



National Weather Service Boston / Norton

Decision Support Briefing
Sunday, December 10, 2023
3:15 PM

Potential for:

- Flooding Rain
- Damaging Winds
- Coastal Flooding
- Hazardous Marine Travel

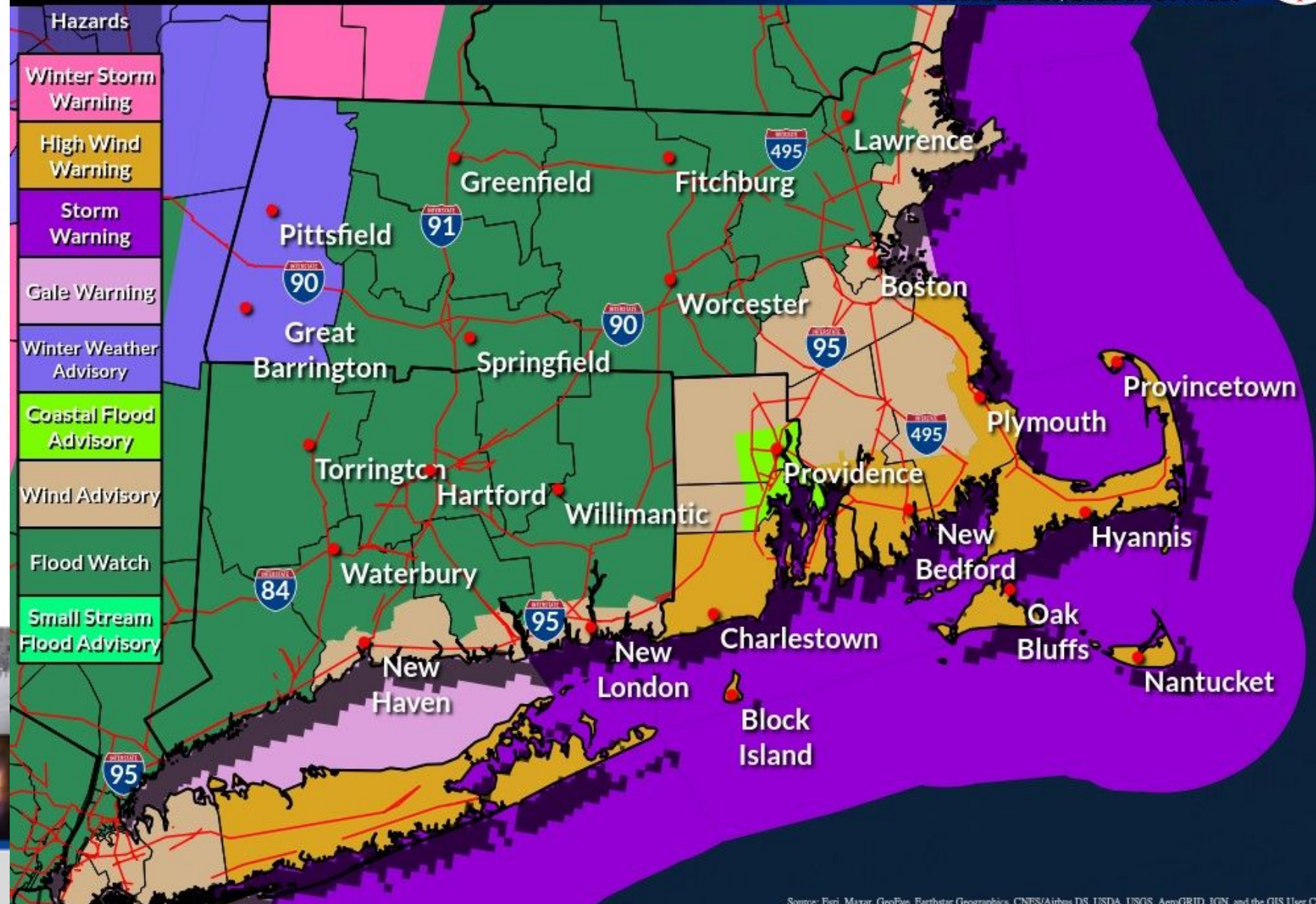
Tonight - Monday



What Has Changed: Higher confidence for flooding.

All Hazards

Weather Forecast Office
Boston/Norton, MA
Issued Dec 10, 2023 3:03 PM EST








Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Key Points

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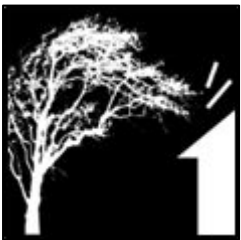
Hazard		Impacts	Location	Timing
Damaging Wind		Downed trees/power lines and power outages	RI/MA south coast, including Cape/Islands	Tonight into Monday morning
Coastal Flooding		Minor flooding of coastal roads	Narragansett Bay, and RI/MA south coast	Monday morning high tide
Flooding Rain	 	Significant street flooding & Minor/moderate river/stream flooding	West of I-95 corridor, especially CT into adjacent MA	Tonight into Monday morning
Hazardous Winds/Seas		Dangerous sea conditions for vessels	MA and RI waters	Tonight into Monday





Summary of Greatest Impacts

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<u>Wind:</u>	All of southern New England, especially coast				
None	Limited	Elevated	Significant	Extreme	



<u>Coastal Flooding:</u>	South Coastal MA and RI				
None	Limited	Elevated	Significant	Extreme	



<u>Flooding Rain:</u>	CT and western MA				
None	Limited	Elevated	Significant	Extreme	



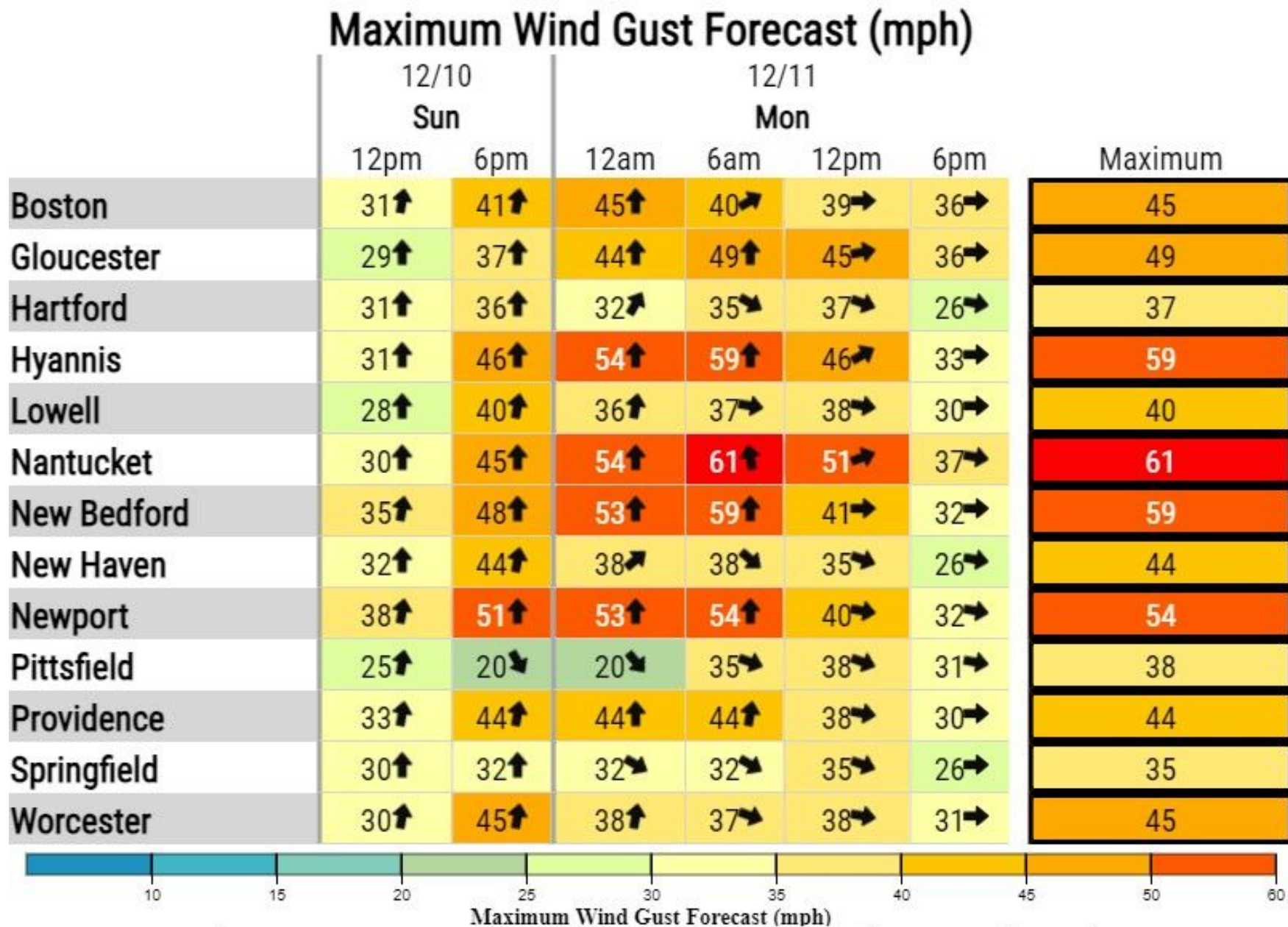
<u>Marine Travel:</u>	MA and RI waters				
None	Limited	Elevated	Significant	Extreme	





Wind Gust Forecast

December 10, 2023
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Created: 2 pm EST Sun 12/10/2023 | Values are maximums over the period beginning at the time shown.

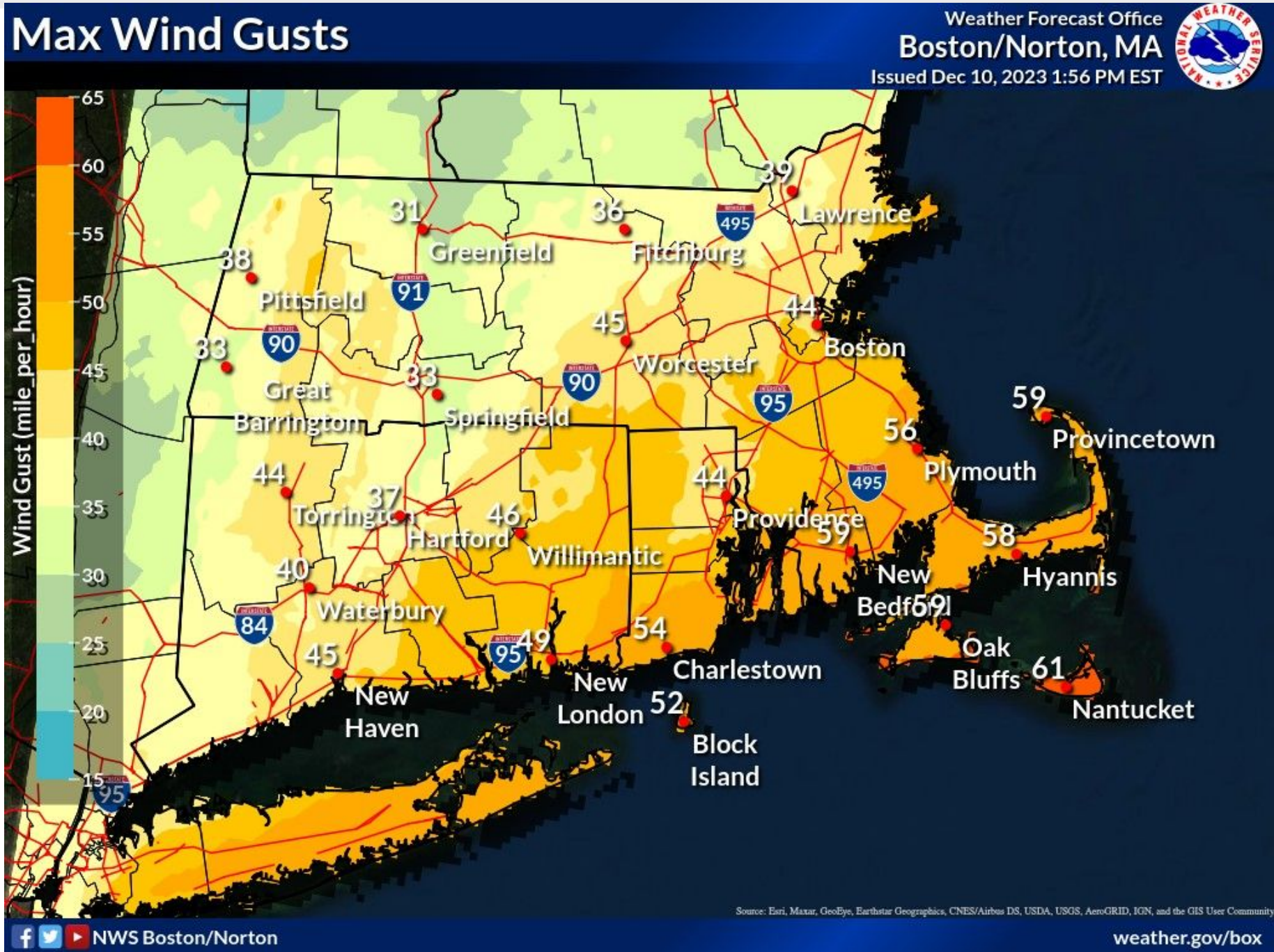
- Strongest wind gusts peak after midnight tonight into Monday morning from west to east





Wind Gust Forecast

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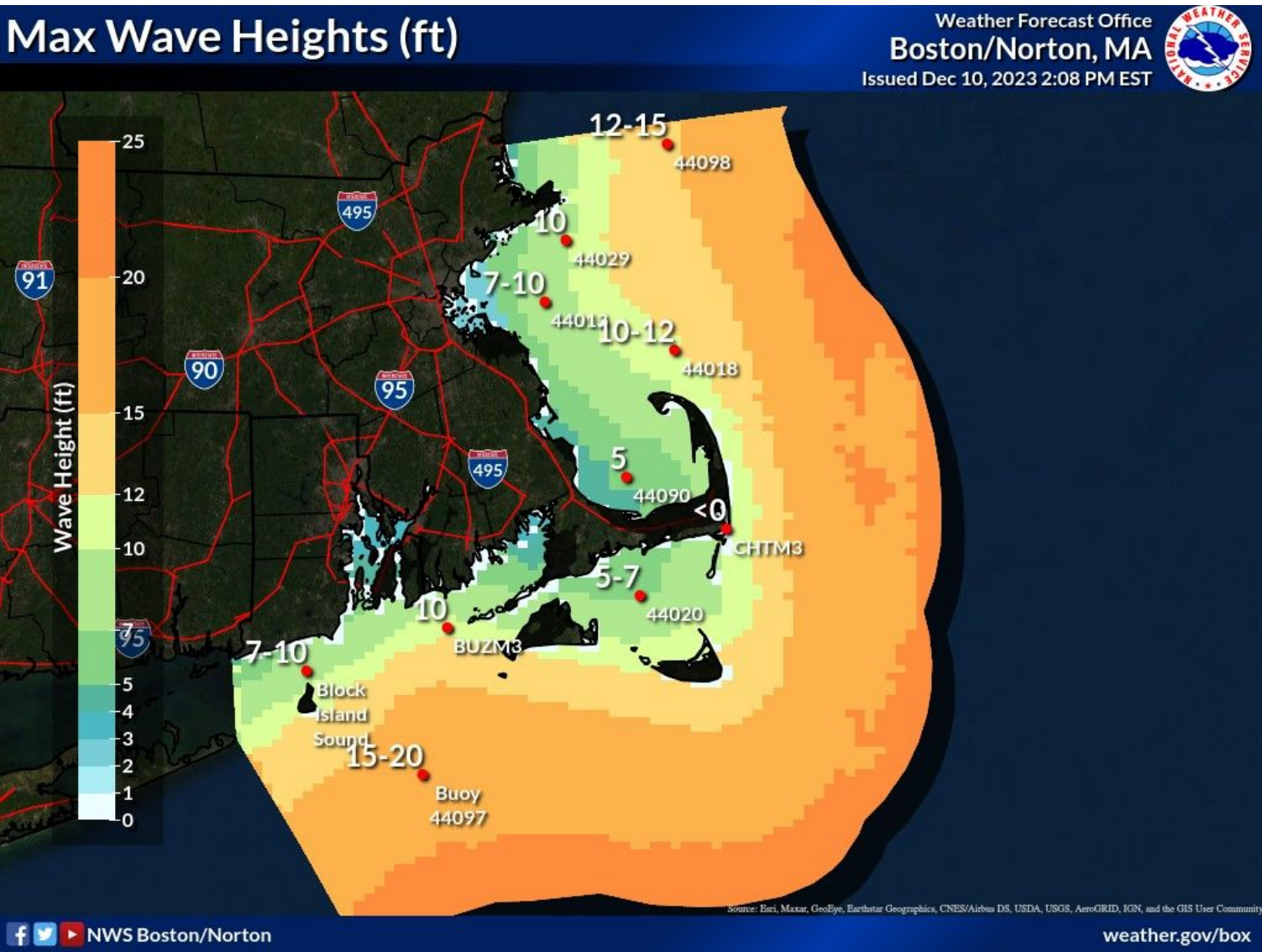
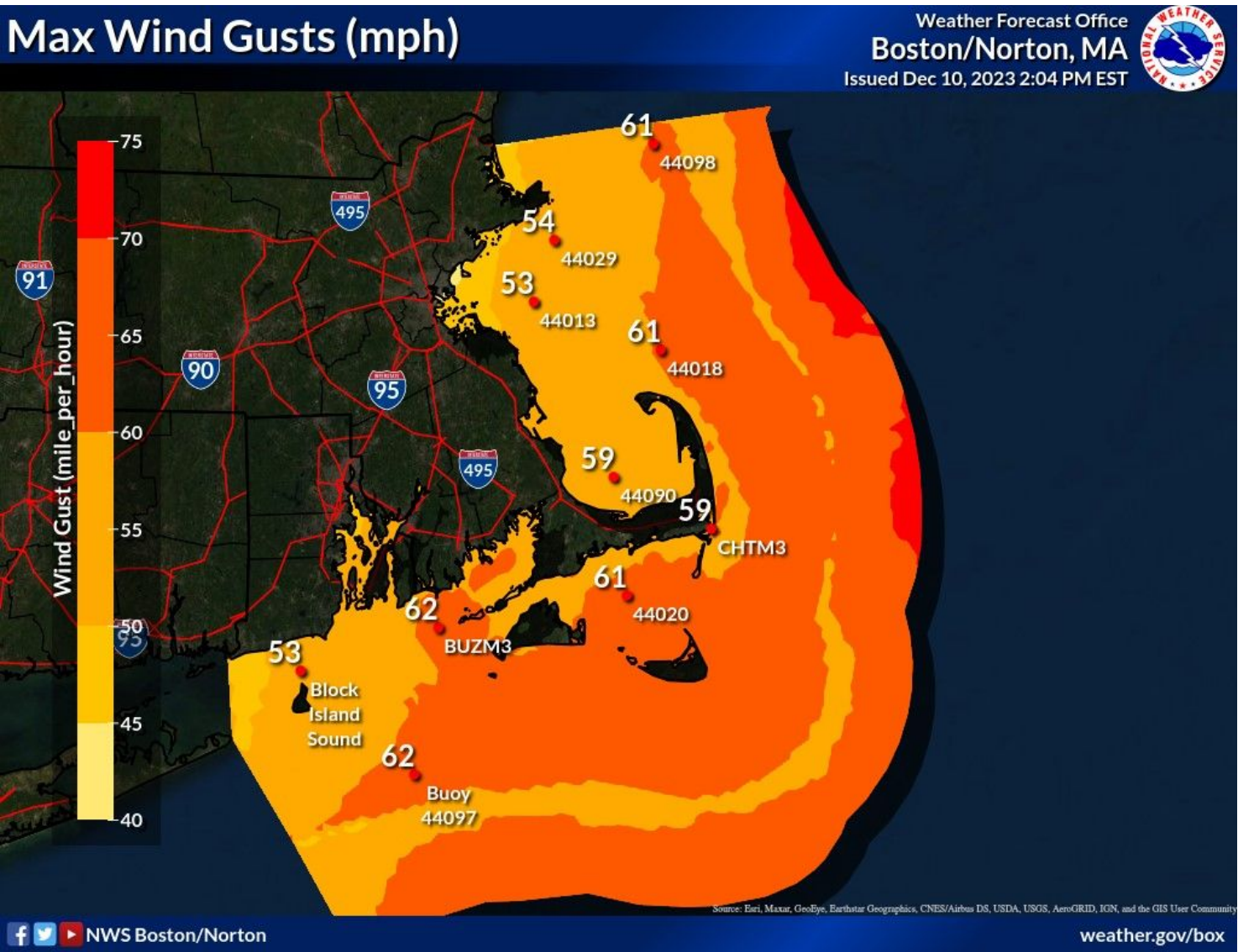
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Coastal Waters Winds and Seas

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Winds peak tonight into Monday morning

Highest seas Monday



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Expected Weather

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	Weather Forecast				
	12/10 Sun		12/11 Mon		
	12pm	6pm	12am	6am	12pm
Boston					
Gloucester					
Hartford					
Hyannis					
Lowell					
Nantucket					
New Bedford					
New Haven					
Newport					
Pittsfield					
Providence					
Springfield					
Worcester					

Created: 2 pm EST Sun 12/10/2023. Shows most impactful weather for the period beginning at the time shown. Weather symbols display where Probability of Precipitation \geq 0%.

- Rain +

- Wintry Mix +

- Snow +

- **Heaviest rain tonight into Monday morning**
- **Rain changes to wet snow Monday morning in the higher elevations of the Berkshires**

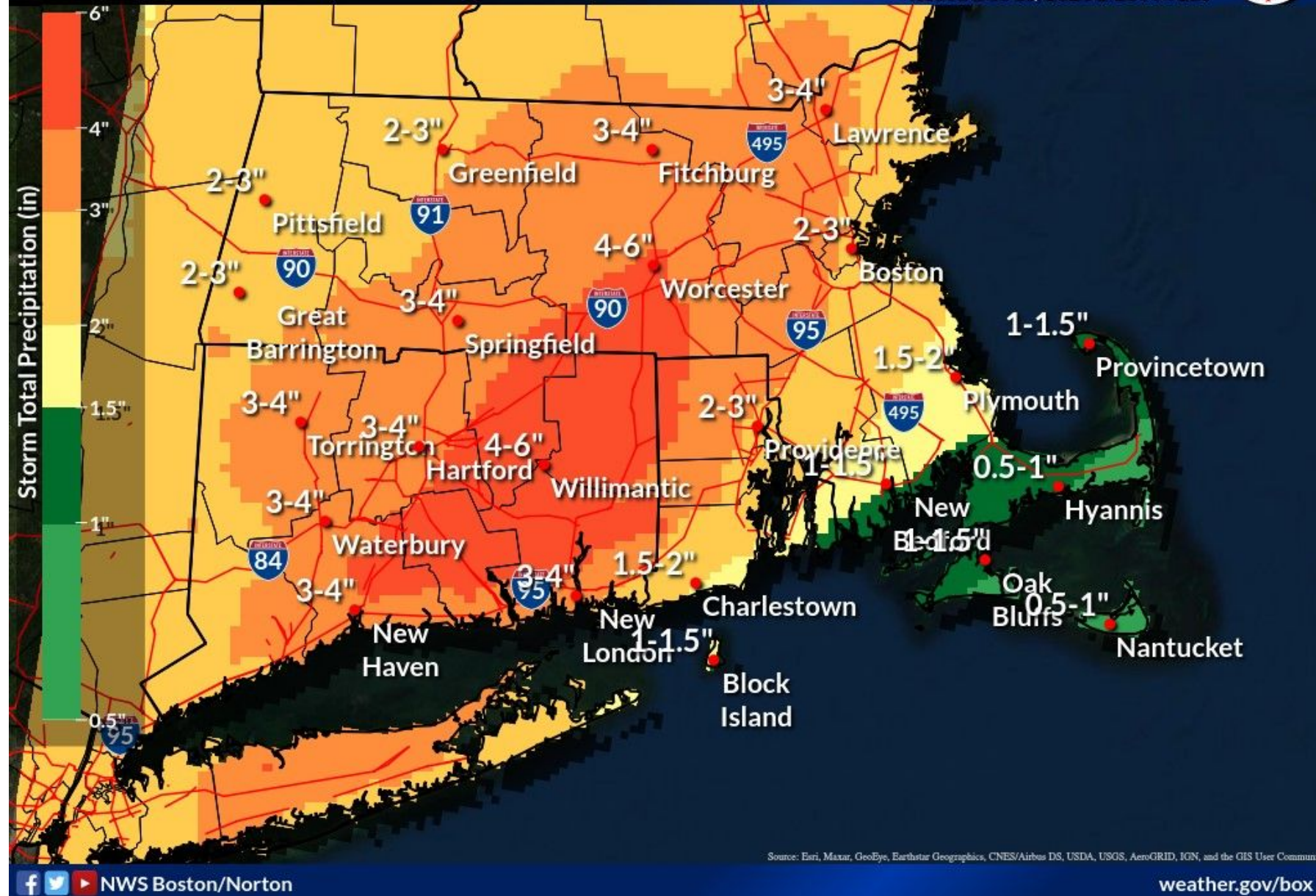


Rainfall Forecast

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Storm Total Rainfall

Weather Forecast Office
Boston/Norton, MA
Issued Dec 10, 2023 2:13 PM EST



- Heaviest rain tonight into Monday morning
- Widespread rainfall 2-4 inches, locally 6+ inches across portions of CT/adjacent MA/RI
- Significant street flooding possible for the Monday morning commute, especially across portions of CT/RI into central/W MA



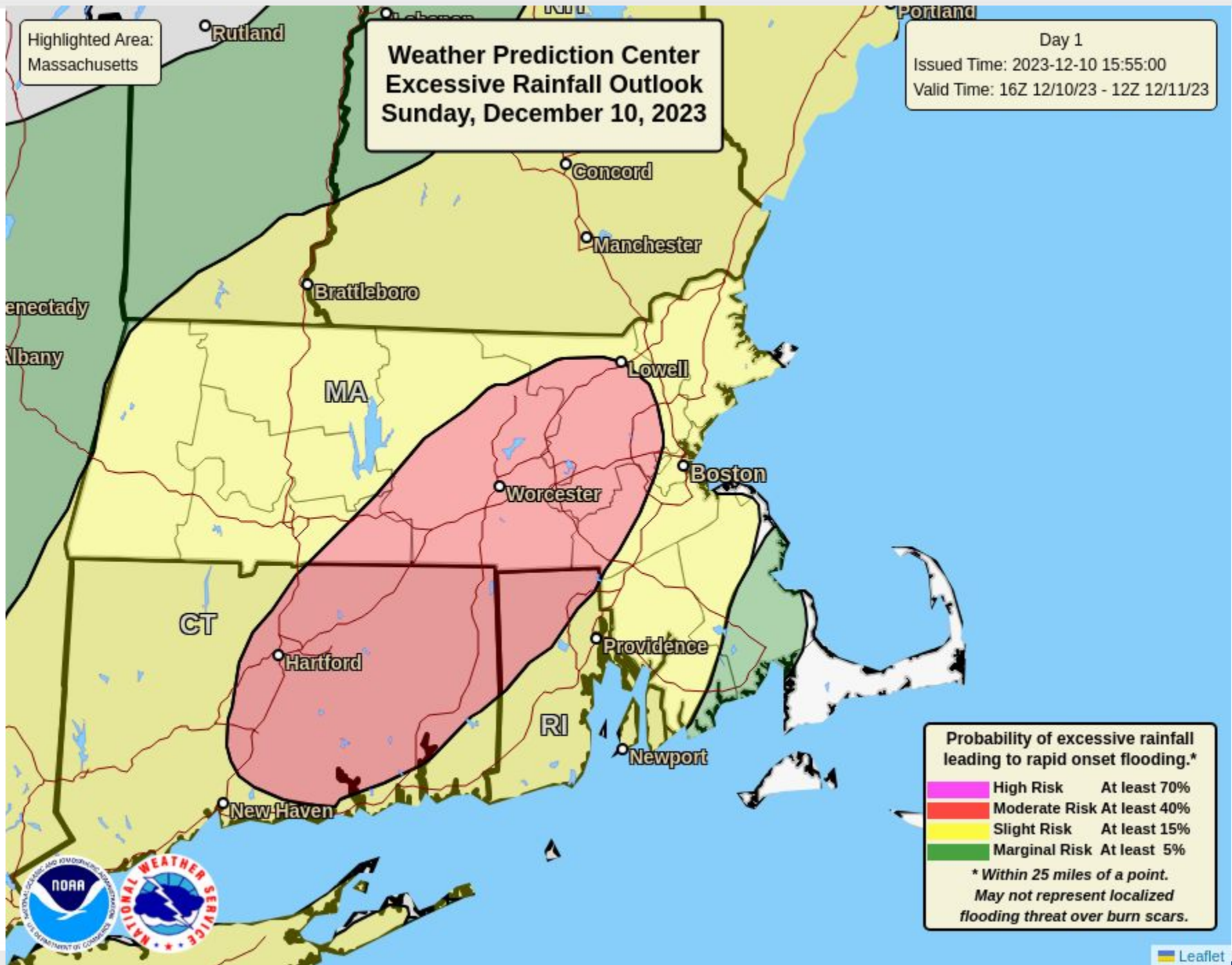
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Excessive Rainfall Outlook

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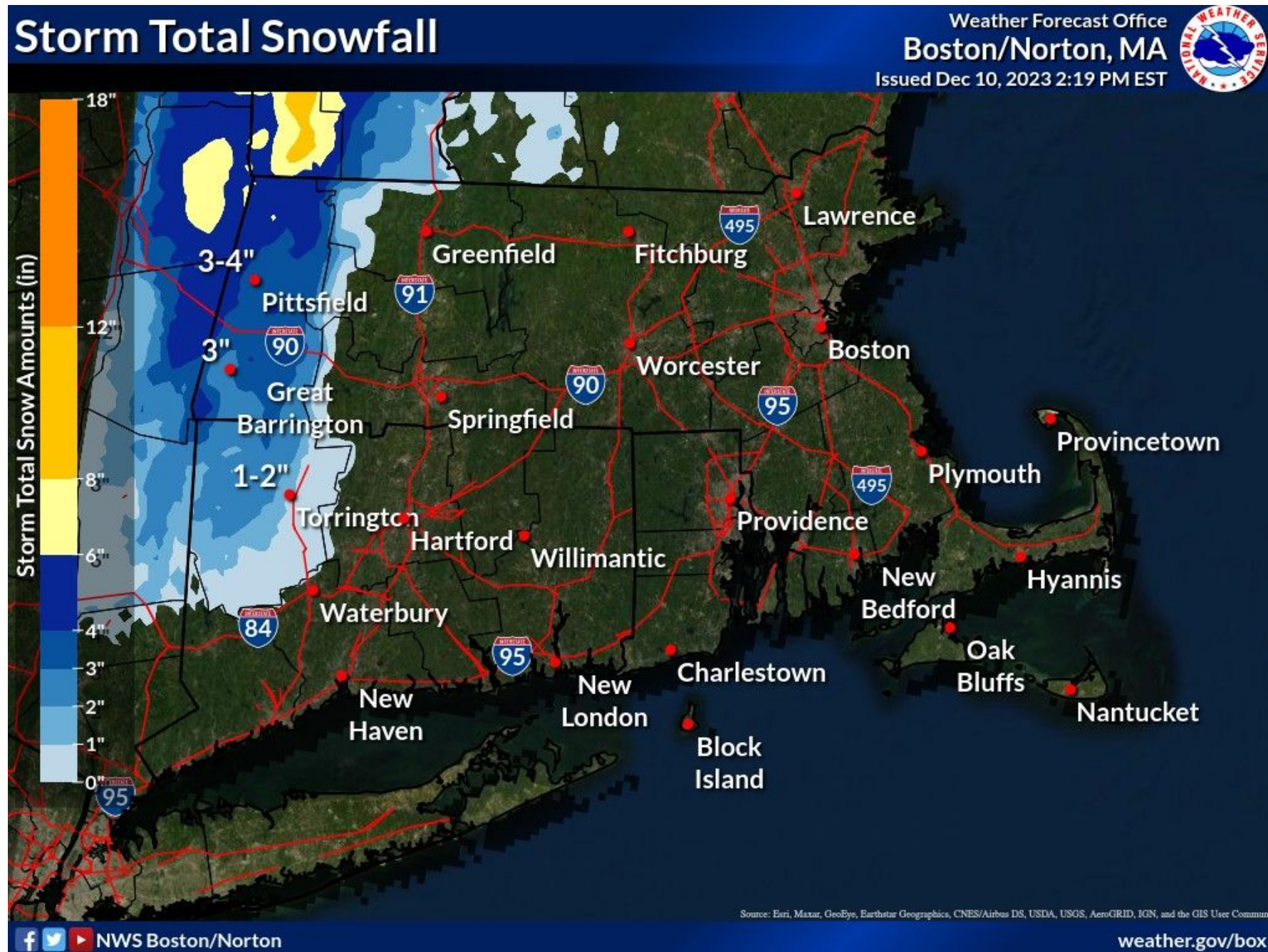
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Snowfall Forecast

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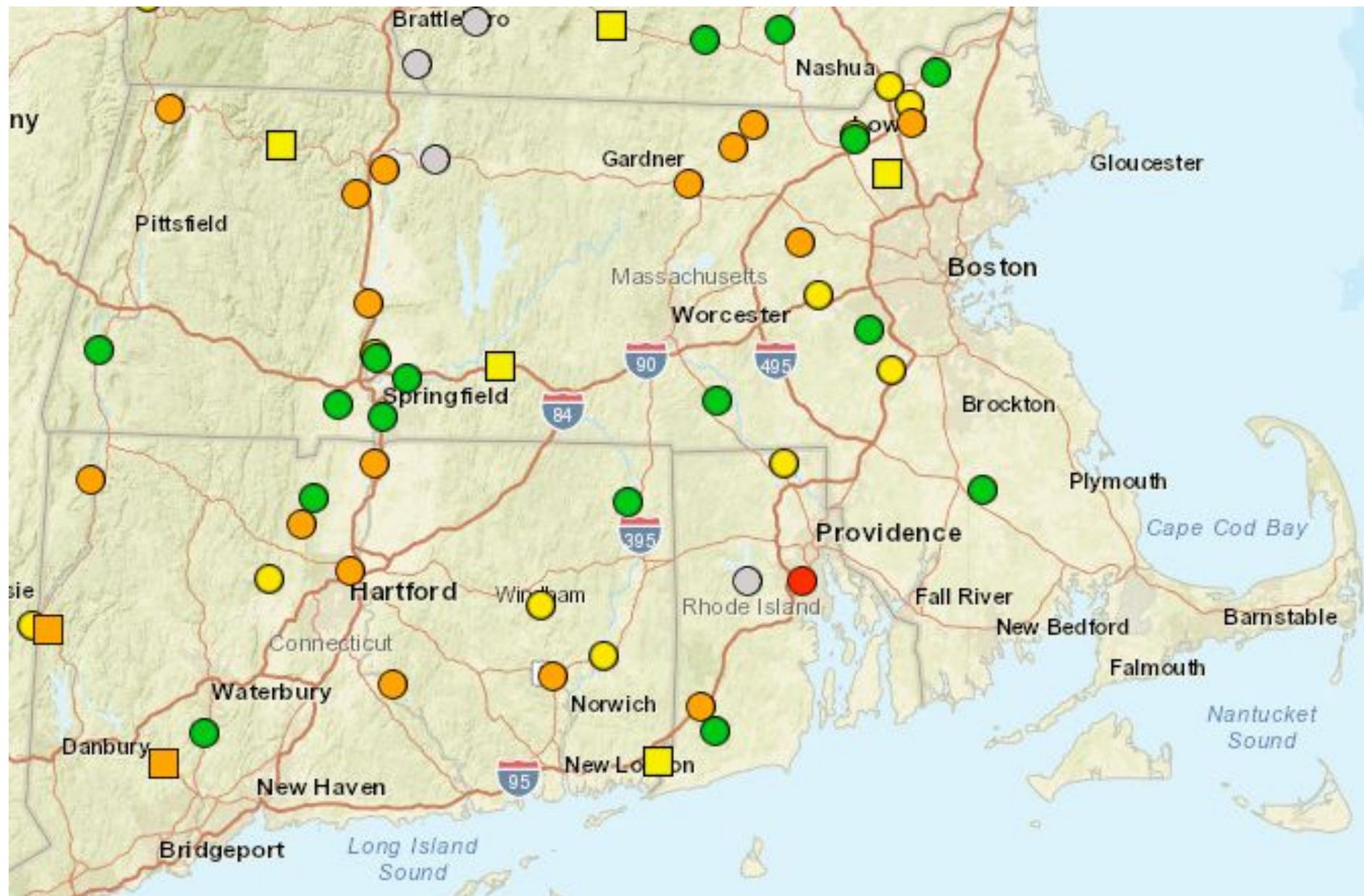
- Rain changes to wet snow Monday morning in the Berkshires
- Heaviest accumulations confined to west slopes of Berkshires





River Flood Outlook

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- **Minor river flooding is likely (around 70%) Monday along the tributaries of the mainstem Connecticut River. However, there is a low (20-30%) probability a few spots could experience moderate flooding (red).**
(Orange circles = 30% chance)

Extent and level of flooding is dependent upon rainfall amounts

Chance of Exceedance		
30%	Level	70%
	Action	
	Minor Flood	
	Moderate Flood	
	Major Flood	
= less than 30% chance of reaching Action level		
= no critical levels defined for this point		

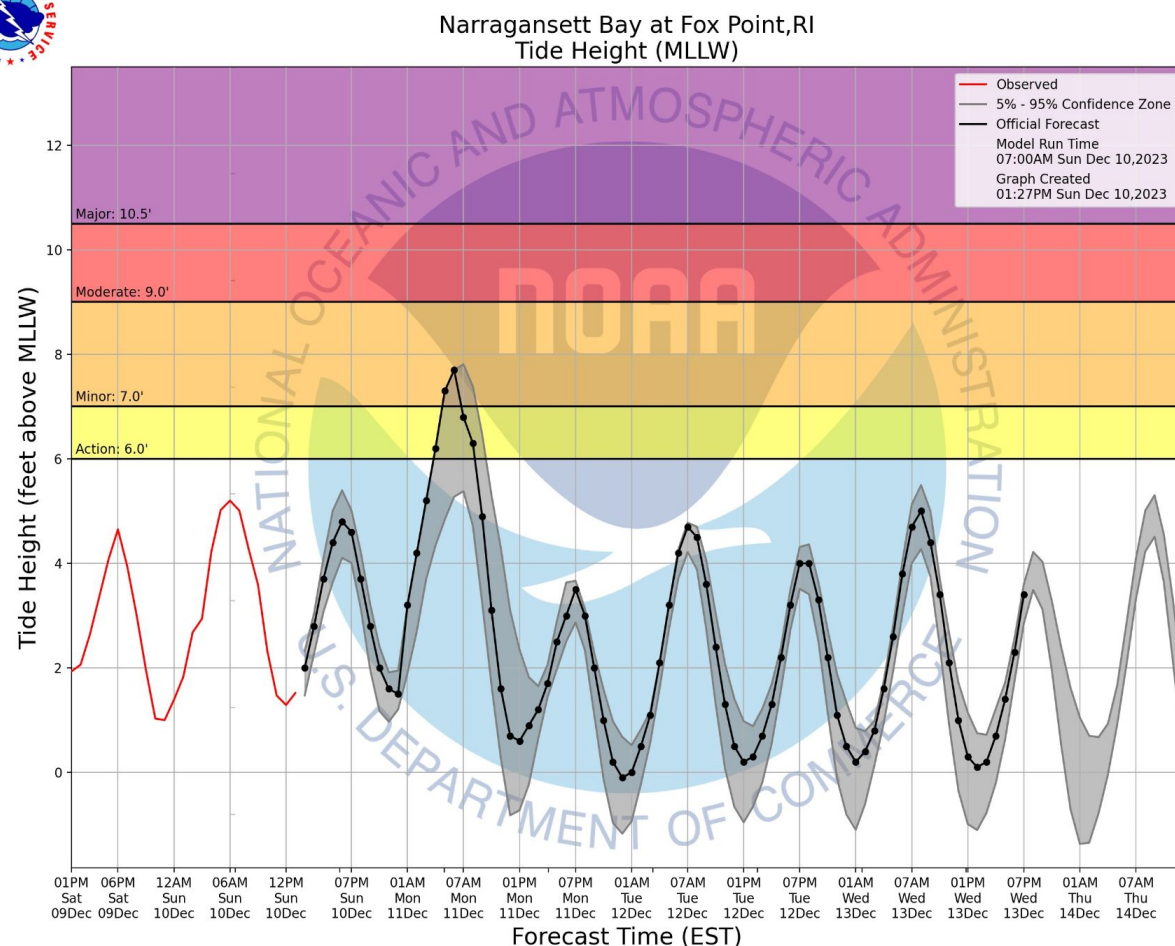




Coastal Flooding

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Total Water Level Forecast: Providence



- Minor flooding most likely during the Monday morning high tide for areas adjacent to Narragansett Bay
- Lower risk of very minor flooding along the rest of RI/MA south coast



Minor

Moderate

Minor: flooding less than one foot deep

Moderate: flooding 1 to 2 feet deep



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Threat Event Summary

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➤ **Confidence:** High (80%) on a high impact storm

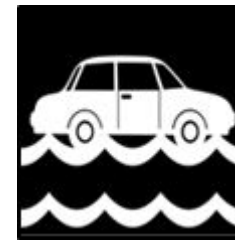
➤ **What:**



Downed trees/power lines from 45-65 mph winds, strongest coast



Minor coastal flooding, especially along Narragansett Bay



Minor to moderate river/stream flooding. Significant street flooding likely



Dangerous conditions for marine vessels Sun night into Monday

➤ **Where:** All of southern New England (CT, MA, and RI)

➤ **When:** Tonight into Monday

