

**IMPACTS FOR District 8**

**Winds/US Coast – Low**

**Winds/SRR – High**

**Waves/US Coastal – Low**

**Waves/SRR – High**

through next 5 days

**US Storm Surge – unknown**

**US Rainfall/Flash Flooding – unknown**

**US Tornadoes – unknown**

# TROPICAL STORM RAFAEL BRIEFING



11:00 AM CST  
Tuesday, November 5, 2024  
Prepared by:

**Stephen Konarik**

*Tropical Analysis and Forecast Branch  
NWS National Hurricane Center*



# Key Impacts

Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

- Wind: Hurricane force winds SE Gulf (current forecast 80 kt)
- Waves: 30 ft SE Gulf
- Too early to tell what, if any, impacts Rafael will have on the northern Gulf Coast; uncertainty is particularly high

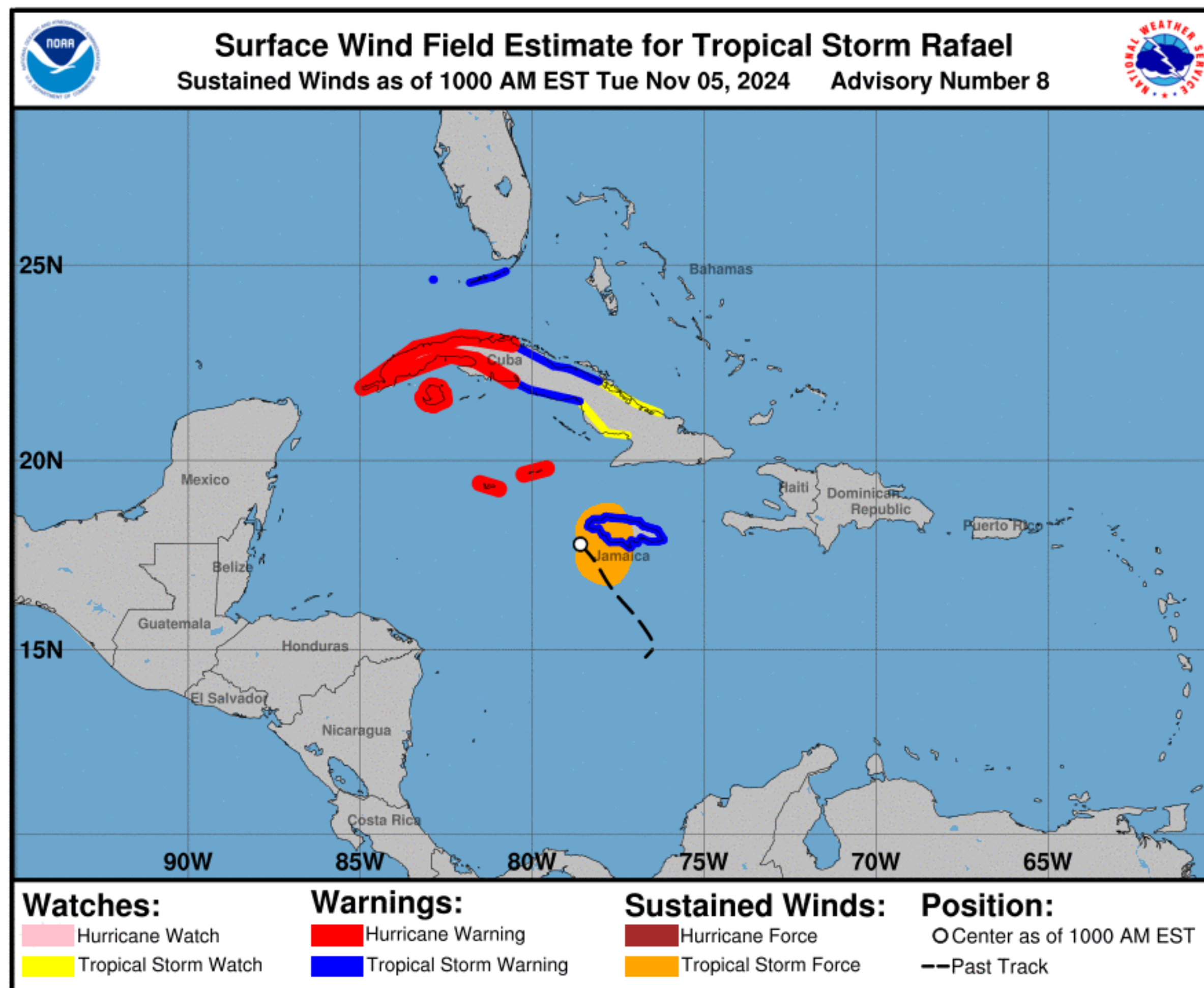


# Situation Overview

## Tropical Storm Rafael



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NWS National Hurricane Center



**...RAFAEL GETTING BETTER ORGANIZED AS  
THE CENTER PASSES SOUTH OF  
WESTERN JAMAICA...**

**...TROPICAL STORM WARNING ISSUED FOR  
THE FLORIDA KEYS...**

SUMMARY OF 1000 AM EST... 1500 UTC...

LOCATION... 17.8N 78.6W

ABOUT 90 NM SW OF MONTEGO BAY JAMAICA

MAXIMUM SUSTAINED WINDS... 50 kt

PRESENT MOVEMENT... NW at 11 kt

12 FT SEAS.. 30NE 75SE 0SW 0NW.

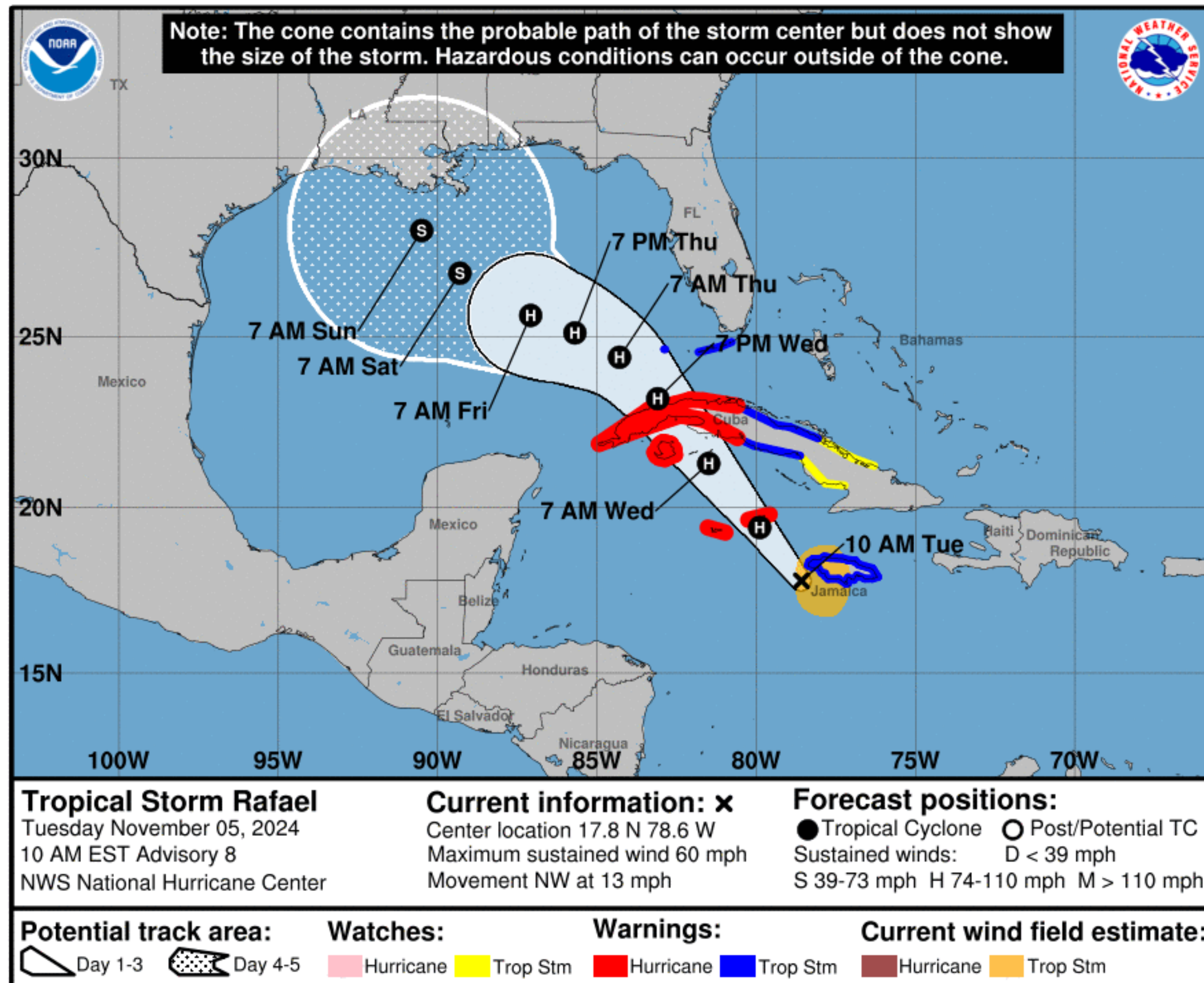


# Forecast Information

## Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
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- EXPECTED TO RAPIDLY STRENGTHEN AND BECOME A HURRICANE BY TONIGHT
- GENERAL NW MOTION; CROSSING CUBA WED, THEN THROUGH E GULF FOR THE REMAINDER OF THE WEEK
- HIGHER THAN USUAL UNCERTAINTY IN STRENGTH AND TRACK BEYOND THURSDAY; WEAKENING APPEARS LIKELY BY THE WEEKEND

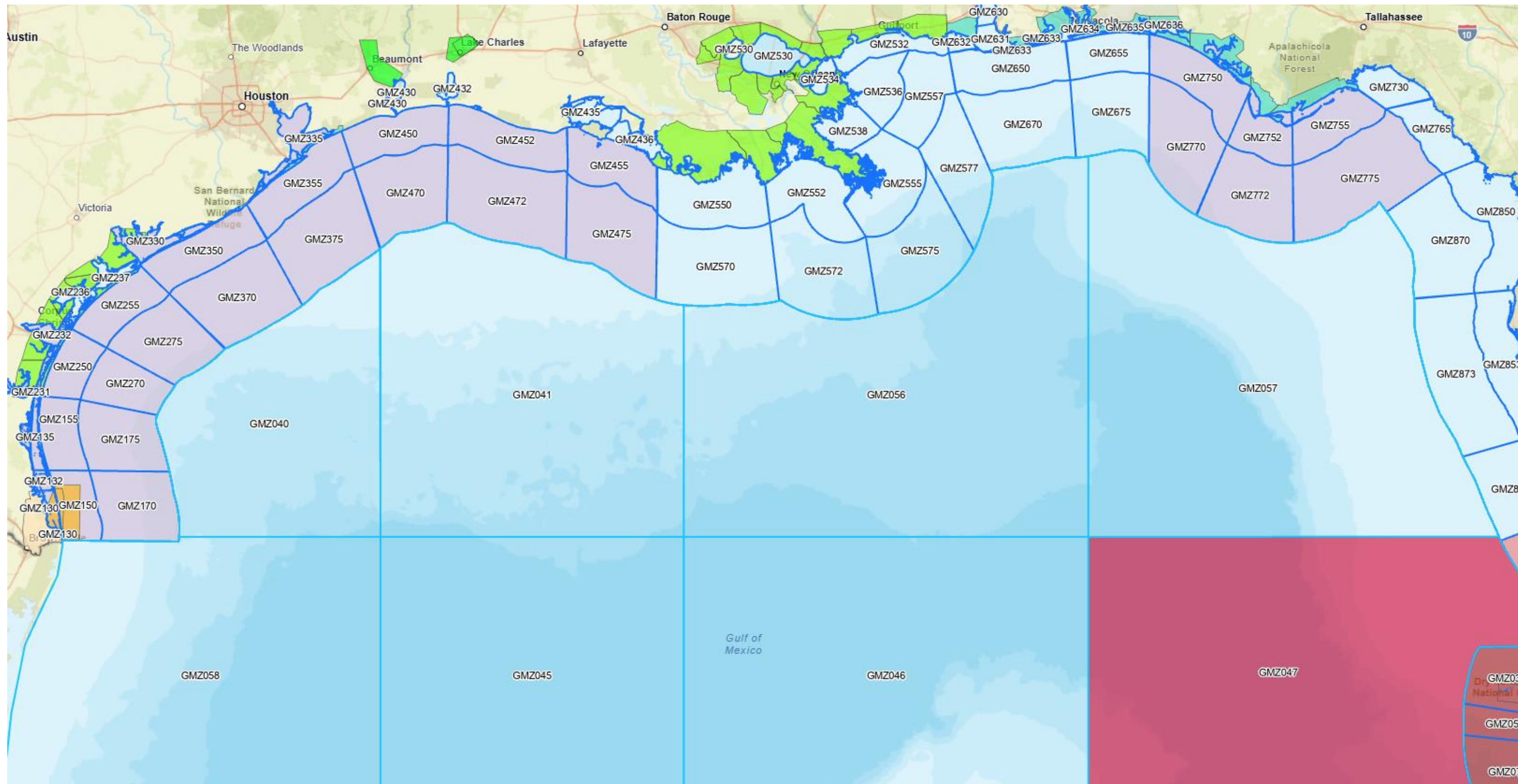
**NOTE:** Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.



# Tropical Storm Rafael



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**Hurricane Warning**

## Rip Current Statement

## Coastal Flood Advisory

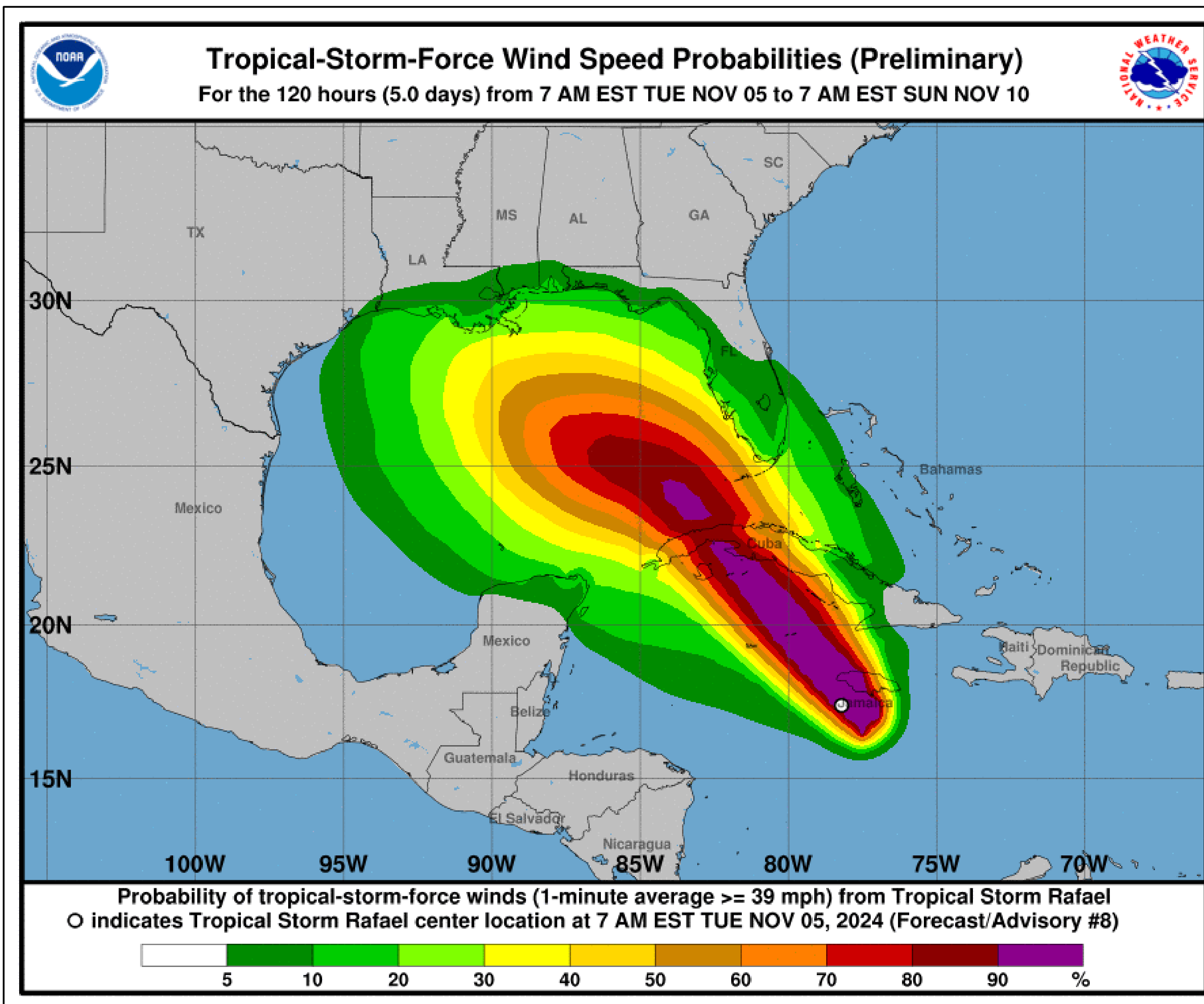
■ Small Craft Advisory

# T.S. Wind Speed Probabilities

Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



- ~ 10% chance for all coastal locations from Galveston eastward

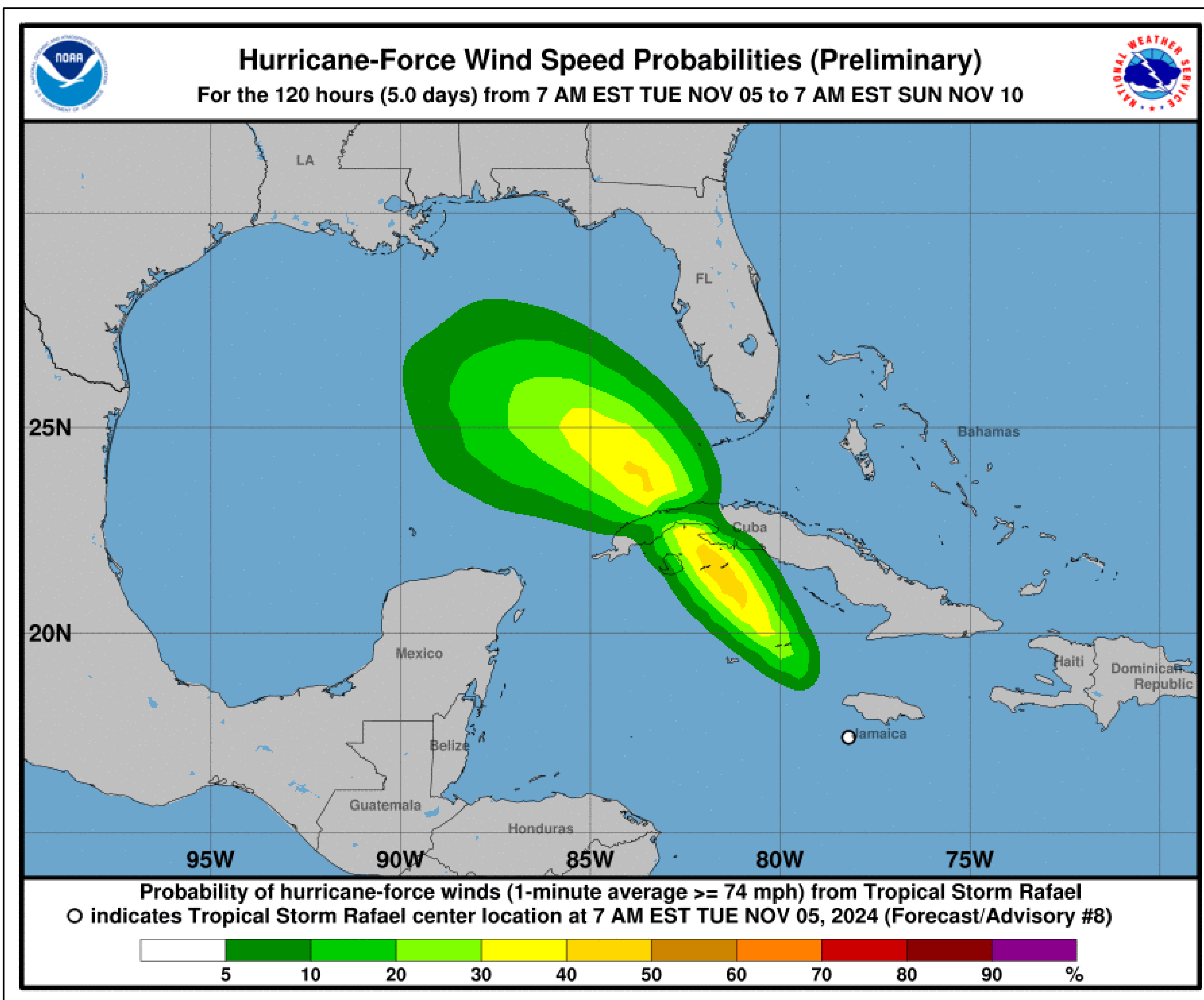


# Hurricane Wind Speed Probabilities

Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



- Current forecast keeps hurricane conditions confined mainly to SE Gulf, well offshore

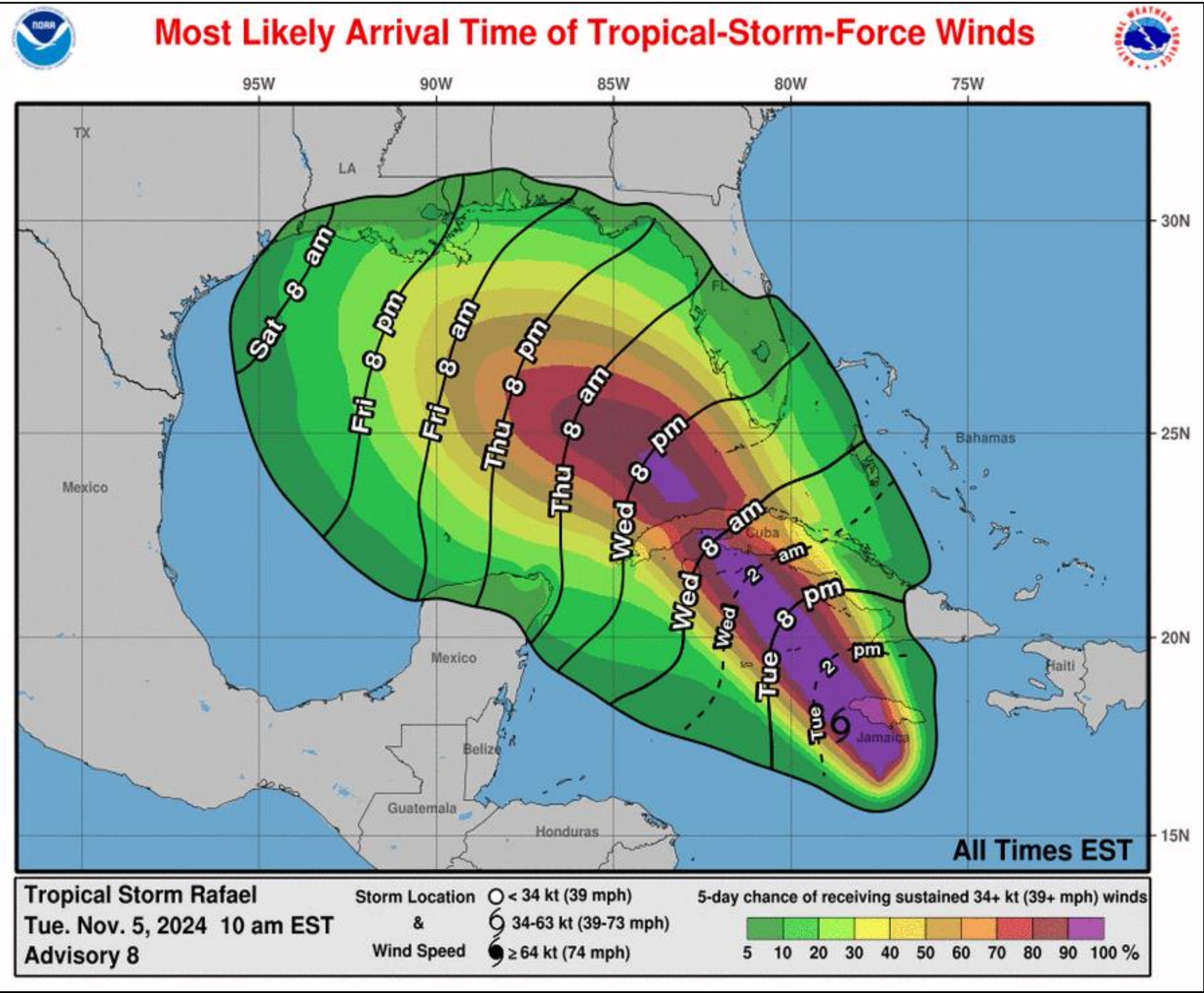


# Most Likely Time of Arrival and Tropical Storm Windspeed Probabilities

## Tropical Storm Rafael



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- Florida Panhandle – Thursday night
- AL/MS – Friday
- Louisiana – Friday night
- Texas - Saturday



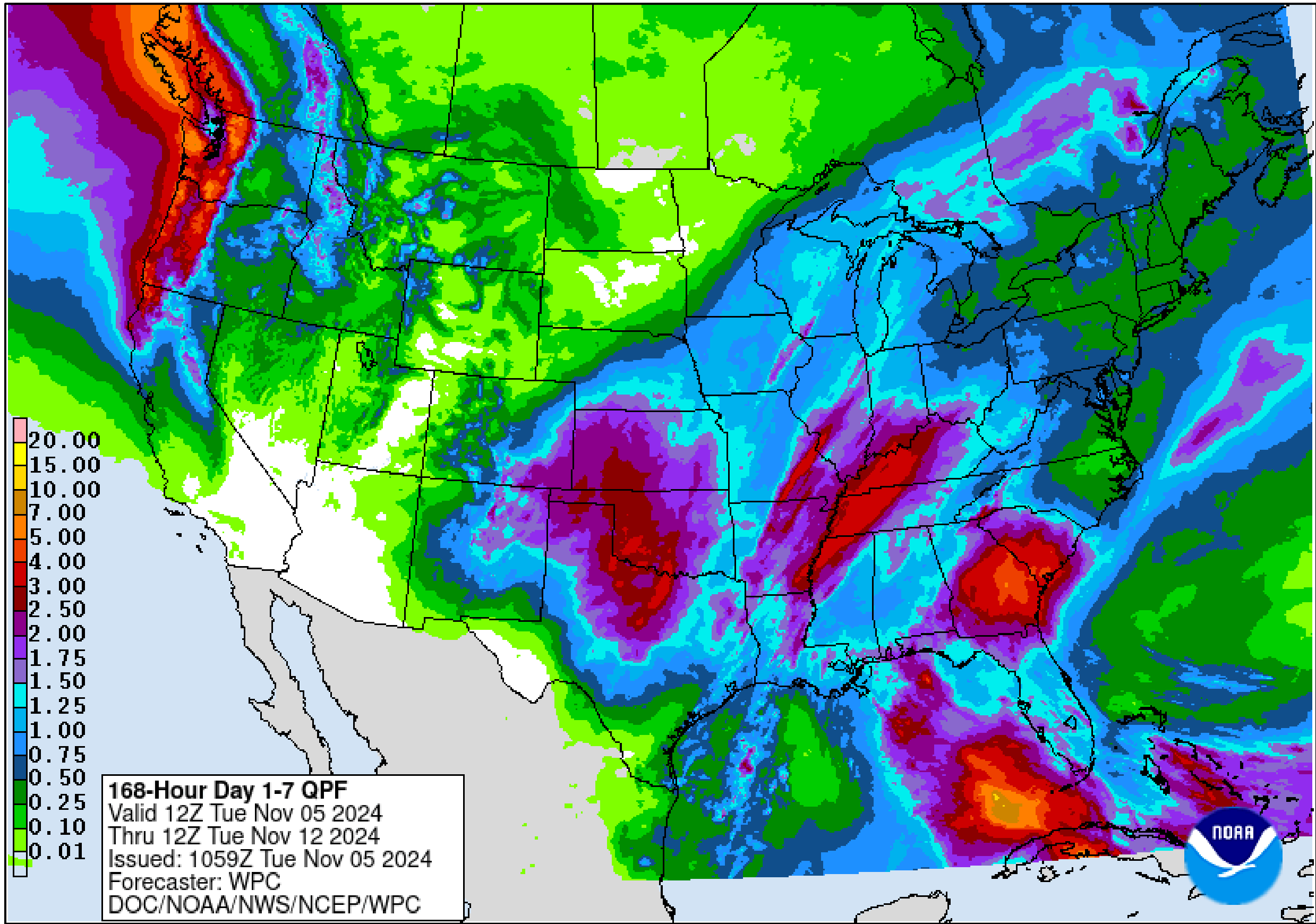
# Expected Storm Total

Tropical Storm Rafael

Images from NWS Weather Prediction Center



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

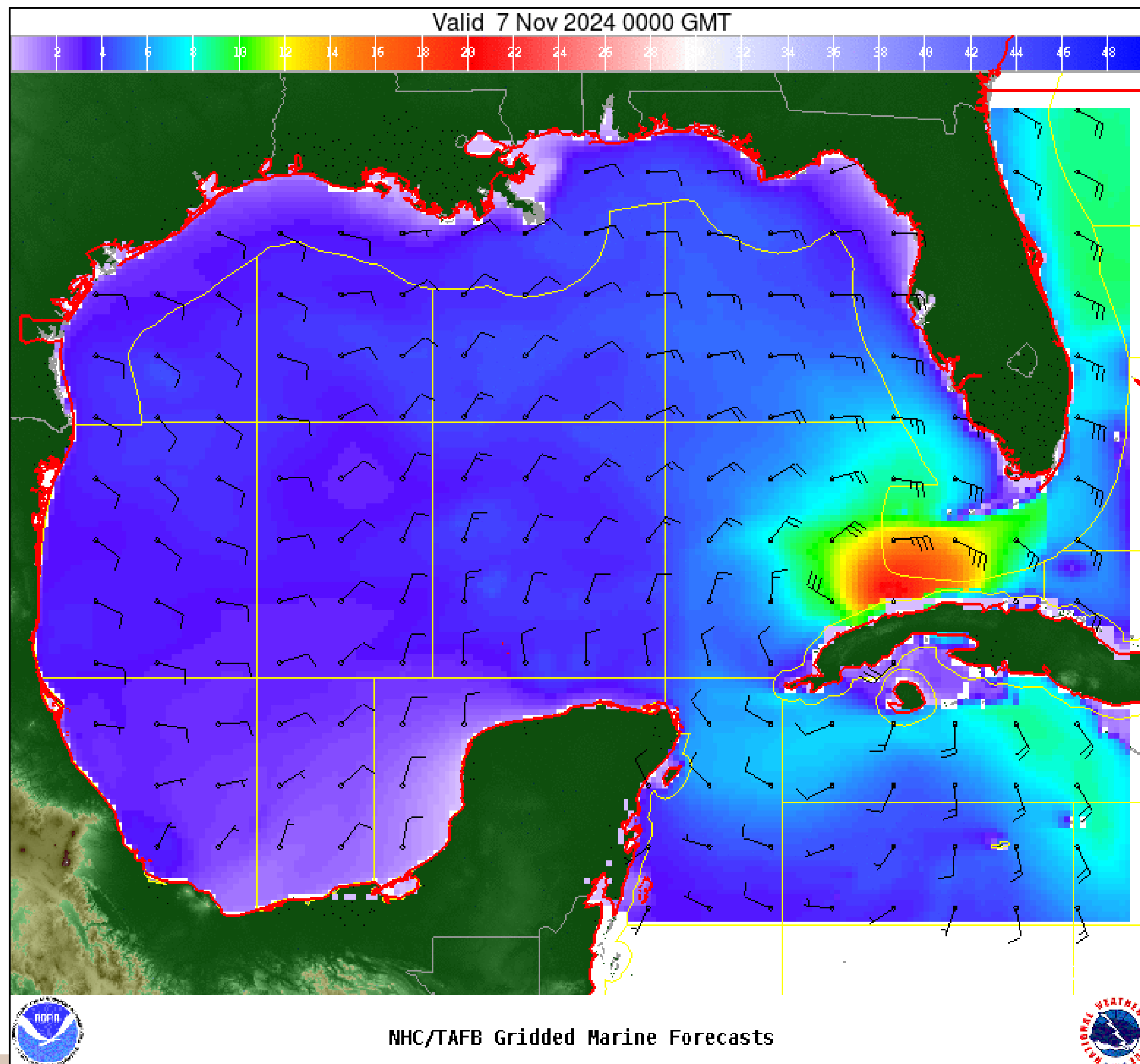


# Wind And Waves

## Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



**6PM CST WEDNESDAY**

Peak Winds: 80 kt

Peak Seas: 20 ft

- Wave heights are in feet



Significant Wave Height (ft)

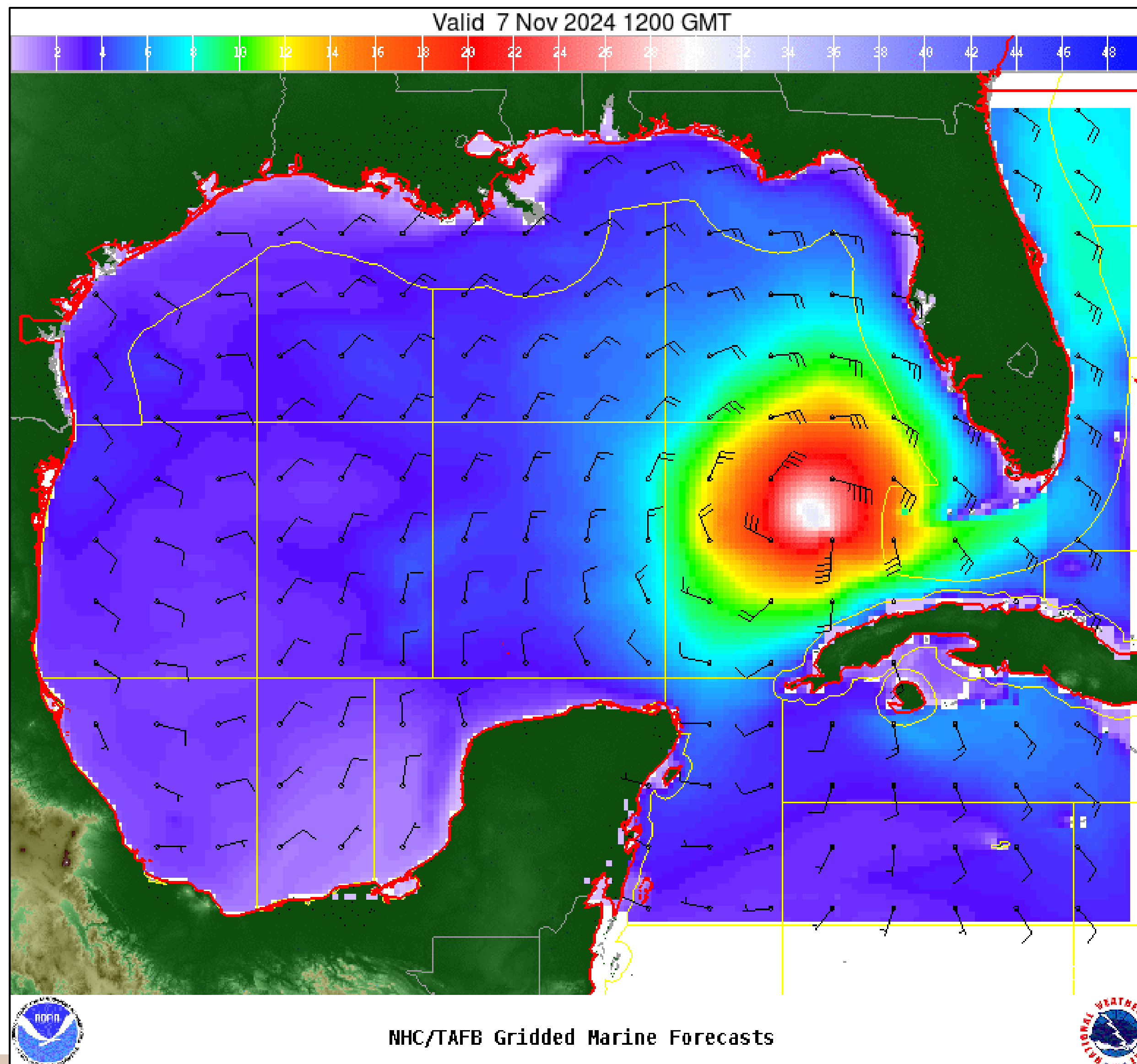


# Wind And Waves

## Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center



**6AM CST THURSDAY**

Peak Winds: 80 kt

Peak Seas: 30 ft

■ Wave heights are in feet



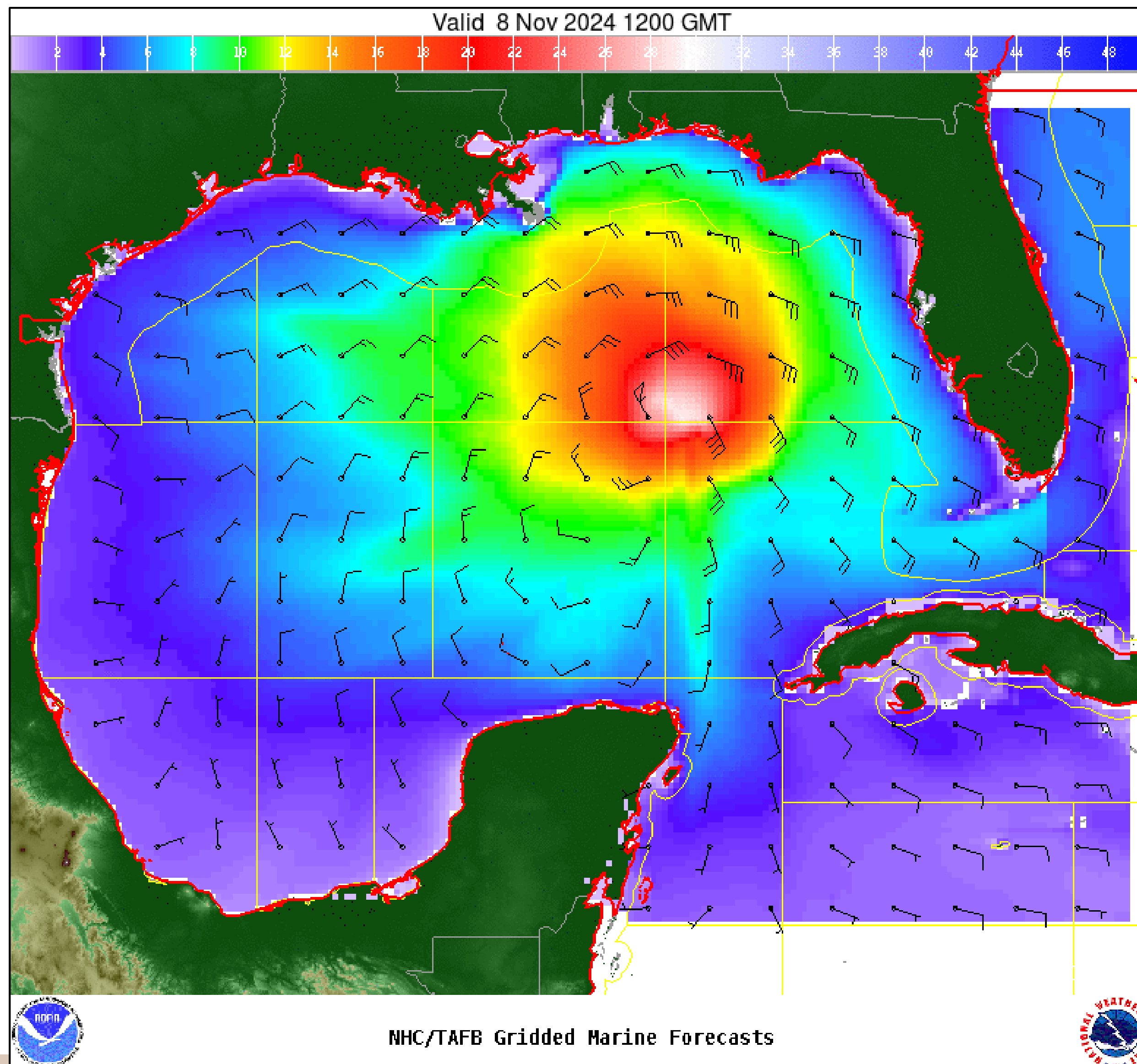
Significant Wave Height (ft)

# Wind And Waves

## Tropical Storm Rafael



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**6AM CST FRIDAY**

Peak Winds: 75 kt

Peak Seas: 30 ft

■ Wave heights are in feet



Significant Wave Height (ft)

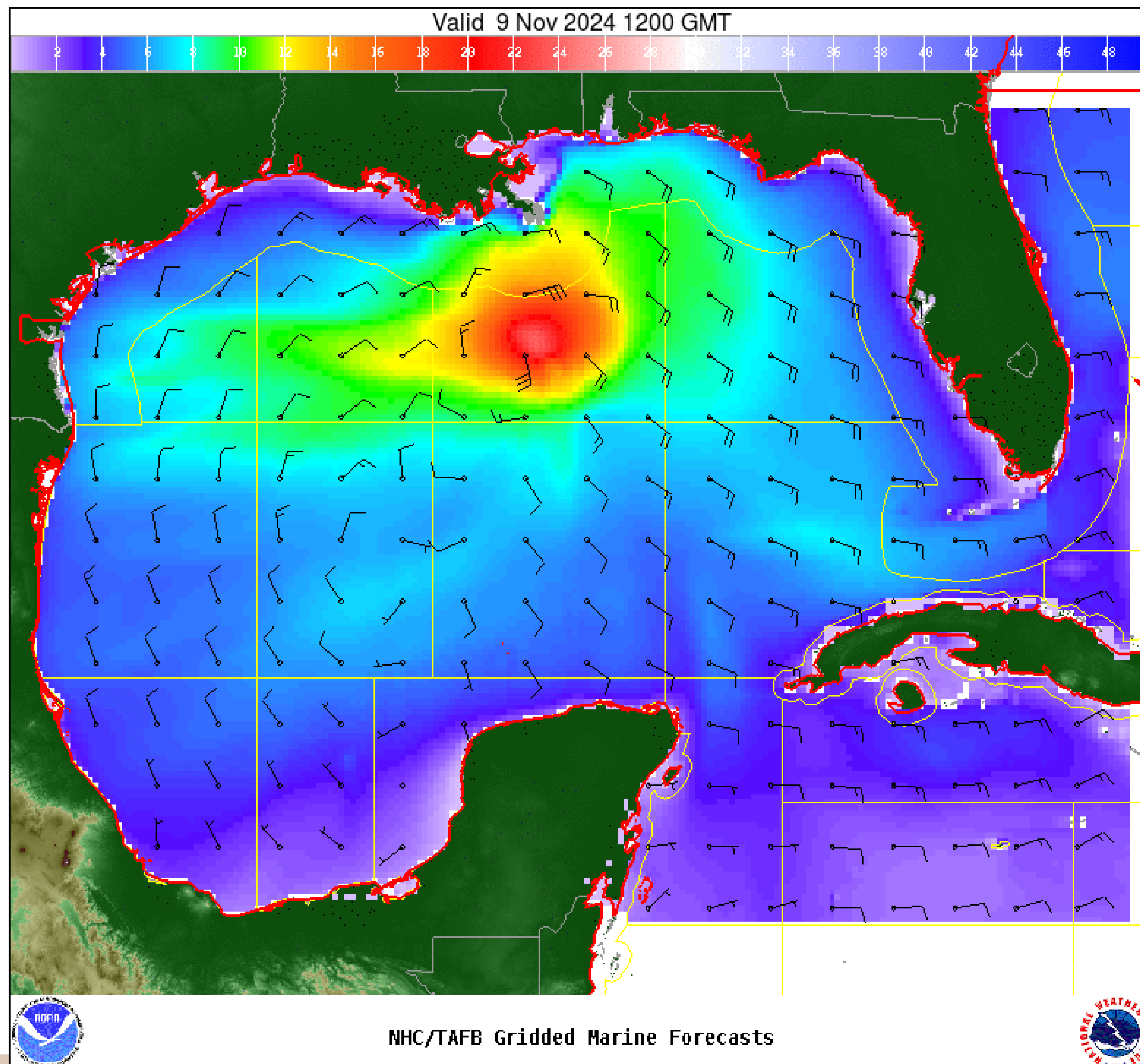


# Wind And Waves

## Tropical Storm Rafael



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**6AM CST SATURDAY**

Peak Winds: 60 kt

Peak Seas: 25 ft

**\*\*Very high uncertainty**

■ Wave heights are in feet



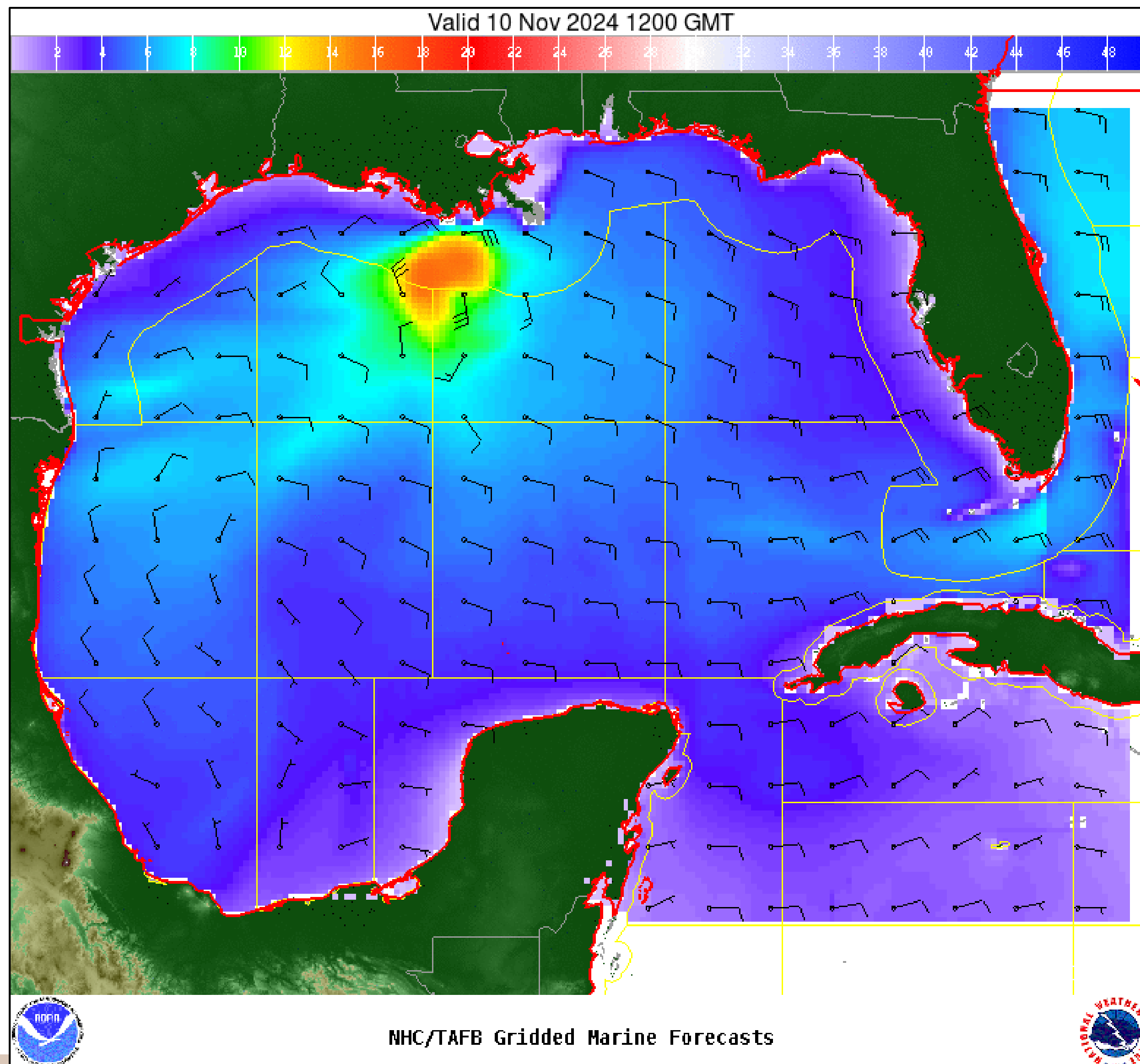
Significant Wave Height (ft)

# Wind And Waves

## Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
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**6AM CST SUNDAY**

Peak Winds: 45 kt

Peak Seas: 18 ft

**\*\*Very high uncertainty**

- Wave heights are in feet



Significant Wave Height (ft)



# Key Messages

## Tropical Storm Rafael



Tropical Analysis and Forecast Branch  
NWS National Hurricane Center

### Key Messages for Tropical Storm Rafael

Advisory 8: 10:00 AM EST Tue Nov 05, 2024

1. Rafael is forecast to be near hurricane intensity when it passes near or over the Cayman Islands by tonight where damaging hurricane-force winds, a dangerous storm surge, and destructive waves are expected. Rafael should reach western Cuba and the Isle of Youth on Wednesday. A hurricane warning is in effect for this region, where a life-threatening storm surge and destructive waves are also expected.

2. Tropical storm conditions are expected in Jamaica through this afternoon. Tropical storm conditions are expected in the Lower and Middle Florida Keys beginning Wednesday and Wednesday night.

3. It is too soon to determine what, if any, impacts Rafael could bring to portions of the northern Gulf Coast. Residents in this area should regularly monitor updates to the forecast.

4. Rafael will bring areas of heavy rain across portions of the Western Caribbean through early Thursday, including the islands of Jamaica and the Cayman, along with southern and western portions of Cuba. Flash flooding and mudslides are possible along the higher terrain in Jamaica and Cuba.



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

- Marine Key Messages:
  - Winds in parts of SE Gulf reaching hurricane force late Wed through at least Thursday
  - Seas as high as 30 ft forecast for SE Gulf
  - Rafael is forecast to weaken as it enters northern Gulf toward the end of the week; very high uncertainty for Gulf coast impacts

### IMPACTS FOR **District 8**

**Winds/US Coast – Low**

**Winds/SRR – High**

**Waves/US Coastal – Low**

**Waves/SRR – High**



This briefing was prepared by:  
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**TIME of NEXT NHC Advisory:**  
**21 UTC: 3 PM CST**

# TROPICAL STORM RAFAEL BRIEFING

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

*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)