

IMPACTS FOR D7 (through next 5 days)

Winds – Low

Storm Surge – Low

Rainfall/Flash Flooding – Extreme

Tornadoes – Medium

Waves - Medium

TROPICAL STORM DEBBY BRIEFING

9:00 AM EDT

Thursday, August 8, 2024

Prepared by:

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*Tropical Analysis and Forecast Branch
NWS National Hurricane Center*



NHC_TAFB

www.nhc.noaa.gov

Changes since Last Briefing

Tropical Storm Debby



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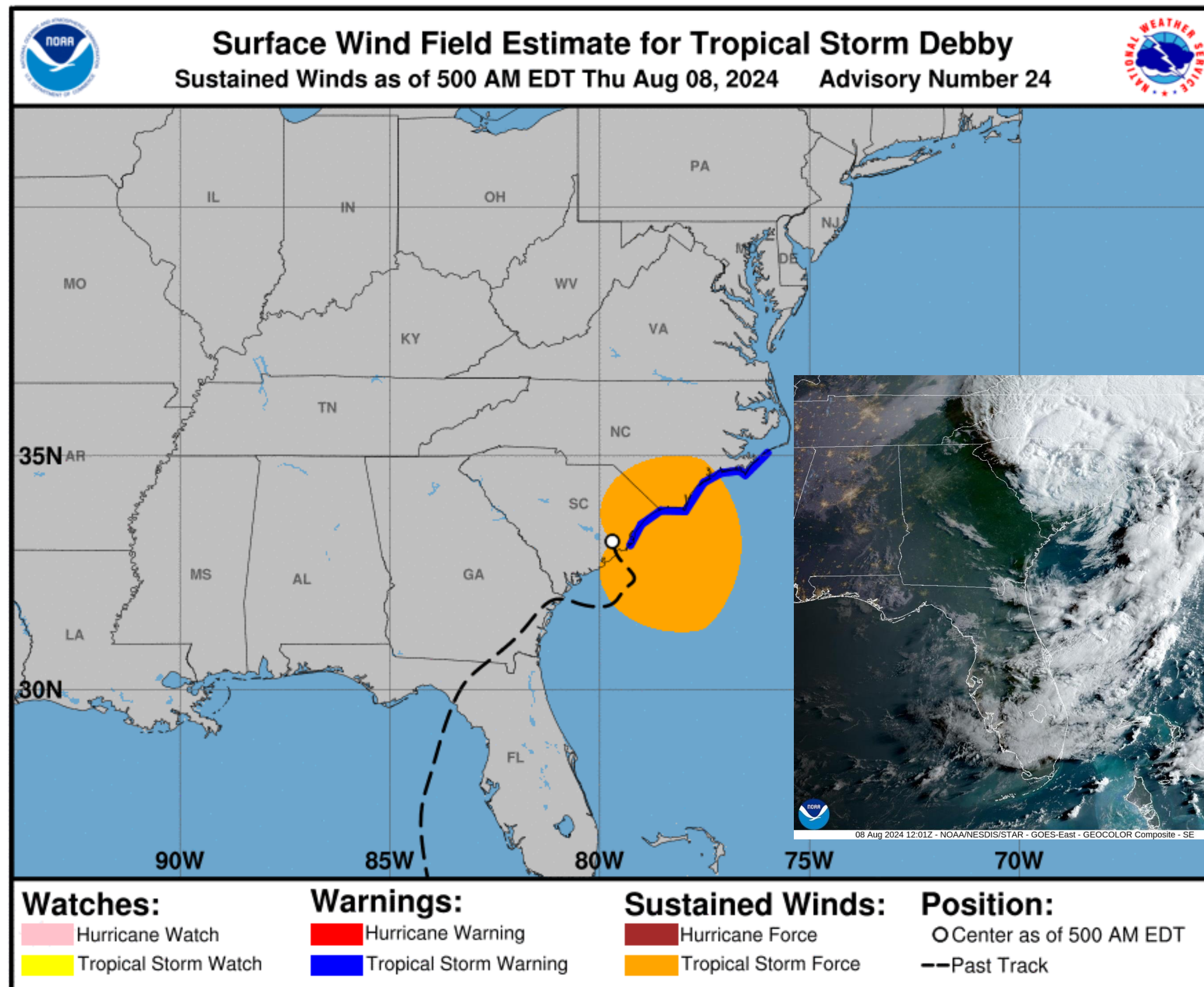
- Debby made landfall around 2am in the Bulls area of South Carolina
- Tropical Storm Warnings have dropped over the southern half of South Carolina but continue north of the Santee River to Ocracoke Inlet, NC
- Storm Surge Warnings have been dropped

Situation Overview

Tropical Storm Debby



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...DEBBY MOVES FARTHER INLAND OVER SOUTH CAROLINA...

...MAJOR FLOOD THREAT CONTINUES FOR PORTIONS OF THE CAROLINAS AND WESTERN VIRGINIA...

Summary of 800 AM EDT Information

Location...34.1N 79.9W

About 55 nm WNW of Myrtle Beach South Carolina

About 80 nm N of Charleston South Carolina

Maximum Sustained Winds...45 kt

Present Movement...NW at 6 kt

Peak Seas: 19 ft

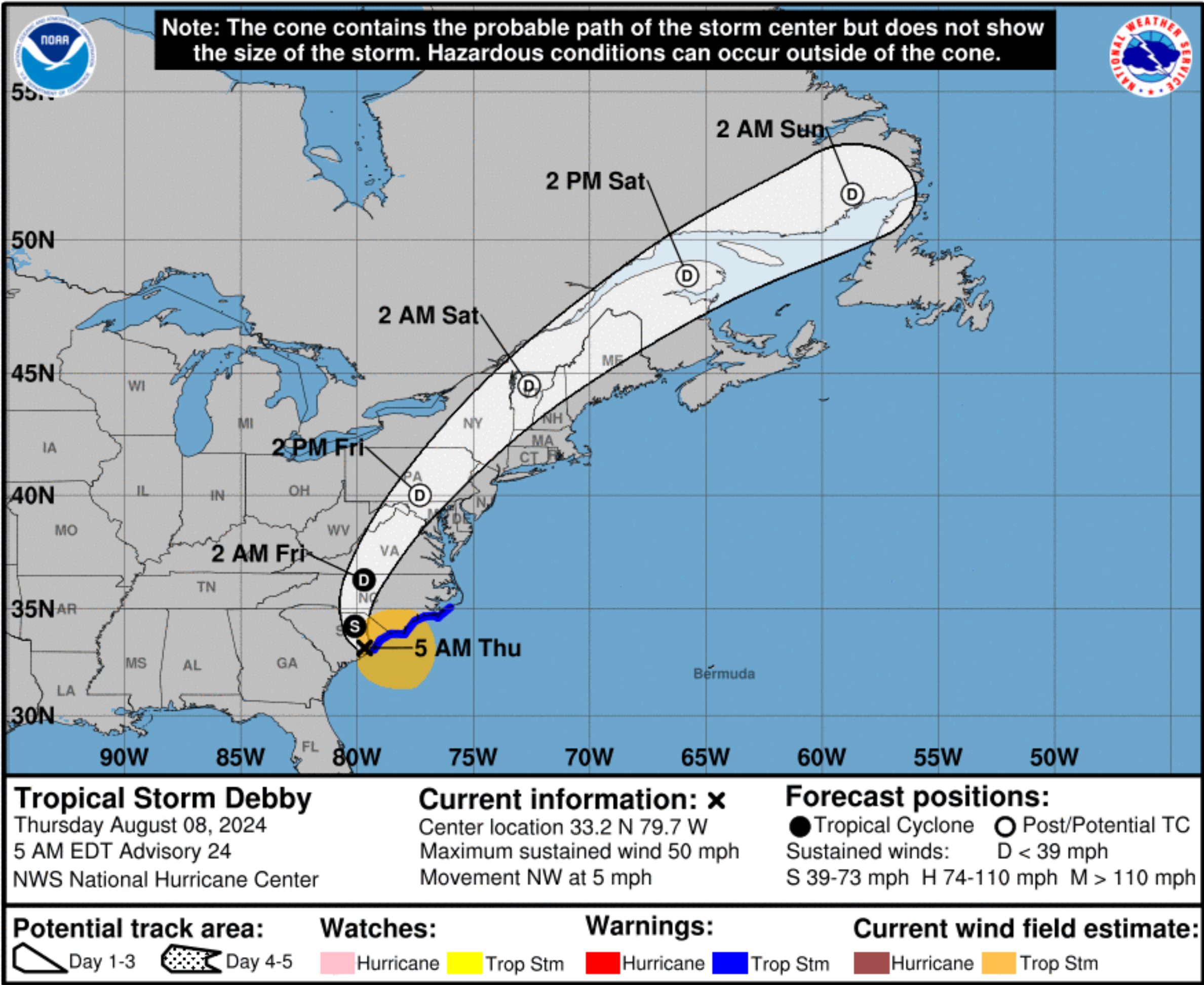
12 ft Seas...270NE 180SE 0SW 0NW.

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.

- Debby will pick up pace as it moves today, reaching eastern South Carolina and central North Carolina through tonight
- Debby will continue to weaken as the center moves farther inland, becoming a depression by this afternoon or evening
- Threat of heavy rainfall will move out of the South Carolina region tonight into Friday
- 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

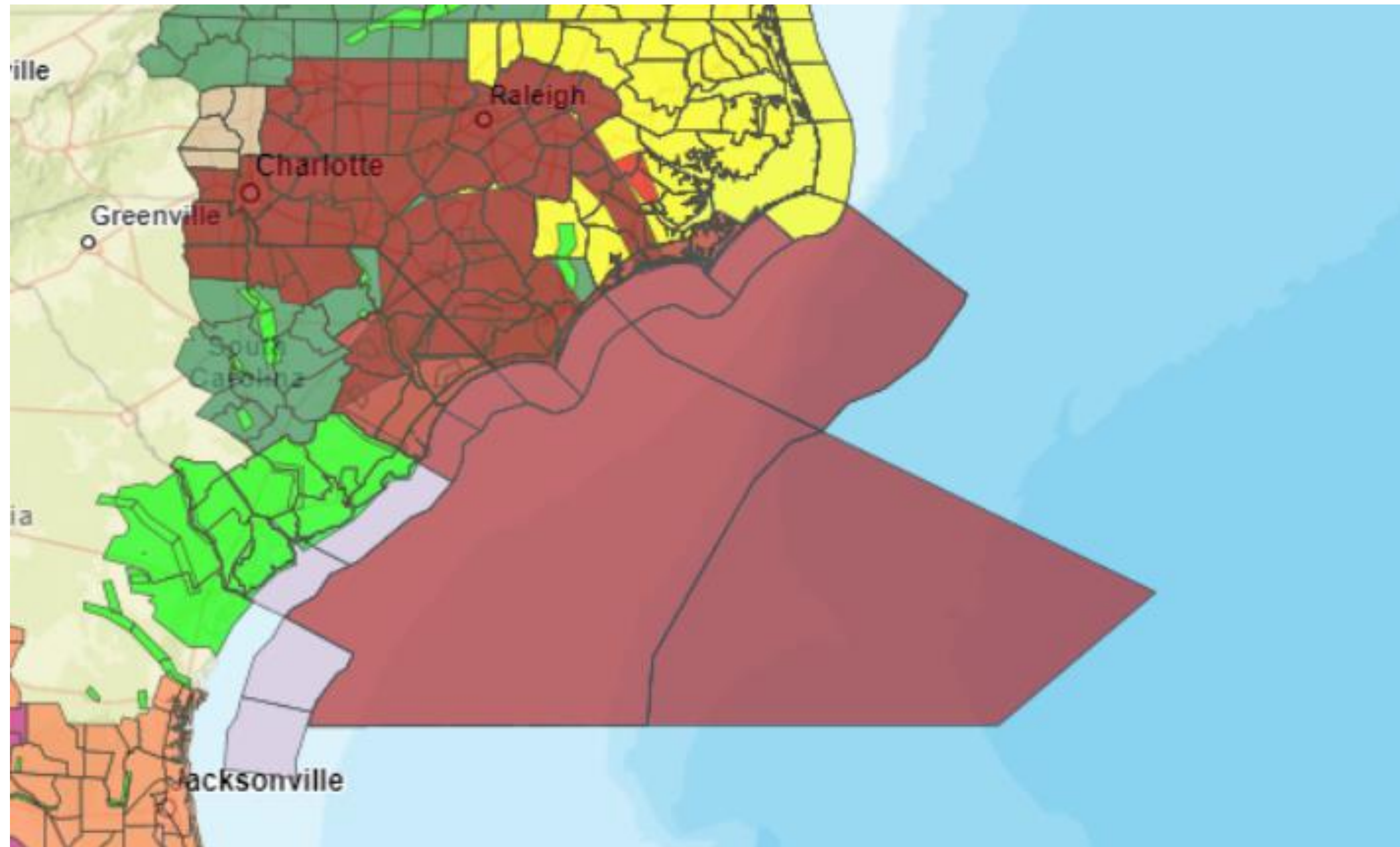
** Swaths are calculated using average track errors and actual track may be well inside, or possibly outside the potential track areas indicated.

Hazards Map

Tropical Storm Debby



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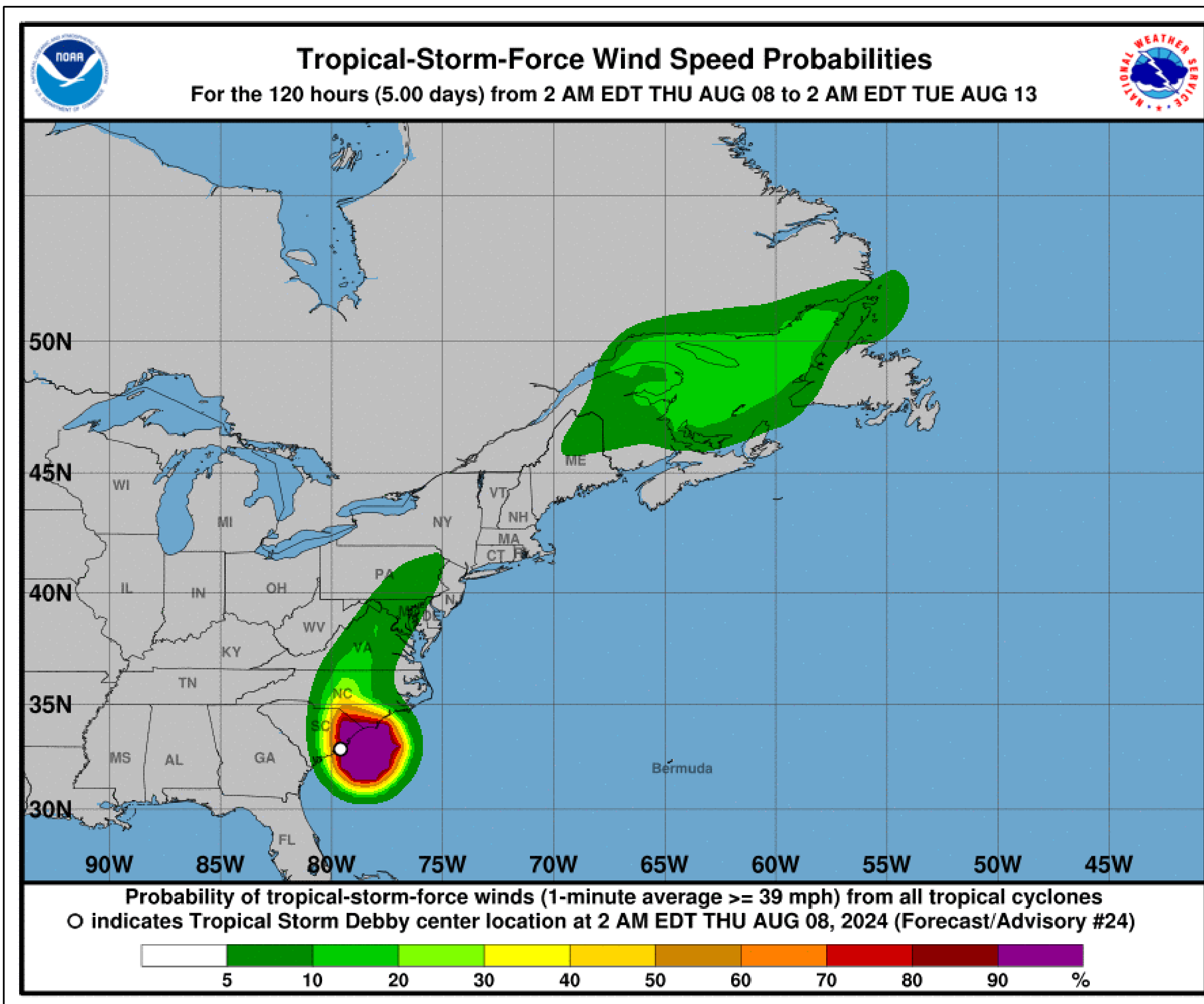


T.S. Wind Speed Probabilities

Tropical Storm Debby



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- **CHARLESTON 45%**
- **MYRTLE BEACH 100%**

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

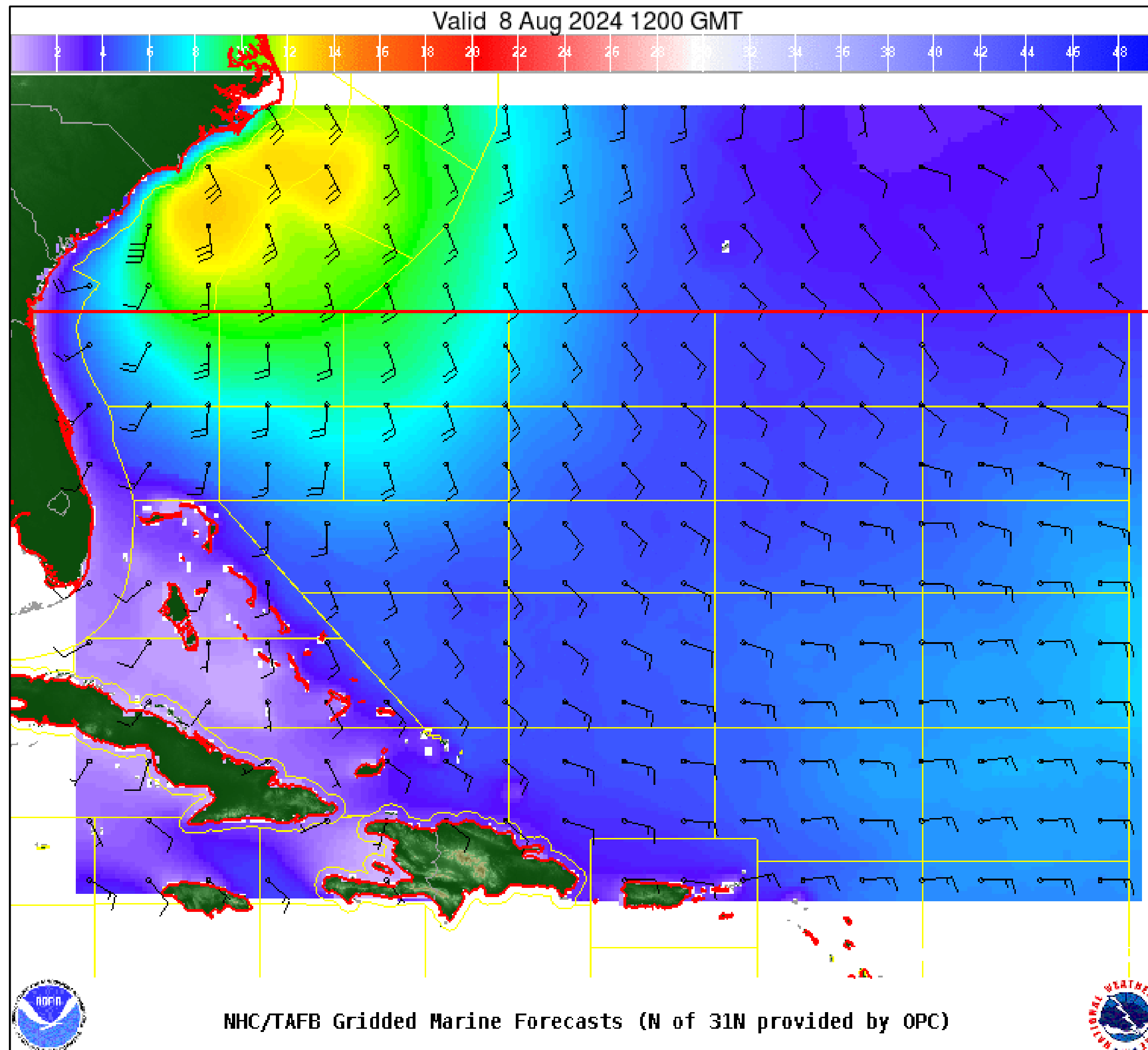
- Probabilities of sustained tropical storm force winds (34 kt to 63 kt) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color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

Wind And Waves

Tropical Storm Debby



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Current Conditions

Thursday, August 8 at 8am EDT

Peak Winds: 40 kt

Peak Seas: 16 ft

- Wave heights are in feet

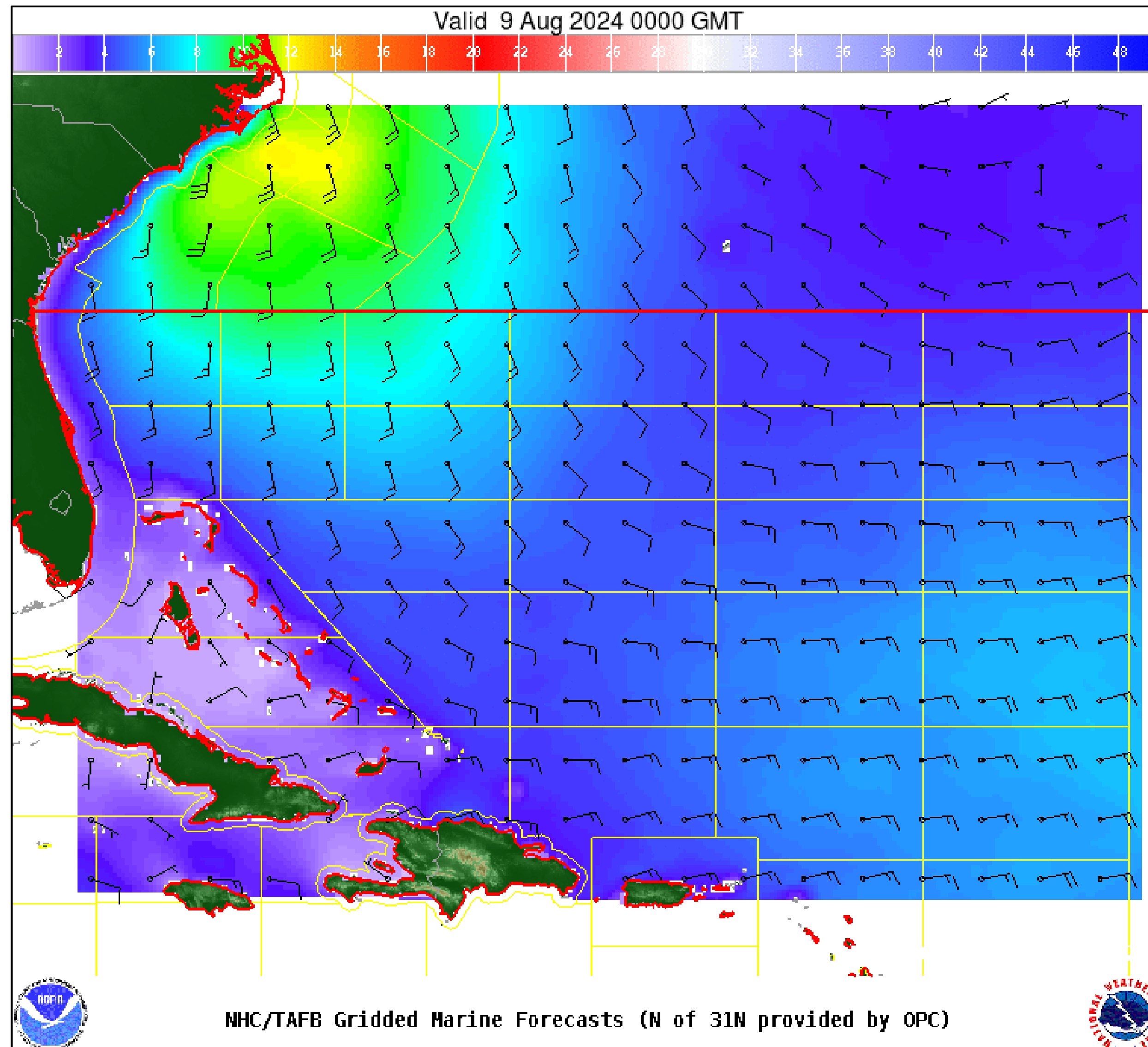


Significant Wave Height (ft)

Wind And Waves



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12 Hour Forecast

Thursday, August 8 at 8pm EDT

Peak Winds: 30 kt

Peak Seas: 14 ft

- Wave heights are in feet



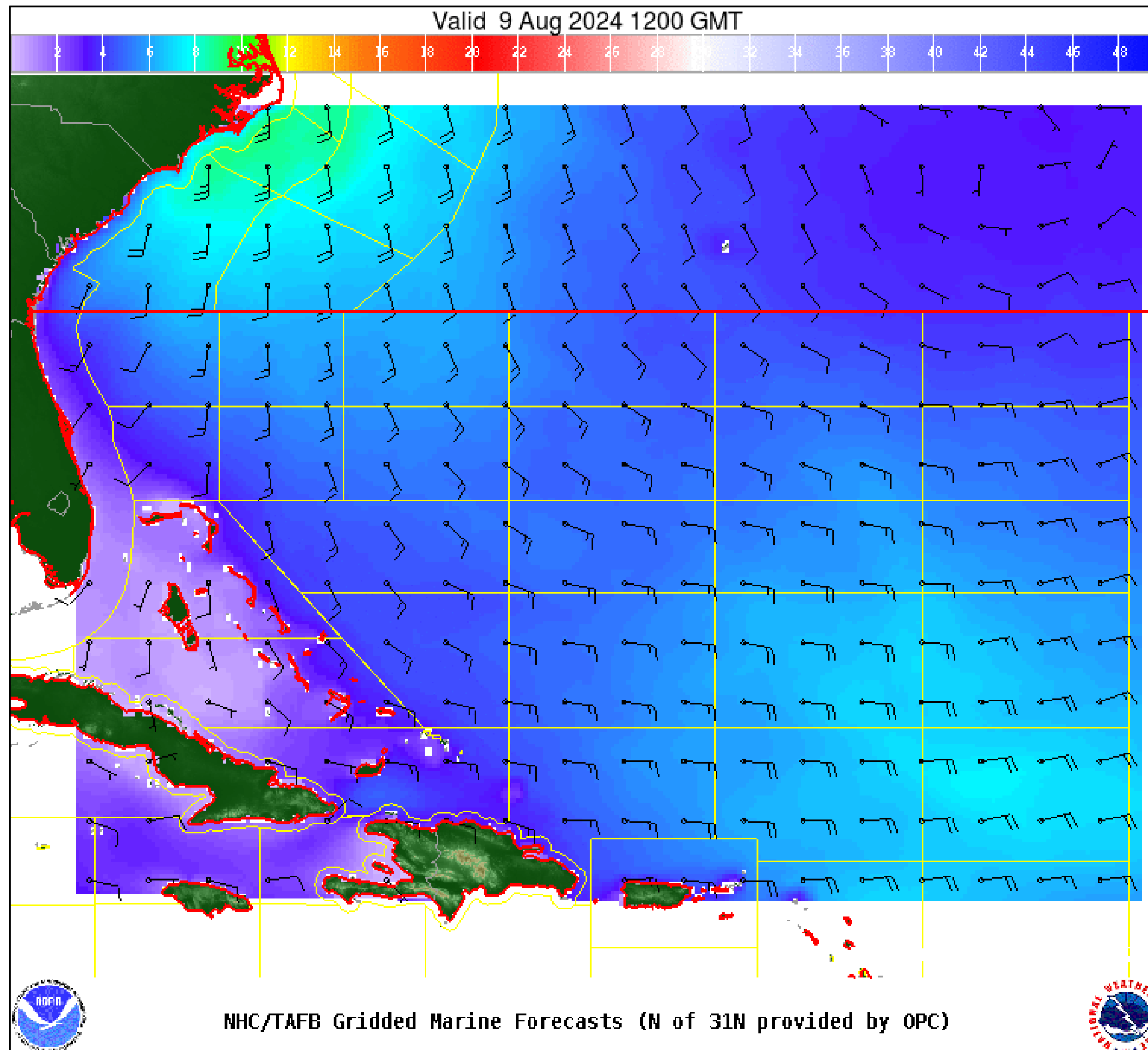
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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48 Hour Forecast

Friday, August 9 at 8am EDT

Peak Winds: 25 kt

Peak Seas: 6-9 ft

- Wave heights are in feet



Significant Wave Height (ft)

Time of Departure

Tropical Storm Debby



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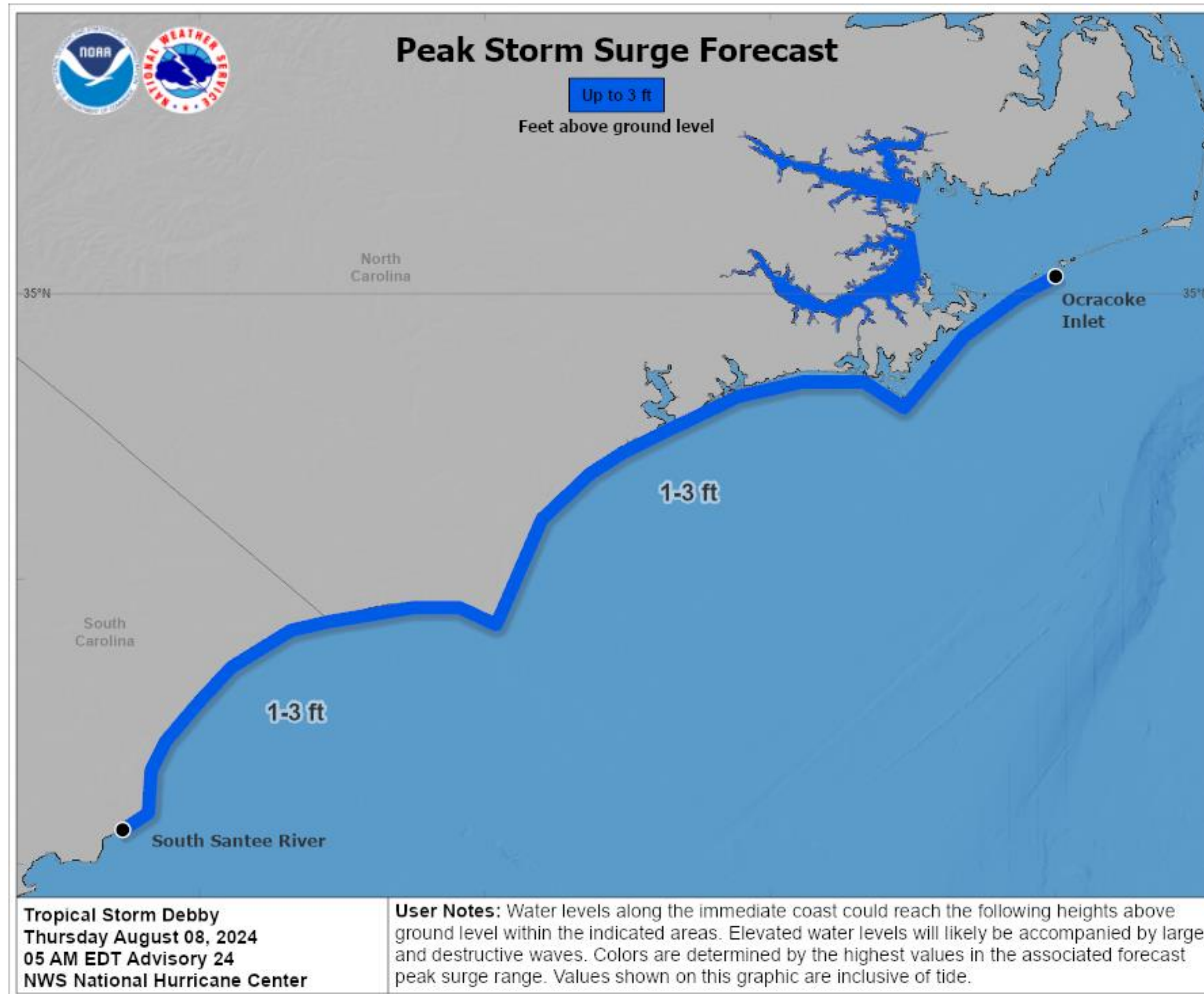
City	Most Likely	Latest Reasonable
Charleston, SC	Thursday morning	Thursday afternoon
Myrtle Beach, SC	Early Thursday afternoon	Thursday evening

Potential Storm Surge

Tropical Storm Debby



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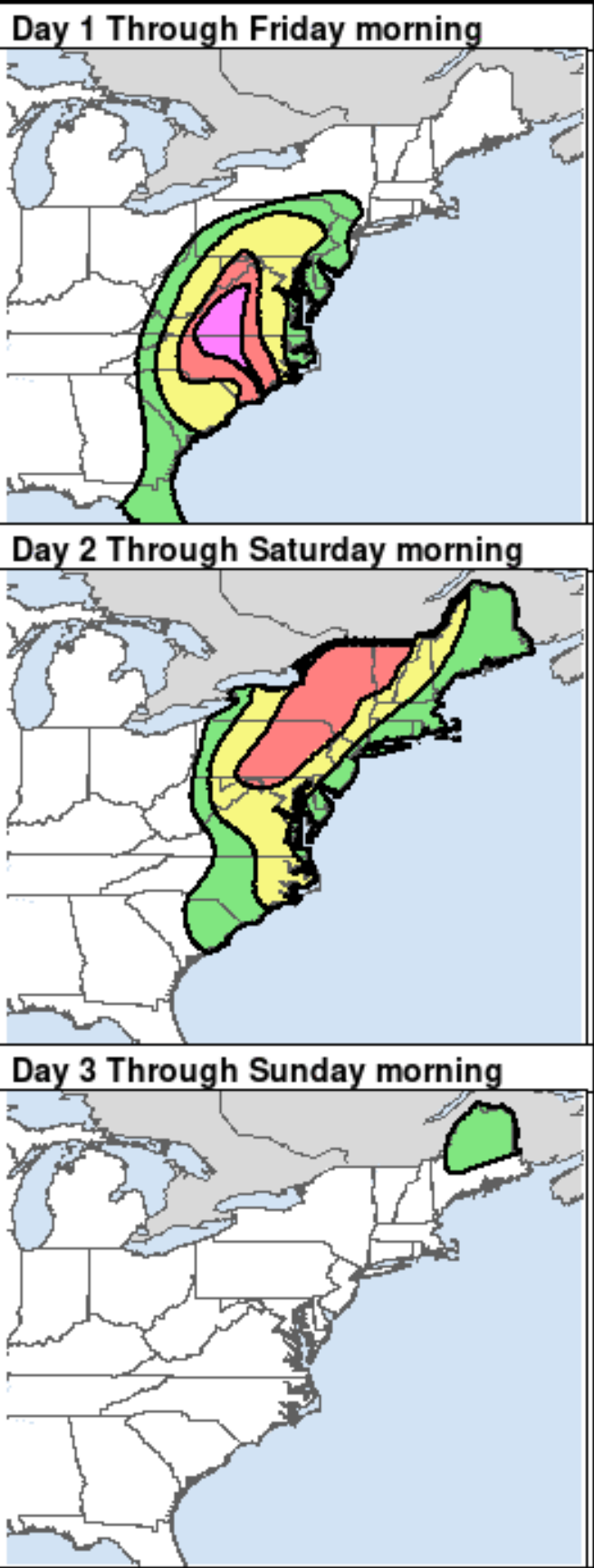
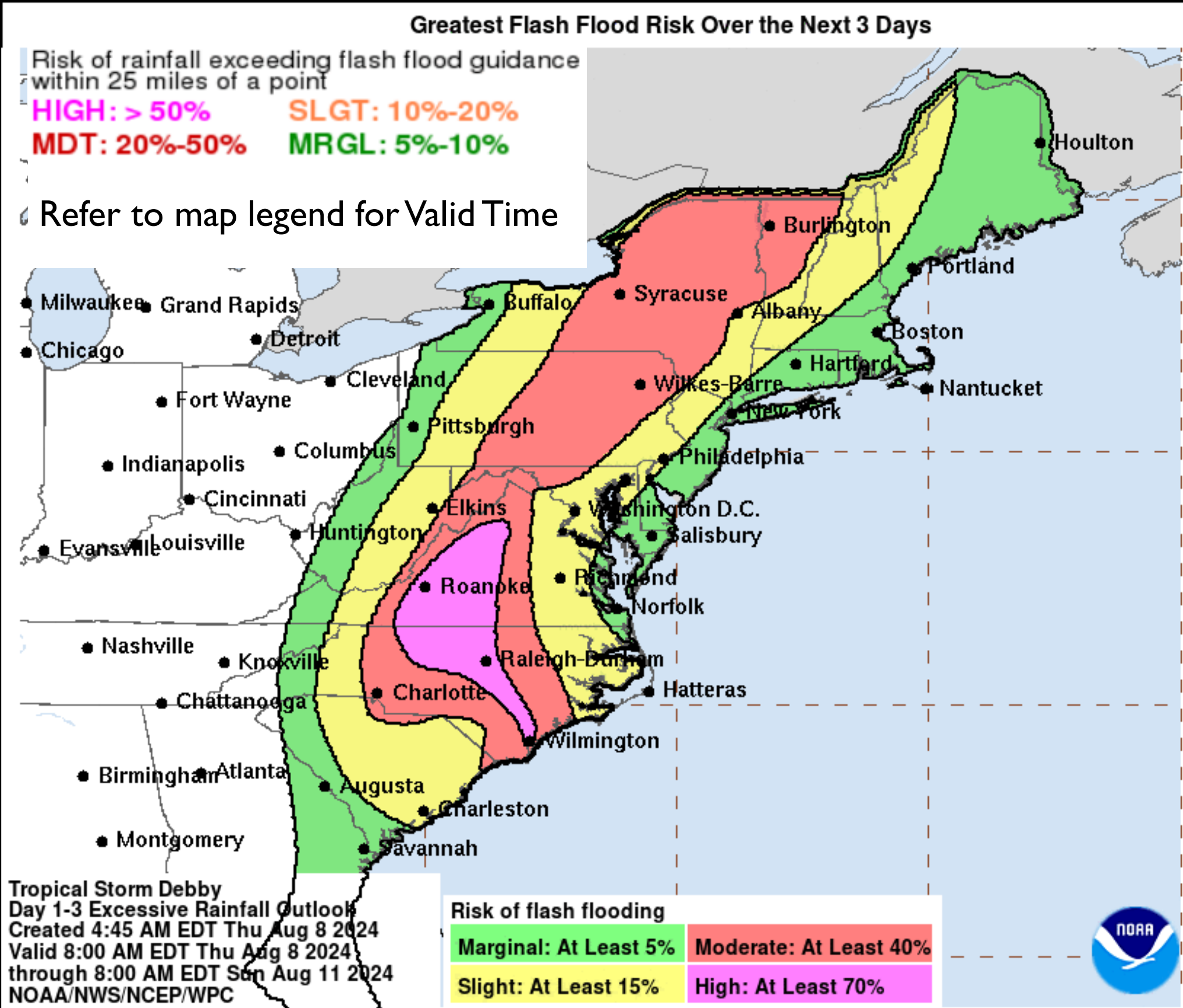
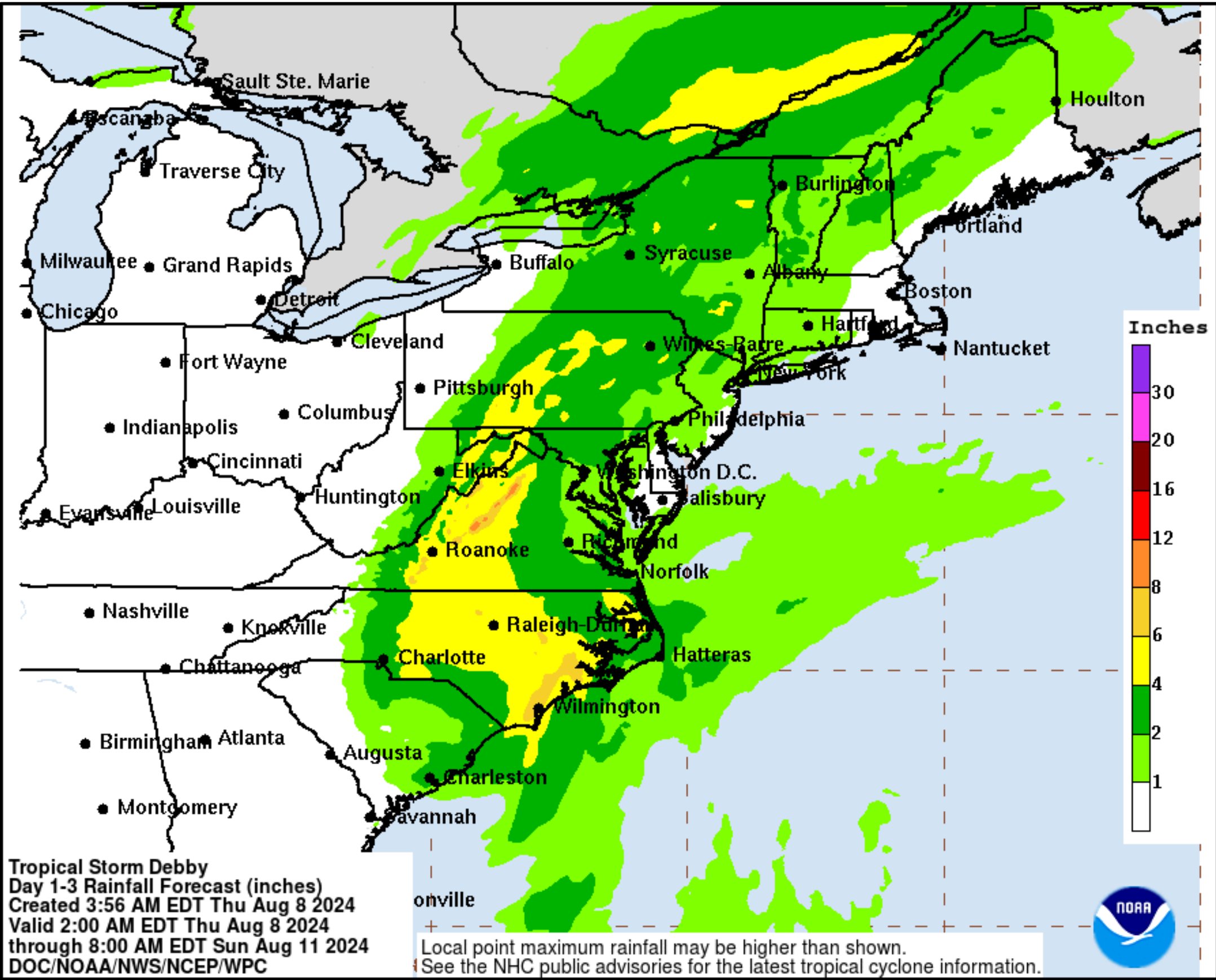
Expected Storm Total Rainfall and Chance of Rainfall Flooding

Tropical Storm Debby

Images from NWS Weather Prediction Center



Tropical Analysis and Forecast Branch
NWS National Hurricane Center



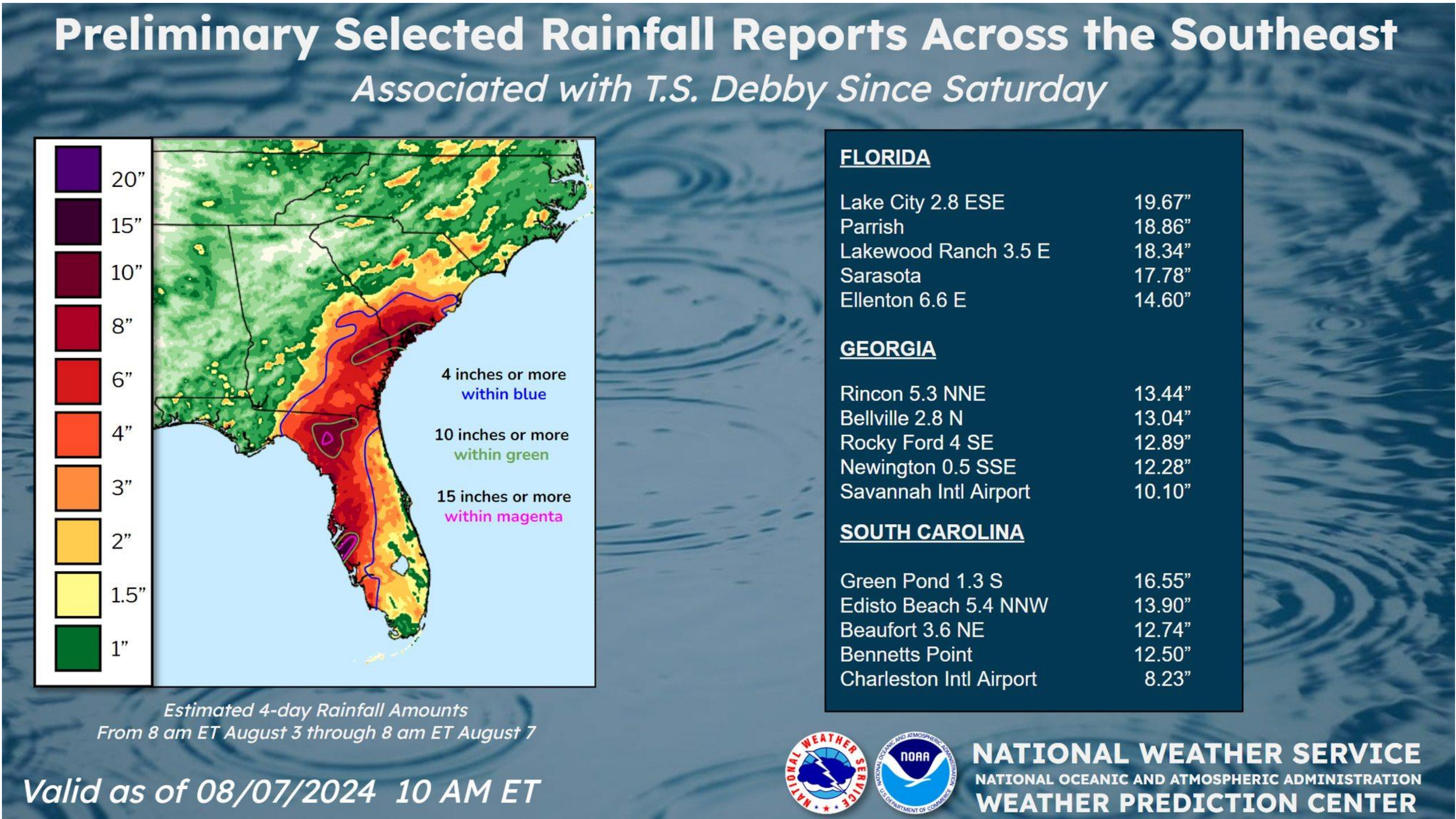
- Debby is expected to produce an additional 3 to 6 inches of rainfall with locally higher amounts, across portions of southeastern North Carolina leading to maximum storm total amounts as high as 15 inches.
- Additional rainfall of 1 to 3 inches over portions of eastern South Carolina will bring maximum storm total amounts as high as 20 to 25 inches.
- Considerable flooding is expected across portions of eastern 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

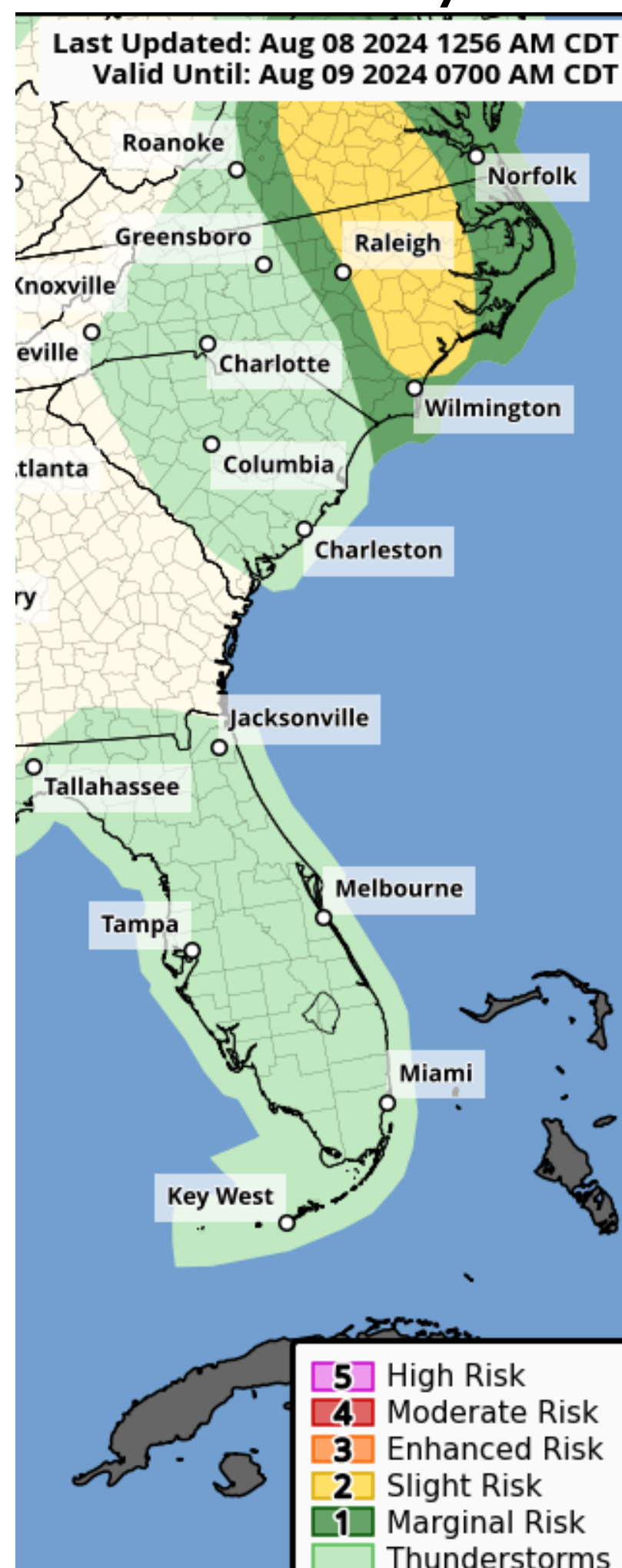
Tropical Storm Debby

Image from NWS Storm Prediction Center



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NWS National Hurricane Center

Thursday





Key Messages

Tropical Storm Debby



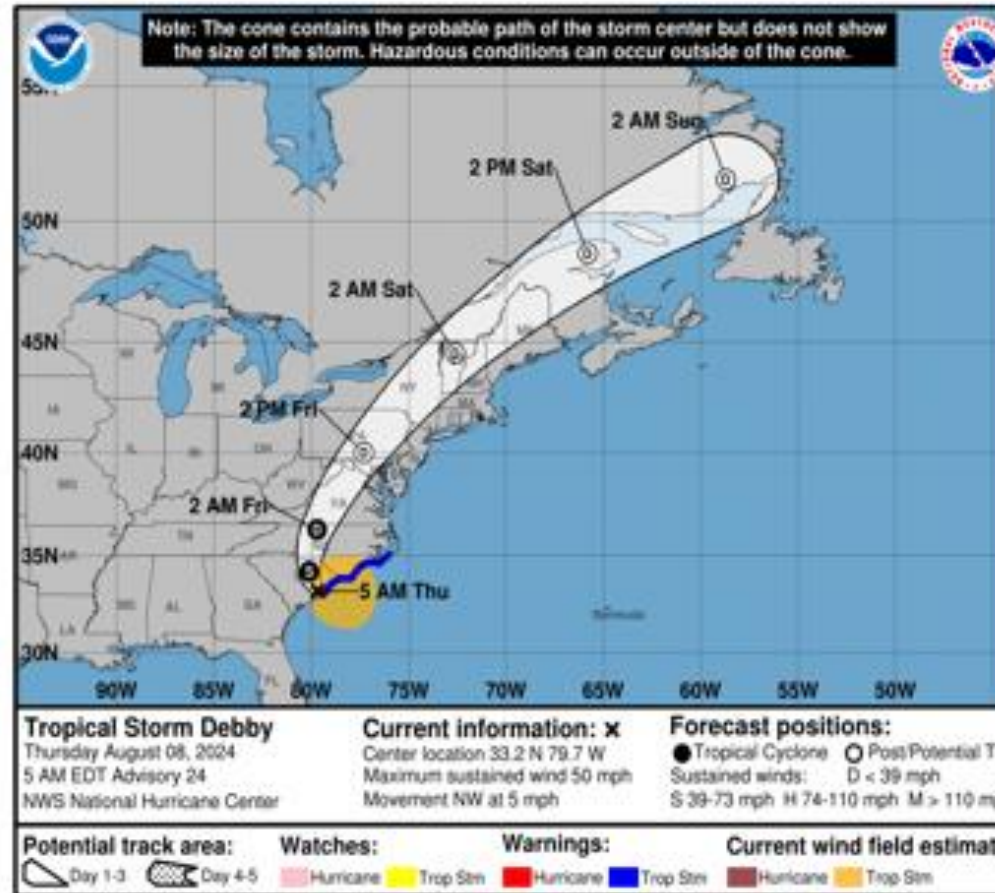
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NWS National Hurricane Center



Key Messages for Tropical Storm Debby

Advisory 24: 5:00 AM EDT Thu Aug 08, 2024

1. Heavy rainfall across portions of the Carolinas is expected to persist through today along with areas of considerable flooding. Heavy rainfall will also result in considerable flooding impacts across portions of the Mid-Atlantic States and Northeast through Saturday morning.
2. Tropical storm conditions will continue to affect portions of the South Carolina and North Carolina coasts today.
3. Coastal flooding due to storm surge is likely along portions of the South Carolina and North Carolina coastline through today.



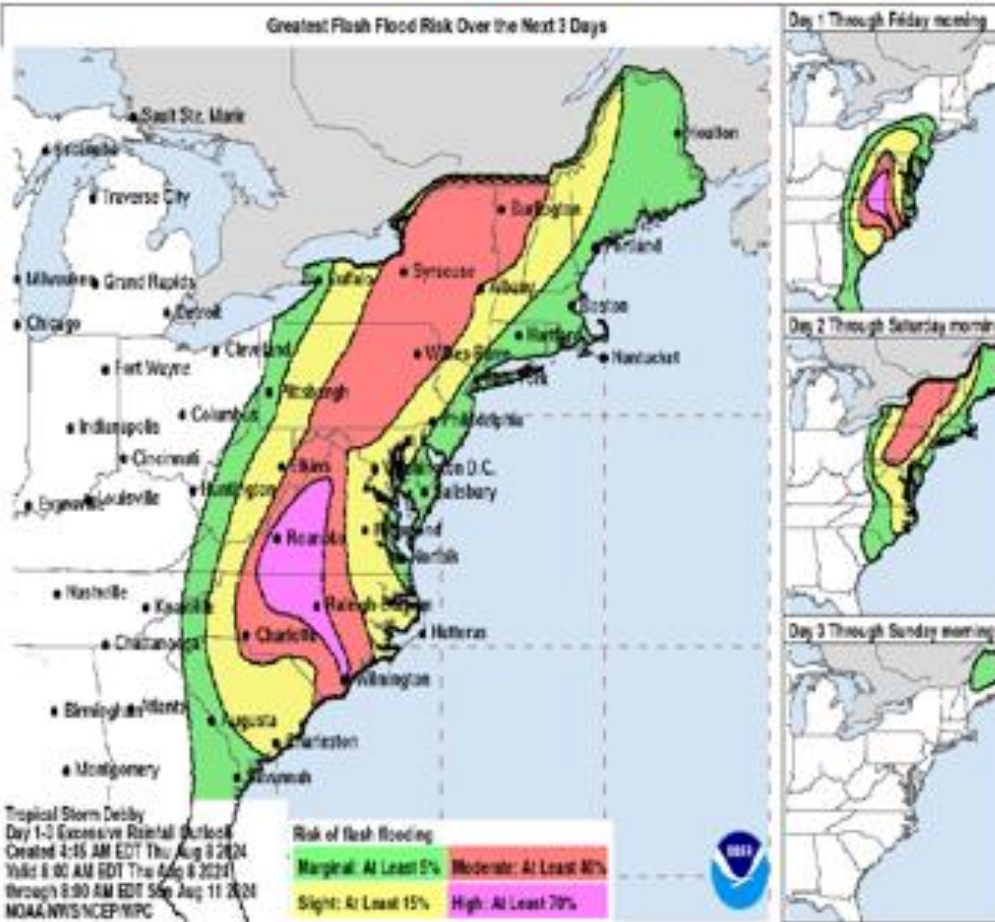
Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

Tropical Storm Debby
Thursday August 08, 2024
5 AM EDT Advisory 24
NWS National Hurricane Center

Current information: x
Center location 33.2 N 79.7 W
Maximum sustained wind 50 mph
Movement NW at 5 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 3 Days

Risk of Flash Flooding:
Marginal: At Least 5%
Slight: At Least 15%
Moderate: At Least 40%
High: At Least 70%

Tropical Storm Debby
Day 1-3 Excessive Rainfall Outlook
Created 4:45 AM EDT Thu Aug 8 2024
Valid 8:00 AM EDT Thu Aug 8 2024
Through 8:00 AM EDT Sat Aug 10 2024
NOAA/NWS/NCEP/WWP

For more information go to hurricanes.gov

Marine Key Messages:

- Conditions off the South Carolina coast will improve tonight into Friday

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



This briefing was prepared by:
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TROPICAL STORM DEBBY BRIEFING

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

The Next Briefing Will Be:
Thursday, 5:00 PM EDT

You can always find get the latest graphics and information for this storm at www.hurricanes.gov



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