

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

Winds – Moderate

Storm Surge – Low

Rainfall/Flash Flooding – Moderate

Tornadoes – Low

Waves - Low

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

Winds – Moderate

Storm Surge – Low

Rainfall/Flash Flooding – Low

Tornadoes – None

Waves - Low

# TROPICAL DEPRESSION FRED AND TROPICAL STORM GRACE BRIEFING



9:00 AM EDT  
Sunday, August 15, 2021

Prepared by:  
Chris Landsea

*Tropical Analysis and Forecast Branch  
NWS National Hurricane Center*

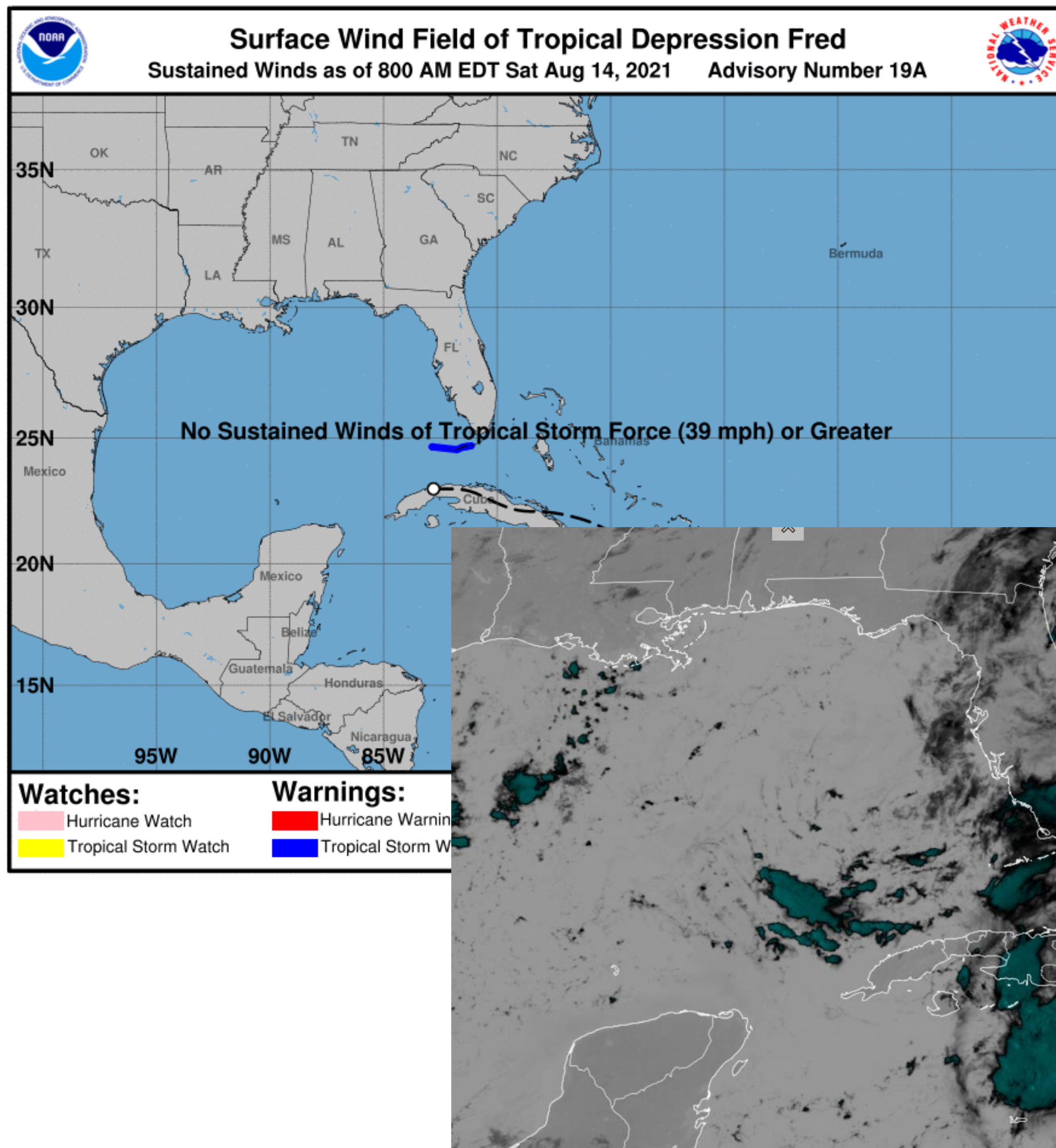


# Situation Overview



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

## Tropical Depression Fred



**...FRED REMAINS POORLY ORGANIZED  
NEAR WESTERN CUBA...**

## SUMMARY OF 800 AM EDT INFORMATION

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LOCATION...23.0N 82.8W  
ABOUT 20 NM W OF HAVANA CUBA  
ABOUT 110 NM SSW OF KEY WEST FLORIDA  
MAXIMUM SUSTAINED WINDS...30 KT  
PRESENT MOVEMENT...WNW AT 12 KT  
PEAK SEAS 10 FT

# Forecast Information

## Tropical Depression Fred



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NWS National Hurricane Center



- **Fred is forecast to turn toward the NW today and to N by Monday**
- **Fred unlikely at this point to produce tropical storm conditions for the Florida Keys**
- **Tropical Storm landfall along the Florida Panhandle/Alabama/Mississippi coast Monday or Monday night**
- 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.

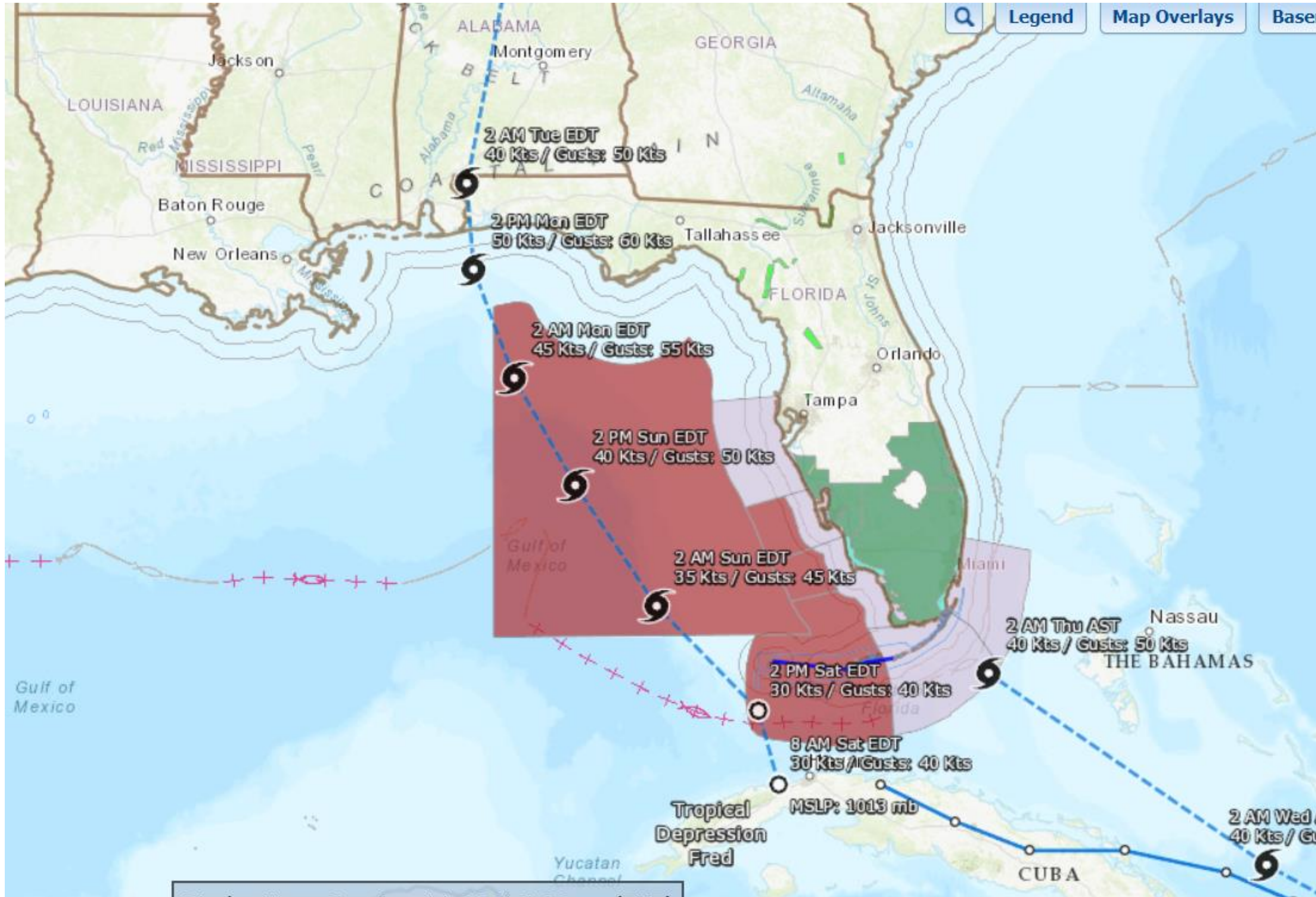
**NOTE:** Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

# Hazards Map

Tropical Depression Fred and Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



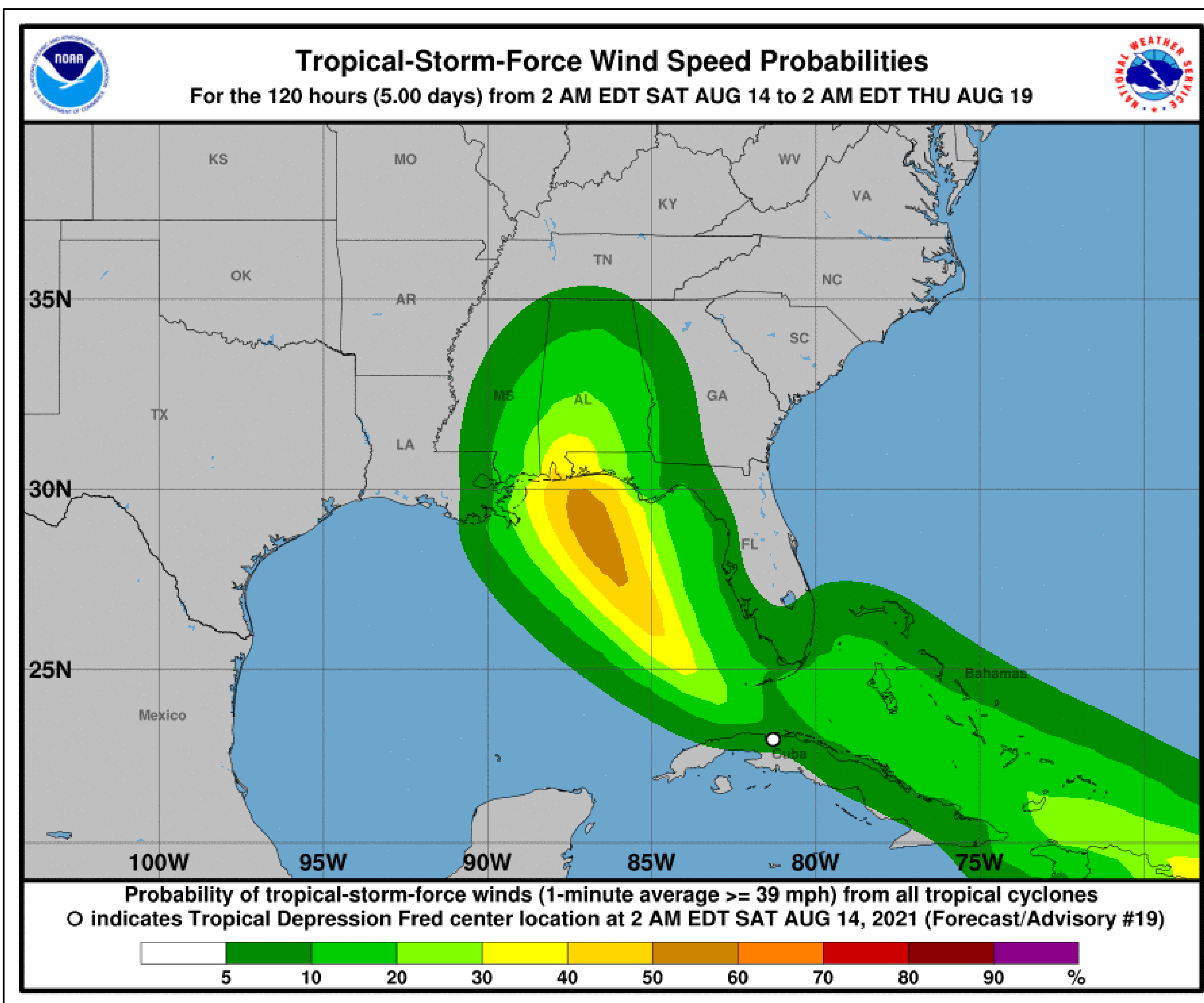
<https://nowcoast.noaa.gov/>

# T.S. Wind Speed Probabilities

Tropical Depression Fred



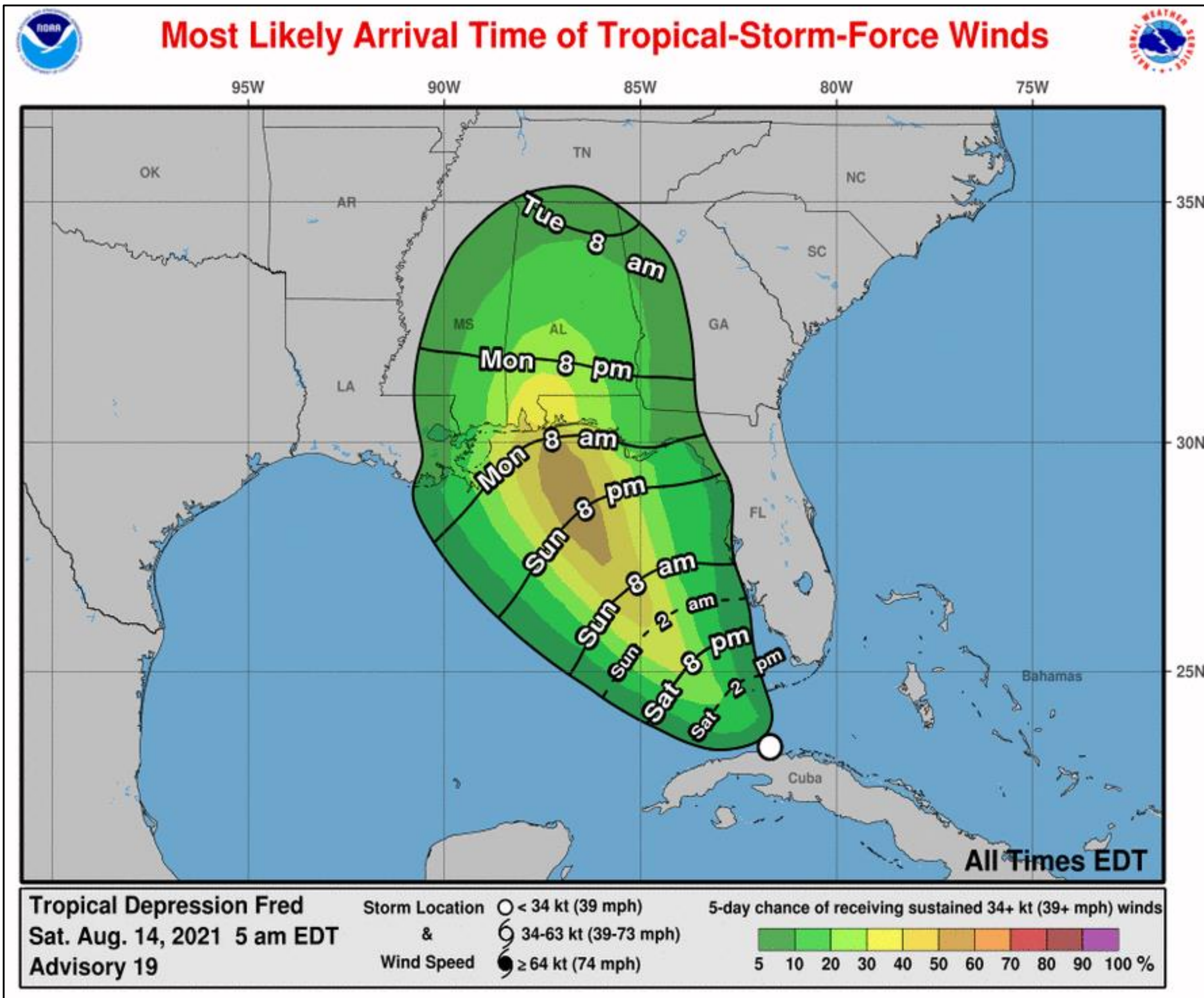
Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



- **Apalachicola, FL – 25%**
- **Panama City, FL – 35%**
- **Pensacola, FL - 30%**
- **Mobile, AL – 25%**
- **Gulfport, MS – 15%**
- 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%
- See the color bar below the image for more details.



## Tropical Depression Fred



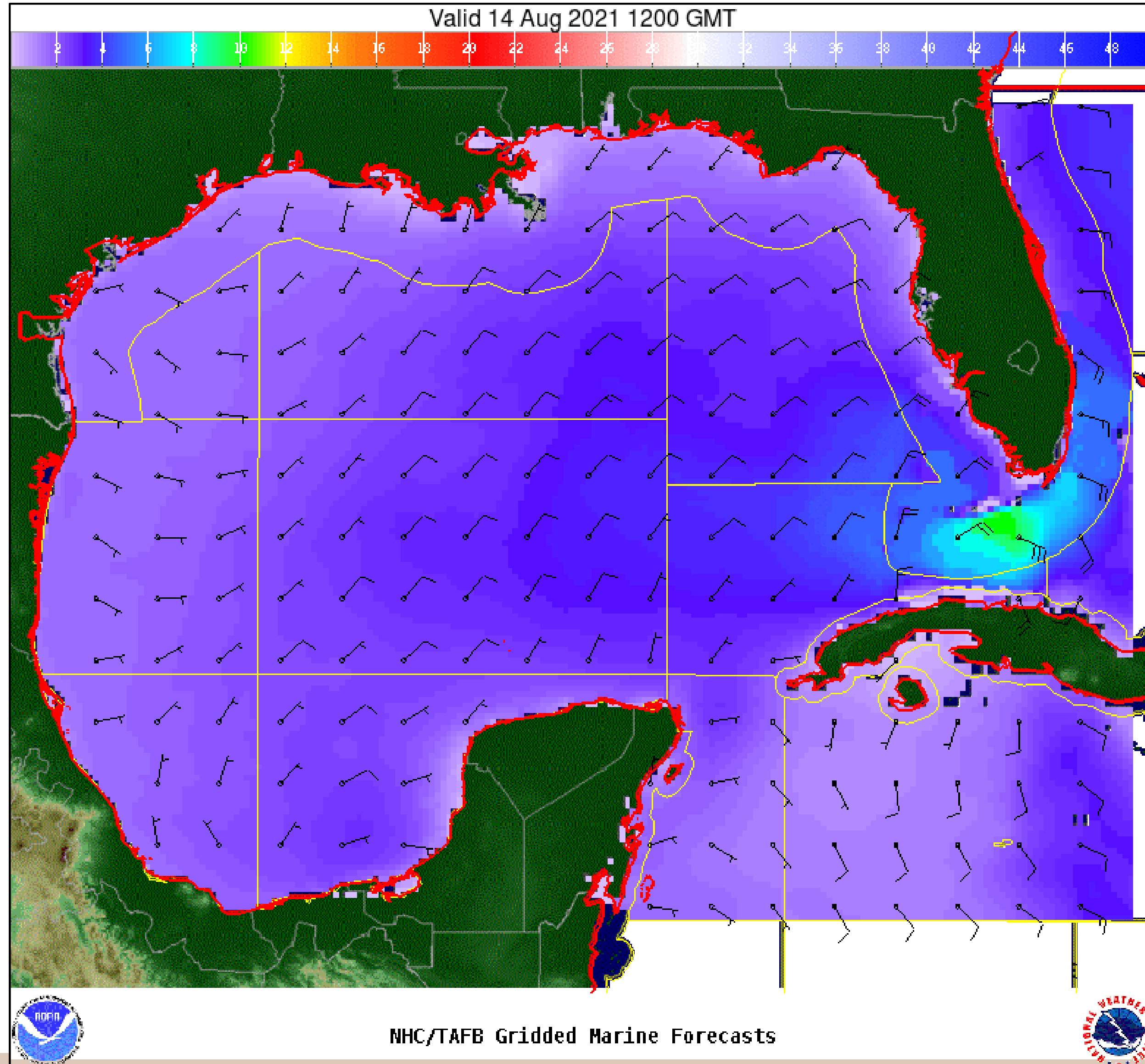
- **FL Panhandle/AL/MS – Mon morning**
- The most likely time of arrival of Tropical Storm Force Winds (34kt to 63 kt) for this cyclone based off the current track and wind radii.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- See the color bar below the image for more details.

# Wind And Waves

Tropical Depression Fred



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



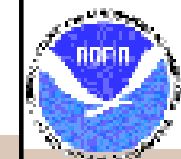
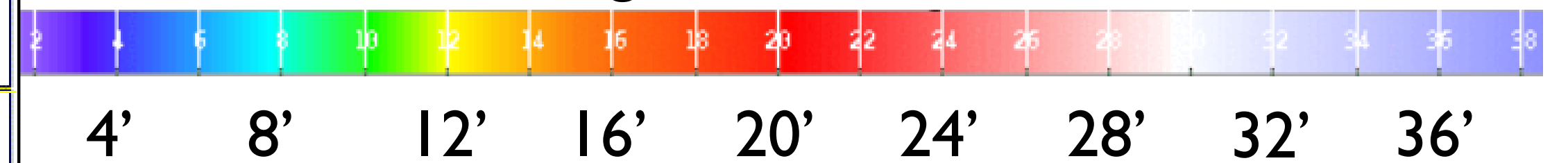
## Current Conditions

8am EDT, Saturday, August 14th

Peak Winds: 30 kt

Peak Seas: 10 ft

■ Wave heights are in feet



NHC/TAFB Gridded Marine Forecasts



8/15/2021 8:48 AM

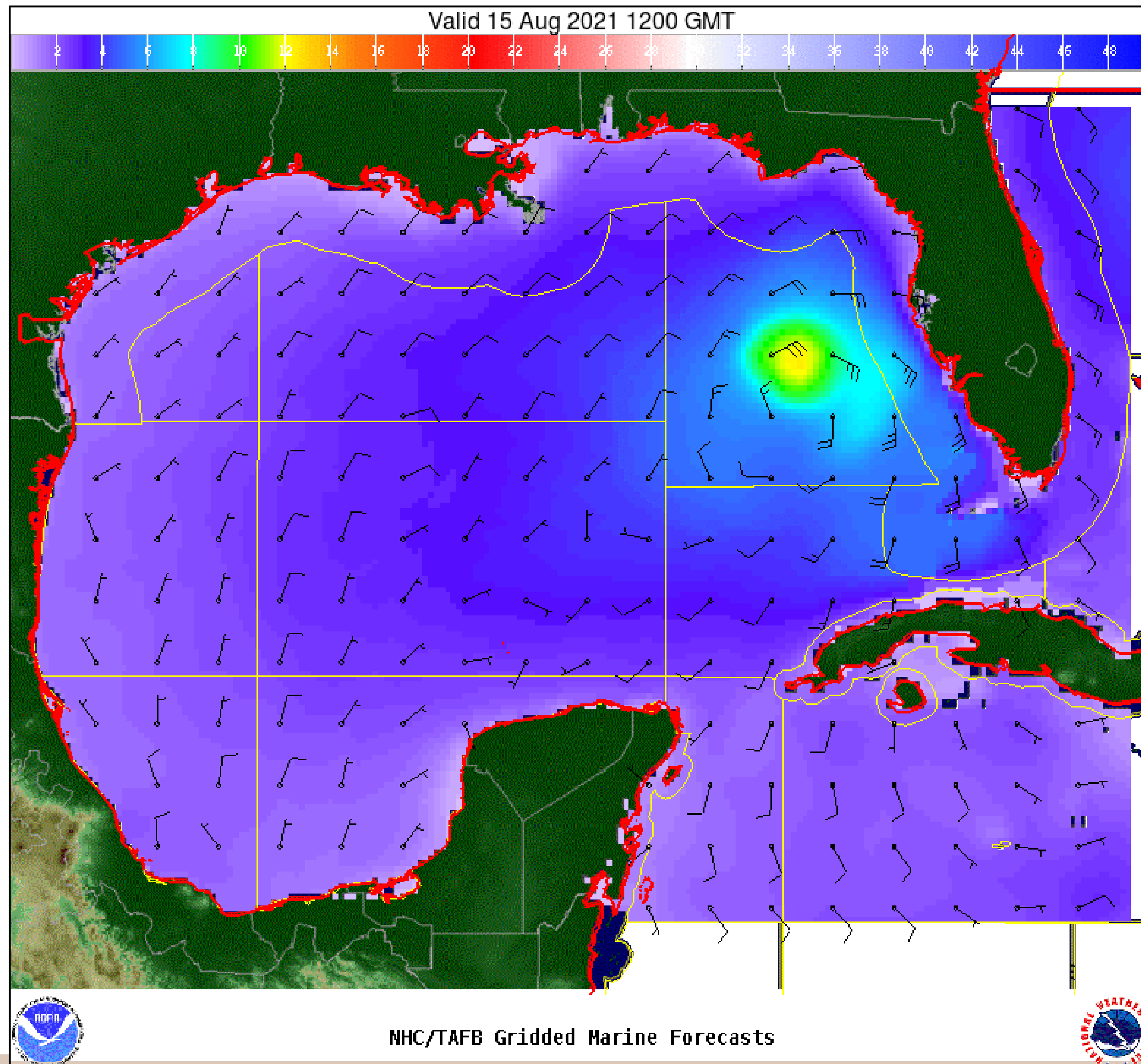
www.nhc.noaa.gov

# Wind And Waves

Tropical Depression Fred and Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



## 24 Hour Forecast

8am EDT, Sunday, August 15th

Peak Winds: 35 kt

Peak Seas: 12 ft

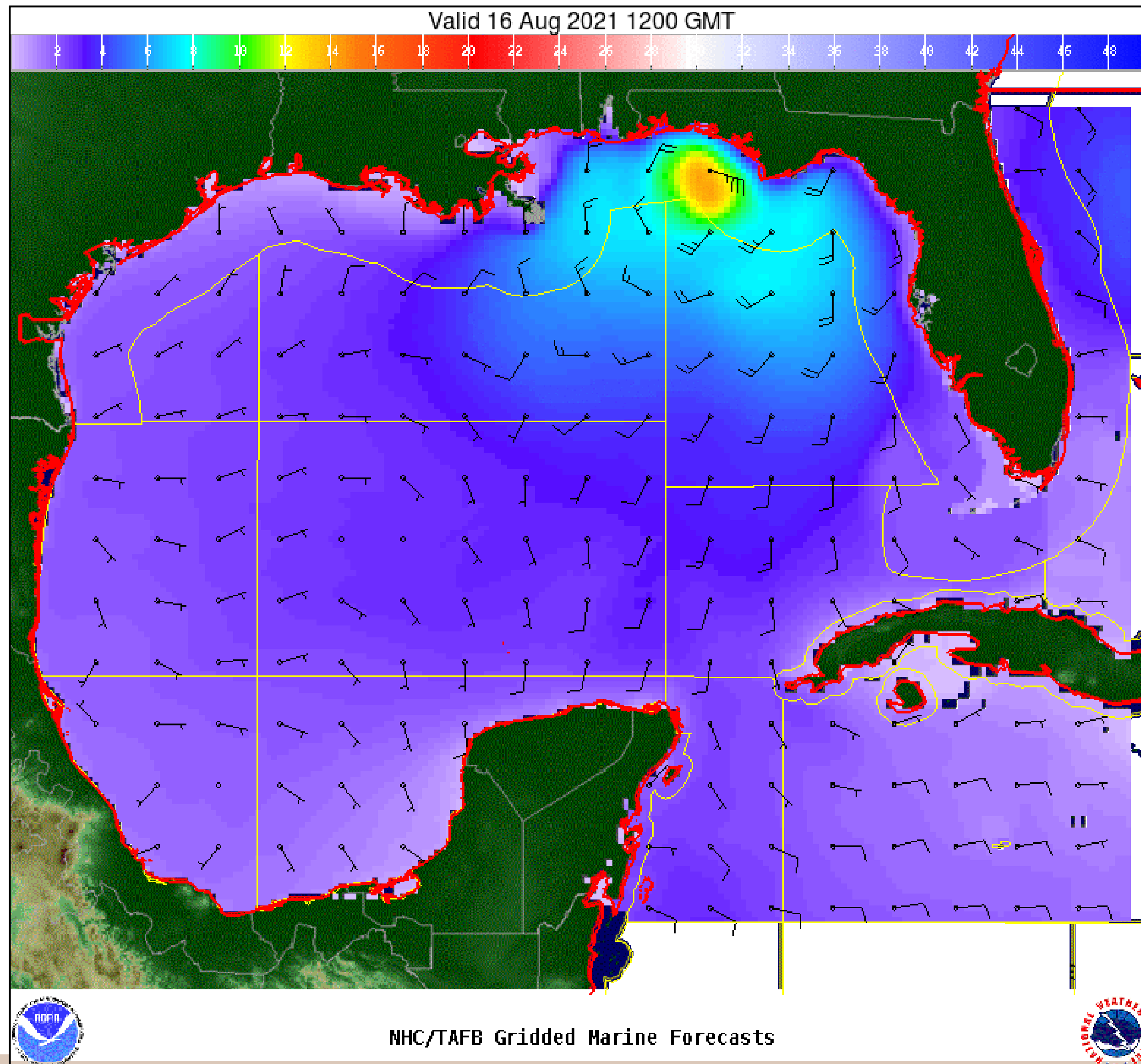


# Wind And Waves

Tropical Depression Fred and Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



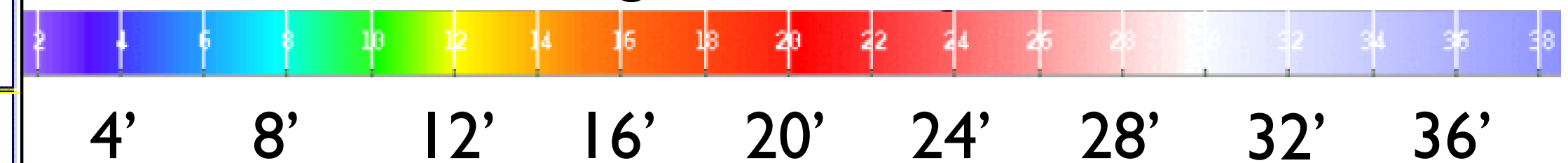
48 Hour Forecast

8am EDT, Monday, August 16th

Peak Winds: 45 kt

Peak Seas: 15 ft

■ Wave heights are in feet



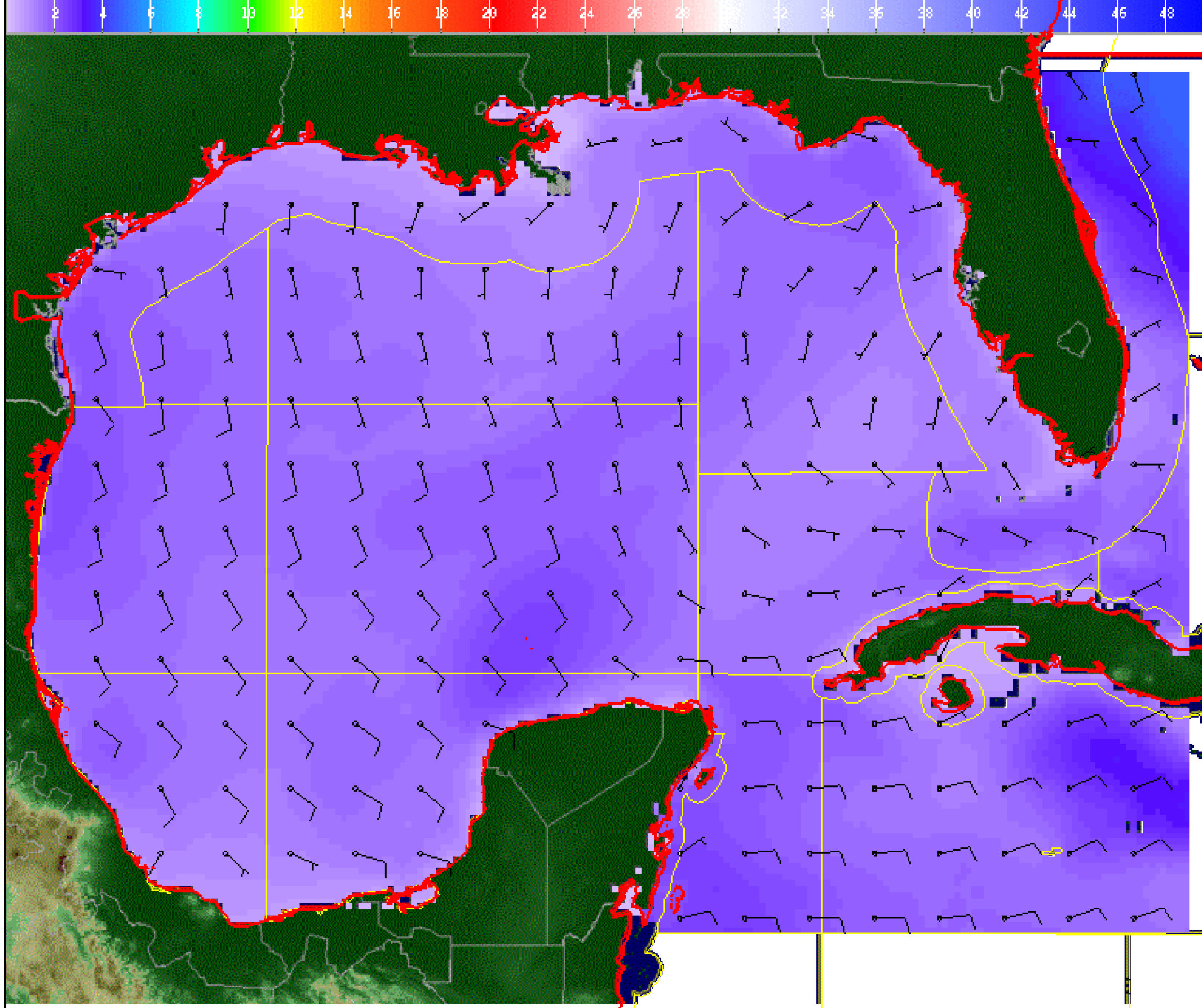
# Wind And Waves

Tropical Depression Fred and Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

Valid 17 Aug 2021 1200 GMT



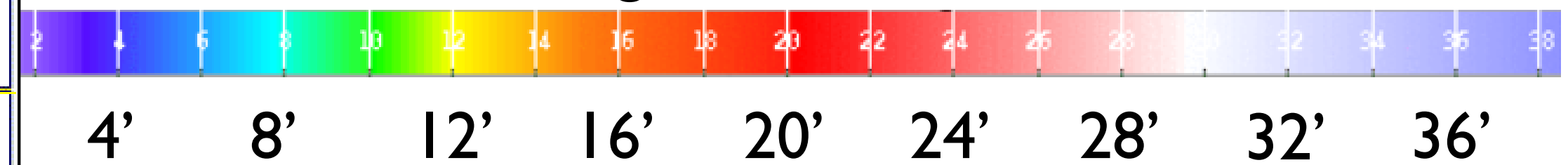
## 72 Hour Forecast

8am EDT, Tuesday, August 17th

Peak Winds: 35 kt (inland)

Peak Seas: 4 ft

■ Wave heights are in feet



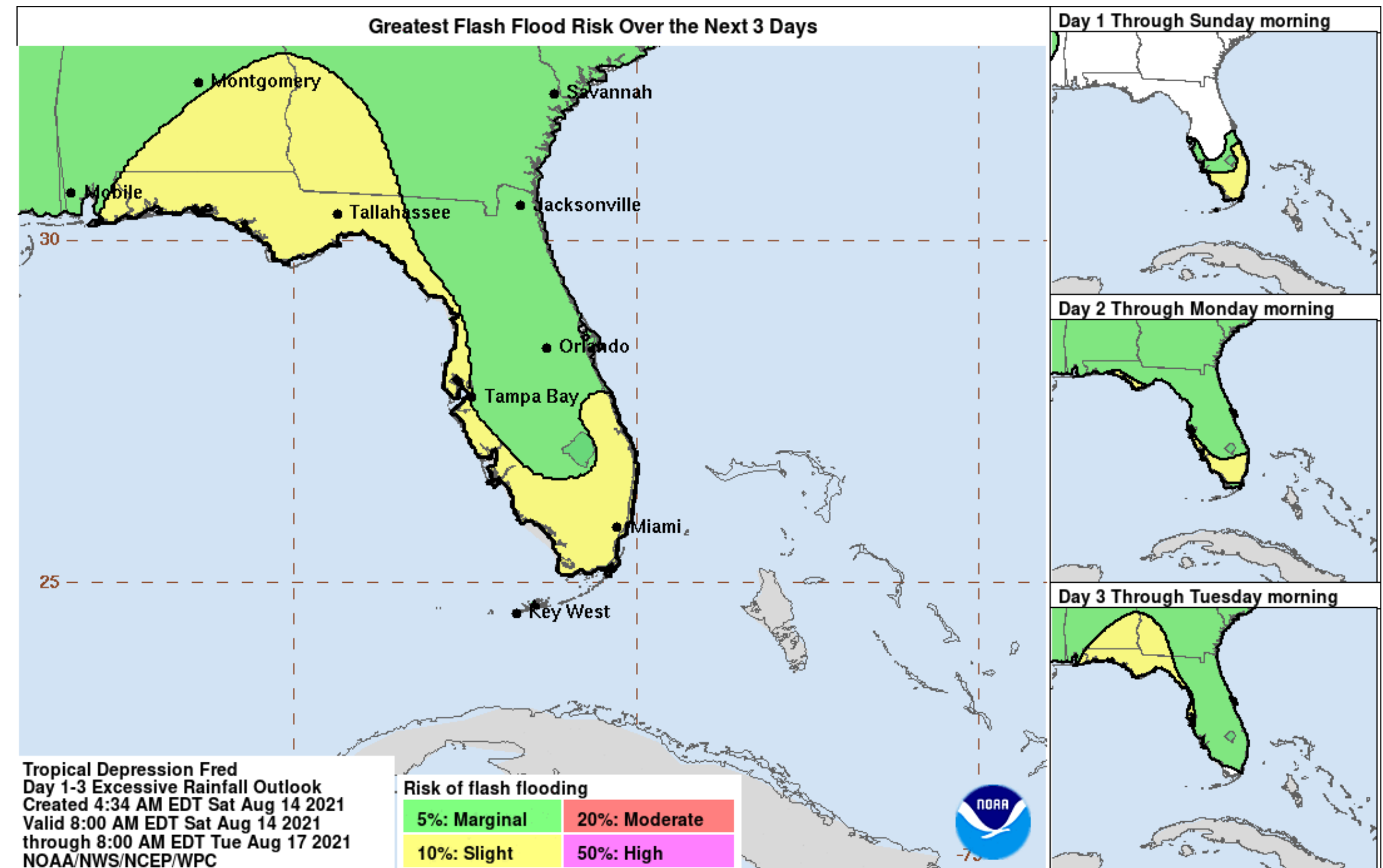
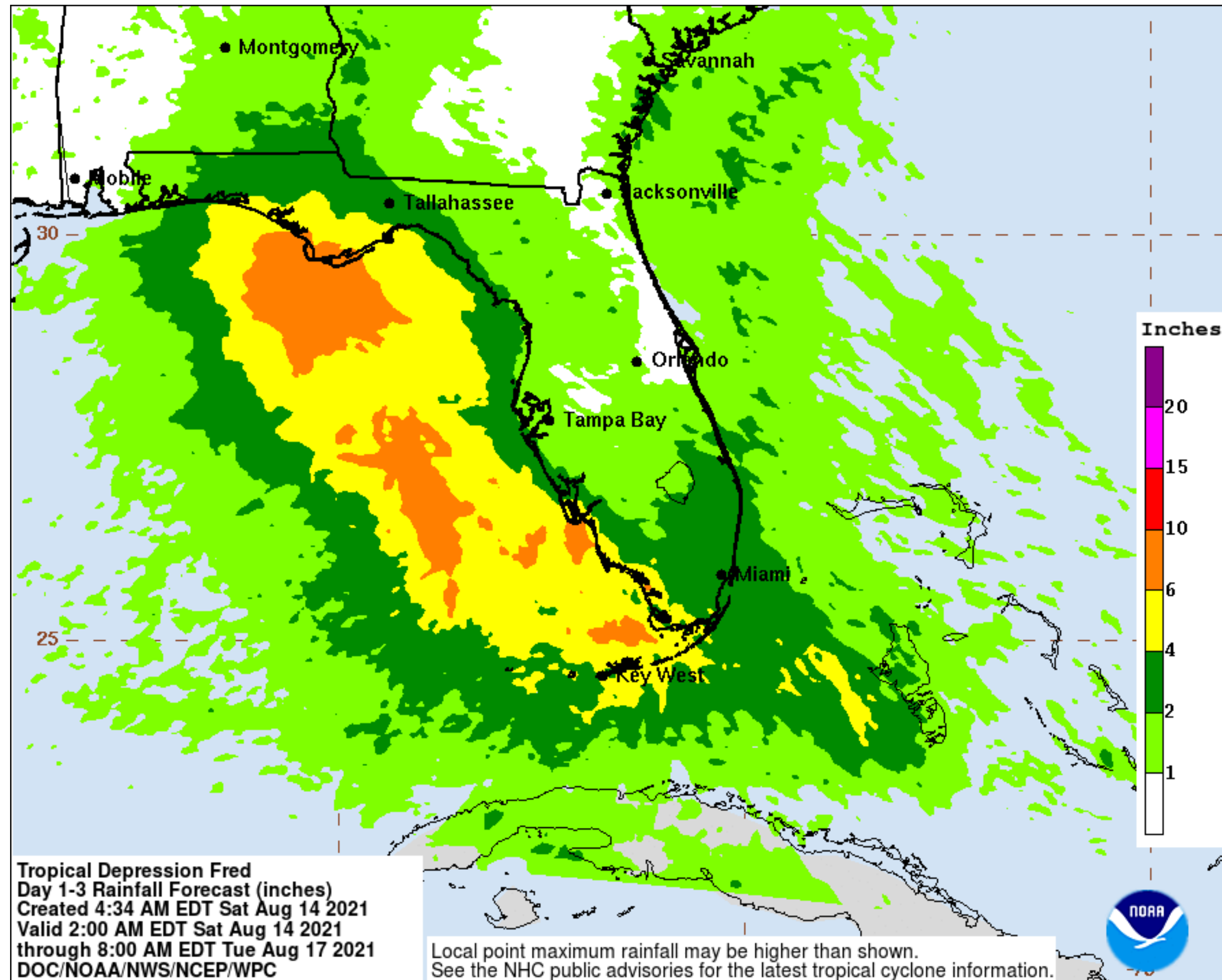
NHC/TAFB Gridded Marine Forecasts

# Expected Storm Total Rainfall and Chance of Rainfall Flooding



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

Tropical Depression Fred Images from NWS Weather Prediction Center



- Total rainfall in inches through Tuesday morning

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

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

Valid through Tuesday morning

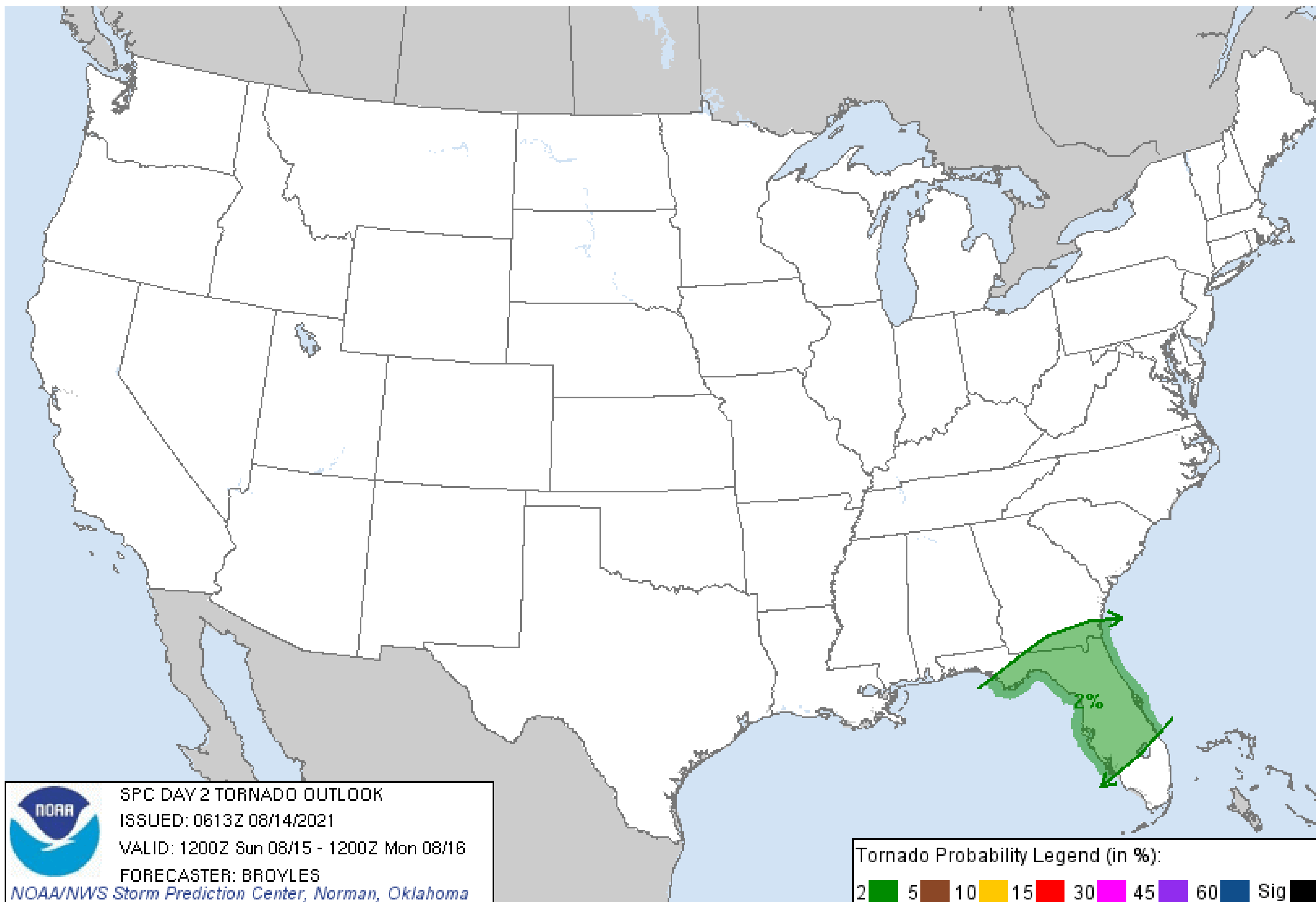
# Tornado Outlook – Day 2

Tropical Depression Fred

Image from NWS Storm Prediction Center



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



- Isolated weak tornadoes may occur over Florida through Monday morning

# Key Messages

## Tropical Depression Fred



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



### Key Messages for Tropical Depression Fred

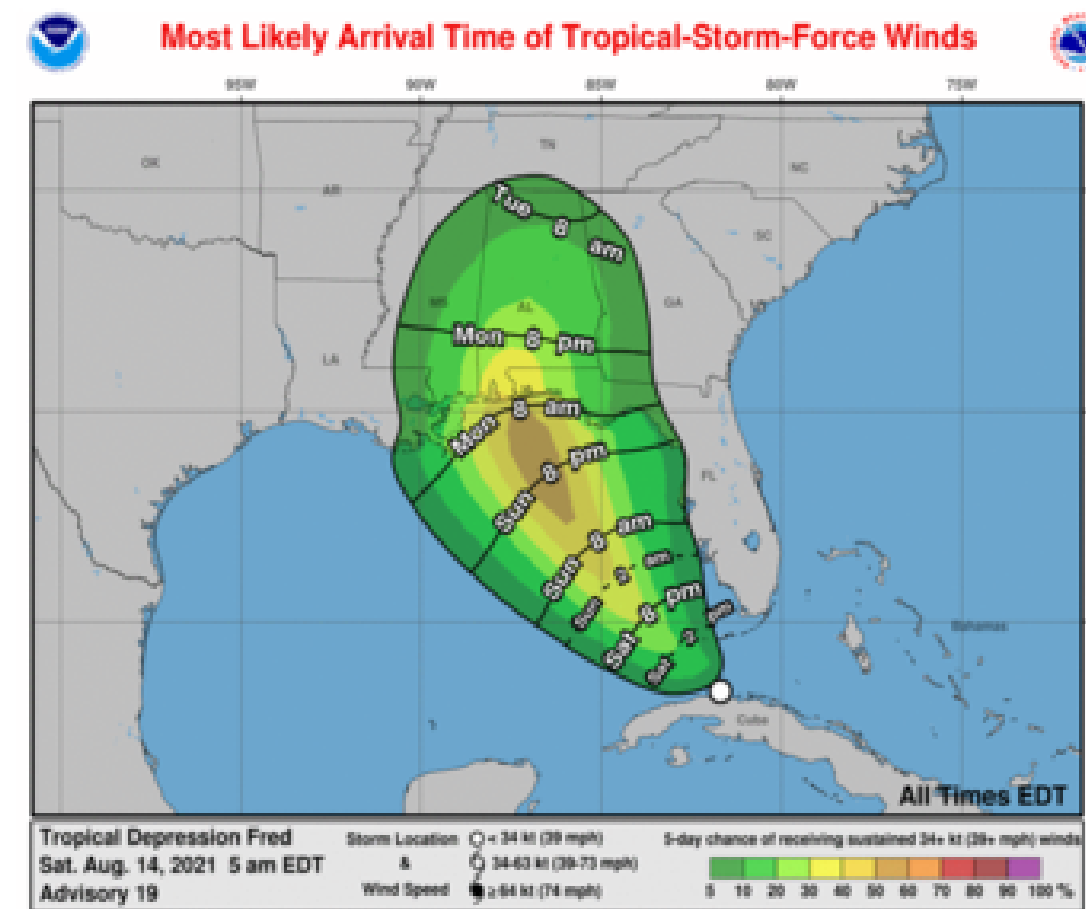
Advisory 19: 5:00 AM EDT Sat Aug 14, 2021



1. Today through Monday, heavy rainfall could lead to areal, urban, and small stream flooding impacts, and cause new and renewed river flooding, across southern Florida, the Big Bend, and Panhandle. From Monday onward, heavy rain and flood impacts could extend into other portions of the Southeast and into the southern and central Appalachians and Piedmont as Fred interacts with a front in the area.

2. Tropical storm conditions are expected in portions of the Lower Florida Keys later today, where a Tropical Storm Warning is in effect.

3. There is a risk of tropical storm conditions in the Florida Panhandle and coastal Alabama beginning on Monday. Watches may be required for a portion of this area later today.



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

### IMPACTS FOR D7 for Fred (through next 5 days)

Winds – Moderate

Storm Surge – Low

Rainfall/Flash Flooding – Moderate

Tornadoes – Low

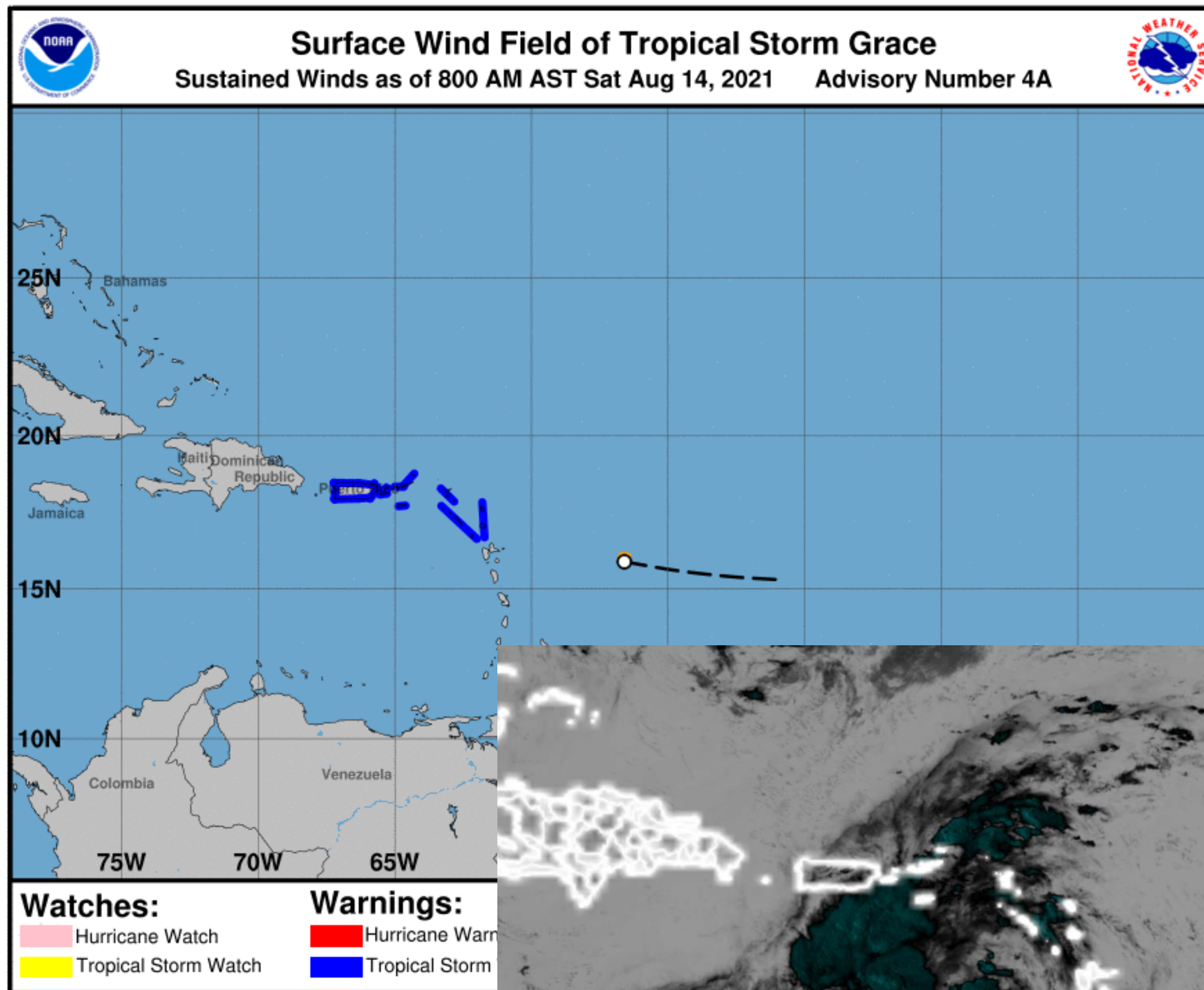
Waves – Low

# Situation Overview



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

Tropical Storm grace

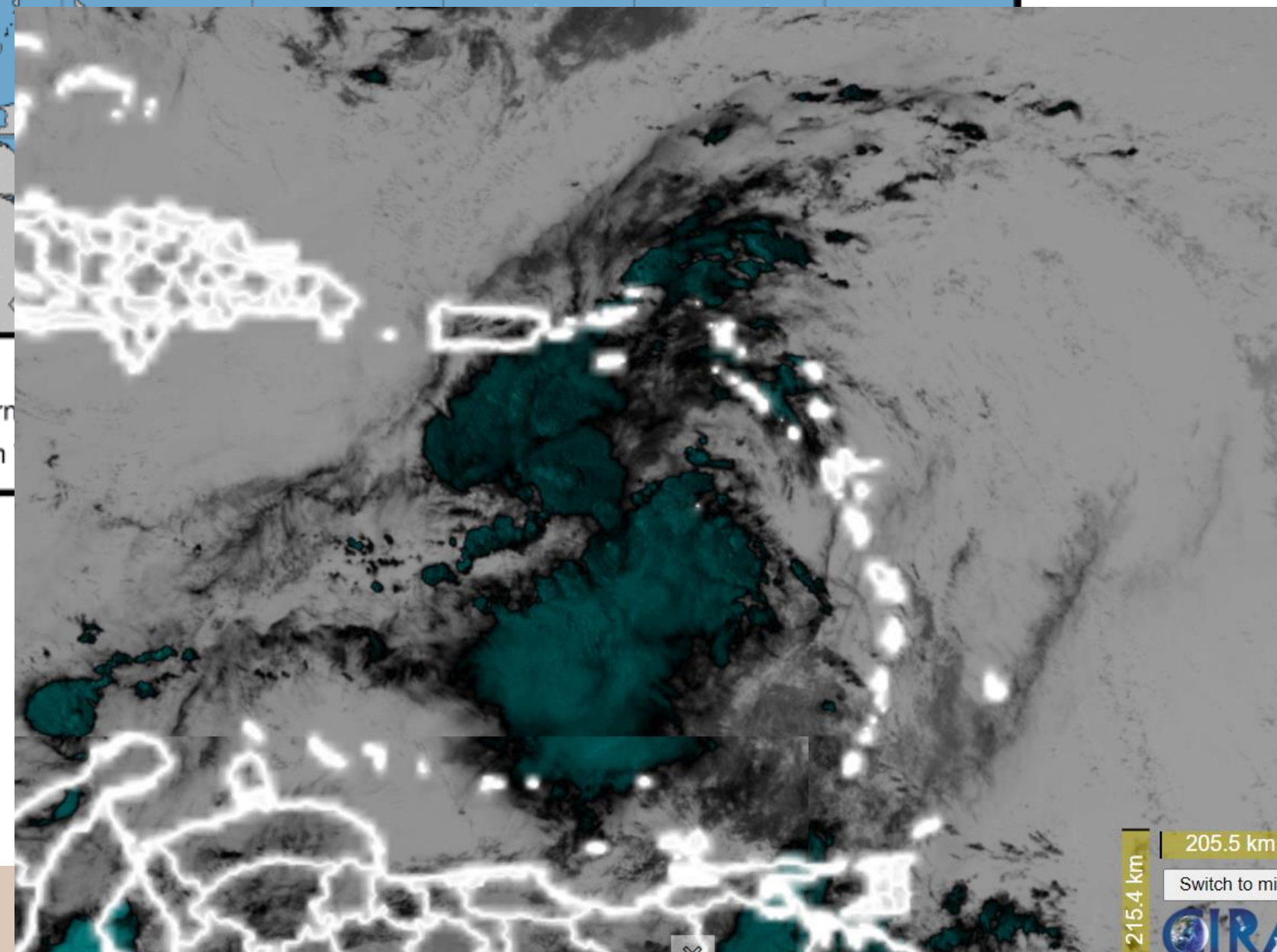


**...GRACE MOVING QUICKLY  
WESTWARD TOWARD THE LEEWARD  
ISLANDS...**

## SUMMARY OF 800 AM AST INFORMATION

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LOCATION...15.9N 56.6W  
ABOUT 305NM ESE OF THE LEEWARD  
ISLANDS  
MAXIMUM SUSTAINED WINDS...35 KT  
PRESENT MOVEMENT...W AT 20 KT

SIZE  
34 KT..... 20NE 0SE 0SW 20NW.  
PEAK SEAS 11 FT

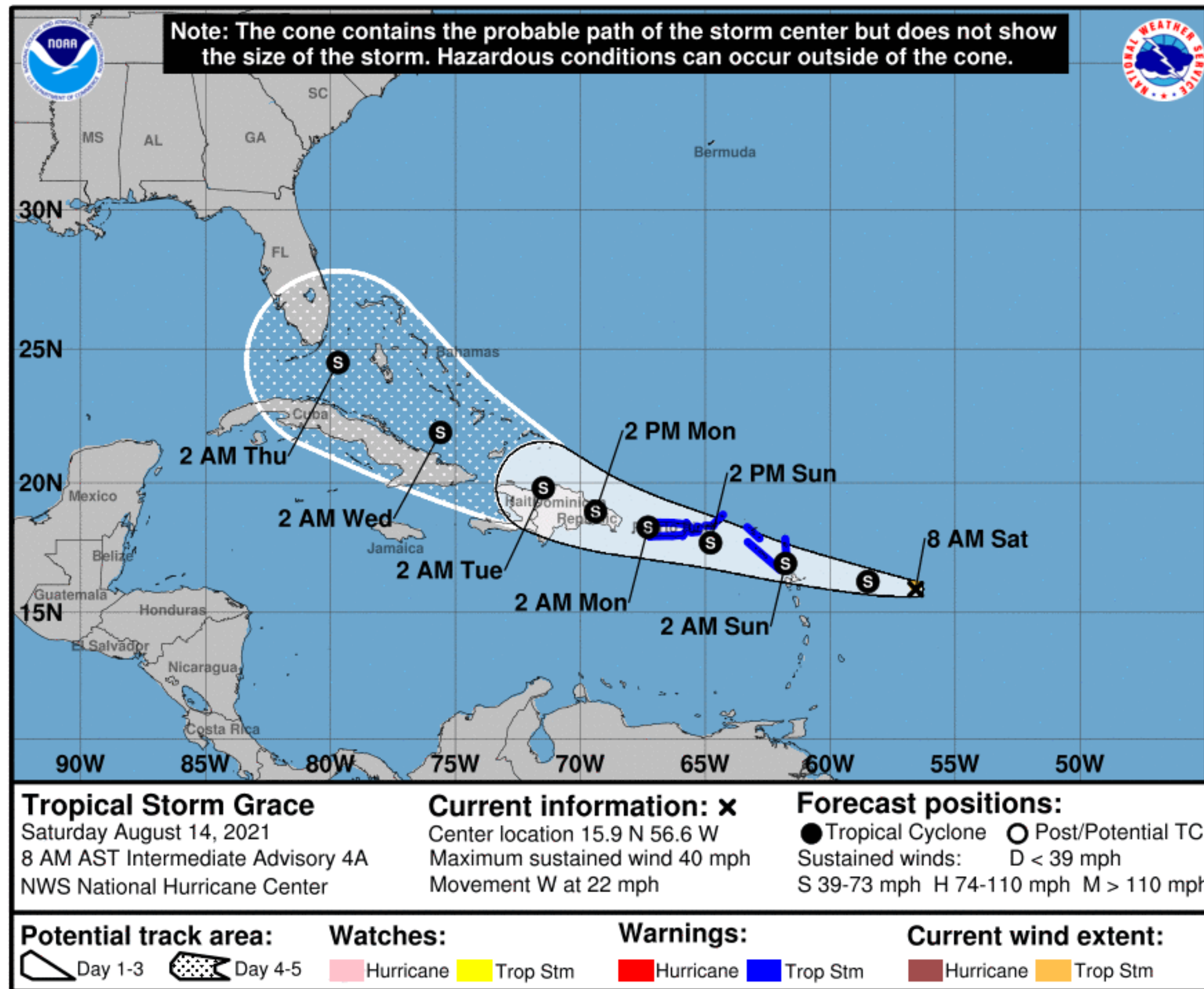


# Forecast Information

Tropical Storm grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



- **Grace should track W or WNW for the next five days**
- **System expected to intensify some, but remain below hurricane intensity**
- **Landfall as a tropical storm in US Virgin Islands and Puerto Rico on Sunday/Sunday night**
- 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.

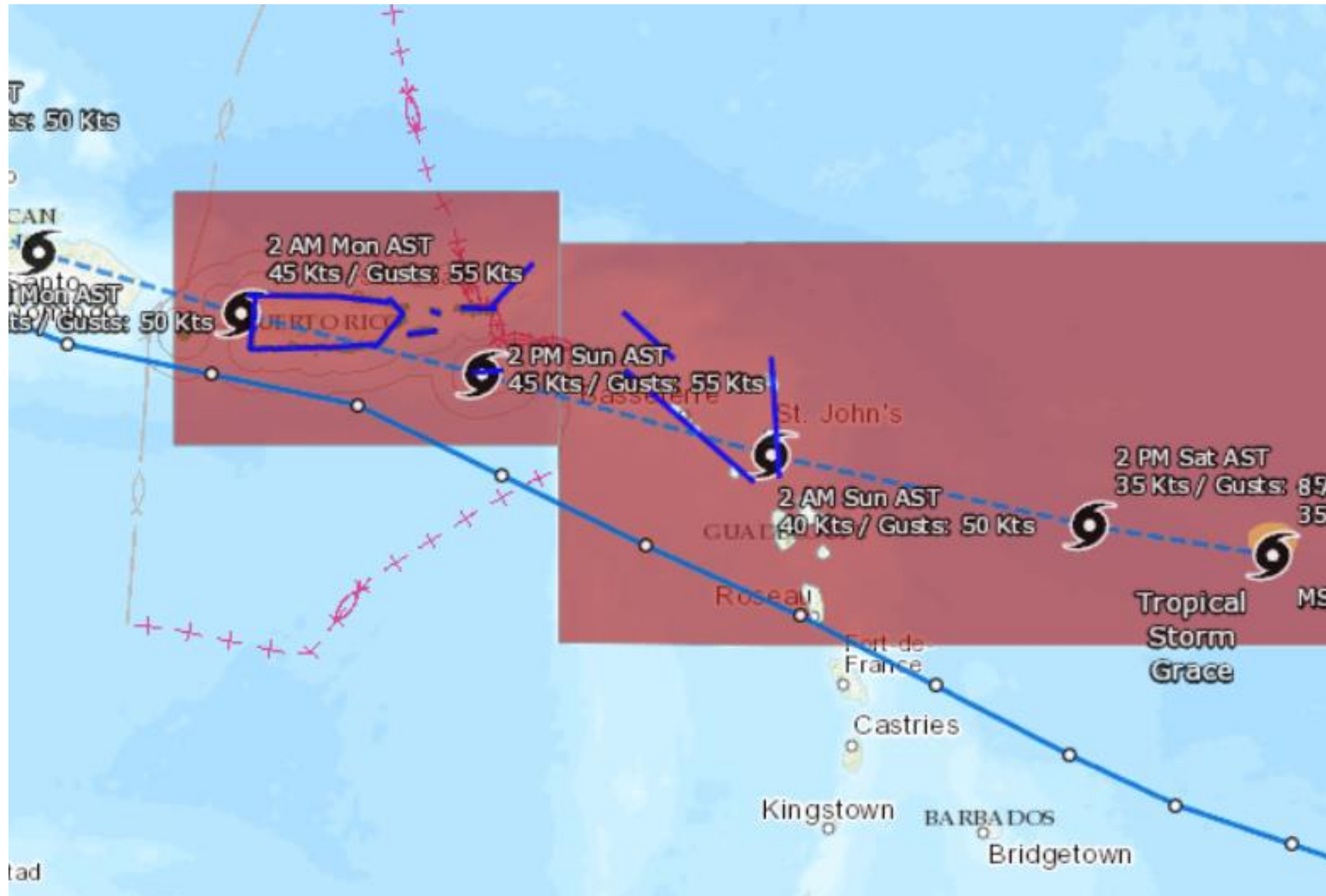
**NOTE:** Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

# Hazards Map

## Tropical Storm Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



<https://nowcoast.noaa.gov/>

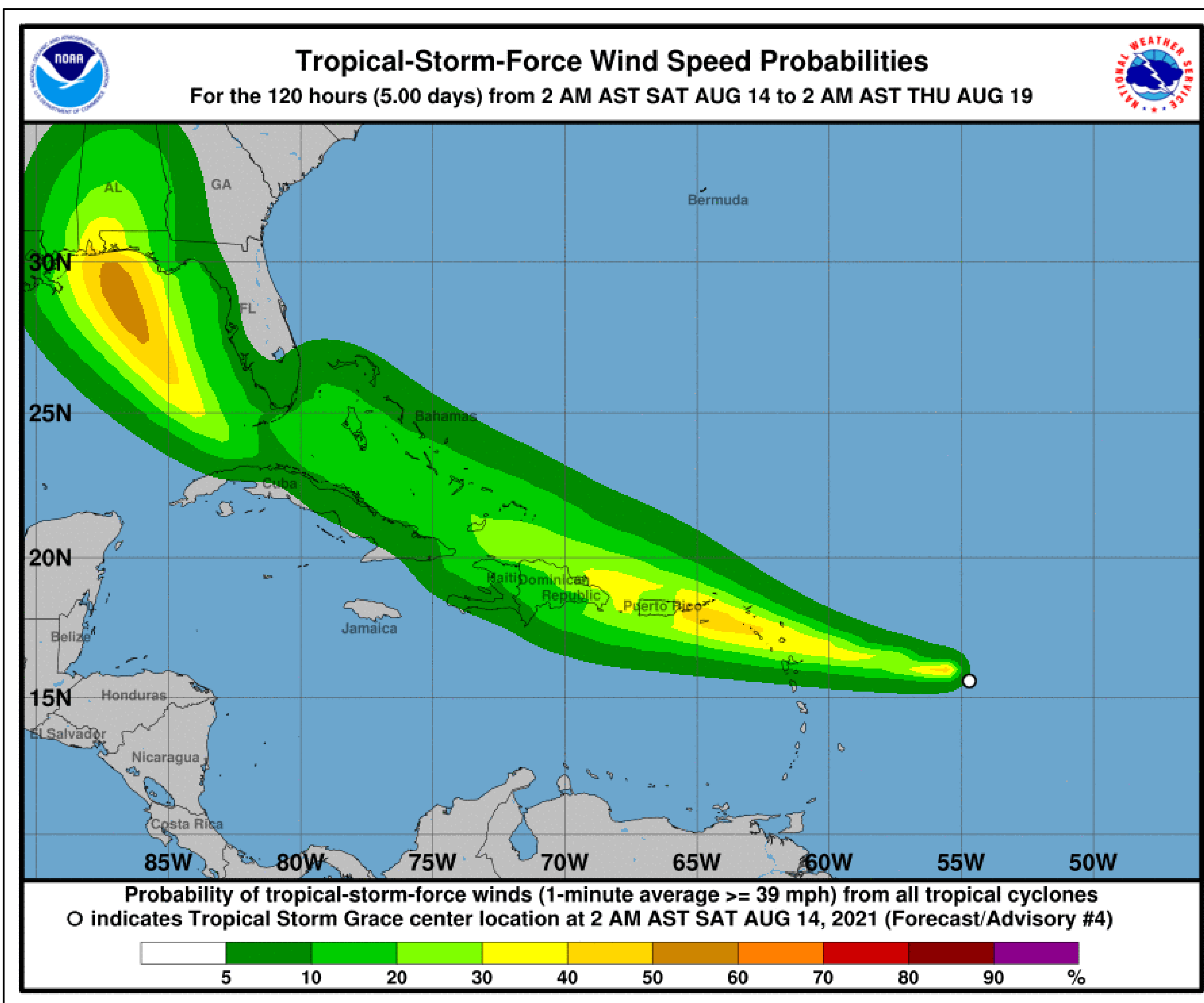


# T.S. Wind Speed Probabilities

Tropical Storm grace



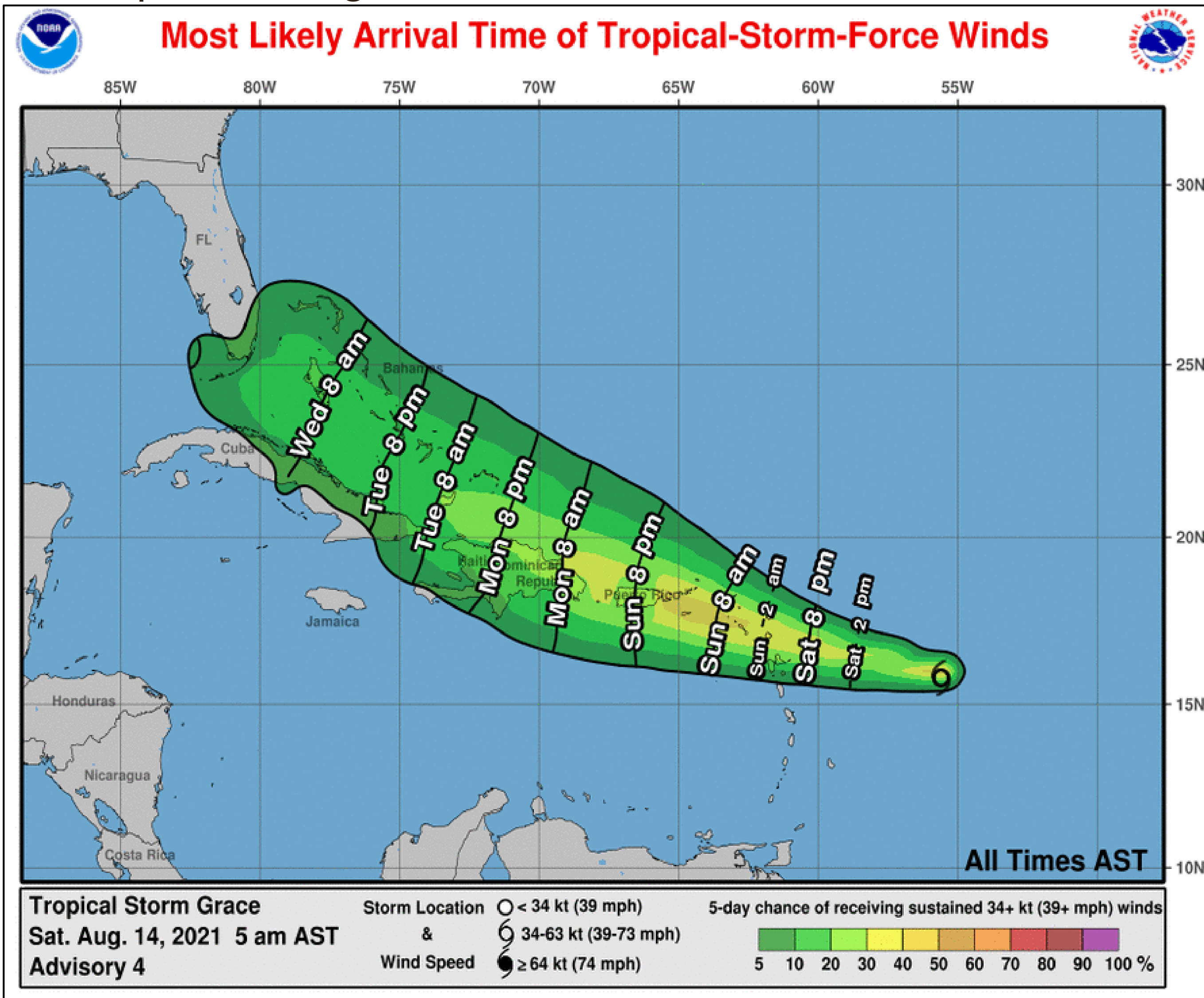
Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



- **Ponce, PR – 25%**
- **Aguadilla, PR – 40%**
- **San Juan, PR – 25%**
- **Vieques, PR – 45%**
- **Saint Thomas, VI – 40%**
- **Saint Croix, VI – 45%**
  
- 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.



## Tropical Storm grace



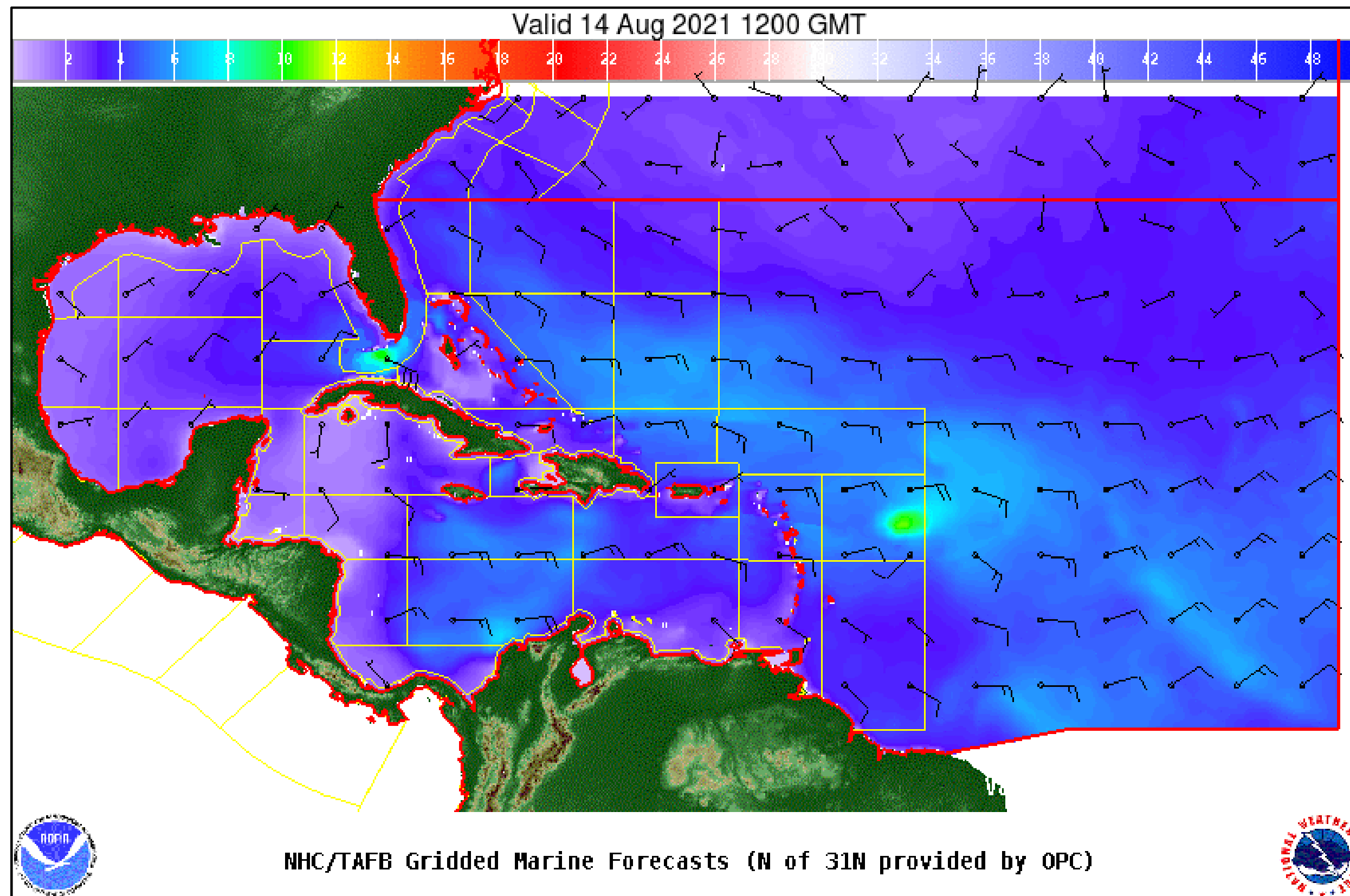
- **USVI – Sunday noon**
- **Puerto Rico – Sunday night**
- The most likely time of arrival of Tropical Storm Force Winds (34kt to 63 kt) for this cyclone based off the current track and wind radii.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color bar below the image for more details.

# Wind And Waves



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

Tropical Storm race



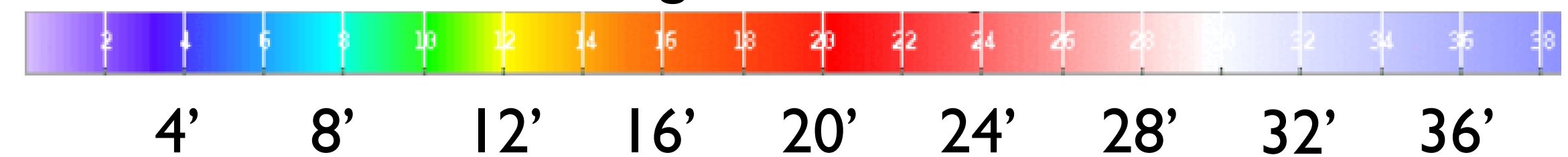
## Current Conditions

8am EDT, Saturday, August 14th

Peak Winds: 35 kt

Peak Seas: 11 ft

■ Wave heights are in feet

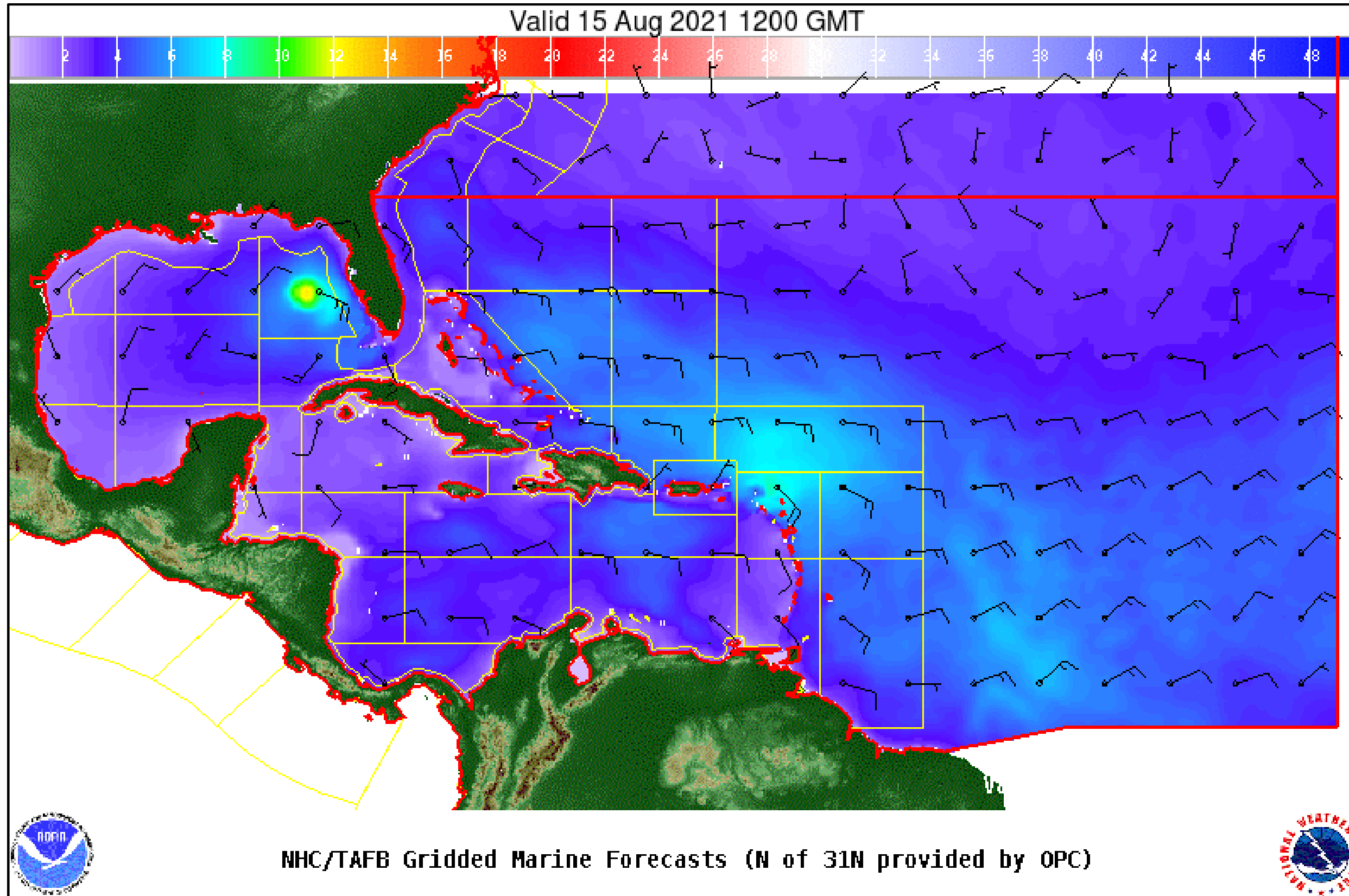


# Wind And Waves

Tropical Storm grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



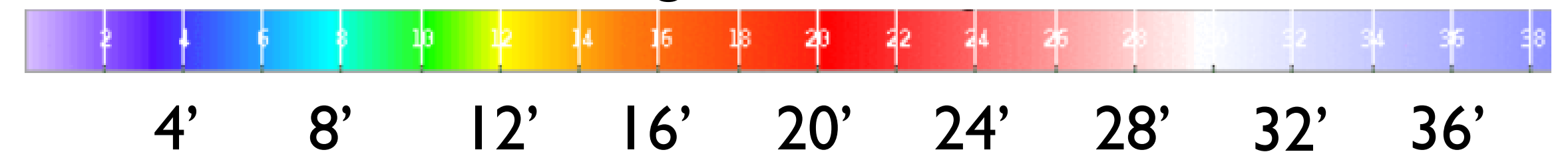
24 Hour Forecast

8am EDT, Sunday, August 15th

Peak Winds: 40 kt

Peak Seas: 10 ft

■ Wave heights are in feet

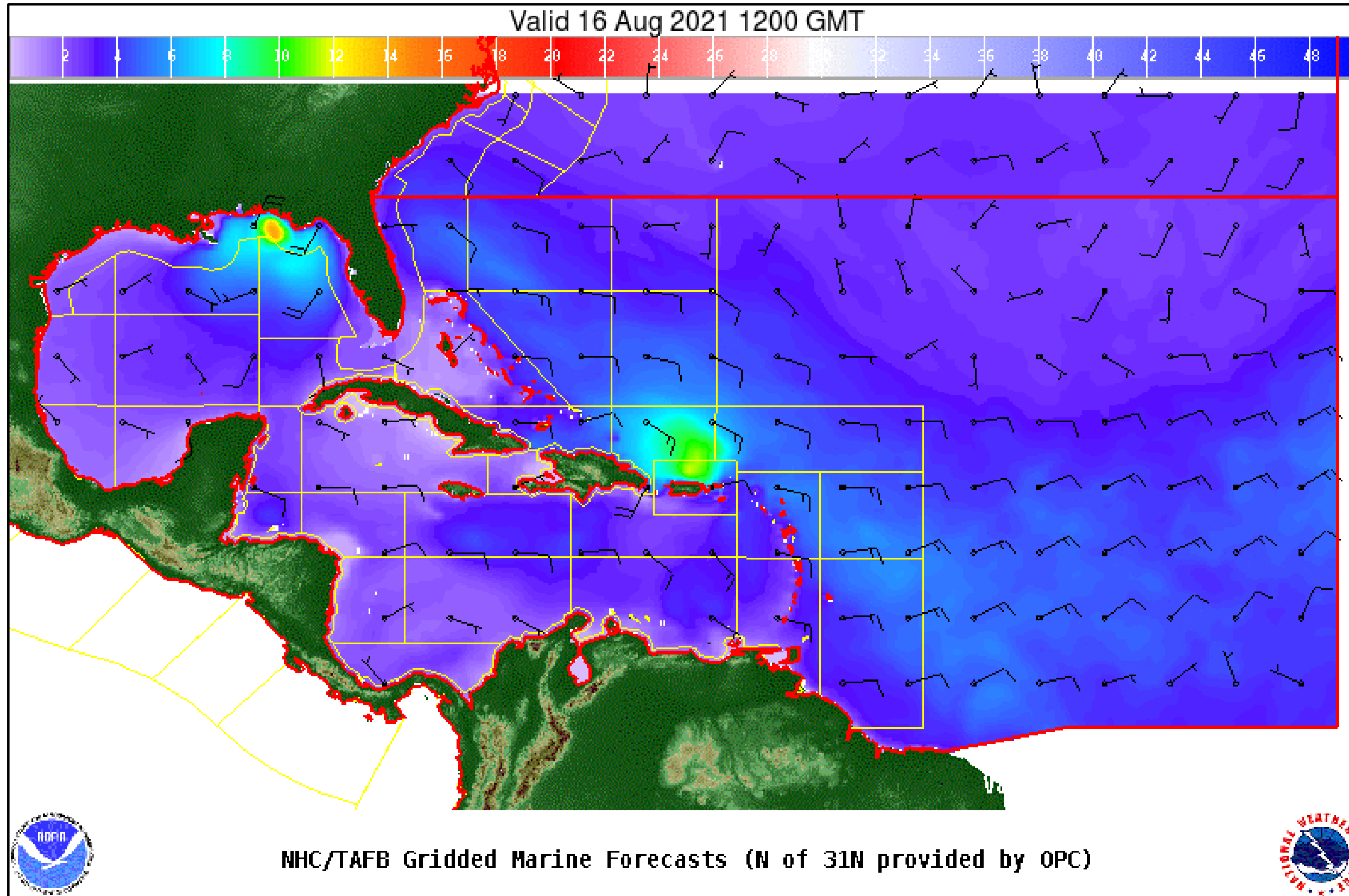


# Wind And Waves

Tropical Storm grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



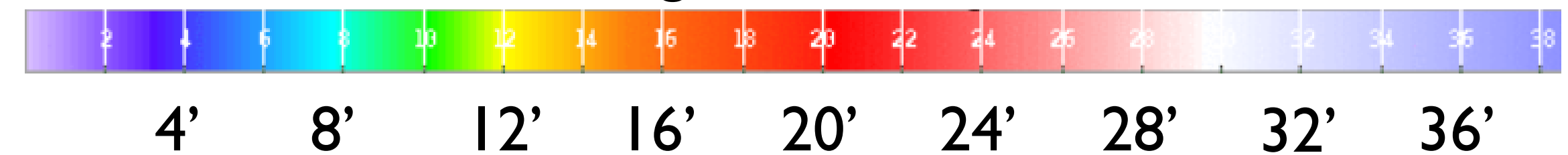
48 Hour Forecast

8am EDT, Monday, August 16th

Peak Winds: 45 kt

Peak Seas: 12 ft

■ Wave heights are in feet

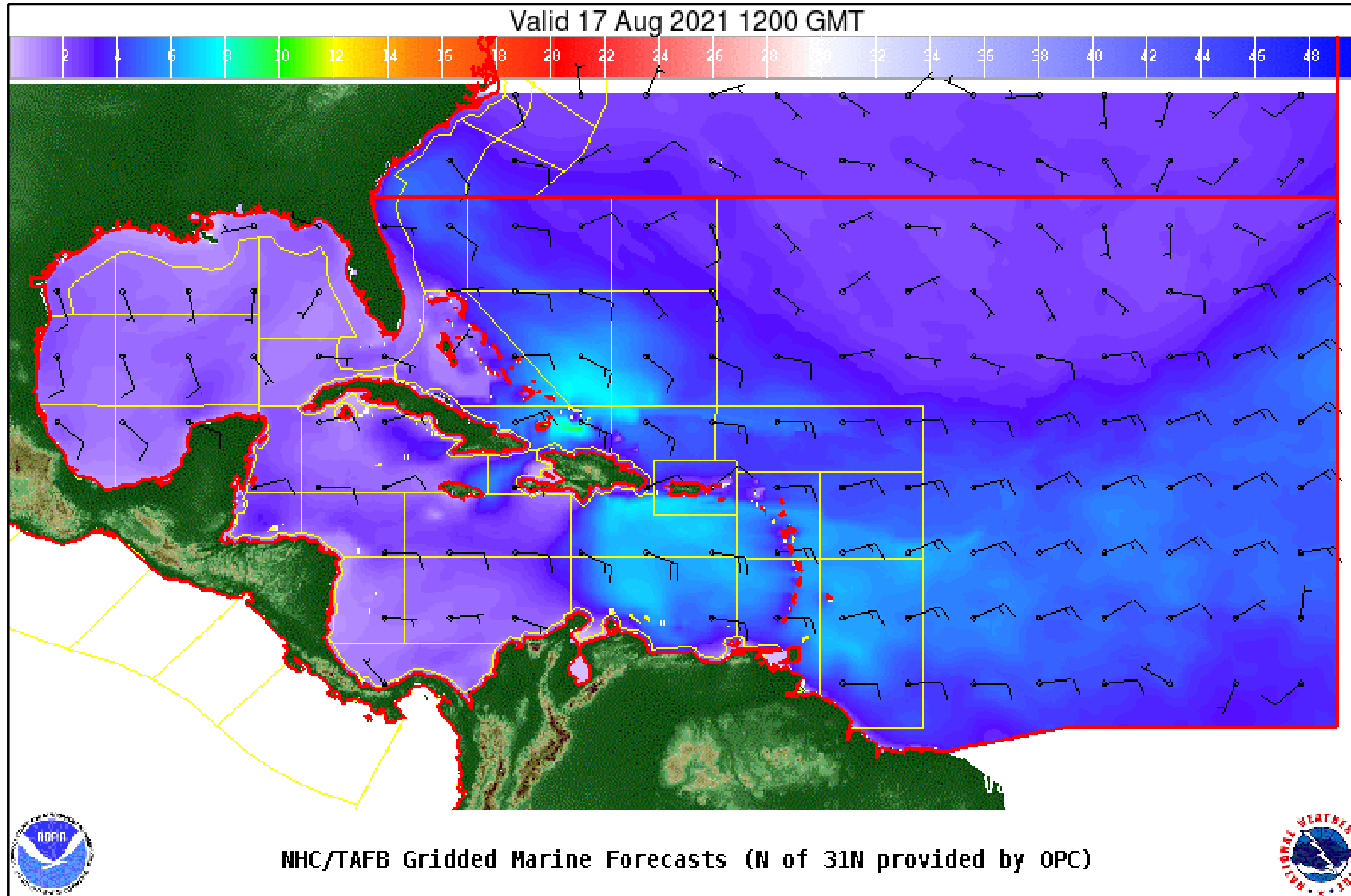


# Wind And Waves

Tropical Storm Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



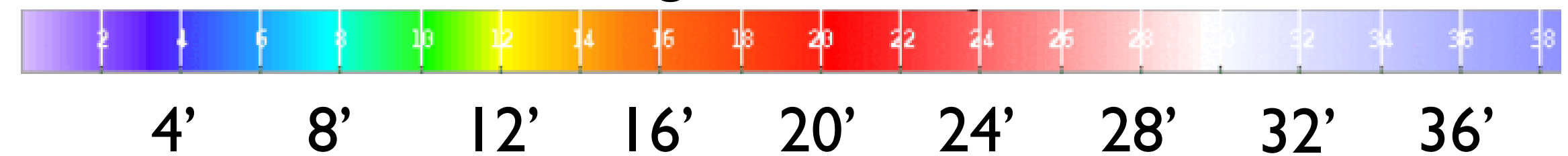
72 Hour Forecast

8am EDT, Tuesday, August 17th

Peak Winds: 40 kt

Peak Seas: 10 ft

■ Wave heights are in feet

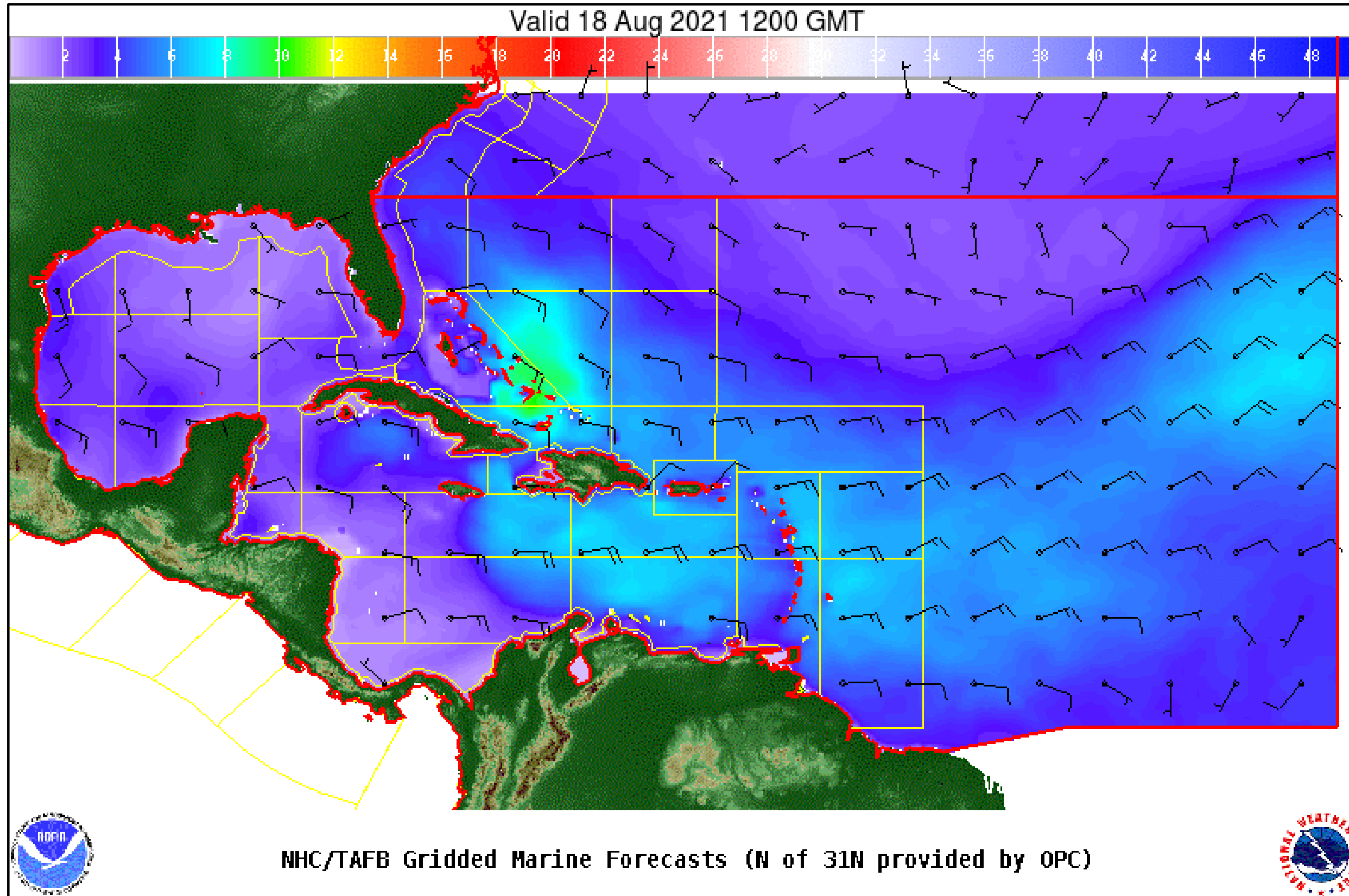


# Wind And Waves

Tropical Storm Grace



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NWS National Hurricane Center



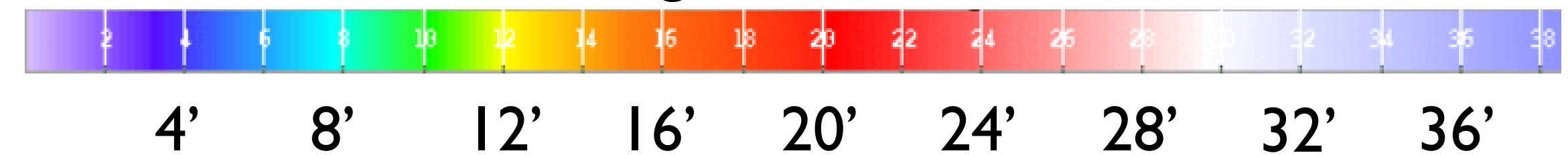
96 Hour Forecast

8am EDT, Wednesday, August 18th

Peak Winds: 40 kt

Peak Seas: 10 ft

■ Wave heights are in feet



# Expected Storm Total Rainfall and Chance of Rainfall Flooding

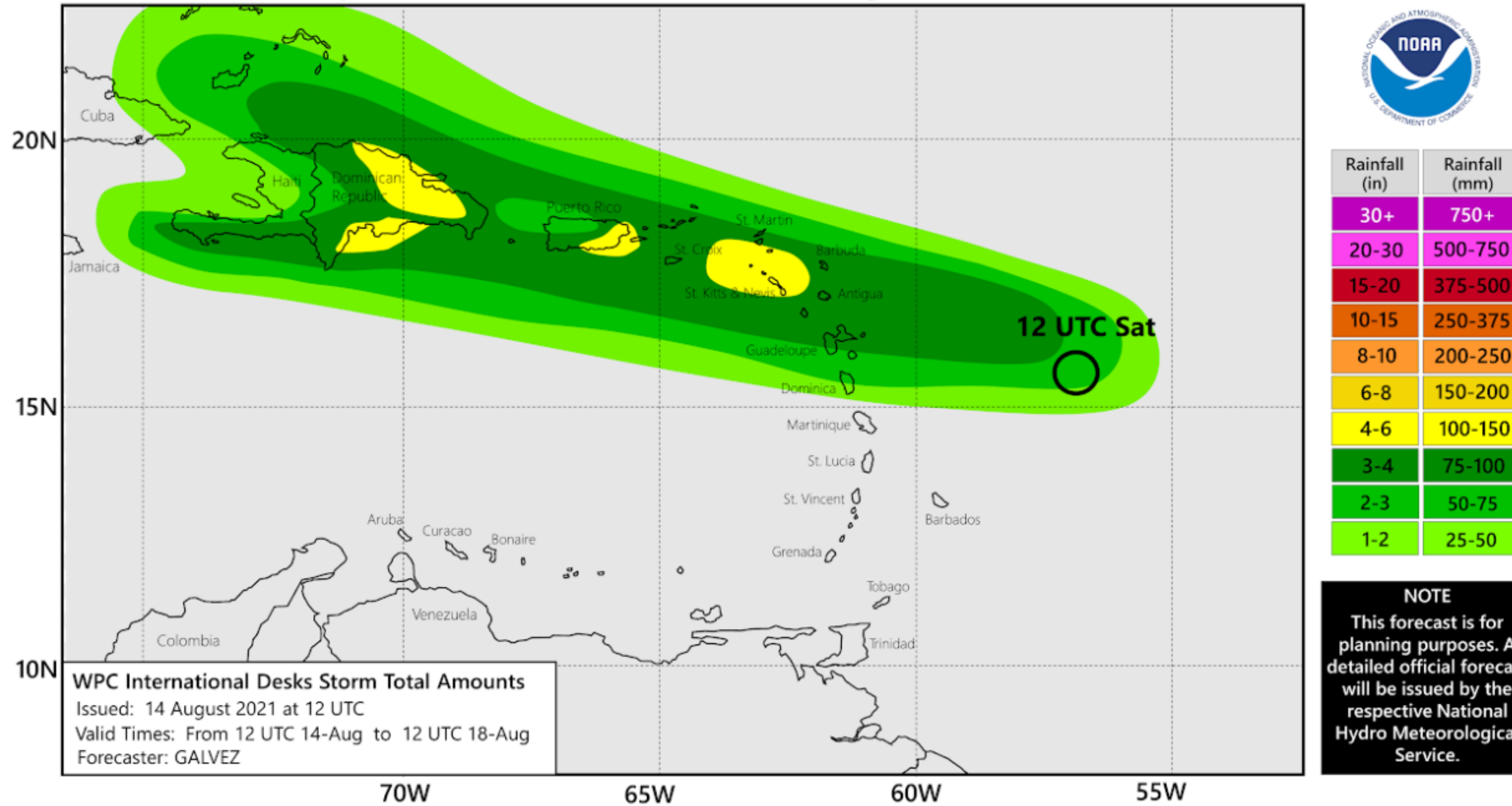


Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

Tropical Storm Grace

Images from NWS Weather Prediction Center

## Tropical Storm Grace 4-Day Rainfall



- Total rainfall in inches through Wednesday morning.



# Key Messages

## Tropical Storm Grace



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



### Key Messages for Tropical Storm Grace

Advisory 4: 5:00 AM AST Sat Aug 14, 2021



1. Tropical storm conditions are expected in portions of the Leeward Islands by tonight or early Sunday, and the U.S. Virgin Islands and Puerto Rico on Sunday. Tropical storm conditions are also possible over the British Virgin Islands on Sunday. The risk of strong winds will then spread westward to the Dominican Republic Sunday night and Monday.

2. Heavy rainfall could lead to flash and urban flooding over the Leeward and Virgin Islands. Across Puerto Rico, heavy rainfall may lead to flash, urban and small stream flooding, along with the potential for mudslides.

3. There is a risk of wind and rainfall impacts across Haiti, the Turks and Caicos Islands, the southeastern Bahamas, Cuba, and Florida next week, and interests in those areas should monitor the progress of this system.



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

### IMPACTS FOR D7 for Grace (through next 5 days)

Winds - Moderate

Storm Surge - Low

Rainfall/Flash Flooding - Low

Tornadoes - None

Waves - Low



# TROPICAL DEPRESSION FRED AND GRACE BRIEFING

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

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

*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)