

**IMPACTS FOR D8** (through next 5 days)

Winds – **Low**

Storm Surge – **Low**

Rainfall/Flash Flooding – **Low**

Tornadoes – **Low**

Waves - **Low**

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

Winds – **Medium**

Storm Surge – **Medium**

Rainfall/Flash Flooding – **High**

Tornadoes – **Low**

Waves - **Medium**

# TROPICAL STORM DEBBY BRIEFING

5:00 PM EDT / 4:00 PM CDT

Saturday, August 3, 2024

Prepared by:

**Amanda Reinhart**

*Tropical Analysis and Forecast Branch  
NWS National Hurricane Center*



# Changes since Last Briefing

## Tropical Storm Debby



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

- Debby has now been upgraded to a Tropical Storm
- Although the track has not changed significantly, Debby is expected to make landfall as a Category I hurricane
  - As a result, there is a hurricane warning in effect from the Florida Gulf coast from the Suwannee River to the Ochlockonee River
- Forecasted rainfall amounts have increased since the last briefing, with 6-12 inches and maximum totals of up to 18 inches are expected across portions of Florida and the southeast US
  - Expect flash and urban flooding with this along with significant river flooding

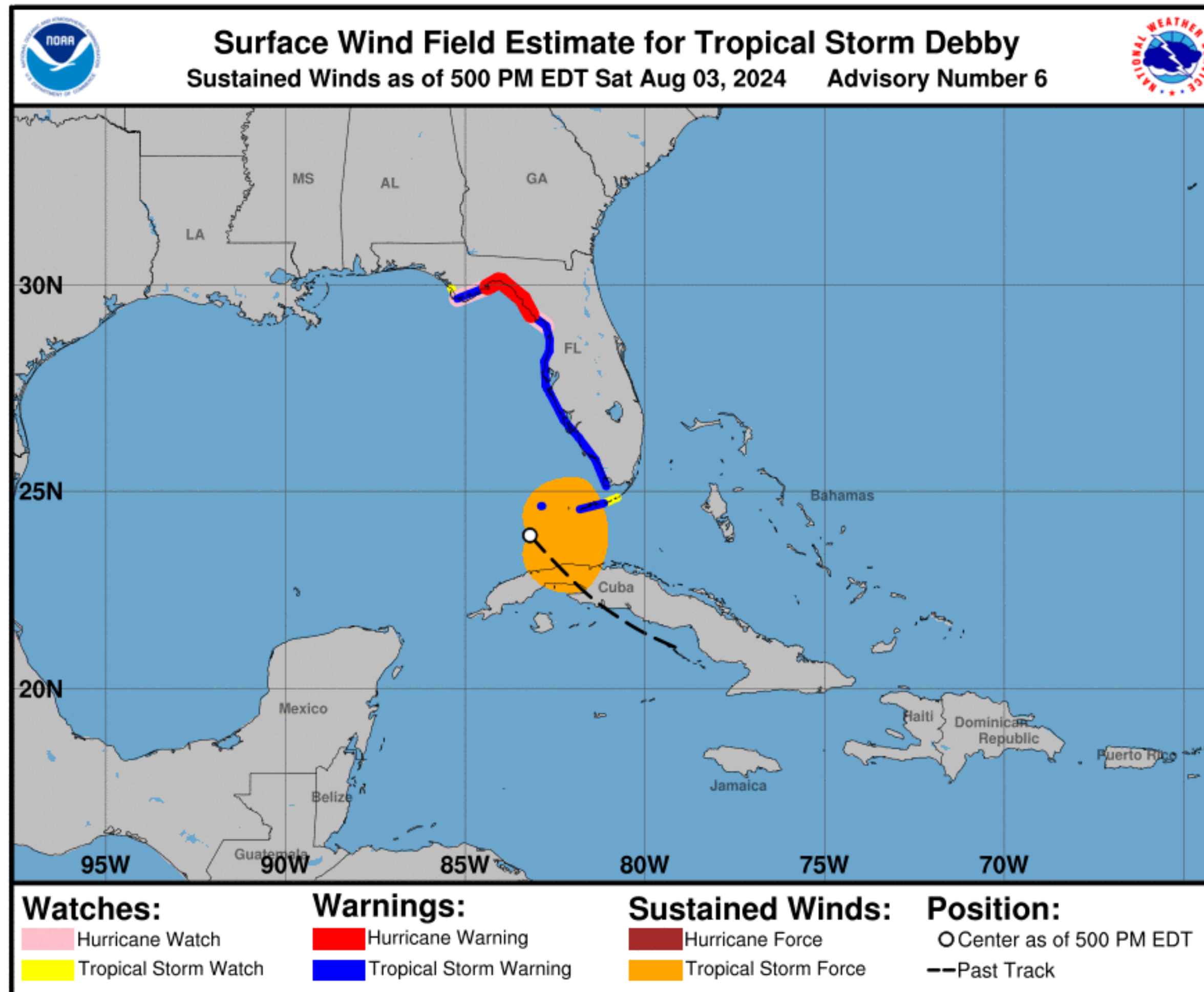


# Situation Overview

## Tropical Storm Debby



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...DEPRESSION BECOMES TROPICAL STORM  
DEBBY OVER THE SOUTHEASTERN GULF OF  
MEXICO...

...HURRICANE WARNINGS ISSUED FOR  
PORTIONS OF THE GULF COAST OF FLORIDA...

### Summary of 500 PM EDT Information

Location...23.9N 83.2W

About 60 nm NW of Havana Cuba

About 85 nm WSW of Key West Florida

Maximum Sustained Winds...35 kt

Present Movement...NW at 13 kt

Peak Seas: 11 ft

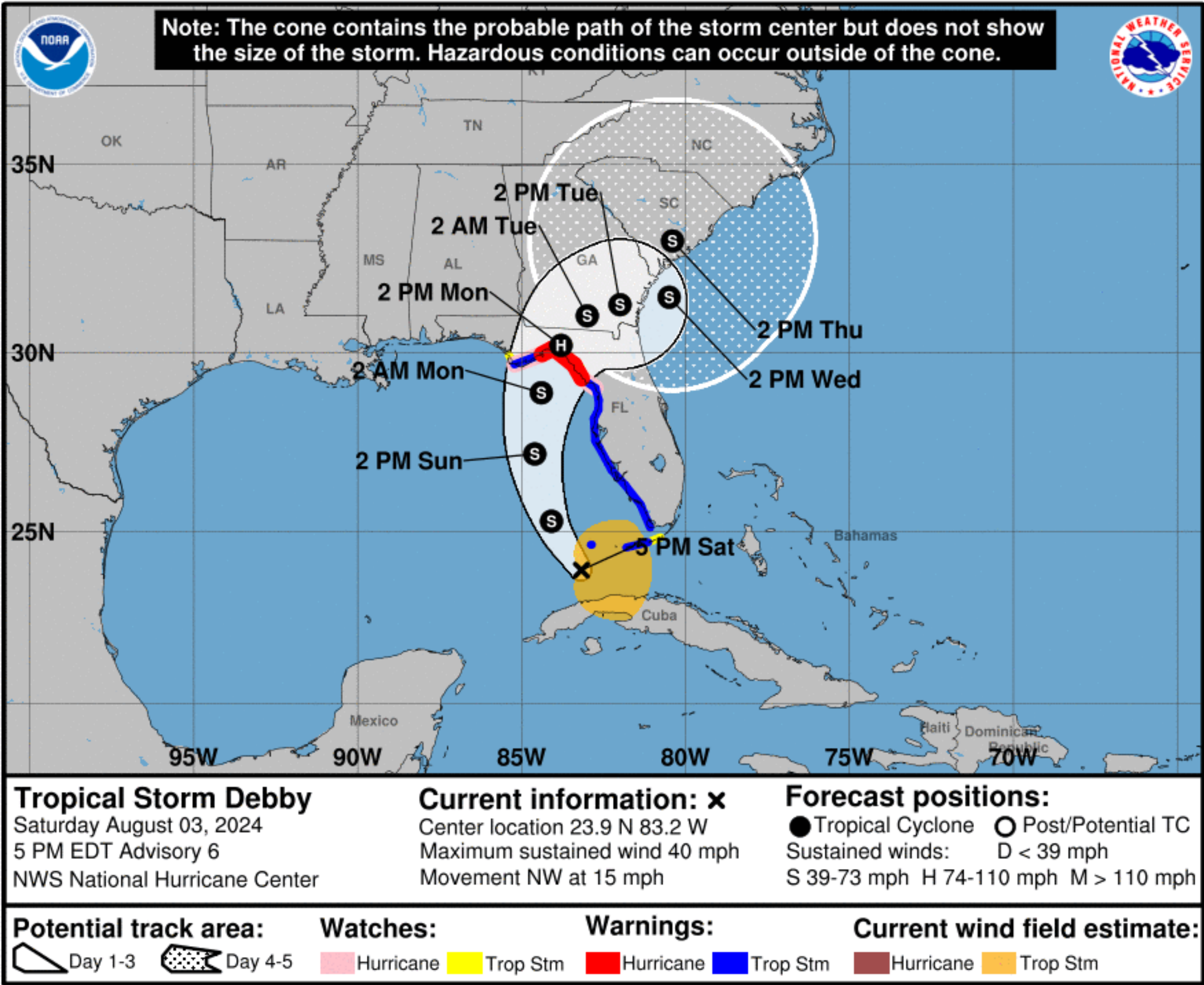


# Forecast Information

## 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 has now formed into a tropical storm in the southeast Gulf of Mexico wind rain bands already moving across southern and central Florida
- Debby will continue to move northward through Sun afternoon and gradually turn northeast at a slower forward speed, making landfall between Apalachicola and Tampa on Monday
- On the forecast track, Debby will continue to strengthen as it moves across the Gulf due to favorable conditions and is now forecasted to make landfall as a Category I hurricane
- Once Debby makes landfall, the uncertainty in the forecast increases as it moves over Georgia and South Carolina – whether it stays over land or moves back over water
  - The forecasted intensity remains uncertain because of this
  - If it stays over land, weakening will continue – but if it goes back over water, could see it remain a tropical storm

- 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.

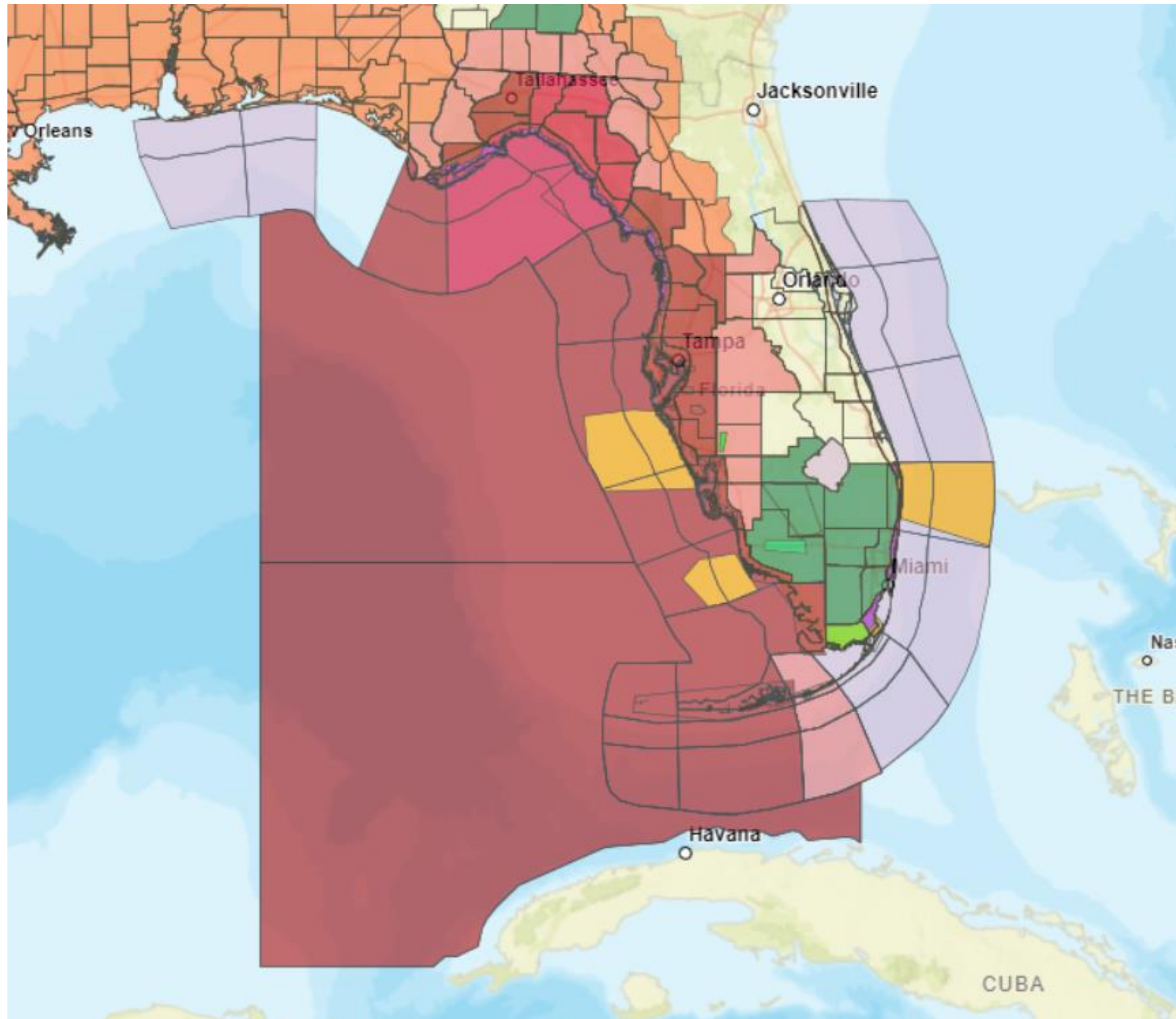


# Hazards Map

## Tropical Storm Debby



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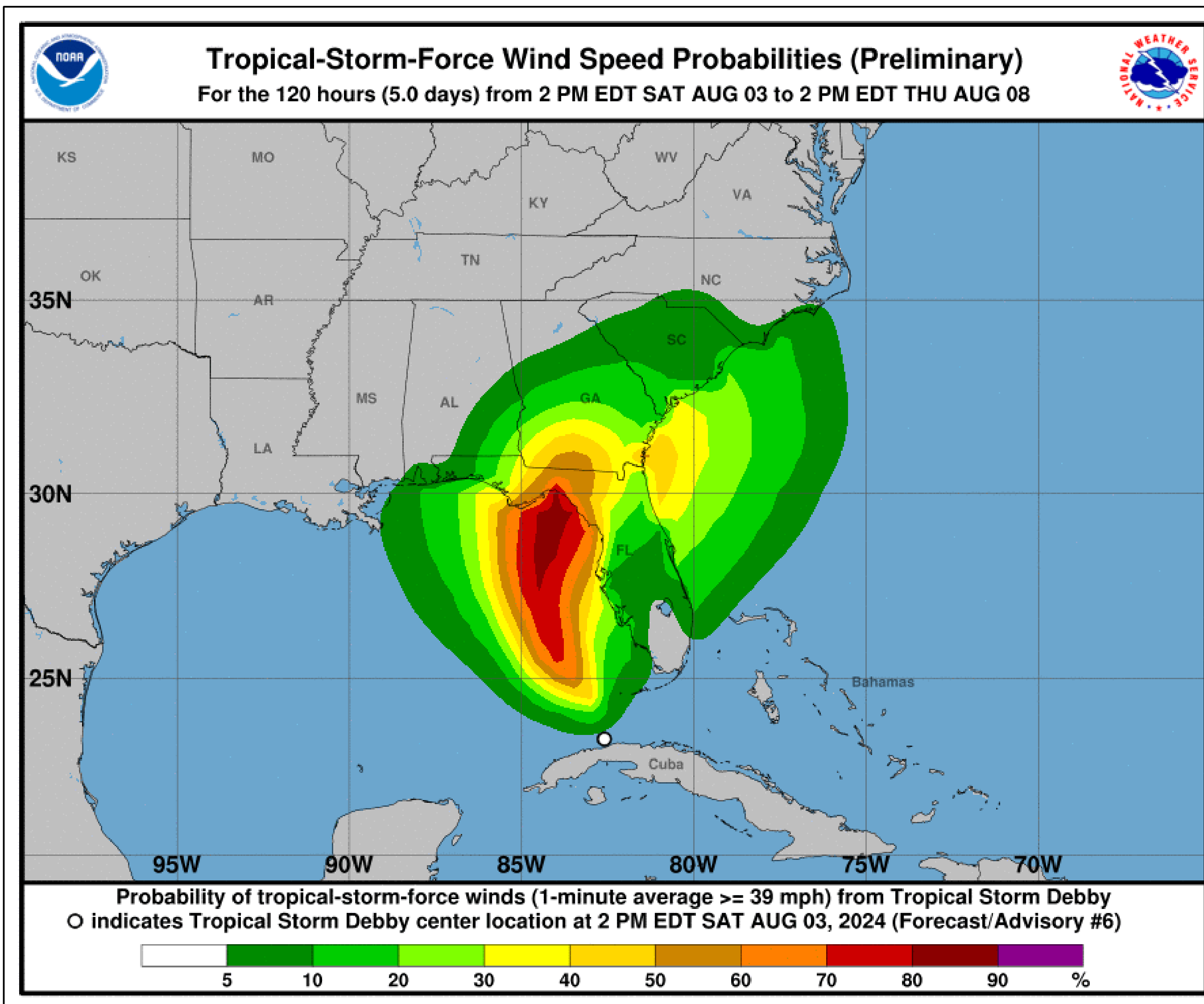


# T.S. Wind Speed Probabilities

## Tropical Storm Debby



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- **KEY WEST 5%**
- **FT LAUDERDALE 10%**
- **TAMPA 40%**
- **TALLAHASSEE 50%**
- **APALACHICOLA 65%**
- **PANAMA CITY 50%**
- **JACKSONVILLE 30%**
- **SAVANNAH 15%**
- **BEAUFORT 30%**
- **CHARLESTON 25%**

-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.

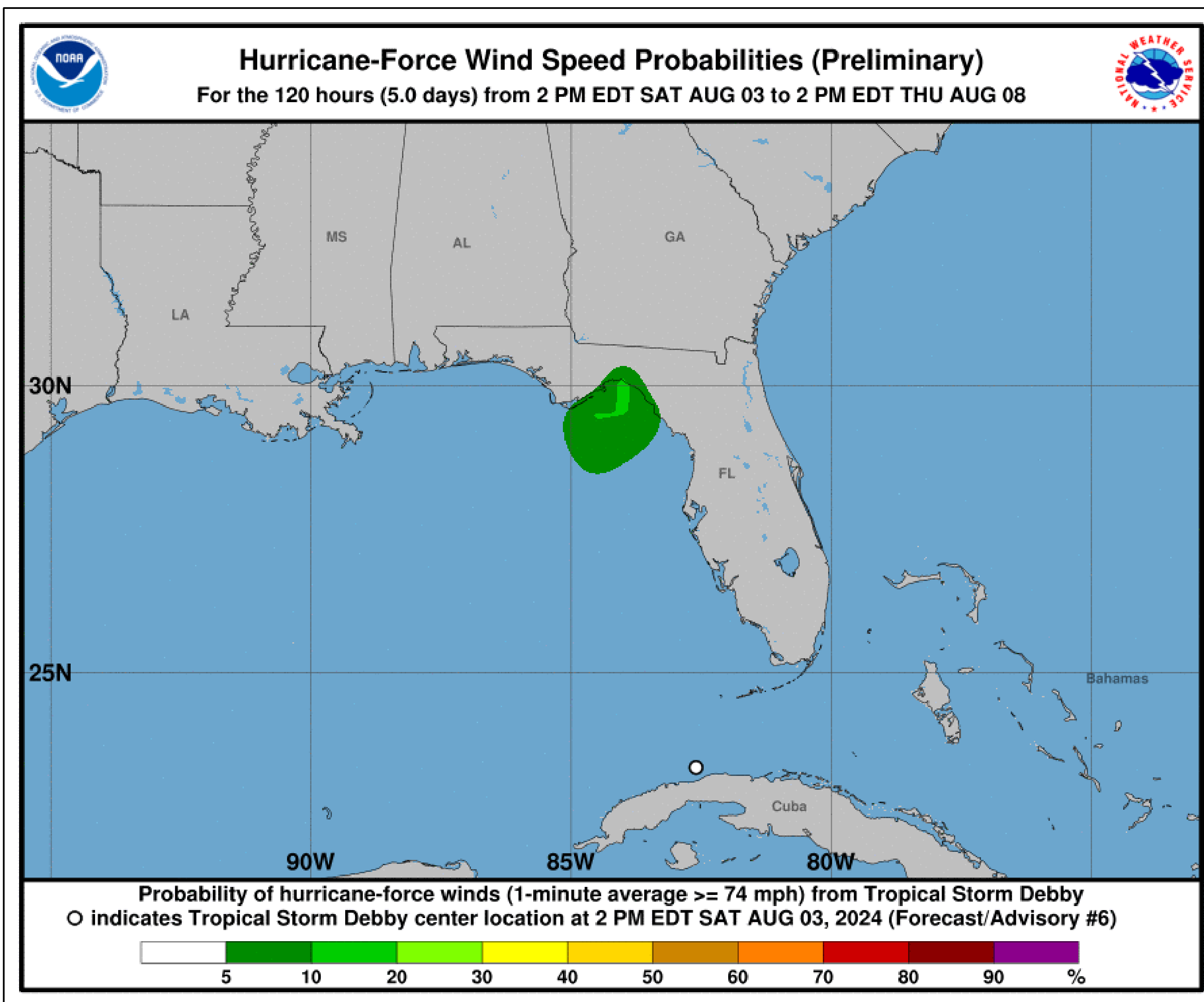


# Hurricane Wind Speed Probabilities

Tropical Storm Debby



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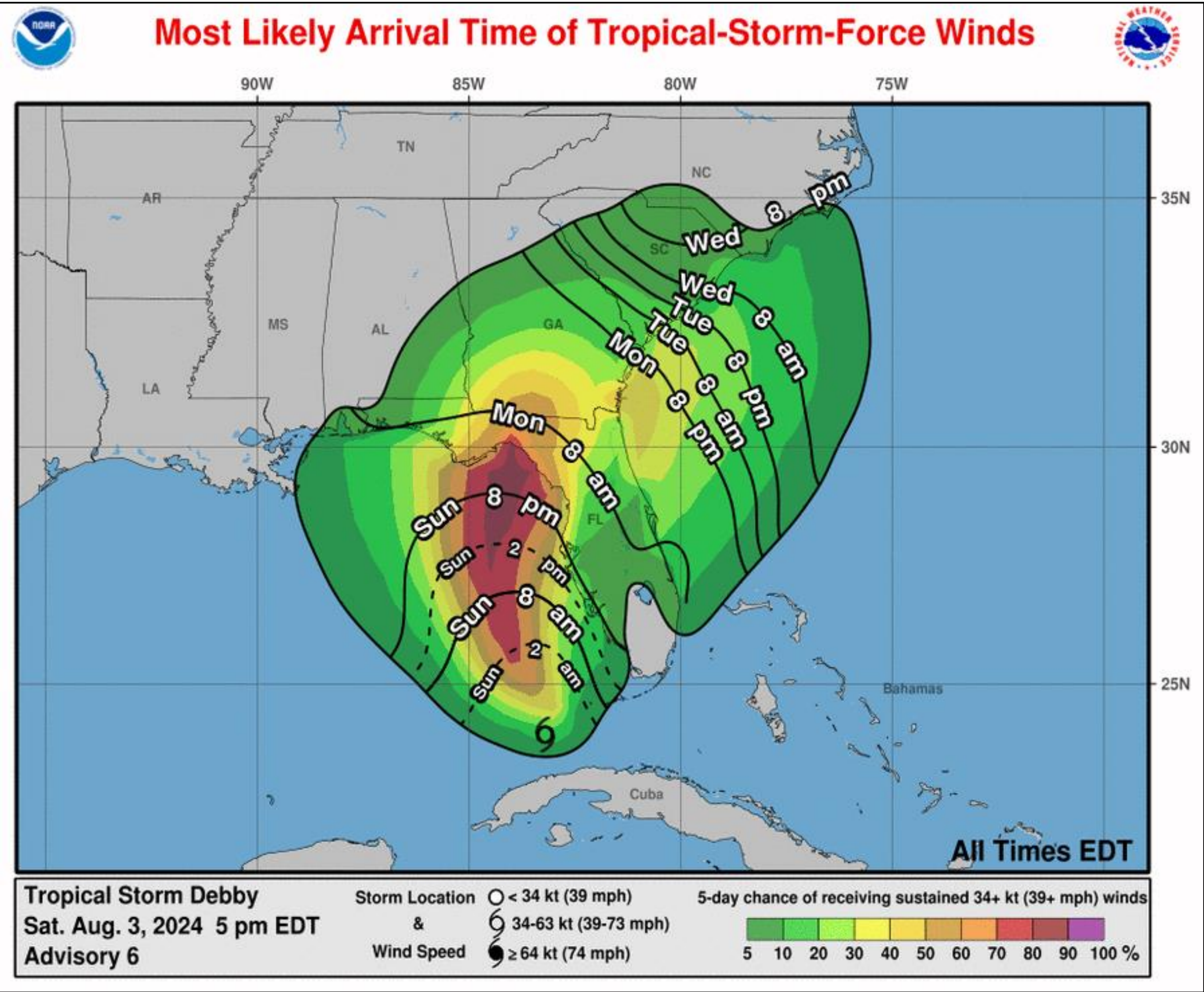


- **APALACHICOLA 5%**
- **PANAMA CITY FL 5%**
- **CEDAR KEY FL 5%**
- Probabilities of sustained hurricane force winds (64 kt +) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple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





Tropical Storm Debby



- Southwest Florida: Tonight
- Tampa Bay: Sunday afternoon/evening
- Florida Big Bend: Sunday night
- Jacksonville: Monday
- Georgia/South Carolina: Monday afternoon/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.

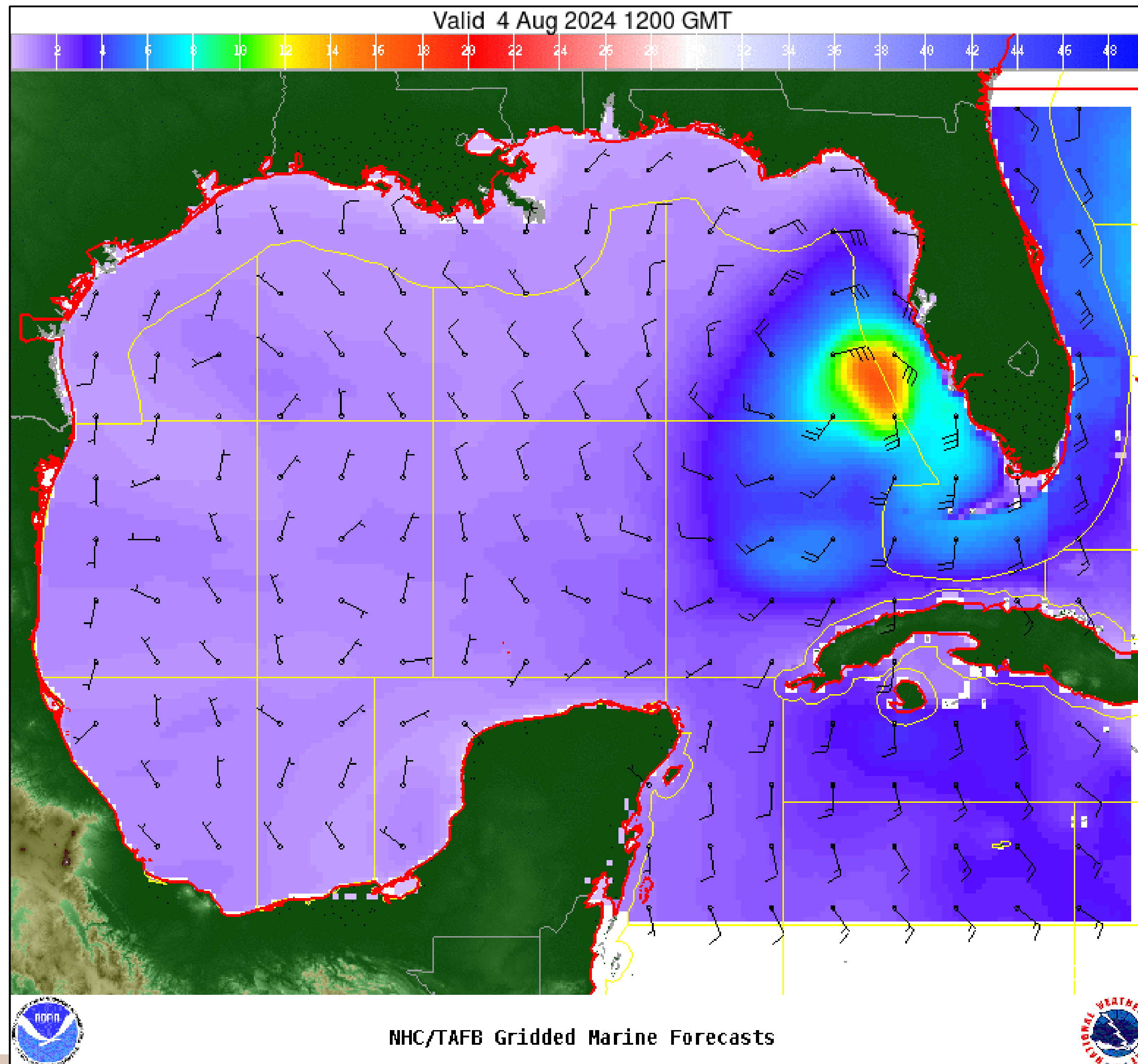


# Wind And Waves

## Tropical Storm Debby



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## 24 Hour Forecast

Sunday, August 4<sup>th</sup> at 8am EDT

Peak Winds: 40 kt

Peak Seas: 16 ft

■ Wave heights are in feet



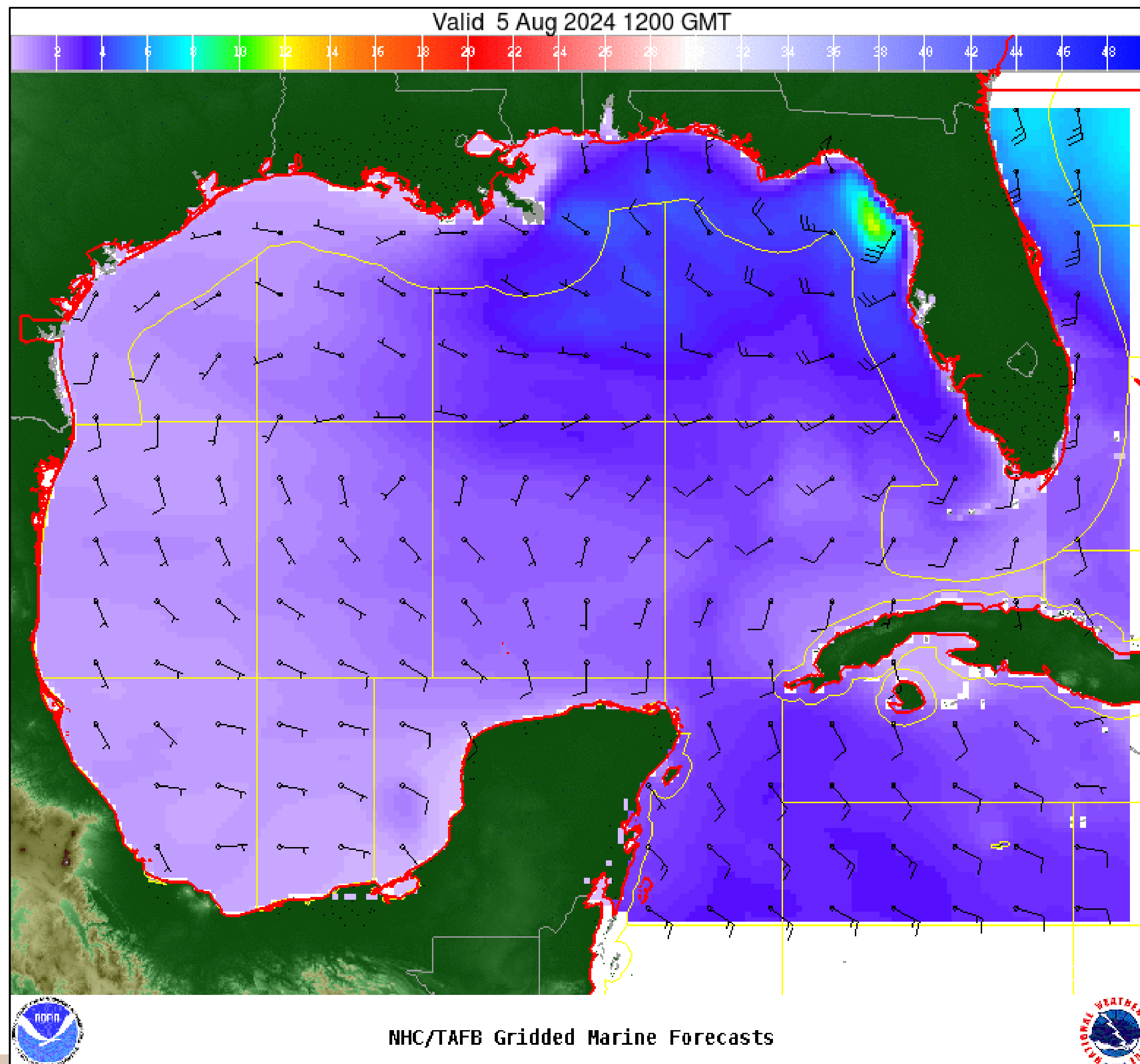
Significant Wave Height (ft)

# Wind And Waves

## Tropical Storm Debby



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### 48 Hour Forecast

**Monday, August 5<sup>th</sup> at 8am EDT**

Peak Winds: 55 kt

Peak Seas: 17 ft

■ Wave heights are in feet



Significant Wave Height (ft)

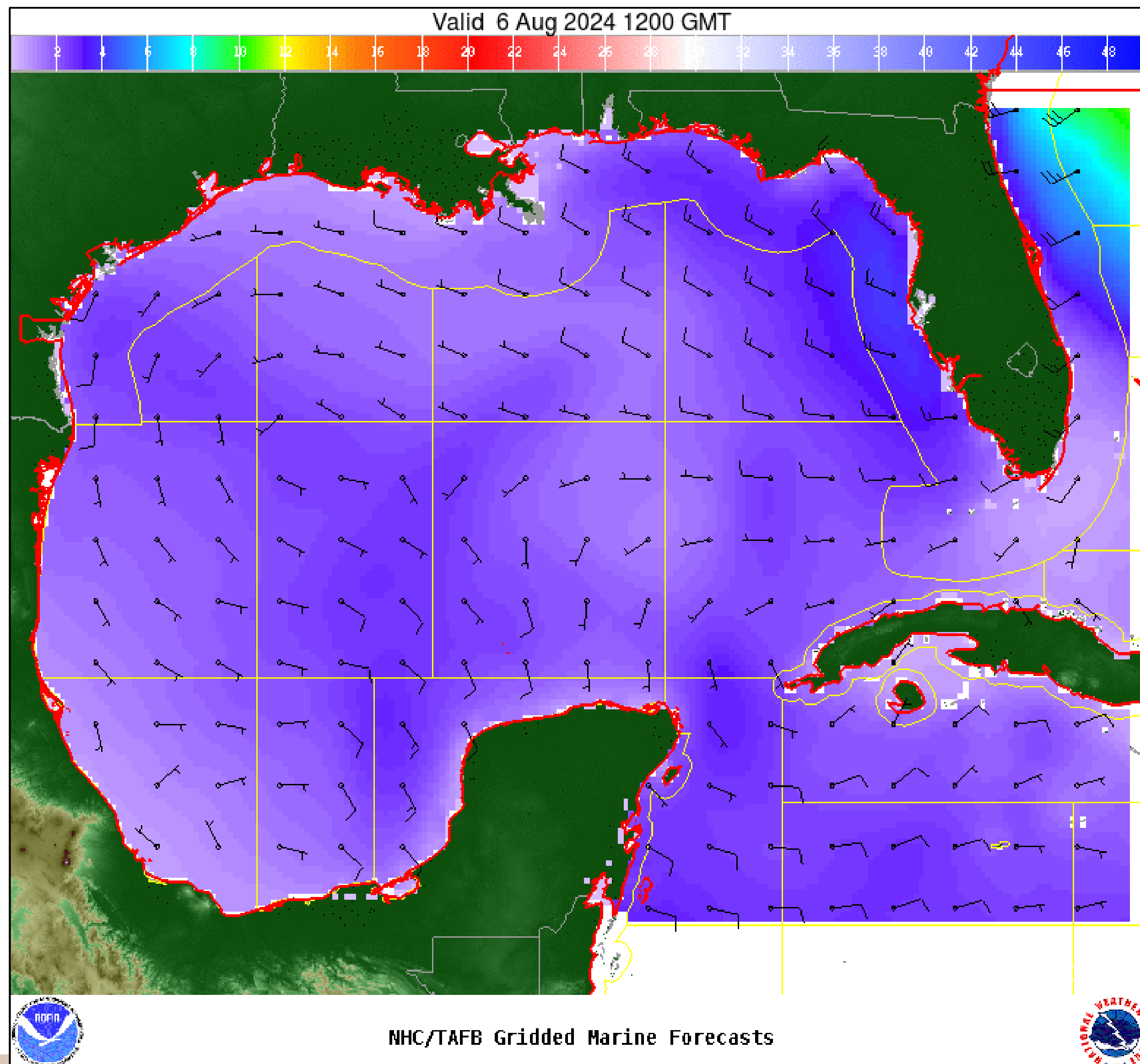


# Wind And Waves

## Tropical Storm Debby



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## 72 Hour Forecast

**Tuesday, August 6<sup>th</sup> at 8am EDT**

Peak Winds: 25 kt

Peak Seas: 6 ft

■ Wave heights are in feet

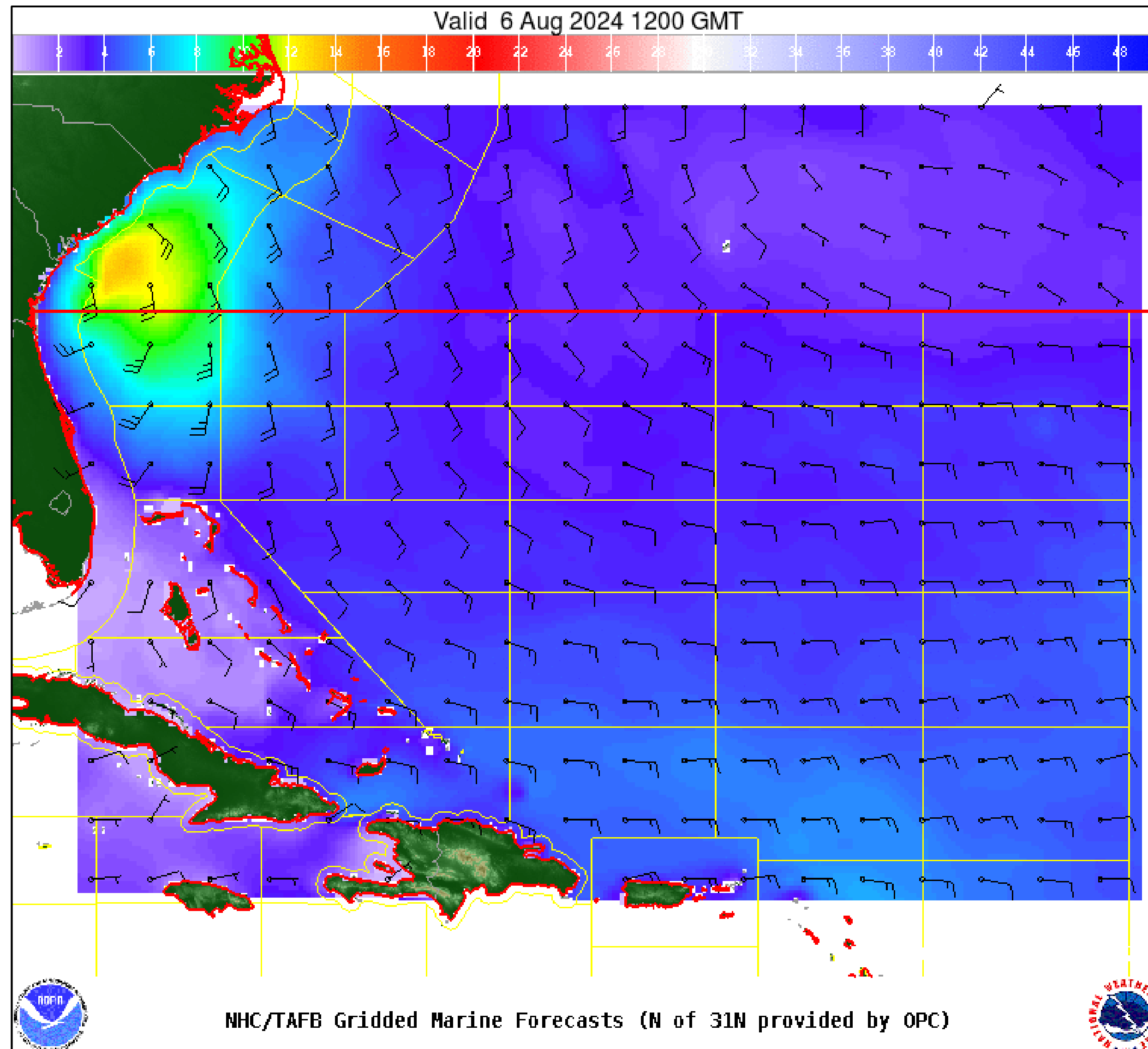


Significant Wave Height (ft)

# Wind And Waves



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## 72 Hour Forecast

**Tuesday, August 6<sup>th</sup> at 8am EDT**

Peak Winds: 30 kt

Peak Seas: 13 ft

- Wave heights are in feet



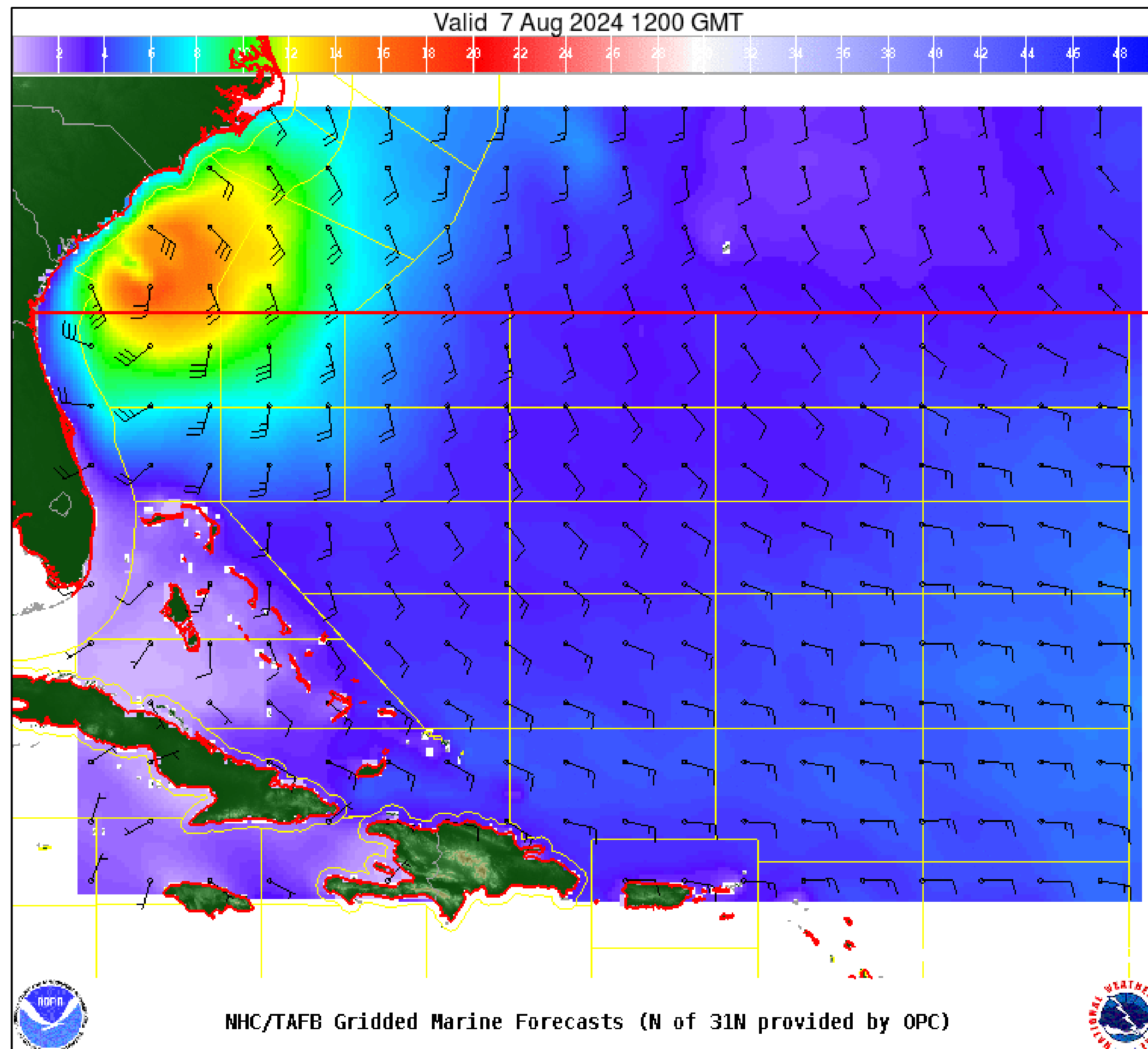
Significant Wave Height (ft)



# Wind And Waves



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## 96 Hour Forecast

Wednesday, August 7<sup>th</sup> at 8am EDT

Peak Winds: 40 kt

Peak Seas: 15 ft

- Wave heights are in feet

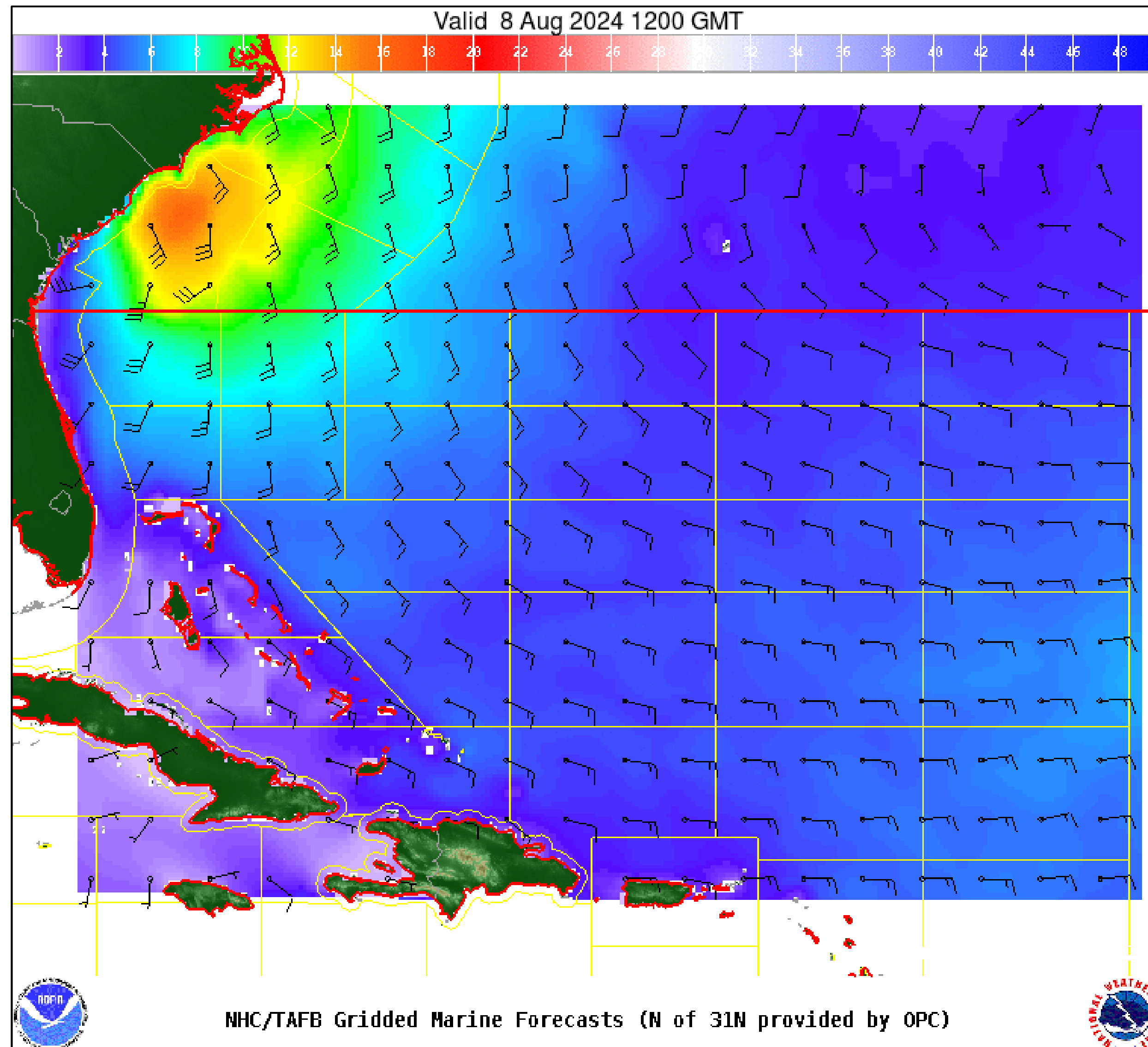


Significant Wave Height (ft)

# Wind And Waves



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## 120 Hour Forecast

Thursday, August 8<sup>th</sup> at 8am EDT

Peak Winds: 40 kt

Peak Seas: 18 ft

- Wave heights are in feet



Significant Wave Height (ft)

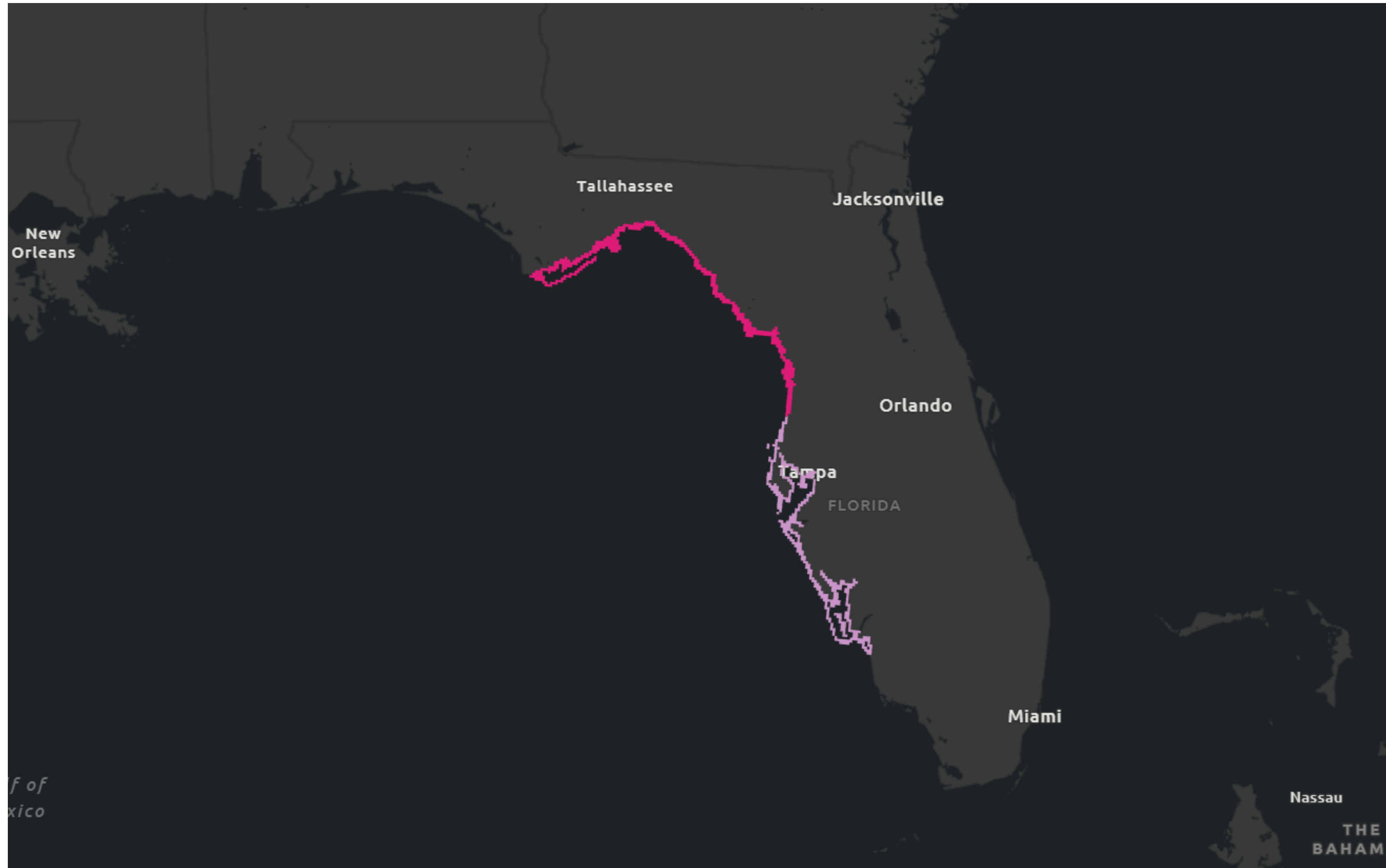


# Potential Storm Surge

Tropical Storm Debby



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There is an upgrade to a Storm Surge Warning in effect for....

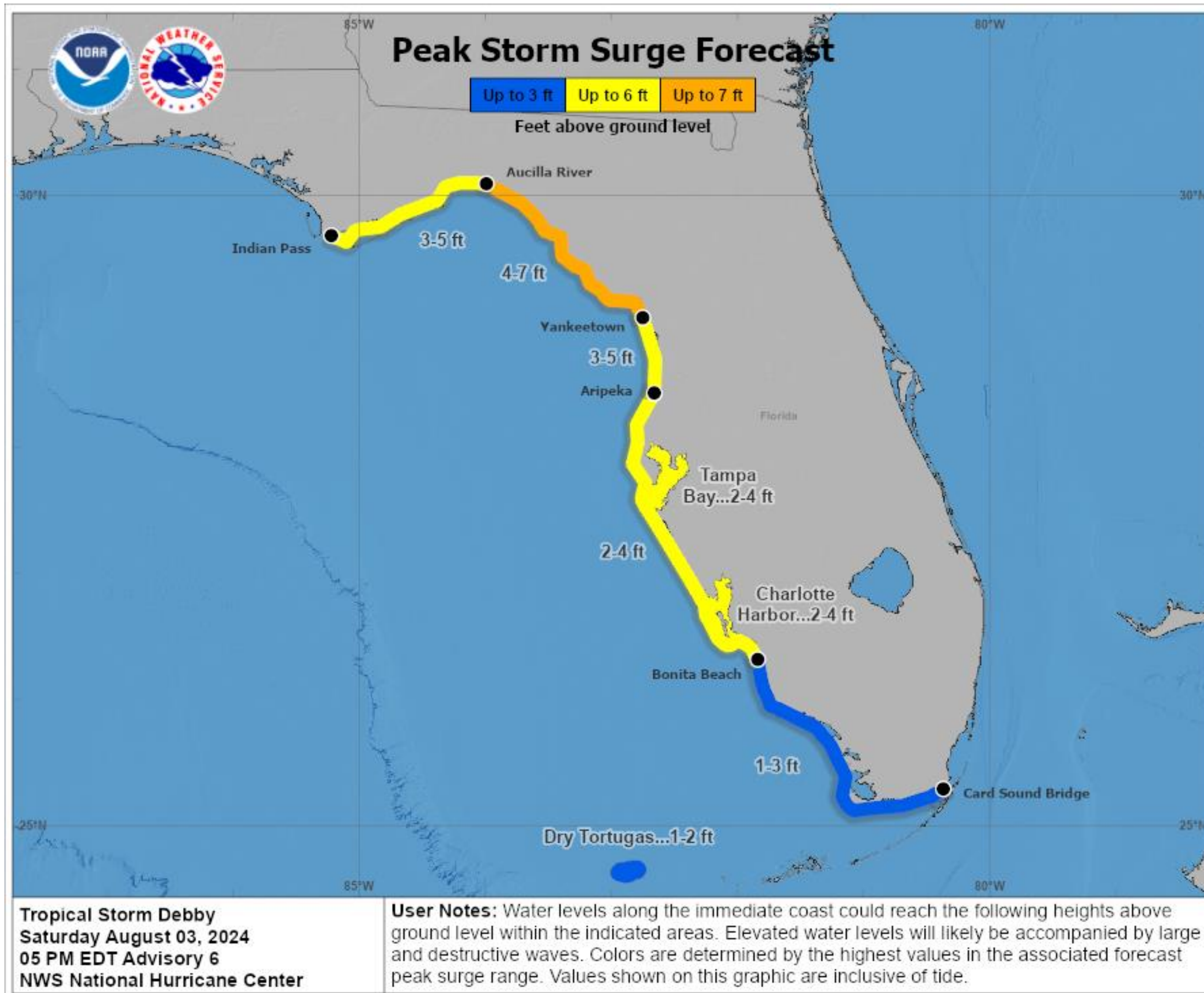
\* Aucilla River westward to Indian Pass

# Potential Peak Storm Surge / Watches and Warnings



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NWS National Hurricane Center

## Tropical Storm Debby



- There is an upgrade in peak values with 4-7 feet of storm surge inundation forecasted from Yankeetown northward to Aucilla River



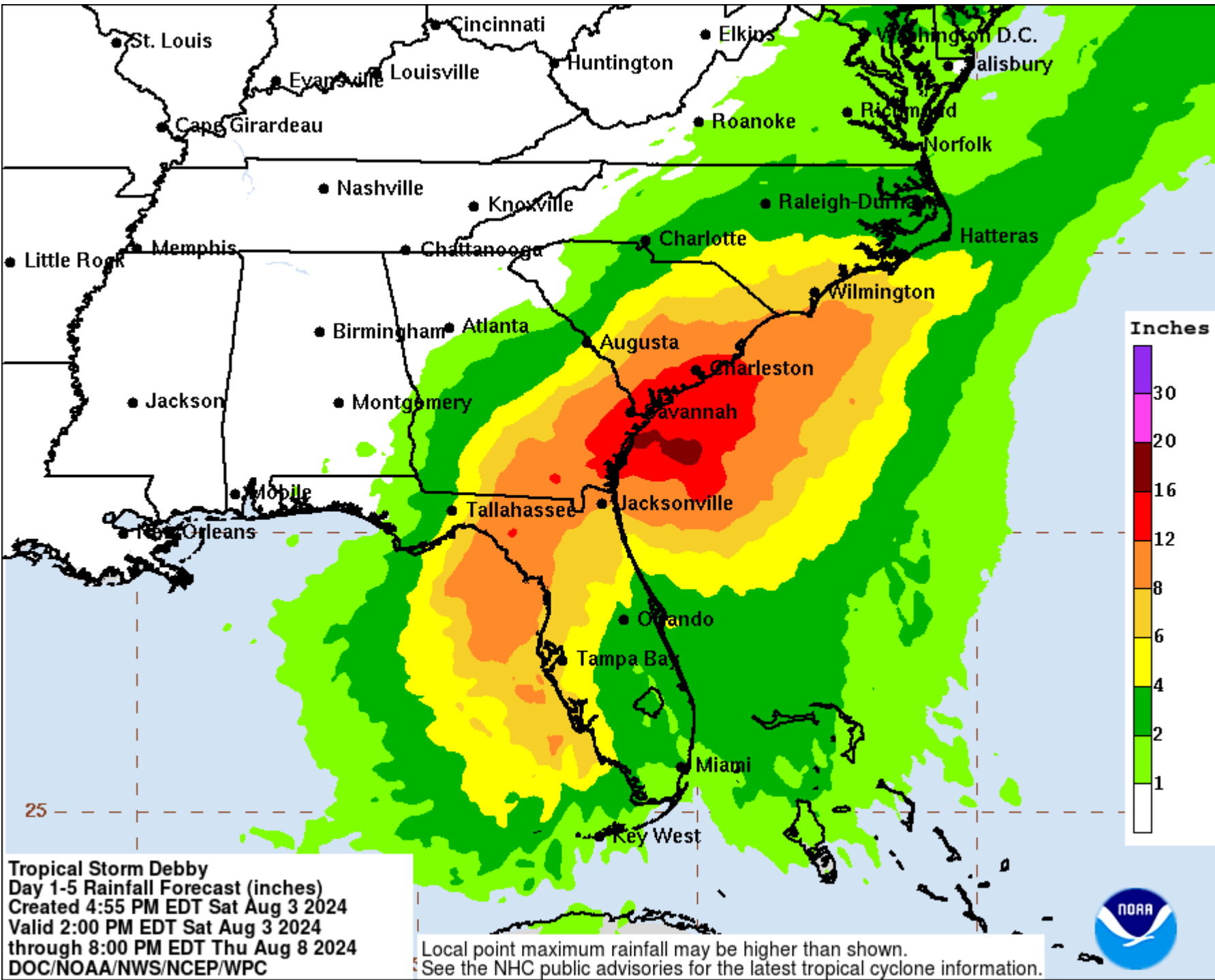
# Expected Storm Total Rainfall and Chance of Rainfall Flooding



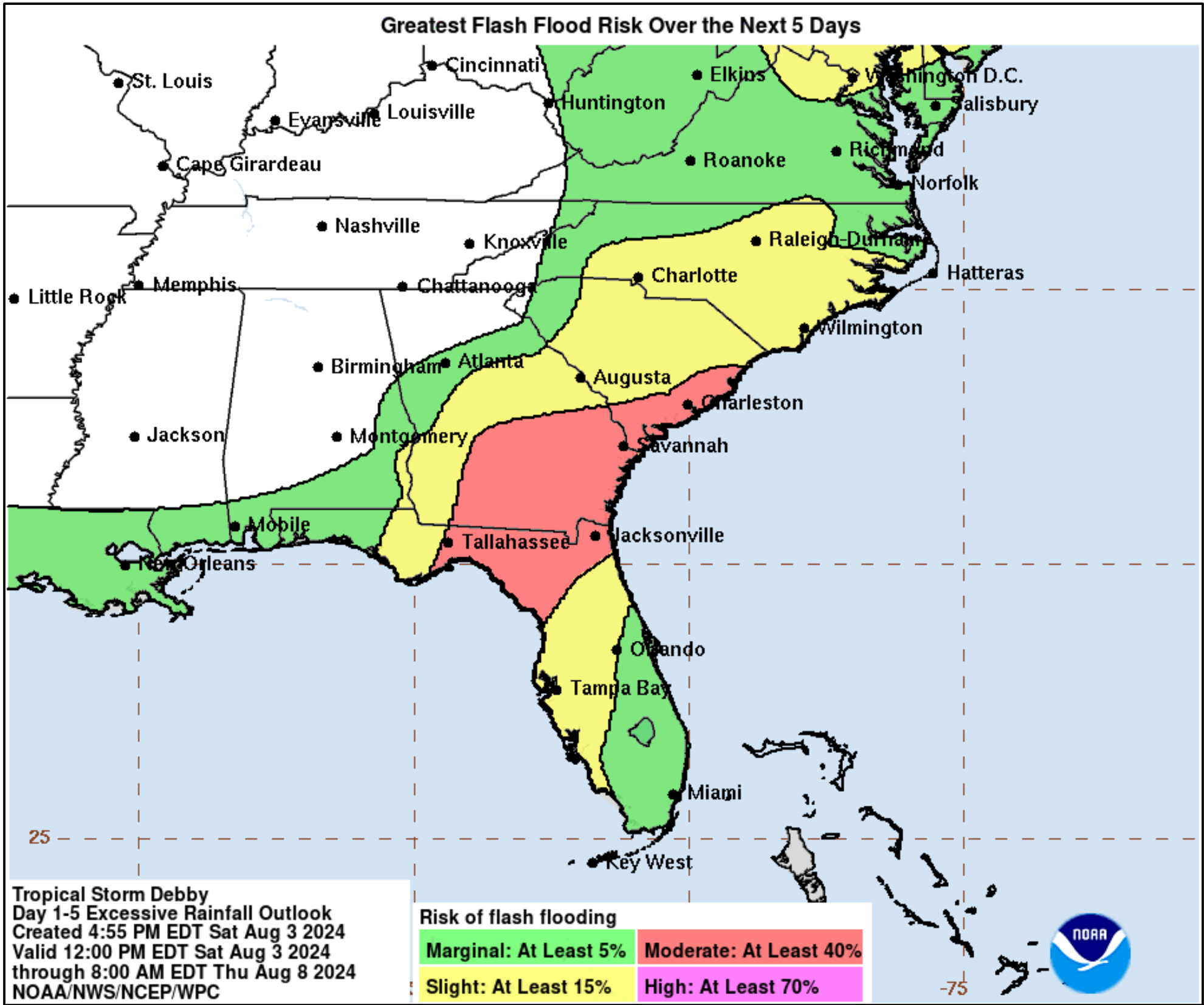
Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

Tropical Storm Debby

Images from NWS Weather Prediction Center



- TS Debby is expected to produce 6-12 inches of rain, with maximum totals up to 18 inches, across portions of Florida and along the southeastern US coast
- This will occur tonight (Sat night) through Thursday
- Considerable flash and urban flooding is expected along with significant river 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

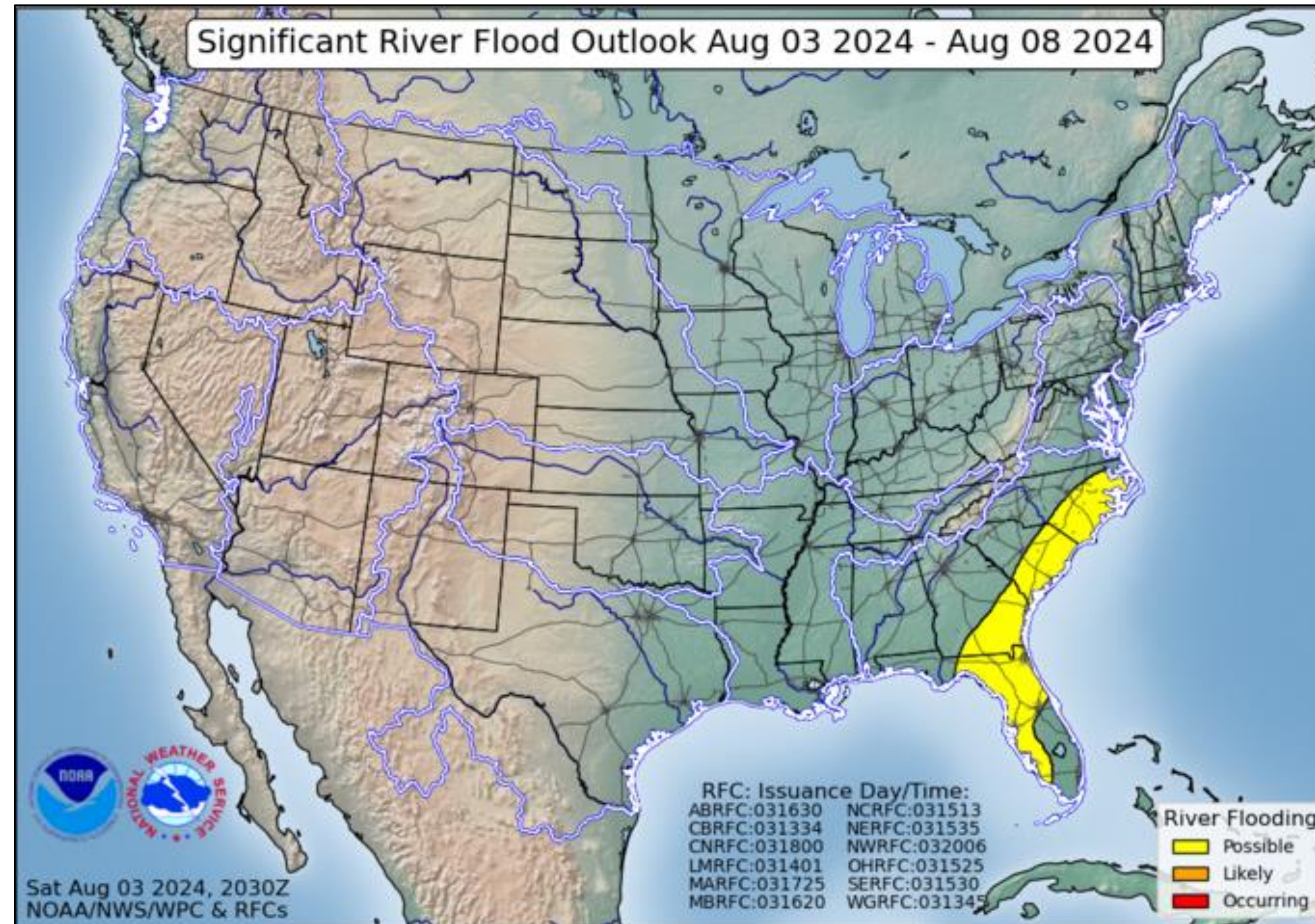


# Flood Outlook

Tropical Storm Debby



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NWS National Hurricane Center





# Tornado Outlook – Days 1 and 2

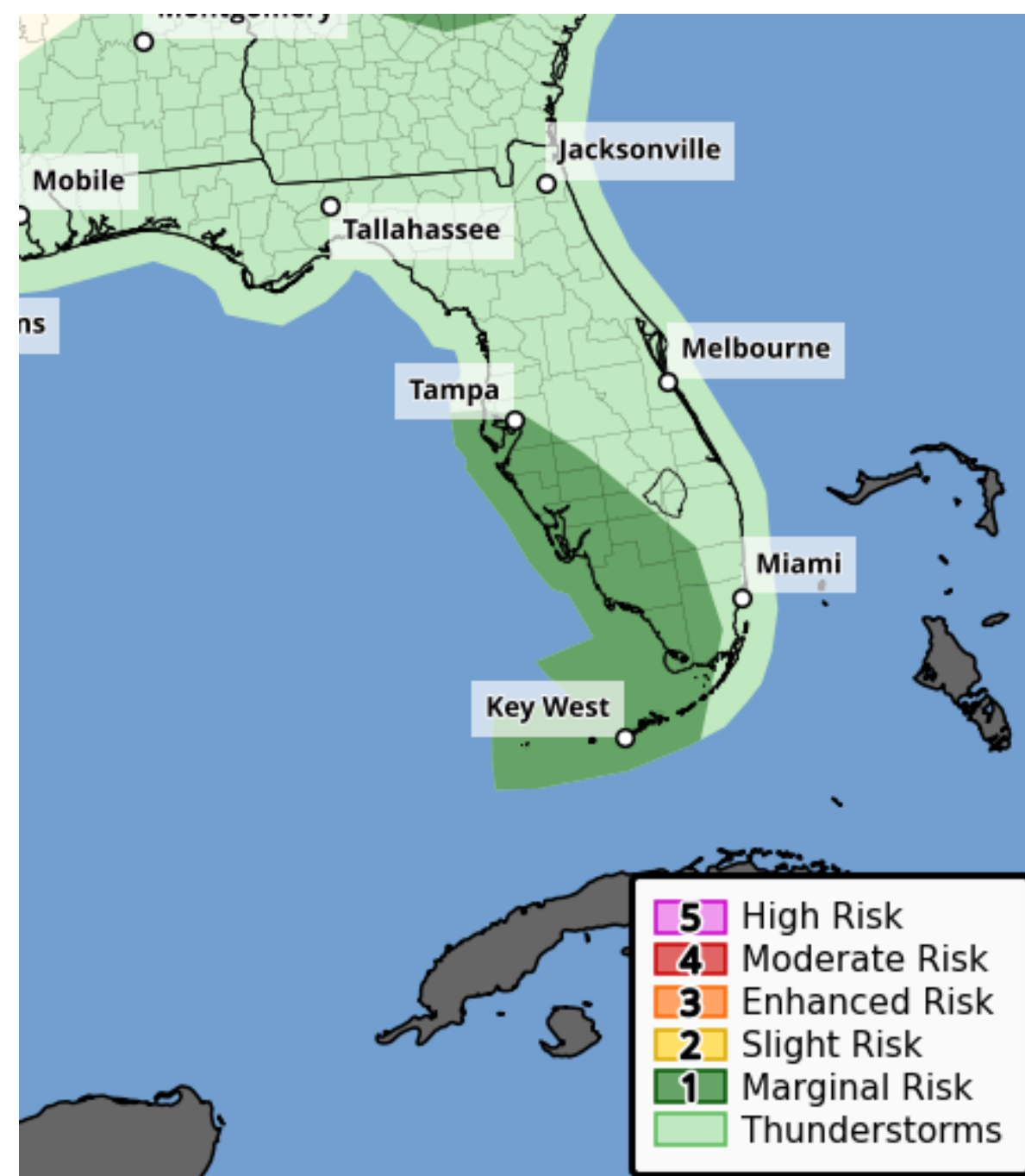
Tropical Storm Debby

Image from NWS Storm Prediction Center

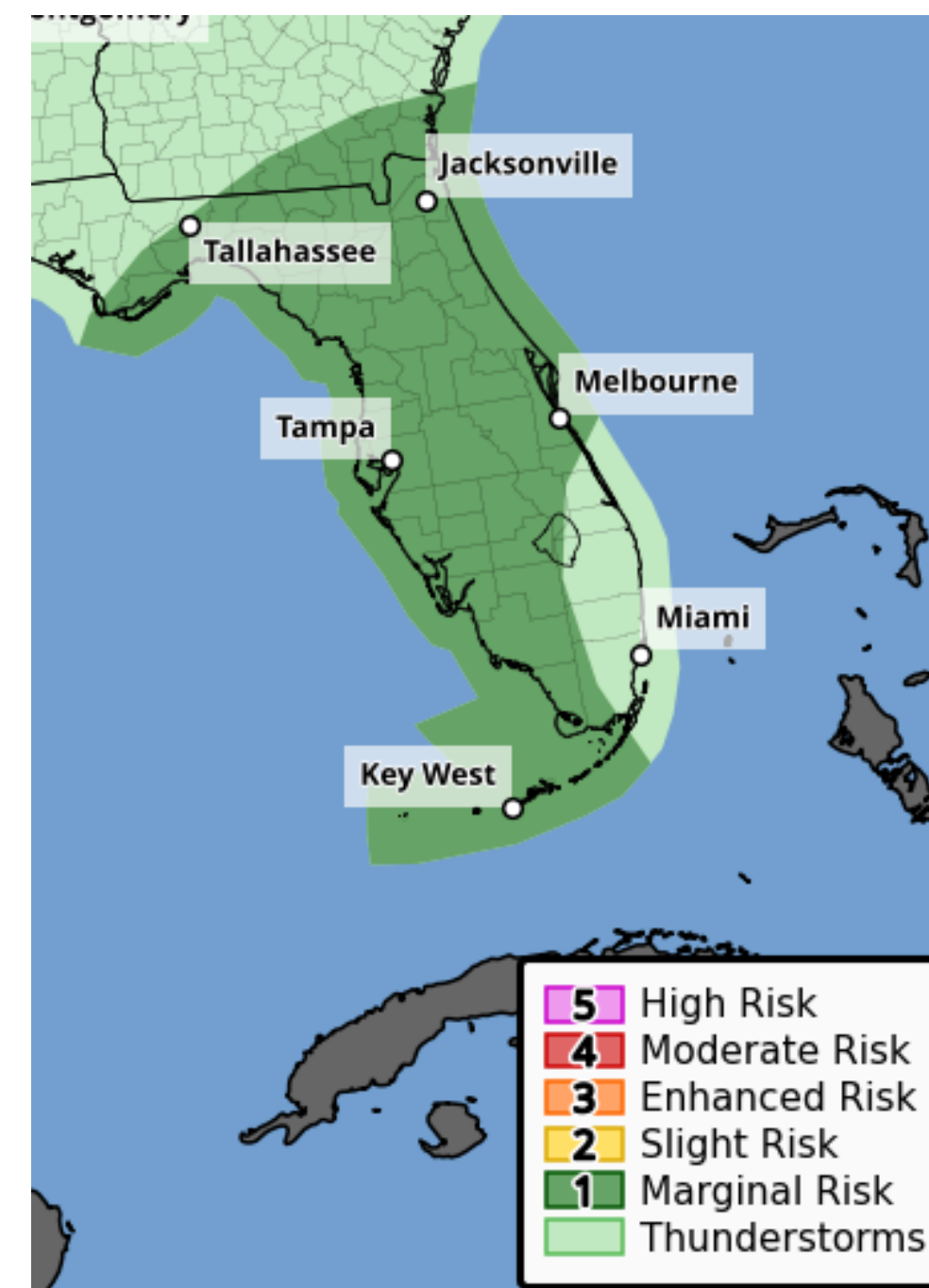


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## Day 1 - Saturday



## Day 2 - Sunday



- A marginal risk of tornadoes is expected across the Florida Keys, southwest and central Florida tonight into Sun morning
- The area of risk increases across central and northern Florida by Sunday into Monday morning





# Key Messages – District 7

## Tropical Storm Debby




Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



### Key Messages for Tropical Storm Debby

Advisory 6: 5:00 PM EDT Sat Aug 03, 2024

1. Heavy rainfall will likely result in considerable flash and urban flooding across portions of Florida and the coastal areas of the Southeast this weekend through Thursday. 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 late Sunday. 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, strong winds, and heavy rains are possible elsewhere in Florida and along the southeast coast of the United States from Georgia to North Carolina through the middle of next week, and interests in those areas should continue to monitor the progress of this system. Additional watches and warnings will likely be required tonight or on Sunday.




Tropical Storm Debby	Current information: x	Forecast positions:
Saturday August 03, 2024	Center location 23.9 N 83.2 W	● Tropical Cyclone ○ Post/Potential TC
5 PM EDT Advisory 6	Maximum sustained wind 40 mph	Sustained winds: D < 39 mph
NWS National Hurricane Center	Movement NW at 15 mph	S 39-73 mph H 74-110 mph M > 110 mph

Potential track area: Day 1-3 Day 4-5

Watches: Hurricane Trop Str

Warnings: Hurricane Trop Str

Current wind field estimate: Hurricane Trop Str



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

## Marine Key Messages for District 7

- Seas are expected to build above 12 ft tonight in the southeast Gulf
- Seas will peak near 20 ft off the Florida Big Bend Sunday night into early Monday morning
- Rough to very seas will impact the NE Florida Coast and the Carolinas Tue through Thu as Debby meanders off the Georgia/South Carolina coast





# Key Messages – District 8

## Tropical Storm Debby




Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



### Key Messages for Tropical Storm Debby

Advisory 6: 5:00 PM EDT Sat Aug 03, 2024

1. Heavy rainfall will likely result in considerable flash and urban flooding across portions of Florida and the coastal areas of the Southeast this weekend through Thursday. 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 late Sunday. 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, strong winds, and heavy rains are possible elsewhere in Florida and along the southeast coast of the United States from Georgia to North Carolina through the middle of next week, and interests in those areas should continue to monitor the progress of this system. Additional watches and warnings will likely be required tonight or on Sunday.




**Tropical Storm Debby**  
Saturday August 03, 2024  
5 PM EDT Advisory 6  
NWS National Hurricane Center

**Current information:** x  
Center location 23.9 N 83.2 W  
Maximum sustained wind 40 mph  
Movement NW at 15 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 Str  
**Warnings:** Hurricane Trop Str  
**Current wind field estimate:** Hurricane Trop Str



**Tropical-Storm-Force Wind Speed Probabilities (Preliminary)**  
For the 120 hours (5.0 days) from 2 PM EDT SAT AUG 03 to 2 PM EDT THU AUG 08

Probability of tropical-storm-force winds (1-minute average  $\geq 39$  mph) from Tropical Storm Debby  
○ Indicates Tropical Storm Debby center location at 2 PM EDT SAT AUG 03, 2024 (Forecast/Advisory #6)

5 10 20 30 40 50 60 70 80 90 %

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

## Marine Key Messages for District 8

- Seas are expected to build above 12 ft tonight in the southeast Gulf
- Seas will peak near 20 ft off the Florida Big Bend Sunday night into early Monday morning
- Conditions will improve across the Gulf by Mon afternoon



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



This briefing was prepared by:  
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Phone: 305-229-4450

# TROPICAL STORM DEBBY BRIEFING

**TIME of NEXT NHC Advisory:**  
**3 UTC: 11 PM EDT / 10 PM CDT**

*The Next Briefing for District 7 Will Be:  
Sunday 9:00 AM EDT*

*The Next Briefing for District 8 Will Be:  
Sunday 11:00 AM CDT*

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



NHC\_TAFB

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