

**IMPACTS FOR D7 (through next 5 days)**

**Winds – Medium**

**Storm Surge – Medium**

**Rainfall/Flash Flooding – Extreme**

**Tornadoes – Low**

**Waves - High**

# TROPICAL STORM DEBBY BRIEFING

9:00 AM EDT

Tuesday, August 6, 2024

Prepared by:

**Amanda Reinhart**

*Tropical Analysis and Forecast Branch  
NWS National Hurricane Center*



NHC\_TAFB

[www.nhc.noaa.gov](http://www.nhc.noaa.gov)

# Changes since Last Briefing

## Tropical Storm Debby



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- All of the South Carolina coast is under a Tropical Storm warning
- Debby's peak intensity is forecasted to be slightly stronger

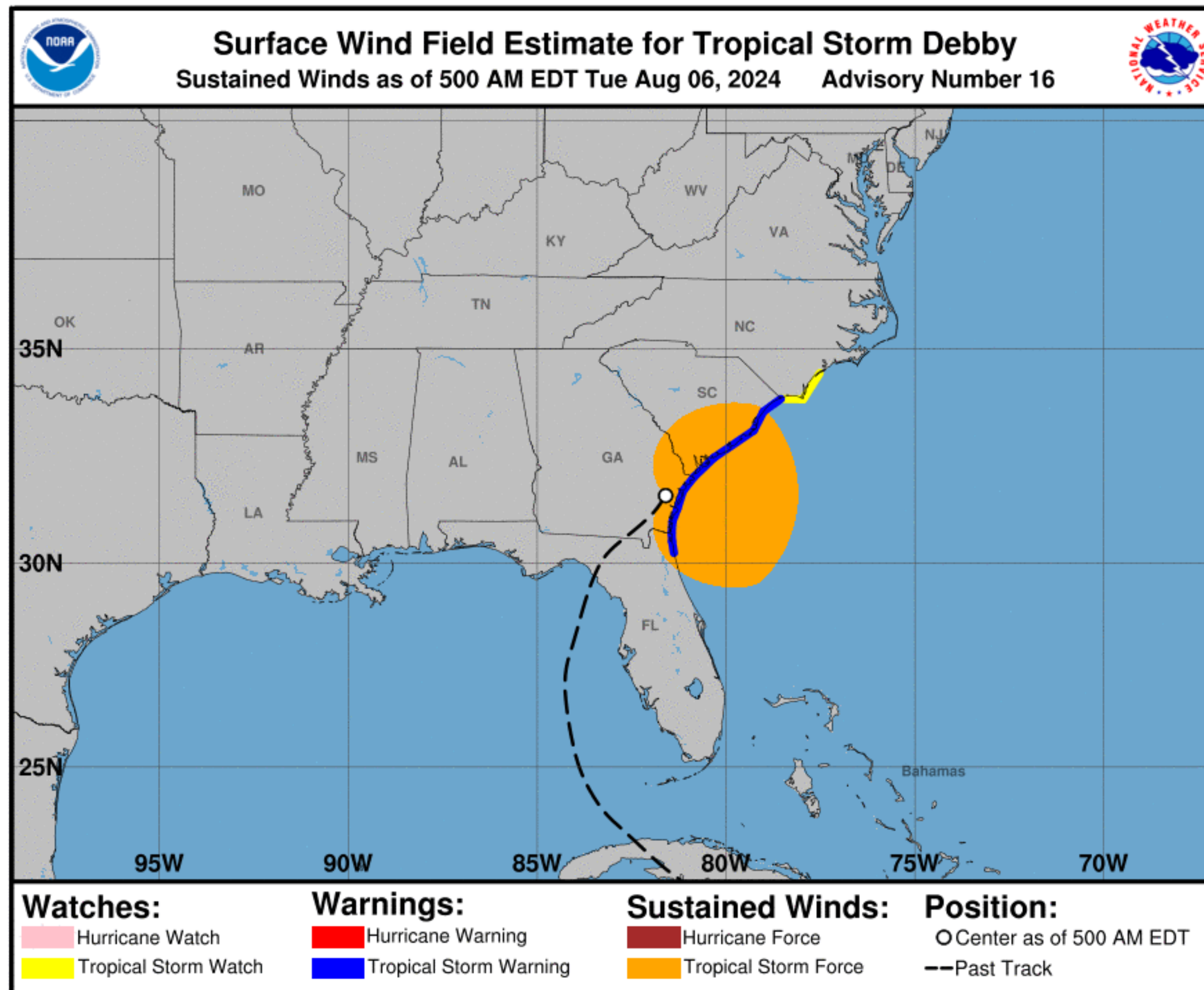


# Situation Overview

## Tropical Storm Debby



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...DEBBY'S CENTER EXPECTED TO MOVE  
OFFSHORE THE GEORGIA COAST LATER  
TODAY...

...SIGNIFICANT RISK OF FLASH FLOODING  
OVER PORTIONS OF GEORGIA, SOUTH  
CAROLINA, AND NORTH CAROLINA OVER THE  
NEXT FEW DAYS...

### Summary of 500 AM EDT Information

Location...31.6N 81.6W

About 45 nm SW of Savannah Georgia

About 115 nm SW of Charleston South Carolina

Maximum Sustained Winds...40 kt

Present movement... NE at 6 kt

Peak Seas: 14 ft

12 ft seas... 120NE 120SE 0SW 0NW.

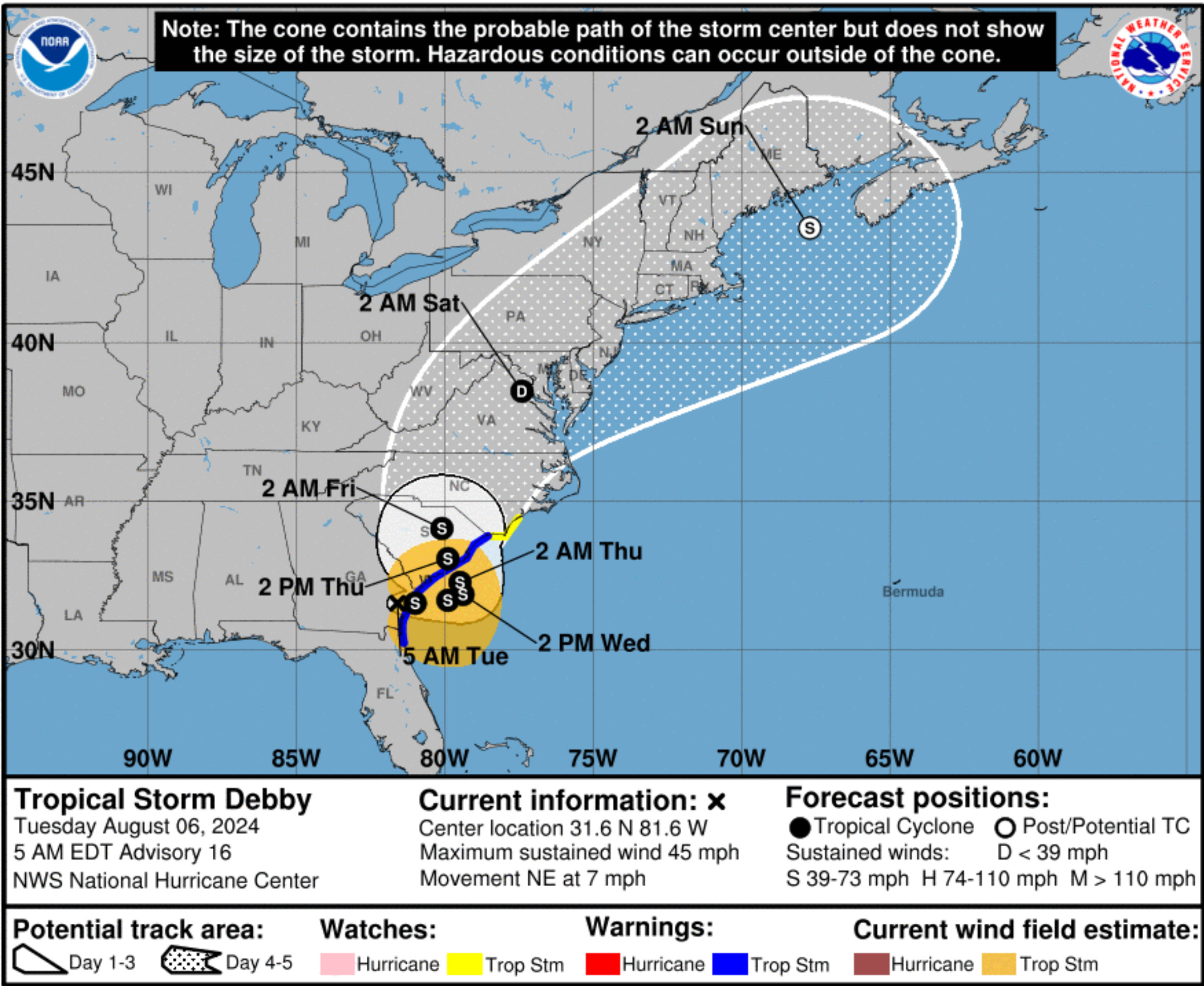


# Forecast Information

## Tropical Storm Debby



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**NOTE:** Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

- Tropical Storm Debby is expected to move off the Georgia coast and back over the Atlantic waters later today, meander off the South Carolina coast through early Thu
- Debby is expected to make landfall along the South Carolina coast on Thursday
- On the forecast track, some strengthening is forecast on Wednesday as Debby moves into favorable conditions – however it is not anticipated that it will gain hurricane strength
- Current center forecast positions through the next 5 days (if applicable) illustrated by dots
- White swath of potential track error added to each side of the forecast track through day 3
- Hatched swath of potential track error added to each side of the forecast track days 4-5

\*\* Swaths are calculated using average track errors and actual track may be well inside, or possibly outside the potential track areas indicated.

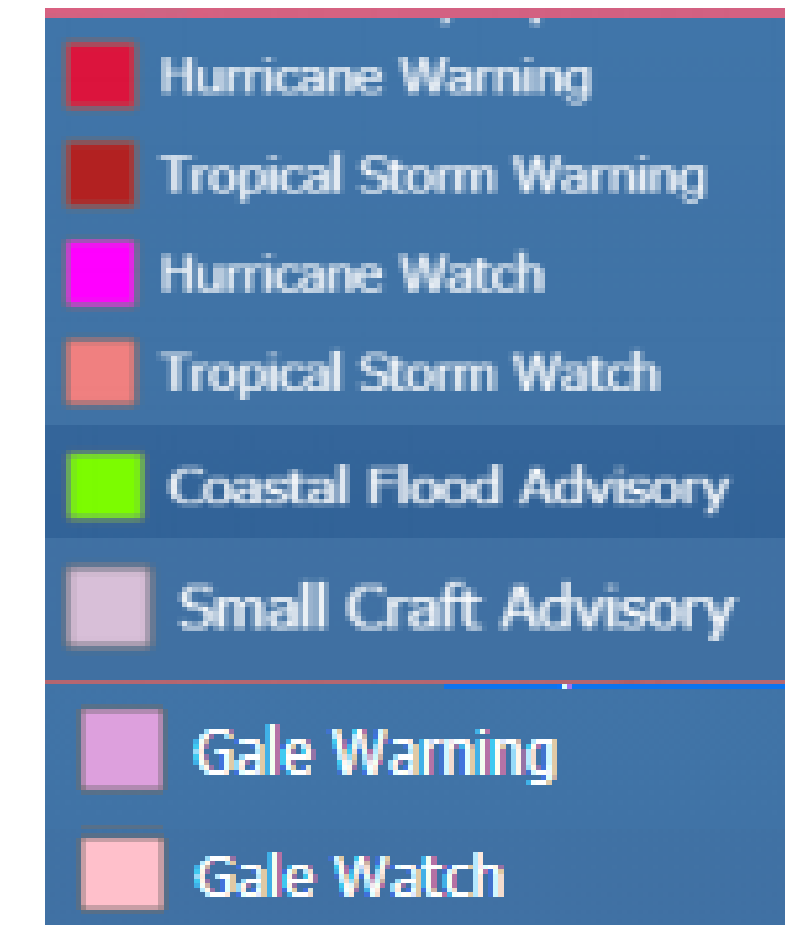
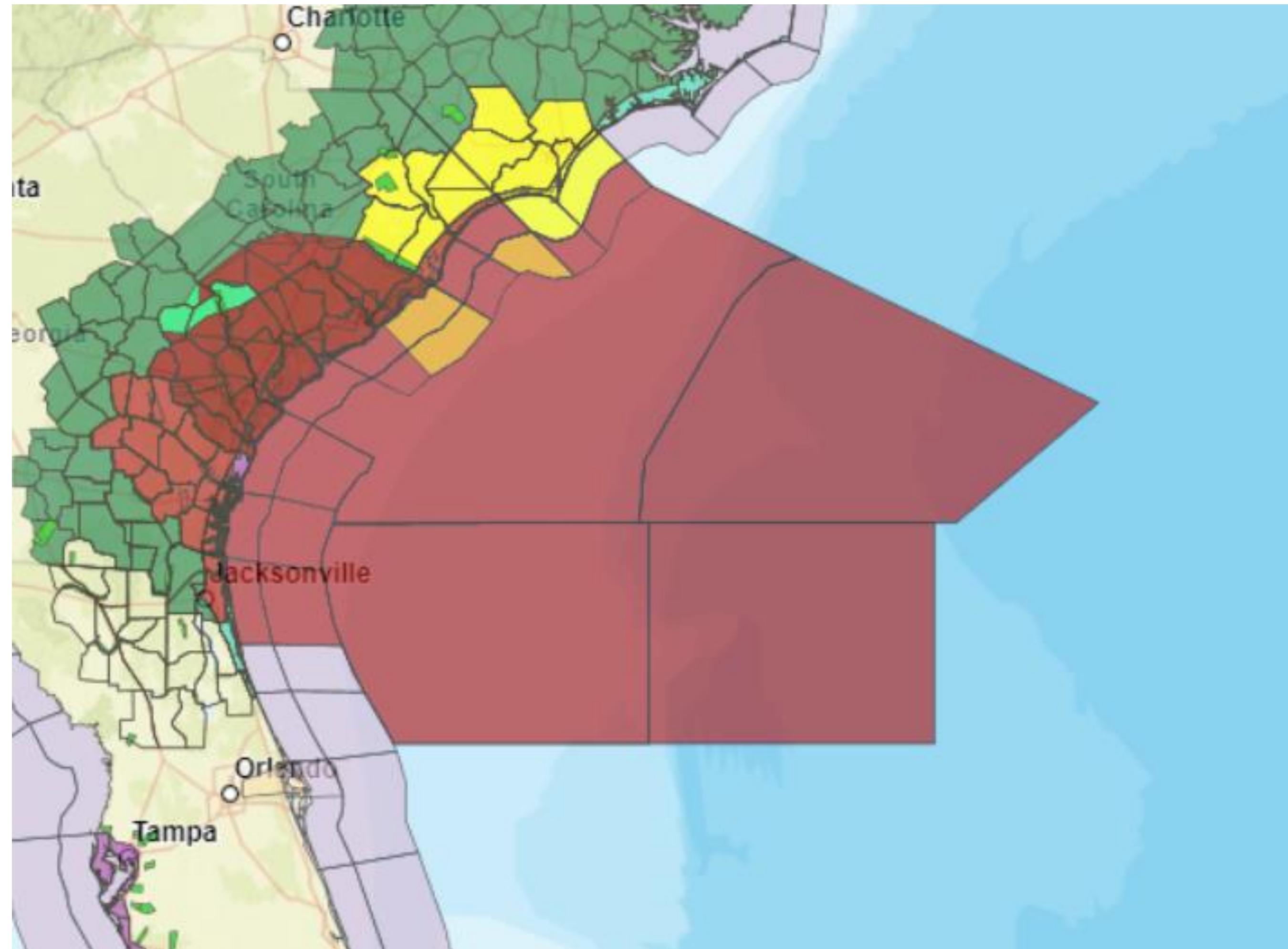


# Hazards Map

Tropical Storm Debby



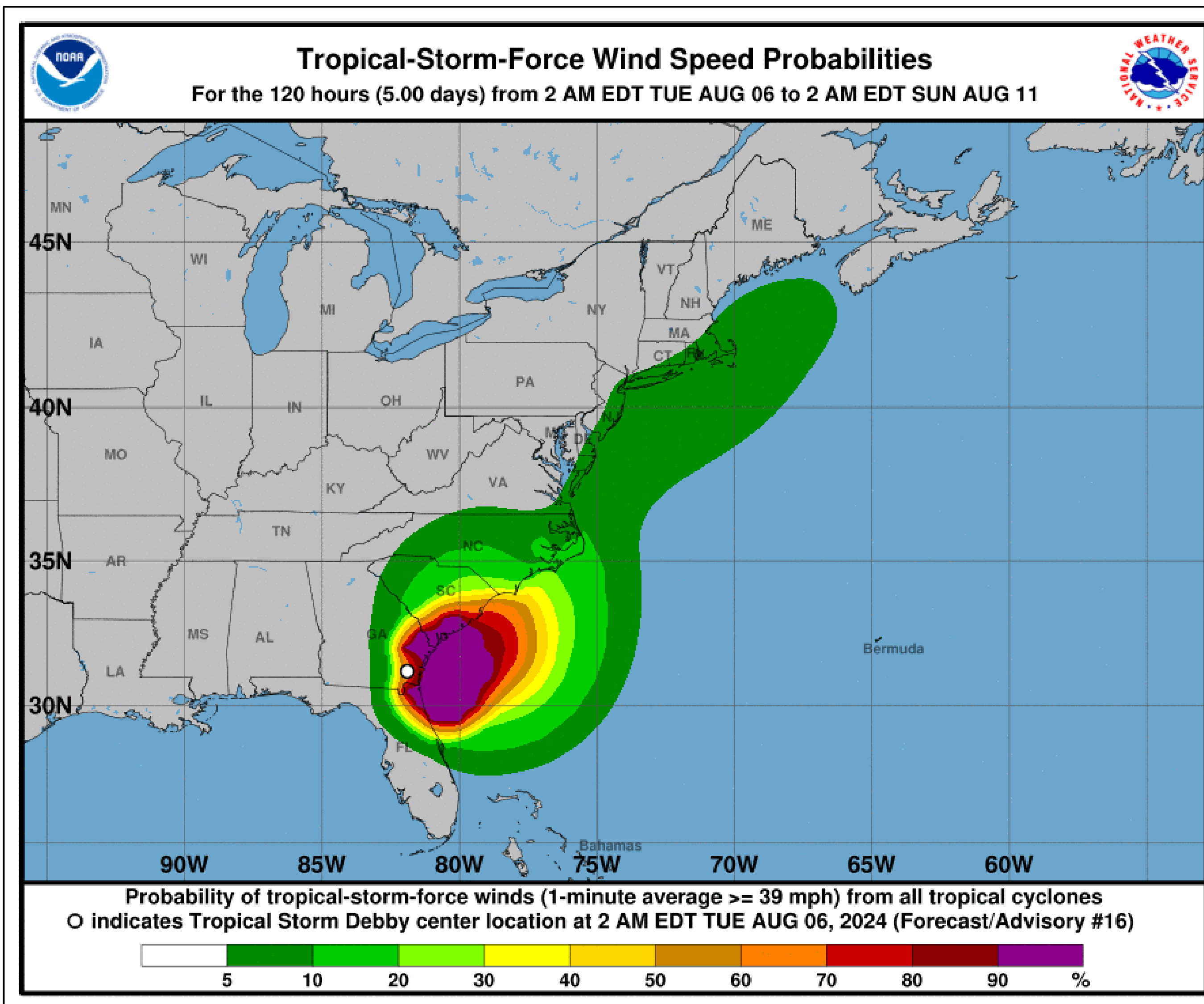
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NWS National Hurricane Center



# Tropical Storm Debby



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- JACKSONVILLE 100%
- SAVANNAH 100%
- BEAUFORT 100%
- CHARLESTON 100%
- MYRTLE BEACH 60%

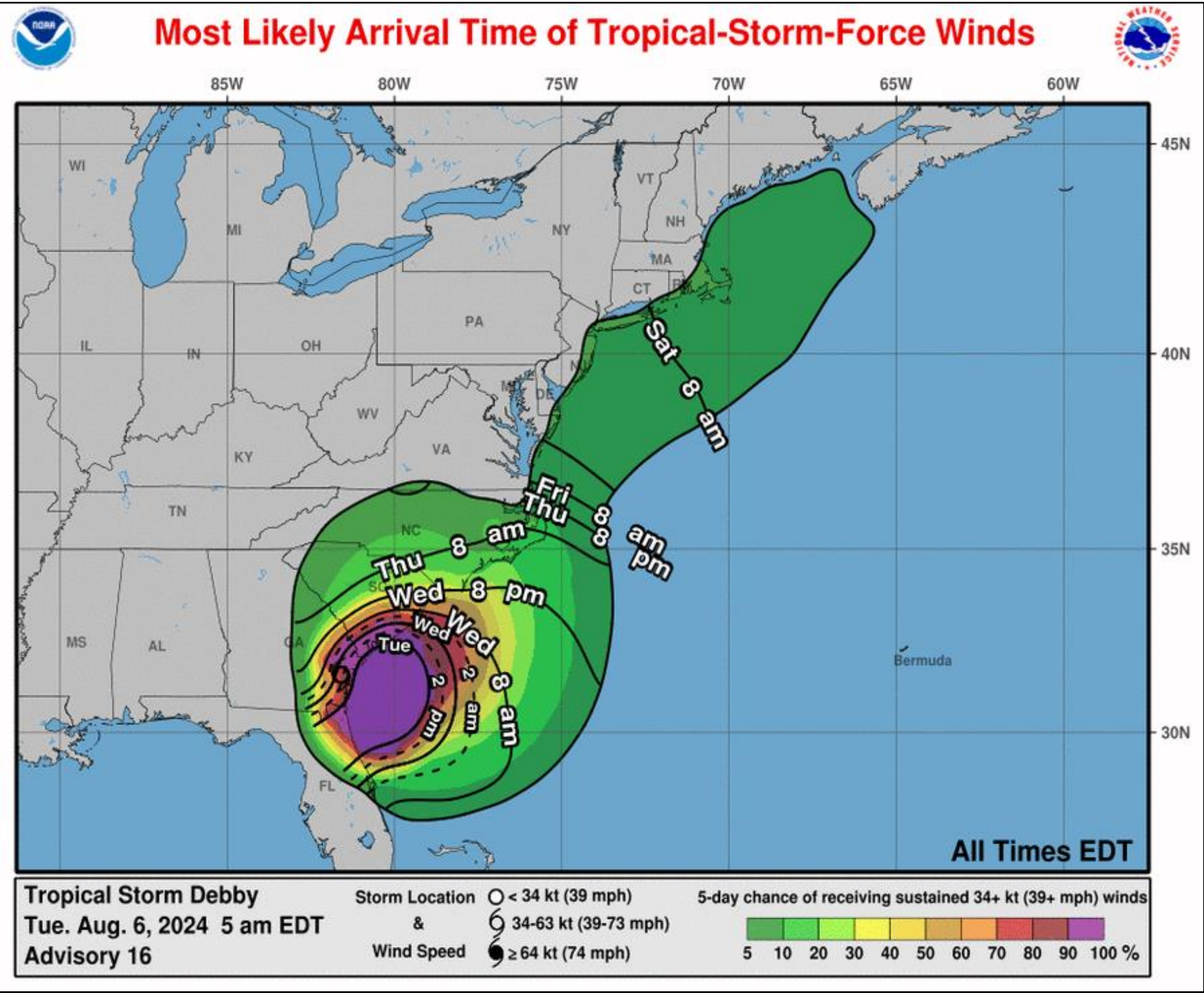
- Green** indicates probabilities have gone down since last briefing
- Red** indicates probabilities have gone up since last briefing
- Black** indicates probabilities remain the same

- Probabilities of sustained tropical storm force winds (34 kt to 63 kt) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color bar below the image for more details.





Tropical Storm Debby



- Jacksonville FL – Ongoing
- Savannah GA – Ongoing
- South Carolina – Ongoing for southern half of SC/tonight for northern half
- The most likely time of arrival of Tropical Storm Force Winds (34kt to 63 kt) for this cyclone based off the current track and wind radii.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color bar below the image for more details.

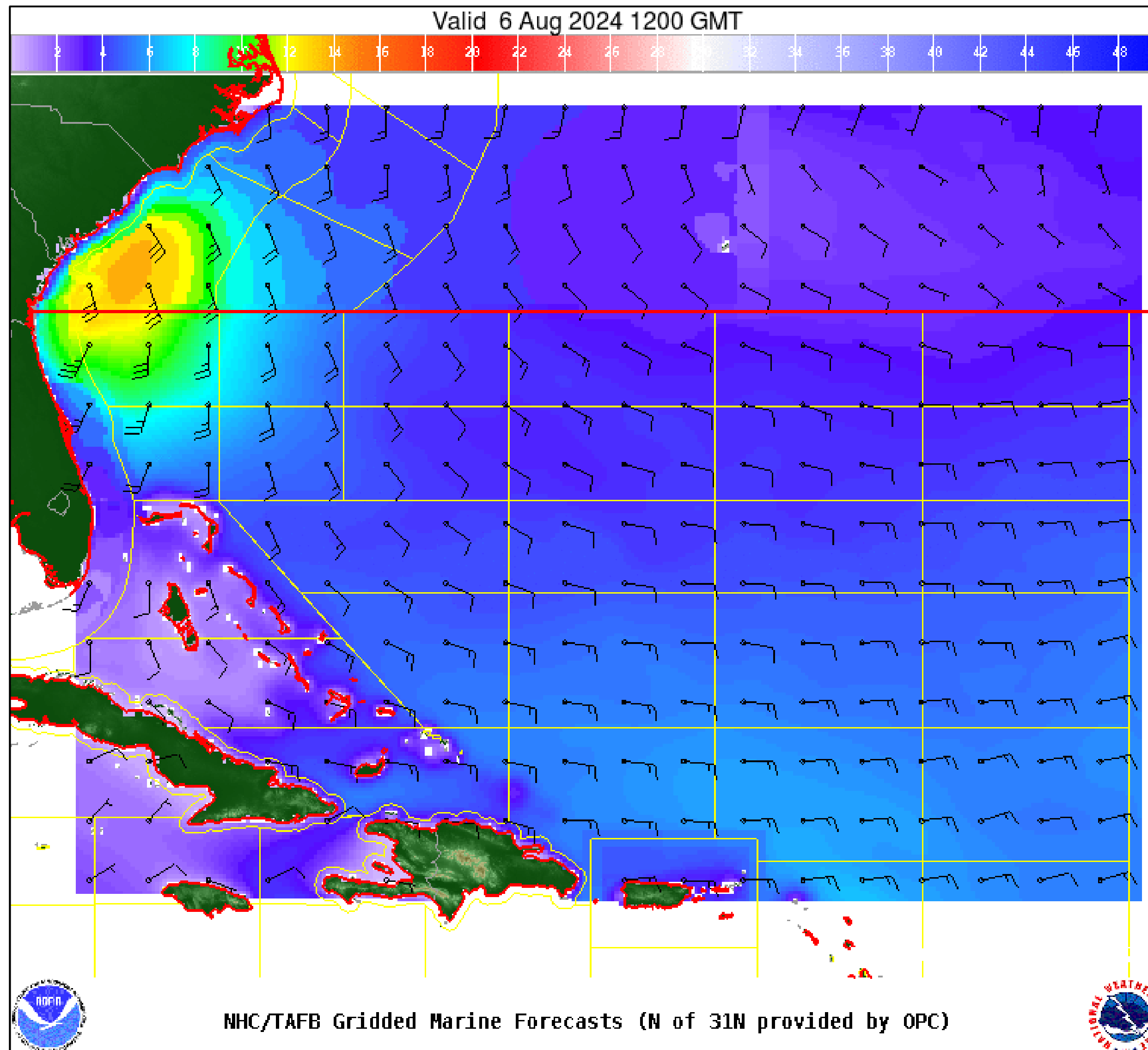


# Wind And Waves

## Tropical Storm Debby



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### Current Conditions

**Tuesday, August 6 at 8am EDT**

Peak Winds: 40 kt

Peak Seas: 14 ft

- Wave heights are in feet



Significant Wave Height (ft)

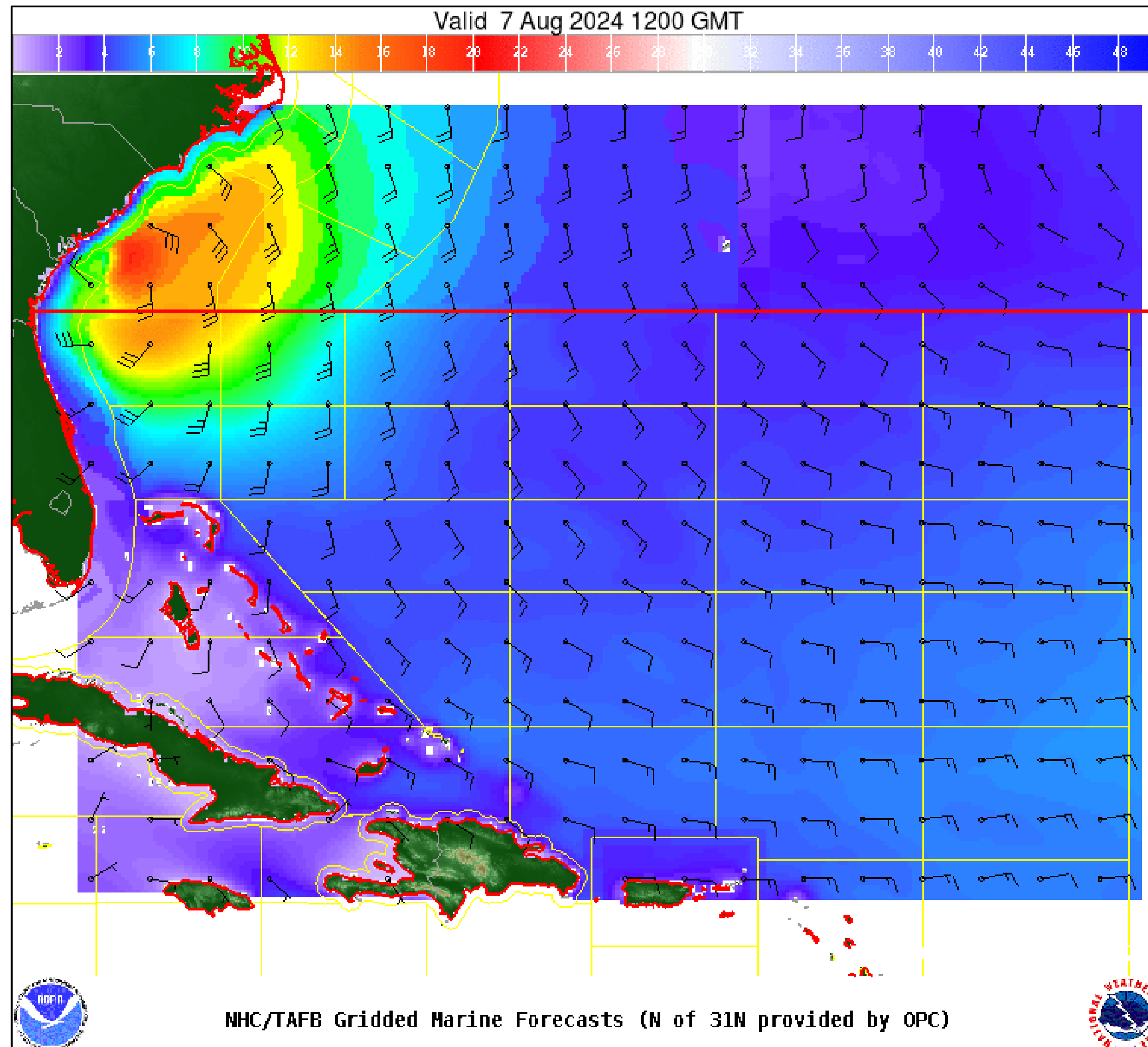


# Wind And Waves

## Tropical Storm Debby



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## 24 Hour Forecast

Wednesday, August 7 at 8am EDT

Peak Winds: 45 kt

Peak Seas: 20 ft

- Wave heights are in feet



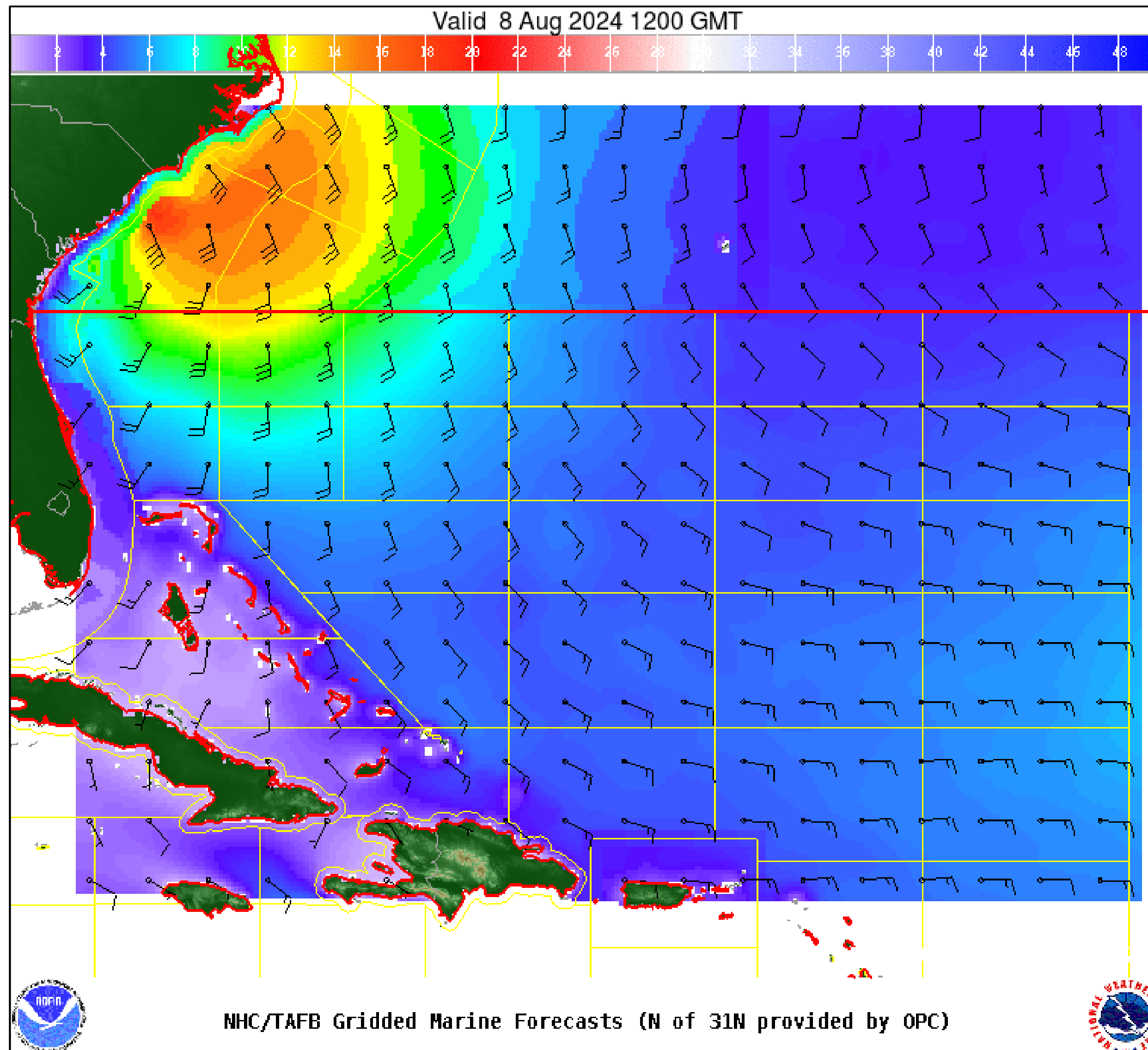
Significant Wave Height (ft)

# Wind And Waves

## Tropical Storm Debby



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## 48 Hour Forecast

Thursday, August 8 at 8am EDT

Peak Winds: 50 kt

Peak Seas: 19 ft

- Wave heights are in feet



Significant Wave Height (ft)

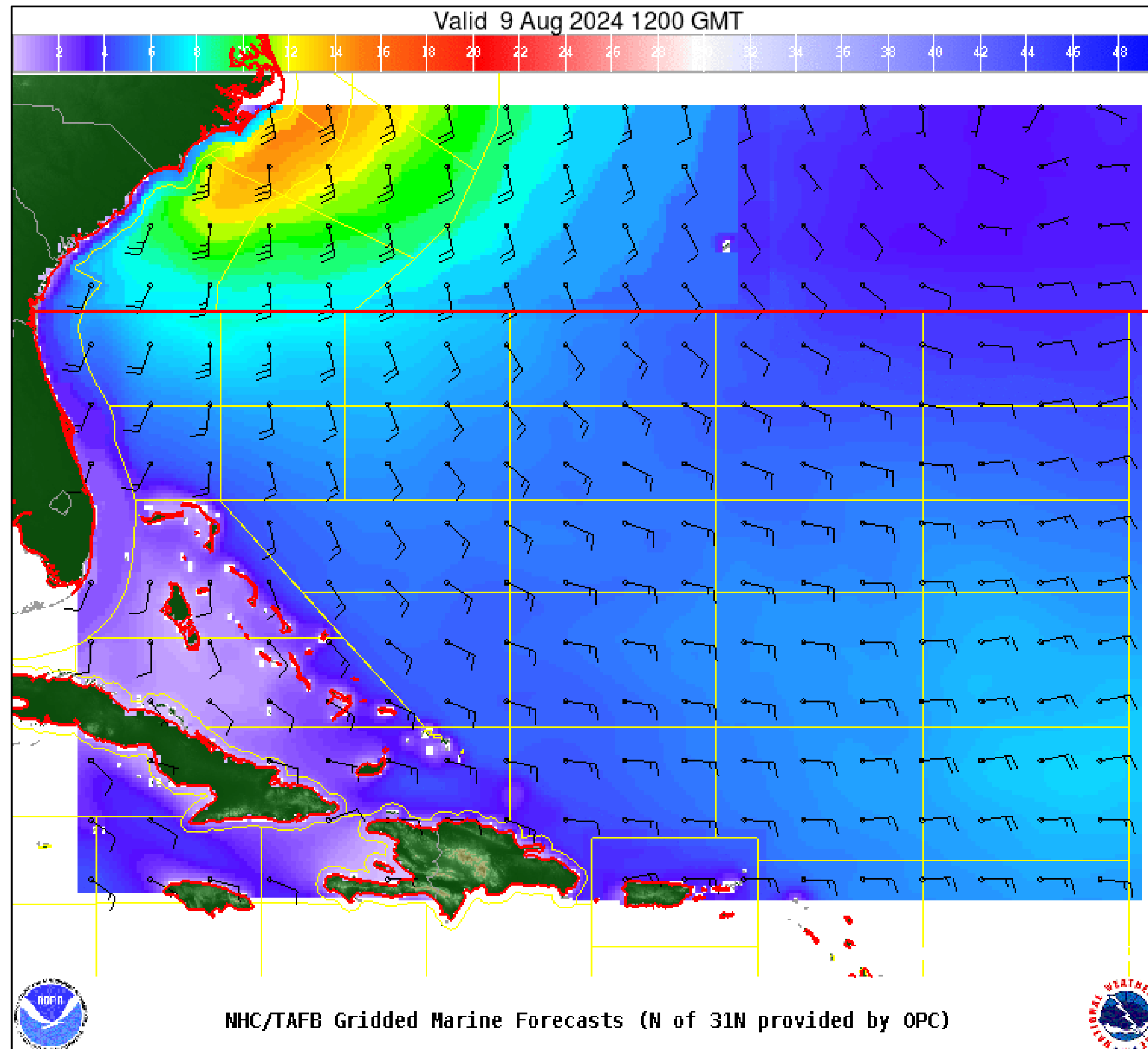


# Wind And Waves

## Tropical Storm Debby



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## 72 Hour Forecast

Friday, August 9 at 8am EDT

Peak Winds: 30 kt

Peak Seas: 13 ft

- Wave heights are in feet



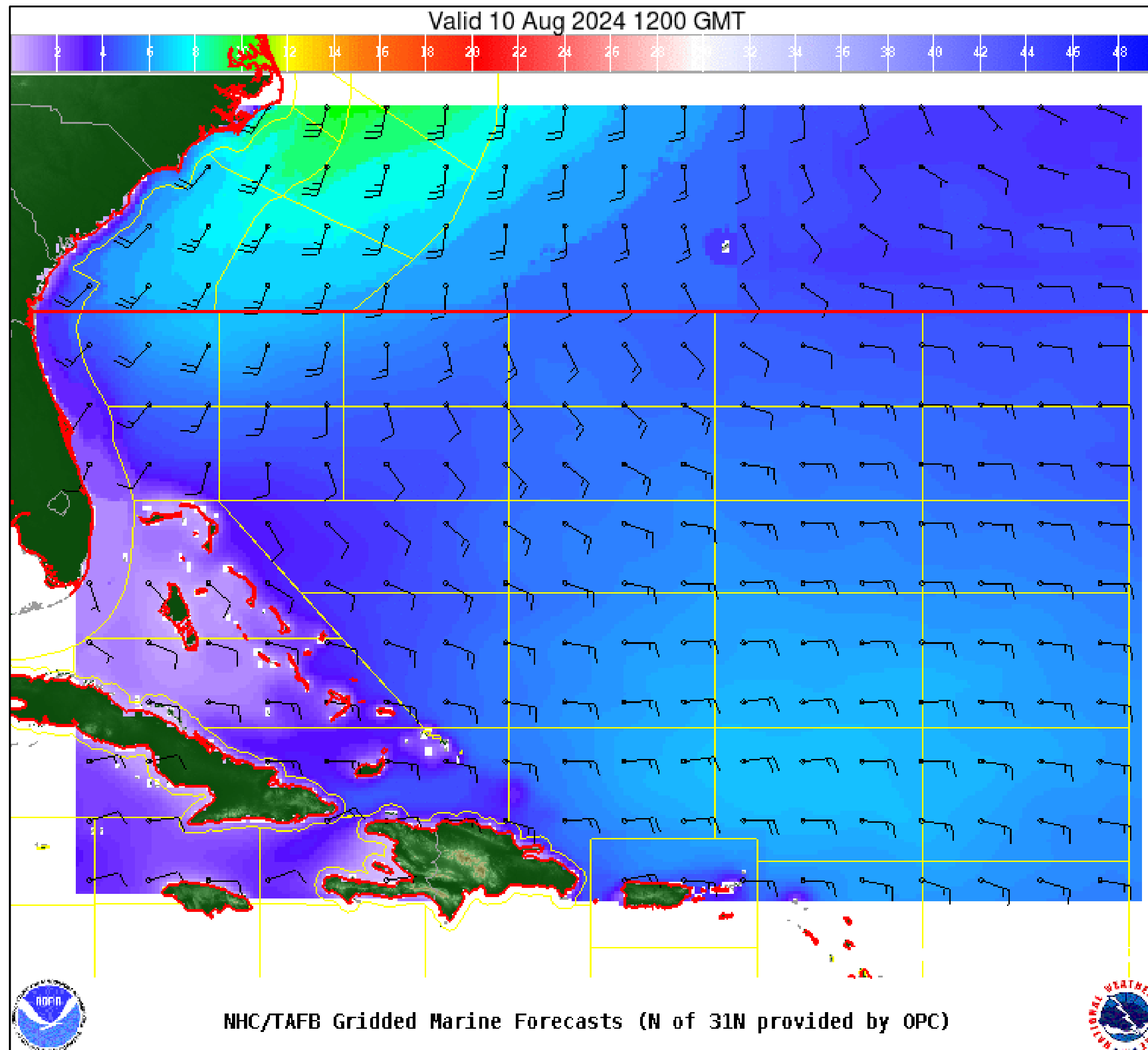
Significant Wave Height (ft)

# Wind And Waves

## Tropical Storm Debby



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### 96 Hour Forecast

**Saturday, August 10 at 8am EDT**

Peak Winds: 15 kt

Peak Seas: 9 ft

- Wave heights are in feet



Significant Wave Height (ft)



# Time of Departure

Tropical Storm Debby



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## **Latest Reasonable Time of Departure**

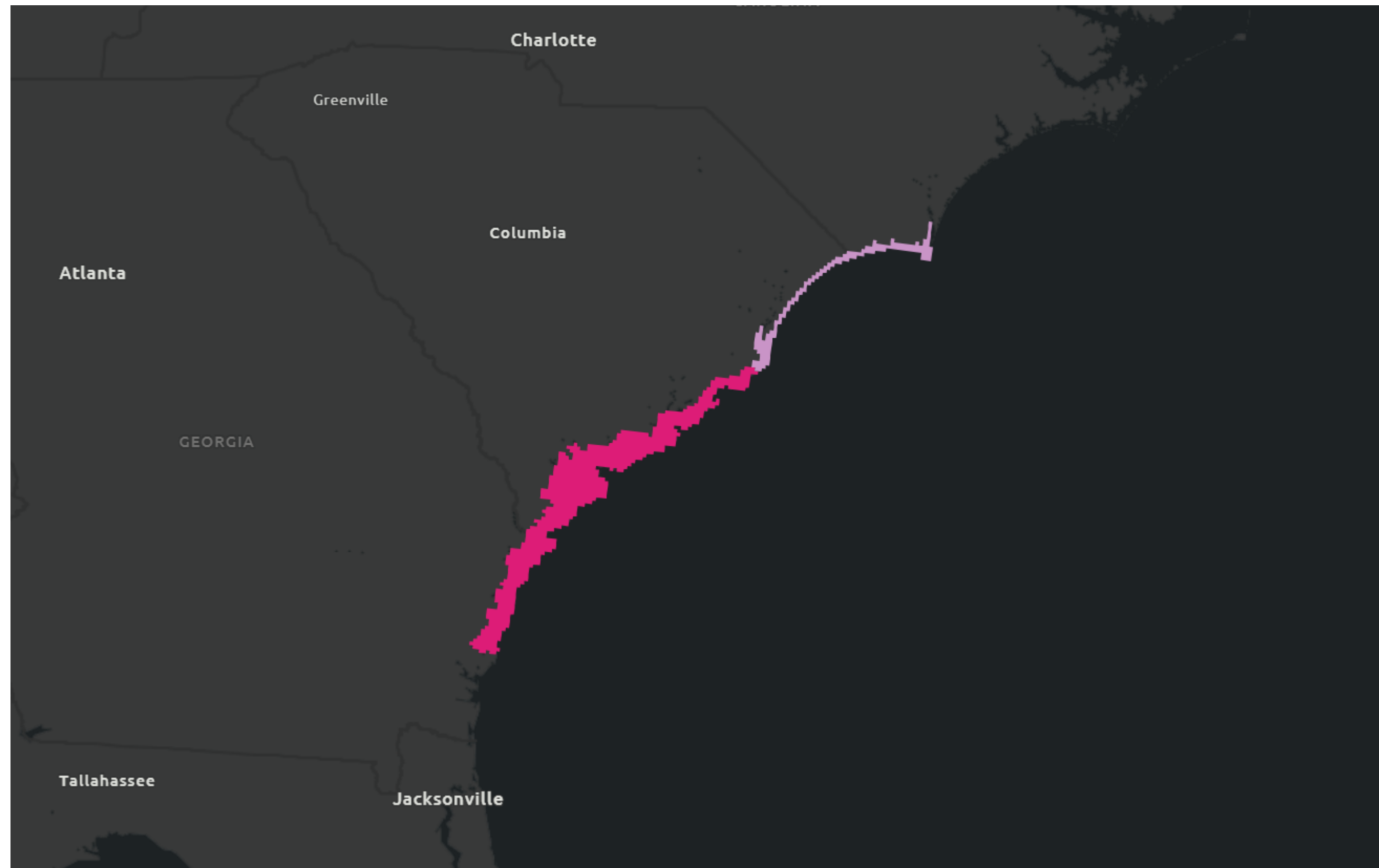
- Jacksonville, FL: Tuesday afternoon
- Savannah, GA: Thursday morning
- Charleston, SC: Thursday evening
- Myrtle Beach, SC: early Friday morning

# Potential Storm Surge

Tropical Storm Debby



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A Storm Surge Warning is in effect for...

- \* Altamaha Sound, Georgia to South Santee River, South Carolina

A Storm Surge Watch is in effect for...

- \* North of South Santee River, South Carolina to Cape Fear, North Carolina

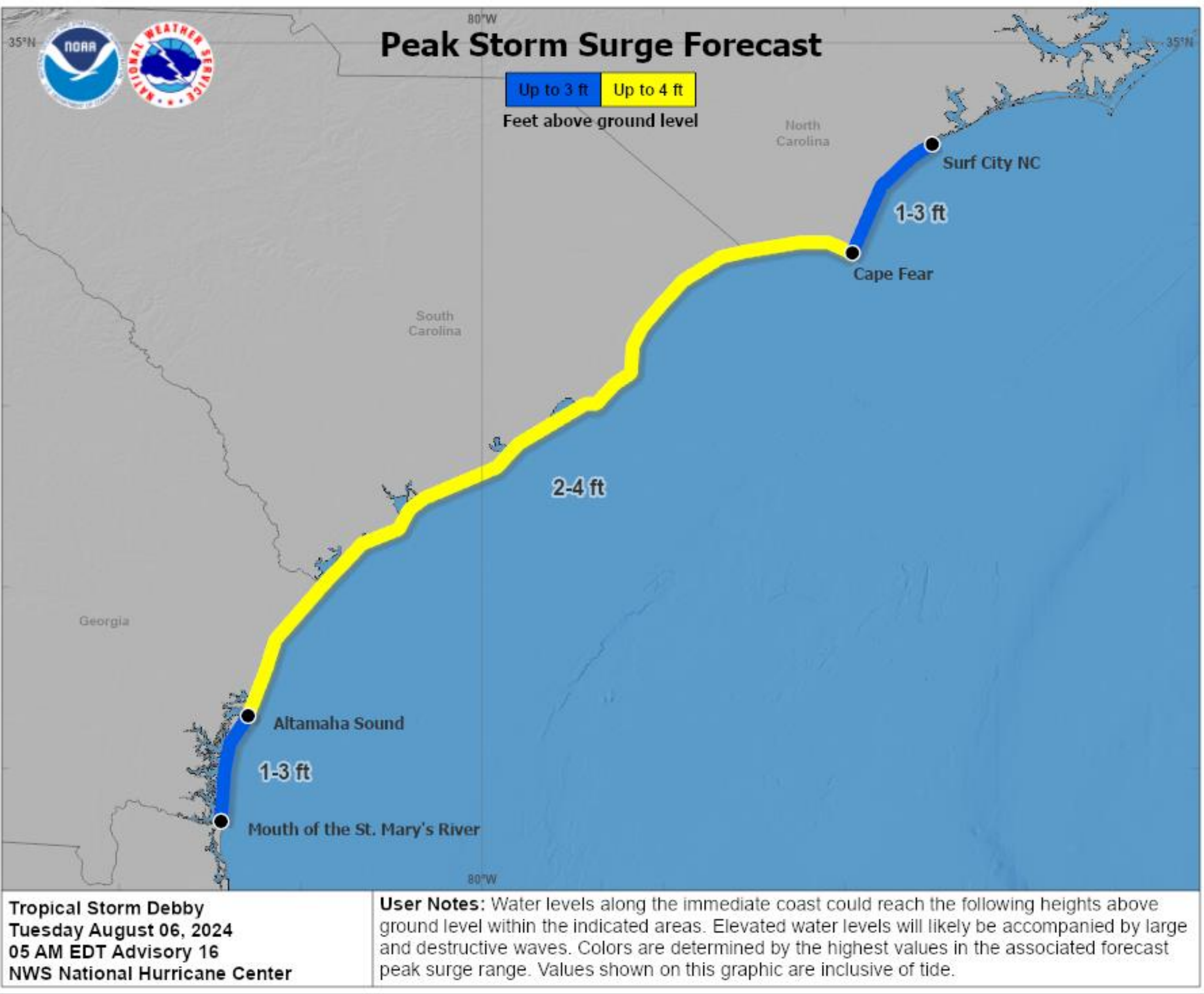


# Potential Peak Storm Surge / Watches and Warnings



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NWS National Hurricane Center

Tropical Storm Debby





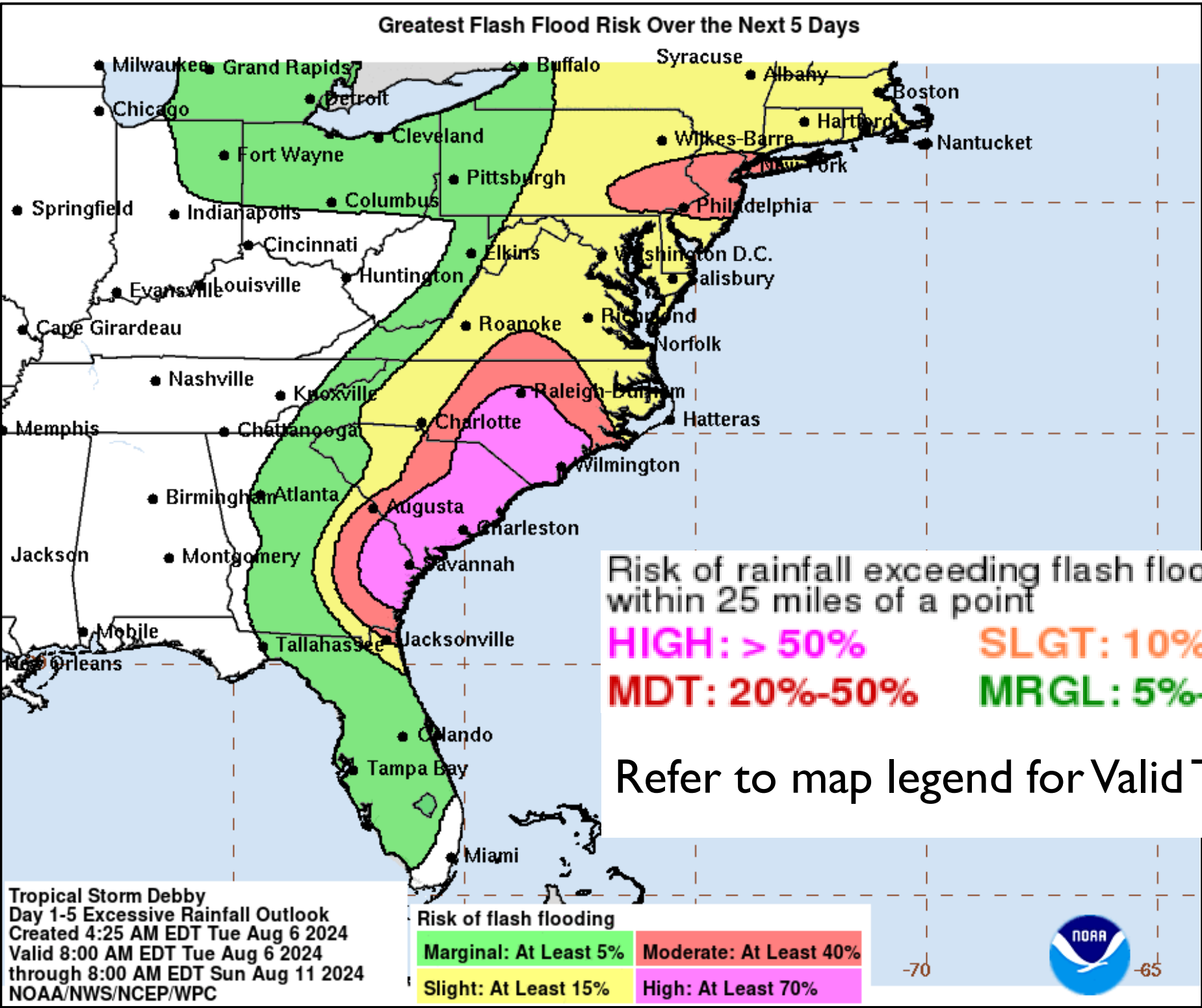
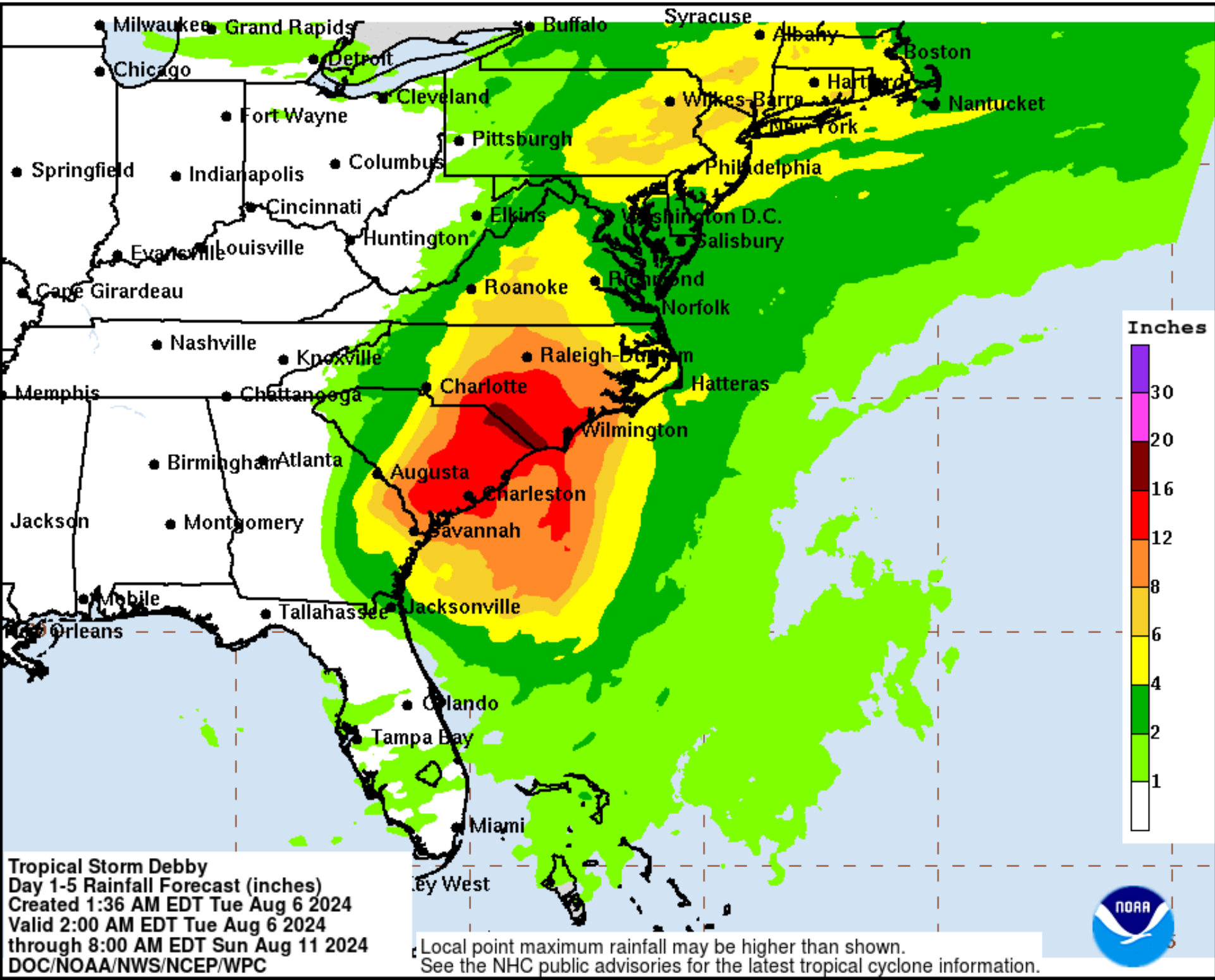
# Expected Storm Total Rainfall and Chance of Rainfall Flooding



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NWS National Hurricane Center

Tropical Storm Debby

Images from NWS Weather Prediction Center



Debby is expected to produce potentially historic rainfall totals of 10 to 20 inches, with maximum amounts of 25 inches, bringing areas of catastrophic flooding across portions of southeast Georgia, the eastern half of South Carolina, and southeast North Carolina through Friday.

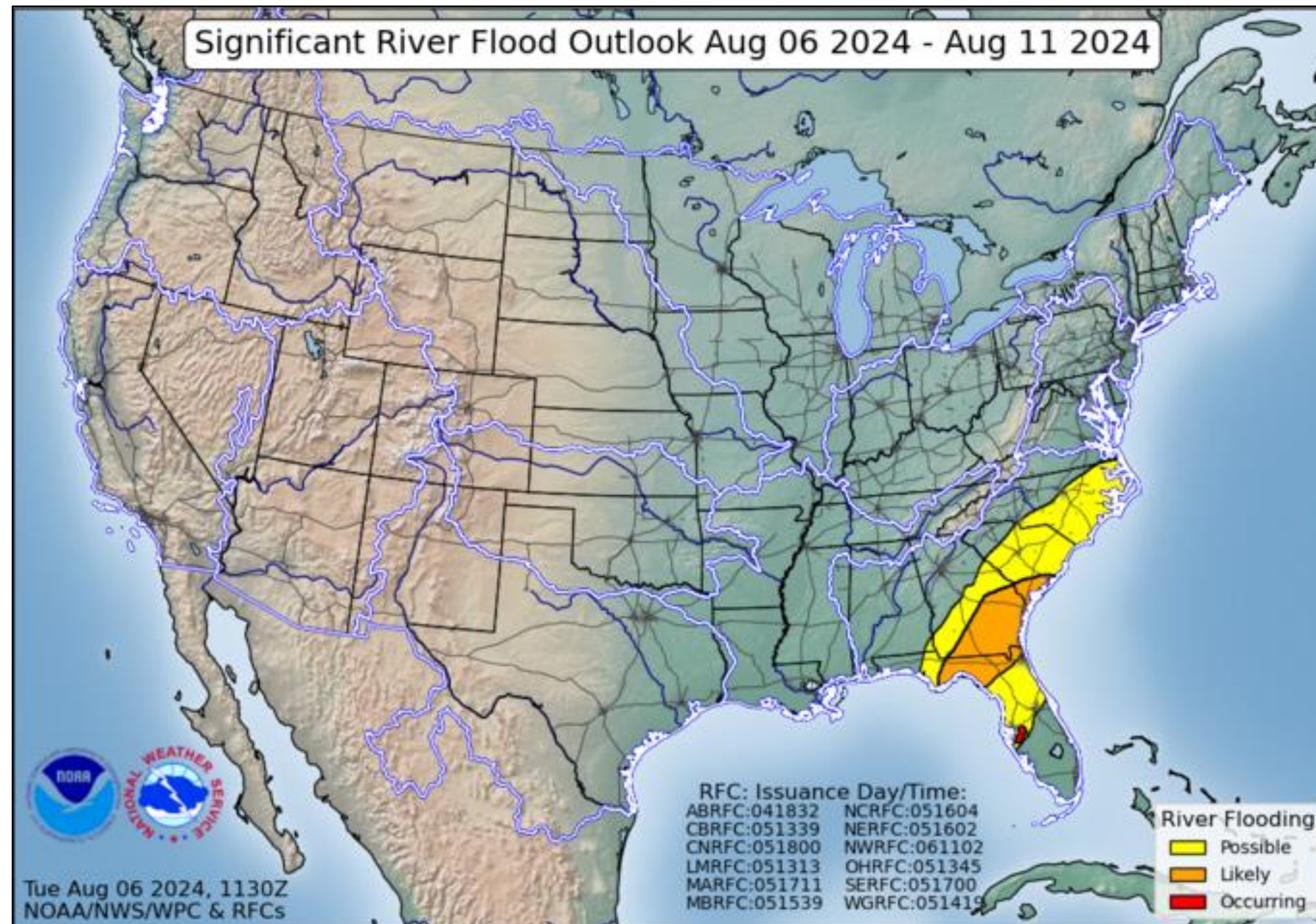


# Flood Outlook

Tropical Storm Debby



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NWS National Hurricane Center





# Tornado Outlook – Day 1 & 2

Tropical Storm Debby

Image from NWS Storm Prediction Center



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NWS National Hurricane Center

## Day 1 - Tuesday

## Tornado Watch



## Day 2 - Wednesday



Coastal South Carolina/North Carolina  
is under a tornado watch until 5pm  
EDT





# Key Messages

## Tropical Storm Debby



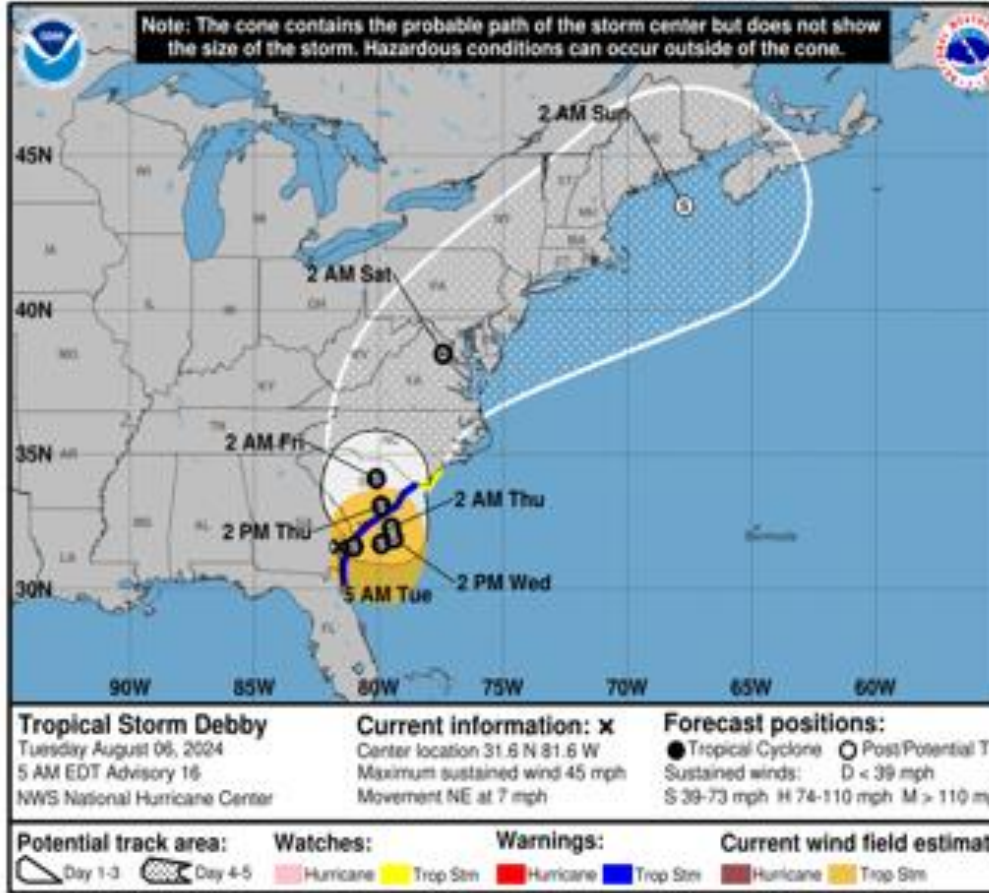
Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



### Key Messages for Tropical Storm Debby

Advisory 16: 5:00 AM EDT Tue Aug 06, 2024

1. Potentially historic heavy rainfall across southeast Georgia and eastern South Carolina through Friday will likely result in areas of catastrophic flooding. Heavy rainfall will likely result in flooding impacts from northern North Carolina through portions of Mid-Atlantic States and southern New England through Sunday morning.
2. Dangerous storm surge and tropical storm conditions will spread northward along the southeast U.S. coast from northeastern Florida to North Carolina through the middle of the week. Storm surge and tropical storm watches and warnings have been issued for portions of these areas. Residents in the storm surge watch and warning area should follow any advice given by local officials.
3. In portions of Florida where Debby has passed, deadly hazards remain, including downed power lines and flooded areas. Ensure generators are properly ventilated to avoid carbon monoxide poisoning. Exercise caution when using chainsaws and power tools, and drink plenty of water to avoid heat exhaustion.



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.

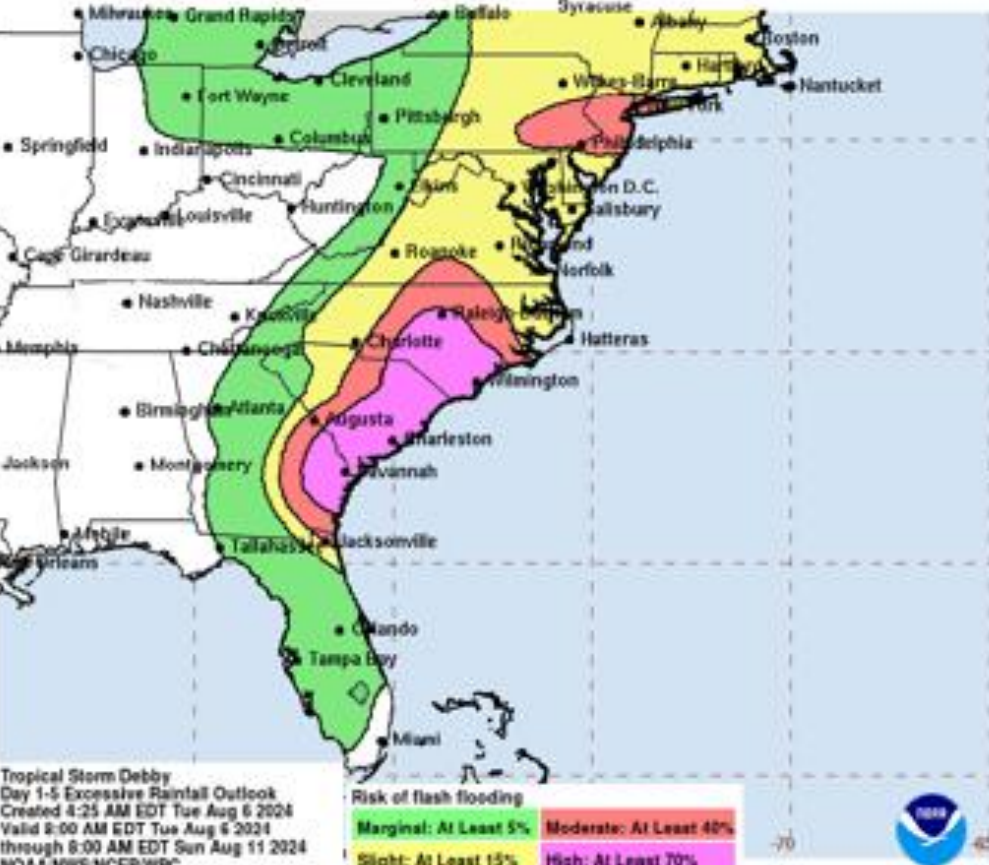
**Tropical Storm Debby**  
Tuesday August 06, 2024  
5 AM EDT Advisory 16  
NWS National Hurricane Center

**Current information:** x  
Center location 31.6 N 81.6 W  
Maximum sustained wind 45 mph  
Movement NE at 7 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 Day 4-5  
**Watches:** Hurricane Trop Stm  
**Warnings:** Hurricane Trop Stm  
**Current wind field estimate:** Hurricane Trop Stm

**Greatest Flash Flood Risk Over the Next 5 Days**



**Tropical Storm Debby**  
Day 1-5 Excessive Rainfall Outlook  
Created 4:25 AM EDT Tue Aug 6 2024  
Valid 8:00 AM EDT Tue Aug 6 2024  
Through 6:00 AM EDT Sun Aug 11 2024  
NOAA/NWS/NCEP/WPC

**Risk of flash flooding**  
Marginal: At Least 5% Moderate: At Least 45%  
Slight: At Least 15% High: At Least 70%

For more information go to [hurricanes.gov](https://hurricanes.gov)

## Marine Key Messages:

- Winds will likely peak to 50 kt over the Atlantic Thursday before landfall in South Carolina
- Seas will build to around 20 ft
- Conditions over the D7 Atlantic area will begin to improve Friday into Saturday



You can contact the  
Tropical Analysis and  
Forecast Branch at  
305-229-4424



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# TROPICAL STORM DEBBY BRIEFING

**TIME of NEXT NHC Advisory:**  
**15 UTC: 11 AM**

*The Next Briefing Will Be:*  
*Wednesday, 9:00 AM EDT*

*You can always find get the latest graphics and information for this storm at [www.hurricanes.gov](http://www.hurricanes.gov)*



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[www.nhc.noaa.gov](http://www.nhc.noaa.gov)