



Decision Support Briefing #3

→ Saturday December 16th 2023, 4PM

NEW

Headlines in Effect

- High Wind Watch from I-95 south and east
- Storm Watch for the coastal waters
- Flood Watch for central and western MA as well as most of CT
- Coastal Flood Watch for Narragansett Bay

Timing: Overnight Sunday through Monday

Hazards



Current Watches, Warnings, and Advisories

- Coastal Flood Warning
- Wind Advisory
- Flood Watch
- High Wind Watch
- Coastal Flood Watch
- Storm Watch







Graphic Created
December 16th, 2023
2:30 PM CST



Key Points

December 16, 2023
3:57 PM

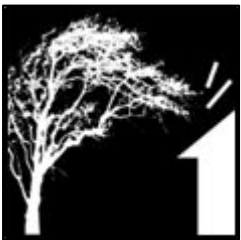
Hazard		Impacts	Location	Timing
Damaging Wind		Downed trees/power lines and power outages possible	RI/MA I-95 south and east, including Cape/Islands	Overnight Sunday through Monday Evening
Coastal Flooding		Minor to moderate flooding coastal roads	Narragansett Bay, and RI/MA south coast	Monday noon high tide
Flooding Rain		Street flooding & Minor/moderate river/stream flooding	West of I-95 corridor, especially CT into adjacent MA	Overnight Sunday into Monday
Hazardous Winds/Seas		Dangerous sea conditions for vessels	MA and RI waters	Sunday evening through Monday night





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	



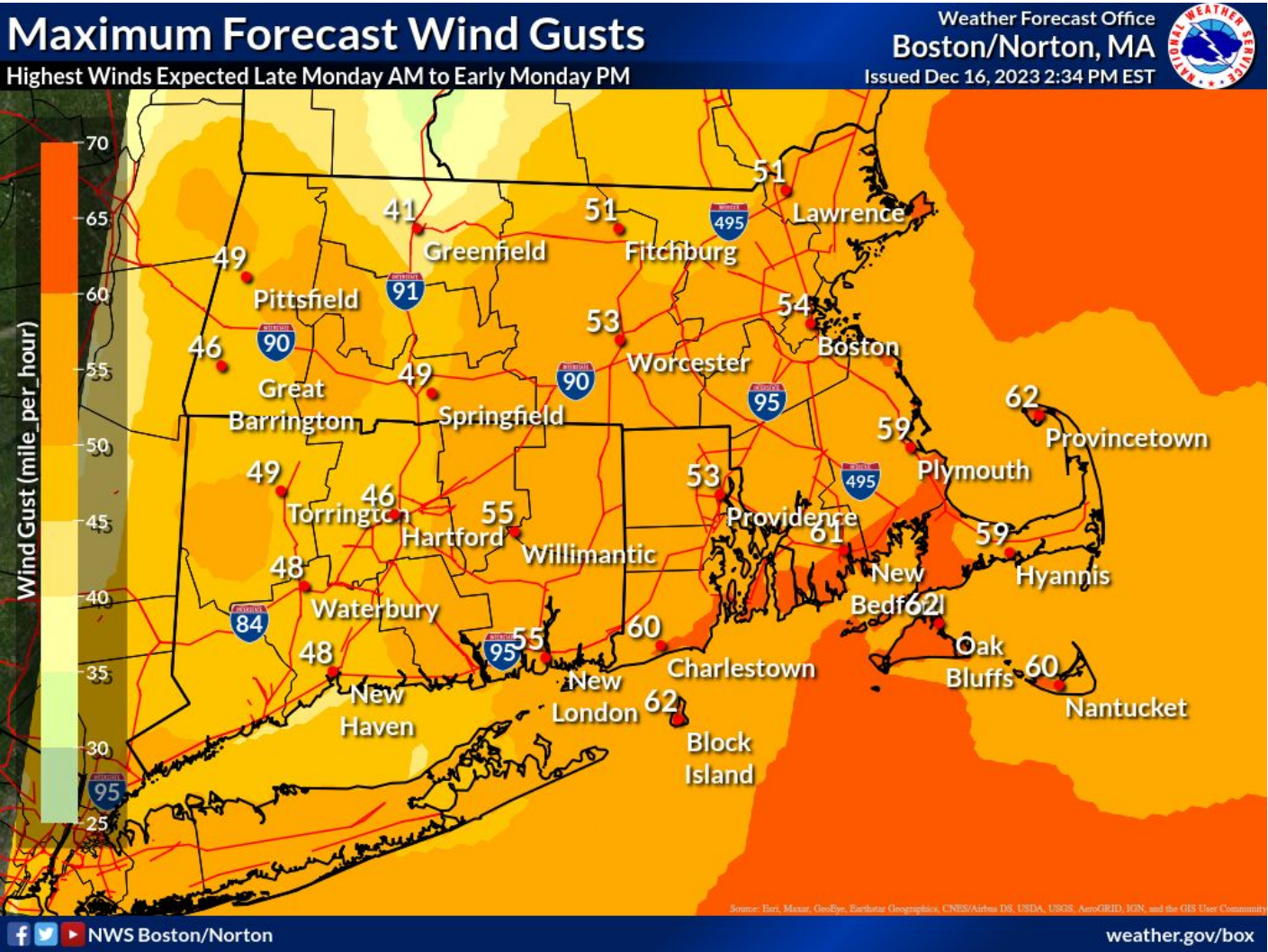
<u>Marine Travel:</u>	MA and RI waters				
None	Limited	Elevated	Significant	Extreme	





Max Wind Gusts

Wind Gusts will peak mid-day Monday



Maximum Wind Gust Forecast (mph)
12/18
Mon

	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	Maximum
Block Island	41	46	49	54	56	60	62	61	60	58	56	54	53	46	40	33	30	25	62
Boston	31	35	38	41	46	51	55	54	54	53	53	52	52	46	40	35	30	25	55
Cambridge	31	35	38	41	45	49	54	54	53	53	52	52	51	45	39	33	29	24	54
Gloucester	36	39	43	46	51	55	60	60	60	60	59	59	58	52	47	41	36	31	60
Hartford	38	41	44	46	46	46	46	45	44	41	38	33	29	28	25	23	21	17	46
Hyannis	33	38	43	46	51	54	59	58	56	56	55	55	54	51	47	44	37	31	59
Lowell	28	32	38	43	45	47	51	49	48	47	46	45	45	39	33	28	24	22	51
Nantucket	37	41	45	49	53	56	60	59	59	58	58	56	56	52	48	45	38	31	60
New Bedford	38	45	51	56	59	60	61	60	60	59	58	56	55	49	45	39	35	29	61
Plymouth	38	41	46	49	53	56	60	60	59	58	59	59	60	55	49	45	39	32	60
Providence	36	40	45	49	51	52	53	53	53	53	52	49	48	43	37	30	25	21	53
Springfield	36	39	44	47	48	49	51	47	45	41	38	35	31	28	25	22	20	17	51
Vineyard Haven	35	40	45	51	54	59	62	61	60	59	58	56	55	51	45	39	35	30	62
Westerly	41	46	49	53	55	56	59	58	56	55	52	48	46	41	37	32	28	23	59
Worcester	37	39	43	46	48	51	53	51	48	46	44	41	39	36	33	31	28	25	53

Maximum Wind Gust Forecast (mph)

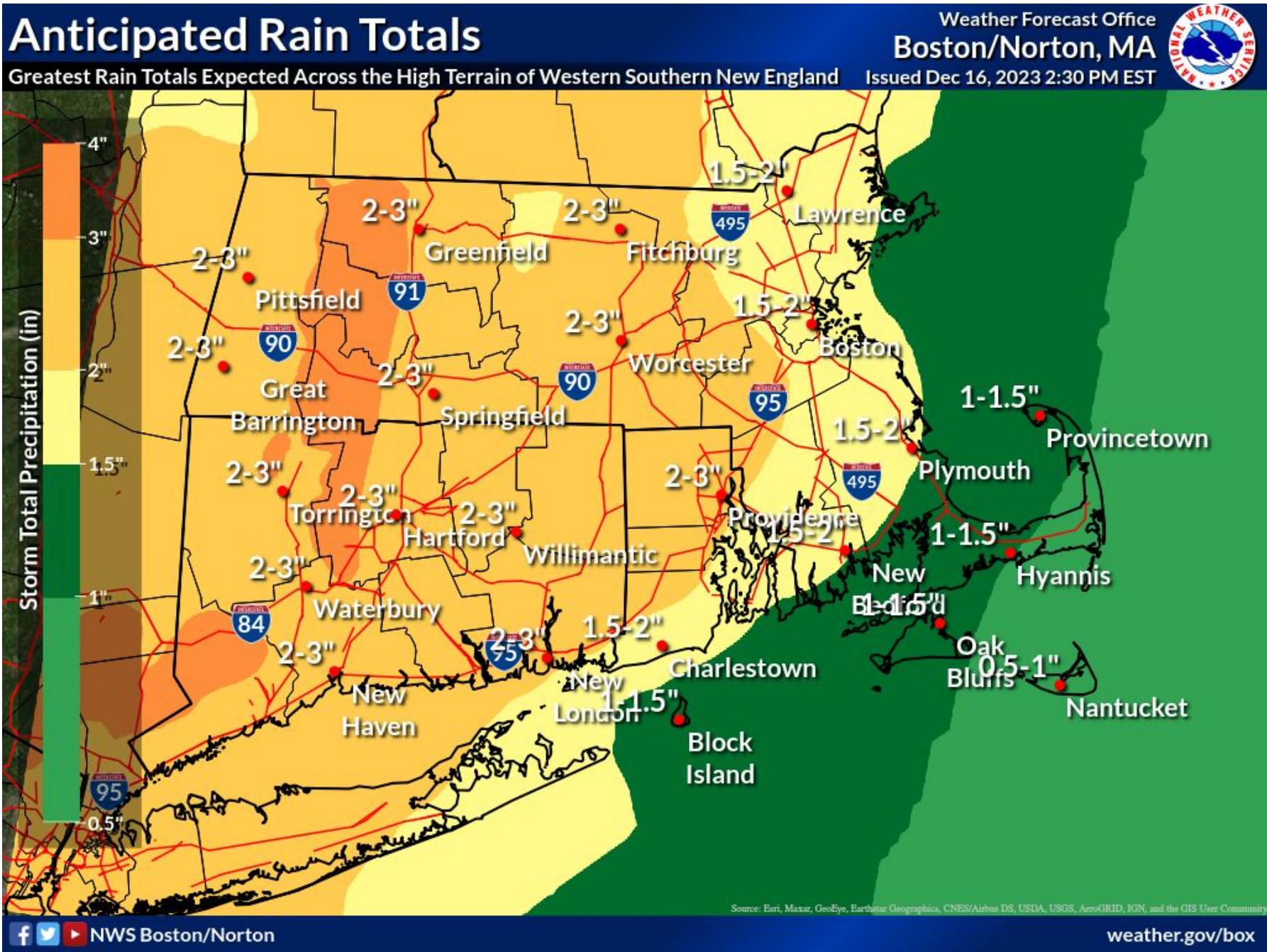
Created: 2 pm EST Sat 12/16/2023 | Values are maximums over the period beginning at the time shown.





Forecast Rain Totals

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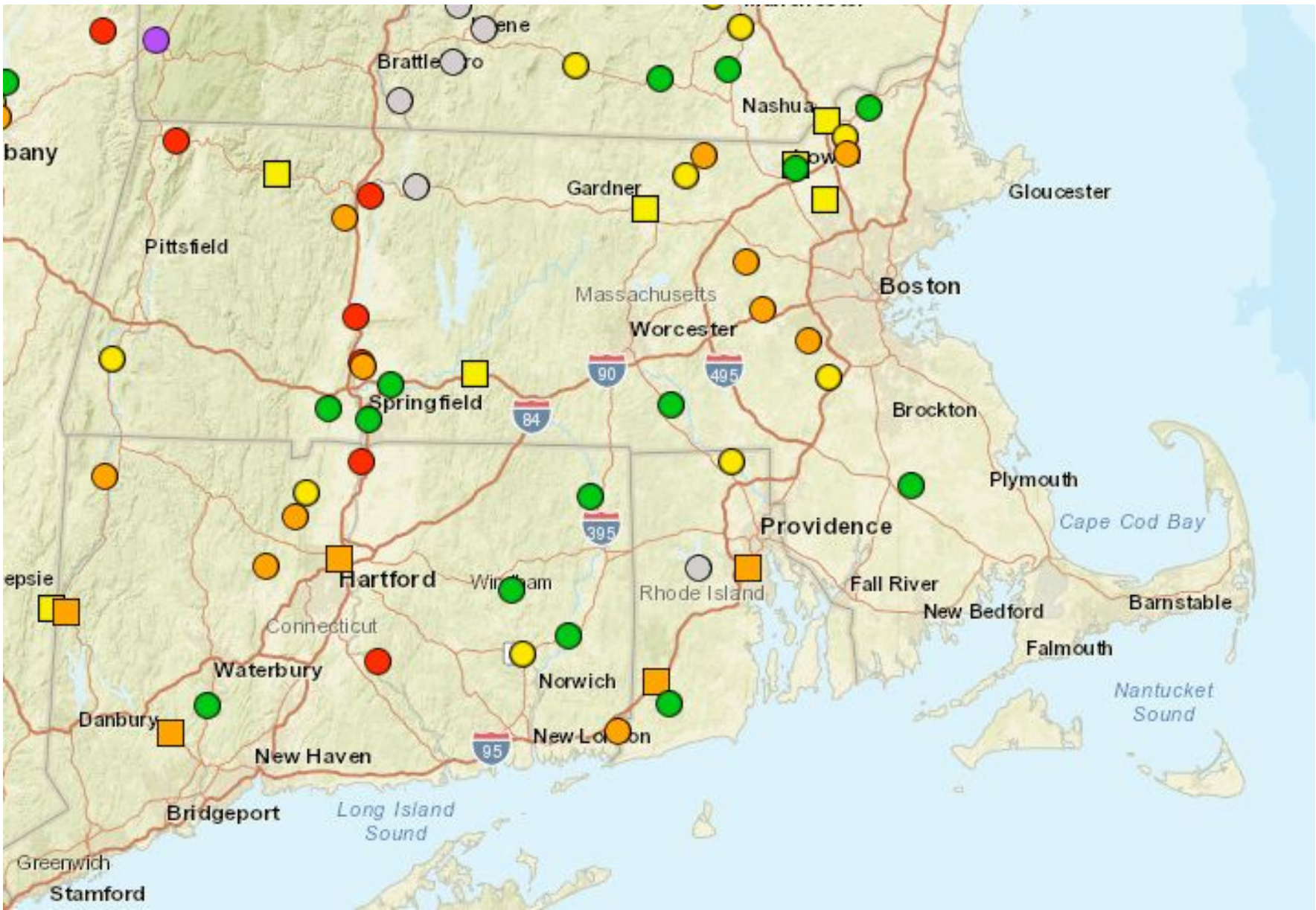
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River Flood Outlook

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- Minor to Moderate river flooding is possible
- Still uncertainty regarding highest rainfall totals

Extent and level of flooding is dependent upon rainfall amounts

Map Legend Below

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		

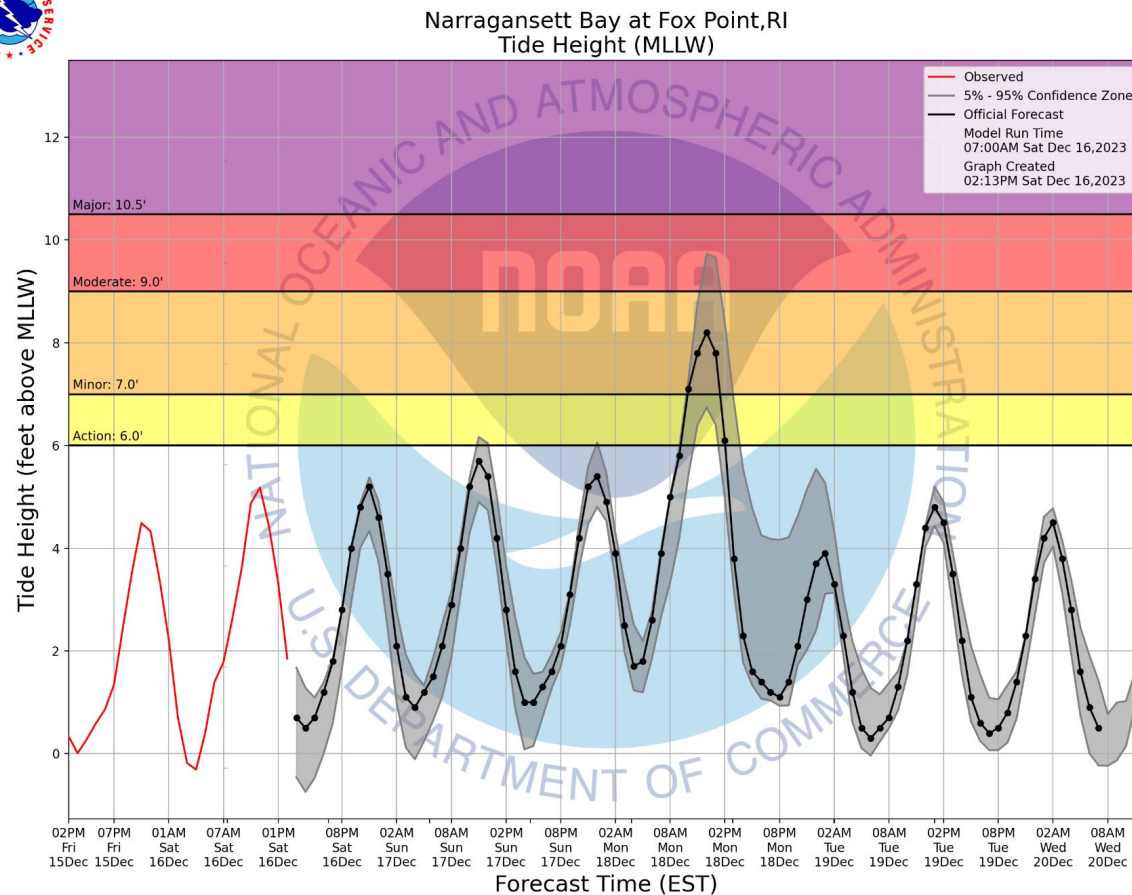




Coastal Flooding

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Total Water Level Forecast: Providence



- Growing confidence in at least Minor Coastal Flooding surrounding the Monday mid-day high tide, with the potential for Moderate Coastal Flooding in Narragansett Bay
- Lower risk of minor flooding/splash over along the rest of RI/MA south and east coasts



Minor

Moderate

Minor: flooding less than one foot deep

Moderate: flooding 1 to 2 feet deep



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Coastal Flood Forecast

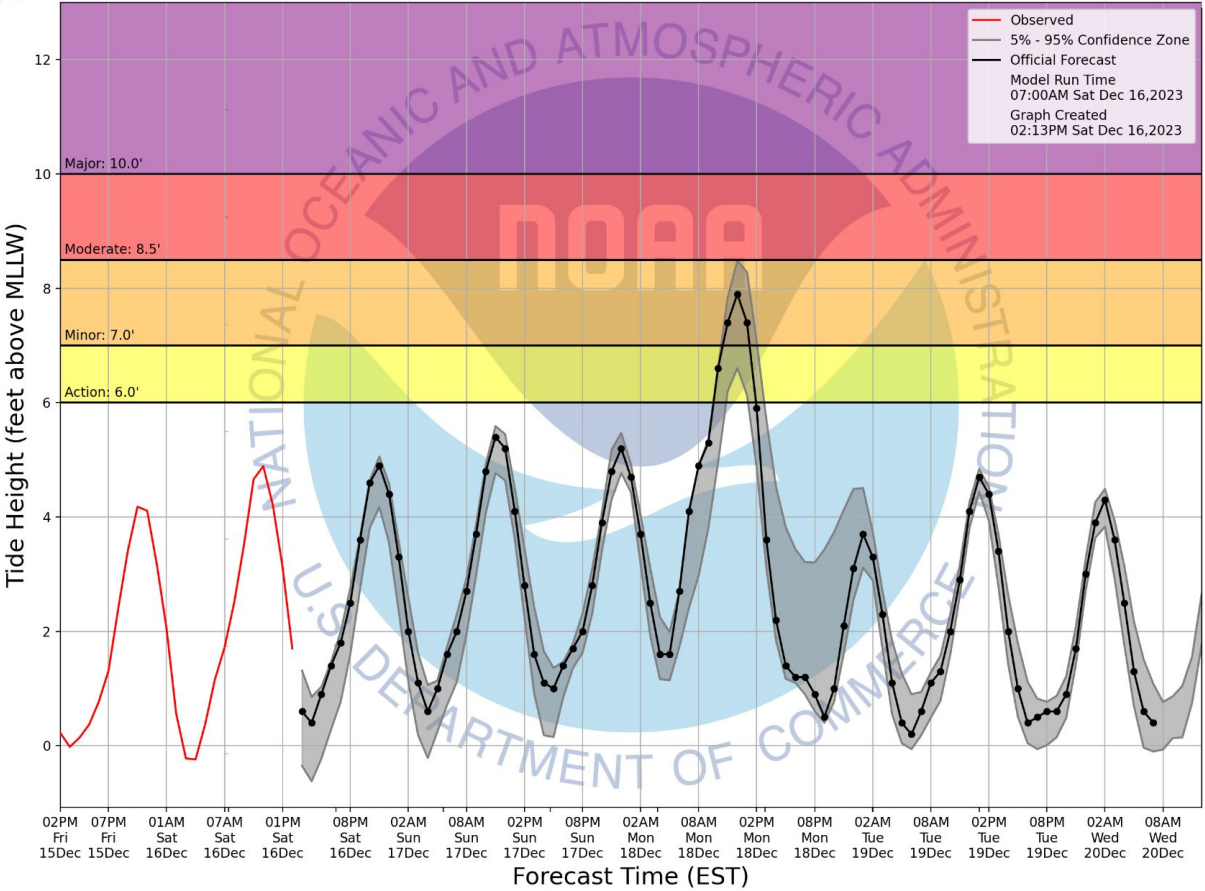
December 16, 2023
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High Confidence in impacts from Minor Coastal Flooding with potential Moderate Coastal Flooding in Narragansett Bay

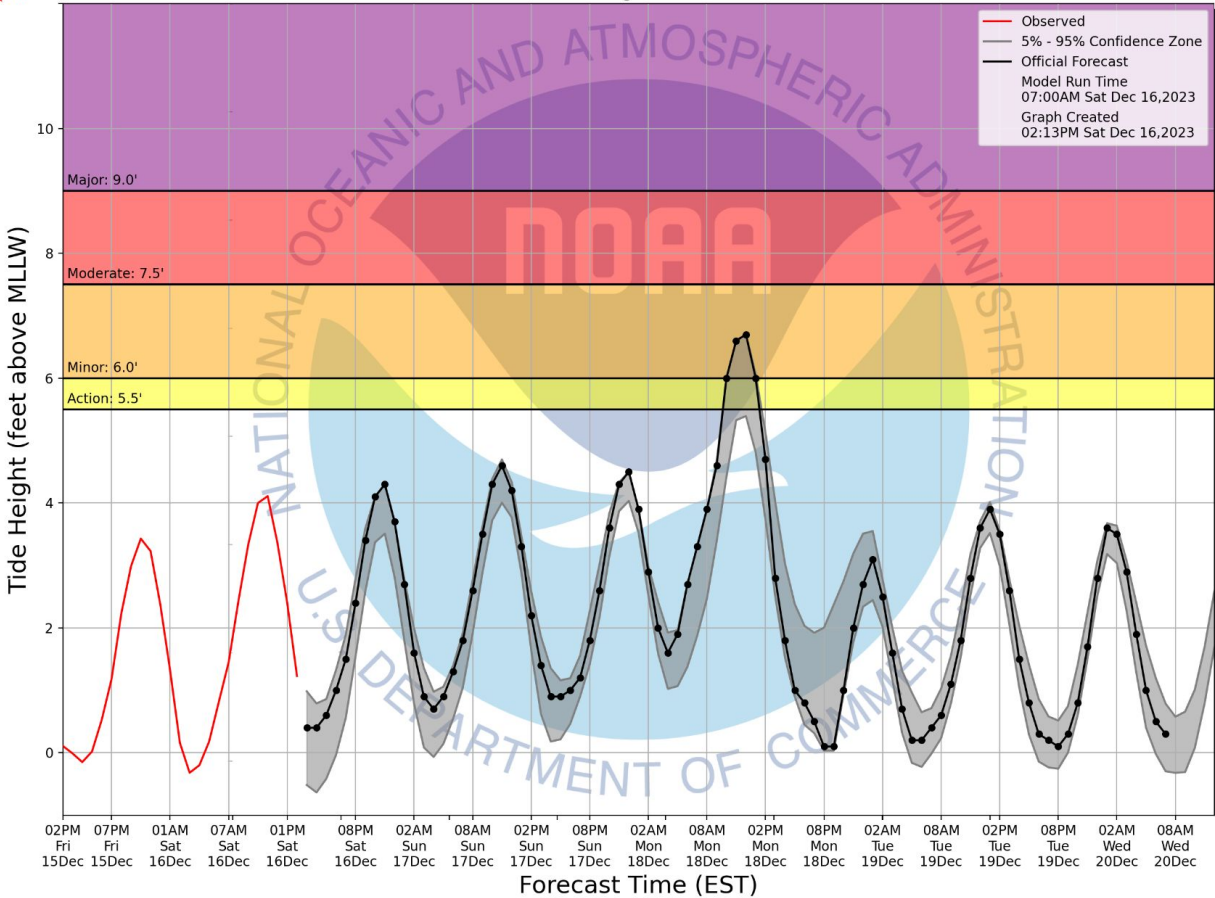
****Flood threat is contingent on the Monday lunchtime high tide coinciding with the timing of highest southeast winds.****



Narragansett Bay at Conimicut Light, RI
Tide Height (MLLW)



Narragansett Bay at Newport Harbor, RI
Tide Height (MLLW)





Threat Event Summary

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➤ **Confidence:** Moderate (50%) on a high impact storm

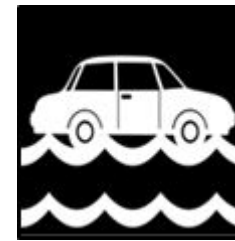
➤ **What:**



Downed trees/power lines from 40-60 mph winds, strongest coast



Minor to moderate coastal flooding, especially along Narragansett Bay



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



Dangerous conditions for marine vessels Sun evening through Monday

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

➤ **When:** Overnight Sunday into Monday

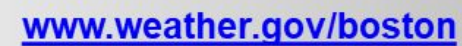




Next Briefing:

6 AM Sunday

A map of New England, including parts of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island. Major cities like Boston, Worcester, Springfield, Hartford, Providence, and New Haven are labeled. The map shows a network of highways, including Interstate 95, Interstate 90, and Interstate 84. Geographical features like Lake Champlain and Block Island are also depicted.



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