

IMPACTS FOR D7 (through next 5 days)

Winds – Medium

Storm Surge – Low

Rainfall/Flash Flooding – Extreme

Tornadoes – Medium

Waves - Medium

TROPICAL STORM DEBBY BRIEFING



5:00 PM 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

Changes Since This Morning

Tropical Storm Debby



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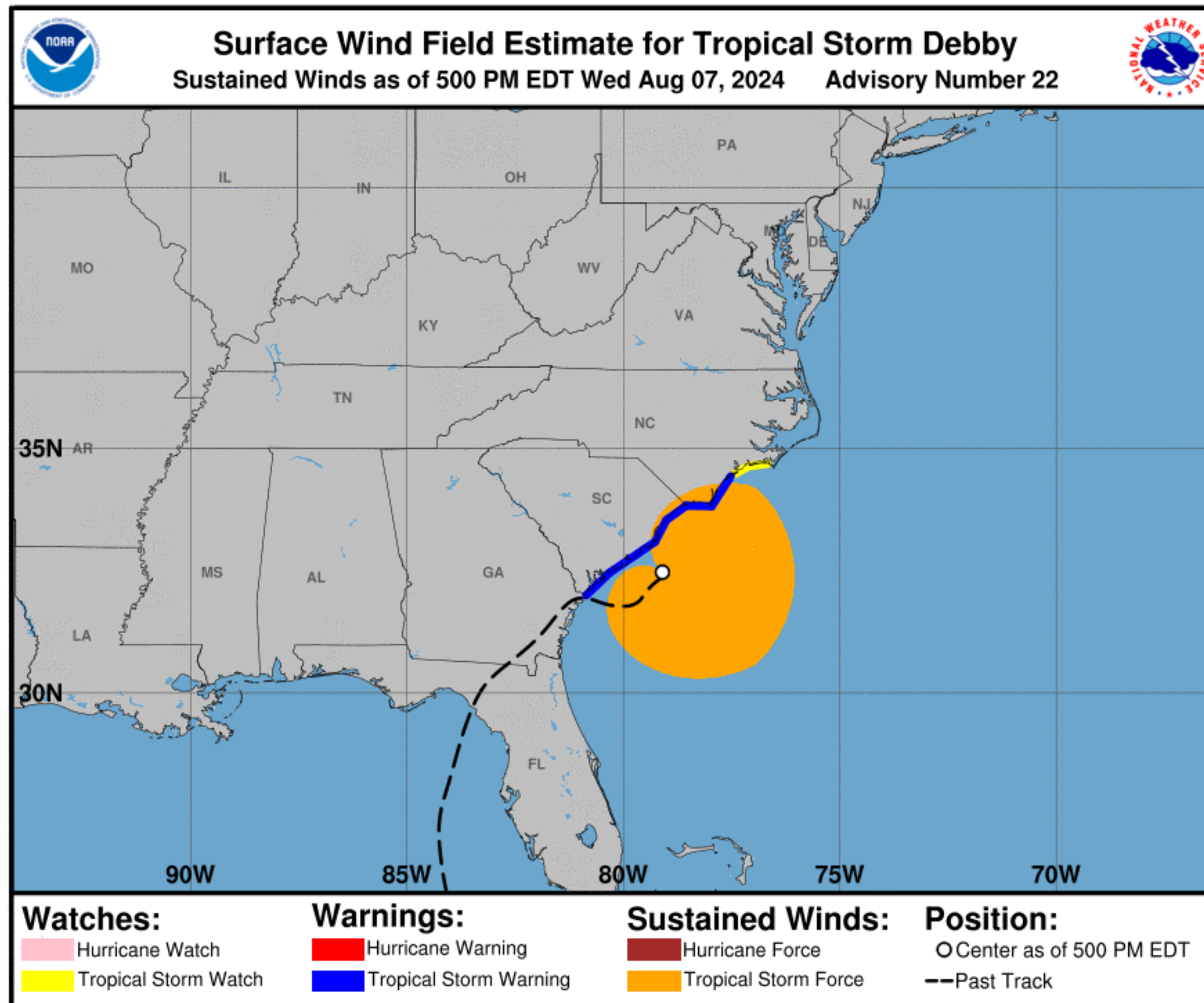
- Earlier today, Air Force Hurricane Hunters found Tropical Storm Debby slightly more intense than what was forecast. Thus, intensity forecast was adjusted accordingly.
 - Therefore, peak winds and seas forecast increased slightly.

Situation Overview

Tropical Storm Debby



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...DEBBY SLOWLY APPROACHING THE
COAST OF SOUTH CAROLINA...
...MAJOR FLOOD THREAT CONTINUES
FOR PORTIONS OF THE CAROLINAS...

SUMMARY OF 500 PM EDT...INFORMATION

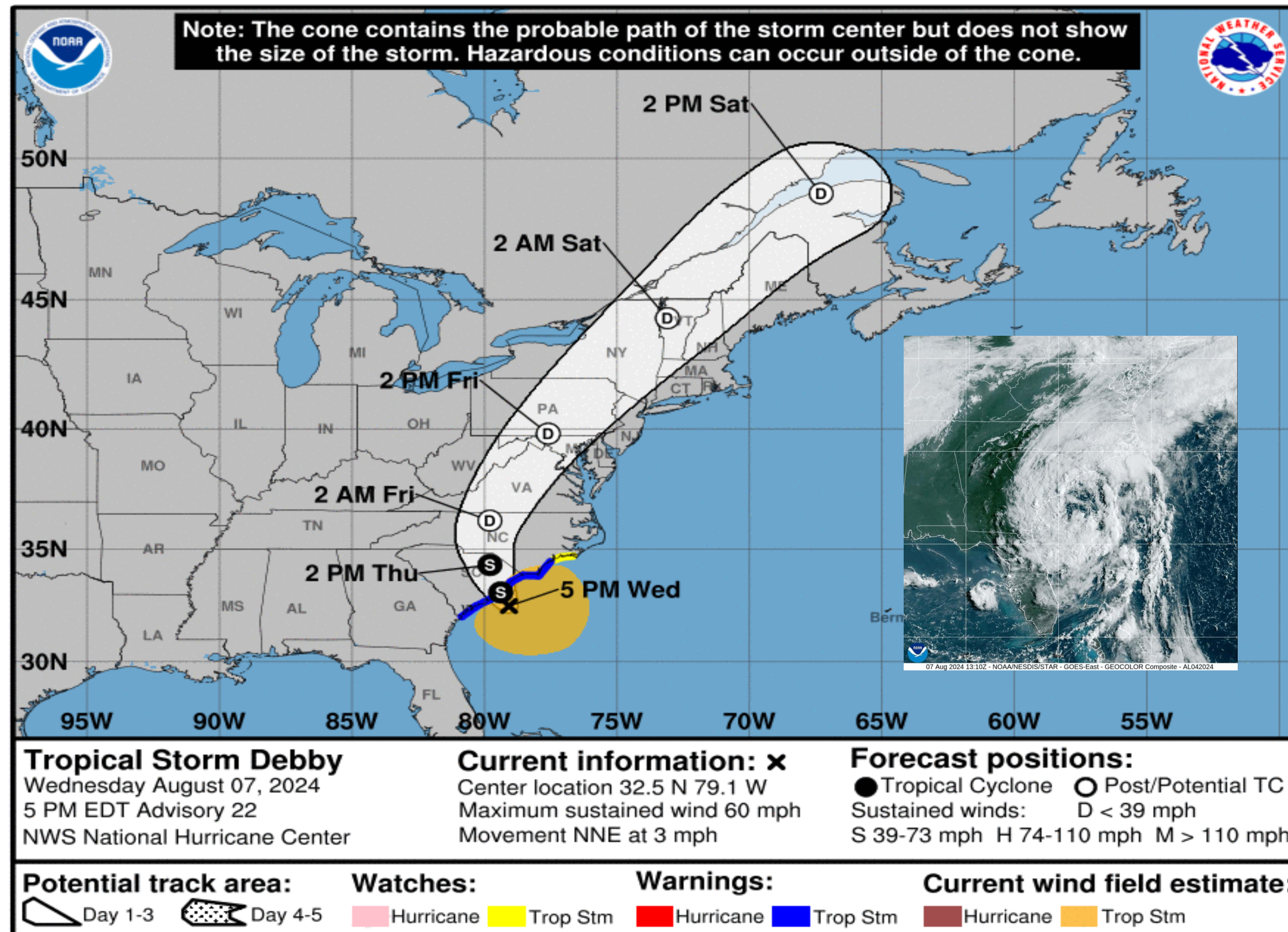
LOCATION...32.5N 79.1W
ABOUT 45 NM...ESE OF CHARLESTON SOUTH
CAROLINA
ABOUT 75 NM... S OF MYRTLE BEACH SOUTH
CAROLINA
MAXIMUM SUSTAINED WINDS...50 KT
PRESENT MOVEMENT...NNE OR 30 DEGREES AT 3
KT
MINIMUM CENTRAL PRESSURE...995 MB

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 is expected tonight, bringing the center across the South Carolina coast on Thursday morning.
- Slight strengthening is possible 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

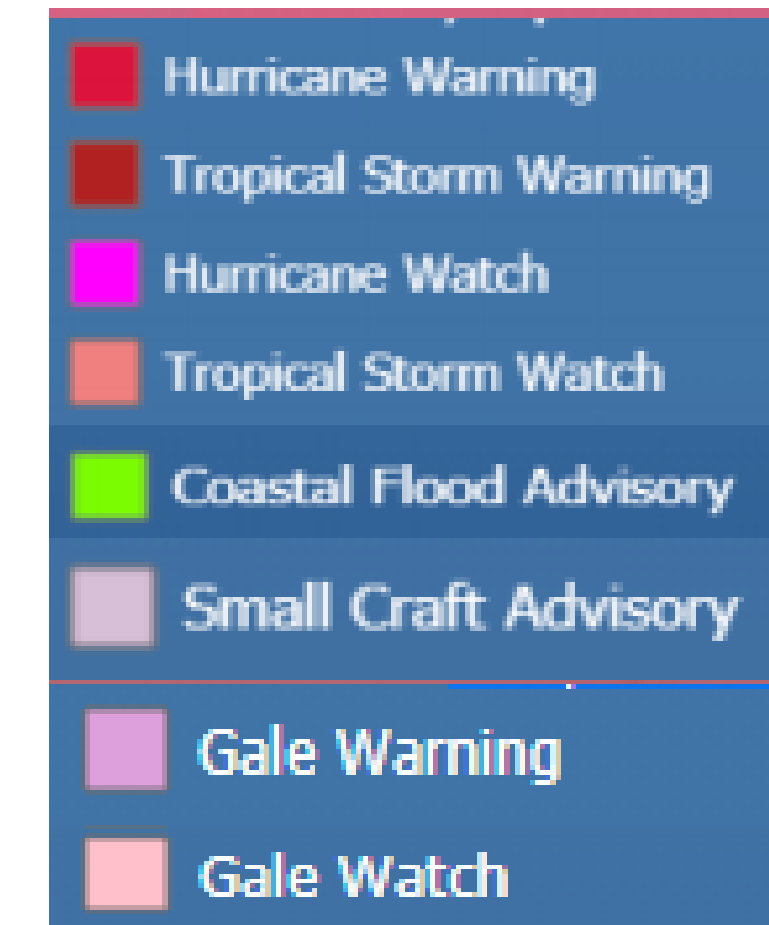
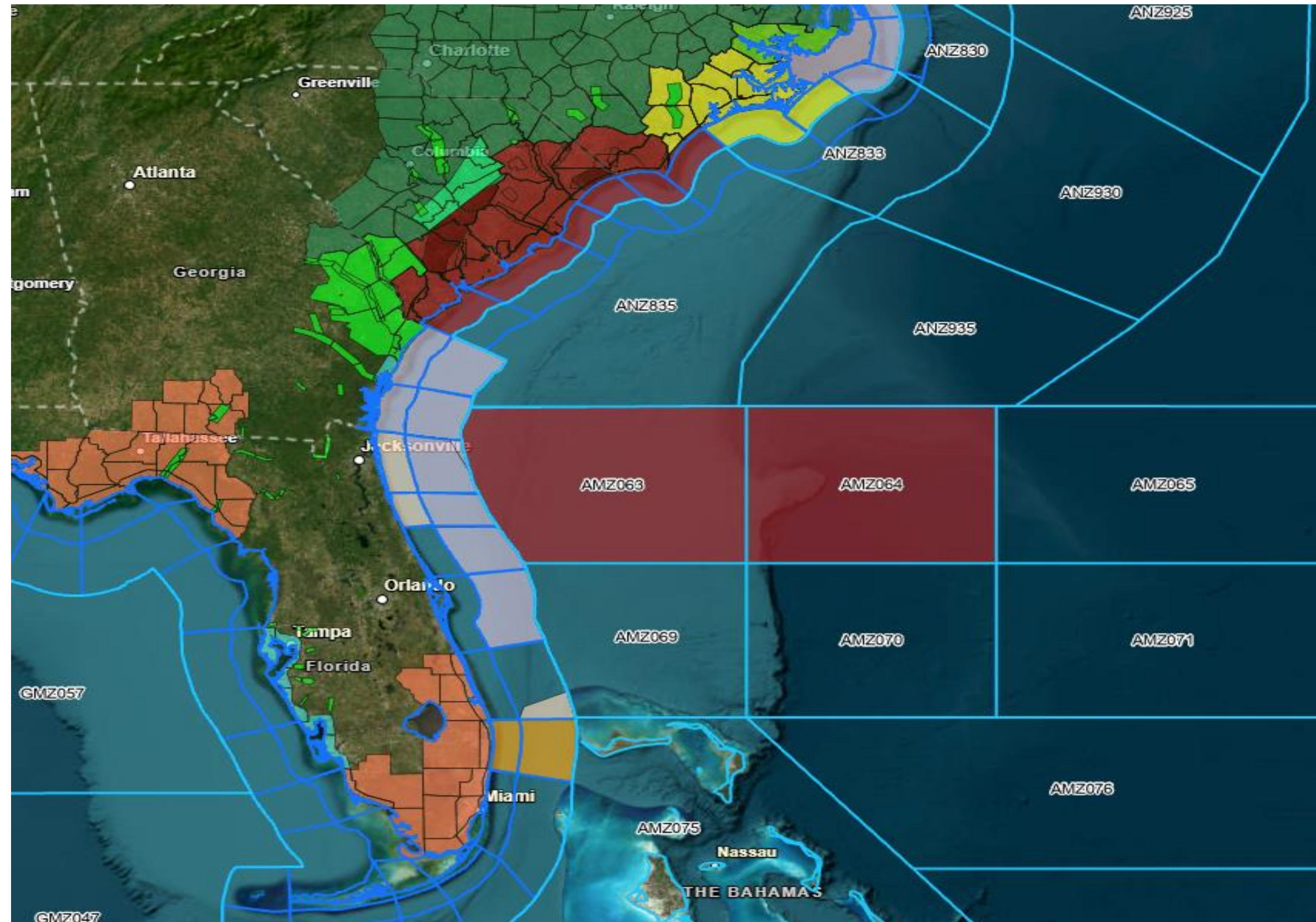
** Swaths are calculated using average track errors and actual track may be well inside, or possibly outside the potential track areas indicated.

Hazards Map

Tropical Storm Debby



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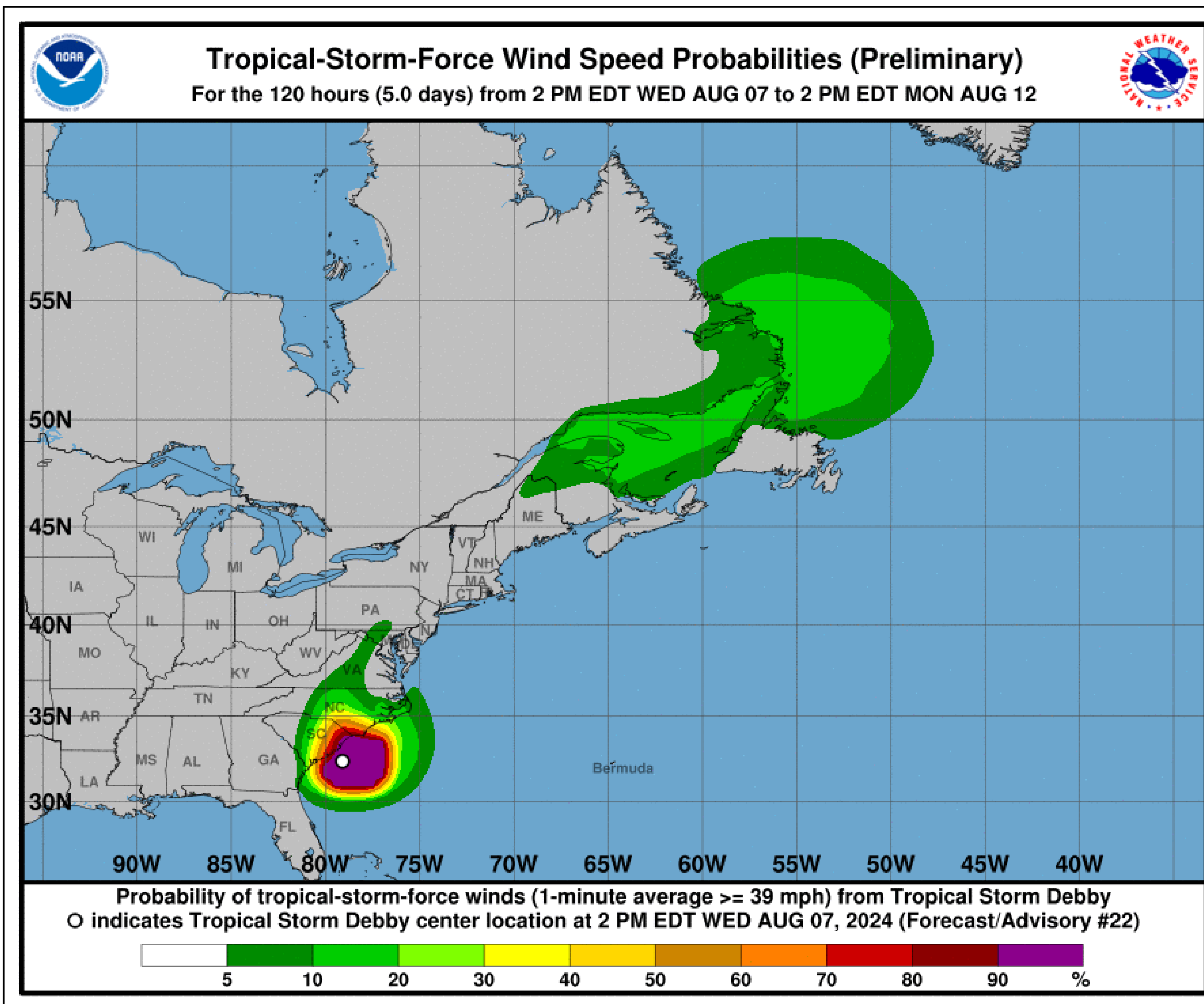


T.S. Wind Speed Probabilities

Tropical Storm Debby



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NWS National Hurricane Center



- SAVANNAH 8%
- BEAUFORT 45%
- CHARLESTON 79%
- MYRTLE BEACH 94%

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

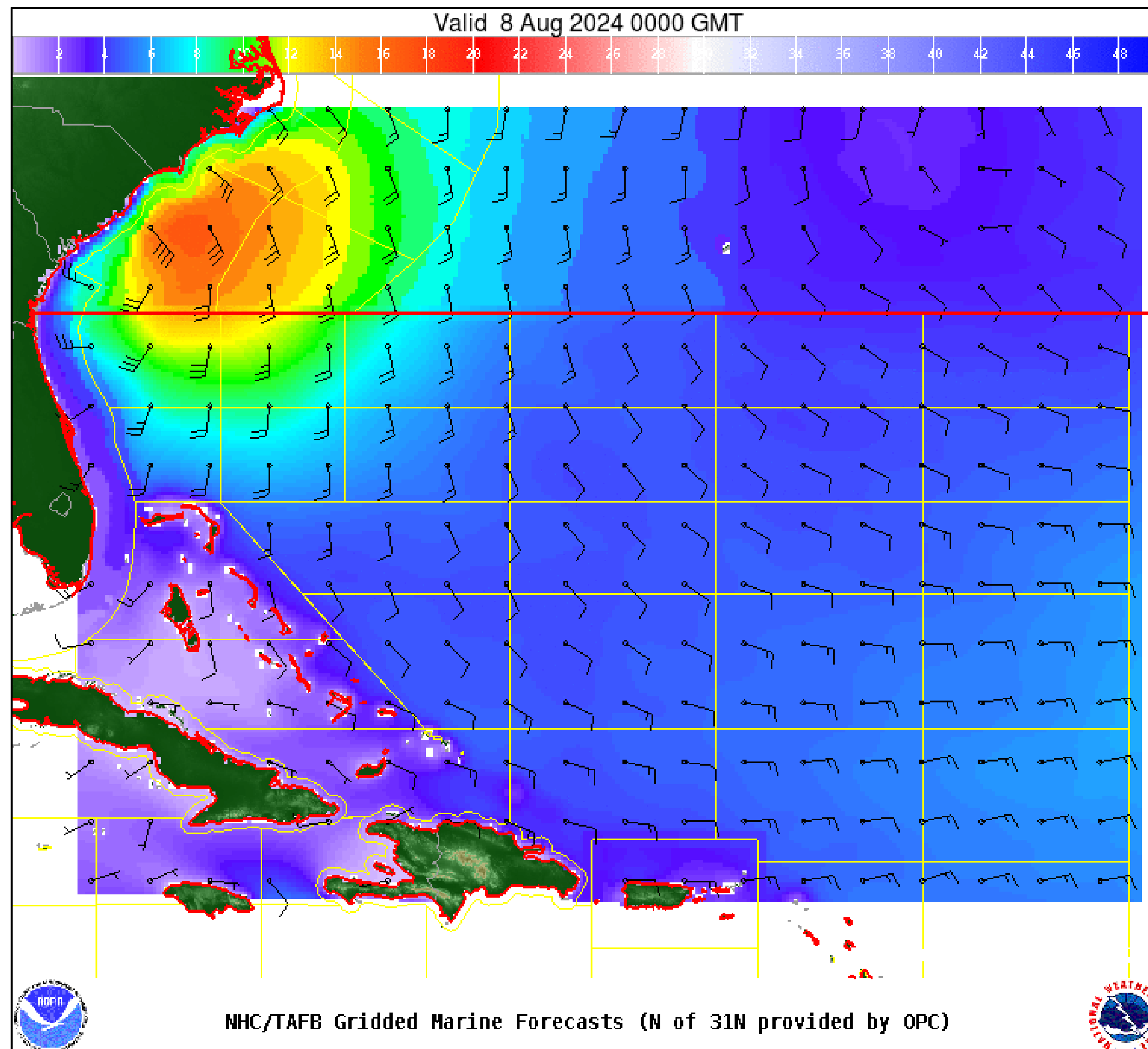
- Probabilities of sustained tropical storm force winds (34 kt to 63 kt) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color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

Wind And Waves

Tropical Storm Debby



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3 Hour Forecast

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

Peak Winds: 50 kt

Peak Seas: 19 ft

- Wave heights are in feet



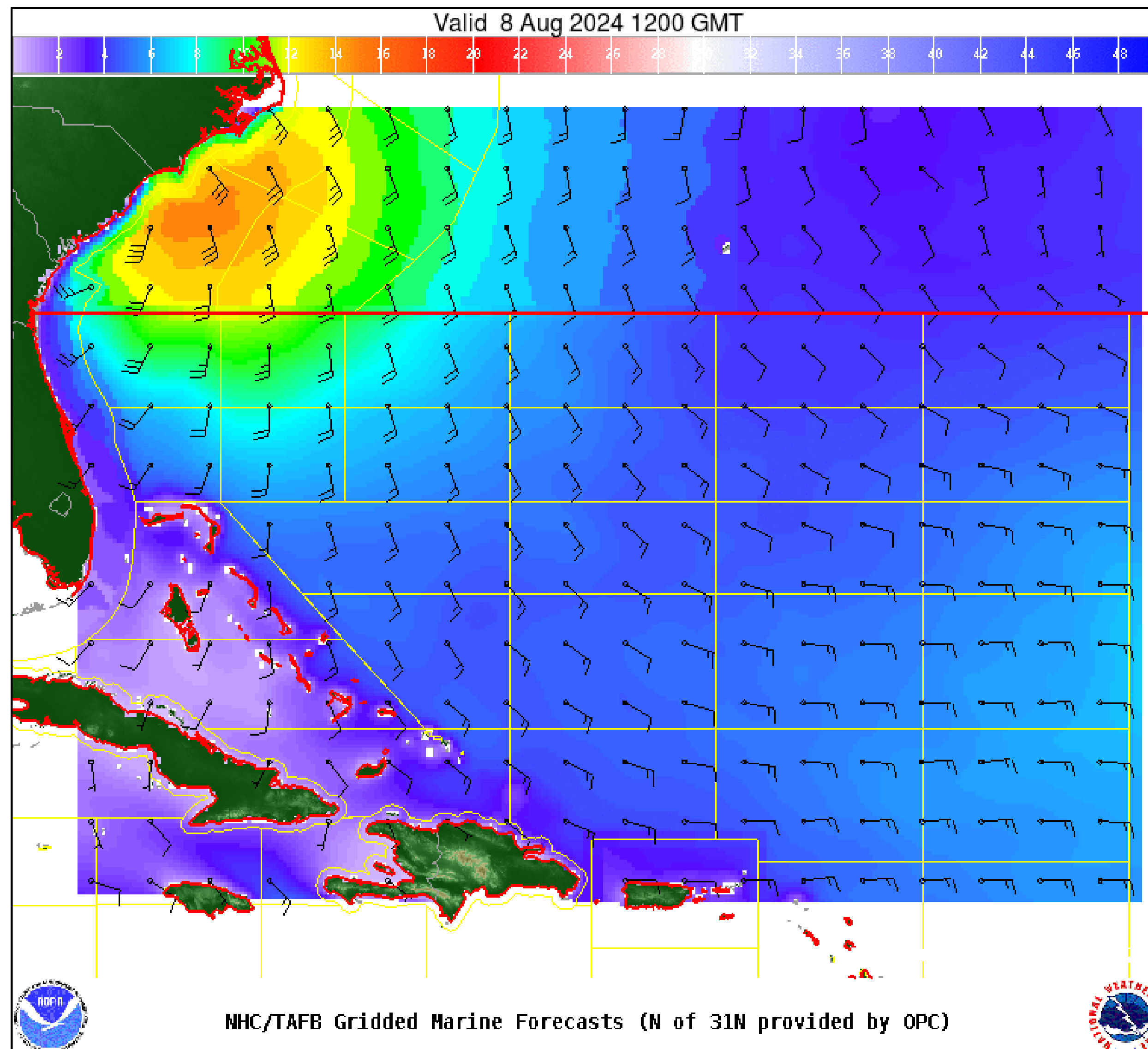
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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12 Hour Forecast

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

Peak Winds: 45 kt

Peak Seas: 17 ft

- Wave heights are in feet



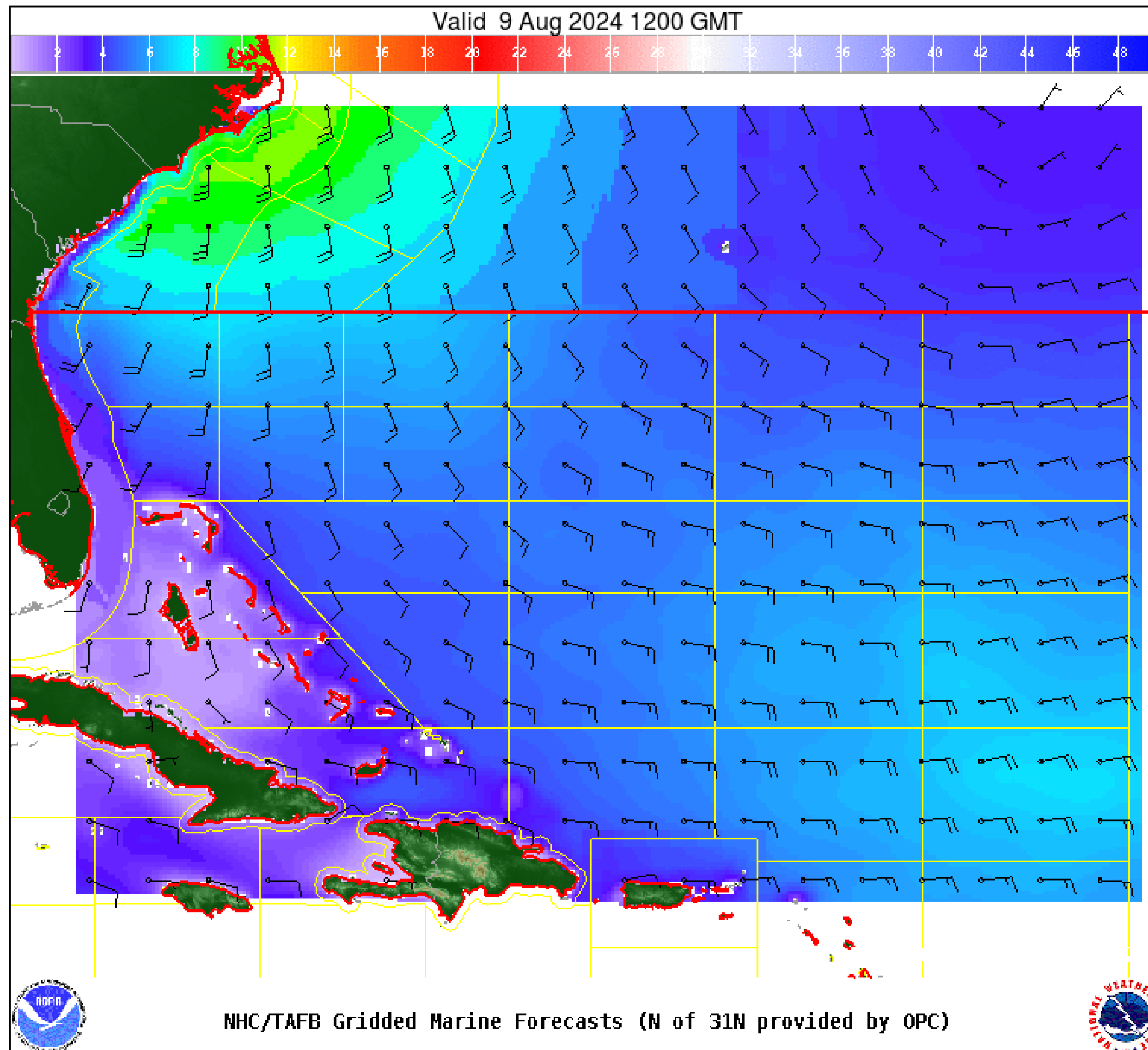
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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36 Hour Forecast

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

Peak Winds: 25 kt

Peak Seas: 11 ft

- Wave heights are in feet



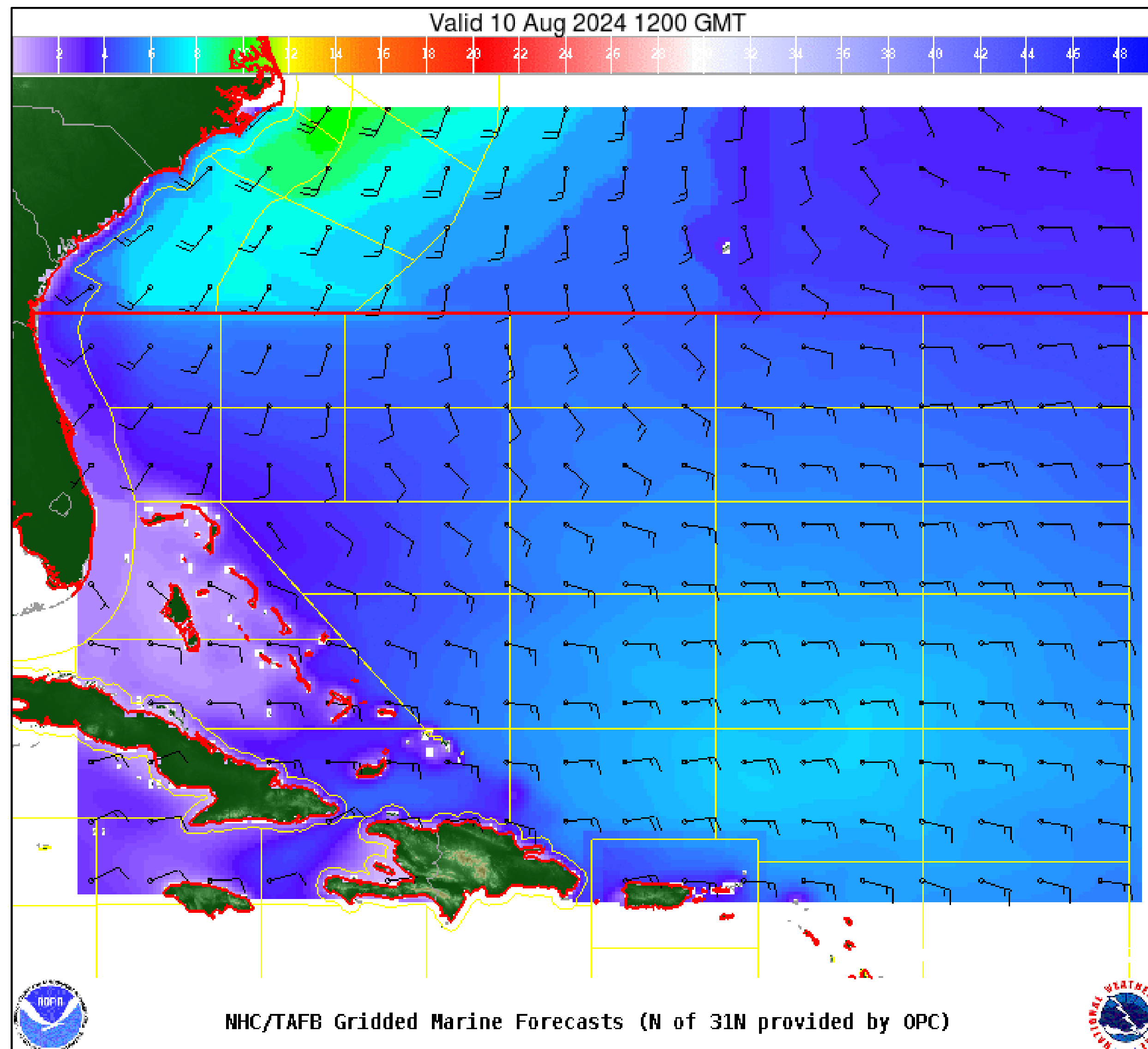
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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60 Hour Forecast

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

Peak Winds: 15 kt

Peak Seas: 8 ft

- Wave heights are in feet



Significant Wave Height (ft)

Time of Departure

Tropical Storm Debby



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NWS National Hurricane Center

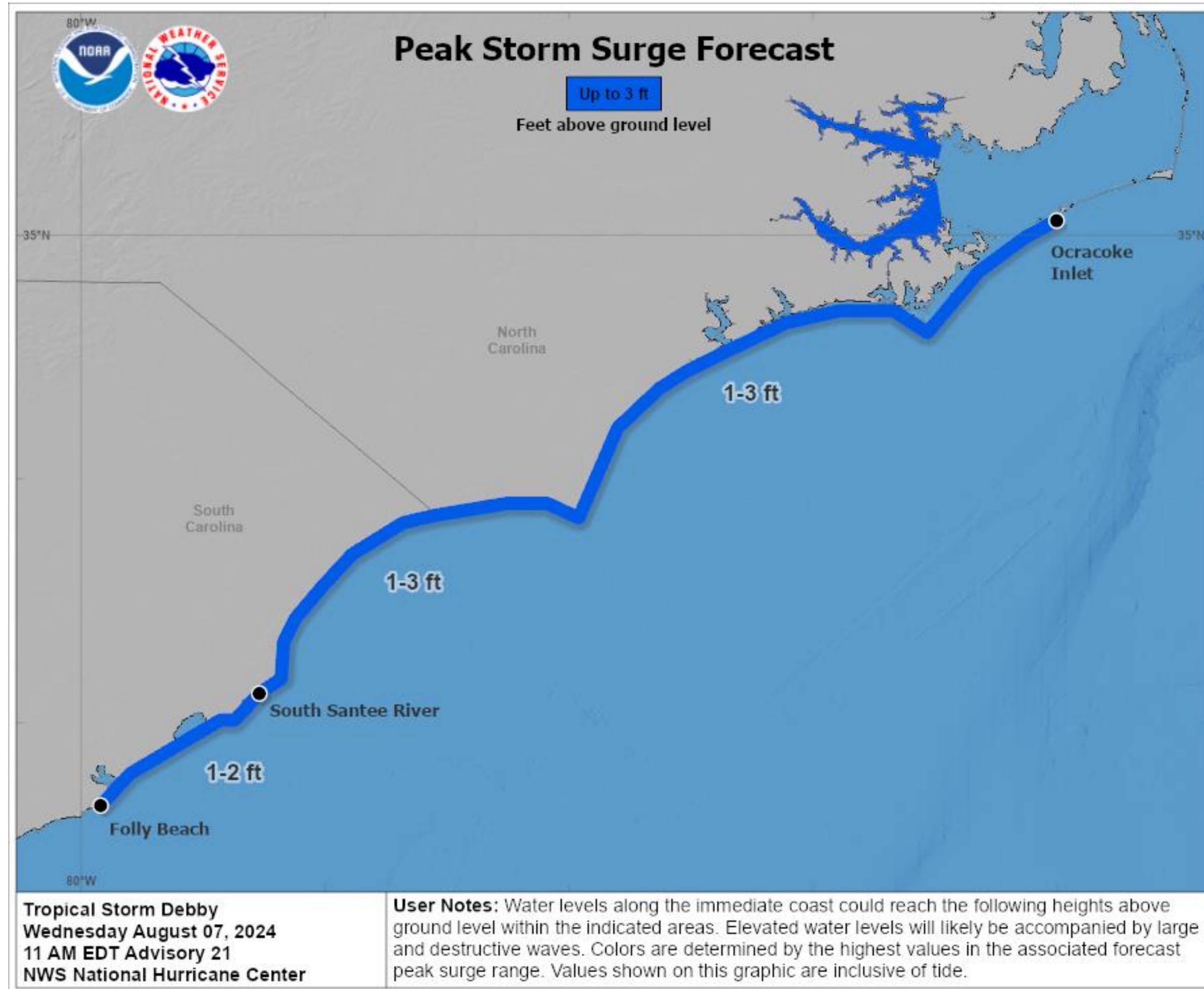
City	Most Likely	Latest Reasonable Time of Departure
Charleston, SC	Thursday morning	Thursday early afternoon
Myrtle Beach, SC	Thursday late morning	Thursday afternoon

Potential Peak Storm Surge / Watches and Warnings



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Tropical Storm Debby



Peak Surge:

- 1-3 feet of surge north of South Santee River, SC to Ocracoke Inlet, NC.
- 1-2 feet of surge south of South Santee River, SC to Folly Beach, SC.
- No storm surge watches or warnings.

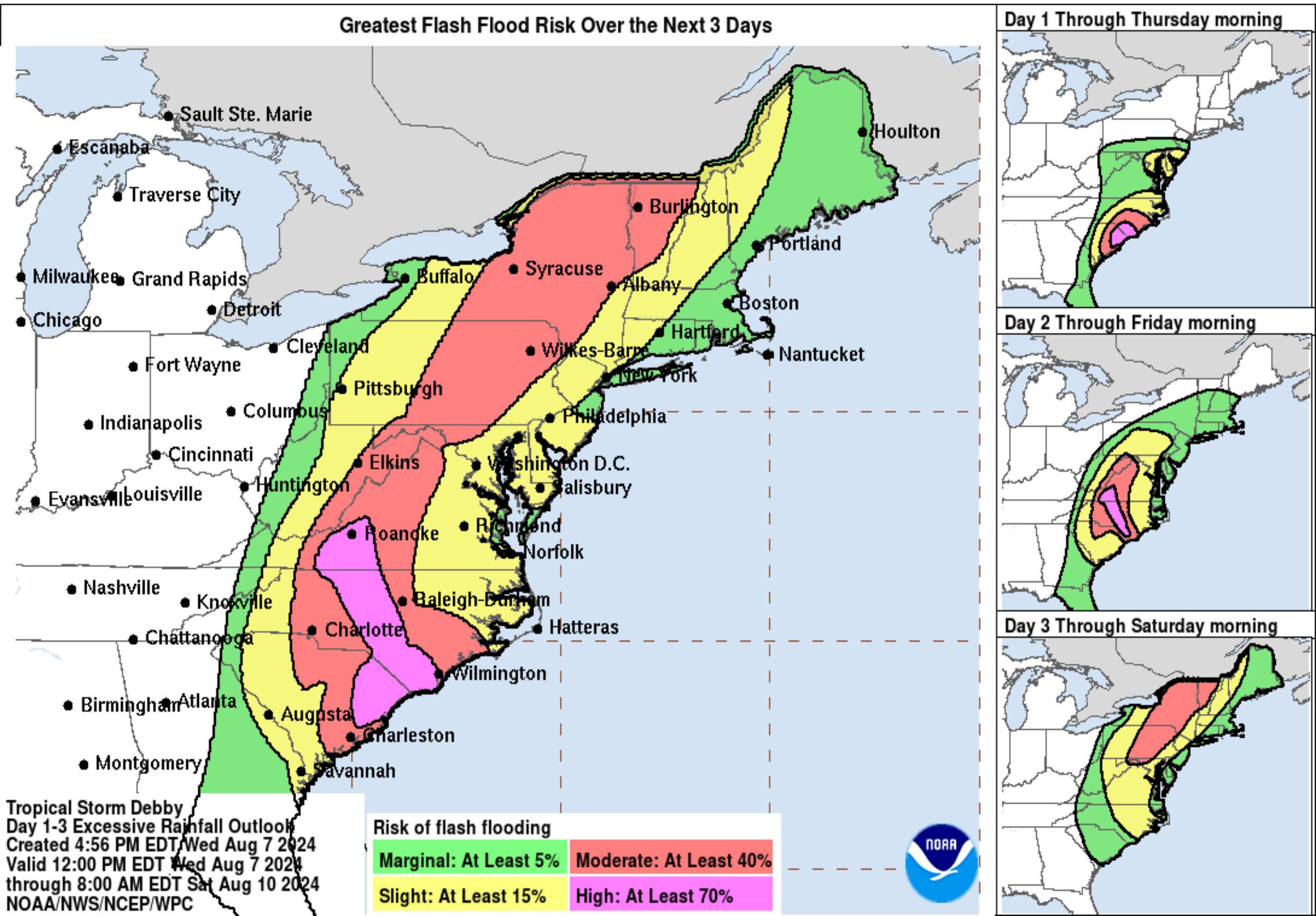
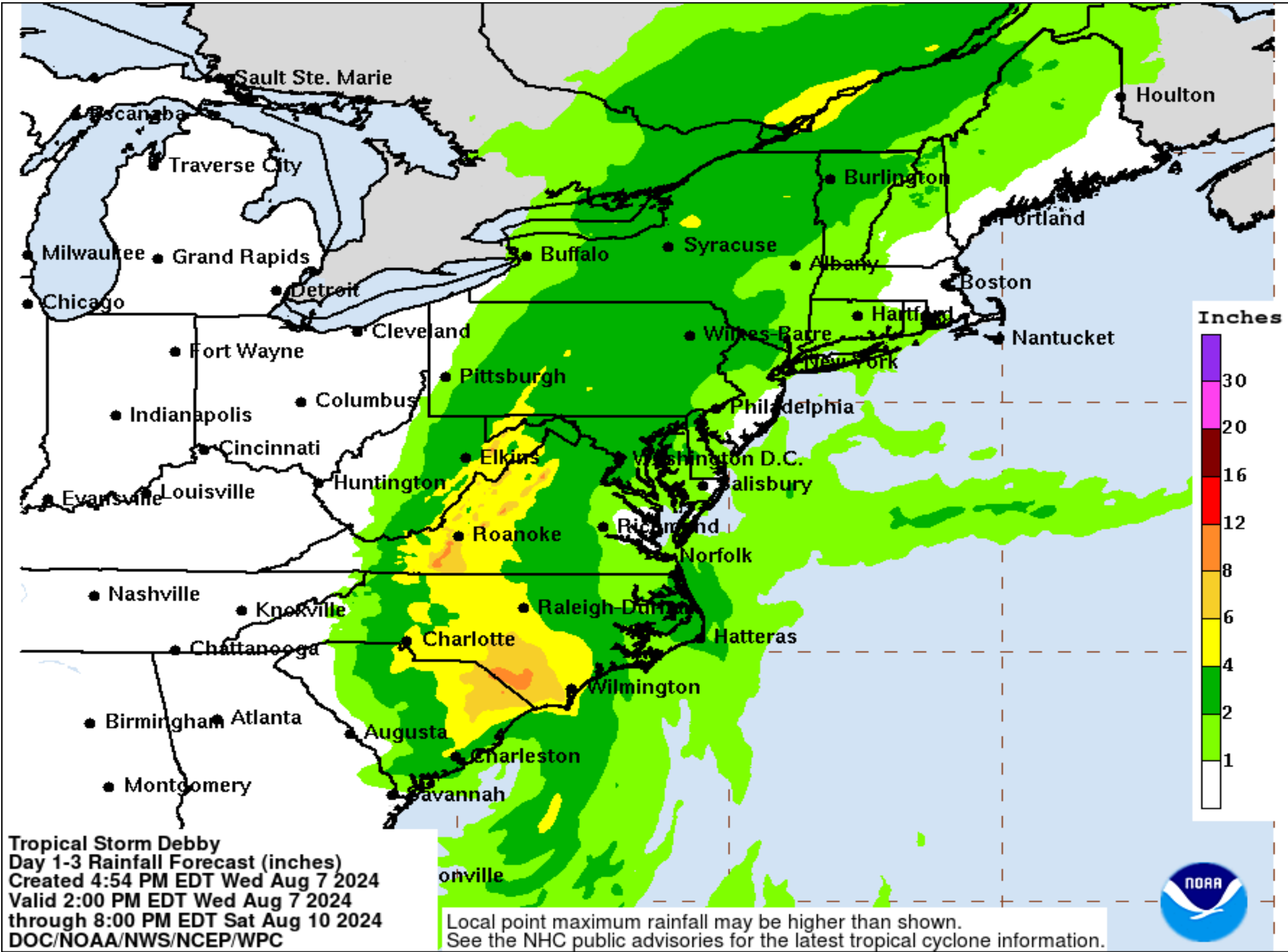
Expected Storm Total Rainfall and Chance of Rainfall Flooding

Tropical Storm Debby

Images from NWS Weather Prediction Center



Tropical Analysis and Forecast Branch
NWS National Hurricane Center



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

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

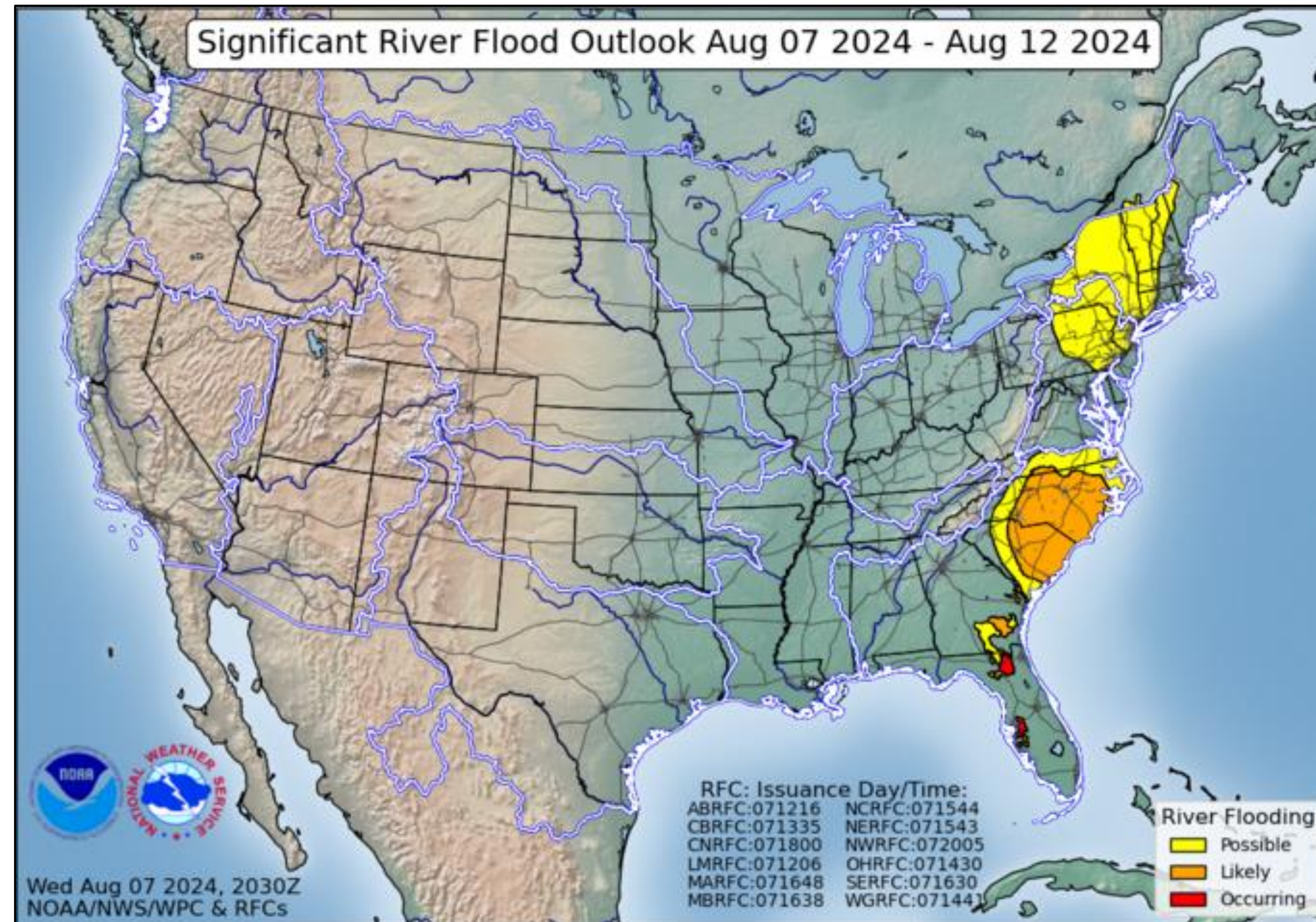
Refer to map legend for Valid Time

Flood Outlook

Tropical Storm Debby



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NWS National Hurricane Center



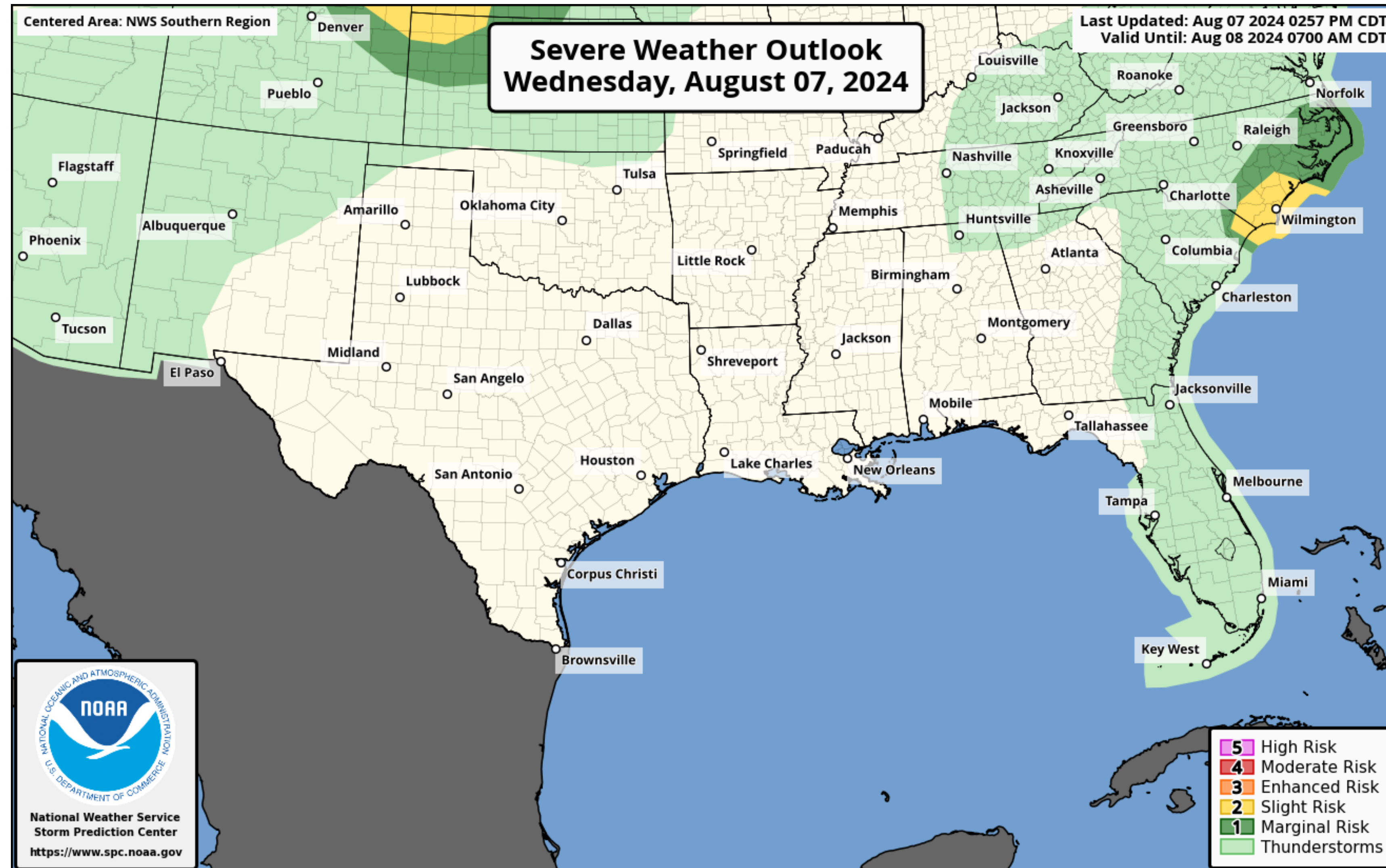
Tornado Outlook – Day 1

Tropical Storm Debby

Image from NWS Storm Prediction Center



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NWS National Hurricane Center

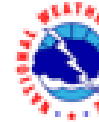



Key Messages

Tropical Storm Debby



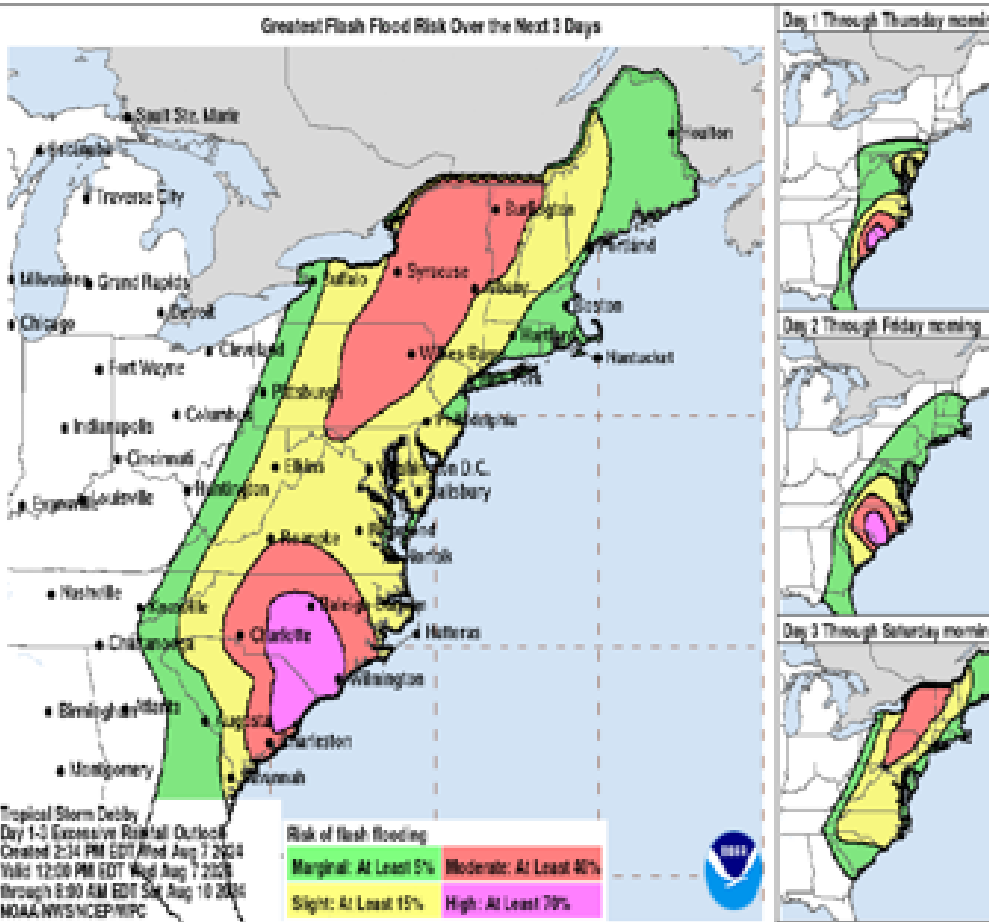
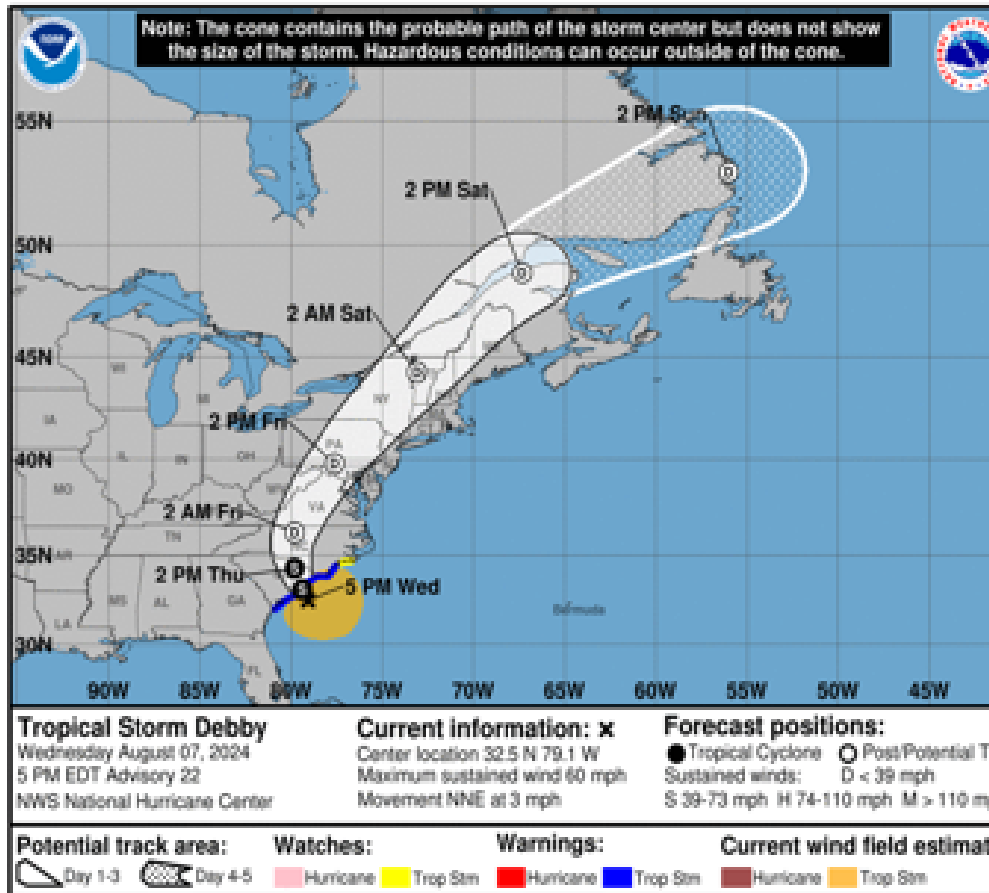
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Key Messages for Tropical Storm Debby

Advisory 22: 5:00 PM EDT Wed Aug 07, 2024

1. Heavy rainfall across portions of the Carolinas is expected to persist through Thursday along with areas of considerable flooding. Expected 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 affect portions of the South Carolina and North Carolina coast through Thursday. Tropical storm warnings and watches are in effect for portions of that area.
3. Coastal flooding due to storm surge is likely along portions of the South Carolina and North Carolina coastline through Thursday.



Tropical Storm Debby
Wednesday August 07, 2024
5 PM EDT Advisory 22
NWS National Hurricane Center

Current information: x
Center location 32.5 N 79.1 W
Maximum sustained wind 60 mph
Movement NNE at 3 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 2:14 PM EDT Wed Aug 7 2024
Valid 12:00 PM EDT Wed Aug 7 2024
through 6:00 AM EDT Sat Aug 10 2024
NOAA/NWS/NCEP/WWP

For more information go to hurricanes.gov

Marine Key Messages:

- Tropical Storm Debby peak winds and seas are likely ongoing.
- Landfall will like occur Thursday morning over South Carolina
- Marine conditions will like begin to improve Thursday night into Friday morning.

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



TROPICAL STORM DEBBY BRIEFING

TIME of NEXT NHC Advisory:
3 UTC: 11 PM 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