



November 5, 2024  
10:42 AM

# Tropical Storm Rafael Briefing



**Tuesday, November 5th, 2024**

**Prepared by: Nicole Carlisle and  
Matt Anderson**

**Next Briefing: 5 PM Tuesday**



National Oceanic and  
Atmospheric Administration  
U.S. Department of Commerce

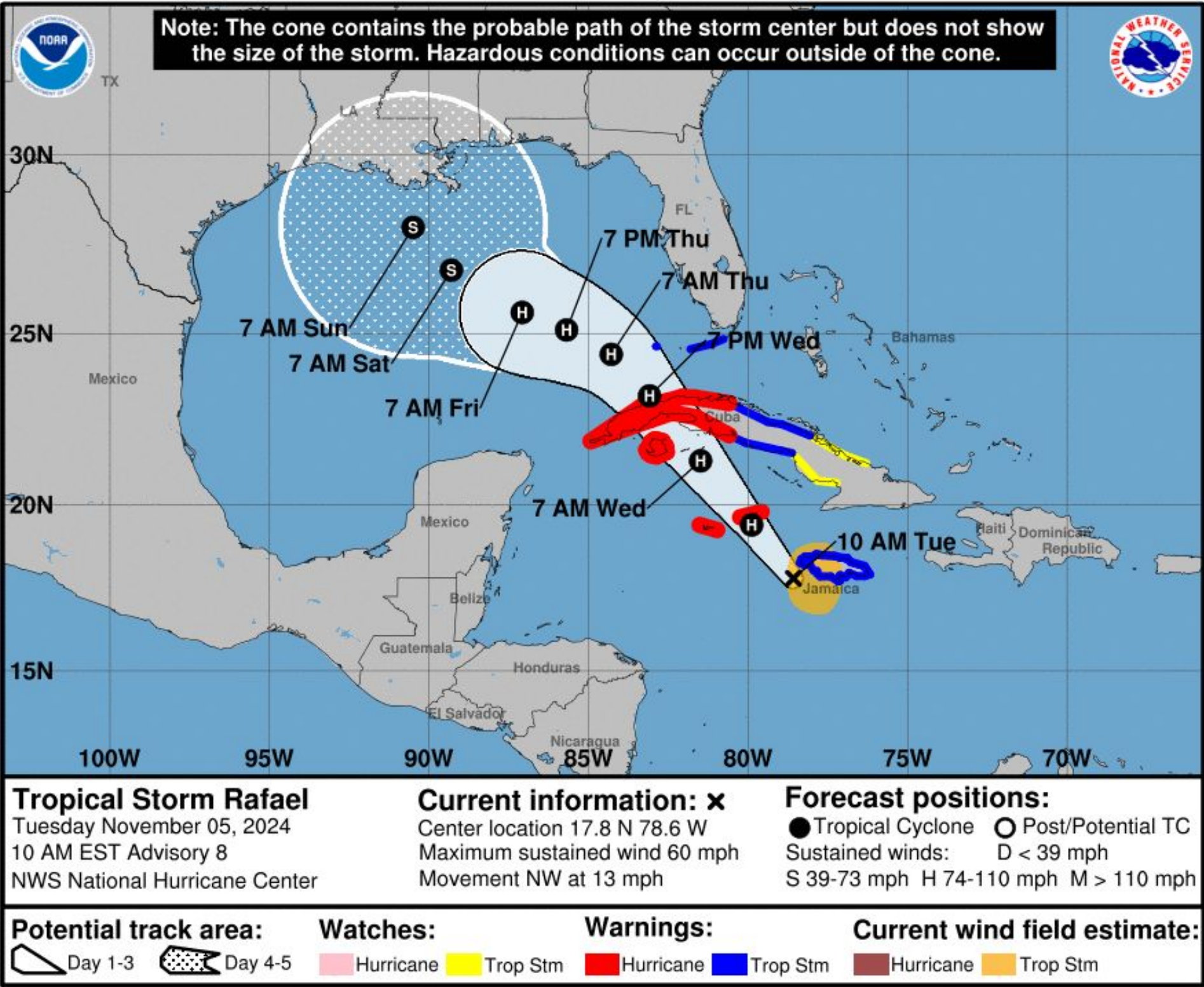
National Weather Service  
Tampa Bay Area, FL



# Tropical Weather Outlook

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From the National Hurricane Center



- Track nudged slightly west again
- Rafael is still expected to be a hurricane as it passes to our west Wednesday into Thursday, with high confidence that the worst impacts will remain well offshore





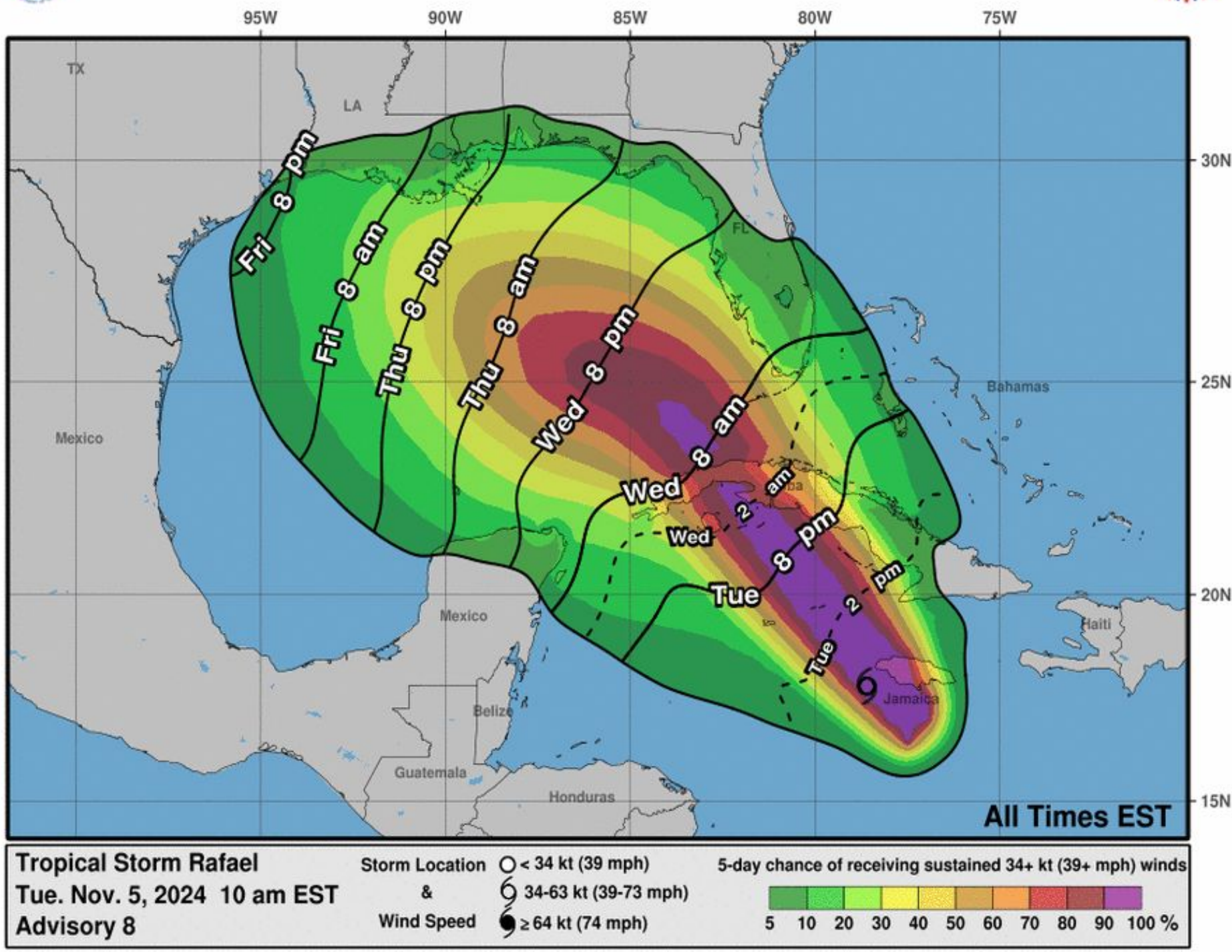


# Wind Impacts

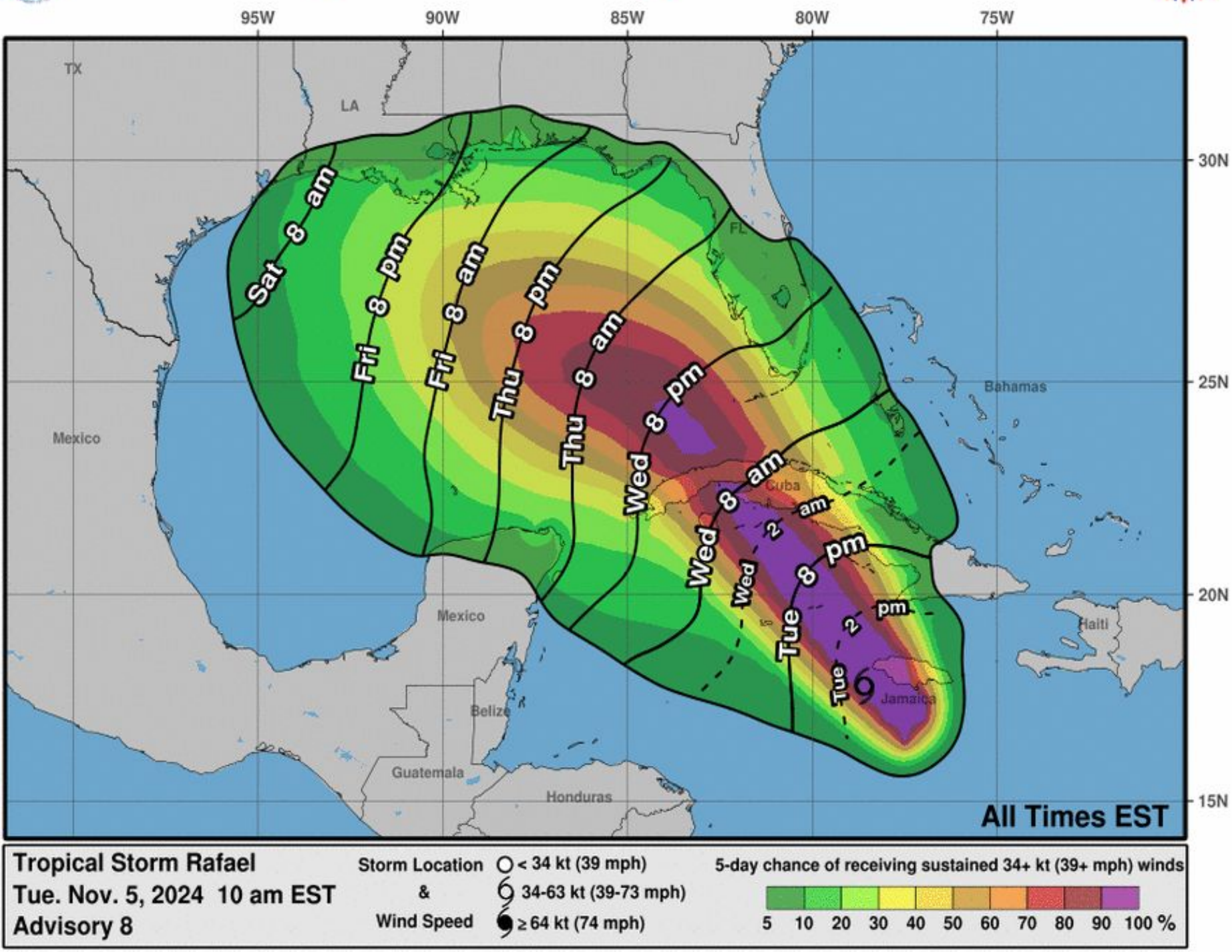
Probability of TS Winds

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**Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds**



**Most Likely Arrival Time of Tropical-Storm-Force Winds**



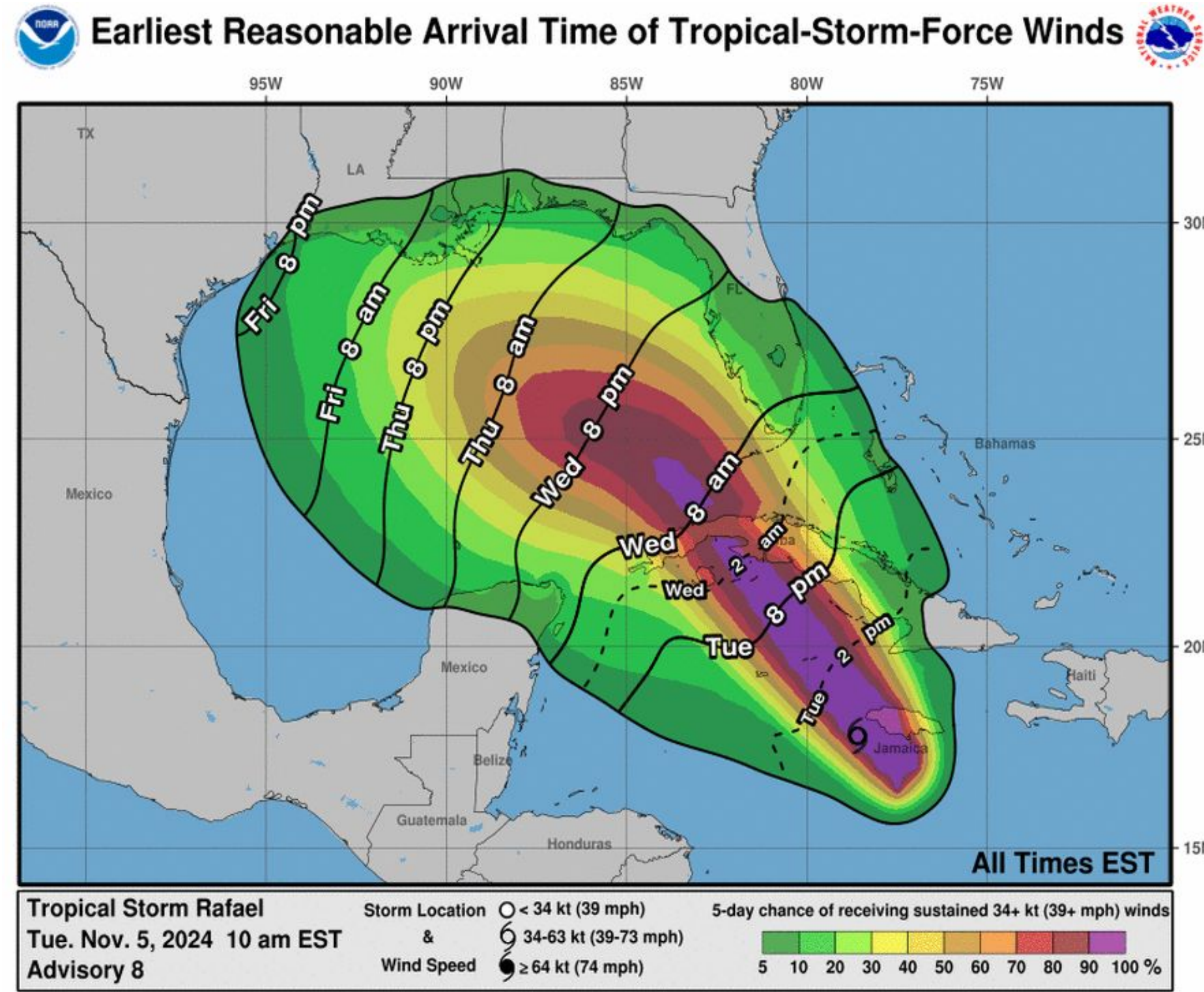




# Wind Timing/Probabilities

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Probability of TS Winds



County	Chance	Earliest Arrival Time	Most Likely Arrival Time
Lee	43%	12 pm Wed	10 pm Wed
Charlotte	43%	12 pm Wed	10 pm Wed
Sarasota	34%	3 pm Wed	1 am Thu
DeSoto	12%	3 pm Wed	3 am Thu
Hardee	10%	3 pm Wed	3 am Thu
Highlands	11%	3 pm Wed	1 am Thu
Manatee	20%	3 pm Wed	1 am Thu
Pinellas	26%	5 pm Wed	4 am Thu
Pasco	26%	6 pm Wed	4 am Thu
Hillsborough	10%	5 pm Wed	6 am Thu
Polk	8%	5 pm Wed	6 am Thu
Sumter	7%	6 pm Wed	6 am Thu
Hernando	20%	6 pm Wed	7 am Thu
Citrus	15%	7 pm Wed	7 am Thu
Levy	15%	9 pm Wed	9 am Thu







# Rainfall

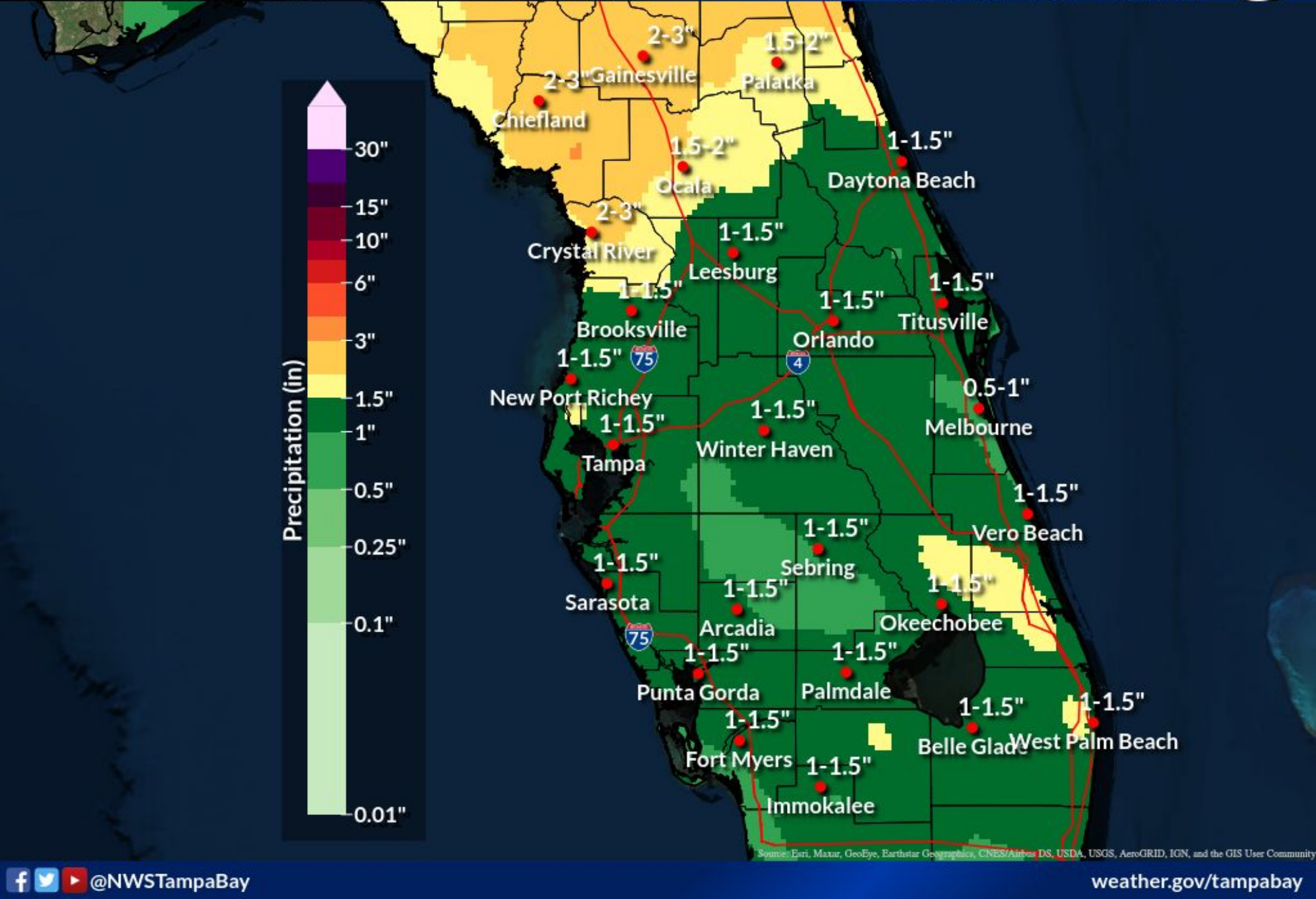
Current Forecast

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## 168-Hour Day 1-7 Forecast Rainfall Amounts

Valid 7:00 AM Tue Nov 05 2024 - 7:00 AM Tue Nov 12 2024

Weather Forecast Office  
Tampa Bay/Ruskin, FL  
Issued Nov 05, 2024 4:06 AM EST



- Rainfall totals remain the same from previous forecast
- Additional adjustments are expected. A continued westward shift will mean less rainfall.
- Most of this rain falls from Tuesday through Thursday



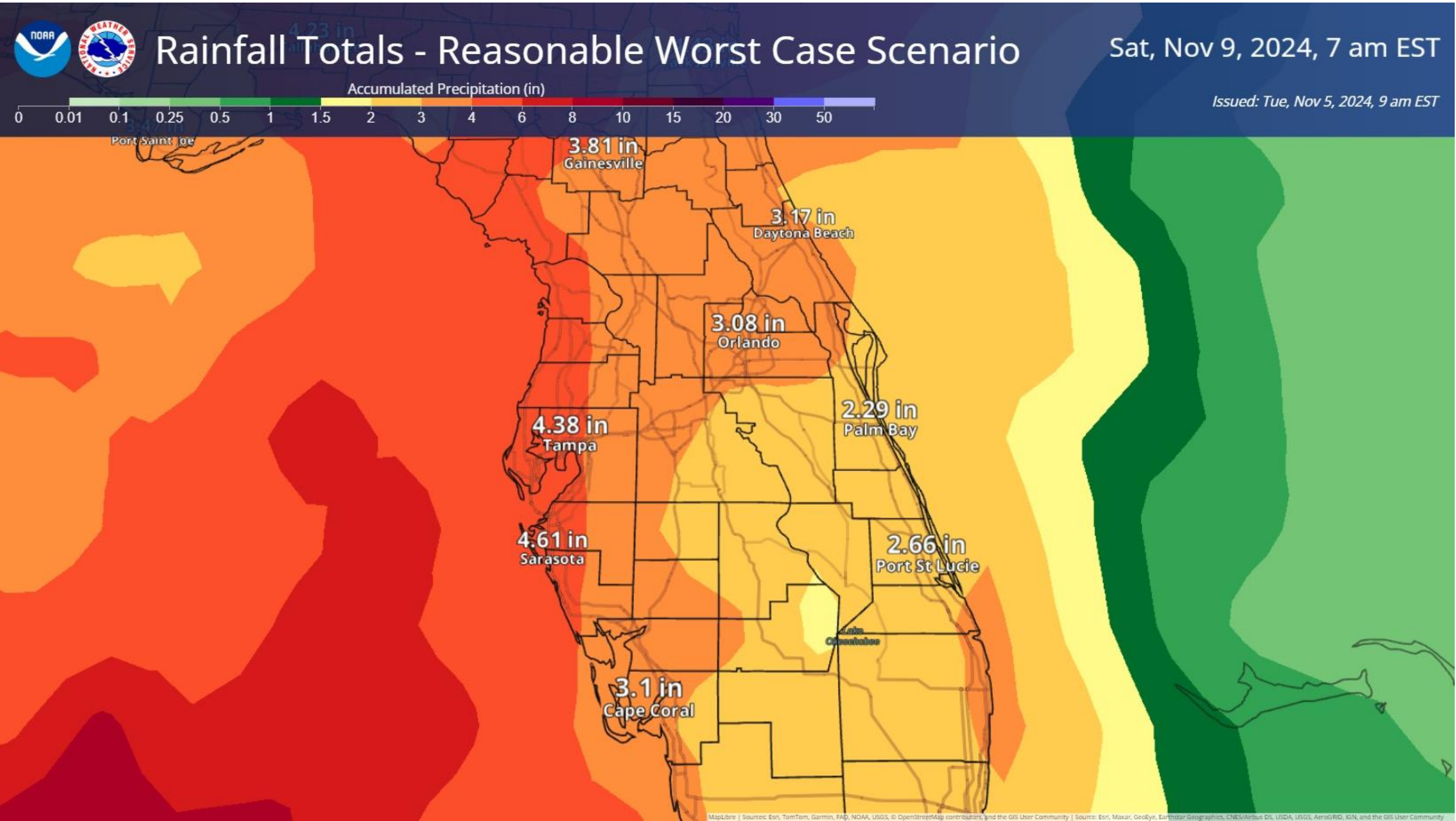




# Rainfall

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## Reasonable Worst Case Rainfall Forecast



- This forecast reflects what totals would look like with an eastward shift of the track.
- Amounts of 3-5 inches look to be a reasonable worst case scenario.
- Majority of this rain falls late Tuesday through Thursday.



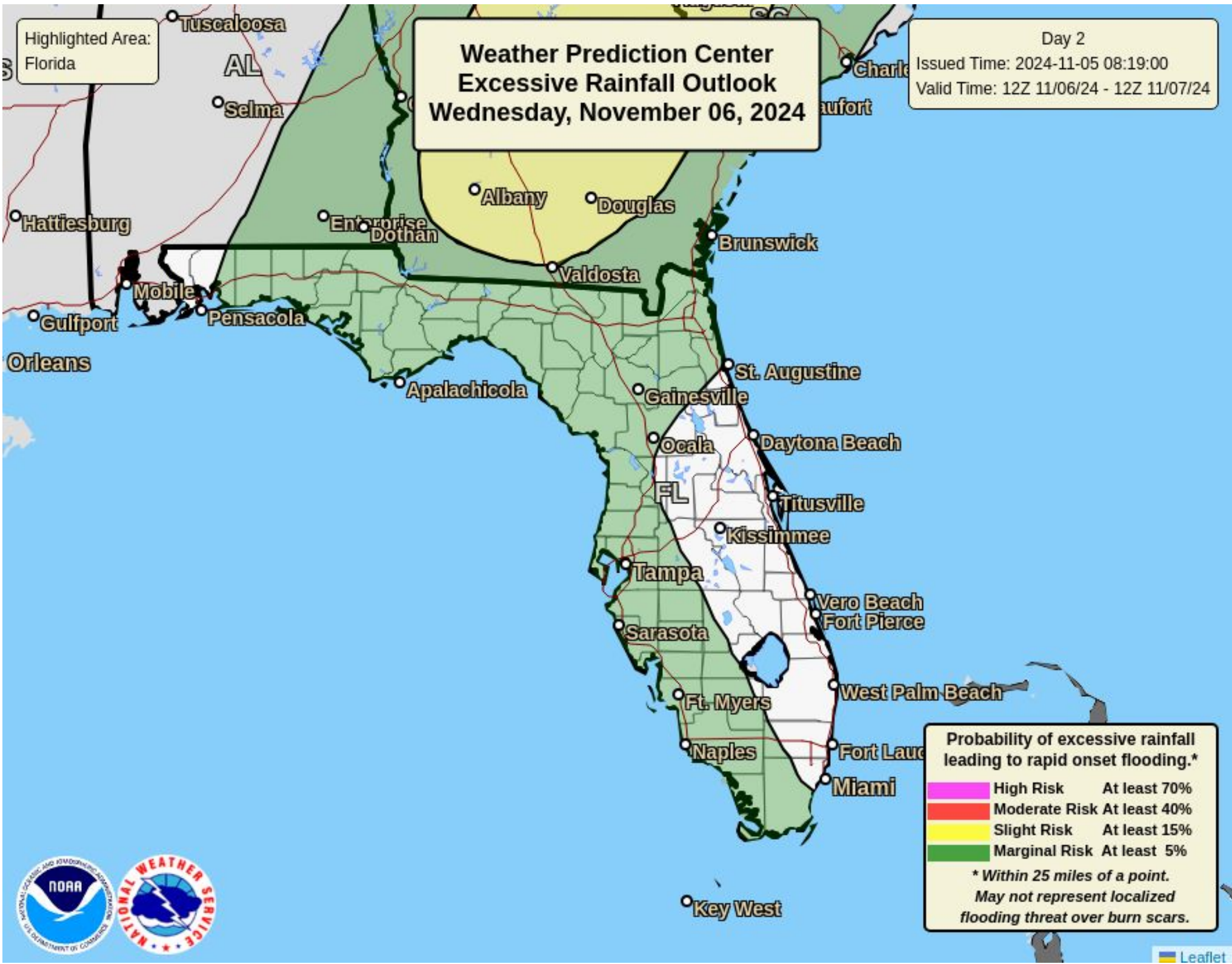




# Excessive Rainfall Outlook

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Wednesday



## Locations of Concern

- Western half of the FL peninsula.
- There is a 5-15% chance of flooding.

## Timing

- Wednesday through Thursday.



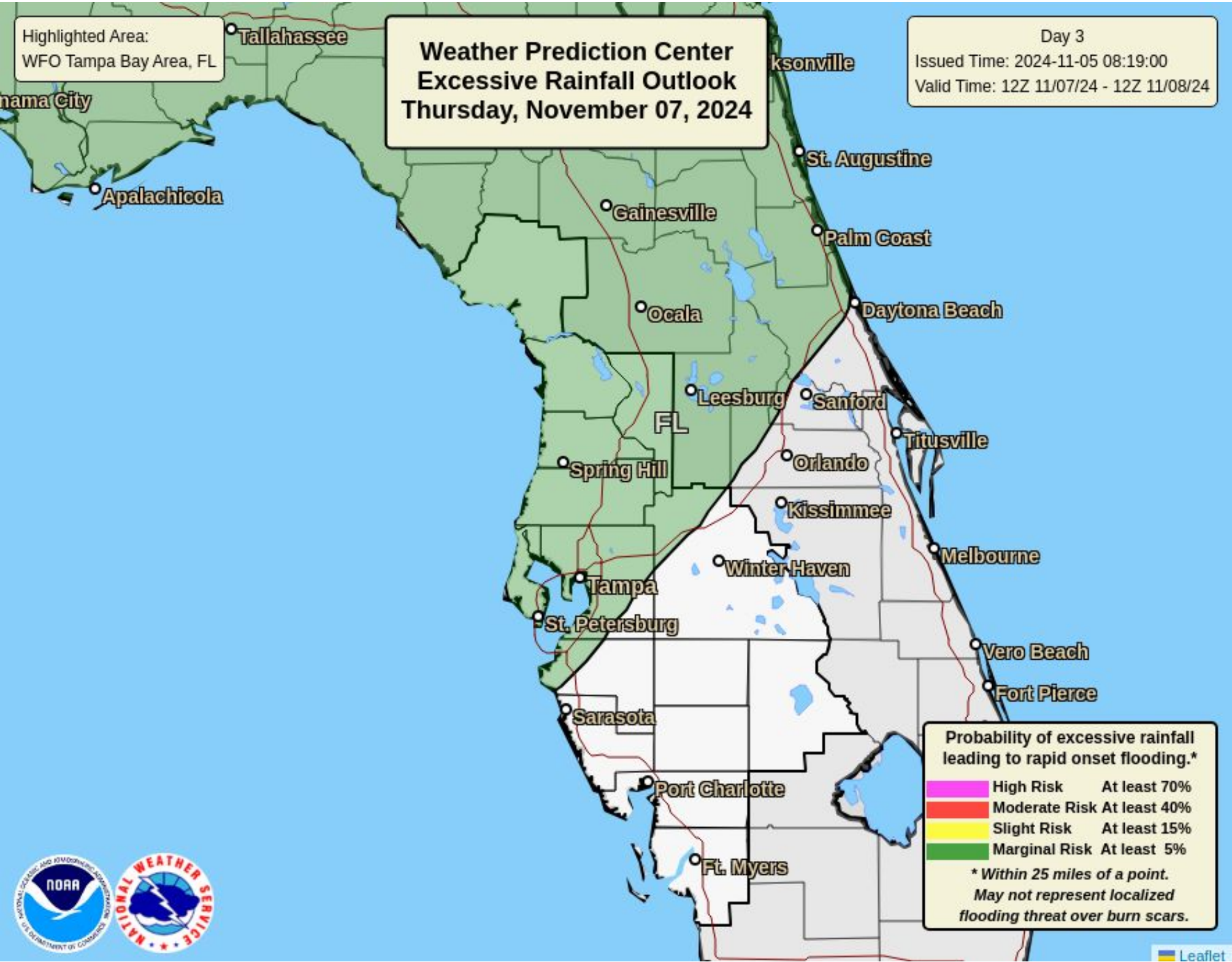




# Excessive Rainfall Outlook

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Thursday



## Locations of Concern

- ➔ Rafael will continue shifting away from the region.
- ➔ Area of greatest concern for heavy rainfall will be around Tampa Bay northward.

## Timing

- ➔ Through Thursday, diminishing late in the day.

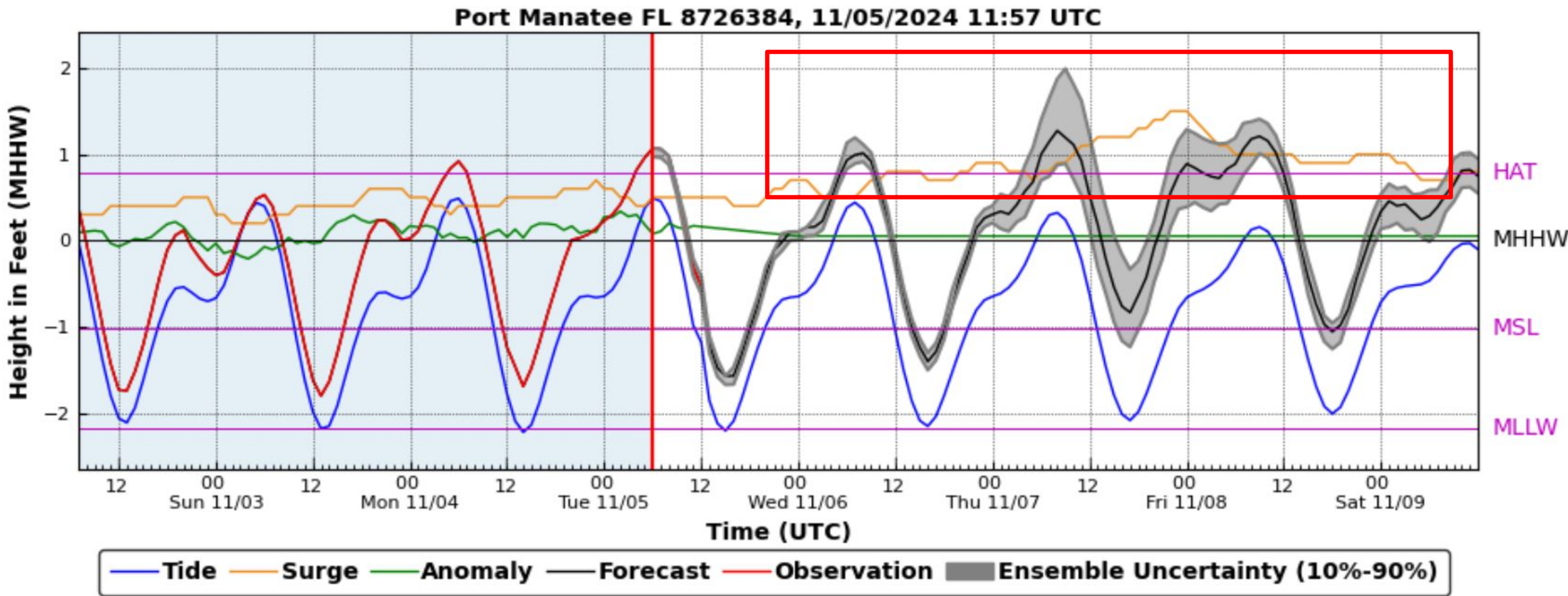






# Little to No Surge Forecast

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P-ETSS Model

12 UTC = 8 am

00 UTC = 8 pm

- Not expecting more than 1 to 2 ft of storm surge late Wednesday into early Thursday.



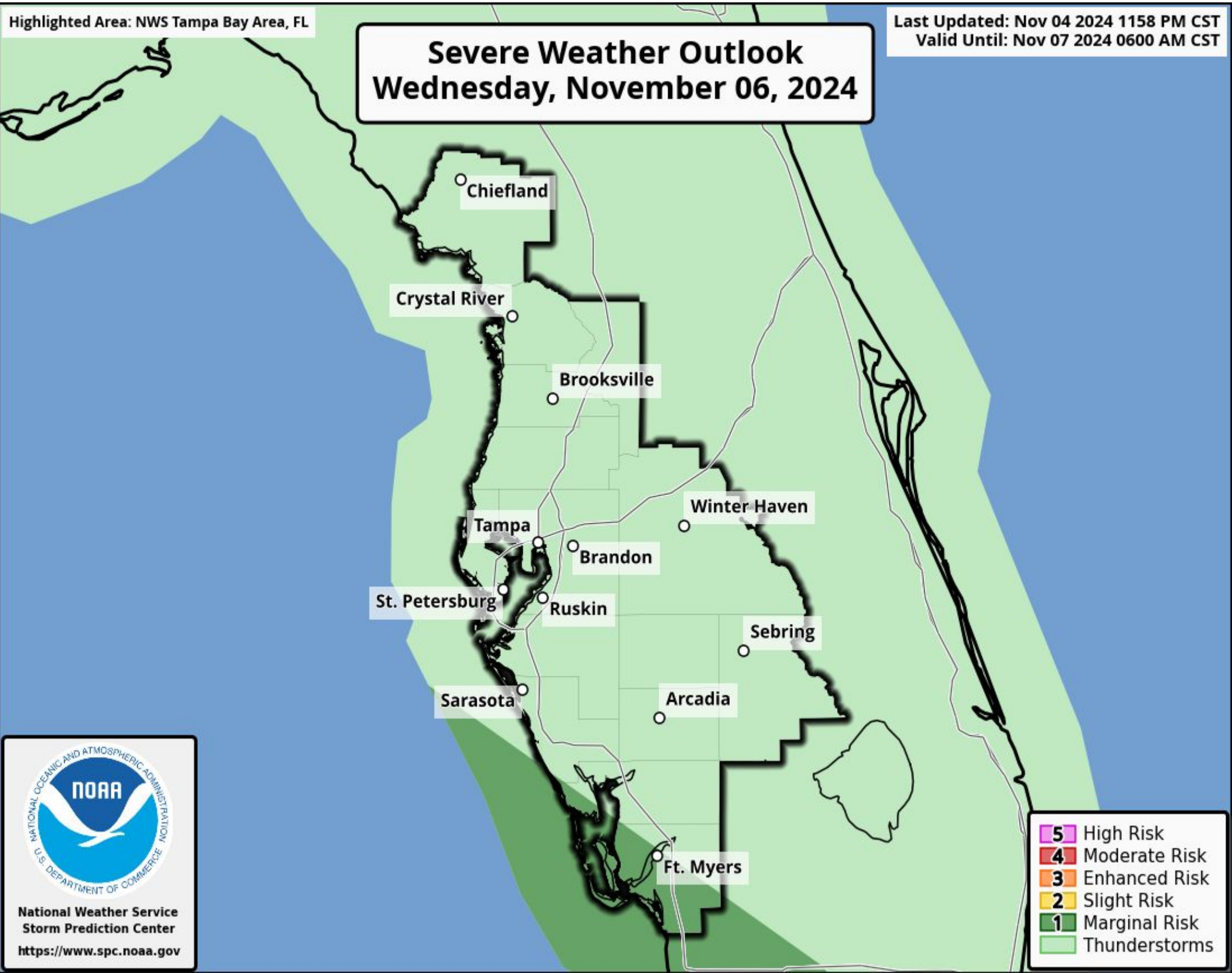




# Tornado Threat

Wednesday

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## Locations of Concern

➔ Far southwest Florida Coast.

## Timing

➔ Late Wednesday through early Thursday.







# Marine Impacts

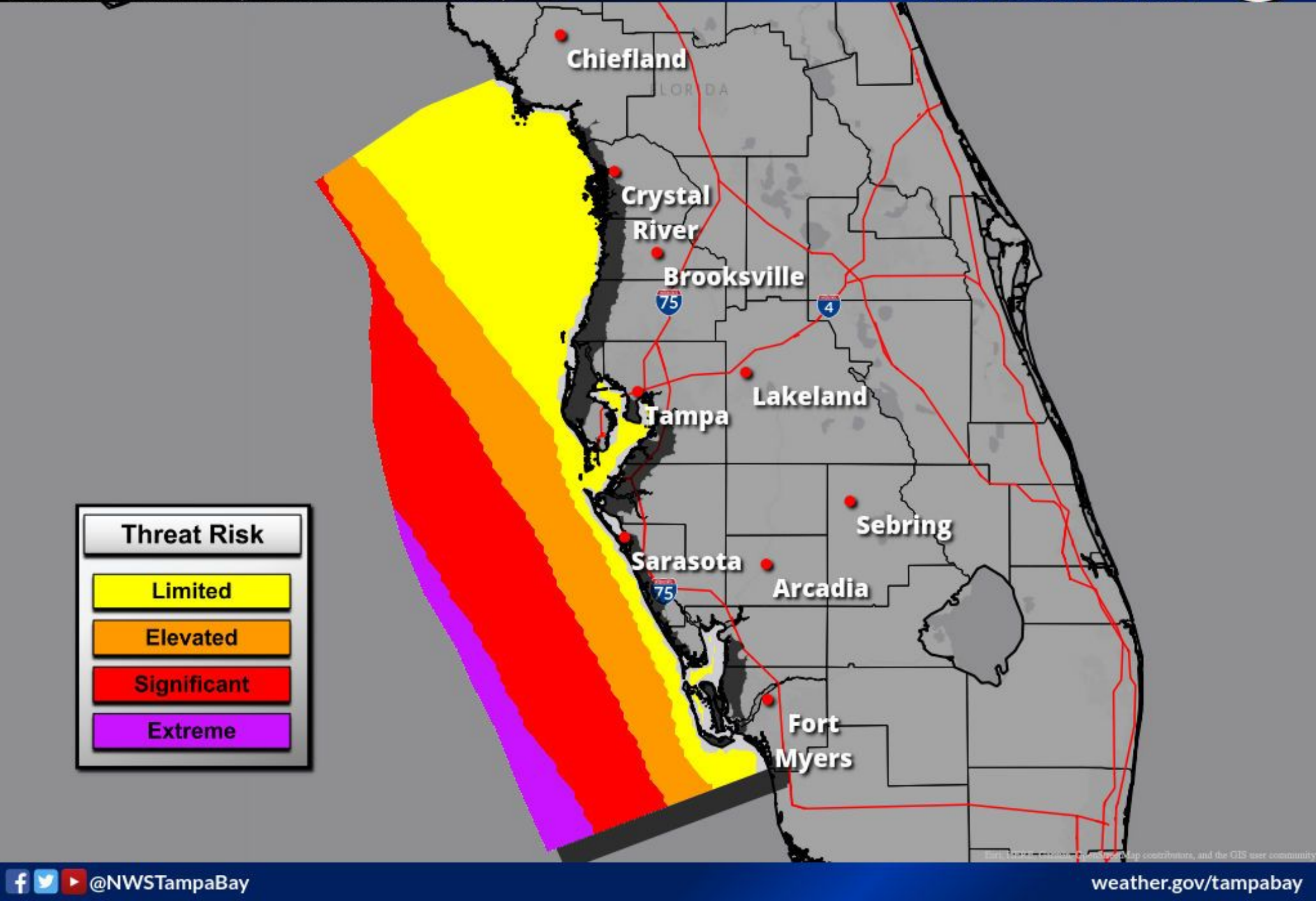
Thursday/Thursday Night

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## Marine Hazard Risk for Thu/Thu Night

Valid 7 AM Thu Nov 07, 2024 to 7 AM Fri Nov 08, 2024

Weather Forecast Office  
Tampa Bay/Ruskin, FL  
Issued Nov 05, 2024 10:18 AM EST



- There is an increasing risk for impacts over our coastal waters.
- Greatest impacts will remain well offshore.
- Limited impacts for Tampa Bay and Charlotte Harbor.

Risk Level	Category	Definition
	None	No Marine Hazards Risk.
	Limited	Wind or Wind Gusts $\geq$ 25 knots and/or Waves $\geq$ 6 feet.
	Elevated	Wind or Wind Gusts $\geq$ 34 knots and/or Waves $\geq$ 8 feet.
	Significant	Wind or Wind Gusts $\geq$ 48 knots and/or Waves $\geq$ 10 feet.
	Extreme	Wind or Wind Gusts $\geq$ 64 knots and/or Waves $\geq$ 15 feet.







# Rip Current Impacts

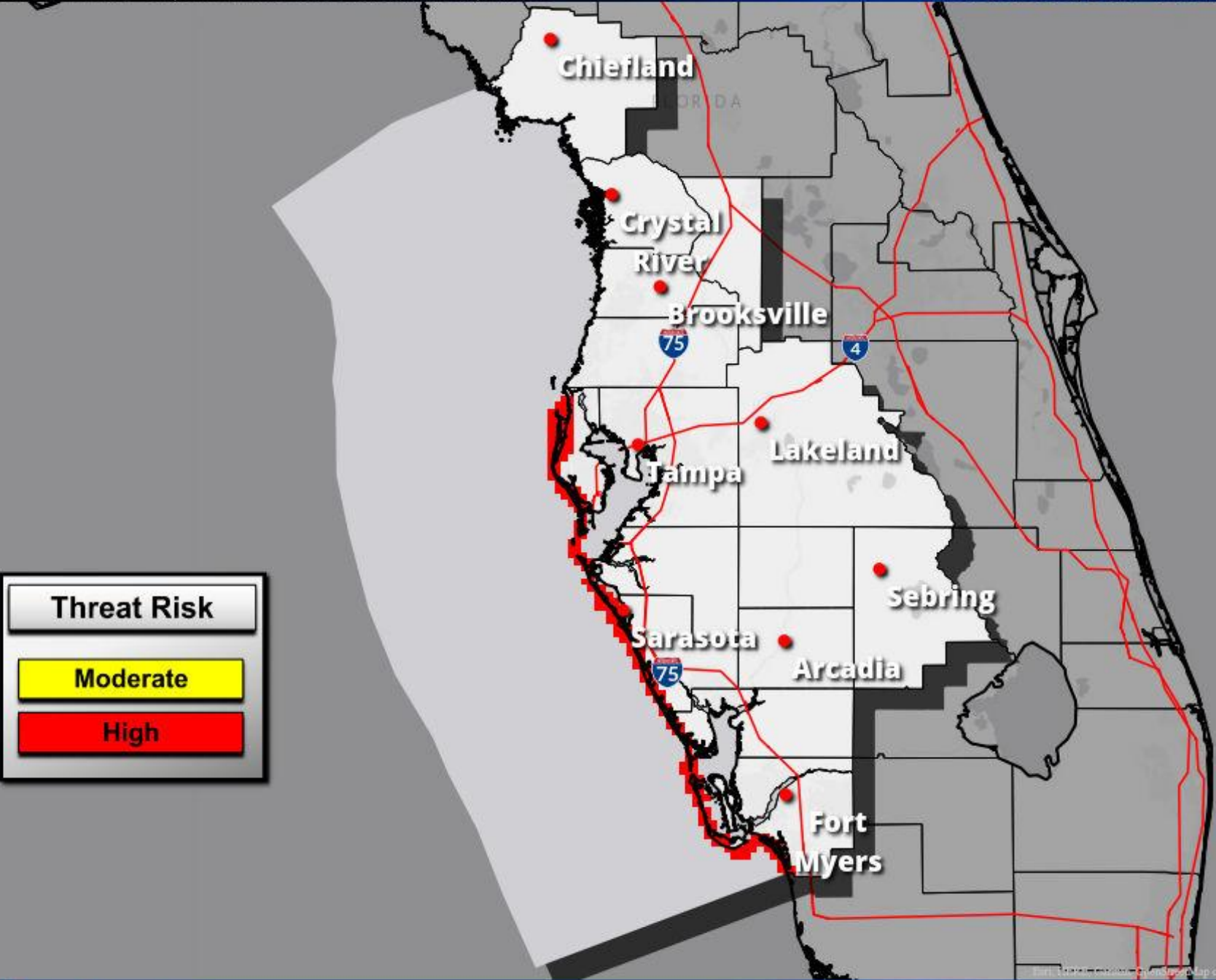
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Late Wednesday through Friday

## Rip Current Risk for Fri/Fri Night

Valid 7 AM Fri Nov 08, 2024 to 7 AM Sat Nov 09, 2024

Weather Forecast Office  
Tampa Bay/Ruskin, FL  
Issued Nov 05, 2024 4:27 AM EST



Threat Risk

Moderate

High

- ➔ Large, breaking swells will move toward the coast starting Wednesday.
- ➔ High risk of rip currents late Wednesday through Friday.
- ➔ Some impacts linger into the weekend.

Risk Level	Category	Definition
	Low	The risk of rip currents is low, however, life threatening rip currents may still occur especially near groins, jetties, reefs, and piers.
	Moderate	There is an elevated/moderate risk of hazardous/life threatening rip currents. Always swim near a lifeguard and remember to heed the advice of the local beach patrol and flag warning systems.
	High	There is a significant/high risk of hazardous/life threatening rip currents. Swimming is not recommended. Heed the advice of the local beach patrol and flag warning systems.

@NWS Tampa Bay

weather.gov/tampabay



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Atmospheric Administration  
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National Weather Service  
Tampa Bay Area, FL

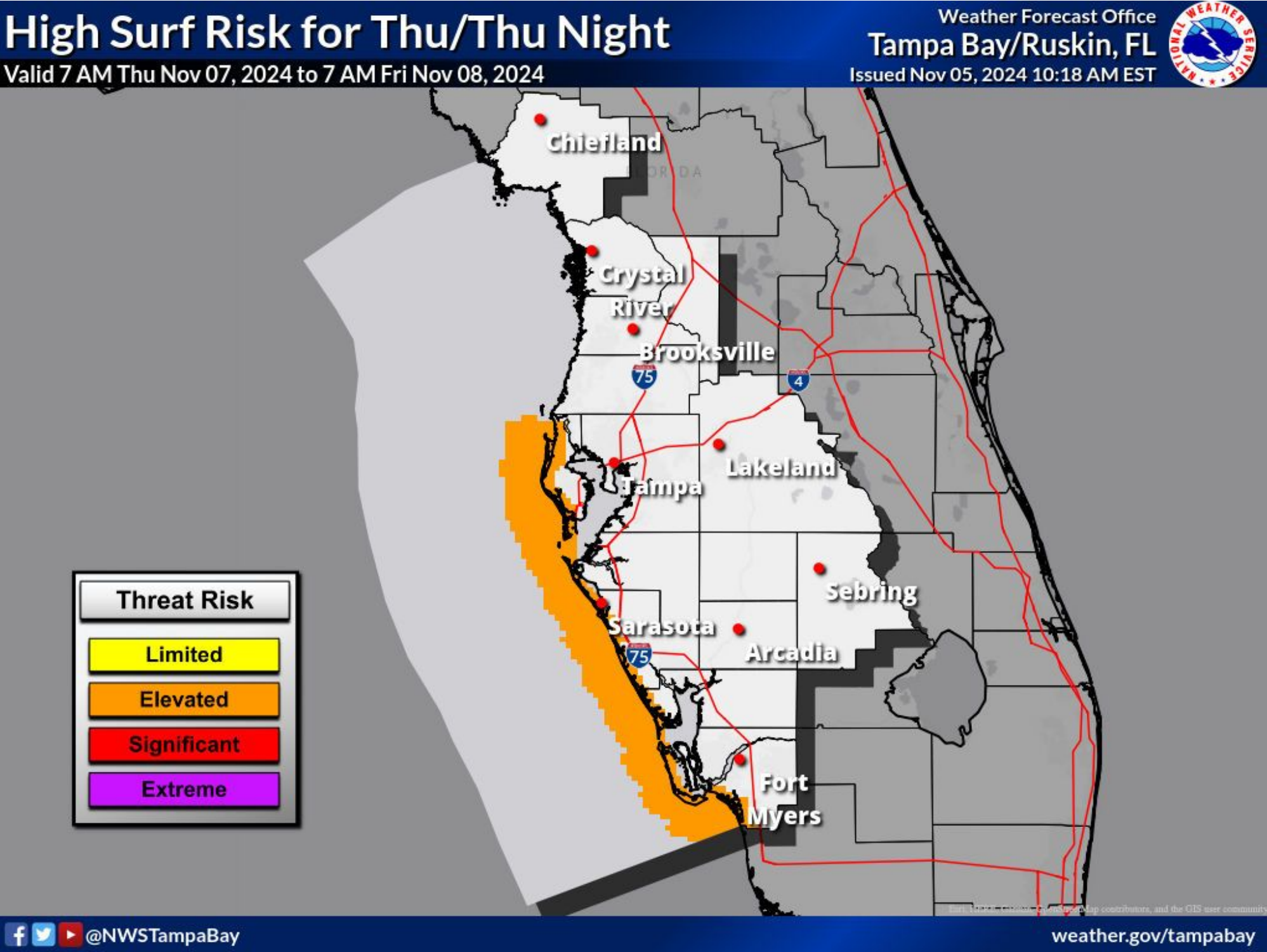




# High Surf Impacts

Thursday

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- Large, breaking swells will move toward the coast starting Wednesday and continuing into Friday.
- Beach erosion likely.
- Coastal flooding of 1-2 feet above MHHW possible Wednesday through early Friday.

Risk Level	Category	Definition
	None	No High Surf Risk.
	Limited	Breaking waves that would result in hazardous conditions to anyone who enters the surf possible.
	Elevated	Large breaking waves that would result in dangerous swimming and surfing and/or localized beach erosion possible.
	Significant	Large breaking waves that would result in life-threatening swimming and surfing and/or significant beach erosion possible.
	Extreme	Large breaking waves that would result in life-threatening swimming and surfing and/or major beach erosion possible.







# Summary

## Primary Weather Concerns

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- **The forecast has shifted slightly to the west again, but no changes for land areas. If the westward shift continues, lower impacts will be realized. Either way, there is high confidence that the worst impacts will remain well offshore.**
- **Coastal waters impacts continue increase, with limited impacts for Tampa Bay and Charlotte Harbor.**
- **Coastal communities should expect high surf capable of causing beach erosion, rip currents, and coastal flooding of 1-2 feet Wednesday through Friday.**
- **Main hazard for land will be heavy rainfall Wednesday and Thursday, but the threat decreases as the track shifts westward.**







# Questions? Comments?



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## Contact Information

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