

IMPACTS FOR D7 (through next 5 days)

Winds – Medium

Storm Surge – Medium

Rainfall/Flash Flooding – Extreme

Tornadoes – Low

Waves - Medium

TROPICAL STORM DEBBY BRIEFING



9:00 AM EDT

Wednesday, August 7, 2024

Prepared by:

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*Tropical Analysis and Forecast Branch
NWS National Hurricane Center*



NHC_TAFB

www.nhc.noaa.gov

Significant Changes

Tropical Storm Debby



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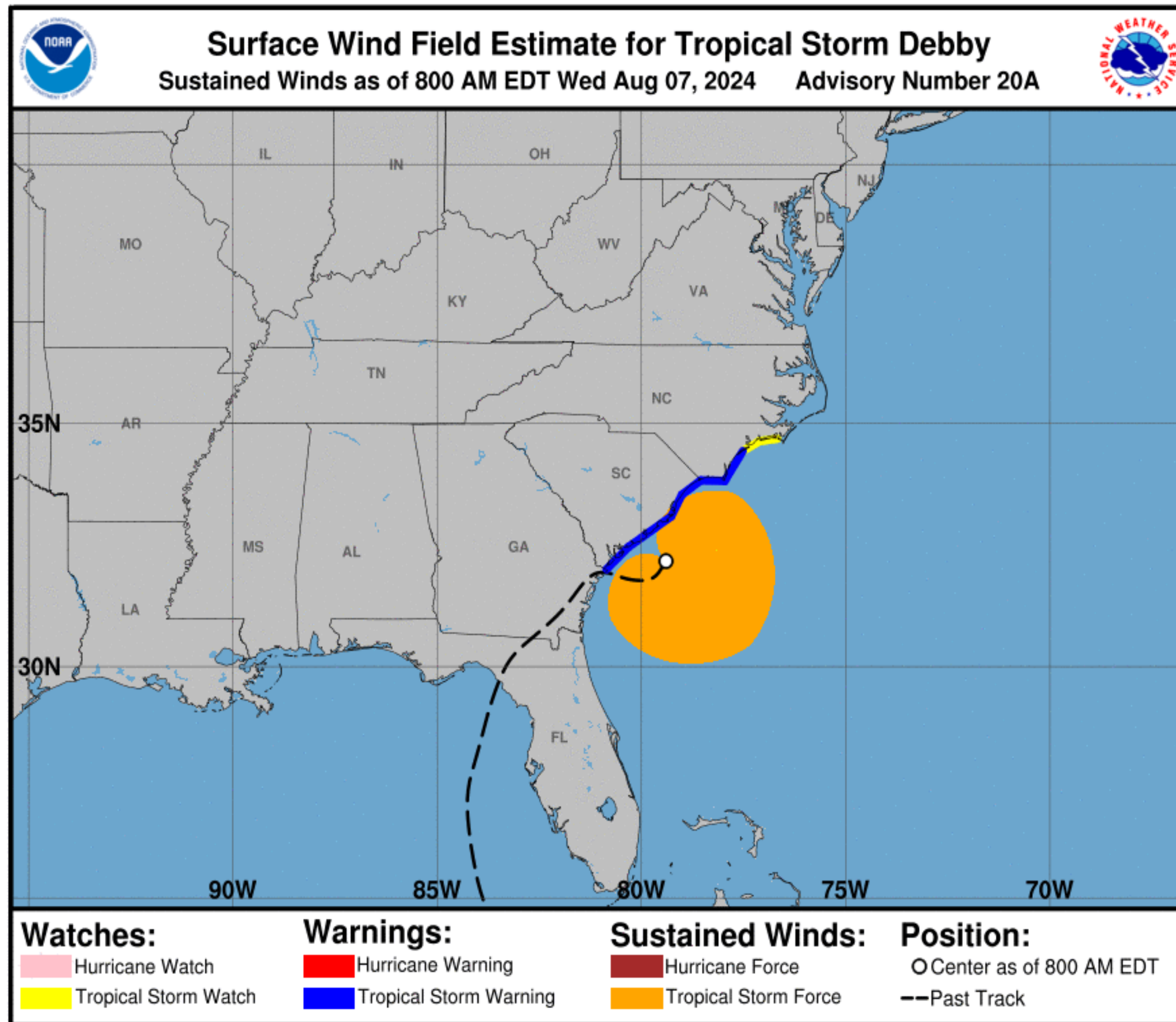
- None

Situation Overview

Tropical Storm Debby



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**...DEBBY MOVING SLOWLY
NORTHEASTWARD OFF THE SOUTH
CAROLINA COAST... ...MAJOR FLOOD
THREAT CONTINUES FOR PORTIONS OF THE
CAROLINAS...**

SUMMARY OF 800 AM EDT...INFORMATION

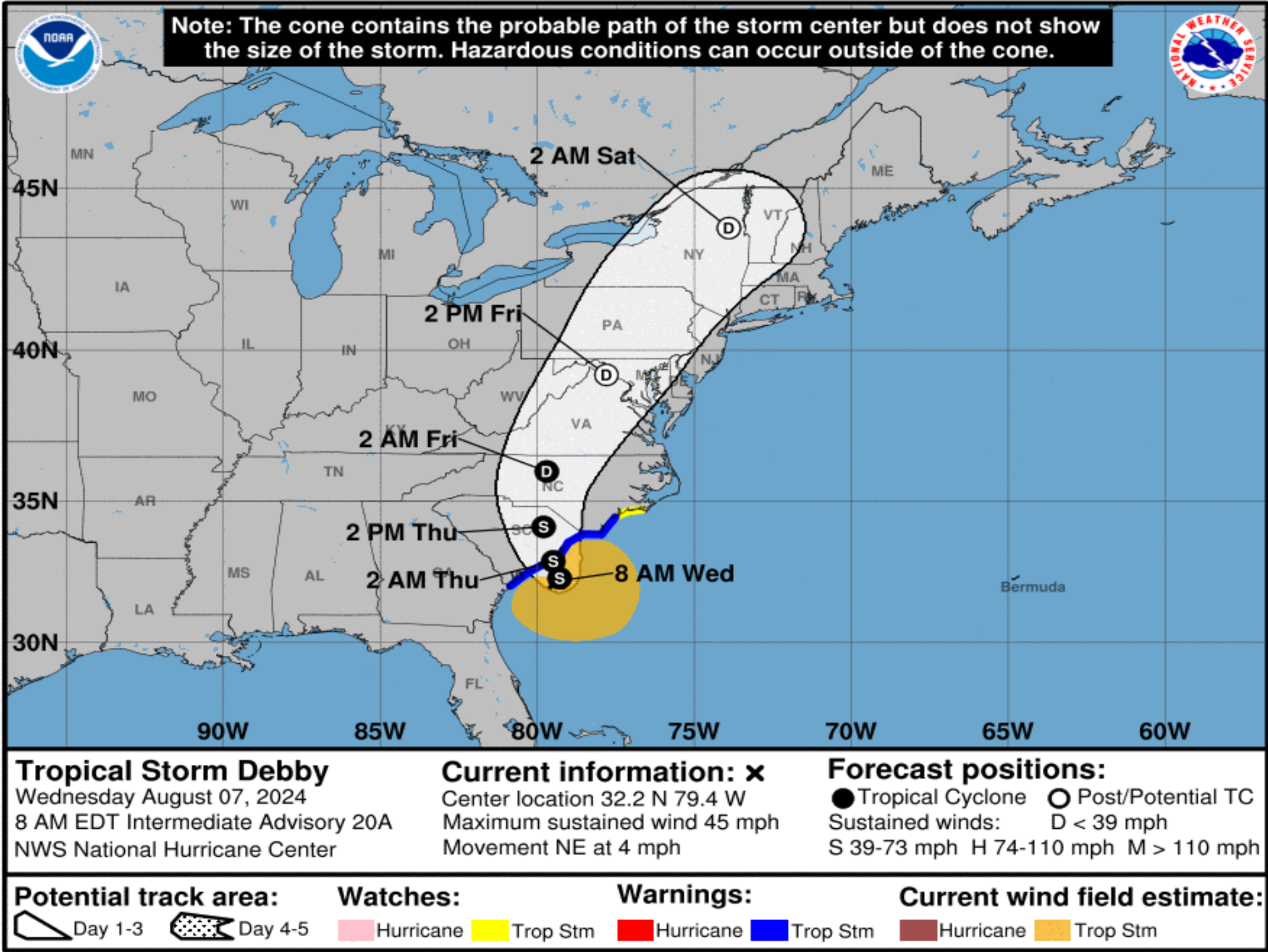
LOCATION...32.2N 79.4W
ABOUT 45 NM SE OF CHARLESTON SOUTH
CAROLINA
ABOUT 80 NM E OF SAVANNAH GEORGIA
MAXIMUM SUSTAINED WINDS...40 KT
PRESENT MOVEMENT...NE OR 50 DEGREES AT 4 KT
MINIMUM CENTRAL PRESSURE...995 MB

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.

- A turn toward the north and north-northwest is expected today, bringing the center of Debby to the South Carolina coast by tonight or early Thursday.
- A faster motion toward the north and north-northeast across the Carolinas and the U.S. Mid-Atlantic region is expected on Thursday and Friday.
- Some strengthening is possible today or tonight before the center of Debby reaches the coast of South Carolina. Weakening is forecast to begin on Thursday after the center moves inland.
- 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

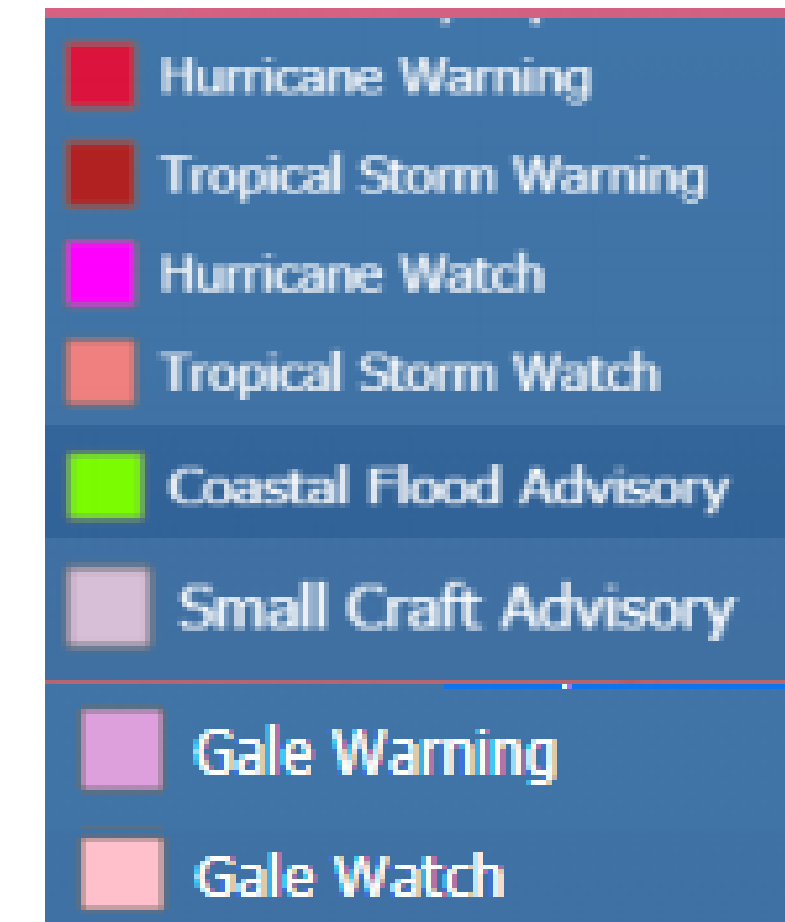
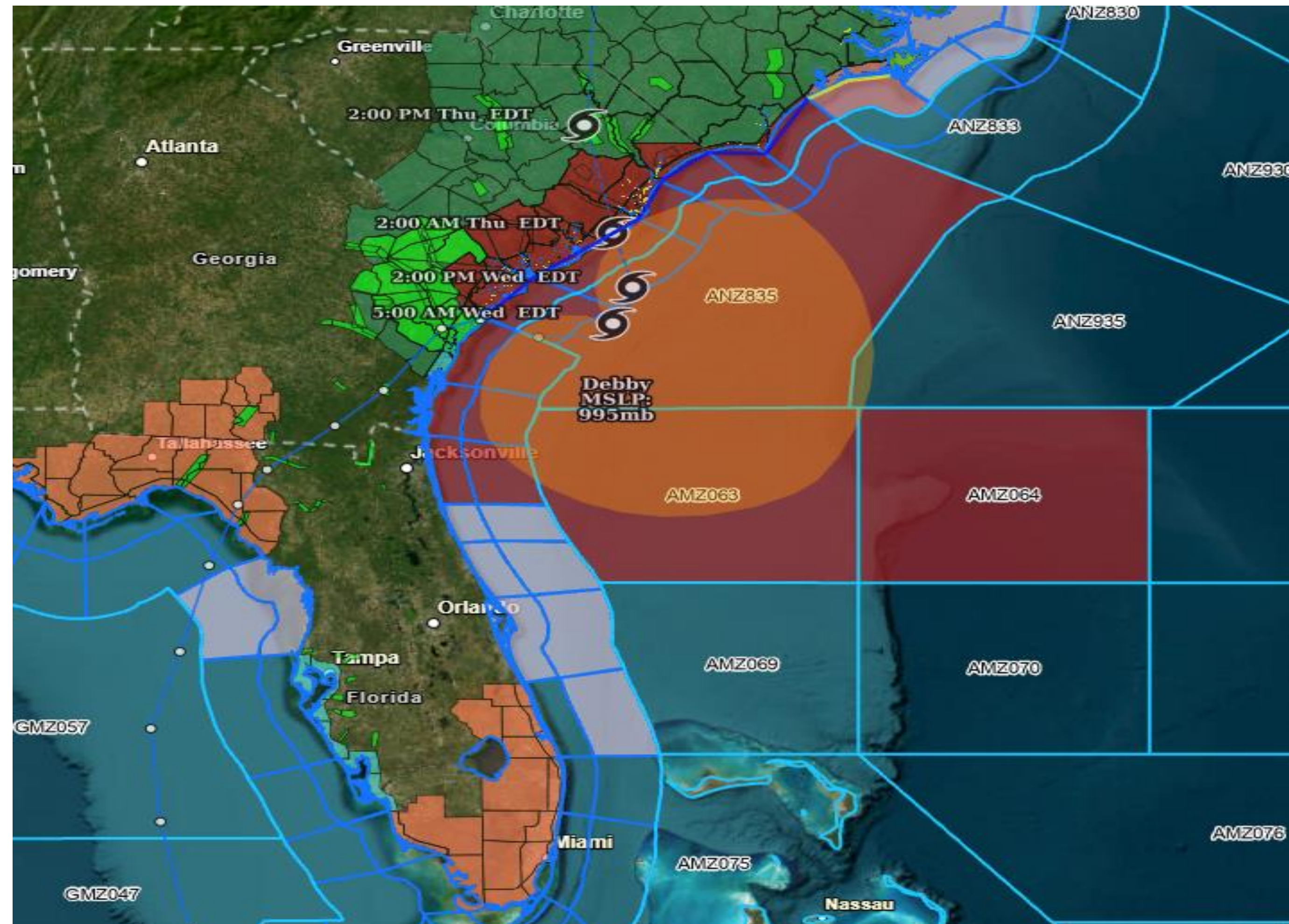
** Swaths are calculated using average track errors and actual track may be well inside, or possibly outside the potential track areas indicated.

Hazards Map

Tropical Storm Debby



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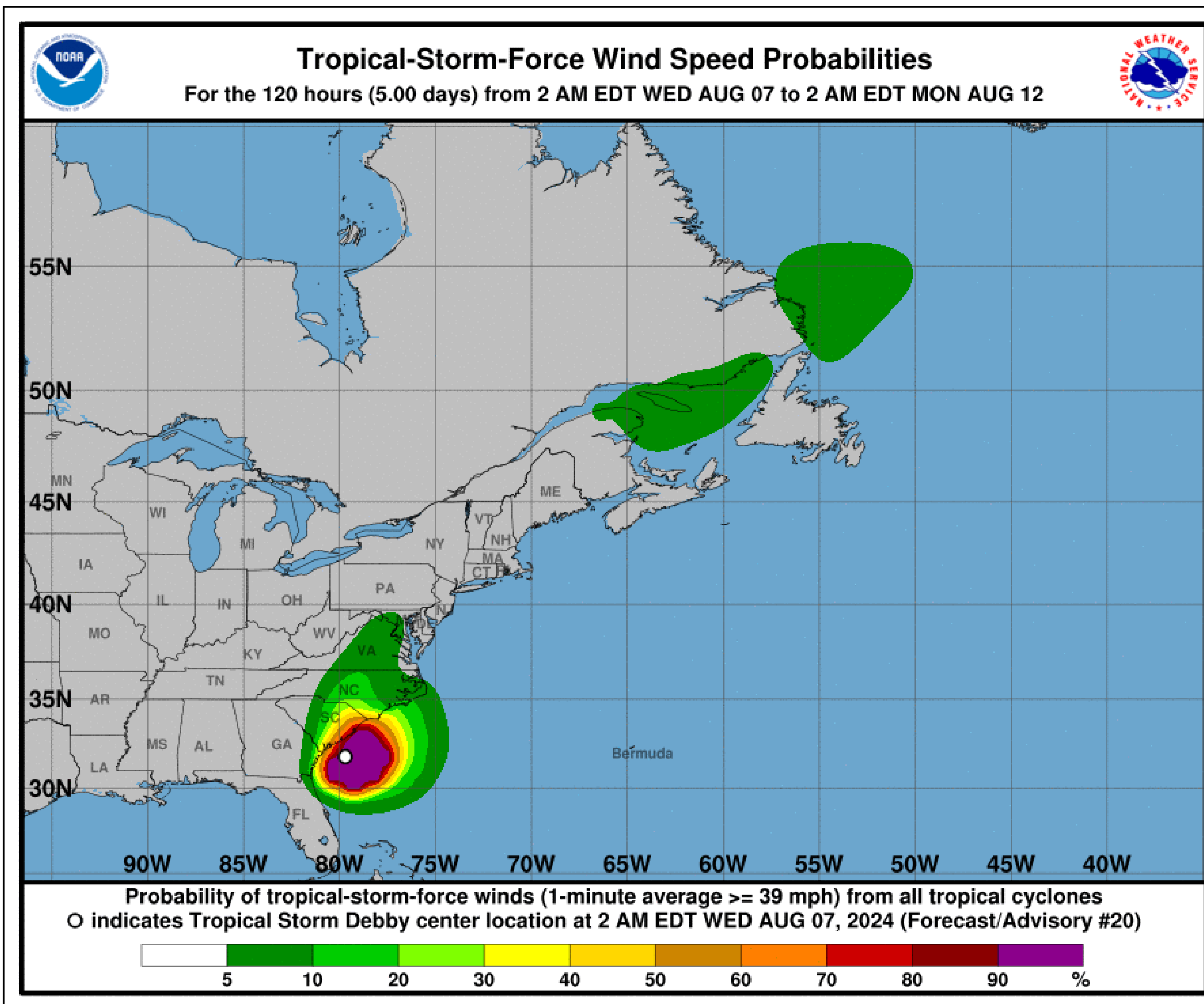


T.S. Wind Speed Probabilities

Tropical Storm Debby



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- SAVANNAH 16%
- BEAUFORT 47%
- CHARLESTON 67%
- MYRTLE BEACH 74%

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

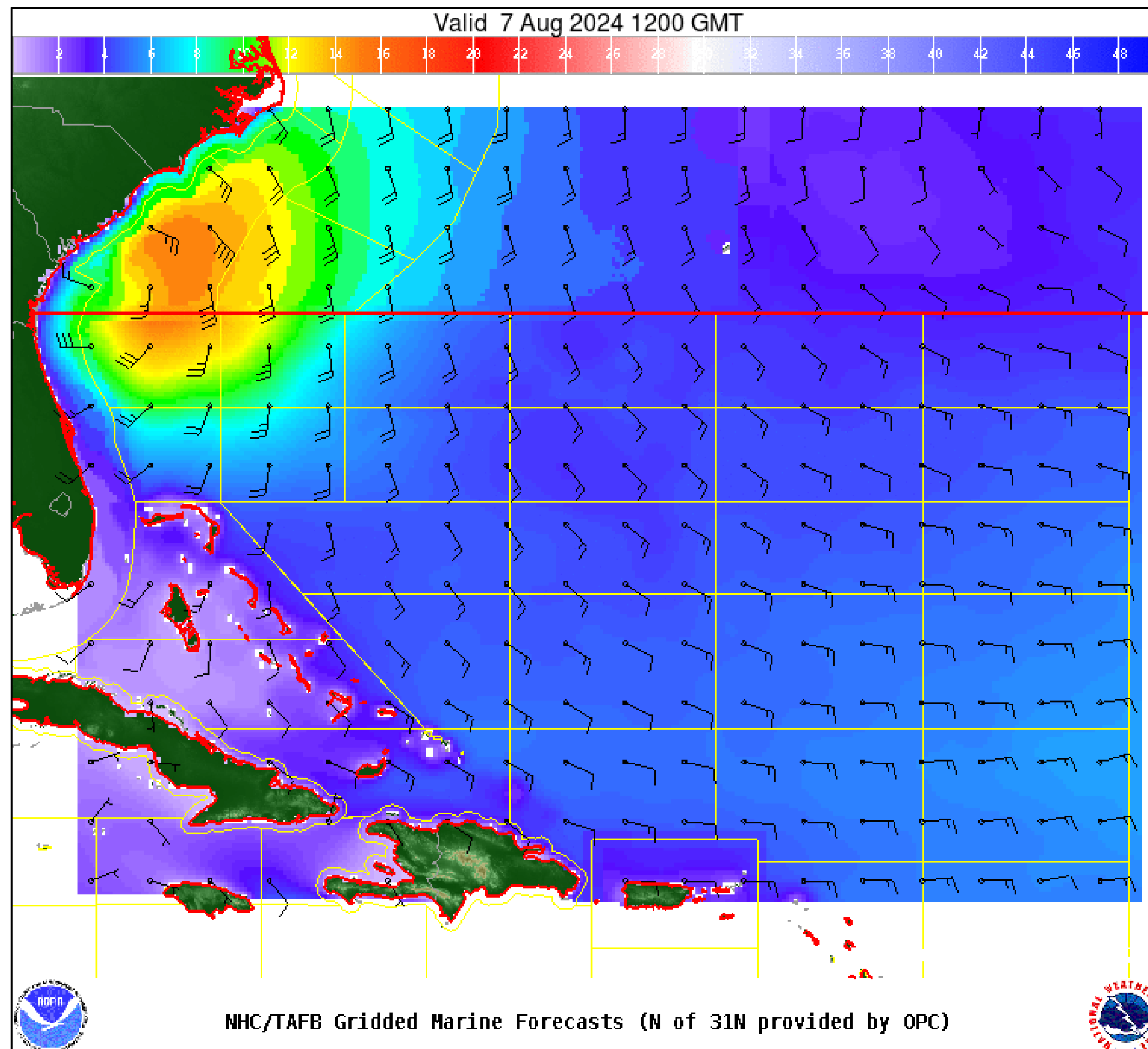
- Probabilities of sustained tropical storm force winds (34 kt to 63 kt) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71-100%
- See the color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

Wind And Waves

Tropical Storm Debby



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Current Conditions

Wednesday, August 7, 2024 at 8:00 AM EDT

Peak Winds: 40 kt

Peak Seas: 15 ft

- Wave heights are in feet



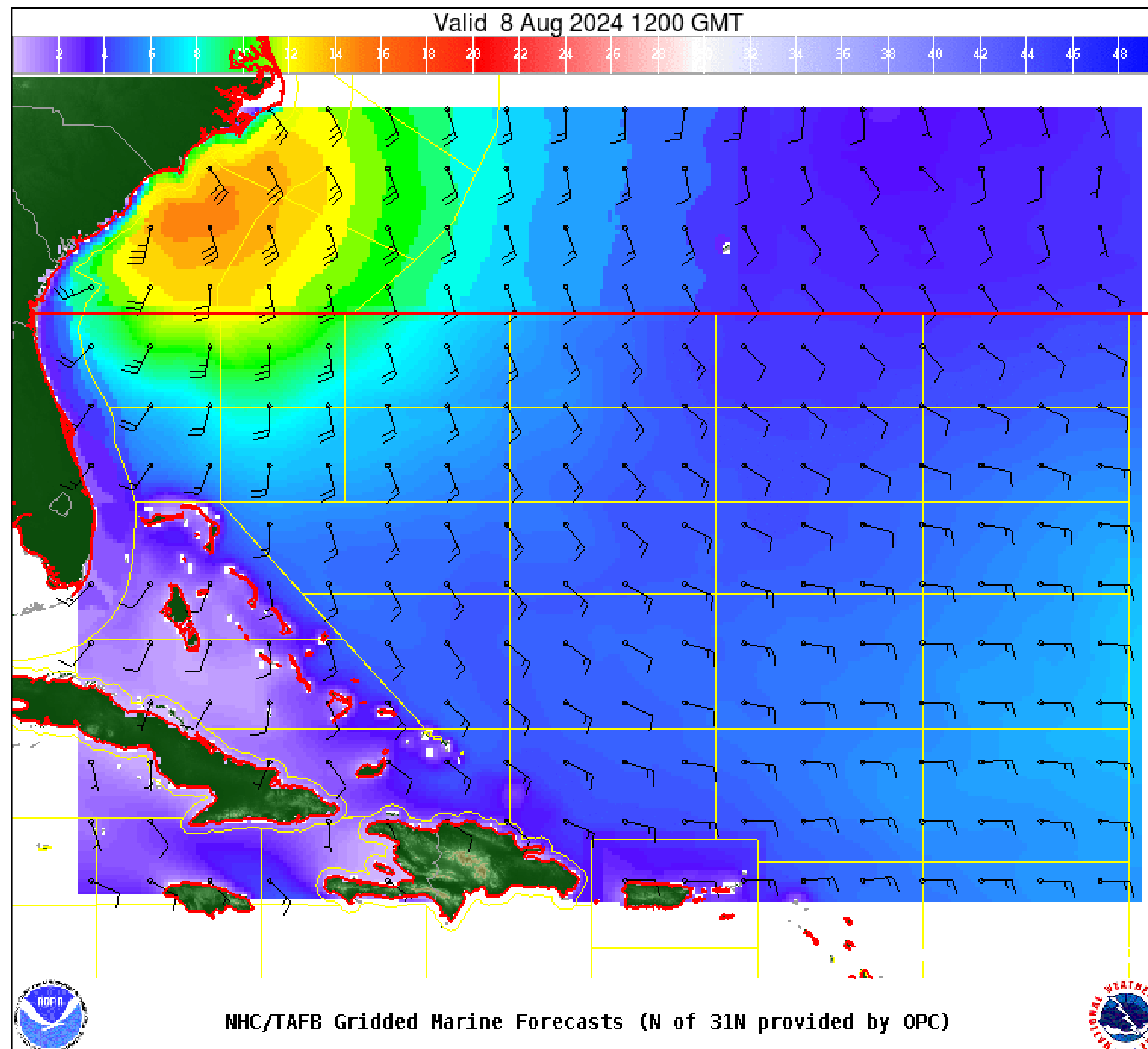
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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24 Hour Forecast

Thursday, August 8, 2024 at 8:00 AM EDT

Peak Winds: 40 kt

Peak Seas: 15 ft

- Wave heights are in feet



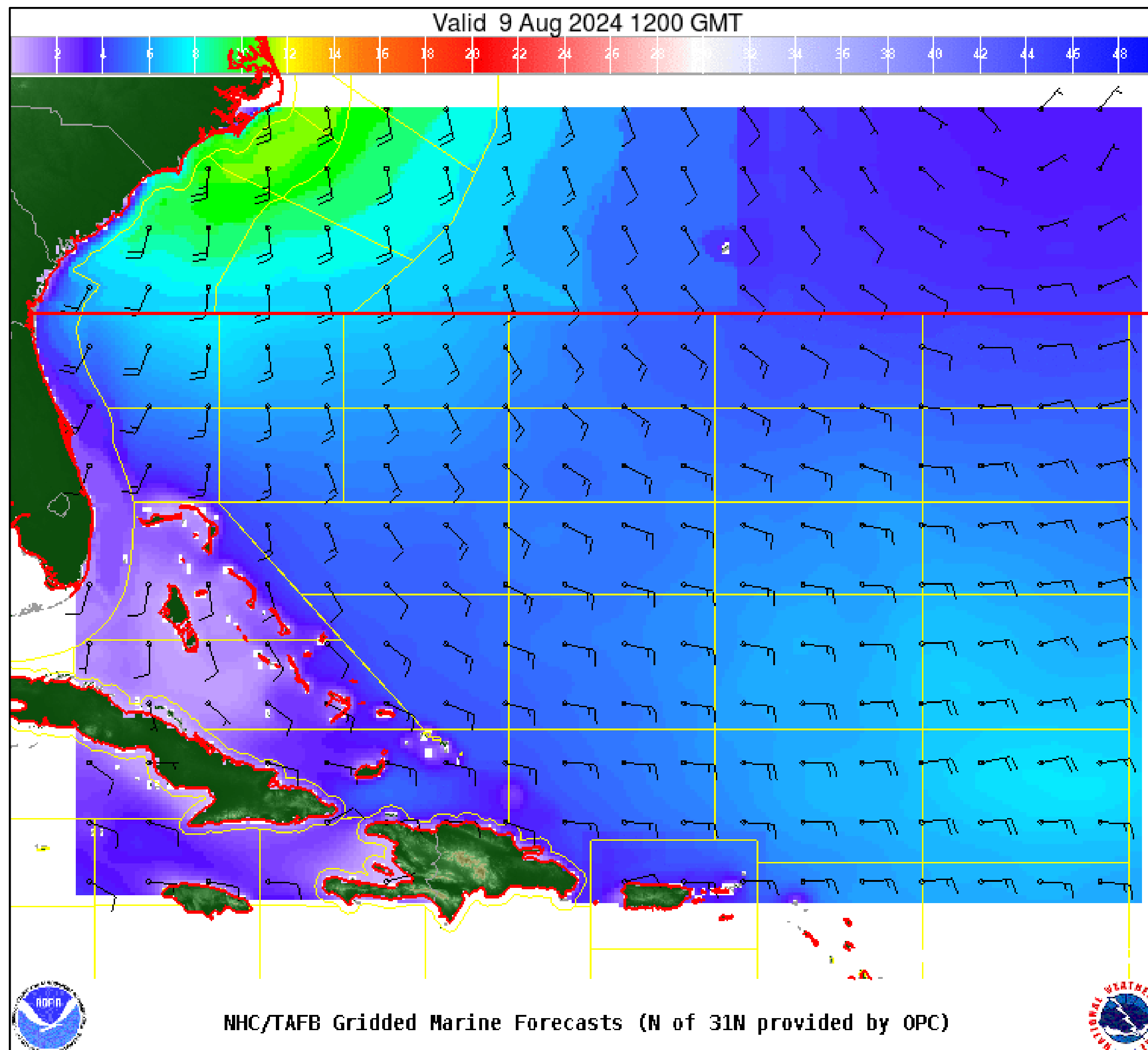
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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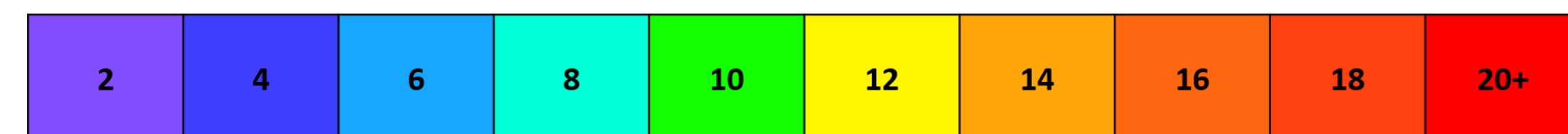
48 Hour Forecast

Friday, August 9, 2024 at 8:00 AM EDT

Peak Winds: 25 kt

Peak Seas: 10 ft

- Wave heights are in feet



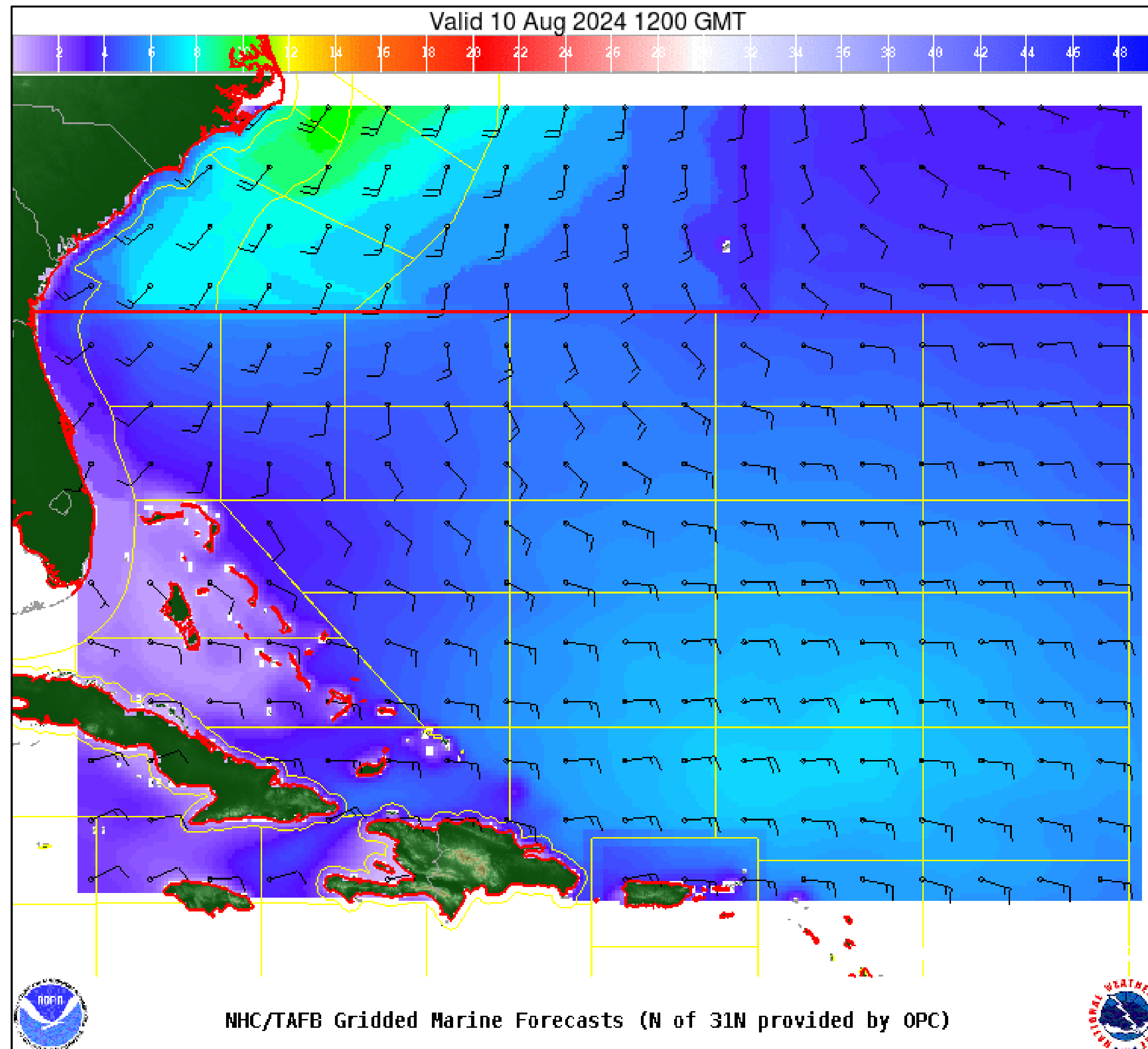
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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72 Hour Forecast

Saturday, August 10, 2024 at 8:00 AM EDT

Peak Winds: 20 kt

Peak Seas: 9 ft

- Wave heights are in feet



Significant Wave Height (ft)

Time of Departure

Tropical Storm Debby



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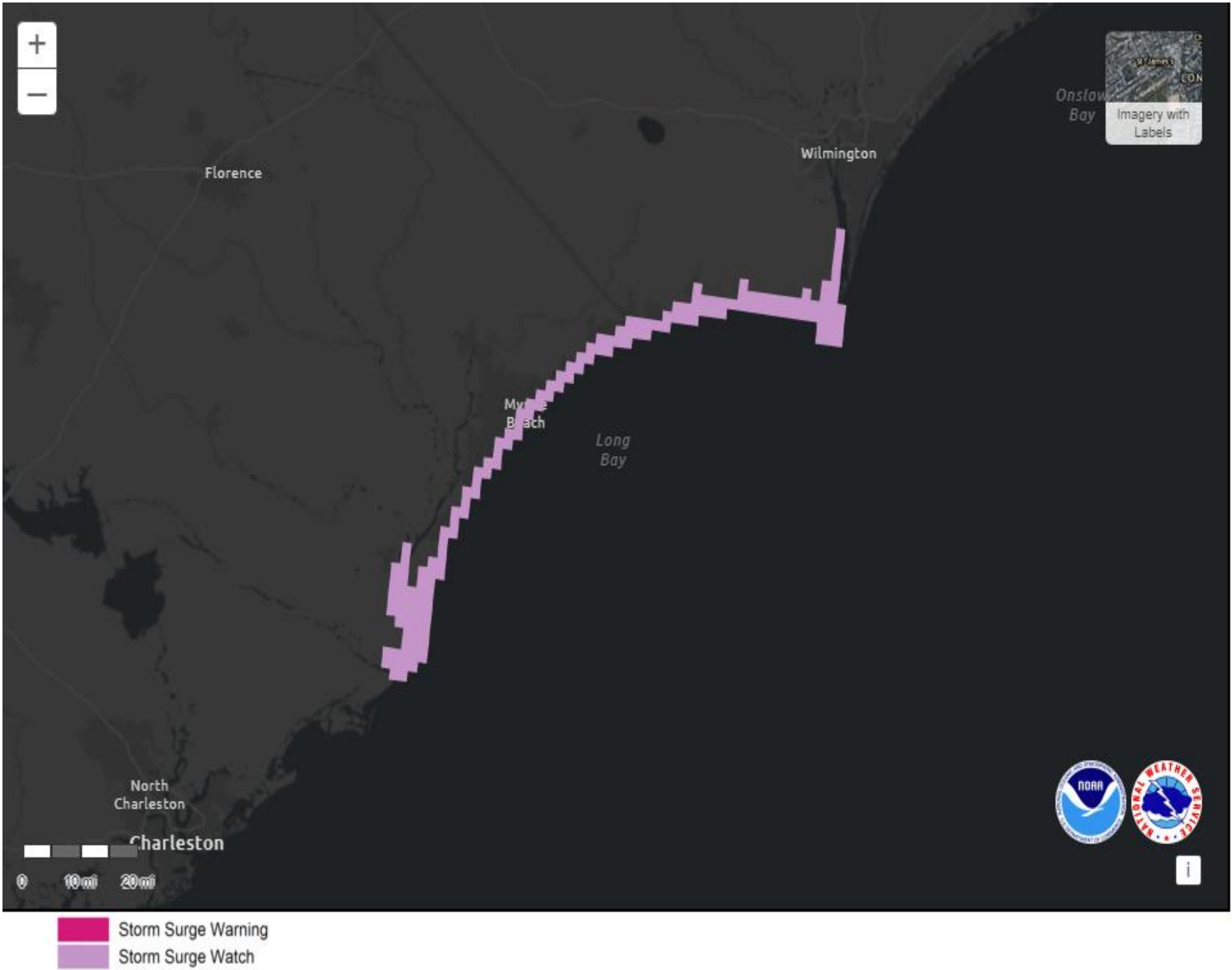
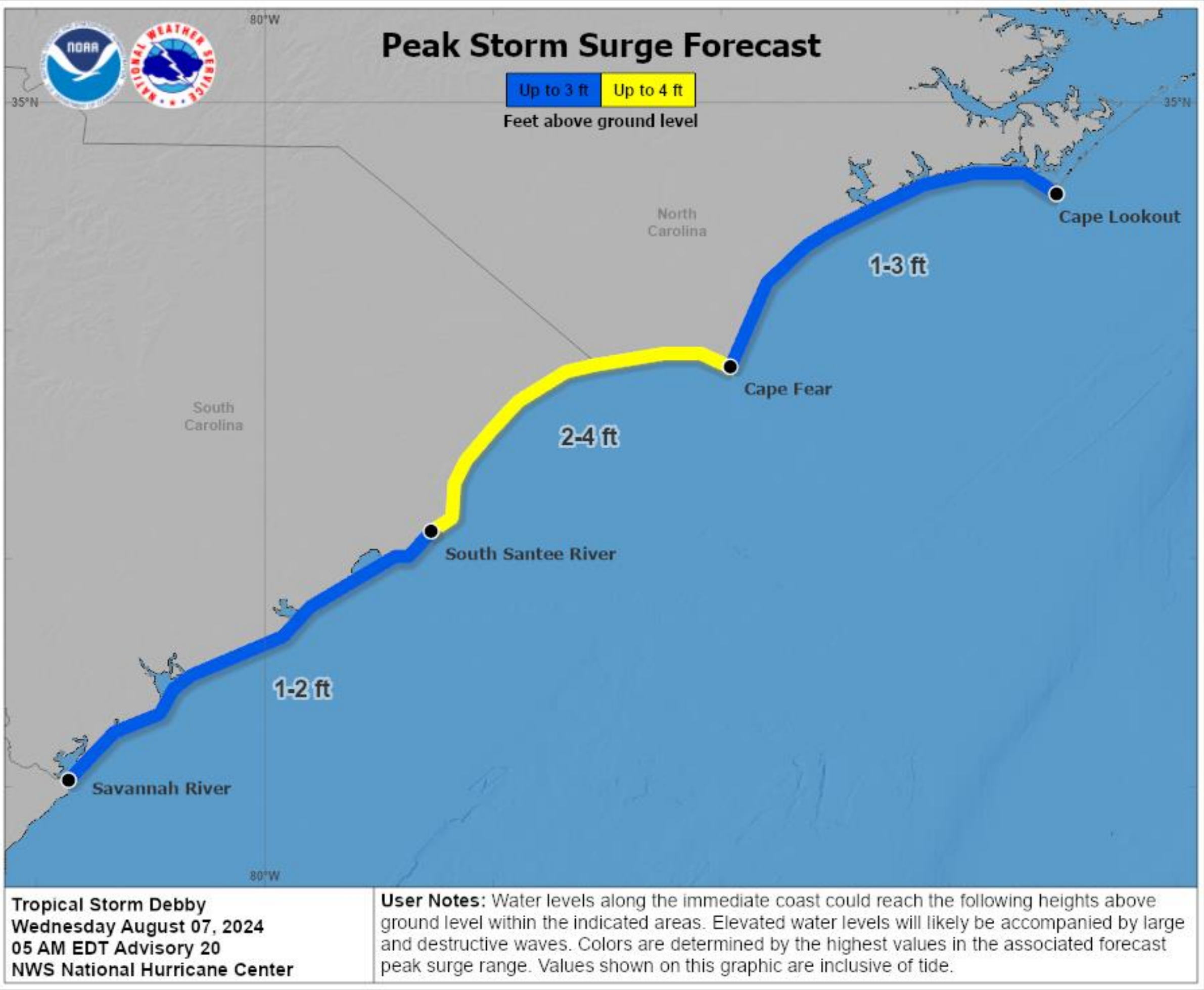
City	Most Likely	Latest Reasonable Time of Departure
Charleston, SC	Thursday morning	Thursday afternoon
Myrtle Beach, SC	Thursday early afternoon	Thursday evening

Potential Peak Storm Surge / Watches and Warnings



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Tropical Storm Debby



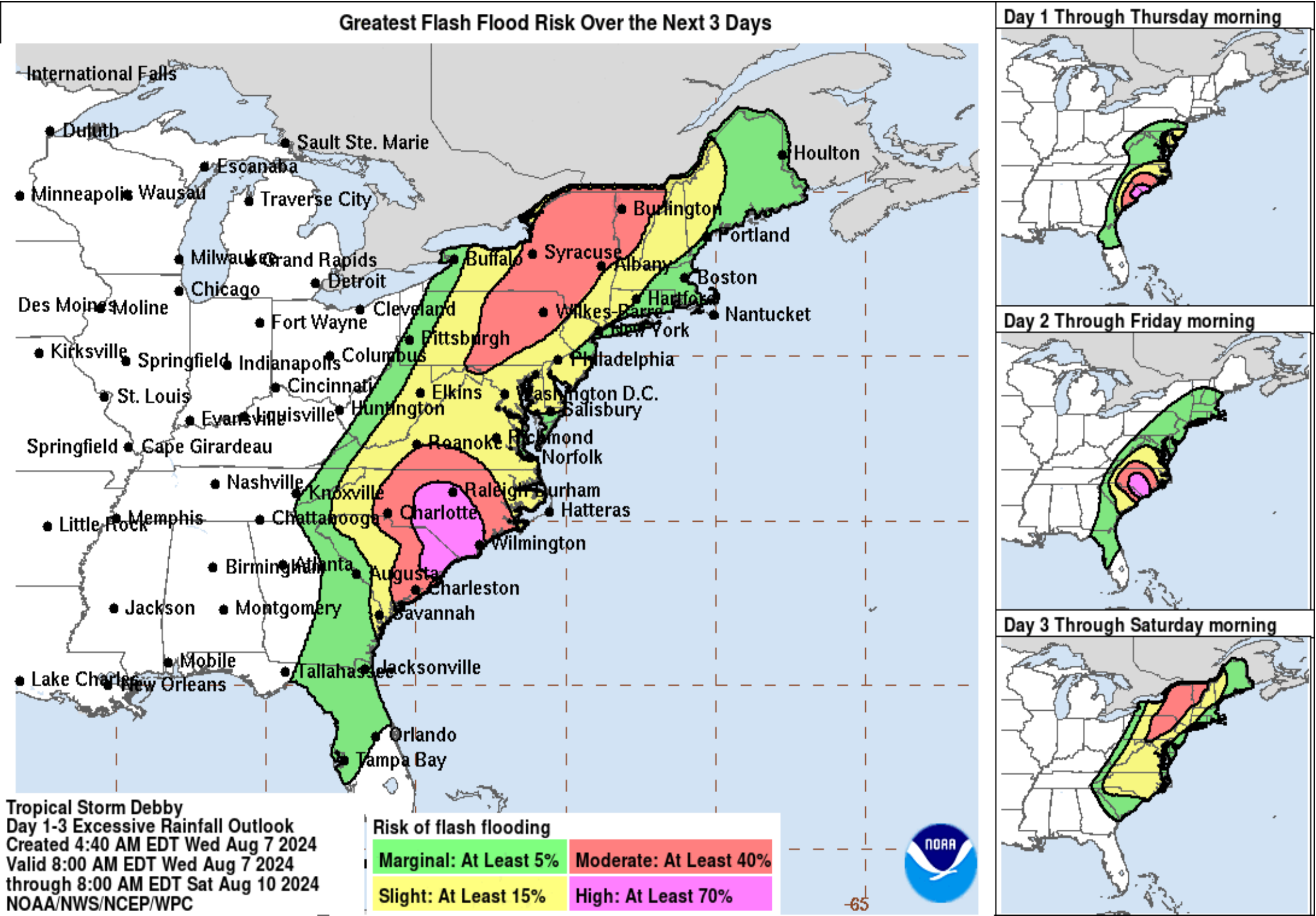
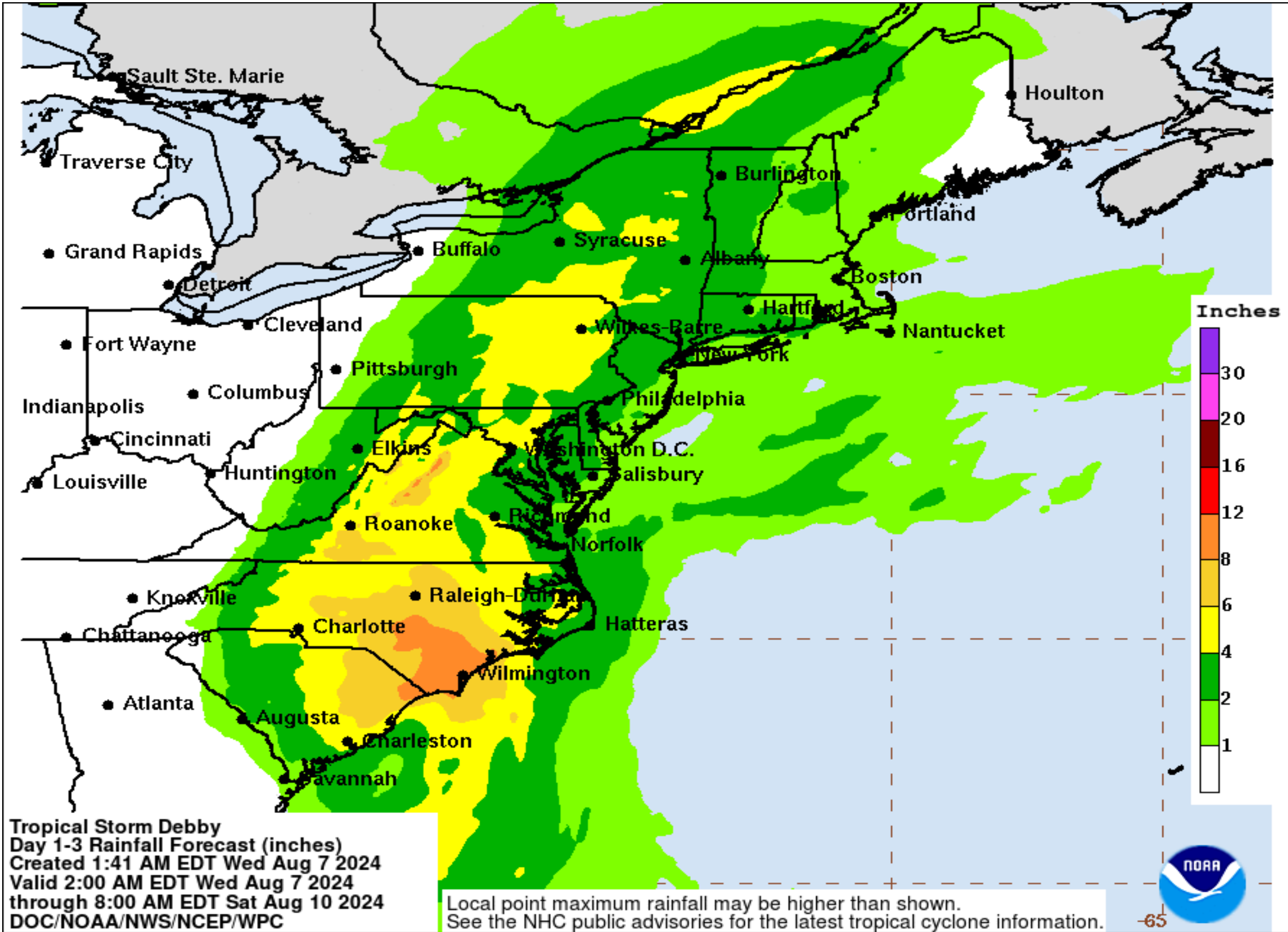
Expected Storm Total Rainfall and Chance of Rainfall Flooding



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NWS National Hurricane Center

Tropical Storm Debby

Images from NWS Weather Prediction Center



Risk of rainfall exceeding flash flood guidance within 25 miles of a point

HIGH: > 50% **SLGT: 10%-20%**
MDT: 20%-50% **MRGL: 5%-10%**

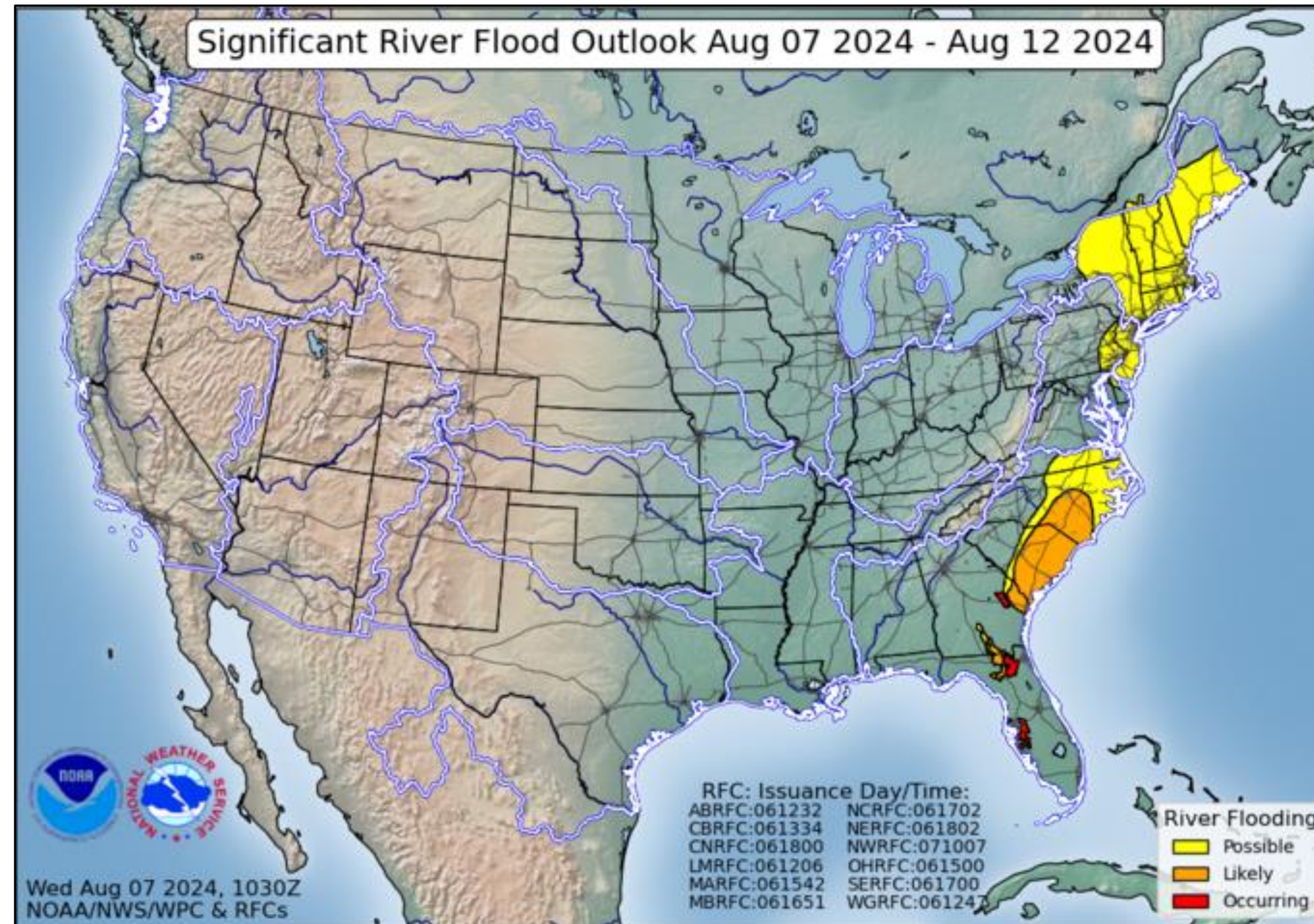
Refer to map legend for Valid Time

Flood Outlook

Tropical Storm Debby



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NWS National Hurricane Center



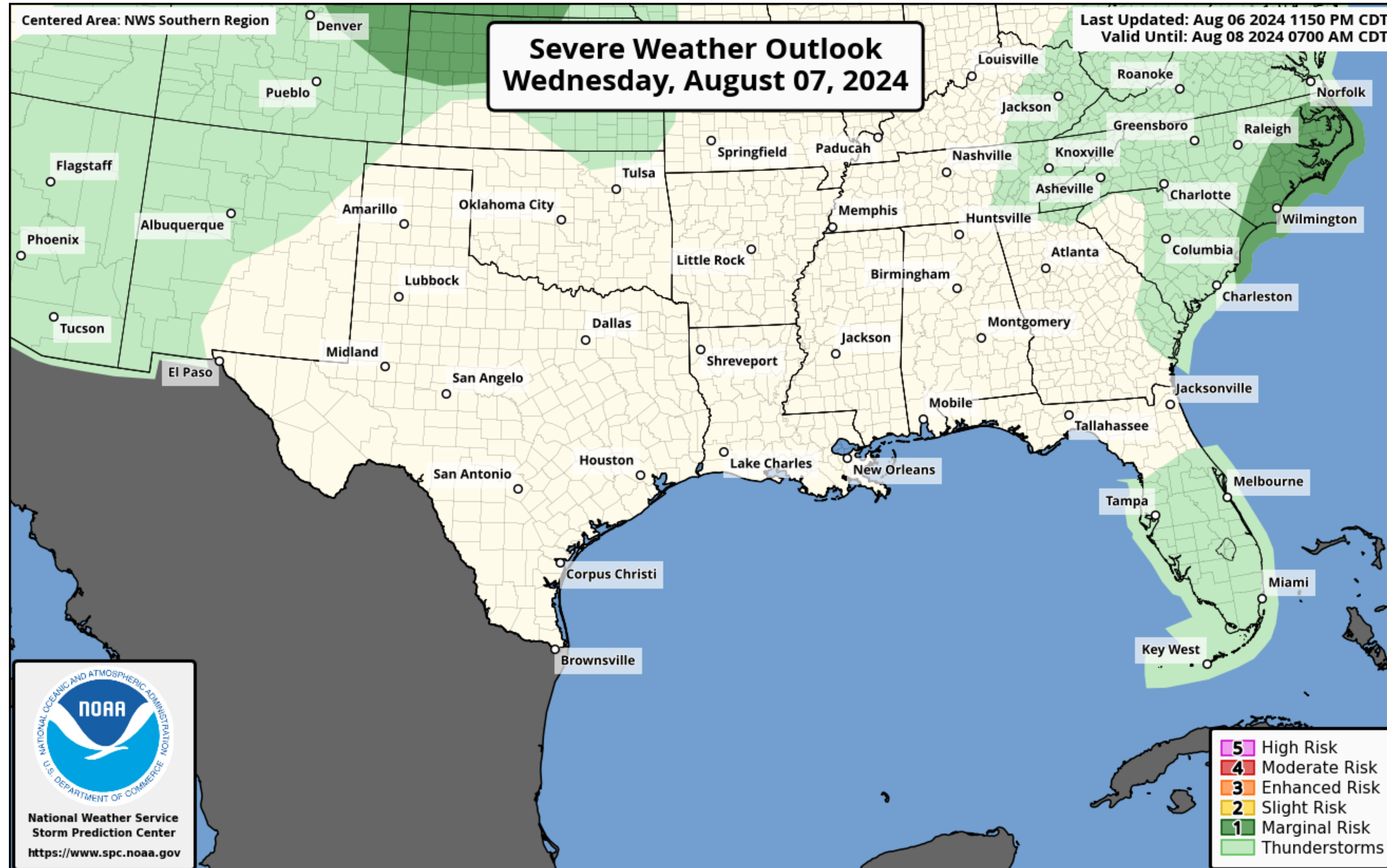
Tornado Outlook – Day 1

Tropical Storm Debby

Image from NWS Storm Prediction Center



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NWS National Hurricane Center





Key Messages

Tropical Storm Debby



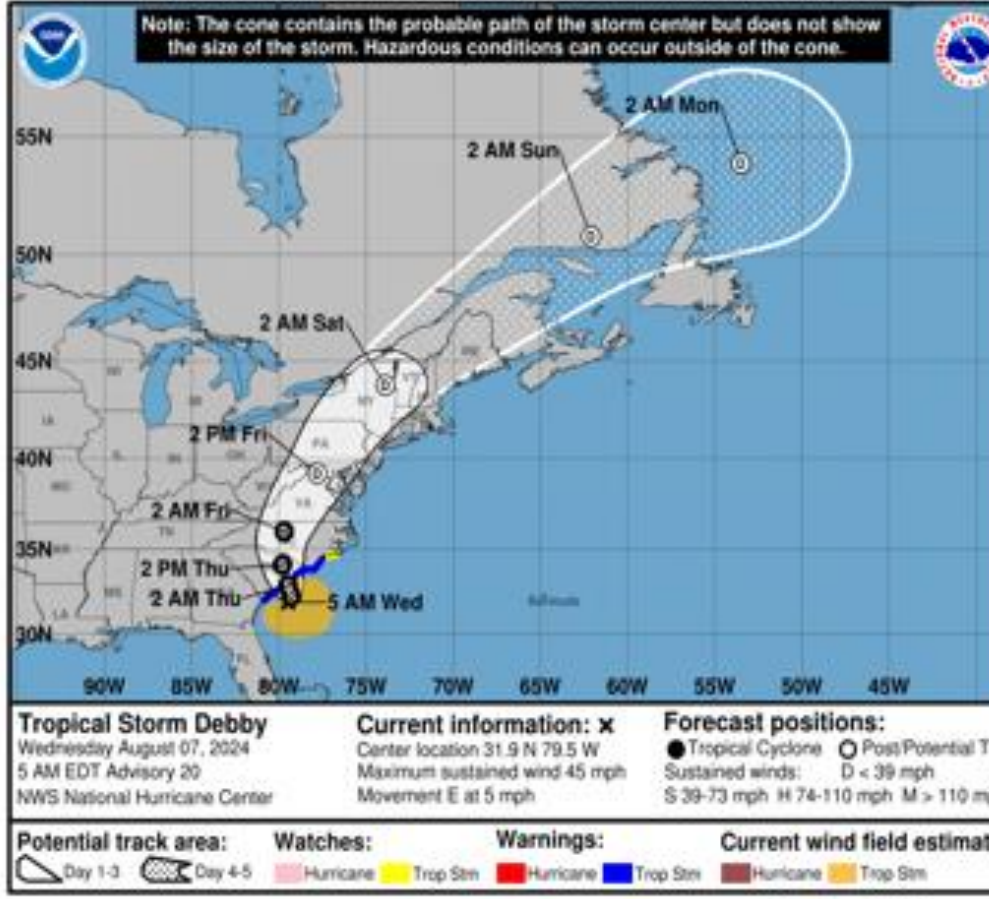
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NWS National Hurricane Center



Key Messages for Tropical Storm Debby

Advisory 20: 5:00 AM EDT Wed Aug 07, 2024

1. Heavy rainfall across portions of eastern South Carolina and southeast North Carolina is expected to persist through Thursday which would broaden areas of considerable flooding. Expected heavy rainfall will likely result in considerable flooding impacts from the Piedmont of the Carolinas, portions of the Mid-Atlantic States, and Vermont through Saturday morning.
2. Tropical storm conditions will spread northward along the southeast U.S. coast from South Carolina to North Carolina through Thursday. Tropical storm warnings and watches are in effect for portions of that area.
3. A dangerous storm surge is possible along the coast of South Carolina and southeastern North Carolina from South Santee River to Cape Fear. Residents in that area should follow any advice given by local officials.



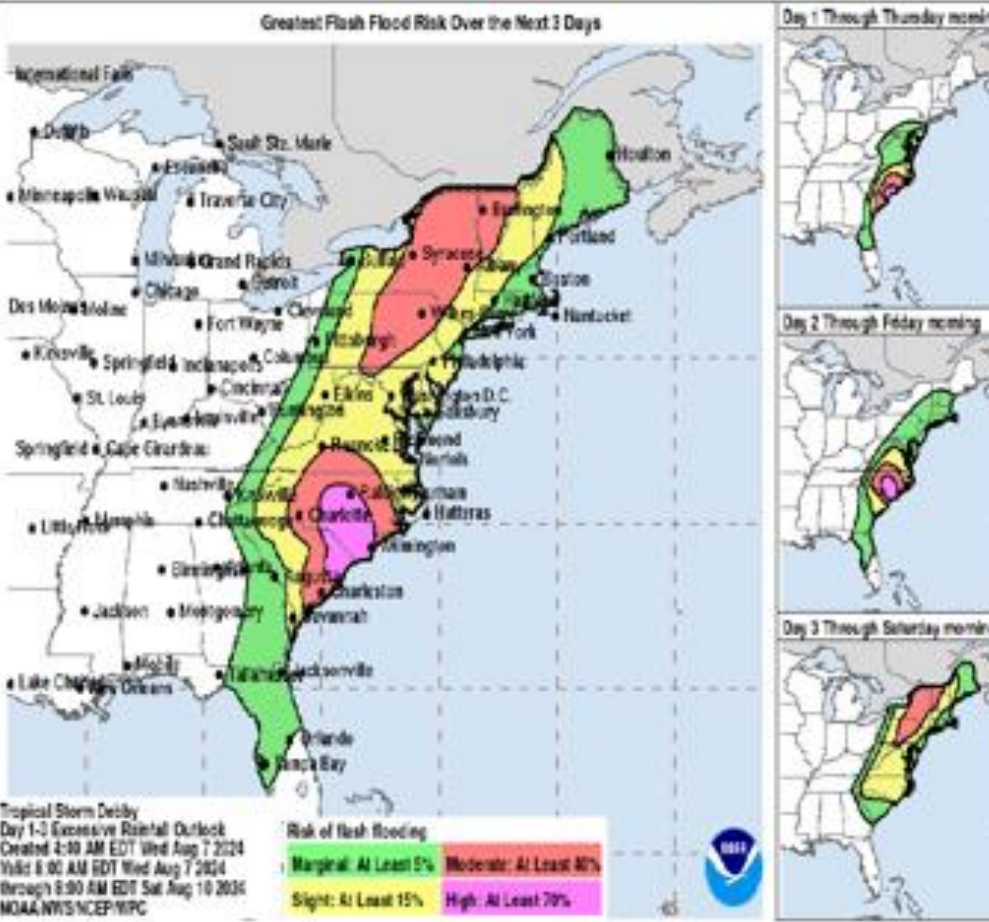
Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

Tropical Storm Debby
Wednesday August 07, 2024
5 AM EDT Advisory 20
NWS National Hurricane Center

Current information: x
Center location 31.9 N 79.5 W
Maximum sustained wind 45 mph
Movement E 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

Day 1 Through Thursday morning
Day 2 Through Friday morning
Day 3 Through Saturday morning

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 4:30 AM EDT Wed Aug 7 2024
Valid 8:00 AM EDT Wed Aug 7 2024
through 8:00 AM EDT Sat Aug 10 2024
NOAA/NWS/NCEP/WSR

For more information go to hurricanes.gov

Marine Key Messages:

- Marine conditions are currently on its peak for the D7 area.
- Conditions are likely to continue on its peak for another 24 h before they begin to improve.
- By Saturday winds will likely decrease to 25 kt and seas will likely subside to around 9 ft.

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



TROPICAL STORM DEBBY BRIEFING

TIME of NEXT NHC Advisory:

15 UTC: 11 AM EDT

*The Next Briefing Will Be:
Thursday 9:00 AM EDT*

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



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www.nhc.noaa.gov