

Winter Storm Tonight Night and Thursday

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






What Has Changed?

- ✓ Winter Storm Watch converted to Winter Storm Warnings except Advisory for Barnstable and Dukes Counties.
- ✓ Increased snow amounts across interior New England.
- ✓ Increased risk for flash freeze Thurs AM for Southeast MA.

Winter Weather Related Hazards



Main Points

Hazard		Impacts	Location	Timing
Heavy Snow		Difficult travel; 1-2"/hr. snowfall rates; Low visibility	Much of southern New England. Lesser intensity across Cape Cod and the Islands.	7-9 PM tonight through Thursday morning
Strong Winds		Blowing/drifted snow, Minor wind damage and isolated power outages	Strongest gusts 30-40 mph eastern MA coast, except 40-55 mph over Cape/Islands	Tonight and Thursday
Coastal Flood		Minor nuisance flooding. Inundation of 1-2 feet of low-lying areas & vulnerable coastal roads.	Eastern MA coast including Cape Cod, Martha's Vineyard and Nantucket	High tide early Thursday afternoon
Marine		Gale force wind gusts 40-45 knots and seas 12-17 feet offshore	MA and RI coastal waters	Tonight and Thursday
Flash Freeze		Slick roads due to rapidly falling temperatures.	Mainly South Shore and into southeast MA.	Thursday mid to late-morning.

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

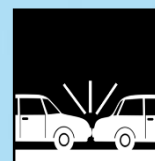
None

Limited

Elevated

Significant

Extreme



Flash Freeze: Southeast MA and South Shore

None

Limited

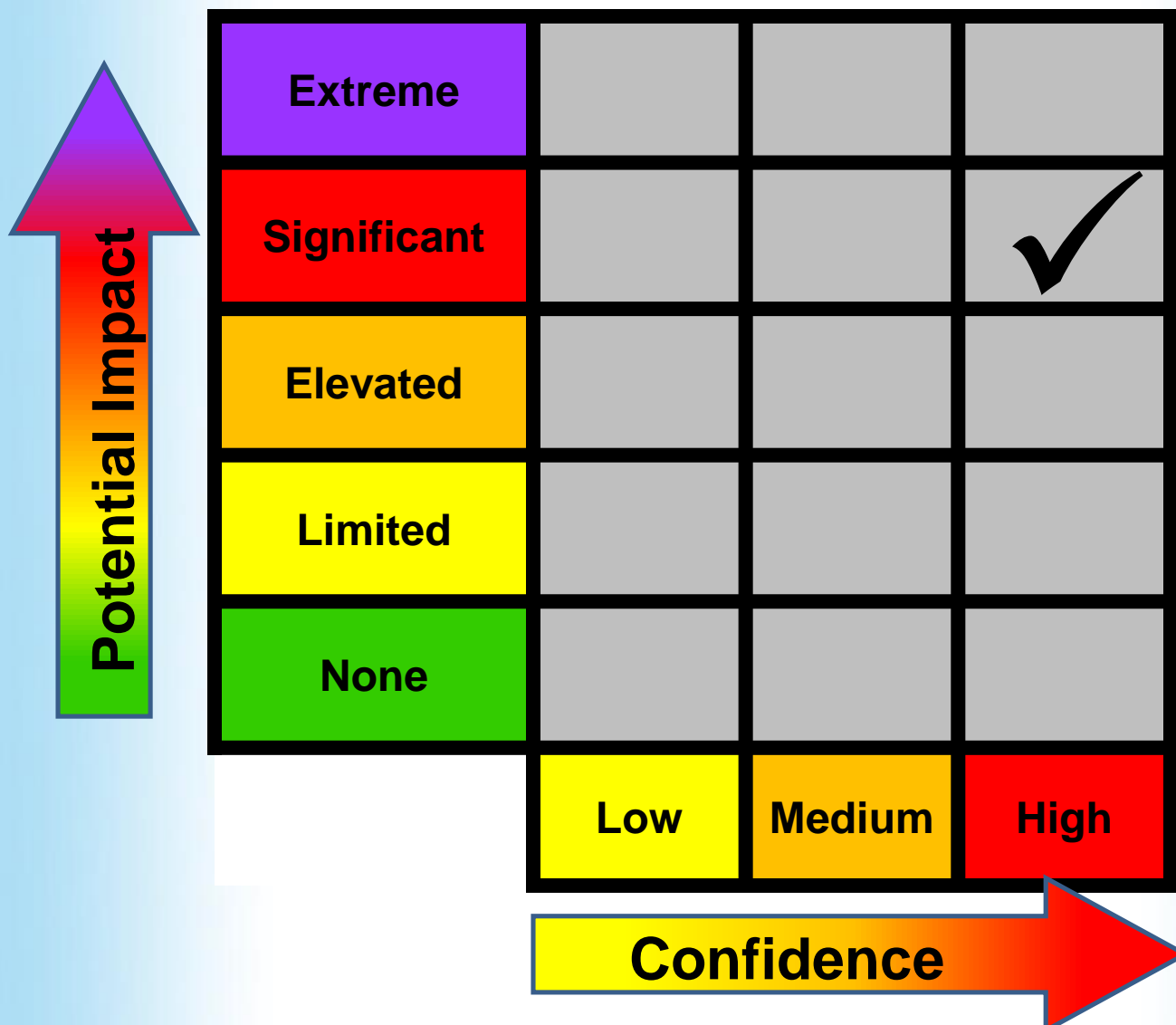
Elevated

Significant

Extreme



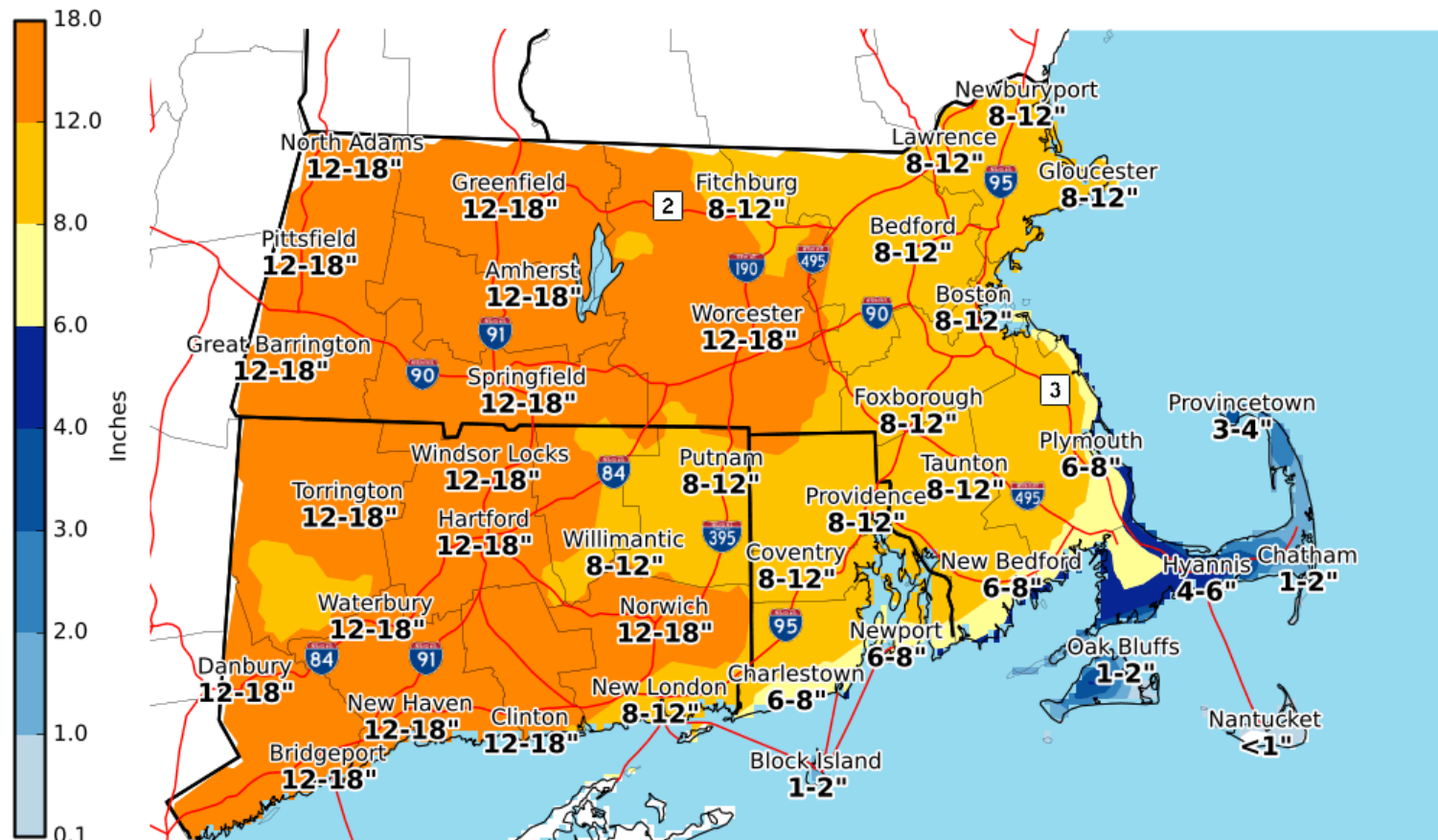
Winter Storm Threat and Confidence



Forecast Storm Total Snowfall

Expected Snowfall - Official NWS Forecast

Valid: Wednesday Night and Thursday



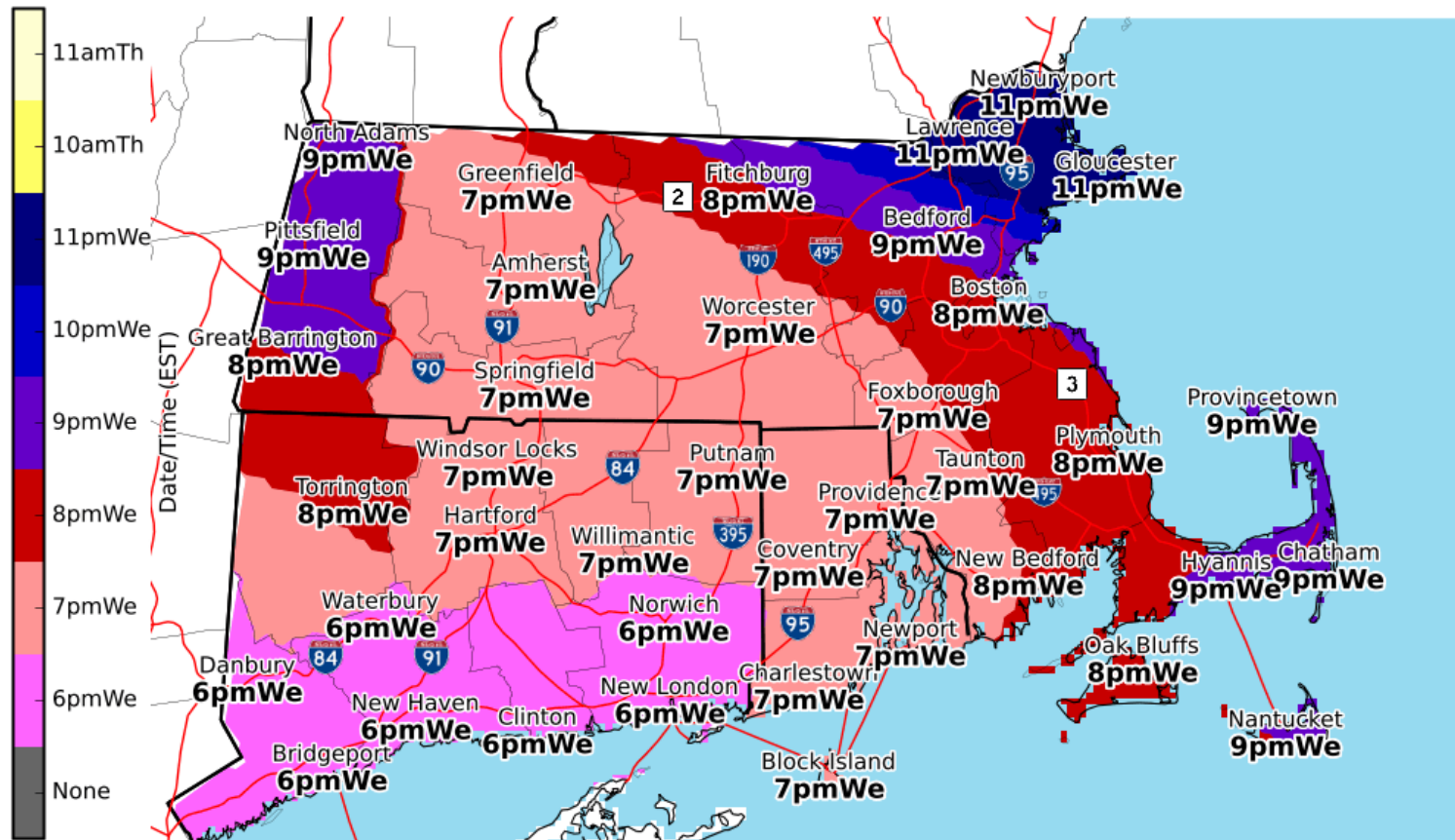
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Onset of Winter Weather Threats

Precipitation Onset Time

Valid: Wednesday Night

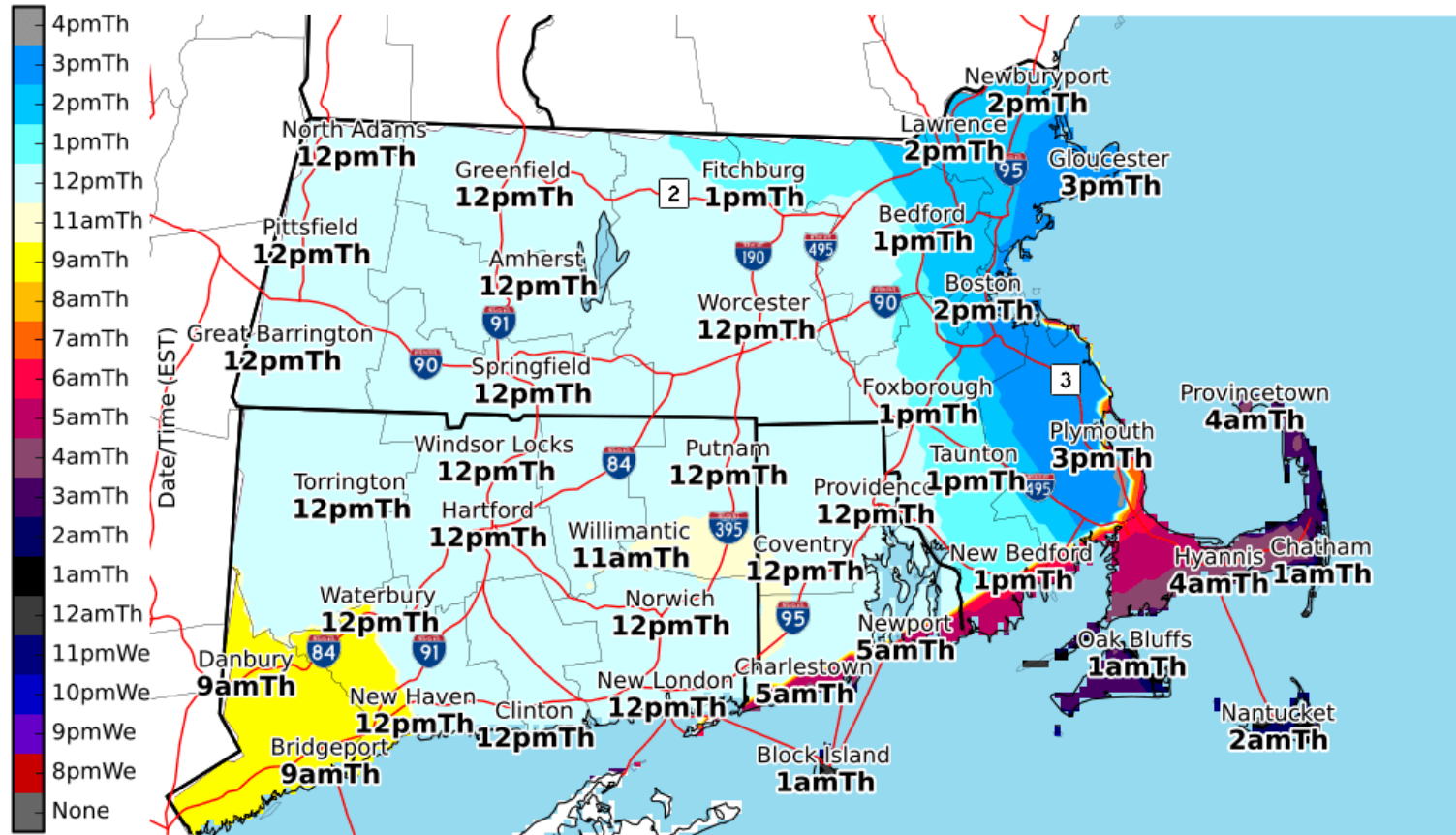


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End Time of Winter Weather Threats

Precipitation Ending Time Valid: Thursday Afternoon and Thursday Night

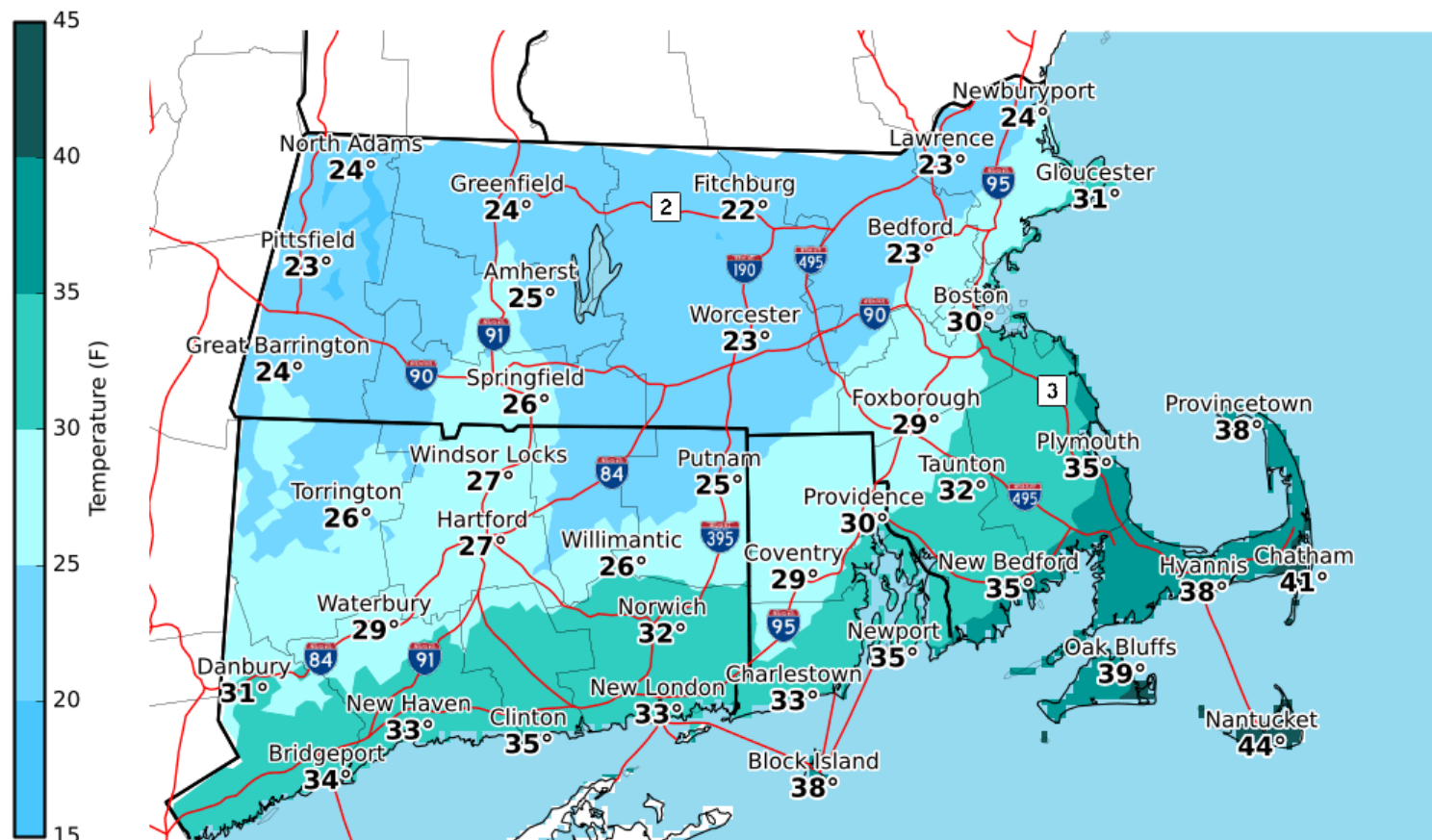


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Thursday High Temperatures

Afternoon Highs Valid: Thursday

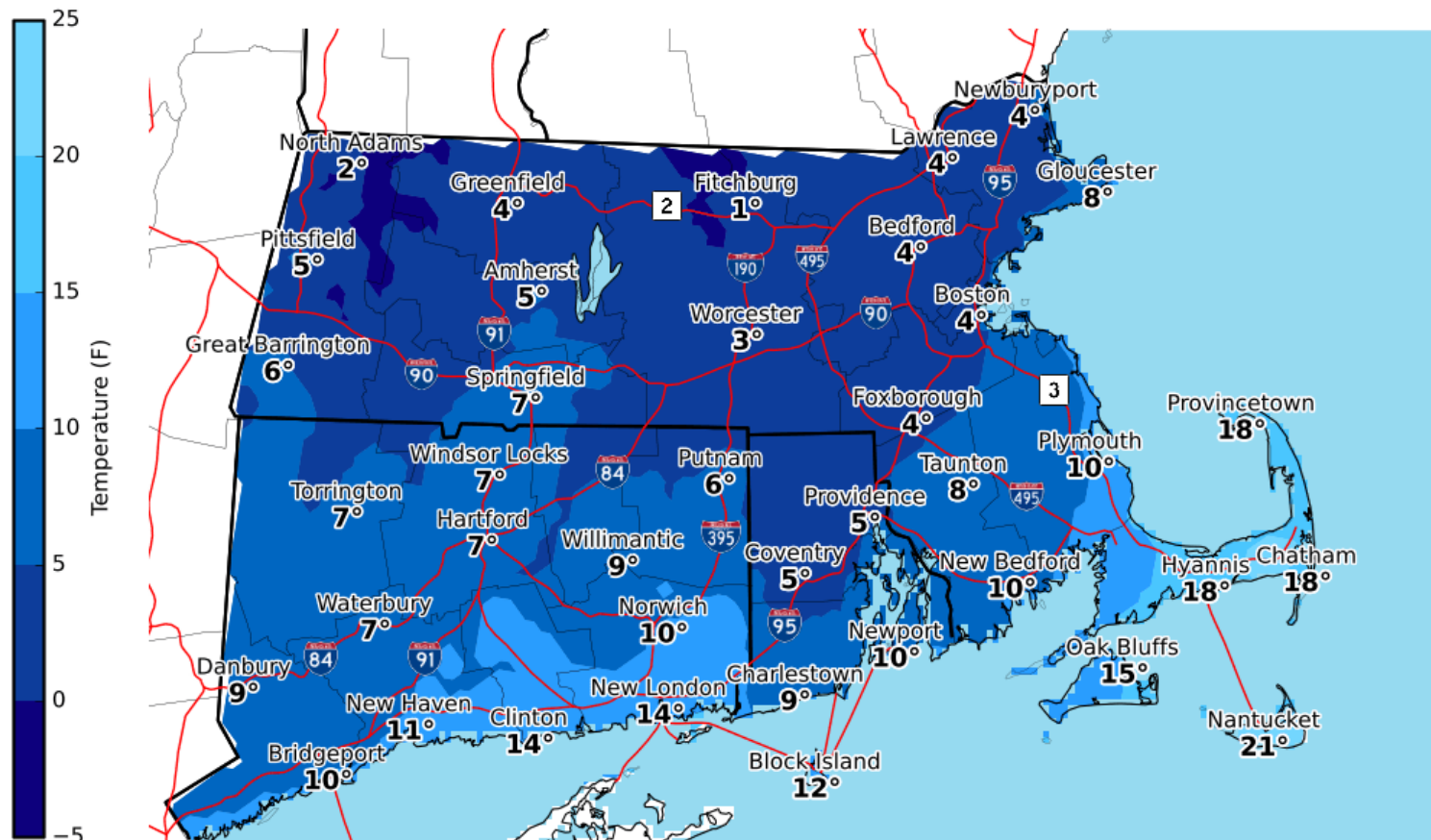


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Thursday Minimum Wind Chills

Min Apparent Temperature Valid: Wednesday Night and Thursday

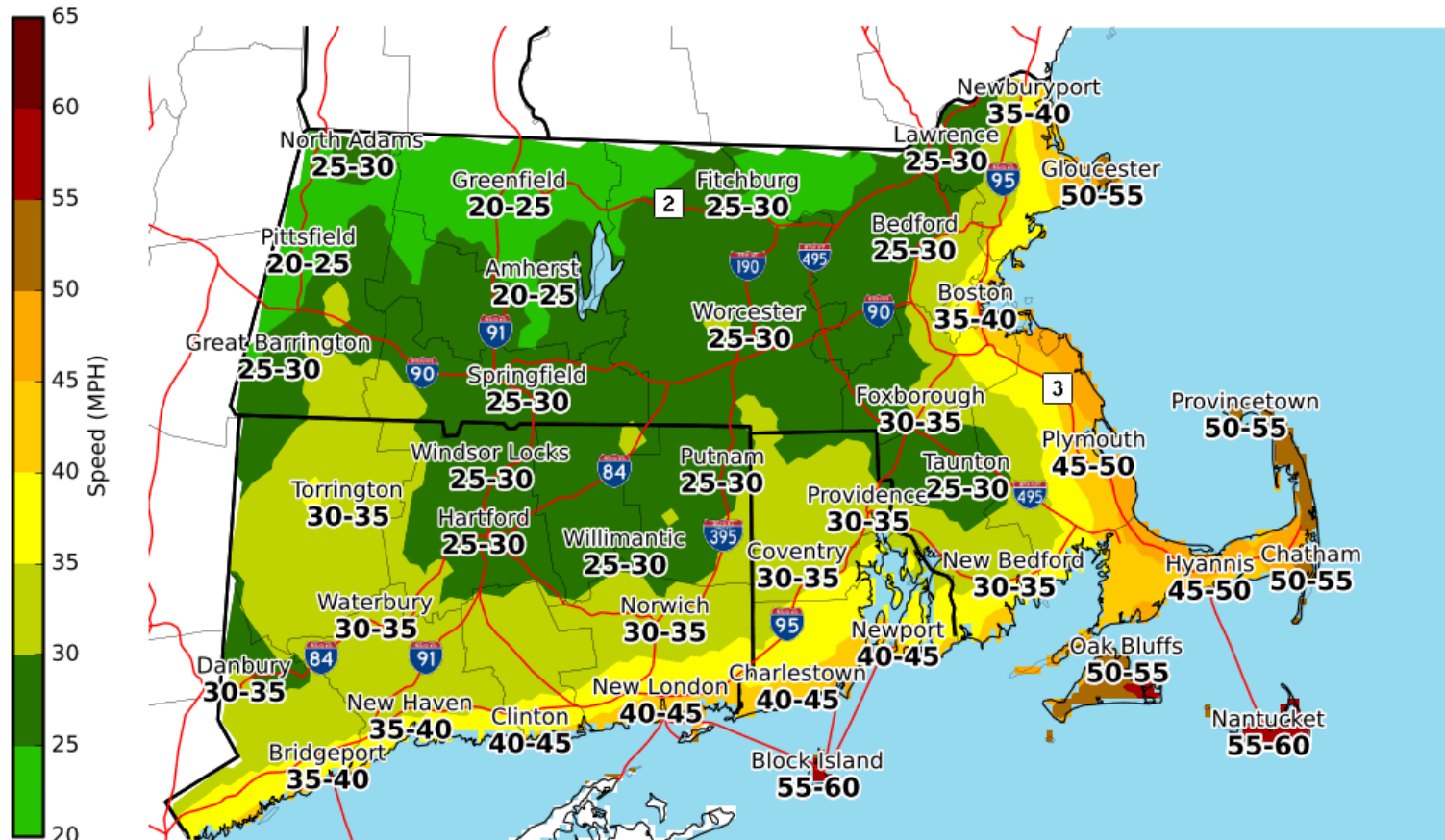


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Forecast Maximum Wind Gusts: Wednesday Night and Thursday

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



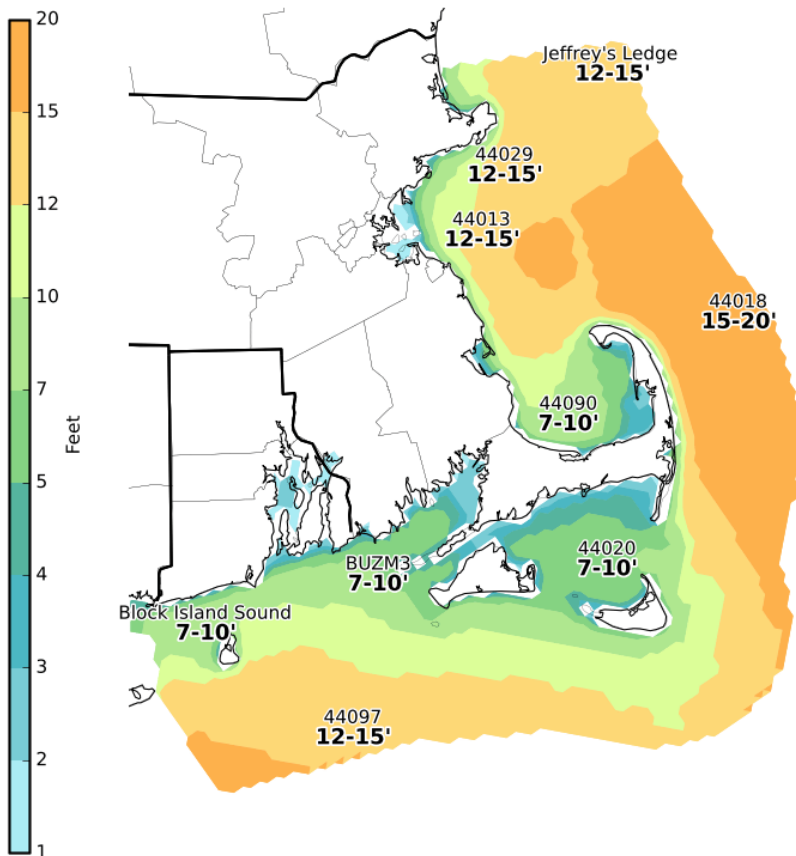
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Forecast Maximum Wave Heights and Wind Gusts (knots): Wed Night/Thu

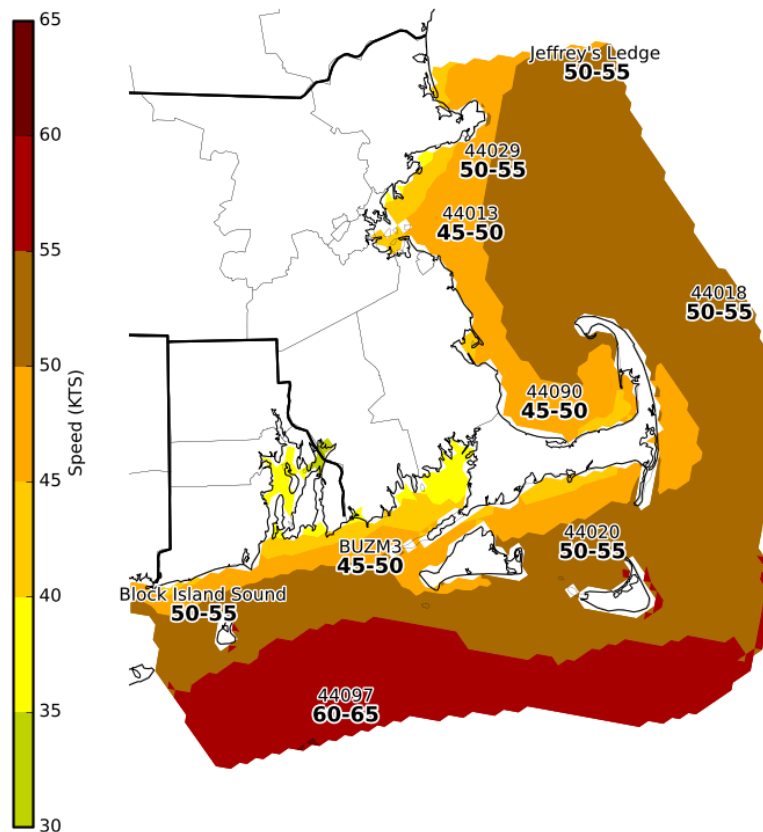
Maximum Wave Height

Valid: Wednesday Night and Thursday

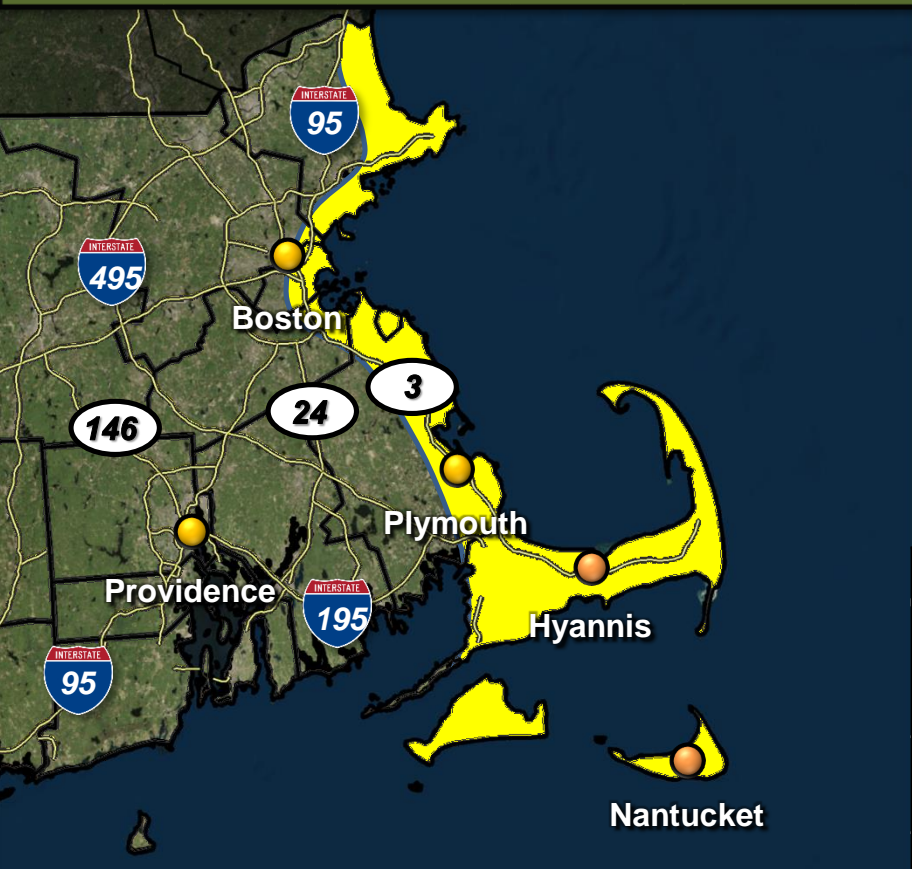


Max Wind Gusts (KTS)

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, resulting in difficult travel.



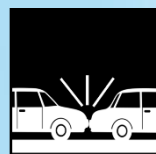
Minor coastal flooding.



Strong winds producing blowing/drifting snow and minor damage.



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



Flash freeze for Southeast MA
Thurs AM.

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

Contact and Next Briefing Information

Next Briefing

When: By 6 pm Wed., December 16

Method: via email



www.weather.gov/boston



Phone (public):
508-622-3250



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