

IMPACTS FOR D7

Winds/US Coast – Medium

Winds/SRR – High

Waves/US Coastal – Medium

Waves/SRR – High

through next 5 days

US Storm Surge – Low

US Rainfall/Flash Flooding – Low

US Tornadoes – Low

HURRICANE RAFAEL BRIEFING



8:30 AM EST
Wednesday, November 6, 2024

Prepared by:
Nelsie Ramos

*Tropical Analysis and Forecast Branch
NWS National Hurricane Center*



Changes Since Yesterday

Hurricane Rafael



Tropical Analysis and Forecast Branch
NWS National Hurricane Center

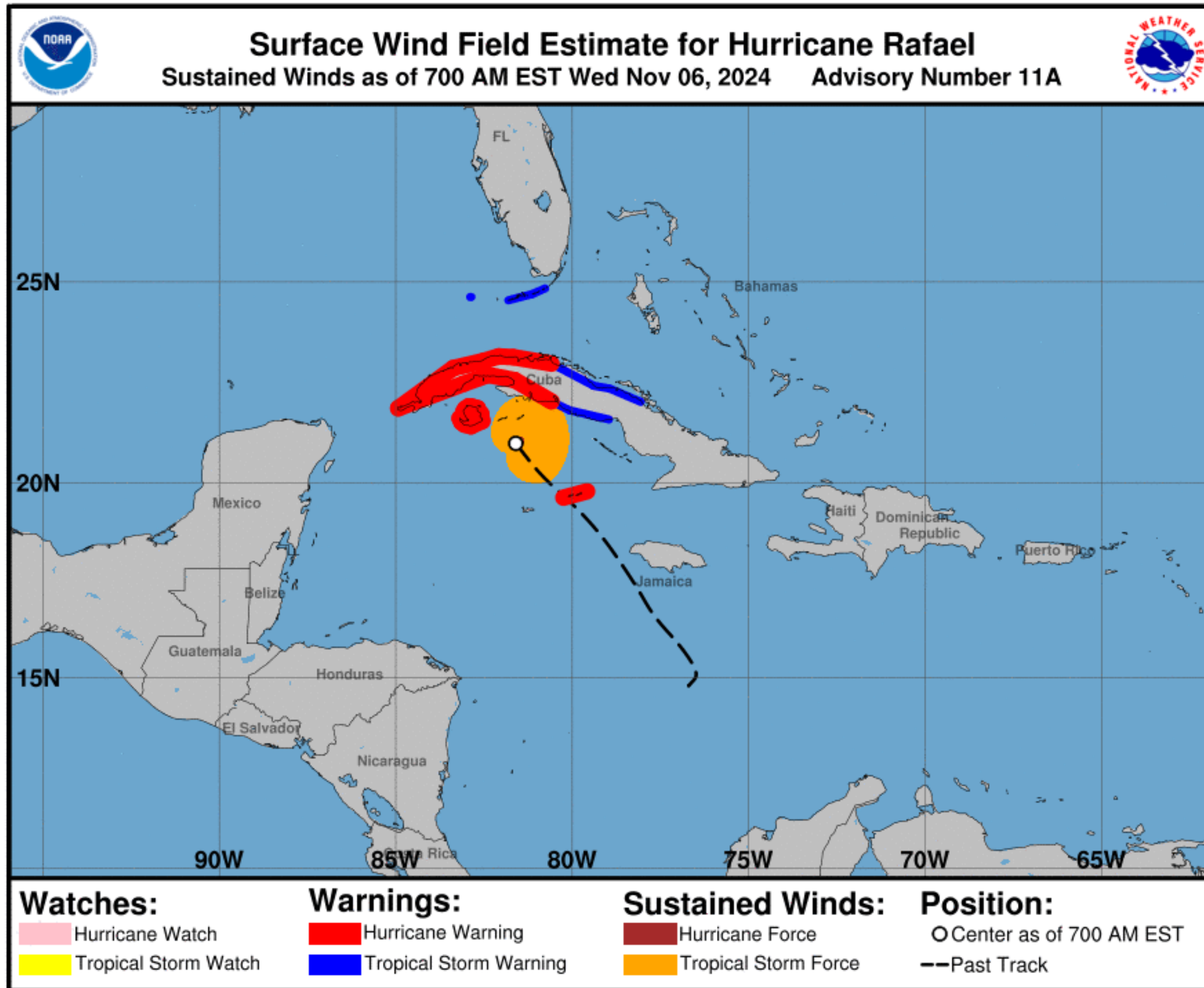
- Rafael intensified to a hurricane last night
- Hurricane Warning
 - Western Cuba and Little Cayman and Cayman Brac
- Tropical Storm Warning
 - Central Cuba
 - Lower and Middle Florida Keys
 - Dry Tortugas

Situation Overview

Hurricane Rafael



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**...RAFAEL CONTINUES TO STRENGTHEN...
...EXPECTED TO BE NEAR MAJOR
HURRICANE INTENSITY AT LANDFALL IN
WESTERN CUBA...**

**SUMMARY OF 700 AM EST...1200
UTC...INFORMATION**

**LOCATION...21.0N 81.6W
ABOUT 80 NMI ESE OF THE ISLE OF YOUTH
ABOUT 140 NMI SSE OF HAVANA CUBA
MAXIMUM SUSTAINED WINDS... 85 KT
PRESENT MOVEMENT...NW AT 12 KT**

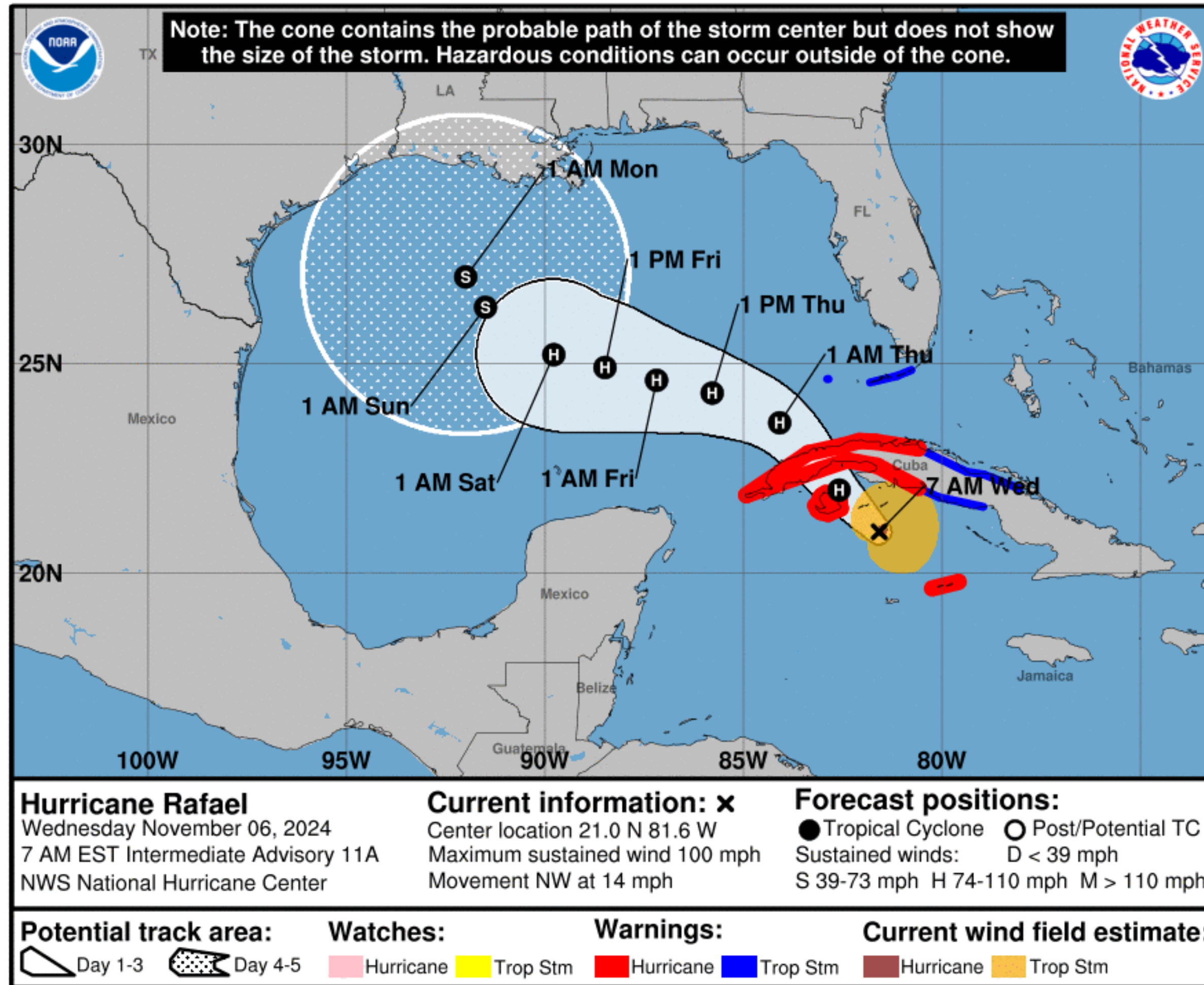
12 FT SEAS.. 90NE 90SE 60SW 60NW.

Forecast Information

Hurricane Rafael



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- General NW motion anticipated over the next day or two, followed by a gradual WNW turn in the Gulf of Mexico
- Crossing Cuba as a hurricane today
- Moving into the SE Gulf as a Hurricane tonight
- Will remain as a Hurricane as it moves across the SE Gulf through Fri night
- High uncertainty in both track and intensity remains beyond Fri night

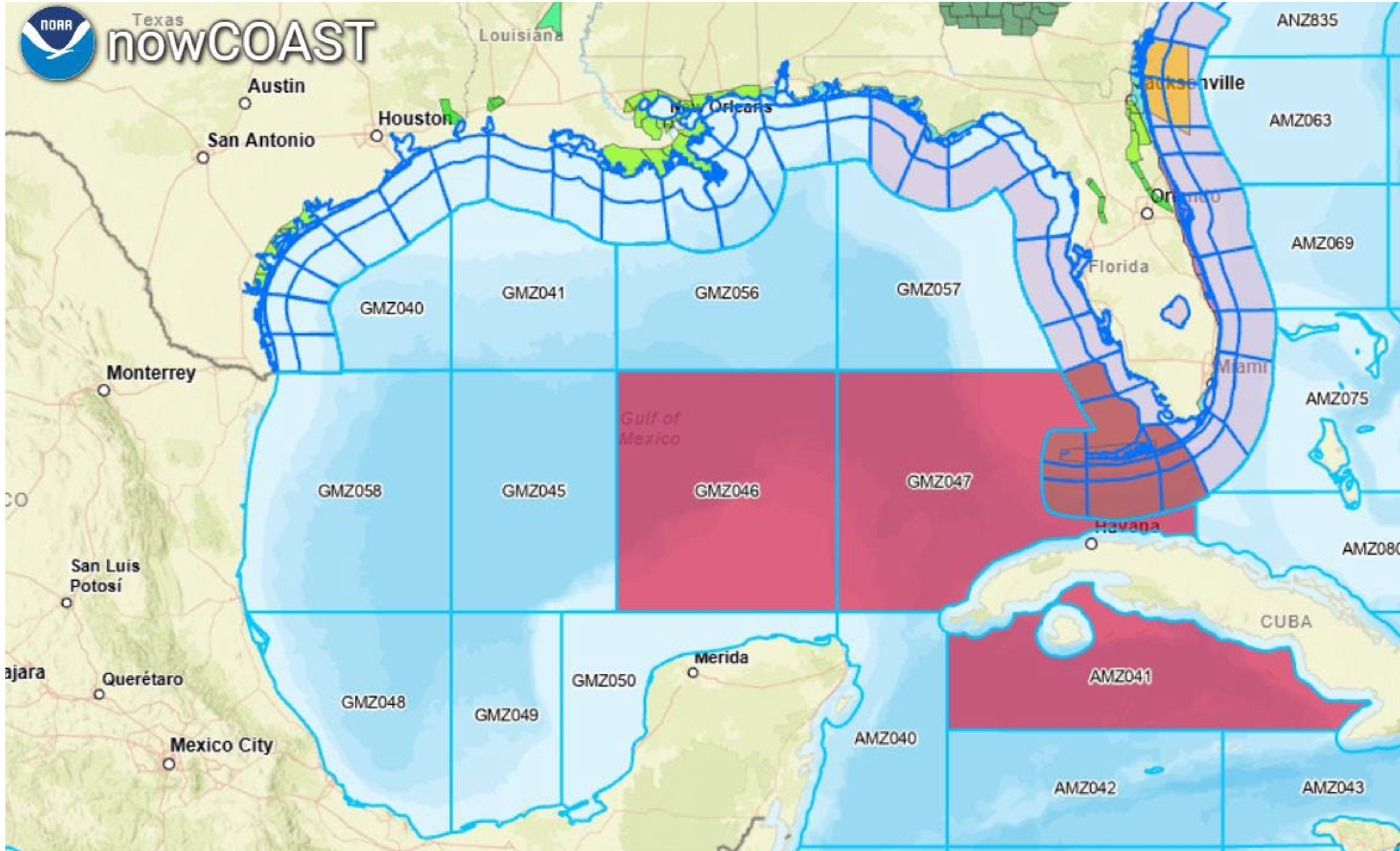
NOTE: Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

Hazards Map

Hurricane Rafael



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	Coastal Flood Advisory (32)
	Flood Advisory (4)
	Winter Weather Advisory (45)
	Tropical Cyclone Statement (3)
	Red Flag Warning (106)
	Freeze Warning (8)
	Gale Warning (169)
	Flood Warning (48)
	Storm Warning (7)
	Tropical Storm Warning (15)
	High Wind Warning (22)
	Winter Storm Warning (50)
	Heavy Freezing Spray Warning (53)
	Special Marine Warning (1)
	Hurricane Warning (3)
	Number of Alerts (1411)

T.S. Wind Speed Probabilities

Hurricane Rafael



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- **Marathon 10%**
- **Key West 20%**
- **Naples 10%**
- **Venice 10%**
- **Apalachicola 5%**

- 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.

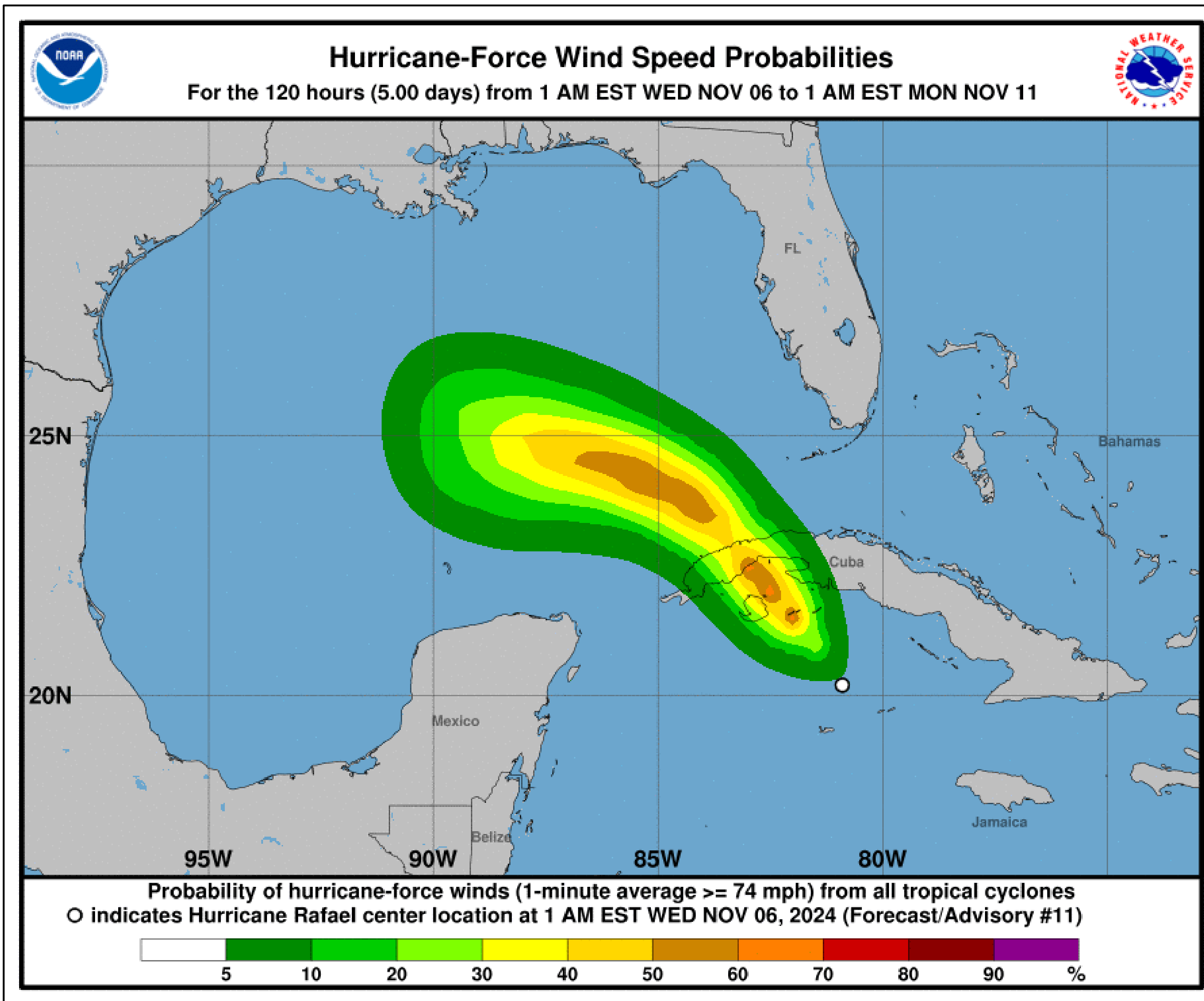
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%

Hurricane Wind Speed Probabilities



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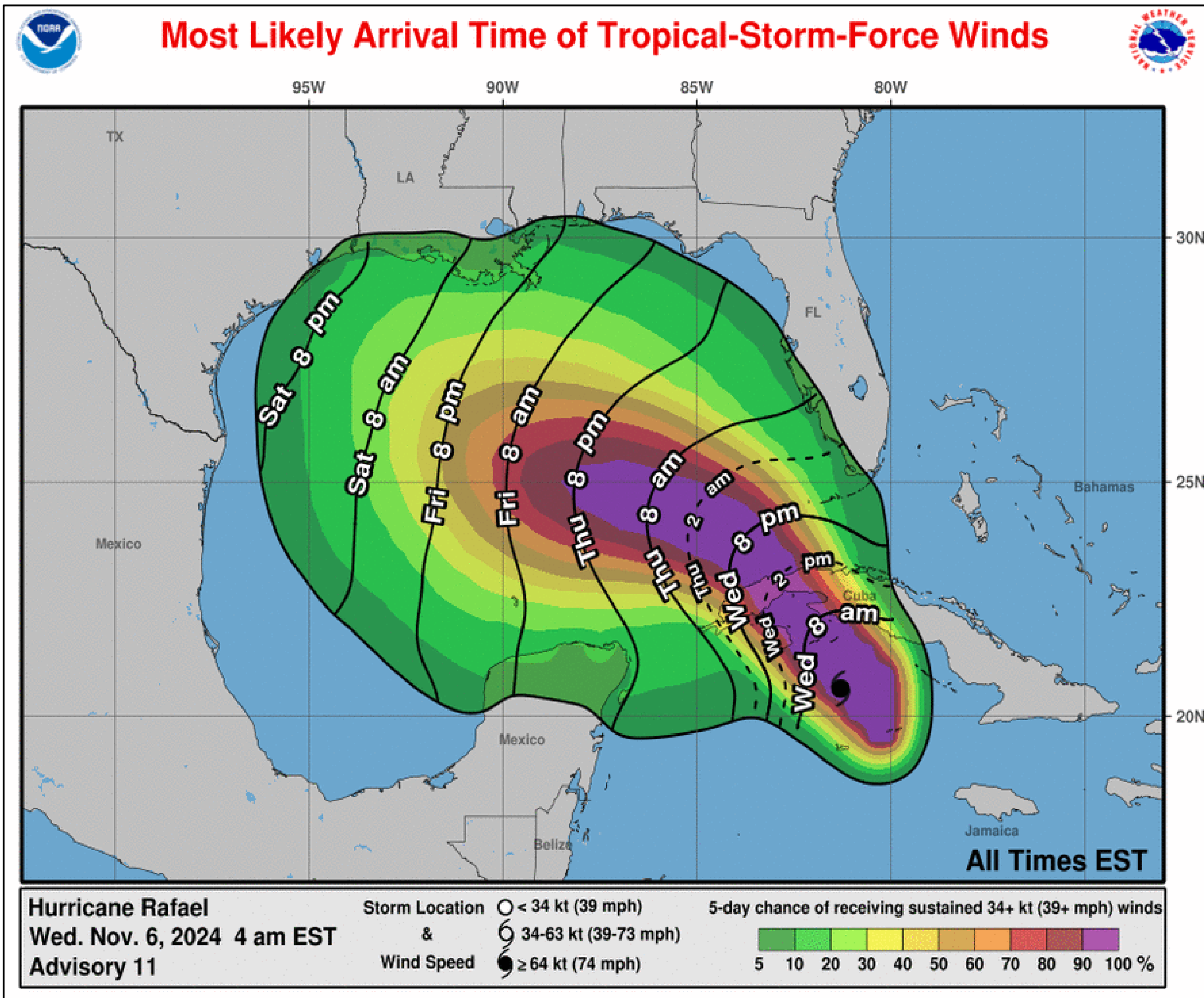
Hurricane Rafael



- **RISK OF HURRICANE FORCE WINDS ON LAND: less than 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%



Hurricane Rafael



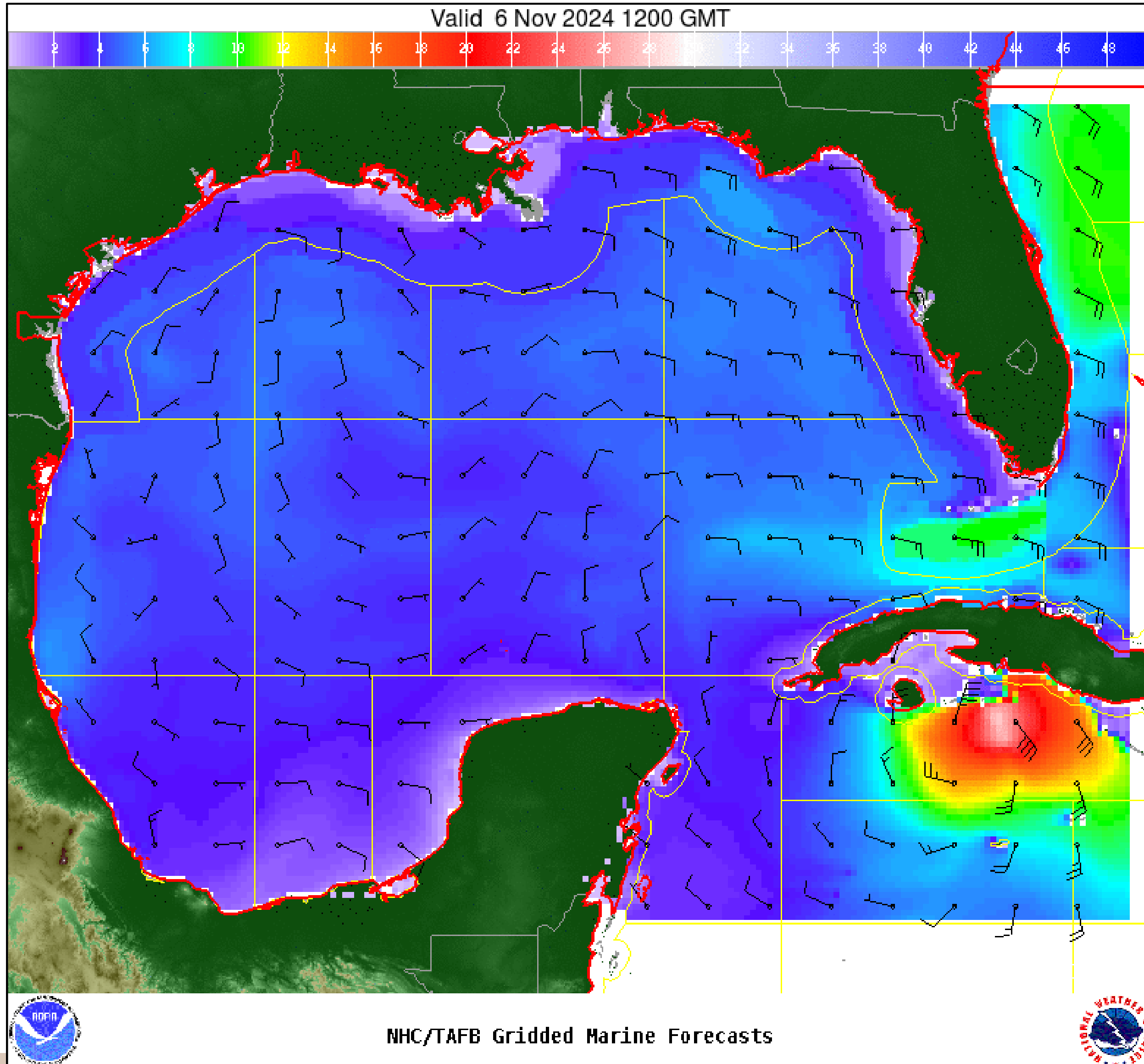
- Florida Keys – this afternoon
- SW Florida – tonight
- Conditions should be improving Thursday into Friday
- The most likely time of arrival of Tropical Storm Force Winds (34kt to 63 kt) for this cyclone based off the current track and wind radii.
- Clear or dark green are the lowest chances of 0-30%.
- 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

Hurricane Rafael



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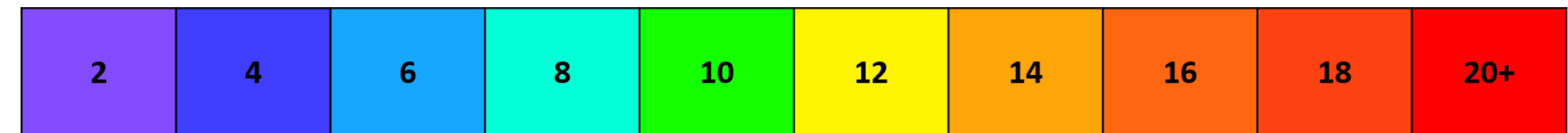
Current Conditions

7am EST Wednesday, November 6th

Peak Winds: 25 kt (in Straits of Florida)

Peak Seas: 10 ft (in Straits of Florida)

■ Wave heights are in feet



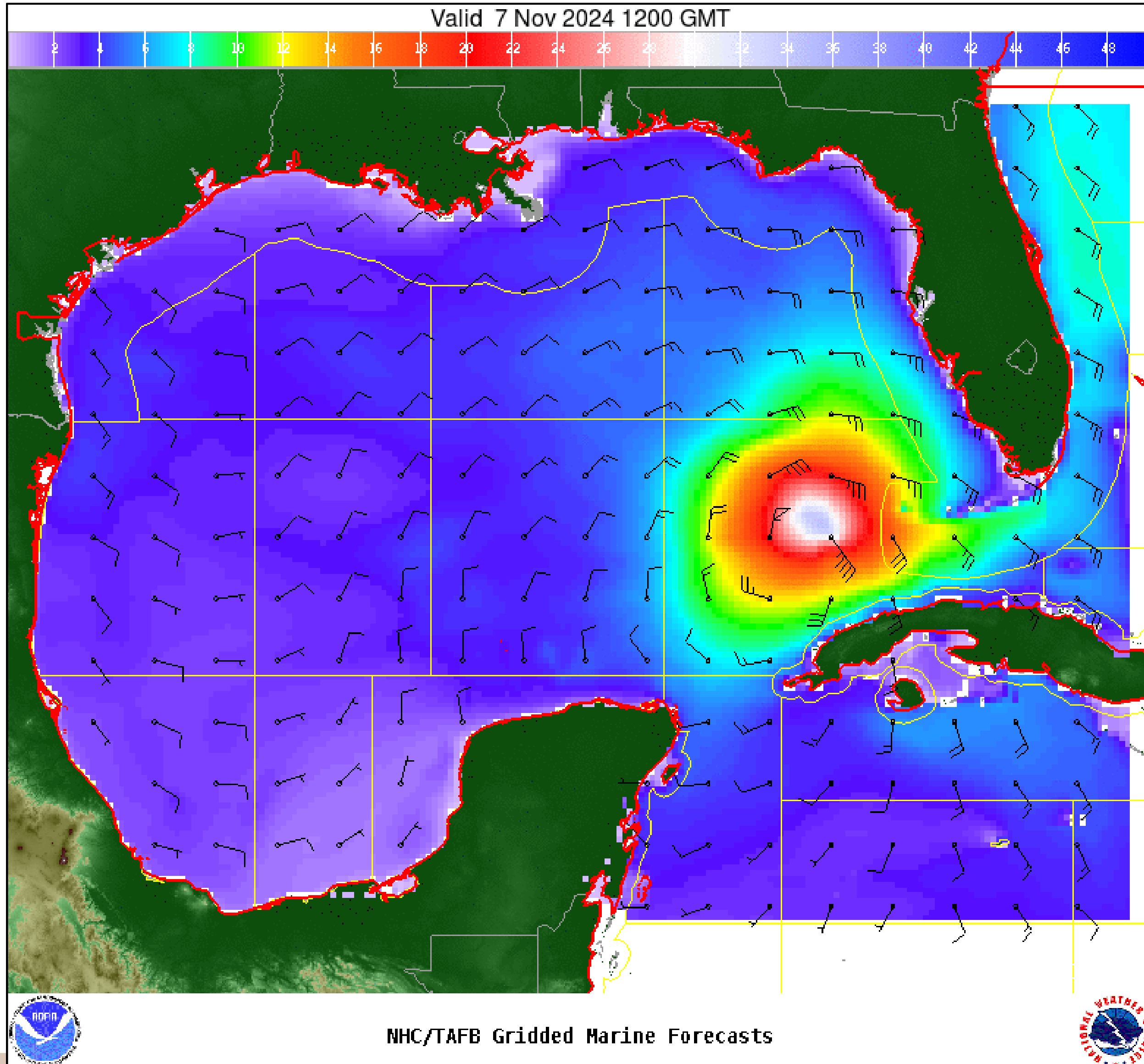
Significant Wave Height (ft)

Wind And Waves

Hurricane Rafael



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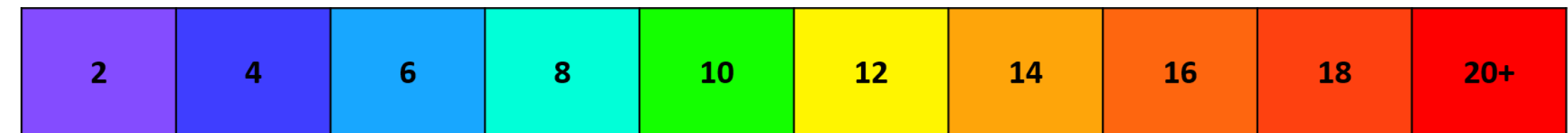
24 Hour Forecast

7am EST, Thursday, November 7th

Peak Winds: 85 kt

Peak Seas: 30 ft

■ Wave heights are in feet



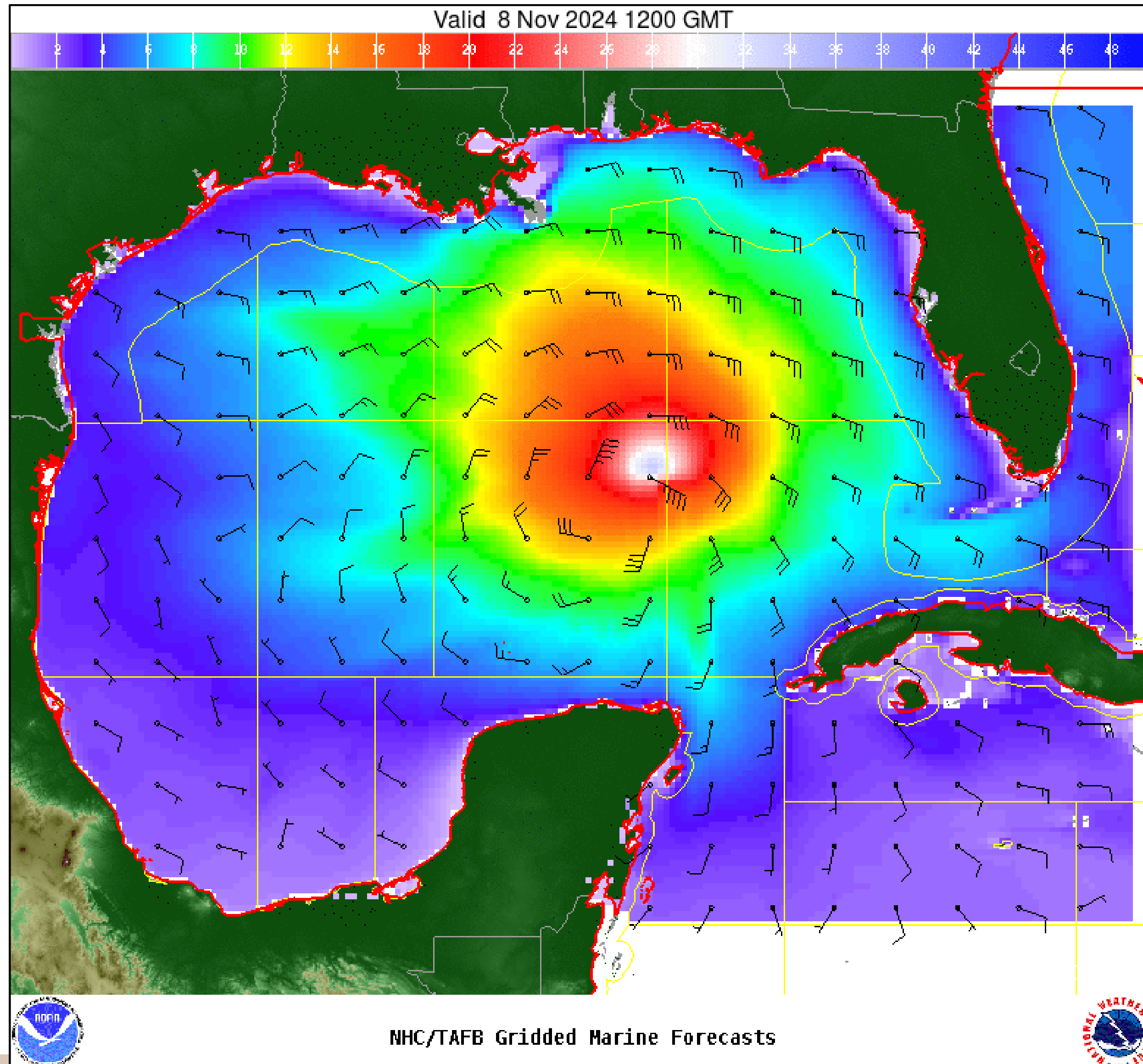
Significant Wave Height (ft)

Wind And Waves

Hurricane Rafael



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48 Hour Forecast

7am EST Friday November 8th

Peak Winds: 85 kt

Peak Seas: 30 ft

■ Wave heights are in feet



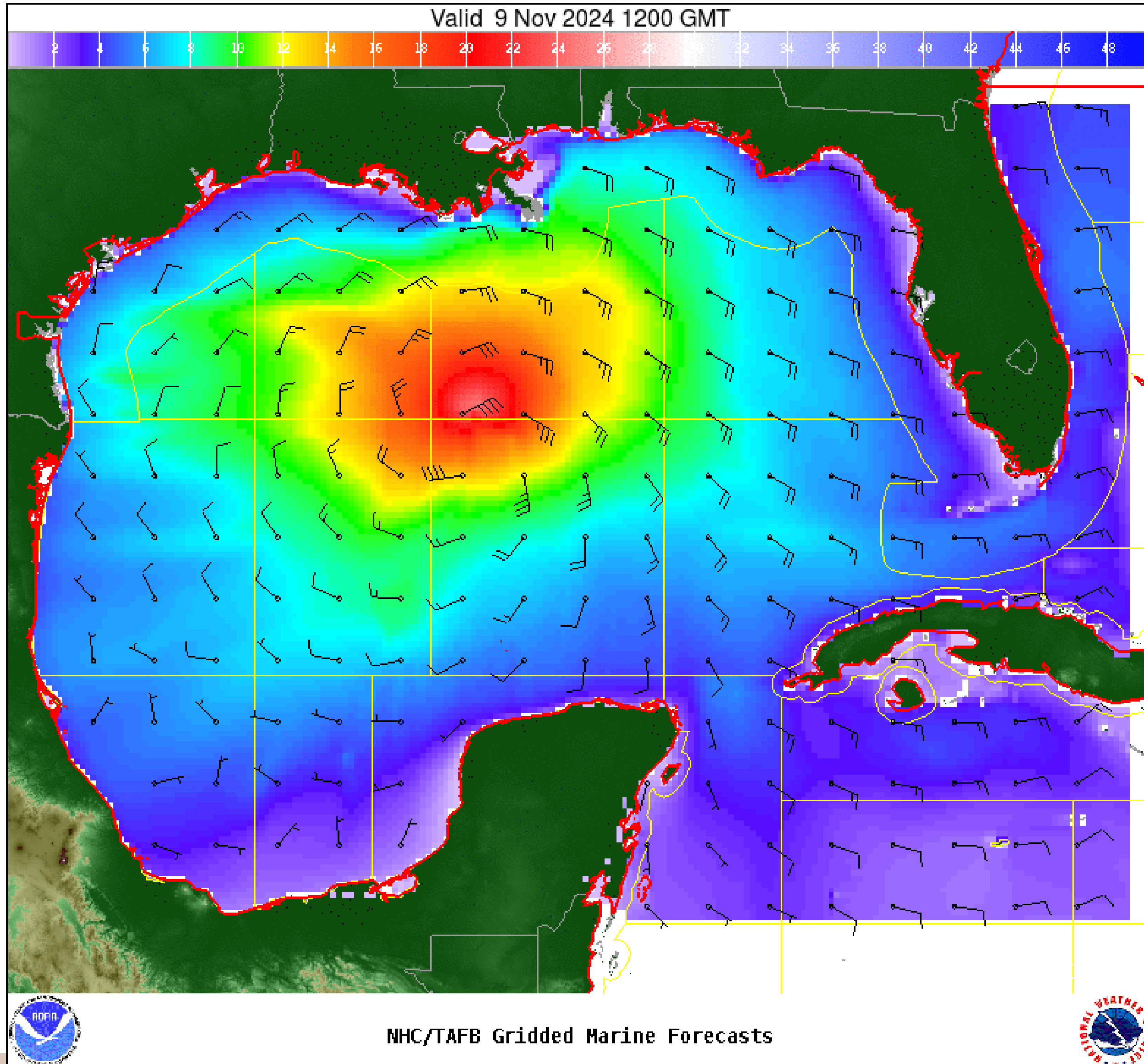
Significant Wave Height (ft)

Wind And Waves

Hurricane Rafael



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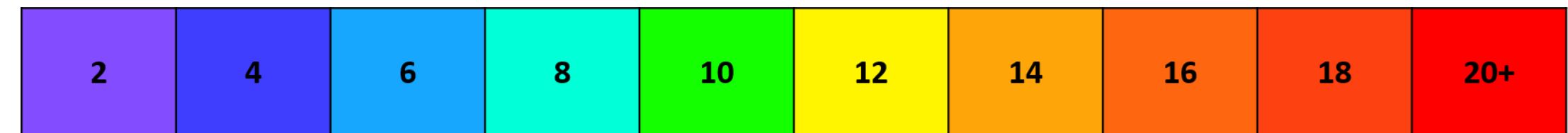
72 Hour Forecast

7am EST Saturday, November 9th

Peak Winds: 65 kt

Peak Seas: 25 ft

Wave heights are in feet



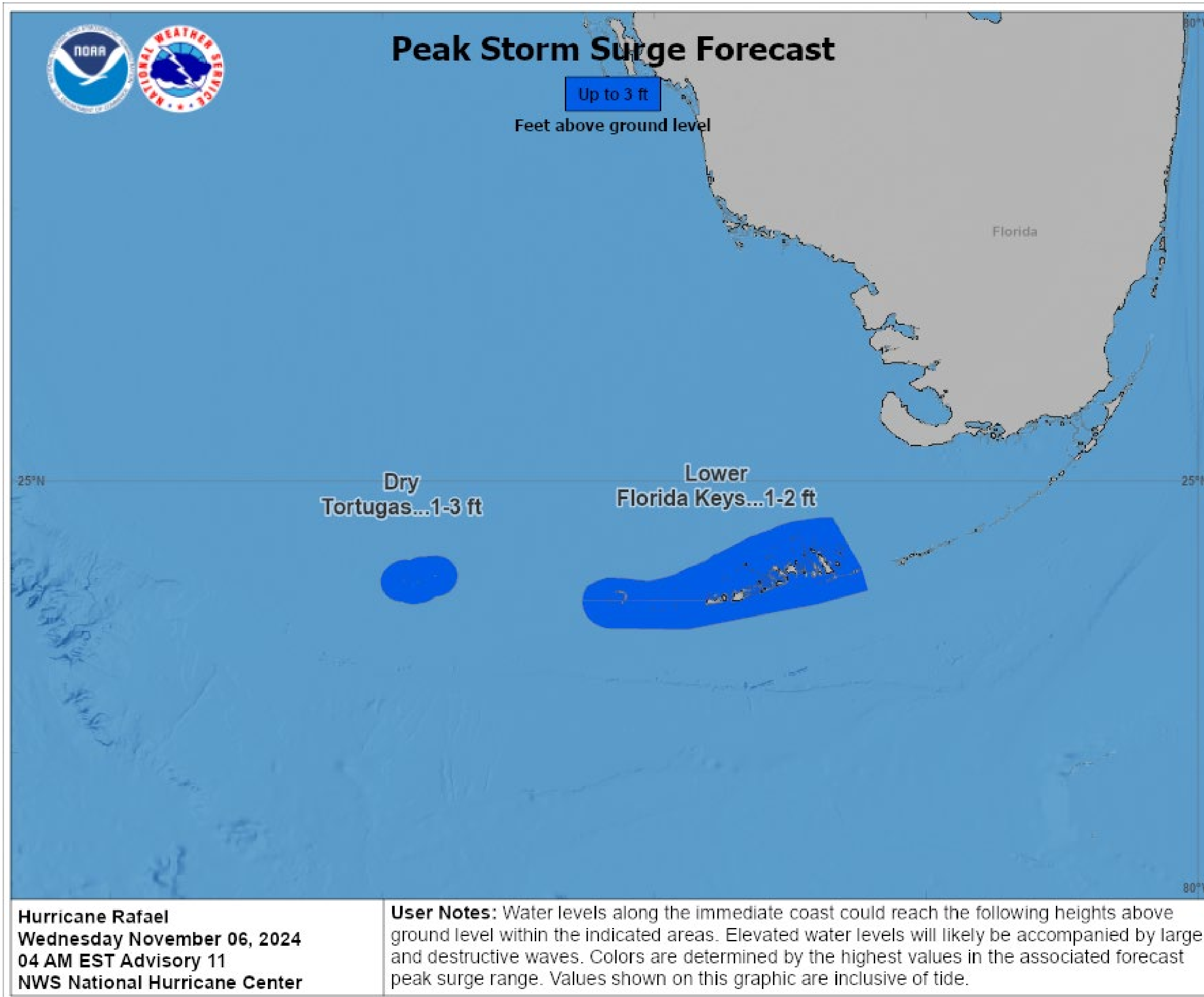
Significant Wave Height (ft)

Potential Peak Storm Surge / Watches and Warnings



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Hurricane Rafael



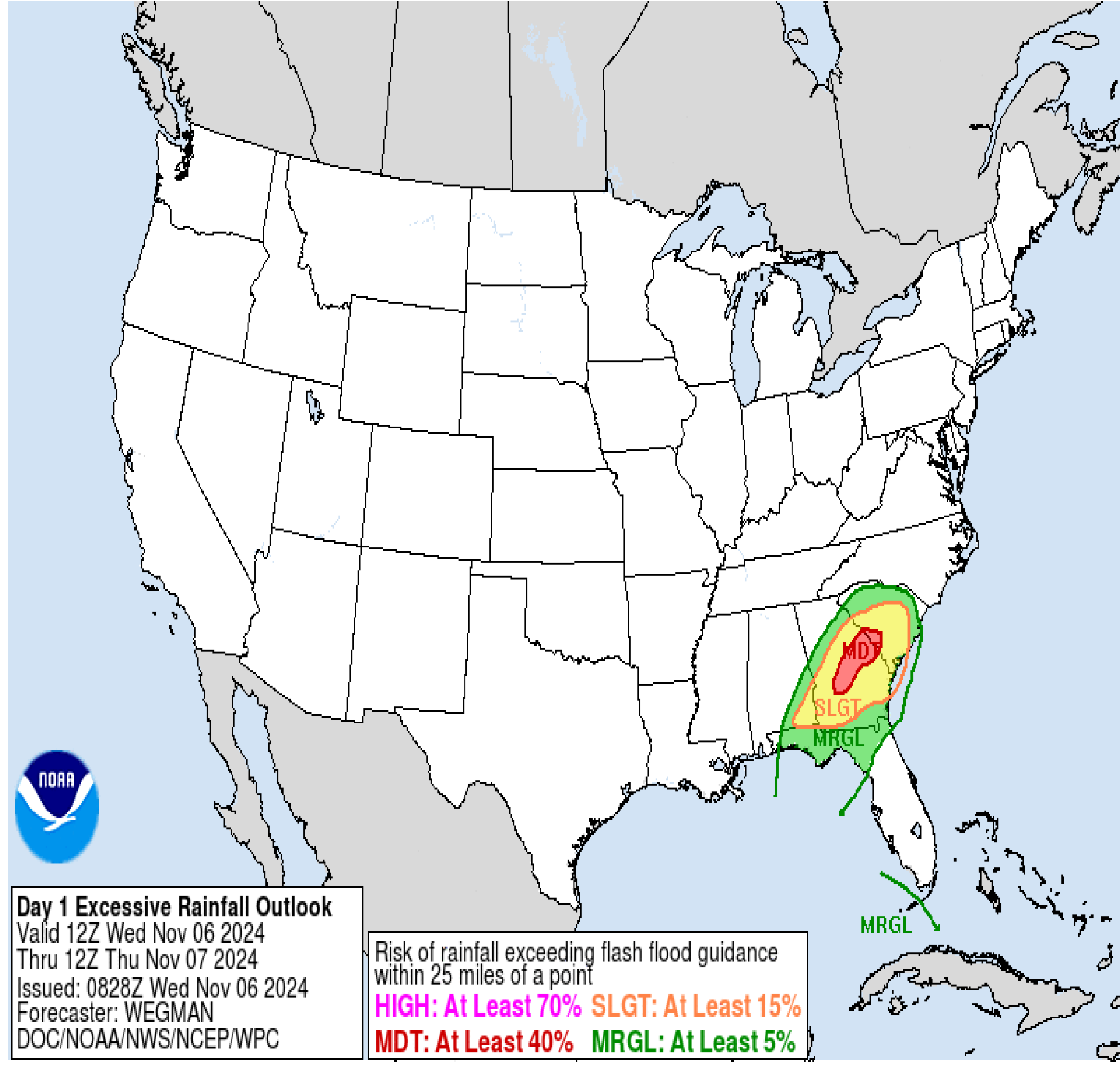
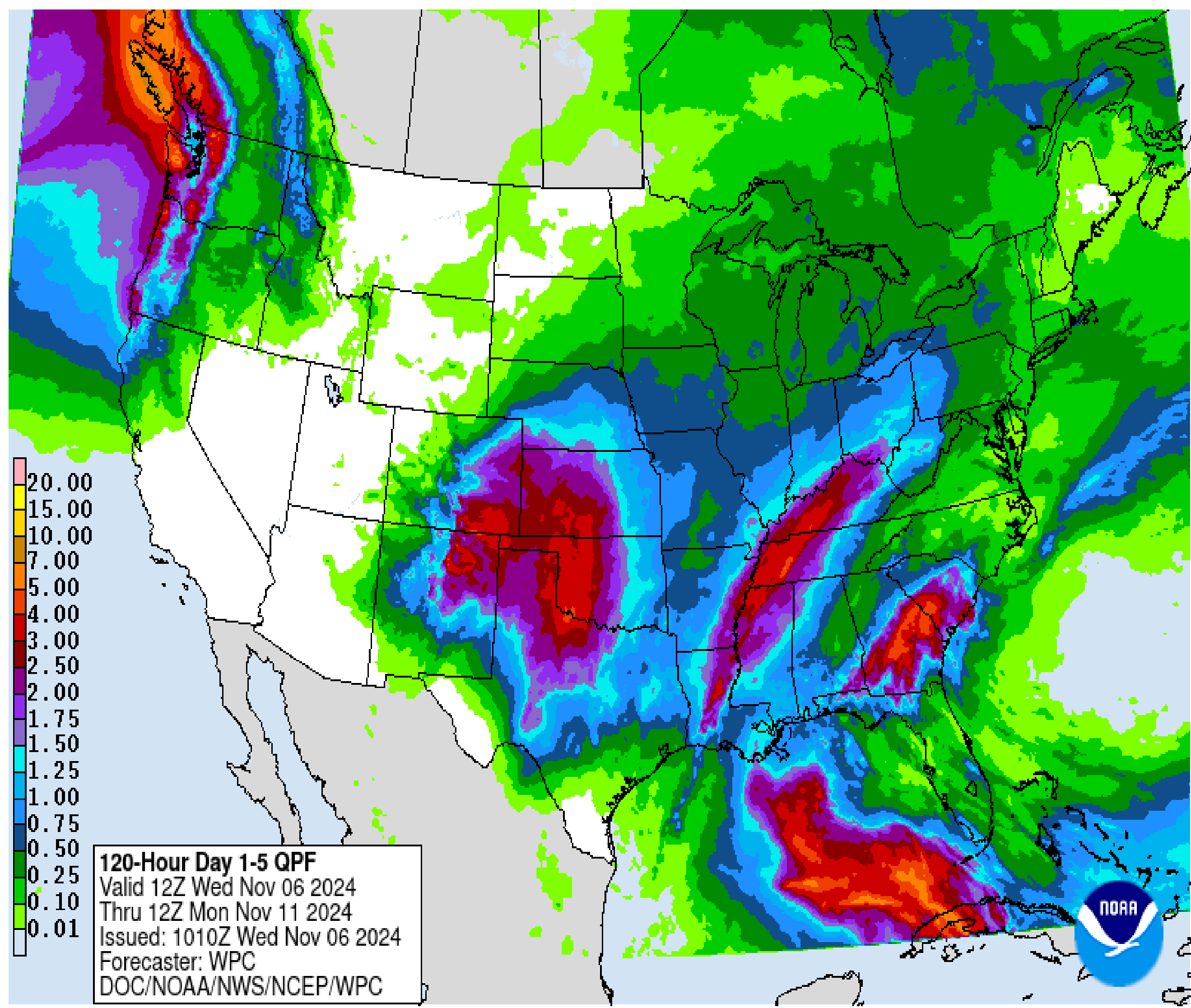
Expected Storm Total Rainfall and Chance of Rainfall Flooding



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Hurricane Rafael

Images from NWS Weather Prediction Center



Tornado Outlook – Day 1 - Wednesday

Hurricane Rafael

Image from NWS Storm Prediction Center



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Slight risk of tornadoes in the Florida Keys and extreme SW Florida

Key Messages

Hurricane Rafael



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Key Messages for Hurricane Rafael

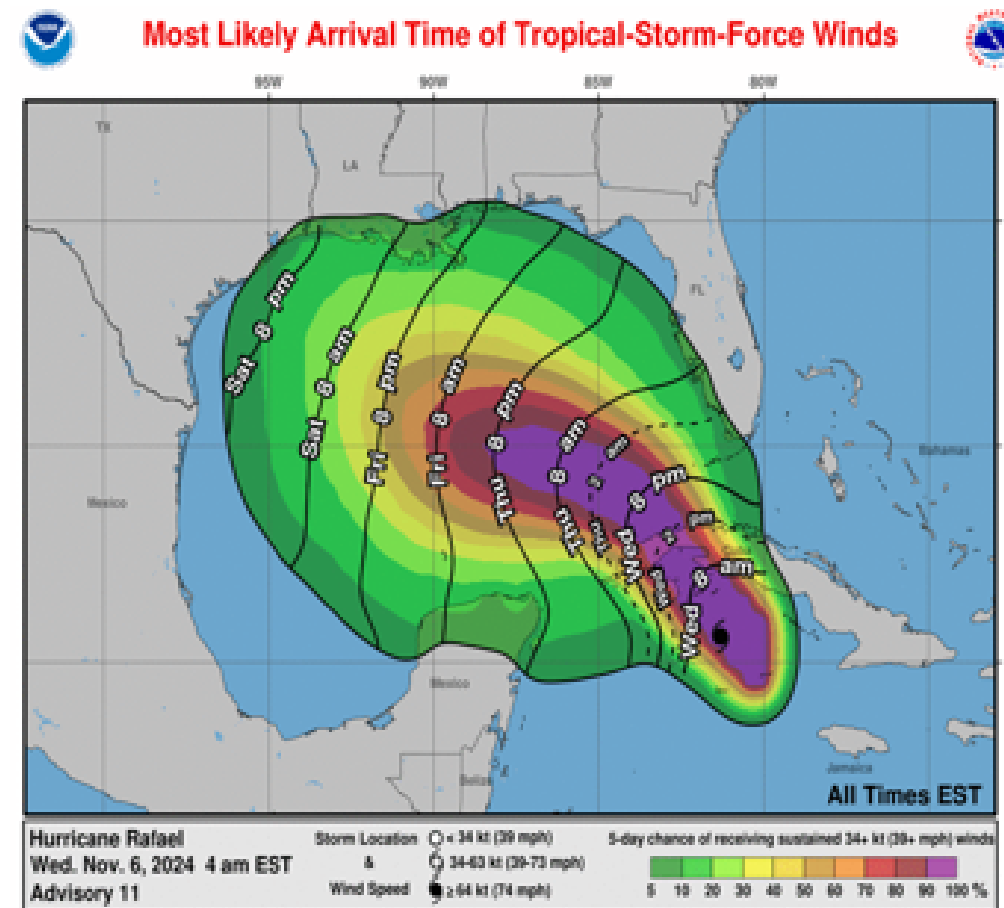
Advisory 11: 4:00 AM EST Wed Nov 06, 2024

1. Rafael is expected to strengthen to near major hurricane intensity before reaches western Cuba and the Isle of Youth today. A hurricane warning is in effect for this region, where damaging hurricane-force winds, life-threatening storm surge, and destructive waves are also expected.

2. Tropical storm conditions are expected in the Lower and Middle Florida Keys beginning today and tonight.

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 Caymans along with western Cuba. Flash flooding and mudslides are expected along the higher terrain in western Cuba.



For more information go to hurricanes.gov

IMPACTS FOR D7

Winds/US Coast – **Medium**

Winds/SRR – **High**

Waves/US Coastal – **Medium**

Waves/SRR – **High**

US Storm Surge – **Low**

US Rainfall/Flash Flooding – **Low**

US Tornadoes – **Low**

- **Marine Key Messages:**
- Winds and Seas will ramp up quickly in the SE Gulf of Mexico today
- Peak seas tomorrow should be around 30 ft
- Seas over D7's waters will diminish by Friday

TIME of NEXT NHC Advisory:

15 UTC/ 10 AM EST



This briefing was prepared by:

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HURRICANE RAPHAEL 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



NHC_TAFB

www.nhc.noaa.gov