

Winter Storm Tonight and Thursday

National Weather Service
Decision Support Briefing # 4
Wednesday, December 16, 2020 4:30 PM





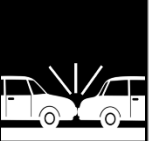
What Has Changed?

- ✓ Upgraded to Winter Storm Warning for Barnstable County.
- ✓ Hoisted High Wind Warnings for the Islands.
- ✓ Upgraded to Storm Warnings across all Southern waters.
- ✓ Increased snowfall across NE MA, NE CT and Northern RI.

Winter Weather Related Hazards



Main Points

Hazard	Impacts	Location	Timing
Heavy Snow 	<p>Difficult travel; 1-2"/hr. snowfall rates with isolated 3"/hr. overnight; Snow will stick to all surfaces immediately. Near zero visibility at times.</p>	<p>Much of southern New England. Lesser intensity across Cape Cod and the Islands.</p>	<p>7-9 PM tonight through Thursday morning</p>
Strong Winds 	<p>Blowing/drifting snow, Minor wind damage and isolated power outages, especially RI & southeast MA.</p>	<p>Strongest gusts 30-40 mph eastern MA coast, except 40-60 mph over Cape/Islands</p>	<p>Tonight and Thursday</p>
Coastal Flood 	<p>Minor nuisance flooding. Inundation of 1-2 feet of low-lying areas & vulnerable coastal roads.</p>	<p>Eastern MA coast including Cape Cod, Martha's Vineyard and Nantucket</p>	<p>High tide early Thursday afternoon</p>
Marine 	<p>Storm force wind gusts up to 50 knots across southern waters with Gale force wind gusts 40-45 knots elsewhere. Seas 12-17 feet.</p>	<p>MA and RI coastal waters</p>	<p>Tonight and Thursday</p>
Flash Freeze 	<p>Slick roads due to rapidly falling temperatures. Any standing water or slush will freeze rapidly.</p>	<p>Mainly South Shore and into RI and southeast MA, possibly as far north as Boston</p>	<p>Thursday mid to late-morning.</p>

Summary of Greatest Impacts



Heavy Snow: All of southern New England, esp along/south of Mass Pike

None

Limited

Elevated

Significant

Extreme



Strong Winds: Coastal MA and RI

None

Limited

Elevated

Significant

Extreme



Coastal Flood: Eastern MA including Cape Cod and the Islands

None

Limited

Elevated

Significant

Extreme



Marine: MA and RI coastal waters

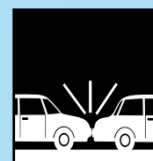
None

Limited

Elevated

Significant

Extreme



Flash Freeze: Southeast MA and South Shore

None

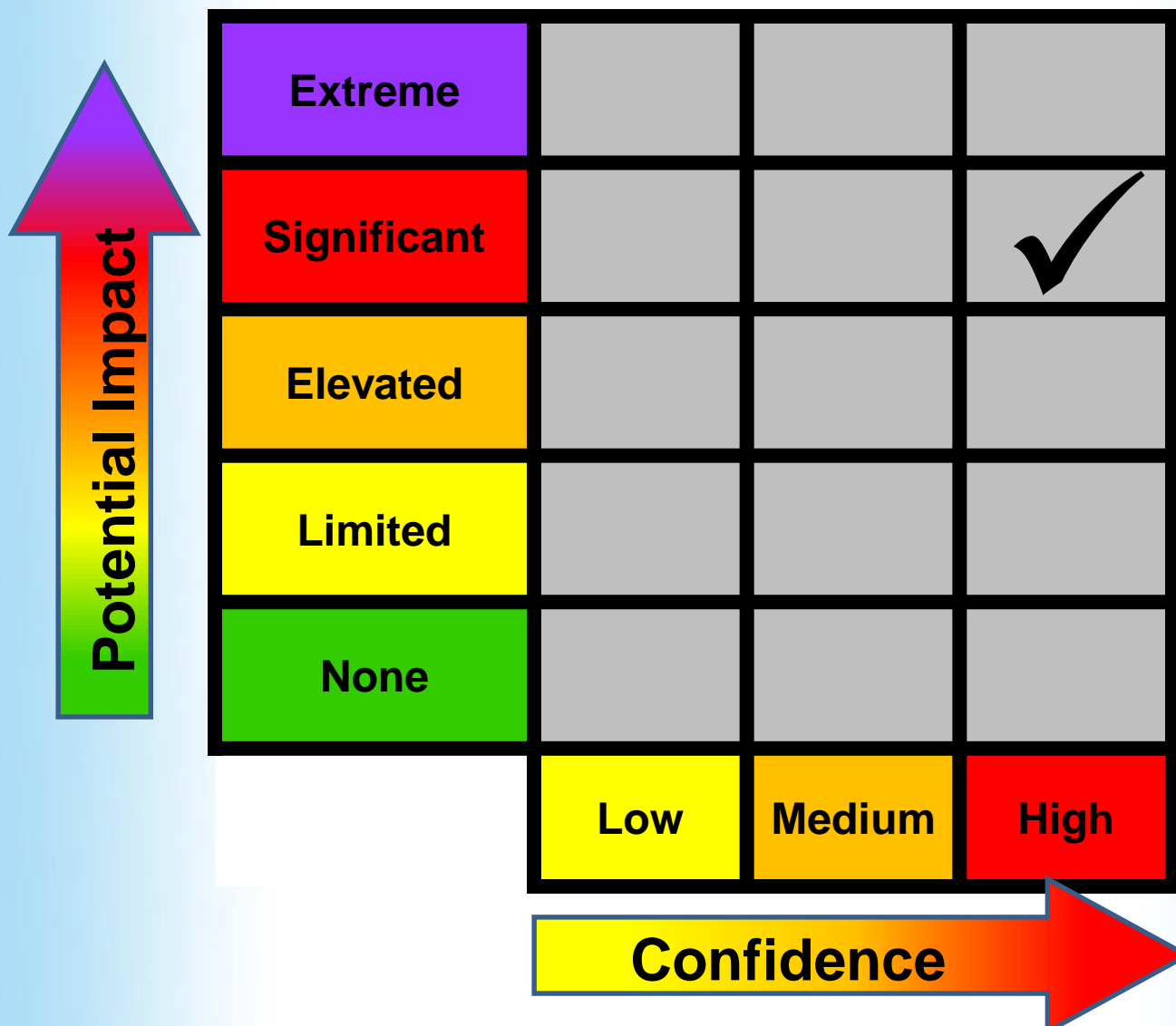
Limited

Elevated

Significant

Extreme

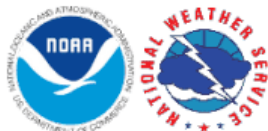
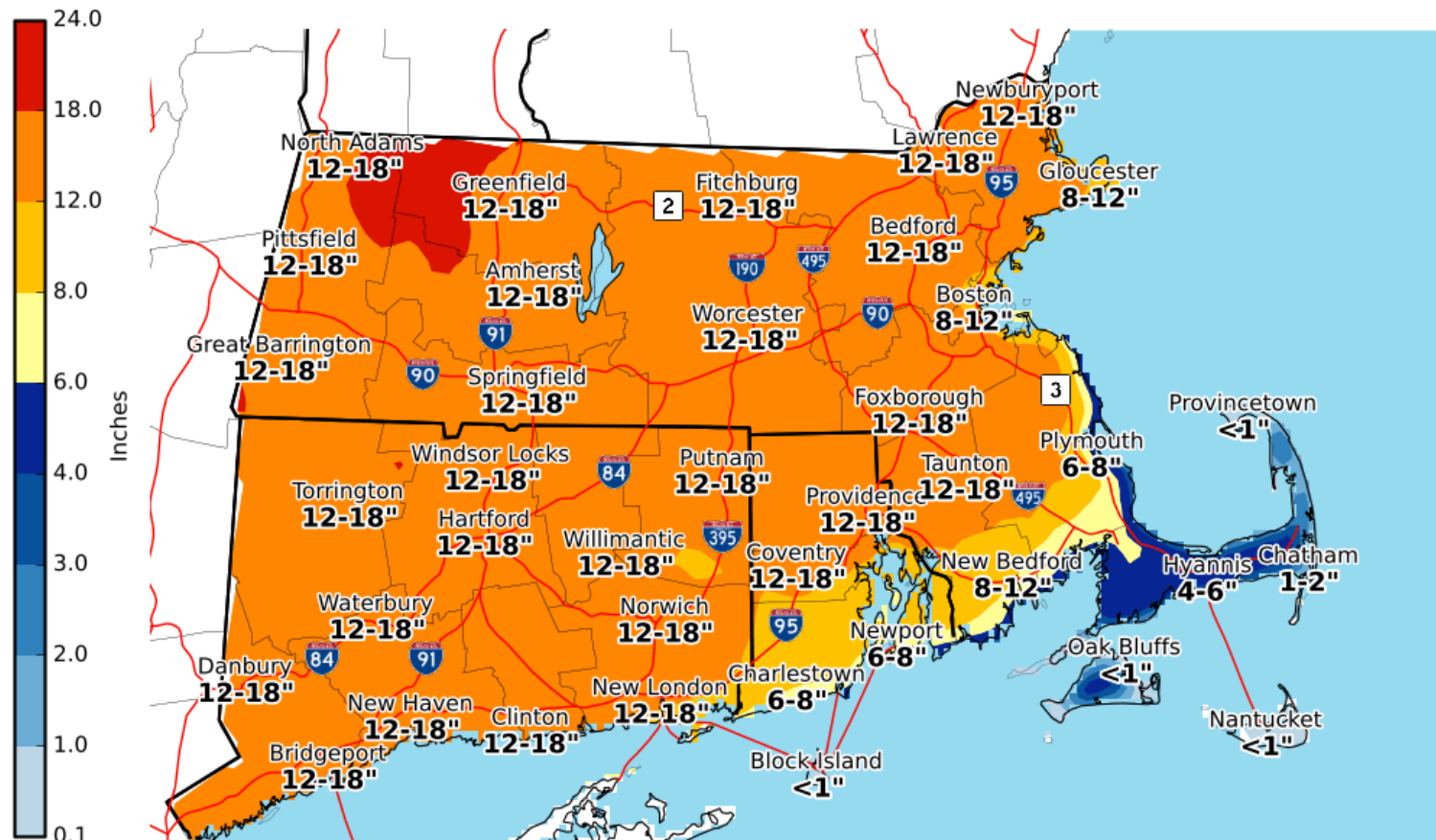
Winter Storm Threat and Confidence



Forecast Storm Total Snowfall

Expected Snowfall - Official NWS Forecast

Valid: Wednesday Night and Thursday



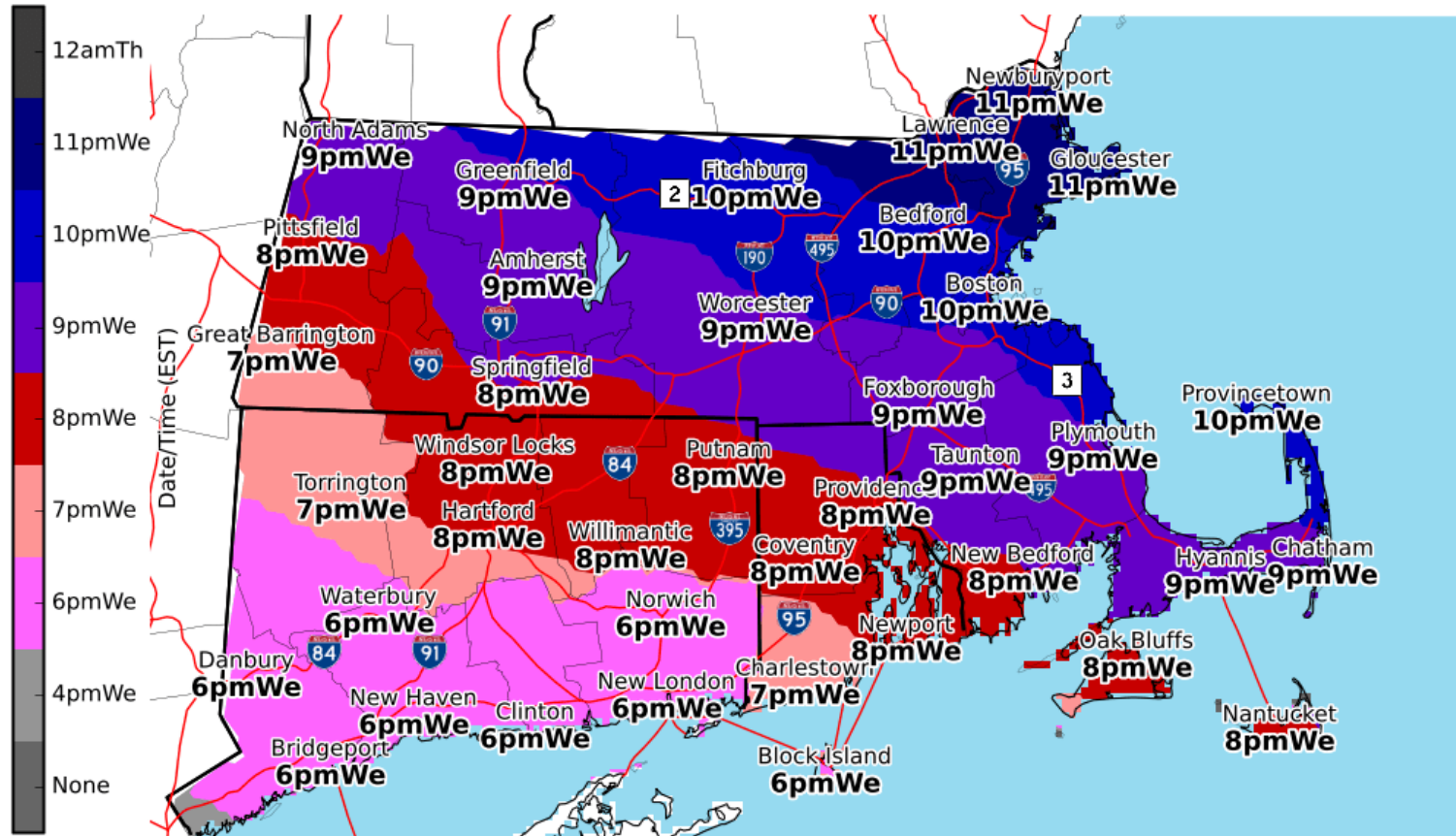
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Onset of Winter Weather Threats

Precipitation Onset Time

Valid: Wednesday Night



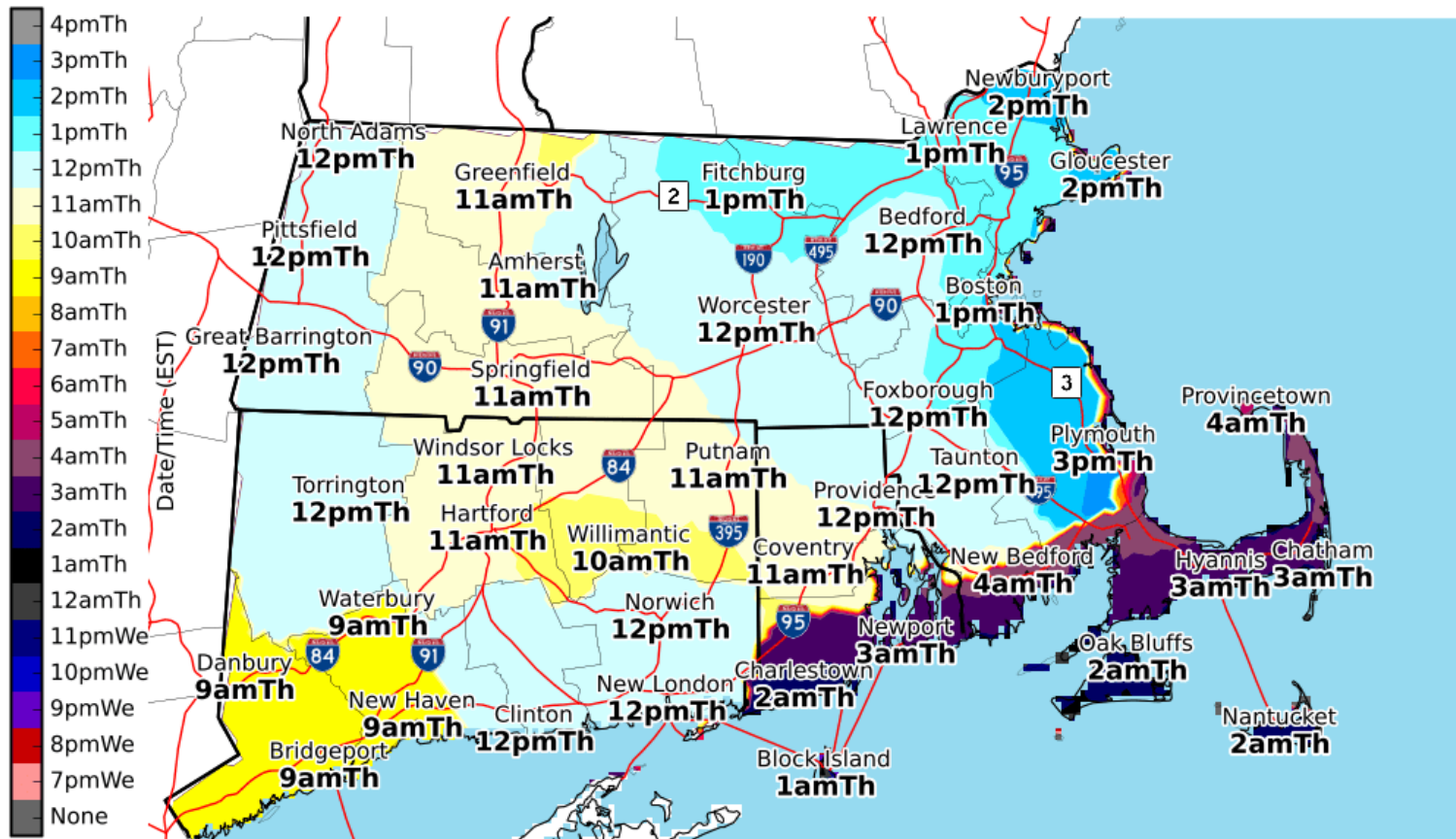
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End Time of Winter Weather Threats

Precipitation Ending Time

Valid: Thursday



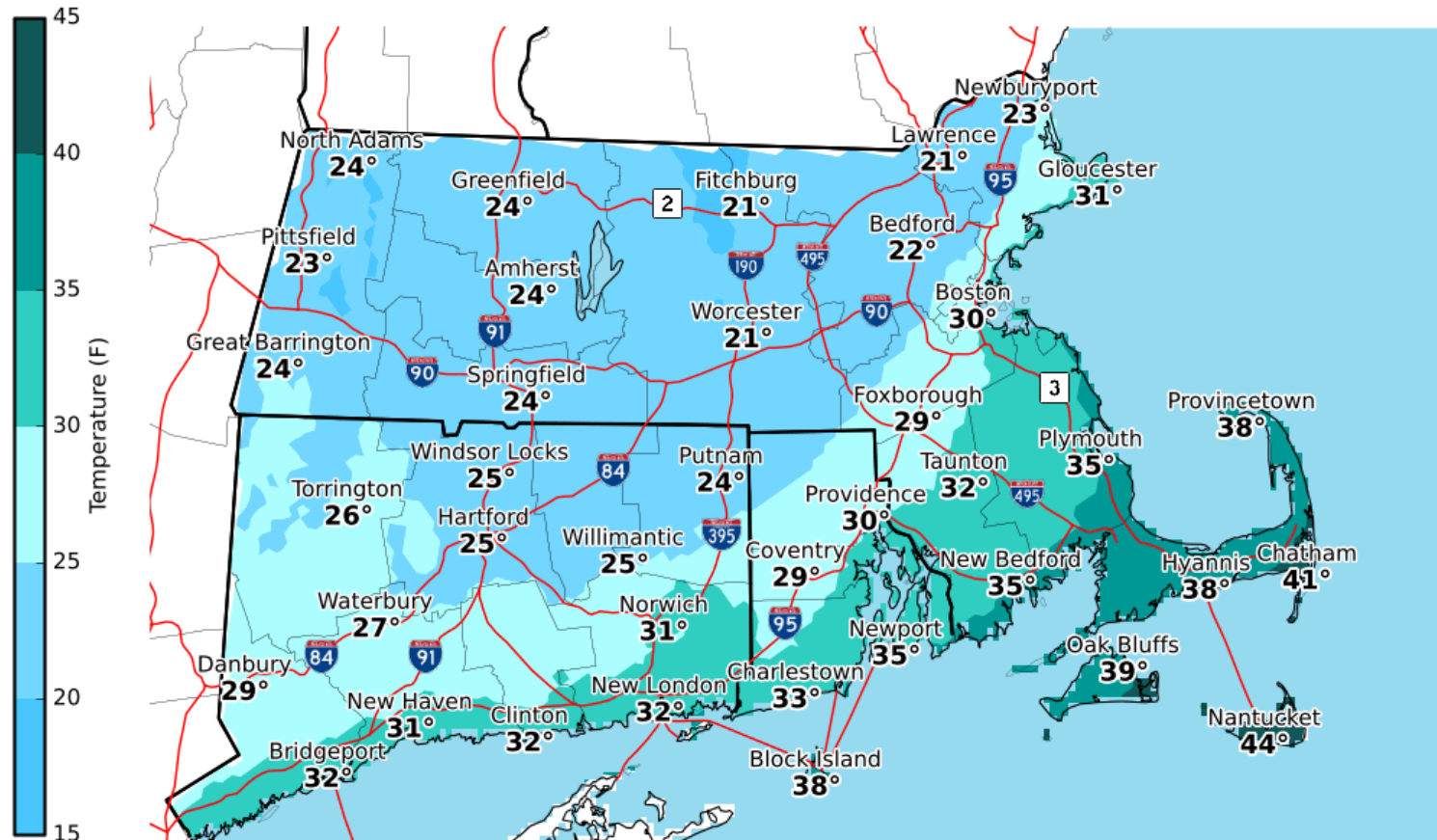
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Thursday High Temperatures

Afternoon Highs

Valid: Thursday

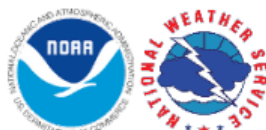
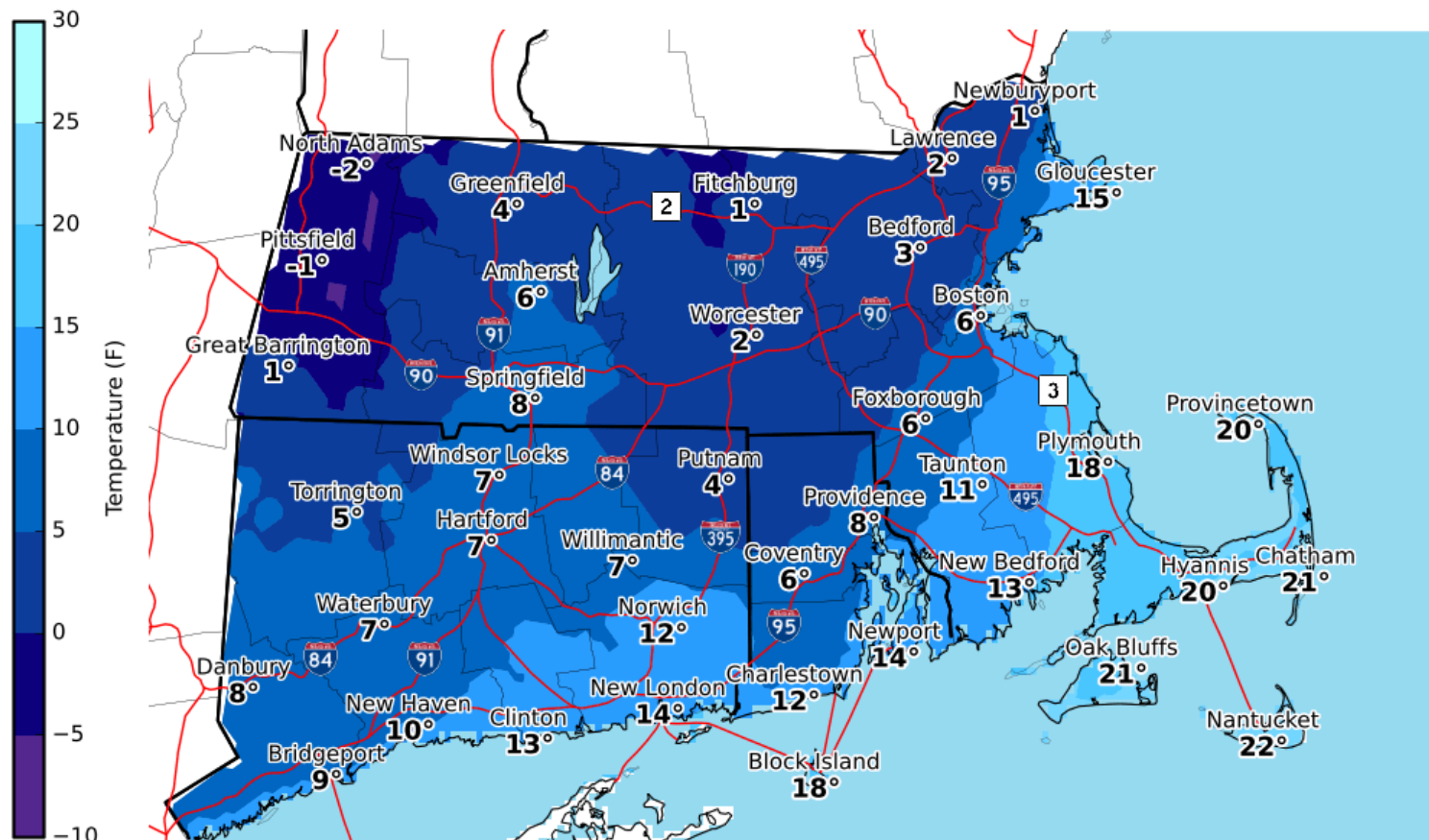


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Thursday Minimum Wind Chills

Min Apparent Temperature Valid: Wednesday Night and Thursday

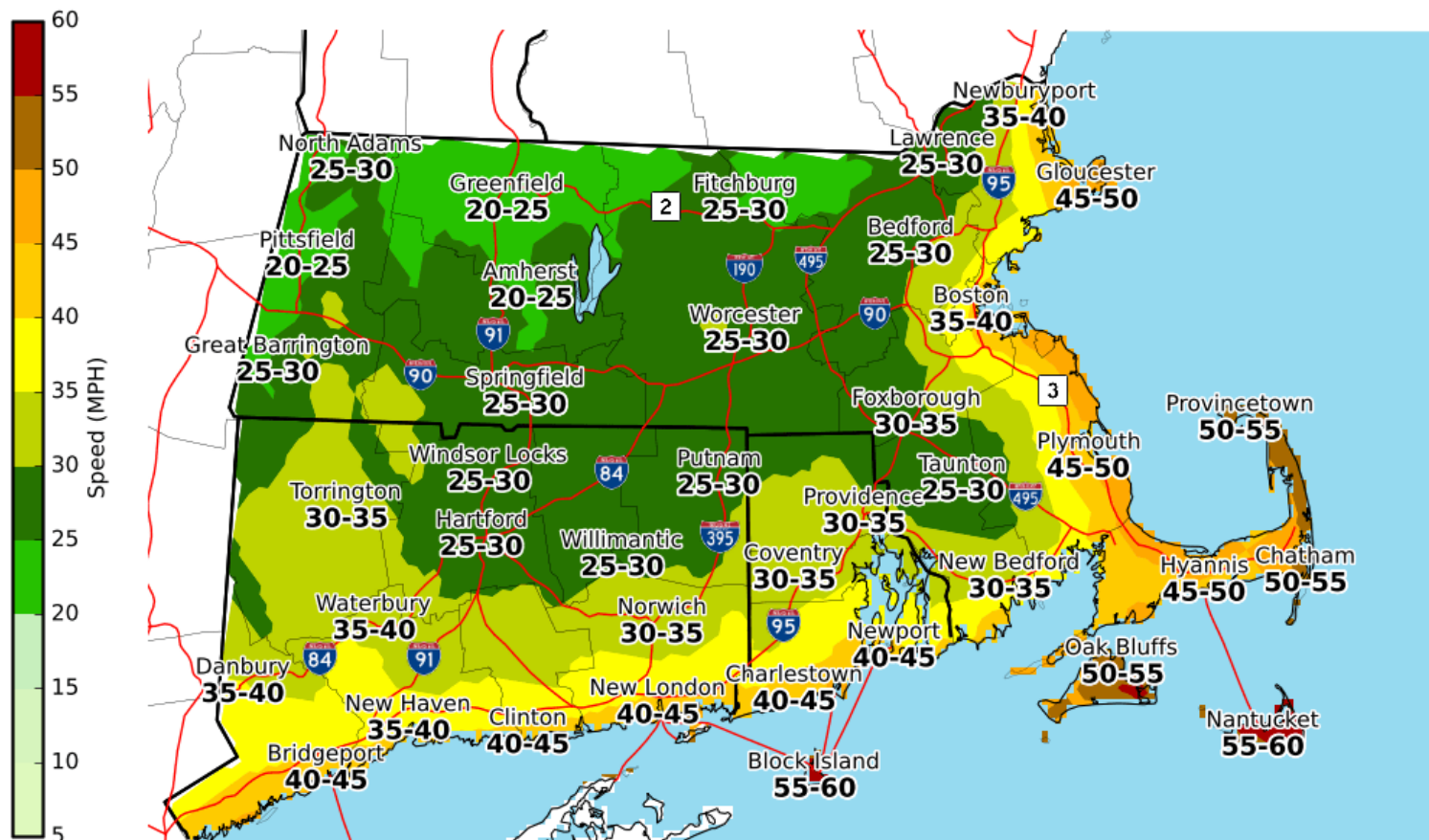


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Forecast Maximum Wind Gusts: Wednesday Night and Thursday

Max Wind Gusts (MPH) Valid: Wednesday Night and Thursday



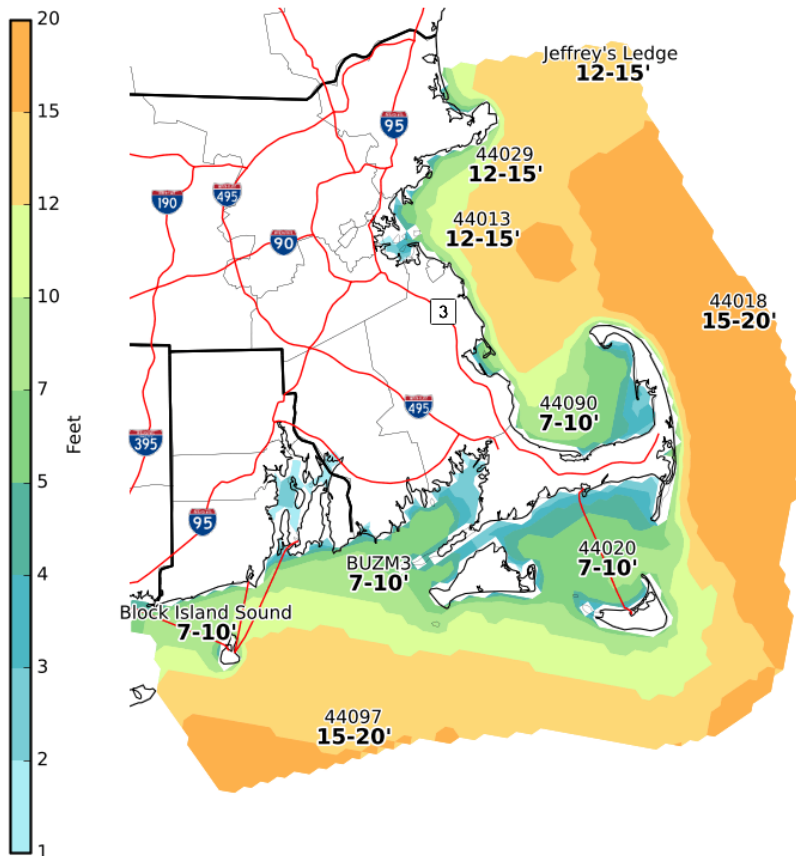
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Forecast Maximum Wave Heights and Wind Gusts (knots): Wed Night/Thu

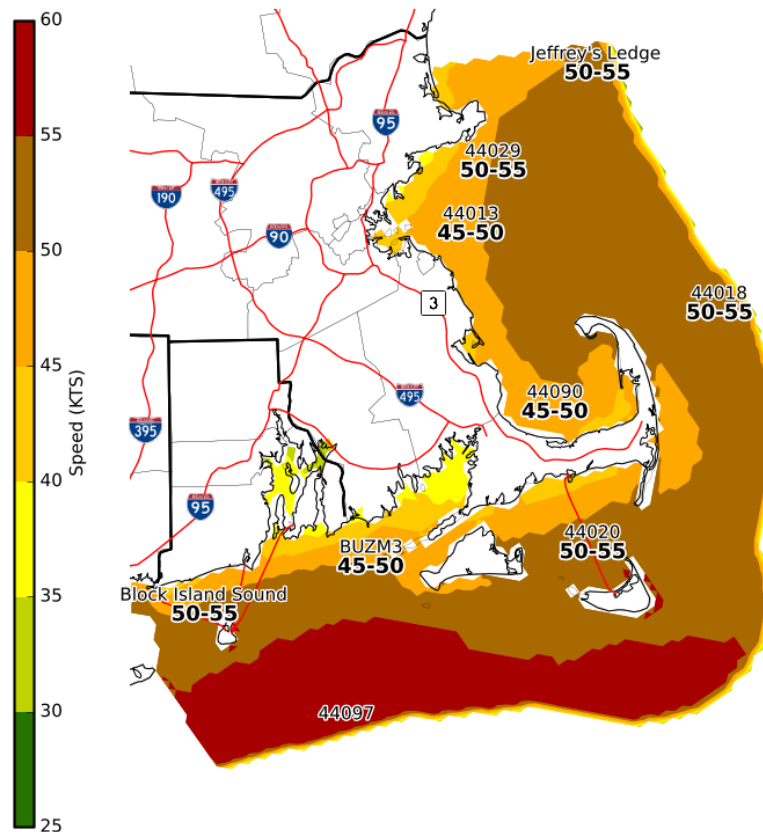
Maximum Wave Height

Valid: Wednesday Night and Thursday

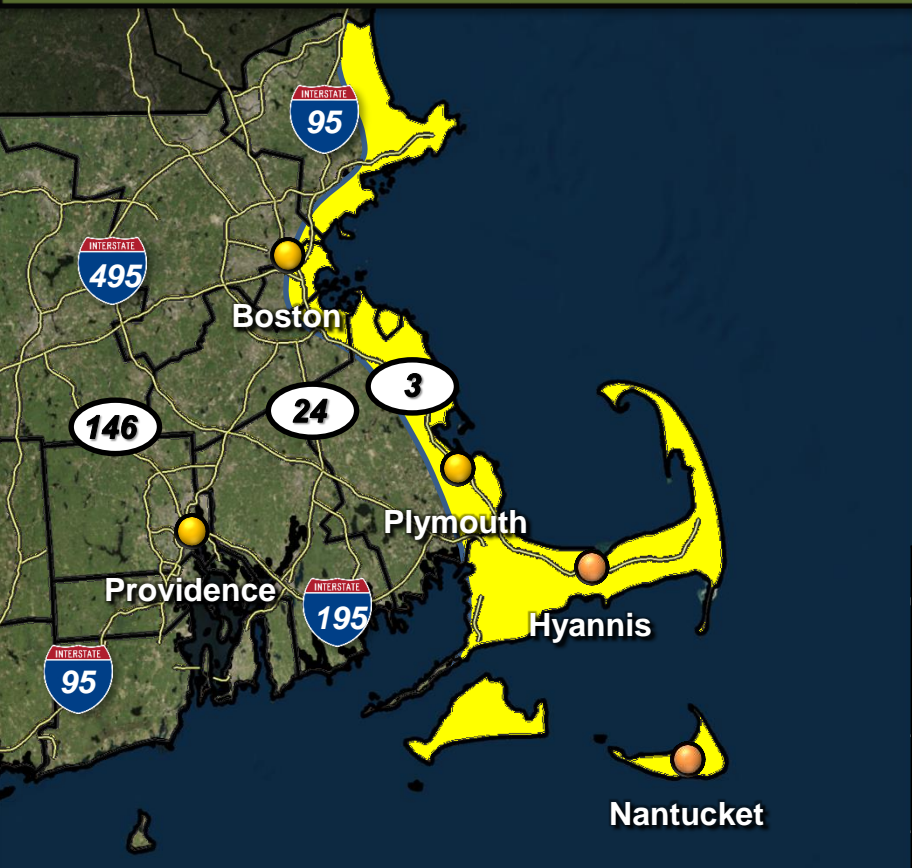


Max Wind Gusts (KTS)

Valid: Wednesday Night and Thursday



Coastal Flooding – Coastal Flood Advisory Early Thursday Afternoon



Most Likely: Minor Coastal Flooding

- 1 to 2 feet of inundation, especially for low-lying areas and vulnerable shore roads.
- Minor beach erosion, especially more vulnerable spots, like Plum Island, MA.

Very Worst Case (unlikely): Low-end Moderate Coastal Flooding

- Would be more widespread flooding with some road closures and local inundation of 2 to 3 feet

Timing: High tide early Thursday afternoon.

None
Minor
Moderate
Major
Extreme

	Storm Surge Threat	Potential Impacts from Storm Surge
Little to None	0 to 1 feet above ground	No immediate preparations needed. Little to no potential storm surge flooding impacts
Elevated	1 to 3 feet above ground	Prepare for minor flooding impacts
Moderate	3 to 6 feet above ground	Prepare for widespread flooding with more significant impacts
High	6 to 9 feet above ground	Prepare for major flooding. Some travel routes may be closed.
Extreme	> 9 feet above ground	Prepare for devastating to catastrophic flooding.

Threat Event Summary

- ✓ **Confidence:** Moderate to high on accumulations and expected impacts.
- ✓ **What:**



Heavy snow and near-zero visibility, resulting in treacherous travel.



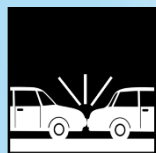
Minor coastal flooding.



Strong winds producing blowing/drifting snow and minor damage.



Hazardous marine conditions due to storm force winds and rough seas.



Flash freeze for Southeast MA and RI Thurs AM.

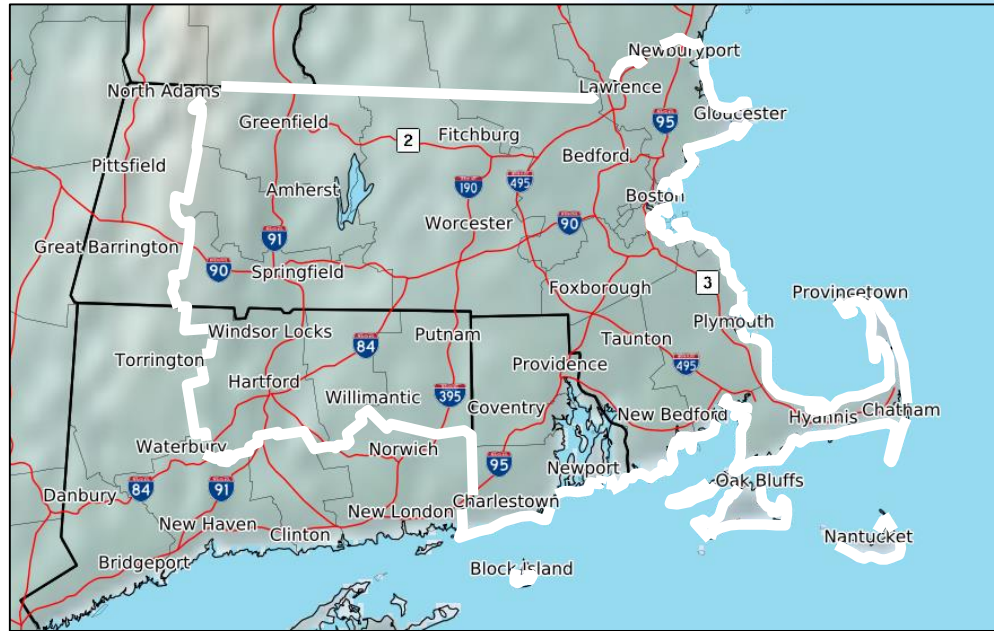
- ✓ **Where:** All of Southern New England
- ✓ **When:** Tonight into Thursday

Contact and Next Briefing Information

Next Briefing

When: By 6 am Thu., December 17

Method: via email



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