

IMPACTS FOR D7 (through next 5 days)

Winds – High

Storm Surge – Extreme

Rainfall/Flash Flooding – Extreme

Tornadoes – Medium

Waves - High

TROPICAL STORM DEBBY BRIEFING

9:00 AM EDT

Sunday, August 4, 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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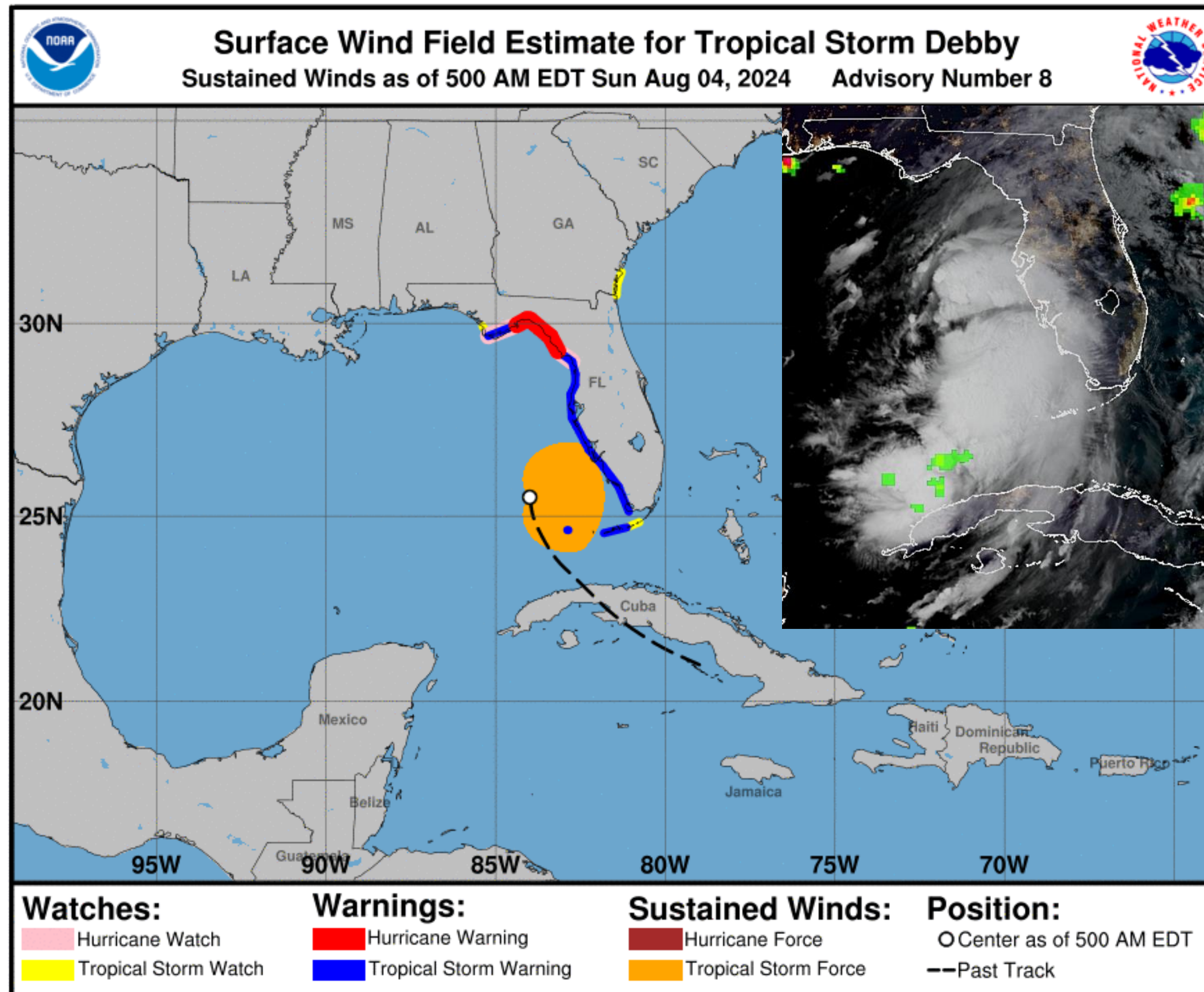
- Confidence is high Debby will make landfall in Florida Big Bend
- Although lower confidence on what happens after landfall, the potential for historic rainfall is setting up for Georgia/South Carolina this week
 - Tropical Storm watches have also been issued for coastal Georgia and South Carolina

Situation Overview

Tropical Storm Debby



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...DEBBY STRENGTHENING OVER THE
SOUTHEASTERN GULF OF MEXICO...

...EXPECTED TO BECOME A HURRICANE
BEFORE LANDFALL IN THE FLORIDA BIG BEND
REGION...

Summary of 500 AM EDT Information

Location...25.5N 84.0W

About 170 nm SSW of Tampa Florida

About 195 nm SSW of Cedar Key Florida

Maximum Sustained Winds...45 kt

Present Movement...NNW at 11 kt

Peak Seas: 16 ft

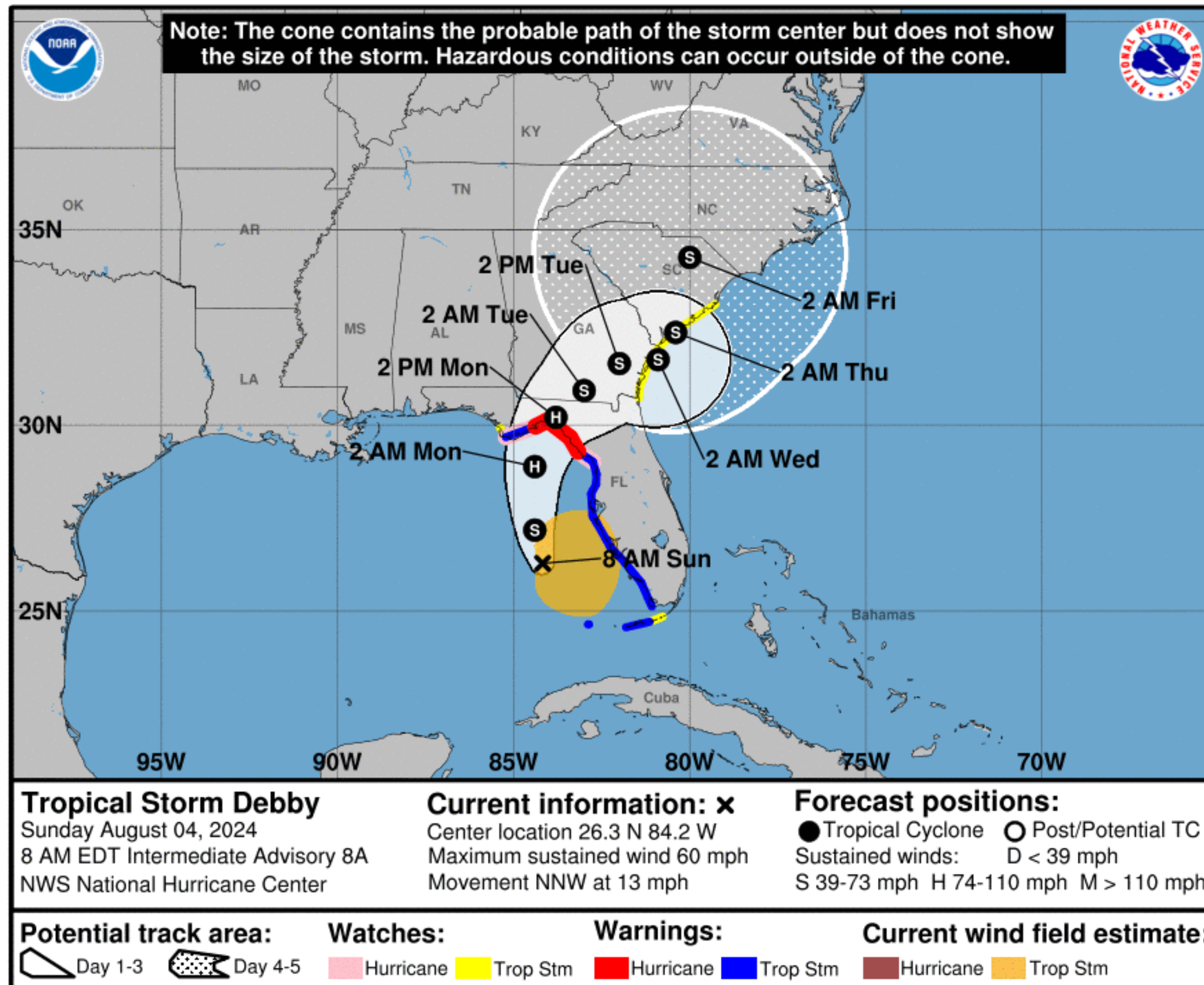
12 ft seas...120NE 120SE 0SW 0NW

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 continues to move north-northwest across the southeast Gulf of Mexico while slowly strengthening
- High confidence that Debby will gradually turn north then northeast towards the Florida Big Bend today into tonight and make landfall on Monday
- On the forecast track, Debby will continue to strengthen and likely make landfall as a Category I hurricane
- Uncertainty in the forecast still remains in both track and intensity once Debby moves over Georgia and South Carolina – the only certainty is Debby will move slowly and likely erratically near or over the southeast US
 - This will result in a potentially significant flooding event
- 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

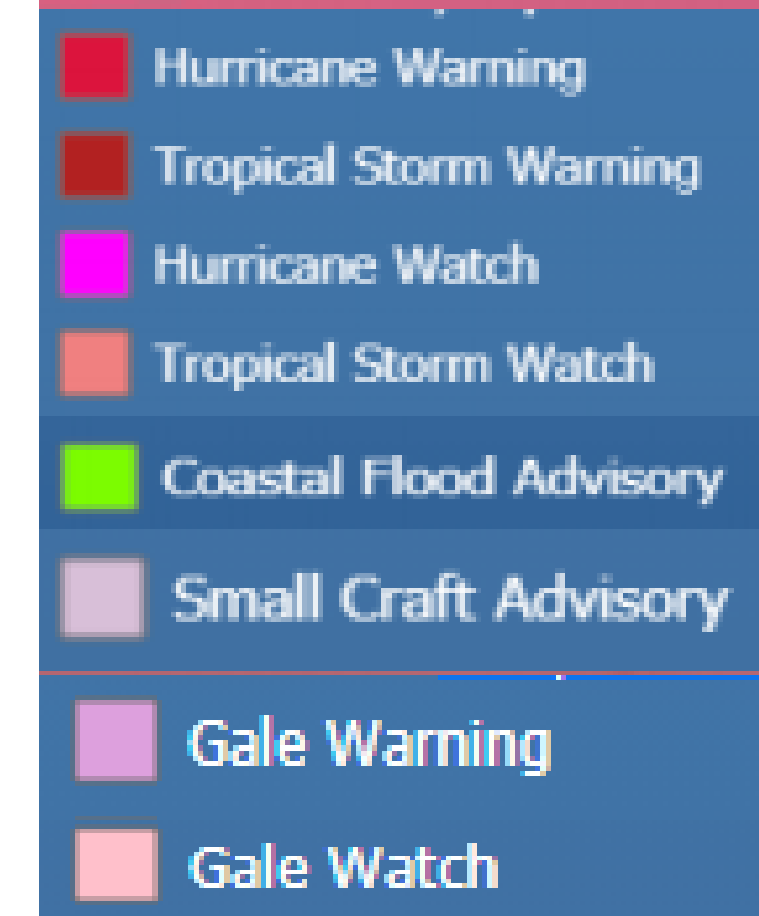
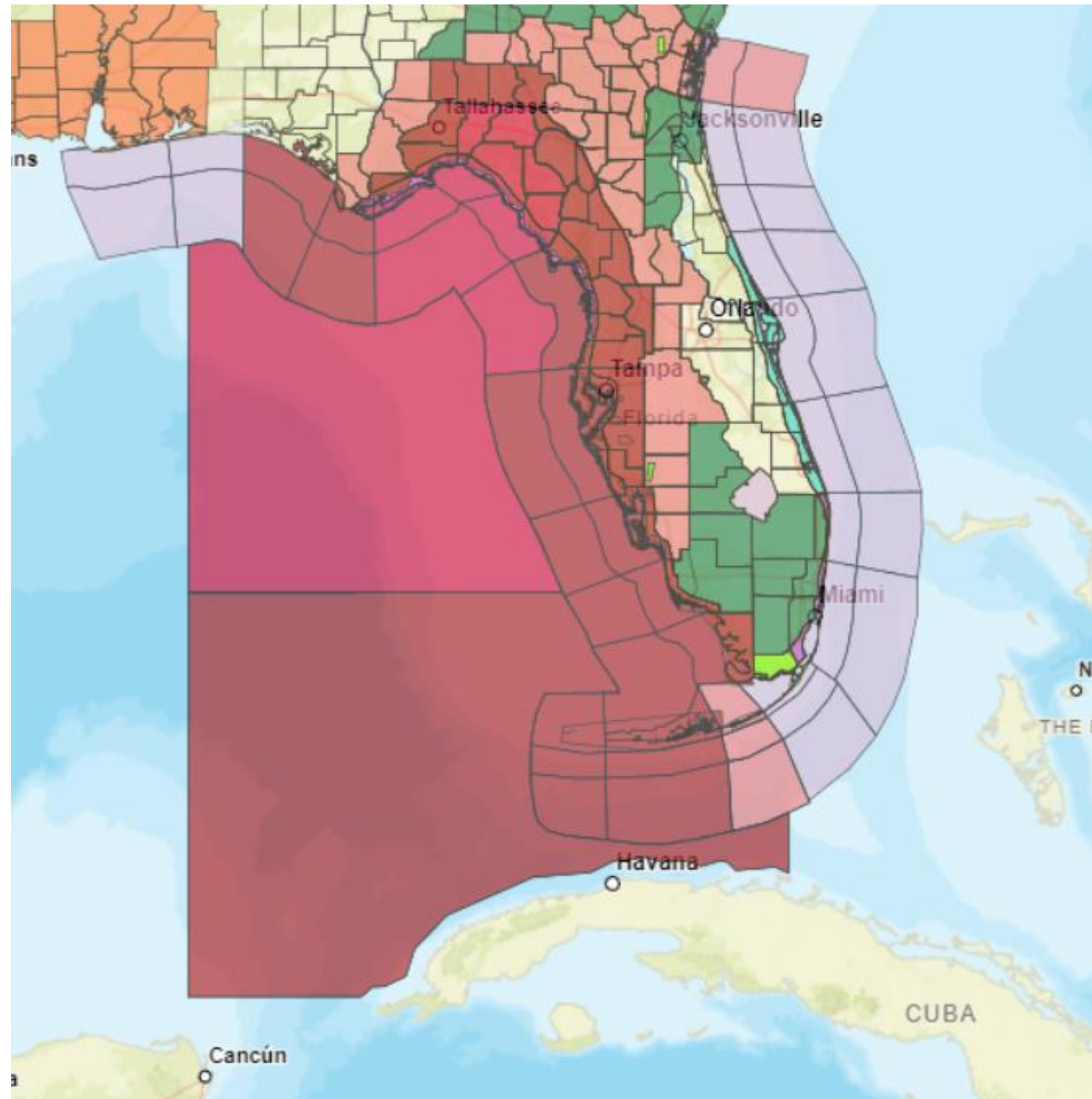
** Swaths are calculated using average track errors and actual track may be well inside, or possibly outside the potential track areas indicated.

Hazards Map

Tropical Storm Debby



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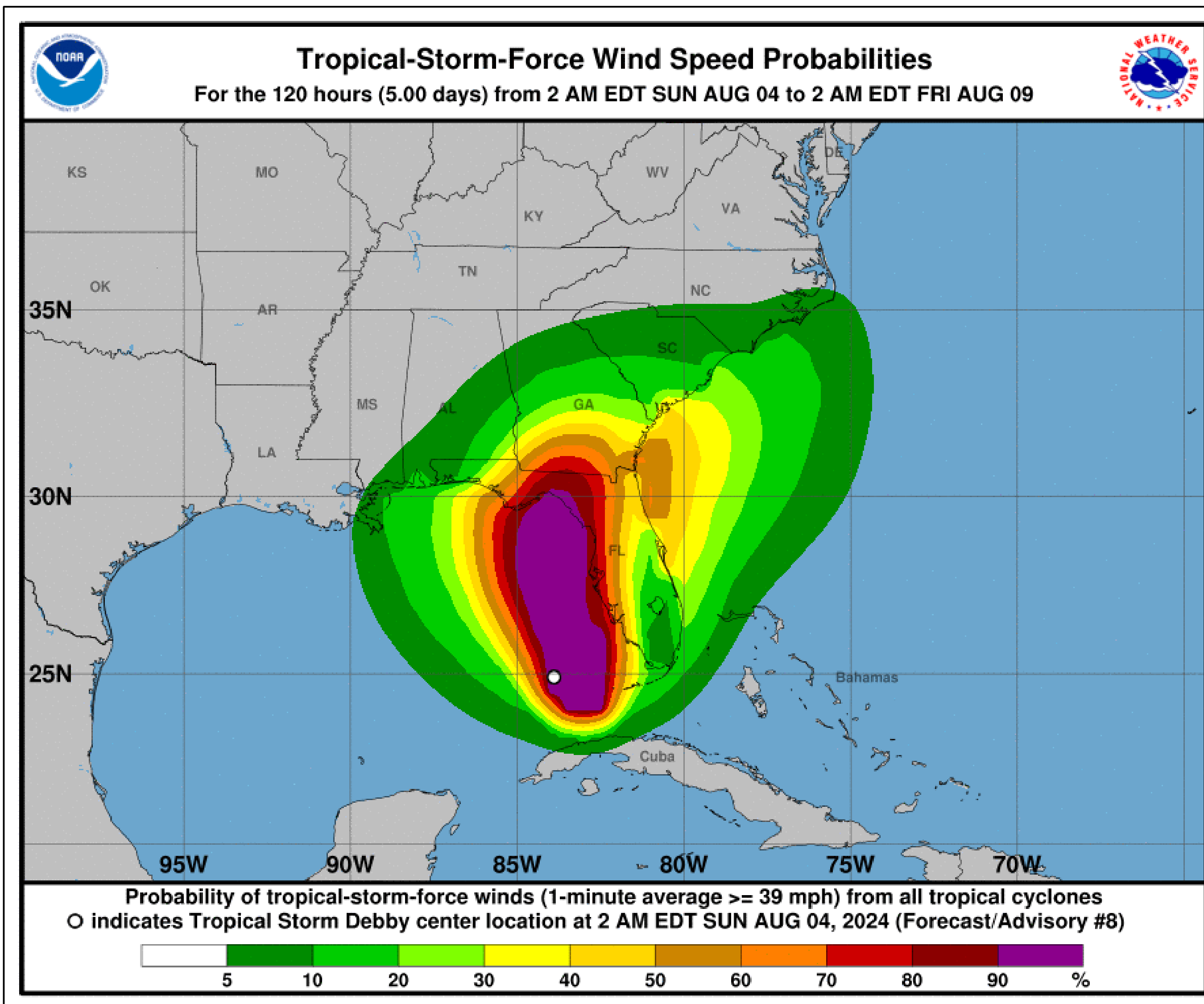


T.S. Wind Speed Probabilities

Tropical Storm Debby



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- KEY WEST 25%
- TAMPA 85%
- TALLAHASSEE 50%
- CEDAR KEY FL 95%
- APALACHICOLA 85%
- PANAMA CITY 65%
- JACKSONVILLE 45%
- SAVANNAH 30%
- BEAUFORT 45%
- CHARLESTON 35%

-Green indicates probabilities have gone down since last briefing

-Red indicates probabilities have gone up since last briefing

-Black indicates probabilities remain the same

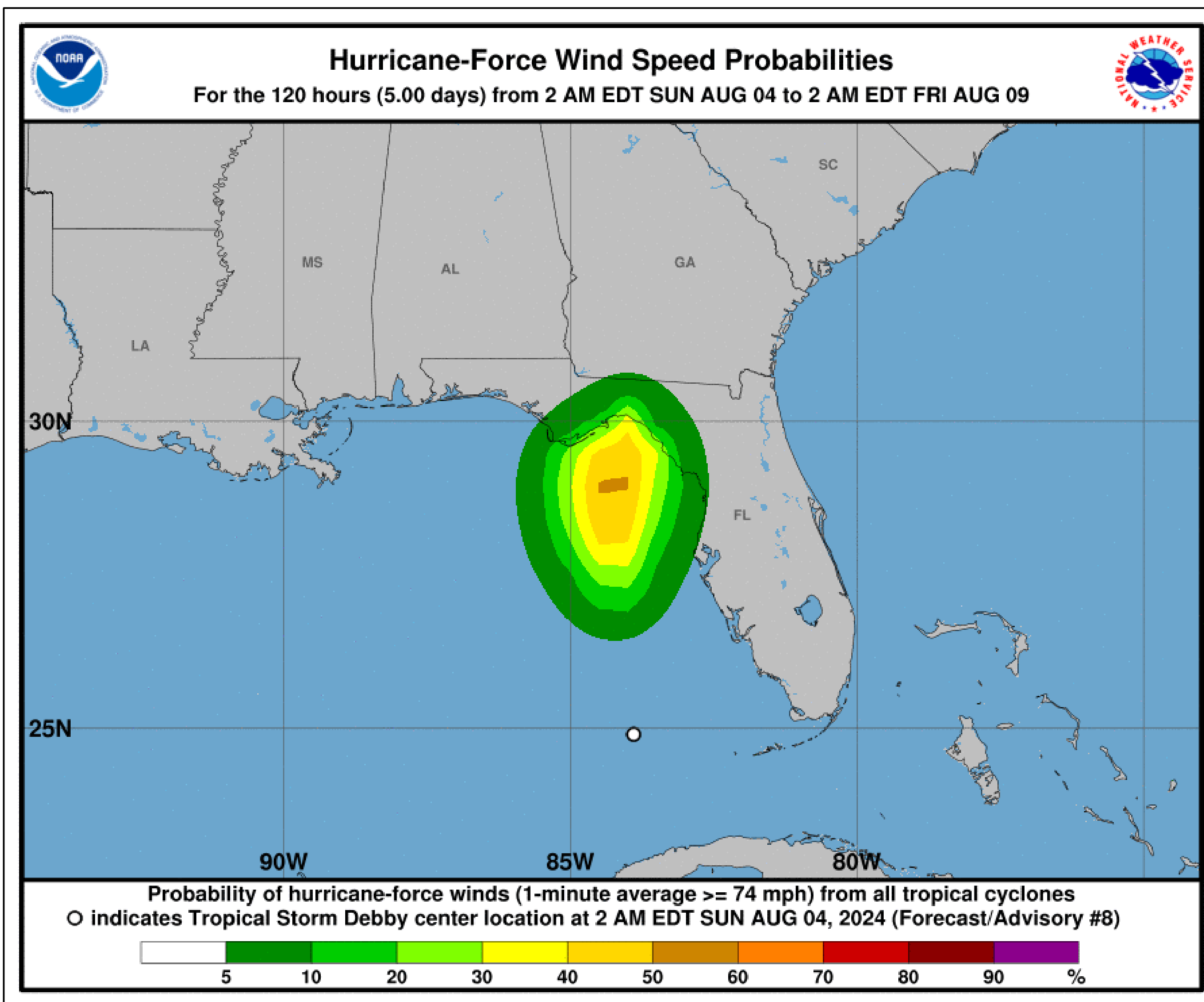
- Probabilities of sustained tropical storm force winds (34 kt to 63 kt) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color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

Hurricane Wind Speed Probabilities

Tropical Storm Debby



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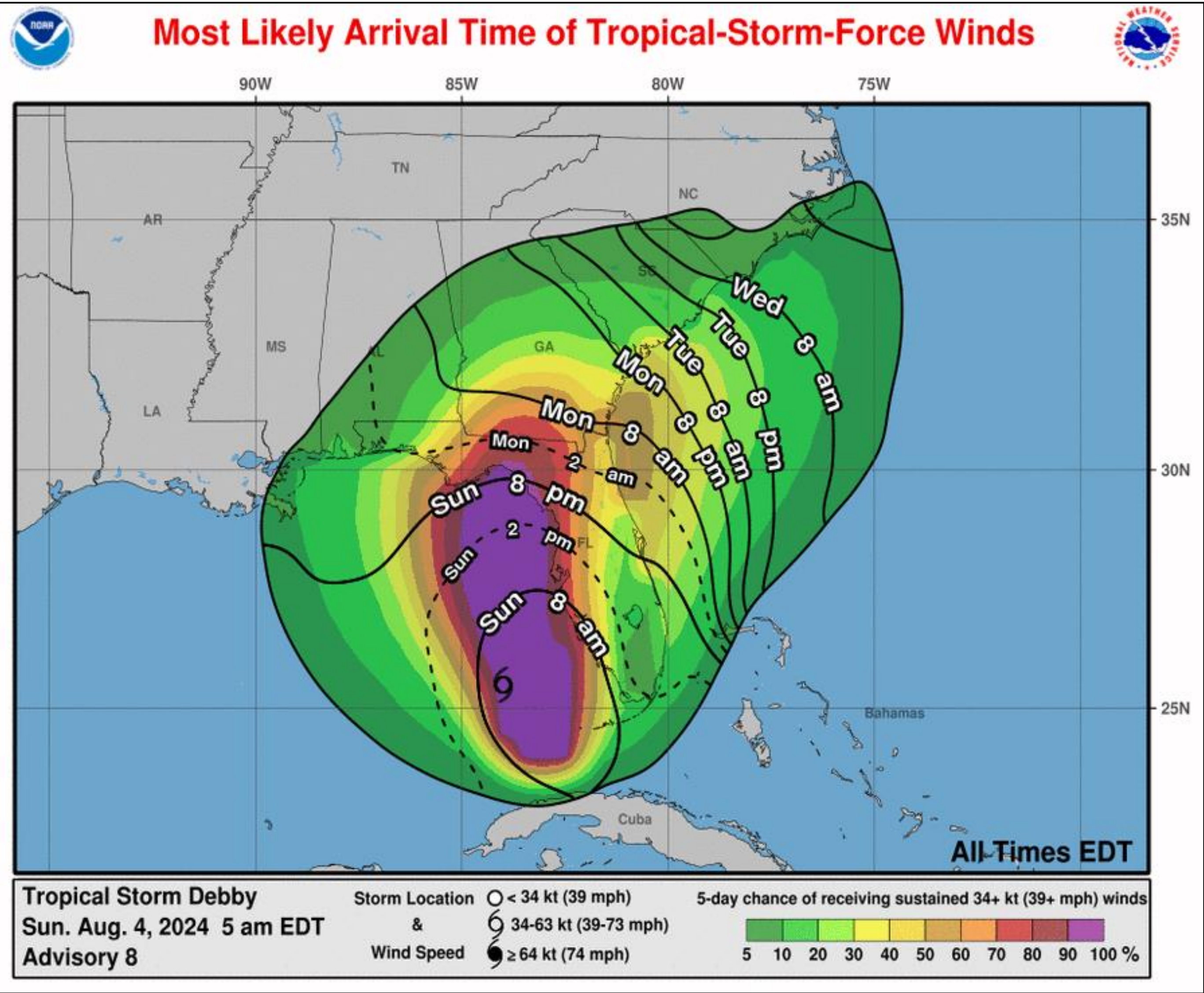
- **TALLAHASSEE 5%**
 - **CEDAR KEY FL 10%**
 - **APALACHICOLA 20%**
 - **PANAMA CITY 5%**
- Probabilities of sustained hurricane force winds (64 kt +) over the next 5 days, based off this cyclone's wind radii and track.
 - Clear or dark green are the lowest chances of 0-30%.
 - Yellow to orange is 31-70%
 - Red through purple are the highest probabilities of 71%-100%
 - See the color bar below the image for more details.

Most Likely Time of Arrival and Tropical Storm Windspeed Probabilities

Tropical Storm Debby



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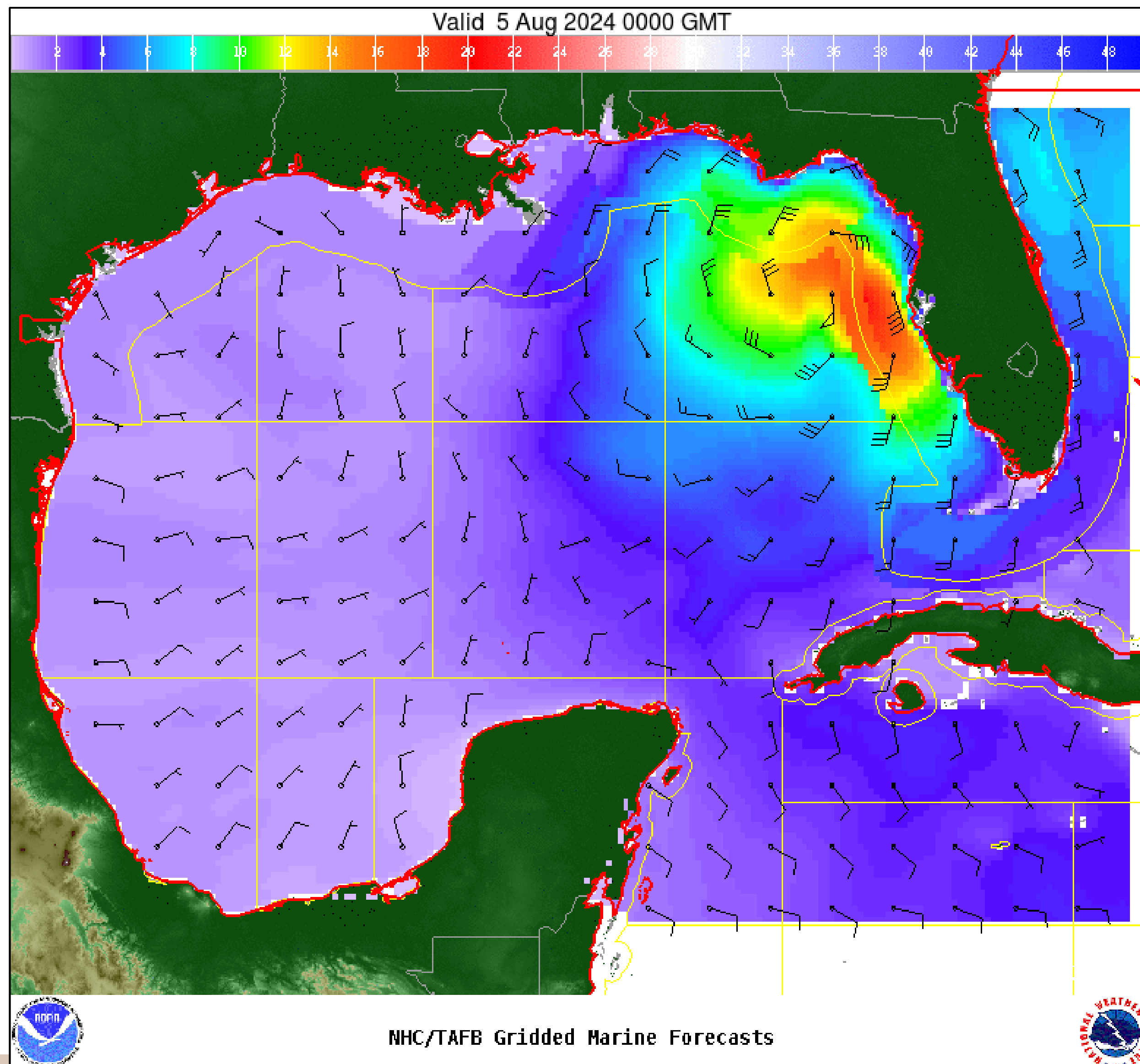
- Southwest Florida: Ongoing
- Tampa Bay: Later this morning
- Florida Big Bend: Tonight
- Jacksonville: early Monday morning
- South Carolina: Monday night
- The most likely time of arrival of Tropical Storm Force Winds (34kt to 63 kt) for this cyclone based off the current track and wind radii.
- Clear 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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12 Hour Forecast

Sunday, August 4th at 8pm EDT

Peak Winds: 70 kt

Peak Seas: 20 ft

- Wave heights are in feet



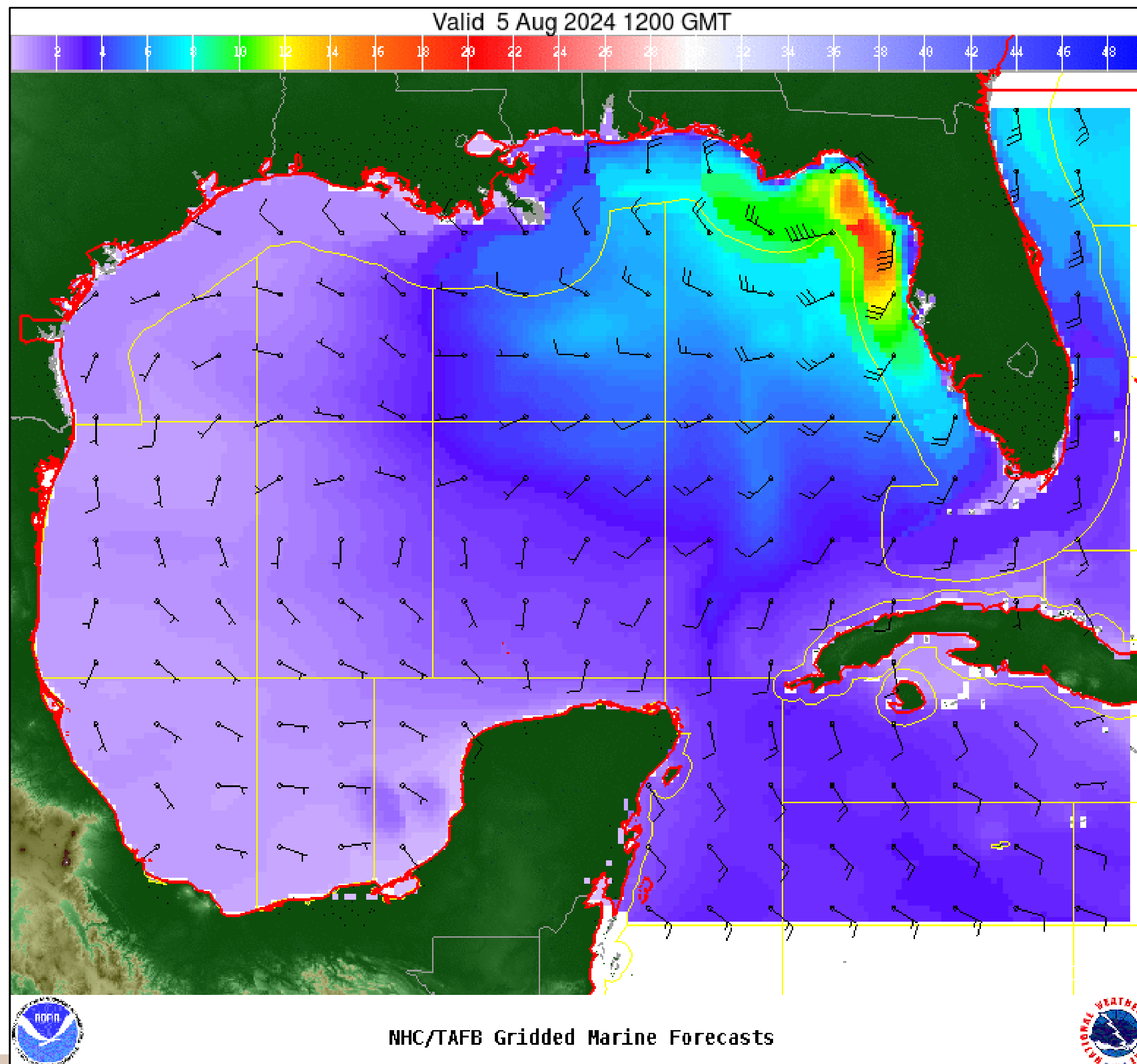
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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24 Hour Forecast

Monday, August 5th at 8am EDT

Peak Winds: 70 kt

Peak Seas: 20 ft

- Wave heights are in feet



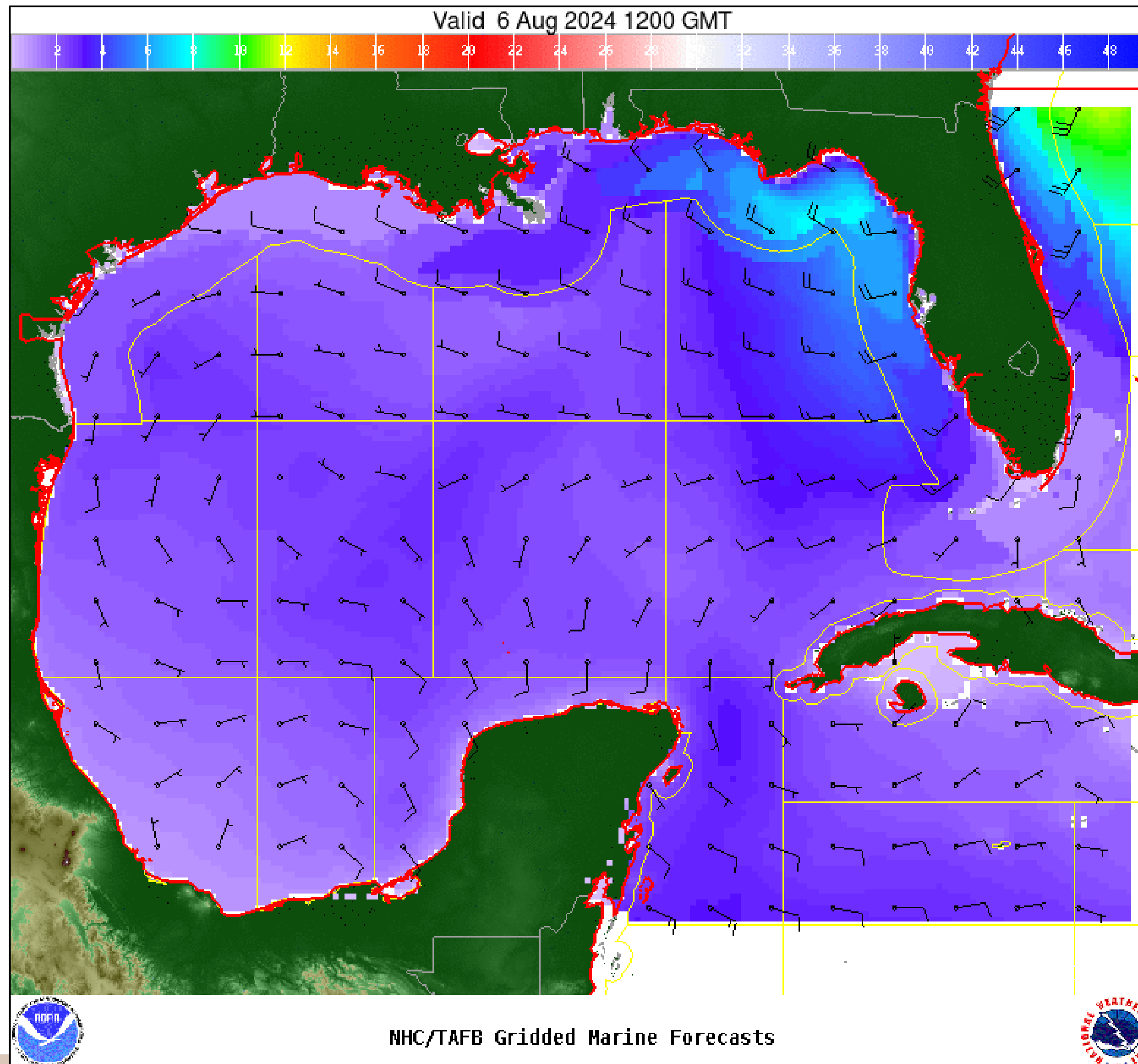
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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48 Hour Forecast

Tuesday, August 6th at 8am EDT

Peak Winds: 25 kt

Peak Seas: 7 ft

■ Wave heights are in feet



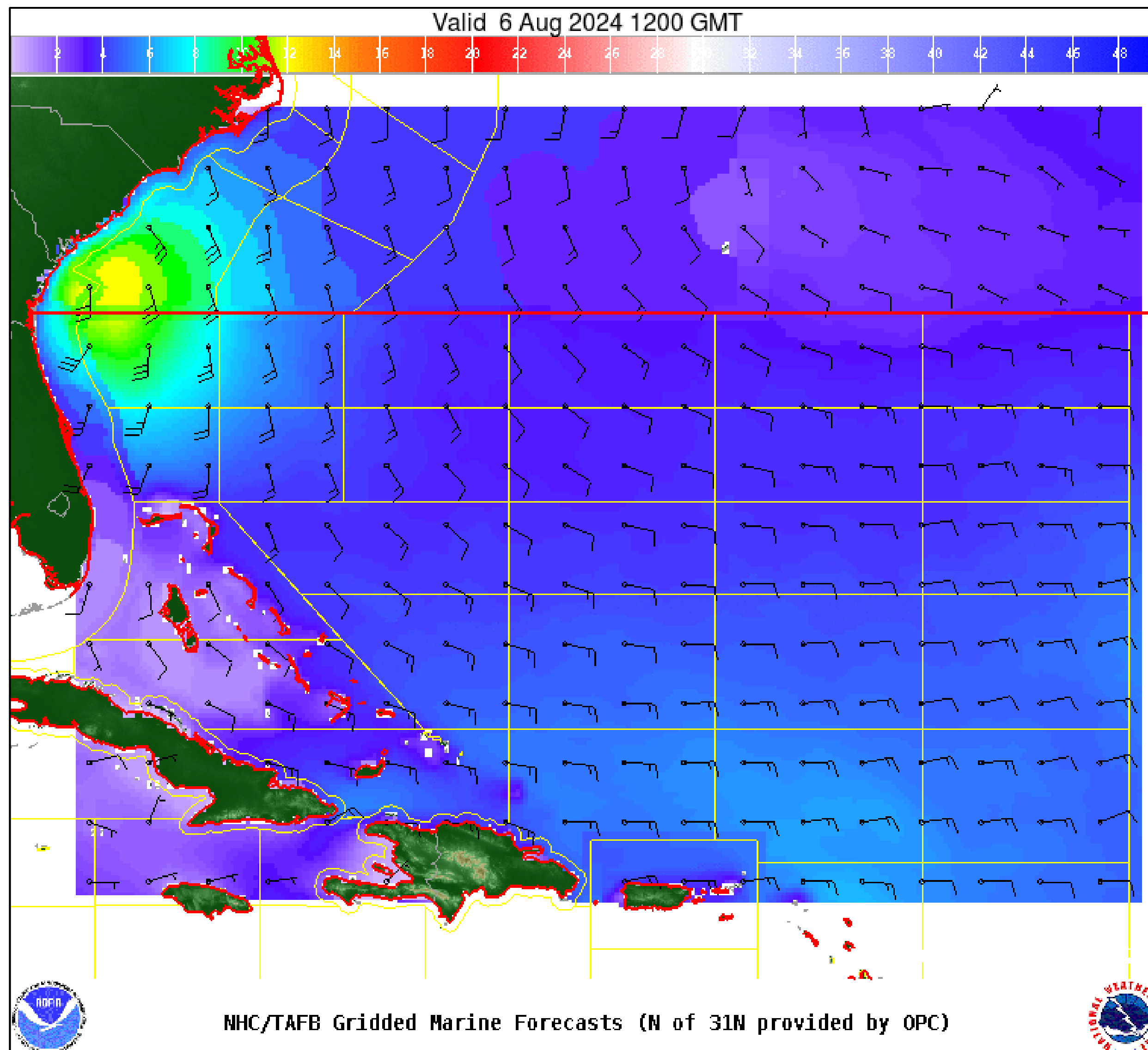
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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48 Hour Forecast

Tuesday, August 6th at 8am EDT

Peak Winds: 40 kt

Peak Seas: 12 ft

- Wave heights are in feet



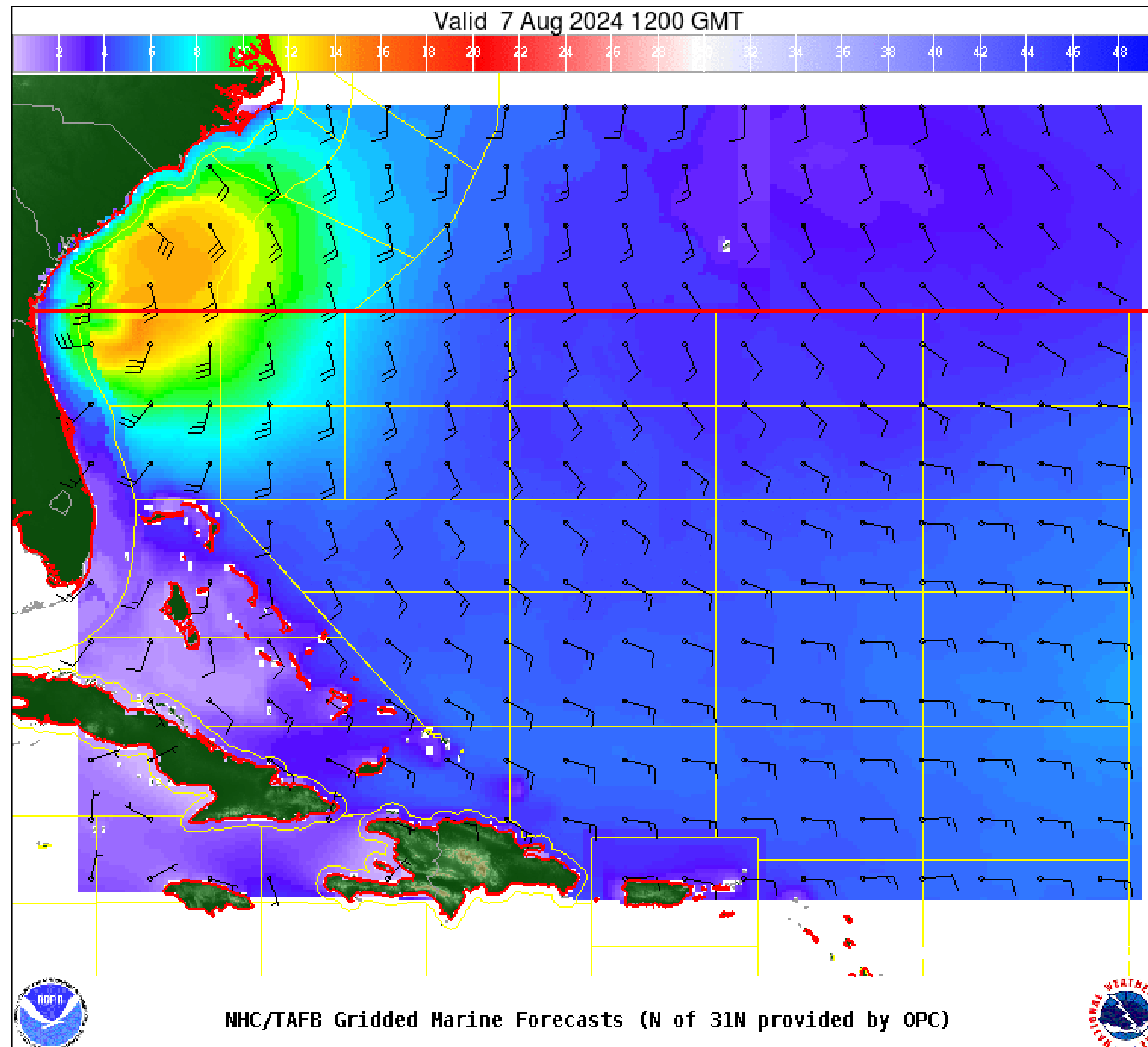
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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72 Hour Forecast

Wednesday, August 7th at 8am EDT

Peak Winds: 45 kt

Peak Seas: 15 ft

- Wave heights are in feet



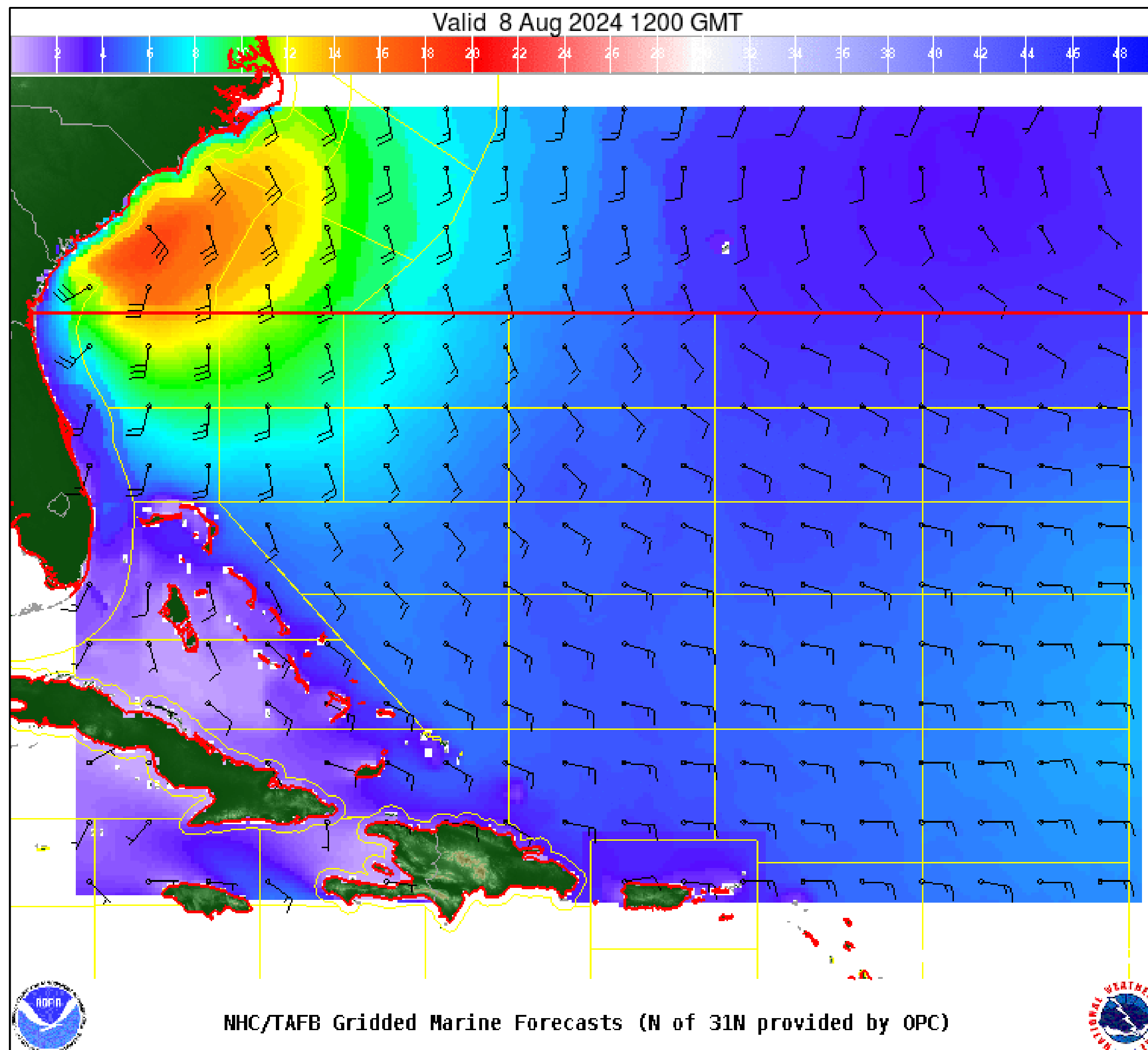
Significant Wave Height (ft)

Wind And Waves

Tropical Storm Debby



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96 Hour Forecast

Thursday, August 8th at 8am EDT

Peak Winds: 40 kt

Peak Seas: 18 ft

- Wave heights are in feet



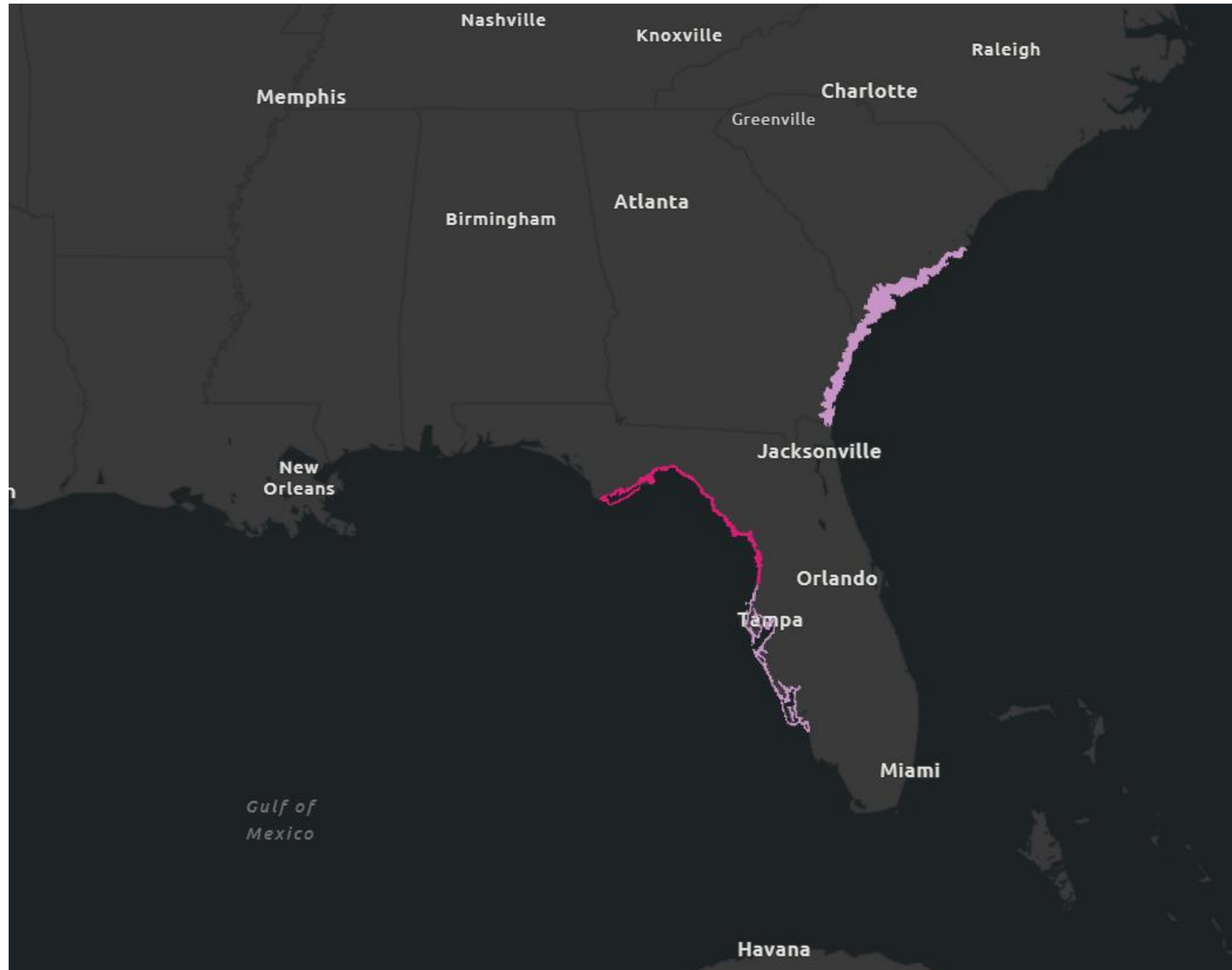
Significant Wave Height (ft)

Potential Storm Surge

Tropical Storm Debby



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A Storm Surge **Warning** is in effect for...

- * Florida coast from Arippeka northward to Indian Pass

A Storm Surge **Watch** is in effect for...

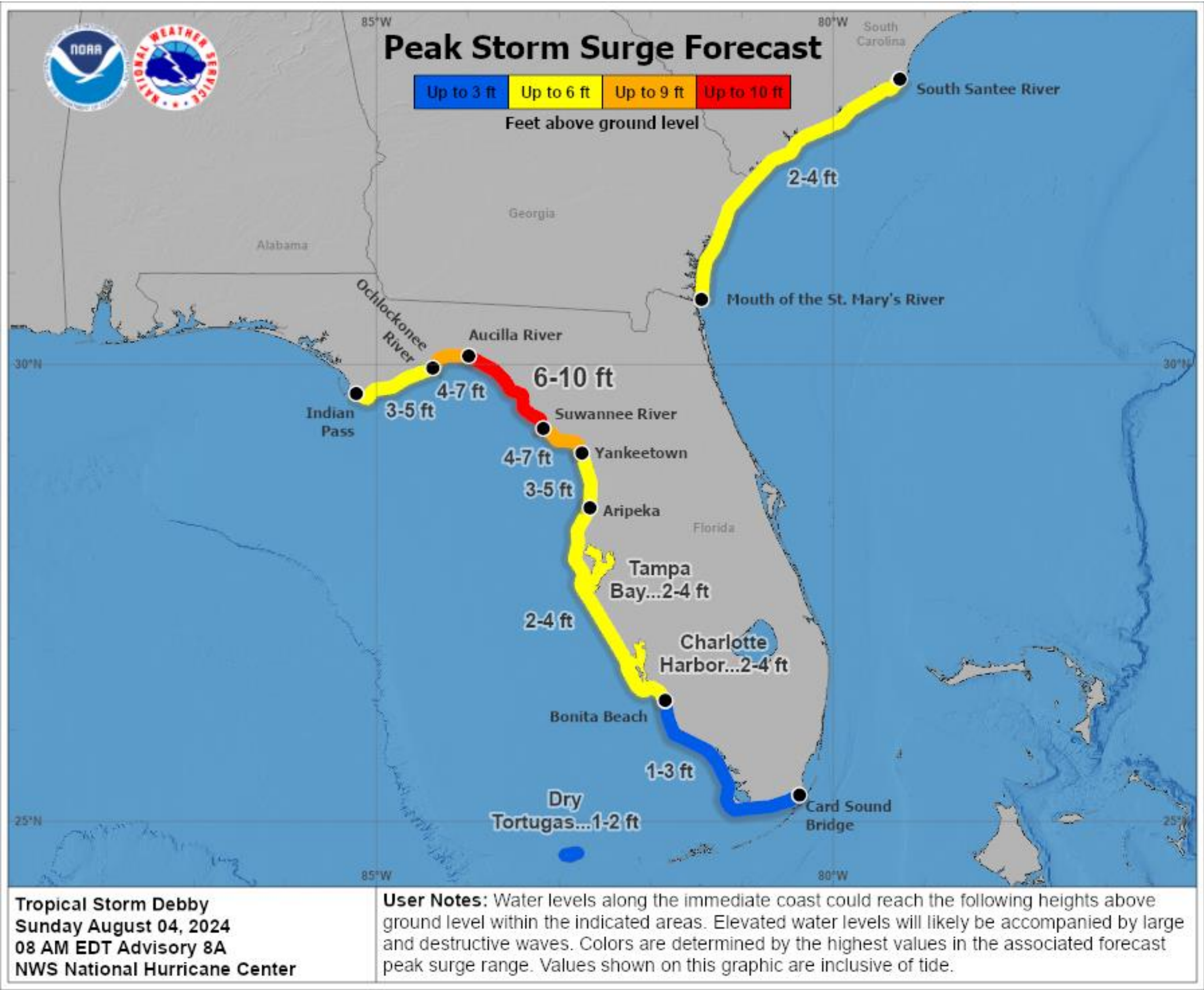
- * Florida coast from Bonita Beach northward to Arippeka, including Tampa Bay and Charlotte Harbor
- * Georgia and South Carolina coast from the Mouth of the St. Mary's River to South Santee River South Carolina

Potential Peak Storm Surge / Watches and Warnings

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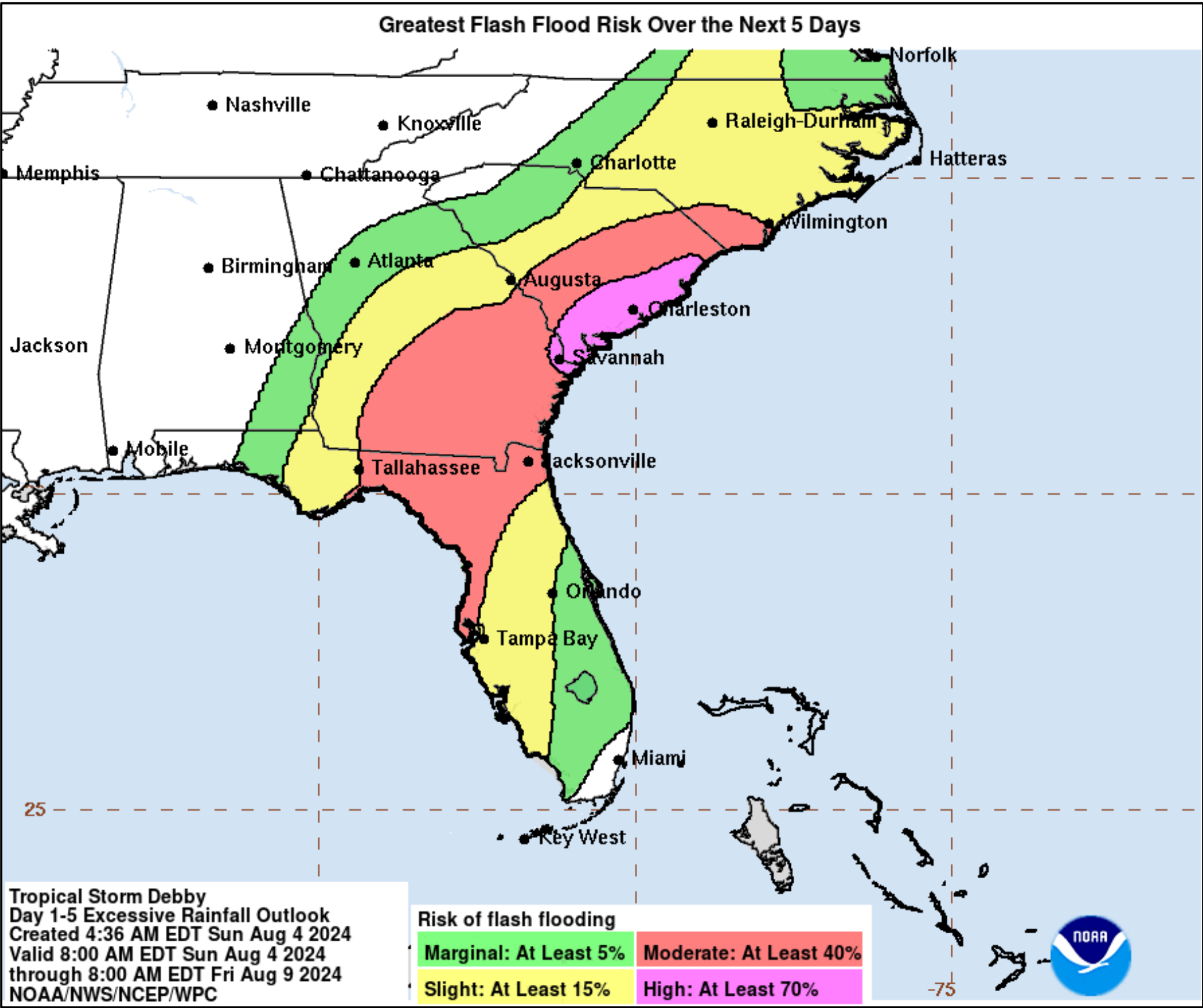
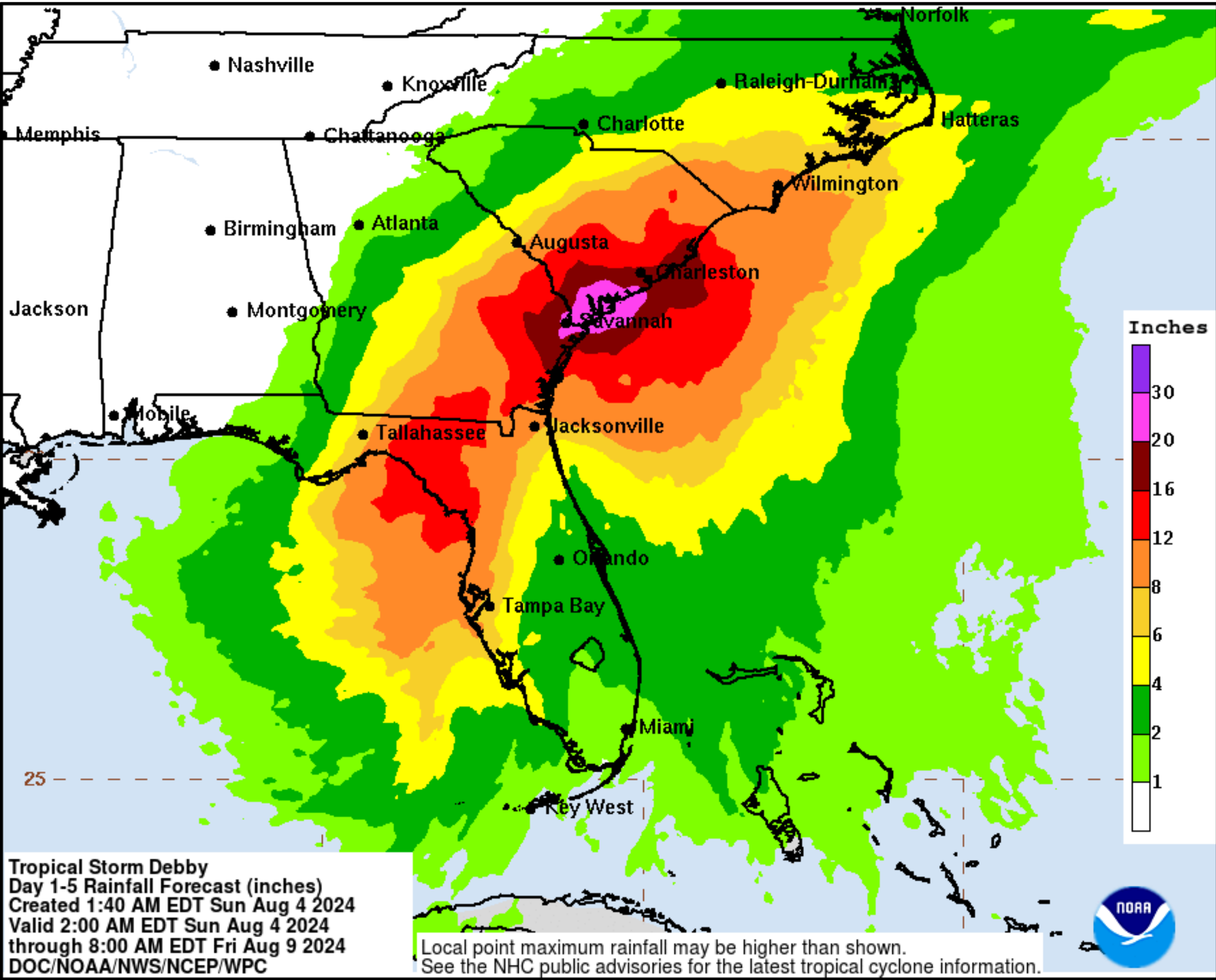


Expected Storm Total Rainfall and Chance of Rainfall Flooding



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Tropical Storm Debby Images from NWS Weather Prediction Center



- Florida: 6-12 inches with max 18 inches expected in northern Florida
- Georgia/South Carolina: 10-20 inches with local amounts up to 30 inches expected through Fri morning
 - This is *potentially historic rainfall that could cause severe/widespread flooding*

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

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

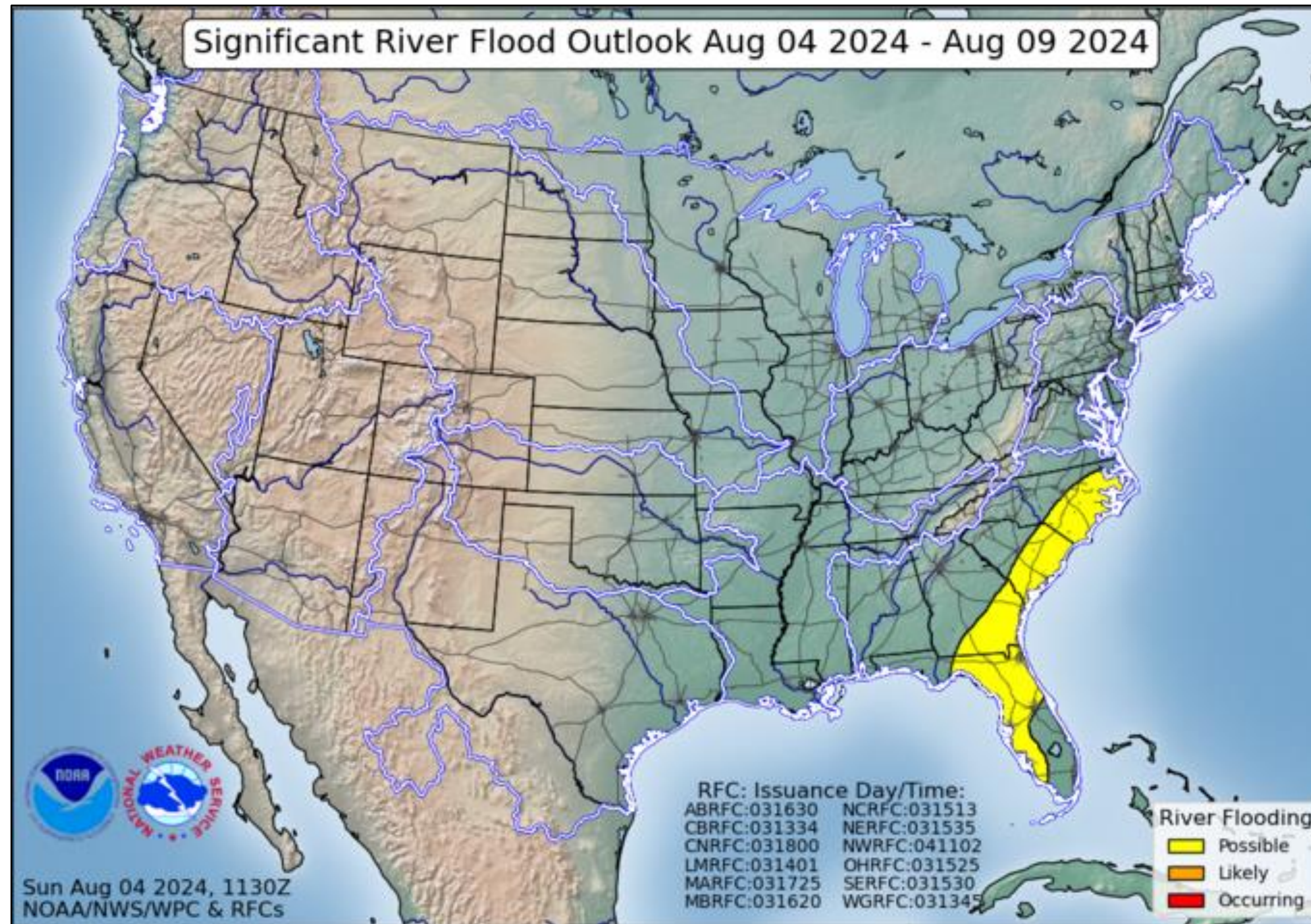
Refer to map legend for Valid Time

Flood Outlook

Tropical Storm Debby



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Tornado Outlook – Day 1 and 2

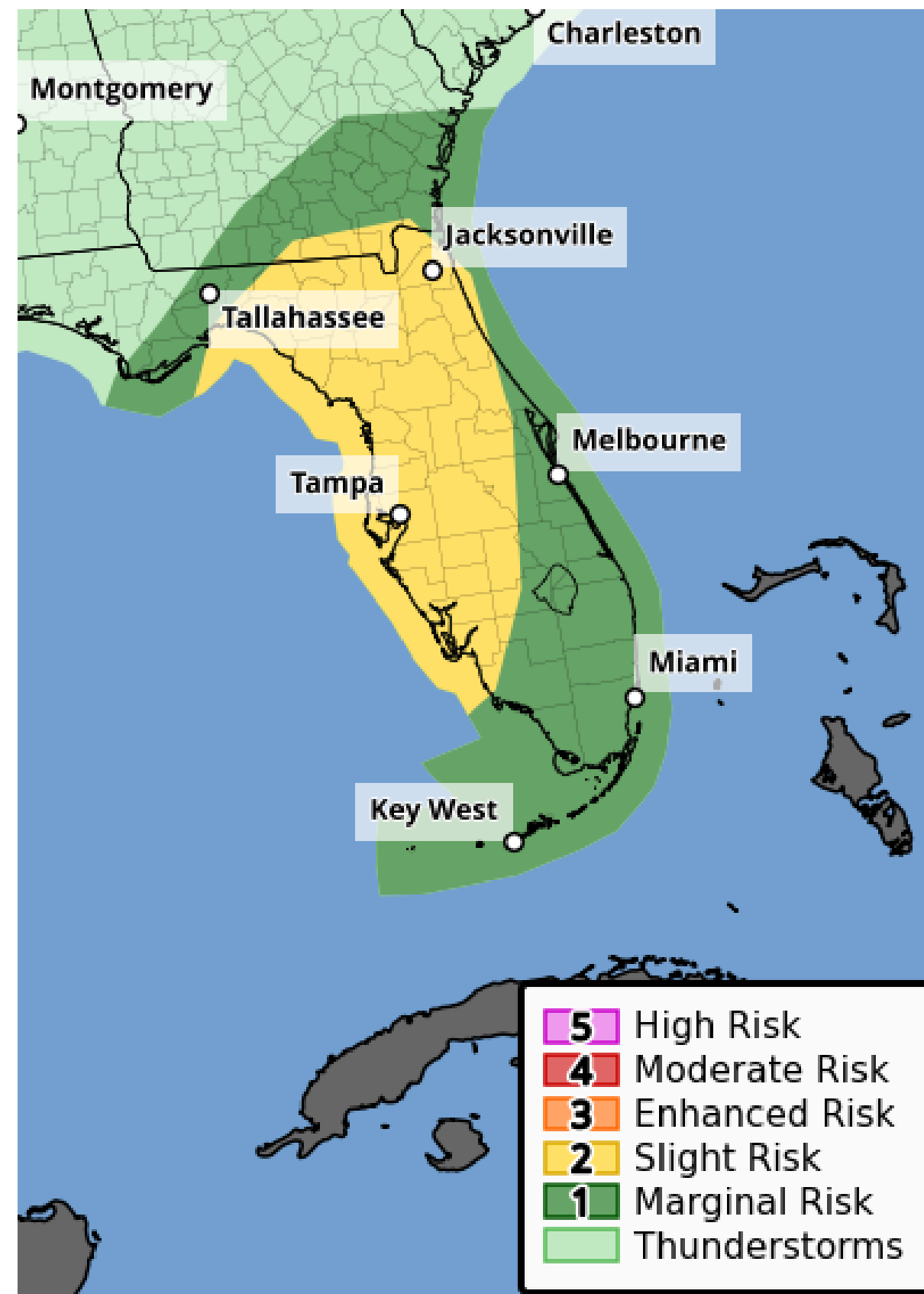
Tropical Storm Debby

Image from NWS Storm Prediction Center



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Day 1 - Sunday



Day 2 - Monday



Tropical Storm Debby



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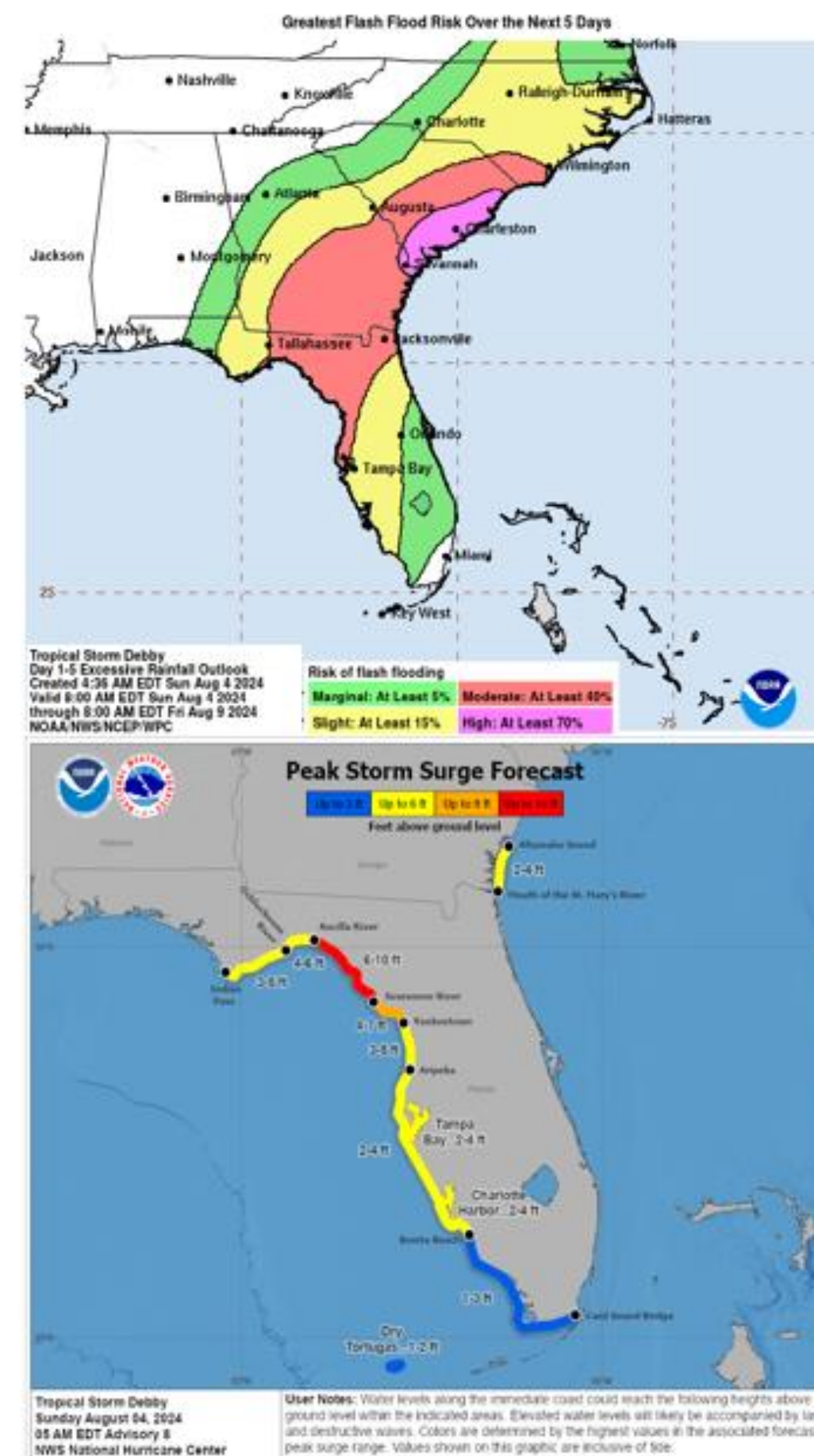


Key Messages for Tropical Storm Debby

Advisory 8: 5:00 AM EDT Sun Aug 04, 2024



1. Heavy rainfall will likely result in considerable flash and urban flooding across portions of northern Florida through Friday morning. Potentially historic heavy rainfall across southeast Georgia and South Carolina through Friday morning will likely result in areas of severe and widespread flash and urban flooding. Significant river flooding is also expected.
2. Hurricane conditions are expected on Monday along portions of the Florida Big Bend region where a Hurricane Warning is in effect, with tropical storm conditions beginning this evening. Tropical storm conditions are expected through Monday farther south within the Tropical Storm Warning along Florida's west coast, including the Tampa Bay area and the Lower Florida Keys.
3. There is a danger of life-threatening storm surge inundation along portions of the Gulf coast of Florida from Aripeka to Indian Pass. Life-threatening storm surge is possible south of Aripeka to Bonita Beach, including Tampa Bay and Charlotte Harbor.
4. Impacts from storm surge and strong winds are possible elsewhere in Florida and along the southeast coast of the United States from Georgia to North Carolina through the middle of the week, and interests in those areas should continue to monitor the progress of this system. Additional watches and warnings will likely be required later today.



For more information go to hurricanes.gov

Marine Key Messages

- Seas will peak near 20 ft off the east coast of Florida tonight into Monday morning
- Conditions will improve across the Gulf through Monday night
- Rough to very seas will impact the NE Florida Coast northward to South Carolina Tue through Thu as Debby meanders near the Georgia/South Carolina coast

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:
Monday, 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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