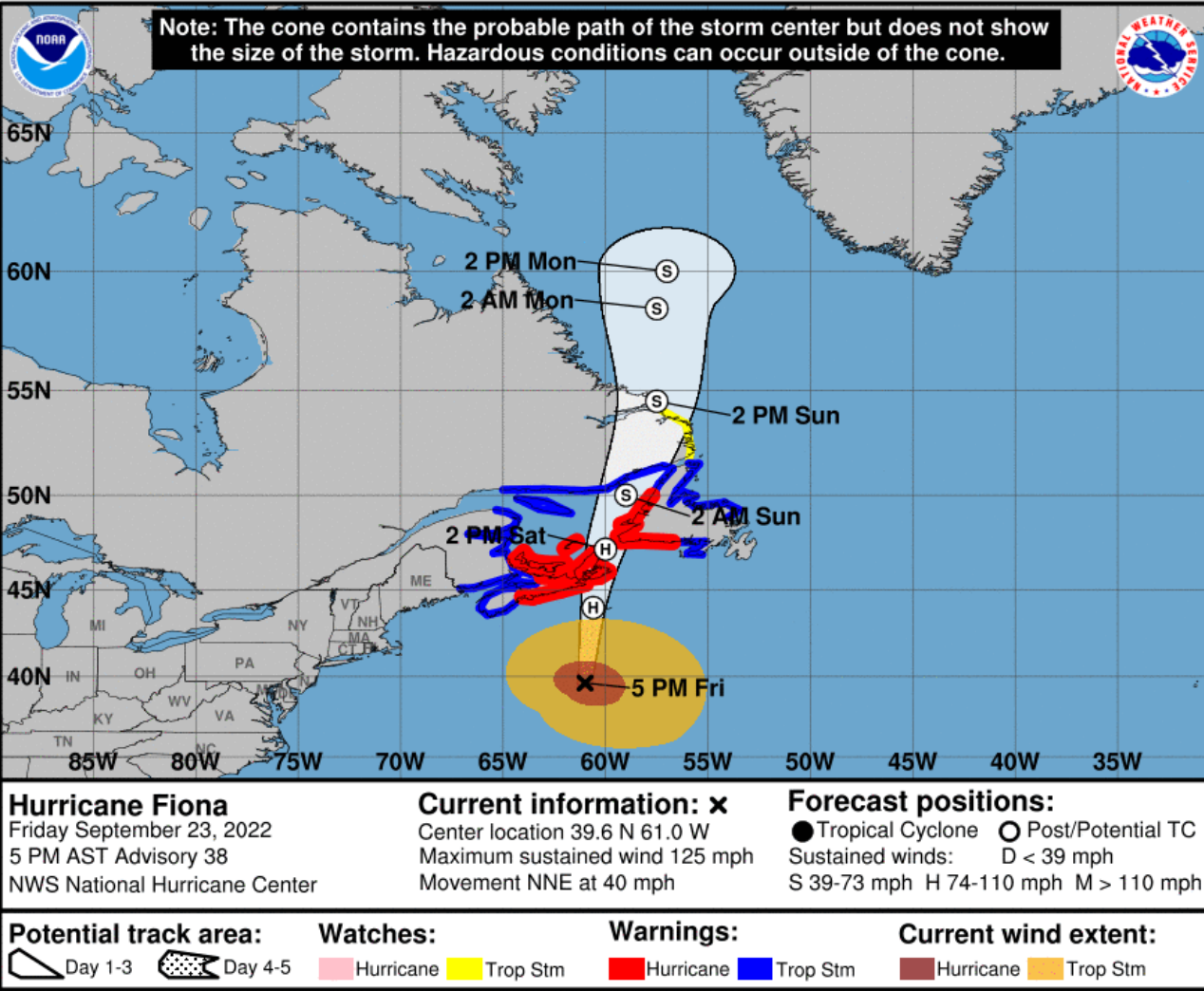
The Weather Prediction Center (WPC) has introduced a **Slight Risk for Flash Flooding (level 2 of 4)** over the southern Peninsula on Tuesday.

With many Florida location having received recent heavy rainfall, **minor to moderate flooding** of rivers across Northeast, Central, and West Florida river has been observed. Additional rainfall from TD #9 may exacerbate ongoing flooding across these basins, but this will be heavily dependent upon where the greatest rainfall totals fall.



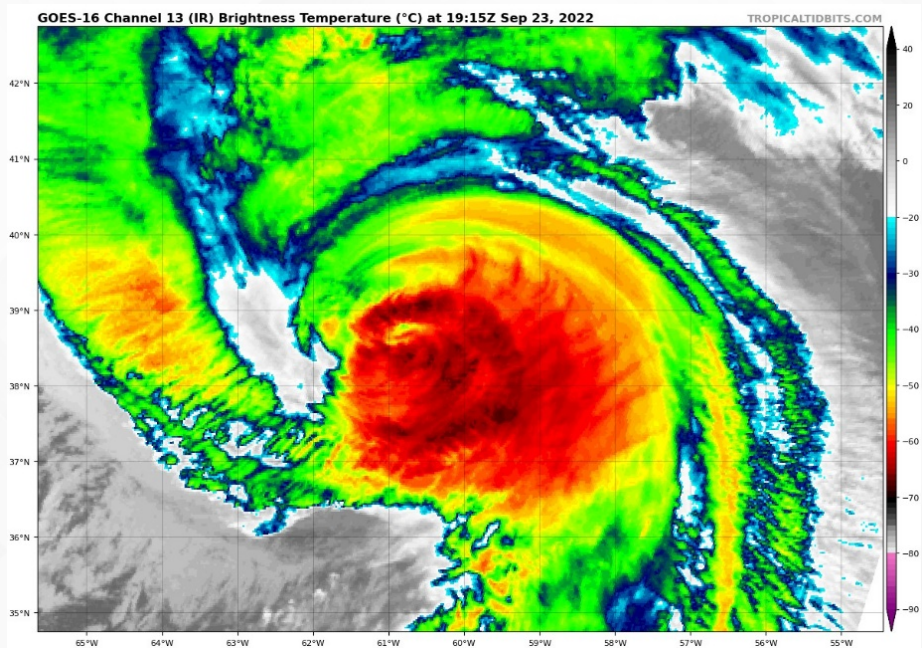
Forecast Cone & Satellite Imagery

Major Hurricane Fiona ([LINK](#))



- **Location:** 370 miles south-southeast of Halifax, Nova Scotia
- **Maximum Sustained Winds:** 125 mph, Category 3
- **Current Movement:** NNE at 40 mph
- **FL Watches/Warnings:** None

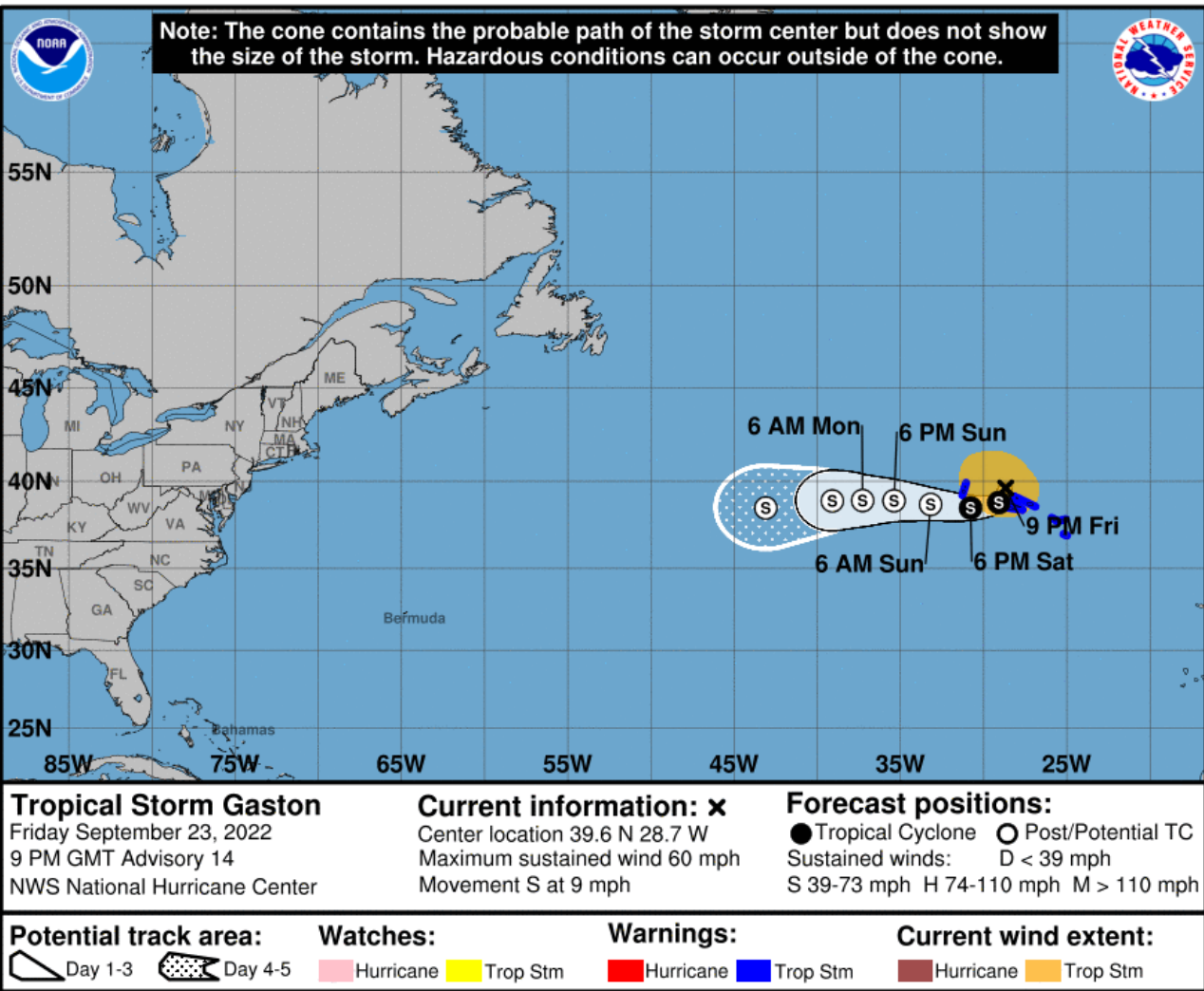
A slower north-northeastward motion is expected through Sunday. Although gradual weakening is forecast during the next couple of days, Fiona is expected to be a powerful hurricane-force cyclone when it moves across Atlantic Canada. *Fiona poses no direct threat to Florida, but deteriorating beach and boating conditions can be expected along the East Coast through the weekend.*



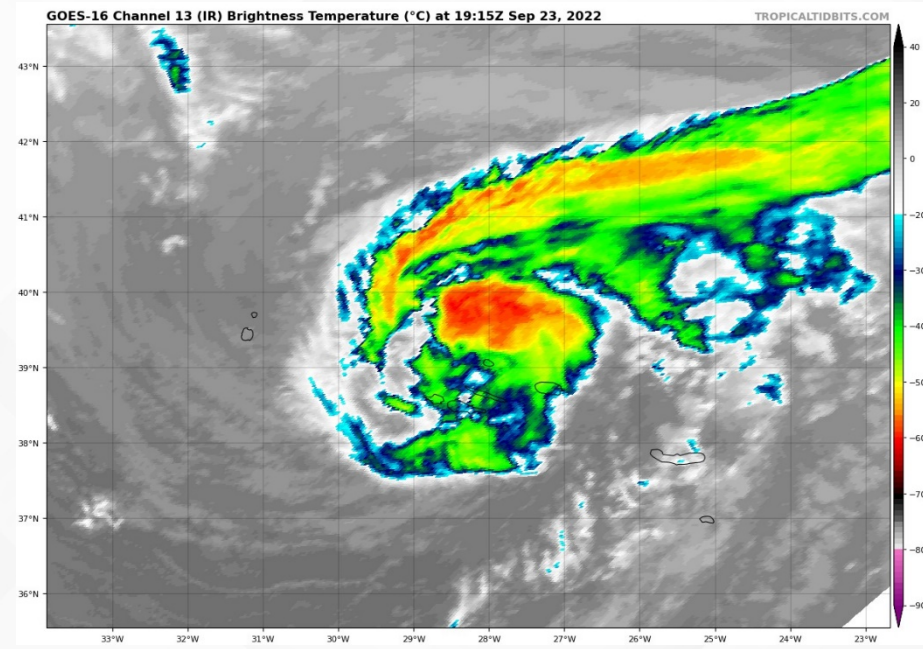


Forecast Cone and Satellite Imagery

Tropical Storm Gaston ([LINK](#))



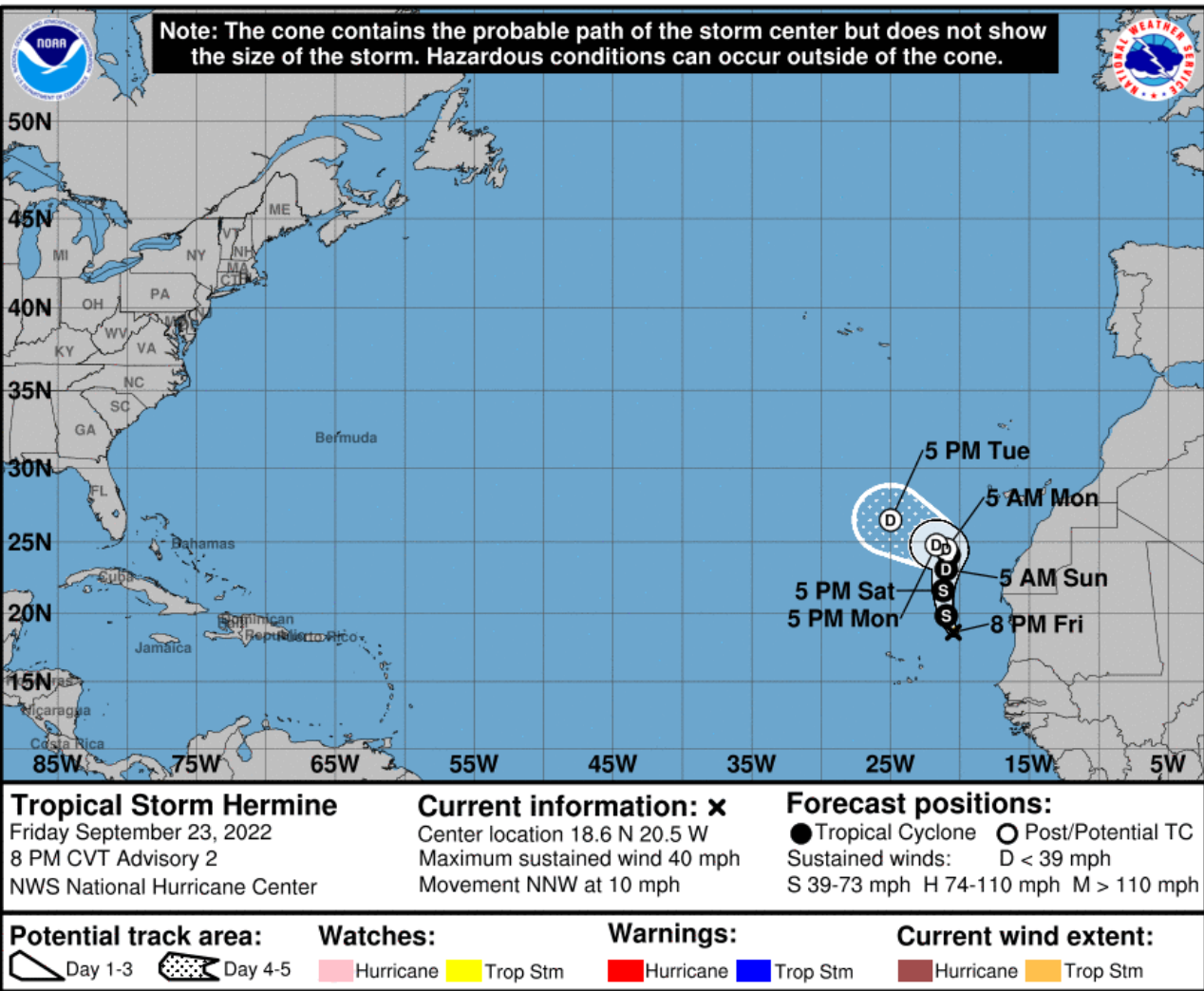
- **Location:** 70 miles north of the central Azores
 - **Maximum Sustained Winds:** 60 mph
 - **Current Movement:** S at 9 mph
 - **FL Watches/Warnings:** None
- A turn toward the southwest is forecast by early Saturday, and a westward motion is anticipated on Saturday evening or Sunday. Gradual weakening is expected over the next few days. *Gaston poses no threat to Florida.*



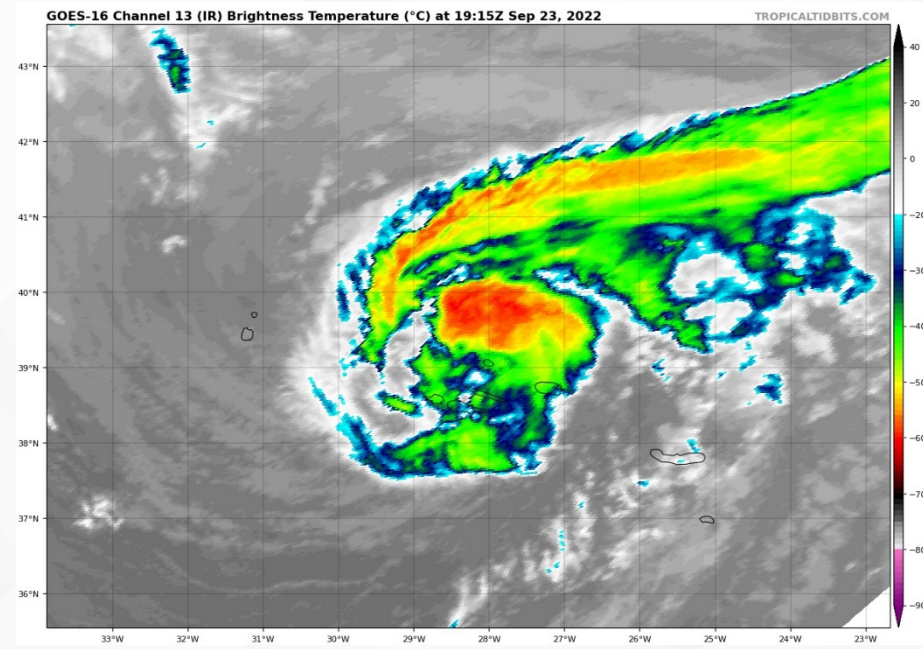


Forecast Cone and Satellite Imagery

Tropical Storm Hermine ([LINK](#))



- **Location:** 290 miles northeast of the Cabo Verde Islands
 - **Maximum Sustained Winds:** 40 mph
 - **Current Movement:** NNW at 10 mph
 - **FL Watches/Warnings:** None
- This general motion with some decrease in forward speed is forecast this weekend, with a turn toward the northwest possible early next week. Some strengthening is possible through tomorrow, with weakening expected on Sunday, and Hermine could become a remnant low on Monday. *Hermine poses no threat o Florida.*





Summary

Tropical Depression Nine:

- At 5:00 PM Friday, TD #9 is located about 430 miles east-southeast of Kingston, Jamaica or about 960 miles southeast of Key West, Florida, and moving west-northwest at 15 mph.
- A westward motion is expected to begin tonight and continue through Saturday night, followed by a turn toward the northwest and north-northwest on Sunday and Monday.
- On the forecast track, the center of the cyclone is forecast to move across the central Caribbean Sea through Saturday, pass south of Jamaica on Saturday night and Sunday, and approach the Cayman Islands on Sunday night and early Monday.
- Maximum sustained winds are near 35 mph, with higher gusts.
- Some slow strengthening is forecast during the next day or so, and the depression is expected to become a tropical storm by tonight. More significant intensification is forecast on Sunday and Monday, and the system is forecast to become a hurricane by early Monday.
- Air Force Reserve Hurricane Hunters are enroute to investigate TD #9.

Major Hurricane Fiona:

- At 5:00 PM Friday, Fiona is located about 370 miles south-southeast of Halifax, Nova Scotia and moving north-northeast at 40 mph.
- A slower north-northeastward motion is expected through Sunday. Although gradual weakening is forecast during the next couple of days, Fiona is expected to be a powerful hurricane-force cyclone when it moves across Atlantic Canada.

Tropical Storm Gaston:

- At 5:00 PM Friday, Gaston is located about 70 miles north of the central Azores and moving east-northeastward at 21 mph.
- A turn toward the southwest is forecast by early Saturday, and a westward motion is anticipated on Saturday evening or Sunday.
- Maximum sustained winds have decreased to near 60 mph, and gradual weakening is expected over the next few days.

Tropical Storm Hermine:

- At 5:00 PM Friday, Invest 90L strengthened into Tropical Storm Hermine. The system is located about 290 miles northeast of the Cabo Verde Islands, and moving north-northwest at 10 mph.
- This general motion with some decrease in forward speed is forecast this weekend, with a turn toward the northwest possible early next week.
- Maximum sustained winds are near 40 mph. Some strengthening is possible through tomorrow, with weakening expected on Sunday, and Hermine could become a remnant low on Monday.

Florida Outlook:

- Fiona, Gaston, and Hermine pose no direct threat to Florida and there are no wind or surge watches in effect for Florida.
- However, ocean swells and persistent easterly flow from distant Major Hurricane Fiona will continue dangerous beach and boating conditions along Florida's East Coast into the weekend.
- Tropical Depression Nine poses no direct threat to Florida over the weekend, but heavy rains may begin to spread from south to north Monday. Tropical storm-force conditions may begin as early as late Monday afternoon across the Florida Keys and Southern Florida Peninsula.
- It is too early to determine the exact magnitude and location of storm-specific threats such as storm surge values, exact location of the heaviest rainfall totals, and isolated tropical tornadoes; do not focus on the "center point" on the forecast cone, but remember that hurricane impacts can span well beyond the forecast cone.
- The next names on the list are Ian and Julia.

The next briefing packet will be issued Saturday 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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