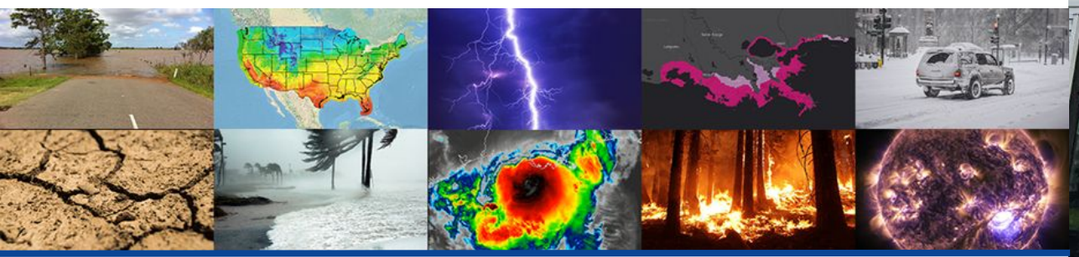
NWS Boston / Norton

Emergency Management Briefing

Impactful Storm Friday into Saturday



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

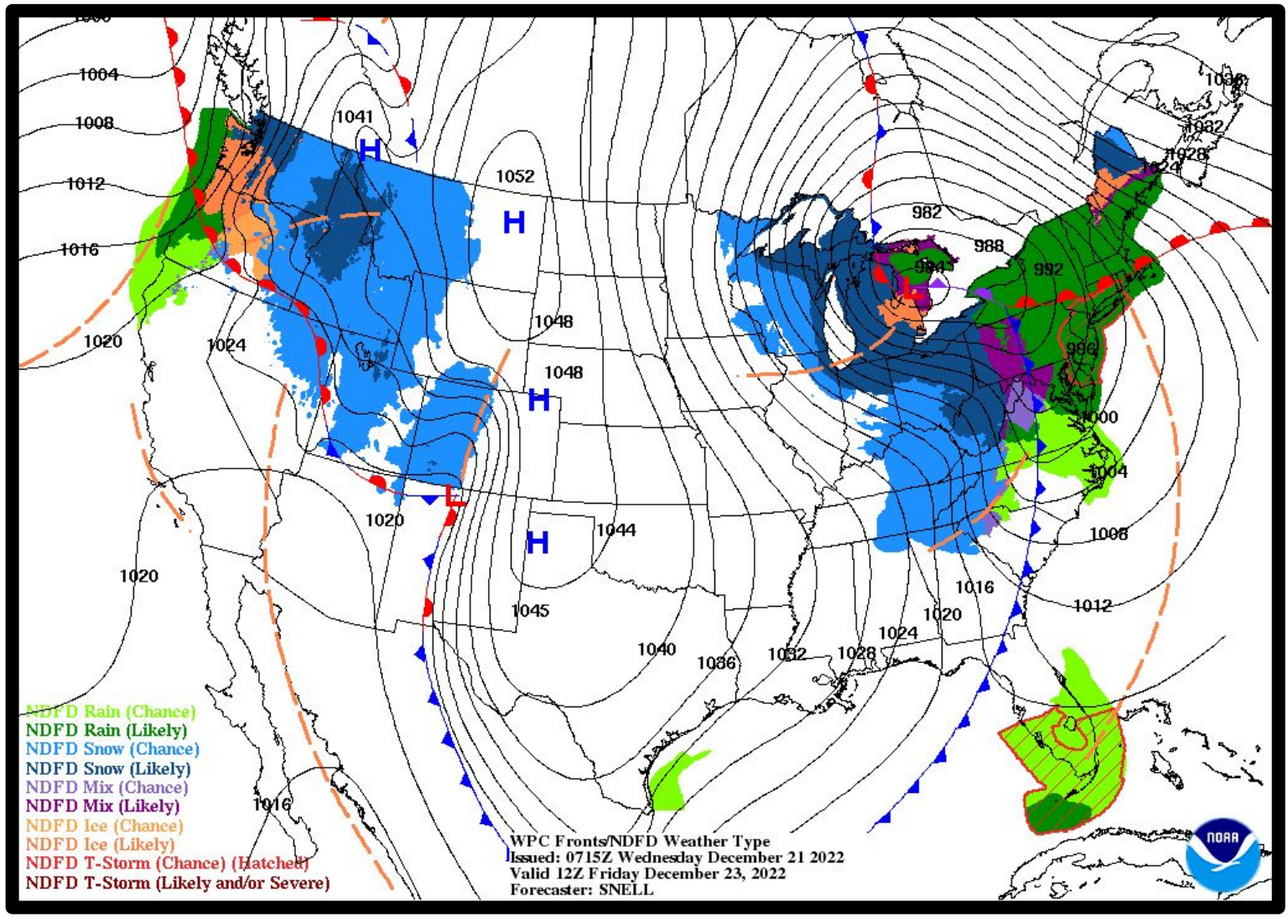
NWS Boston Monday EM Briefing

December 21, 2022
3:50 AM

Key Messages

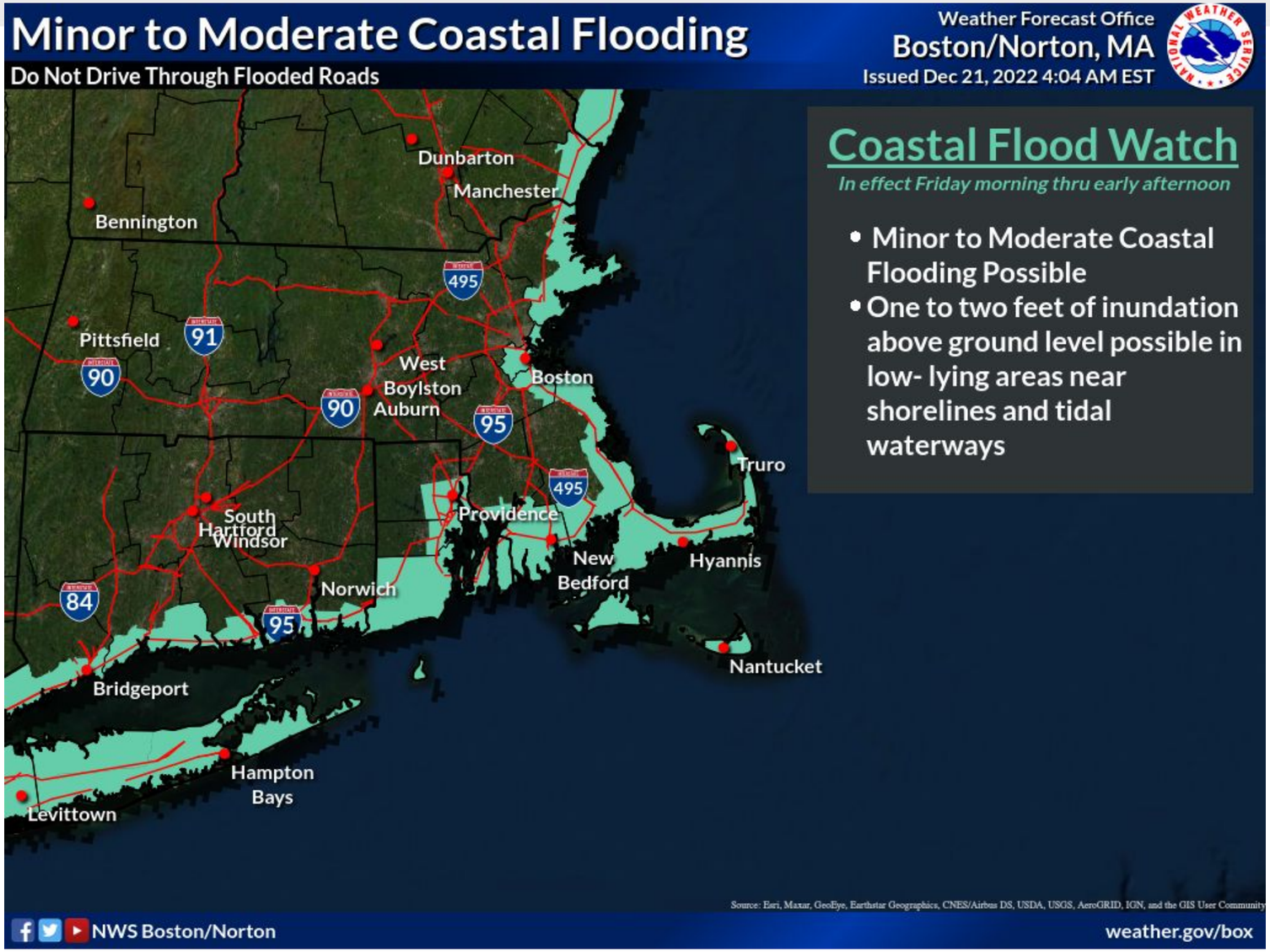
- Powerful Storm late Thursday night into early Saturday
  - Damaging winds up to 65 mph. Power outages possible.
  - Locally heavy rainfall 2+ inches
  - Minor to moderate coastal flooding Friday
  - Minor to moderate river flooding possible
- Christmas Day - quiet, but colder
- Coastal Flood Watch issued for all coasts
- High Wind Watch issued for eastern Massachusetts
- Hazardous marine conditions

7 AM Friday Weather Map



Coastal Flood Watch

December 21, 2022
3:50 AM



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High Wind Watch

December 21, 2022
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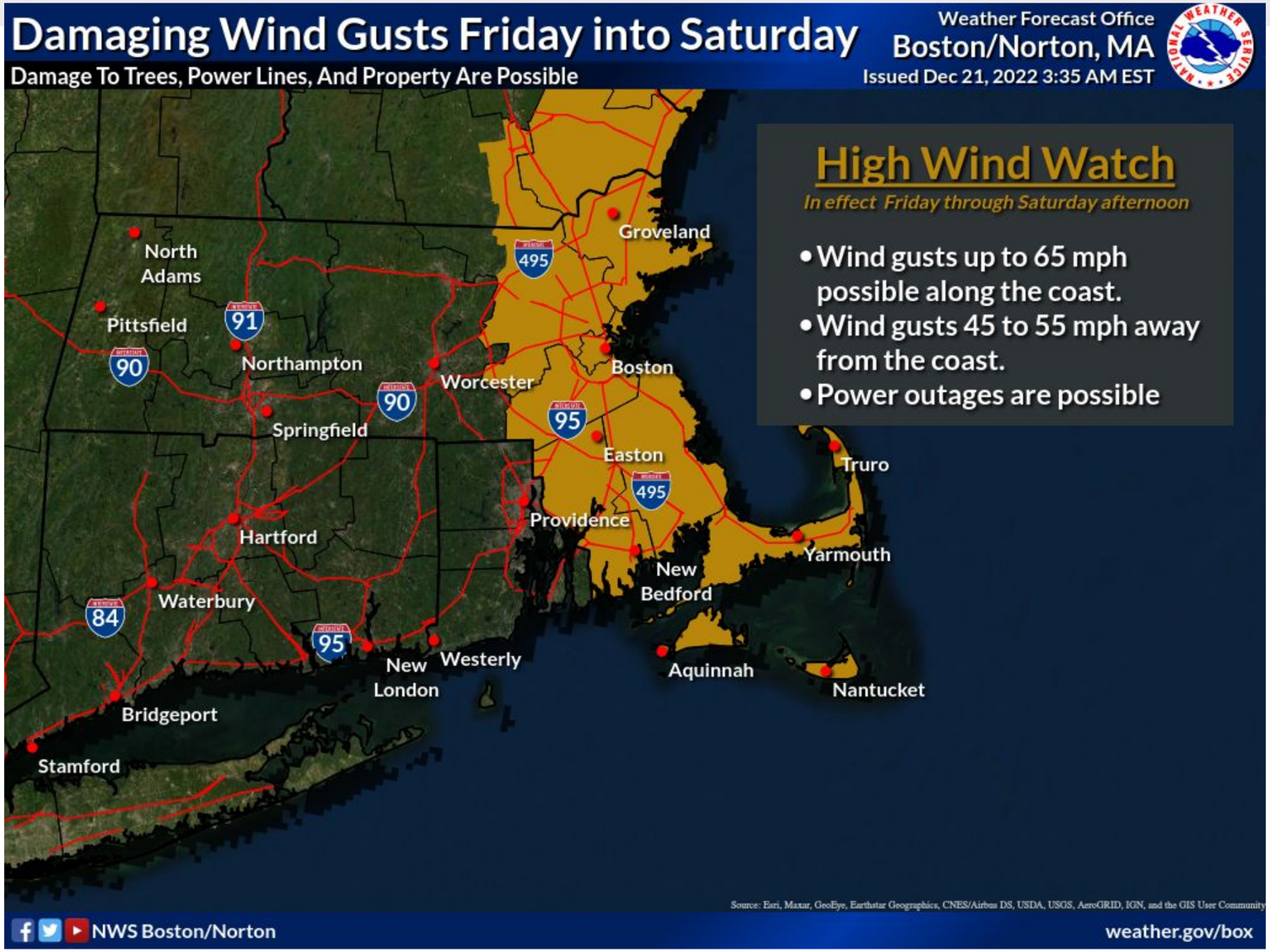
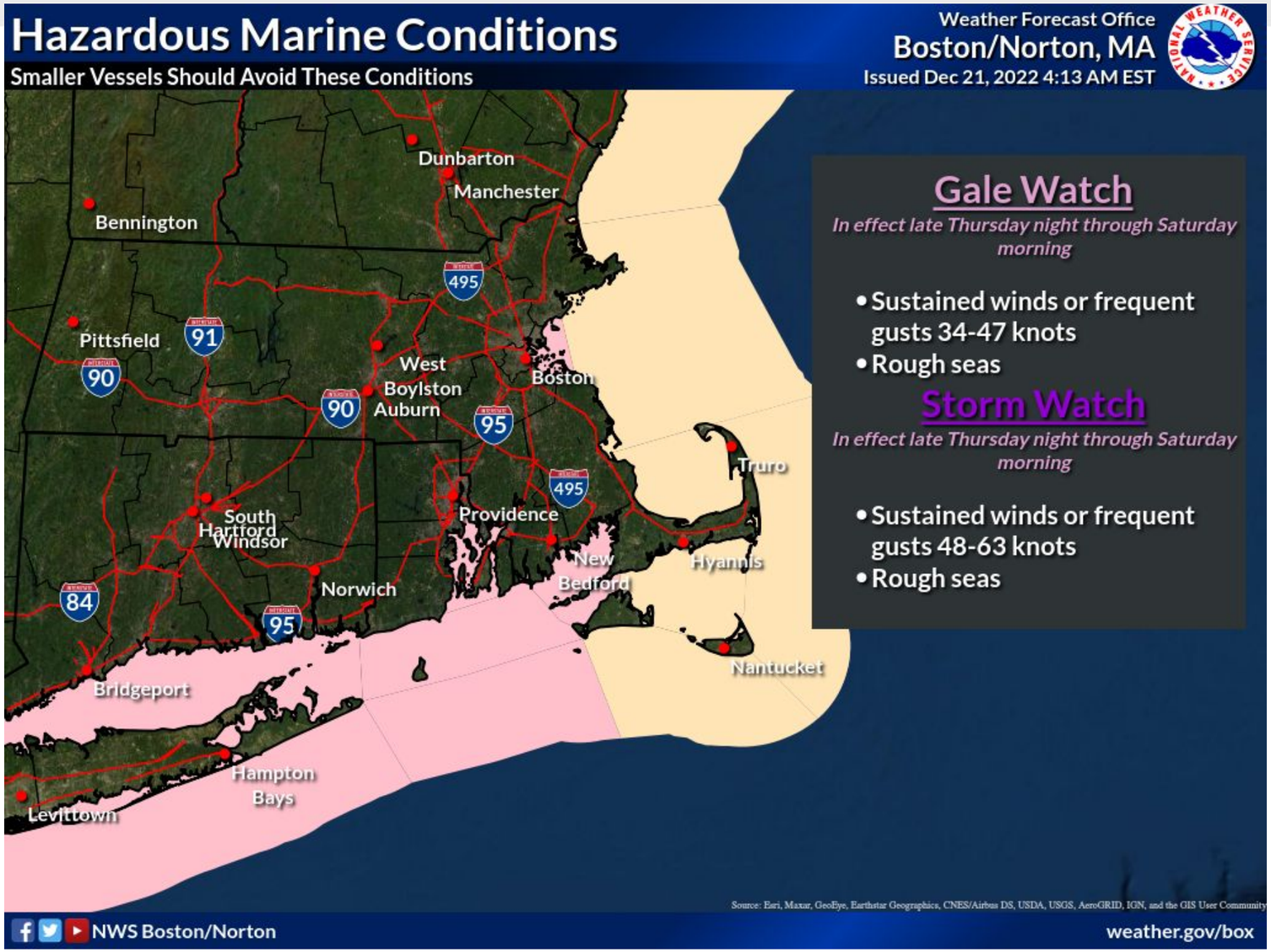


Hazardous Marine Conditions

December 21, 2022
3:50 AM



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Main Points

December 21, 2022
3:50 AM

Hazard	Impacts	Location	Timing
Damaging Wind	Damaging wind gusts up to 60 mph Power outages possible	45 to 55 mph gusts possible across all of southern New England 65 mph gusts more likely along the coastal areas and high elevations	Winds expected to peak Friday afternoon 40 mph gusts may carry into early Saturday, especially over The Cape/Islands
Coastal Flooding	Minor to moderate coastal flooding	South and East Coasts	Friday morning: South and East Coasts Friday evening: South Coast
River Flooding	Heavy rainfall and snowmelt may support minor river flooding	Along the Connecticut River Other small stream flooding possible	Small stream flooding possible Friday Larger rivers cresting Saturday and Sunday
Marine	Gale to Storm Force Winds High Seas	All of southern New England Coastal Waters	Thursday Night through Saturday

Peak Wind Gusts Friday Afternoon

December 21, 2022
3:50 AM

- Winds ramp up to 30 to 40 mph late Thursday into early Friday
- Winds peaking Friday afternoon and evening
- Strong gusts carry into early Saturday morning
- 65 MPH gusts are possible

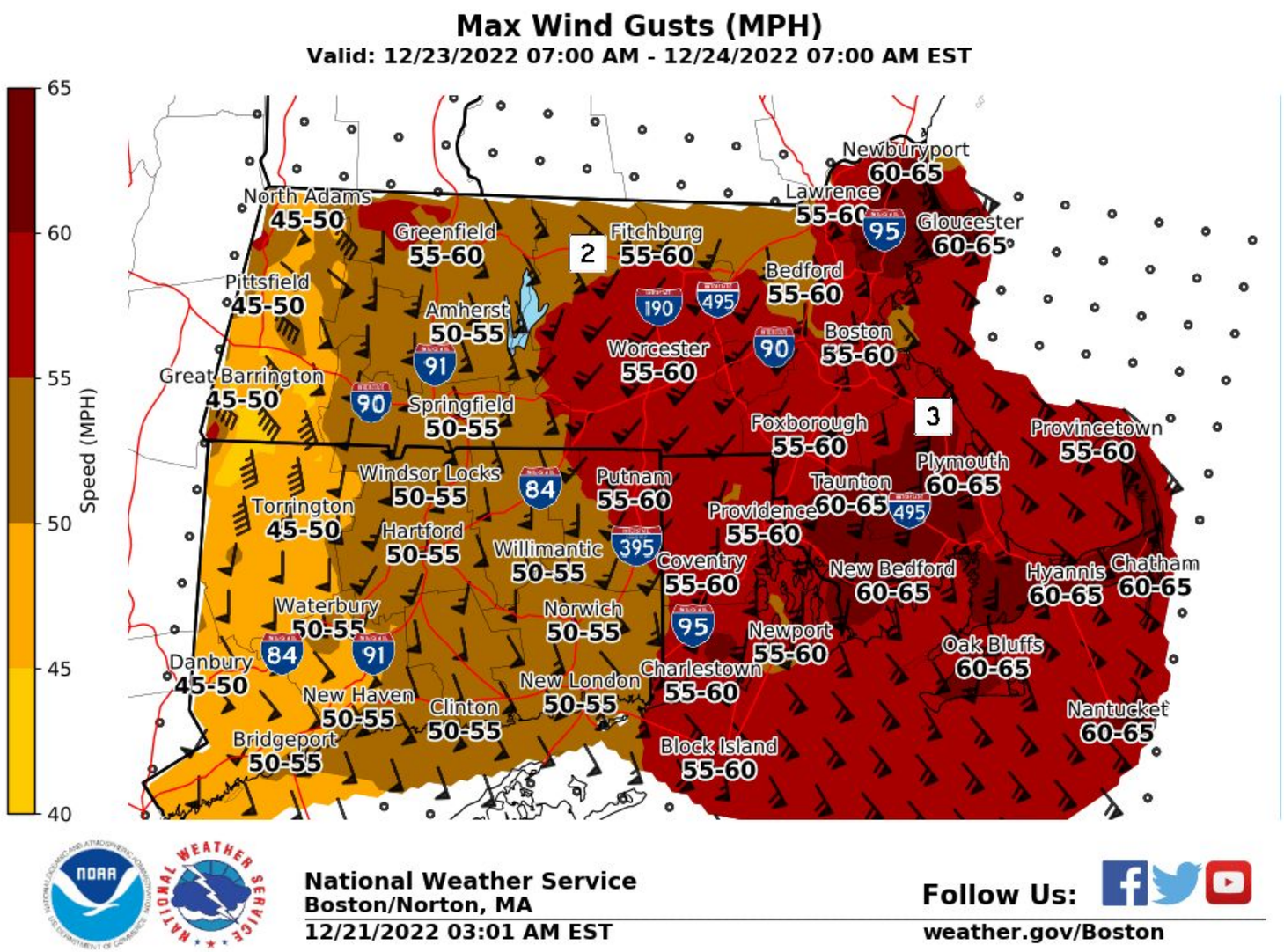
Maximum Wind Gust Forecast

	12/22 Thu			12/23 Fri				12/24 Sat				12/25 Sun				12/26 Mon				12/27 Tue	
	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	Maximum
Boston	9	14	25	47	54	59	53	41	31	28	22	20	20	21	17	15	17	18	15	13	59
Brockton	10	15	25	45	54	60	55	43	32	29	22	20	21	22	17	14	17	18	14	12	60
Cambridge	9	14	25	46	55	59	54	41	30	28	22	20	20	21	17	15	17	18	15	12	59
Hartford	9	16	31	47	49	52	48	32	30	26	18	18	17	17	14	13	13	16	12	8	52
Lowell	7	10	20	43	52	55	53	39	26	25	18	15	17	18	14	13	16	18	12	8	55
New Bedford	15	18	30	47	55	62	56	47	40	36	28	24	23	24	21	17	16	17	15	14	62
Providence	8	16	26	46	54	61	55	41	31	30	21	17	20	21	14	13	15	18	12	9	61
Quincy	9	15	29	45	54	58	52	41	32	29	22	21	21	21	17	16	17	18	15	14	58
Springfield	8	16	29	47	48	52	49	35	30	26	18	18	16	17	16	13	15	18	14	9	52
Worcester	9	13	24	41	48	53	59	39	31	28	20	20	18	21	15	16	17	18	13	12	59

*Table values in mph
**Created: 3 am EST Wed 12/21/2022
***Values are maximums over the period beginning at the time shown.

Peak Wind Gusts Friday Afternoon

December 21, 2022
3:50 AM



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5 Day Precipitation Forecast

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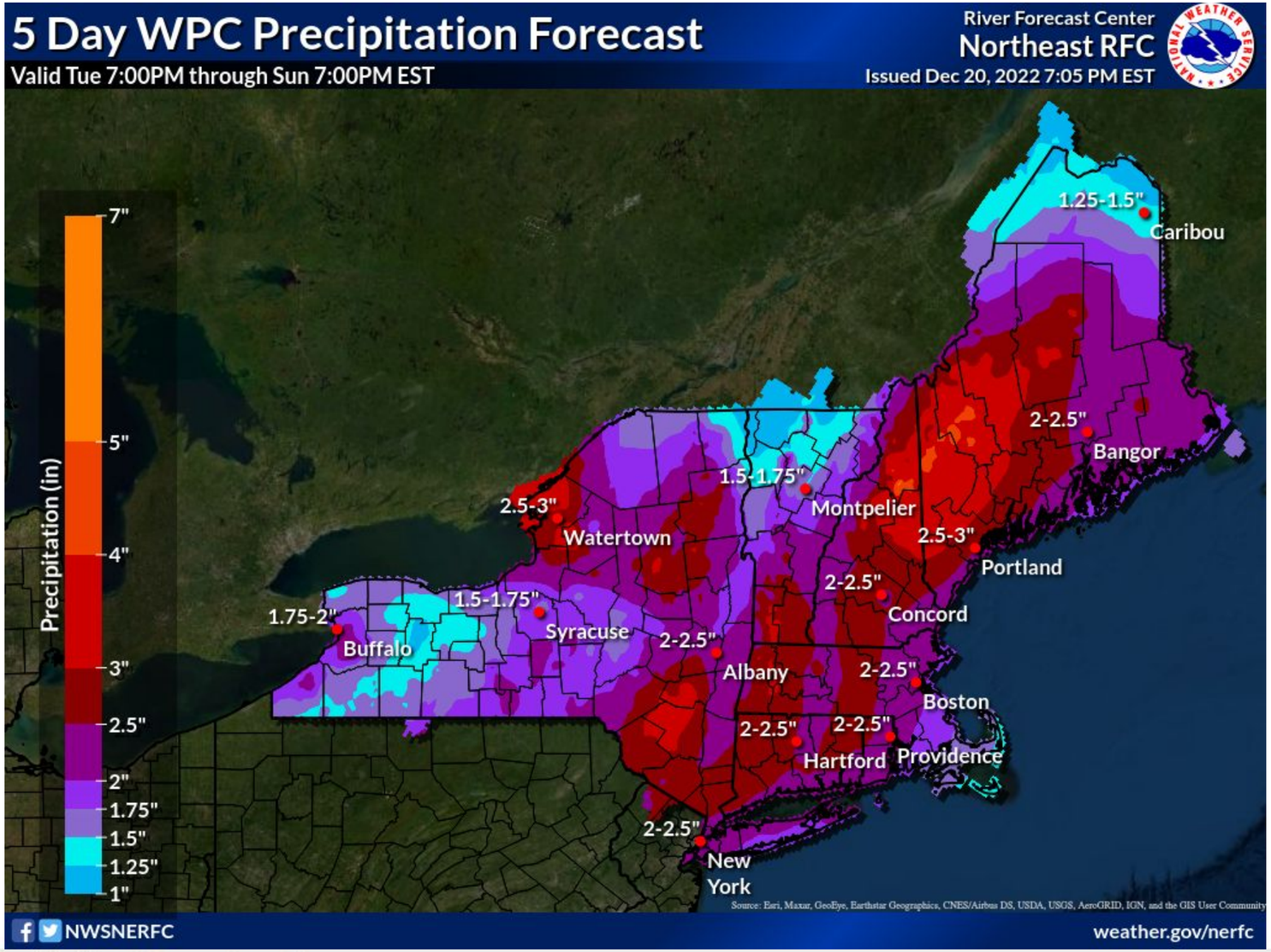

- Precipitation expected to occur between late Thursday and early Saturday
- Primarily as rain for most of southern New England
- Perhaps ending as a bit of snow in the highest terrain (Berkshires)
- Widespread 1.5 to 2.5 inches with locally higher amounts

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River Levels Outlook

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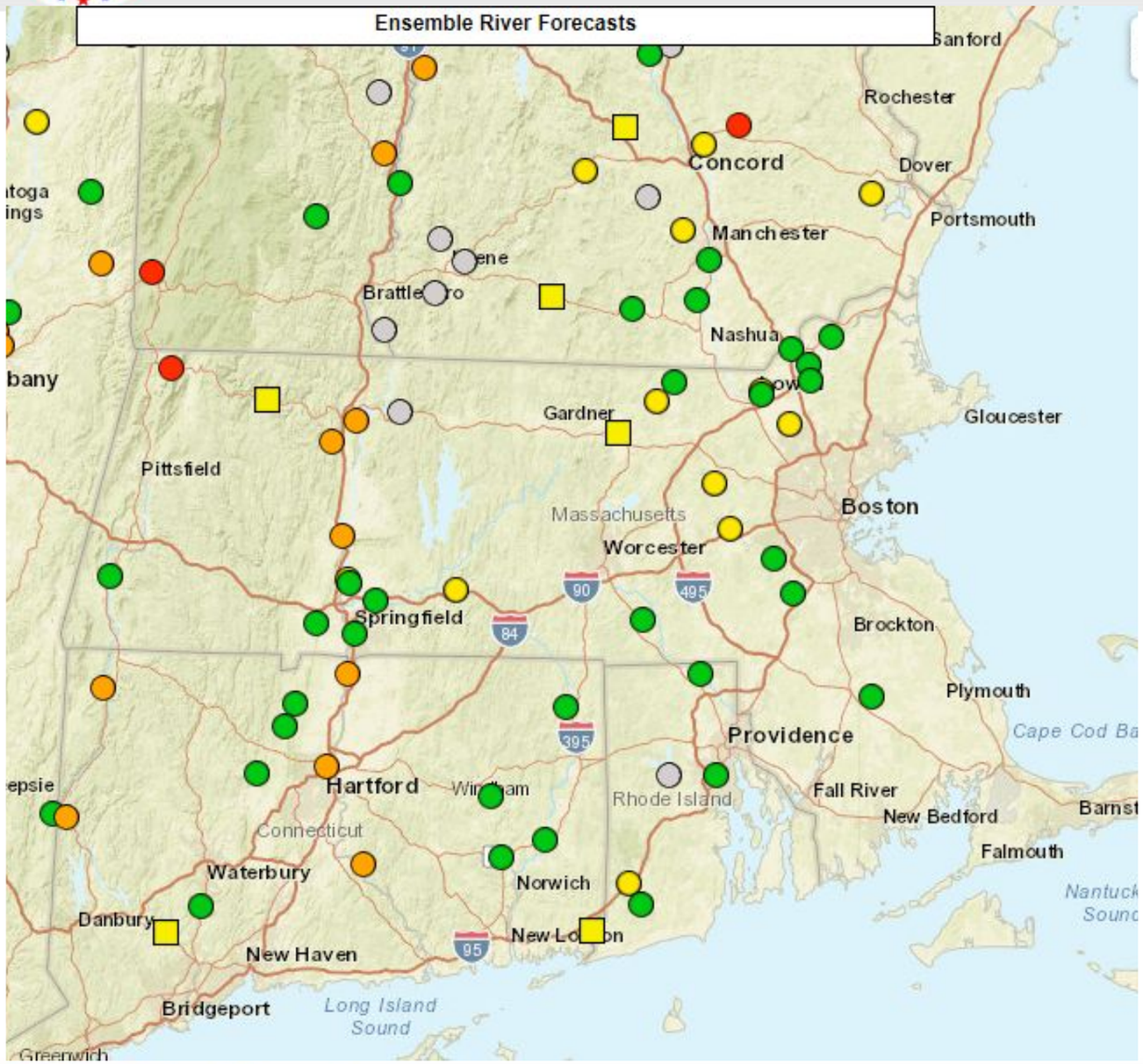
3:50 AM



- Rain/Snowmelt across northern New England resulting in a potential for minor flooding along the Connecticut River (late Saturday through Monday)

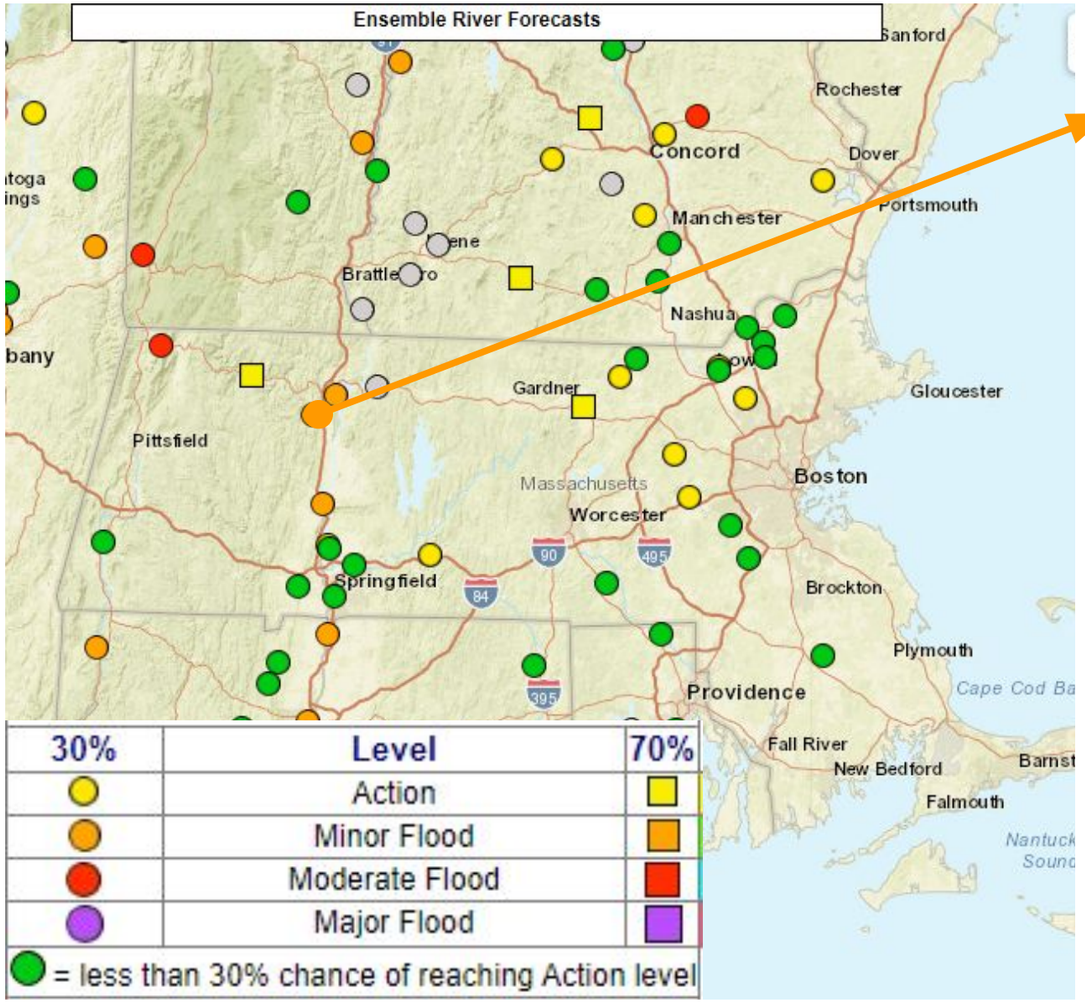
30%	Level	70%
	Action	
	Minor Flood	
	Moderate Flood	
	Major Flood	

= less than 30% chance of reaching Action level

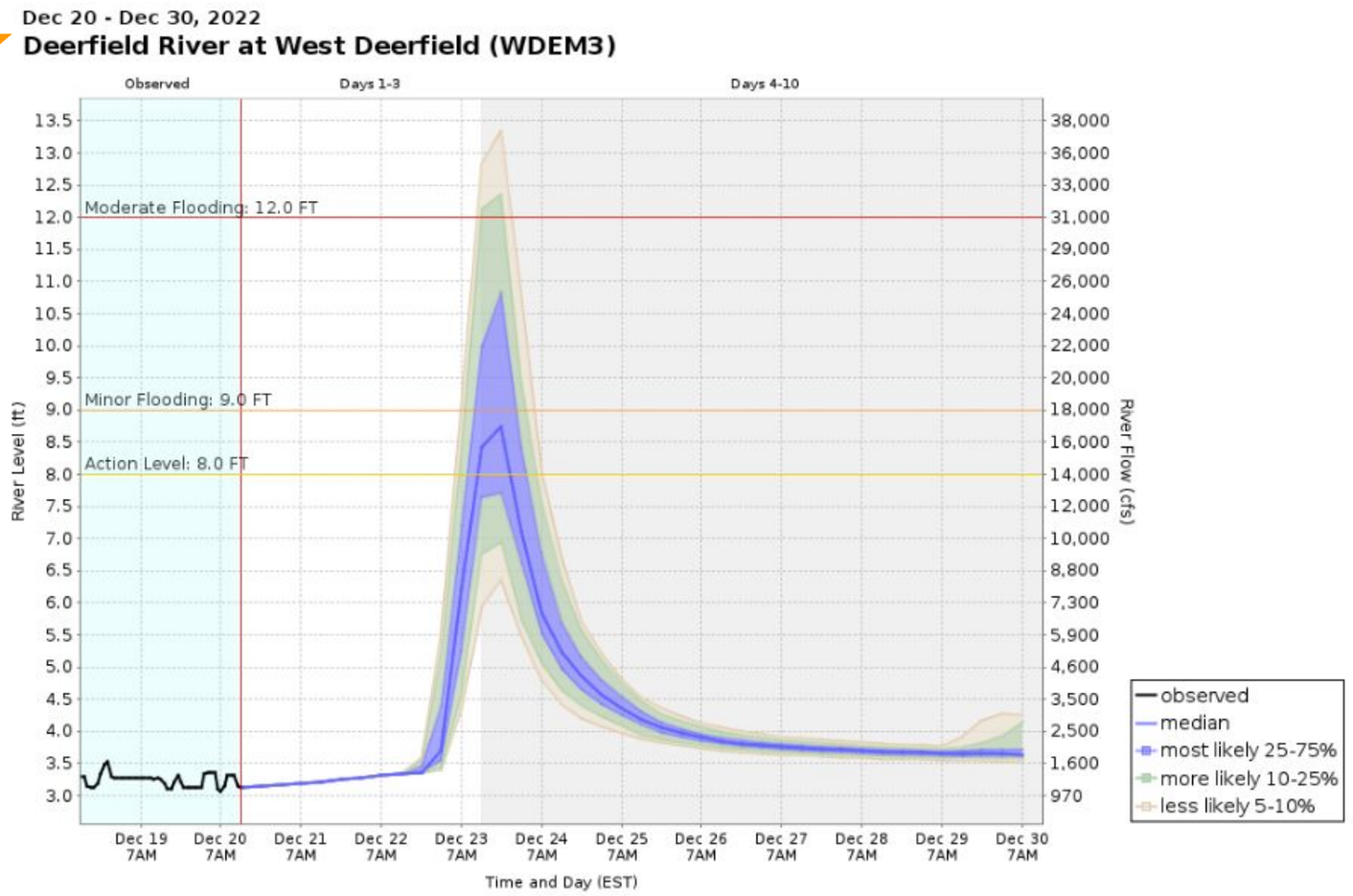
River Levels Outlook

December 21, 2022
3:50 AM

Connecticut River at Deerfield



Latest forecast crest is early Sunday morning

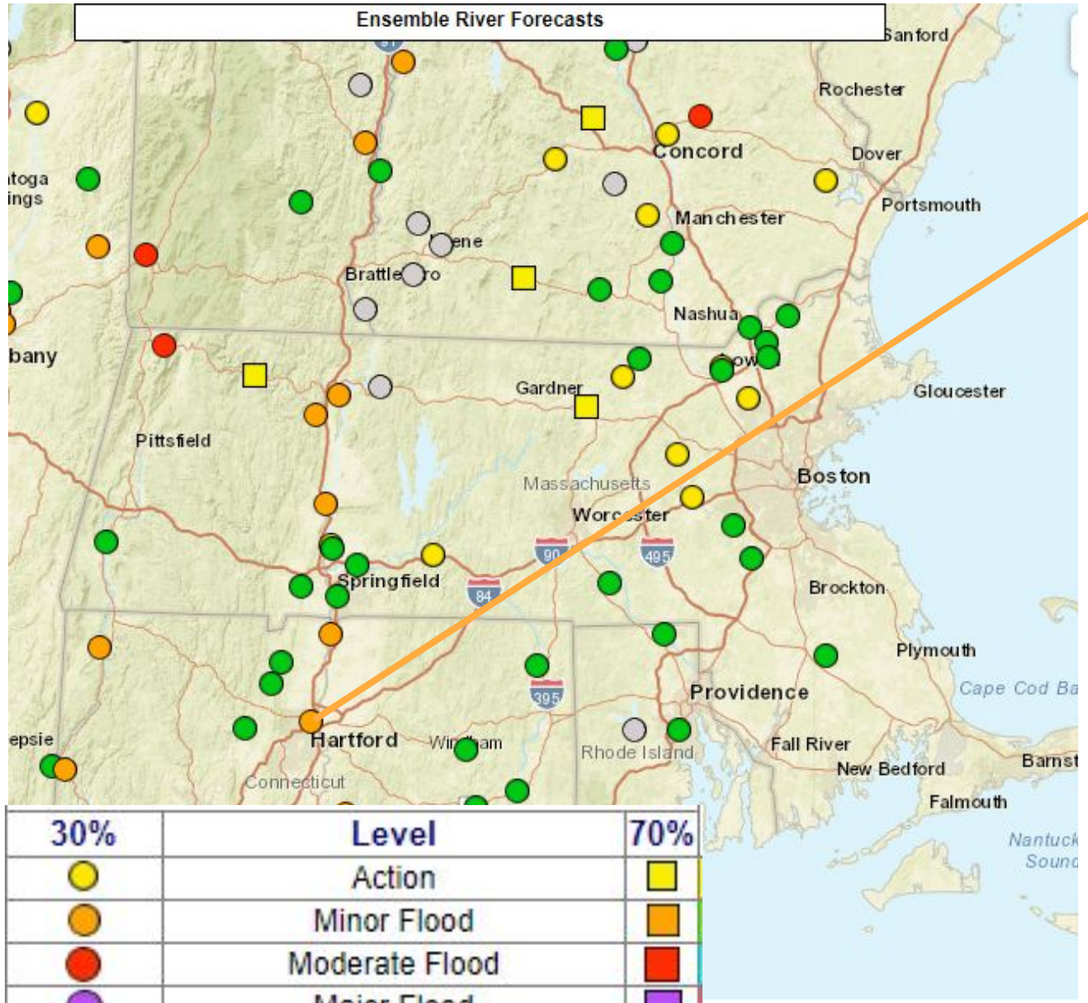


Model runtime: 01:00 PM EST Dec 20 2022

River Levels Outlook

December 21, 2022
3:50 AM

Connecticut River at Hartford



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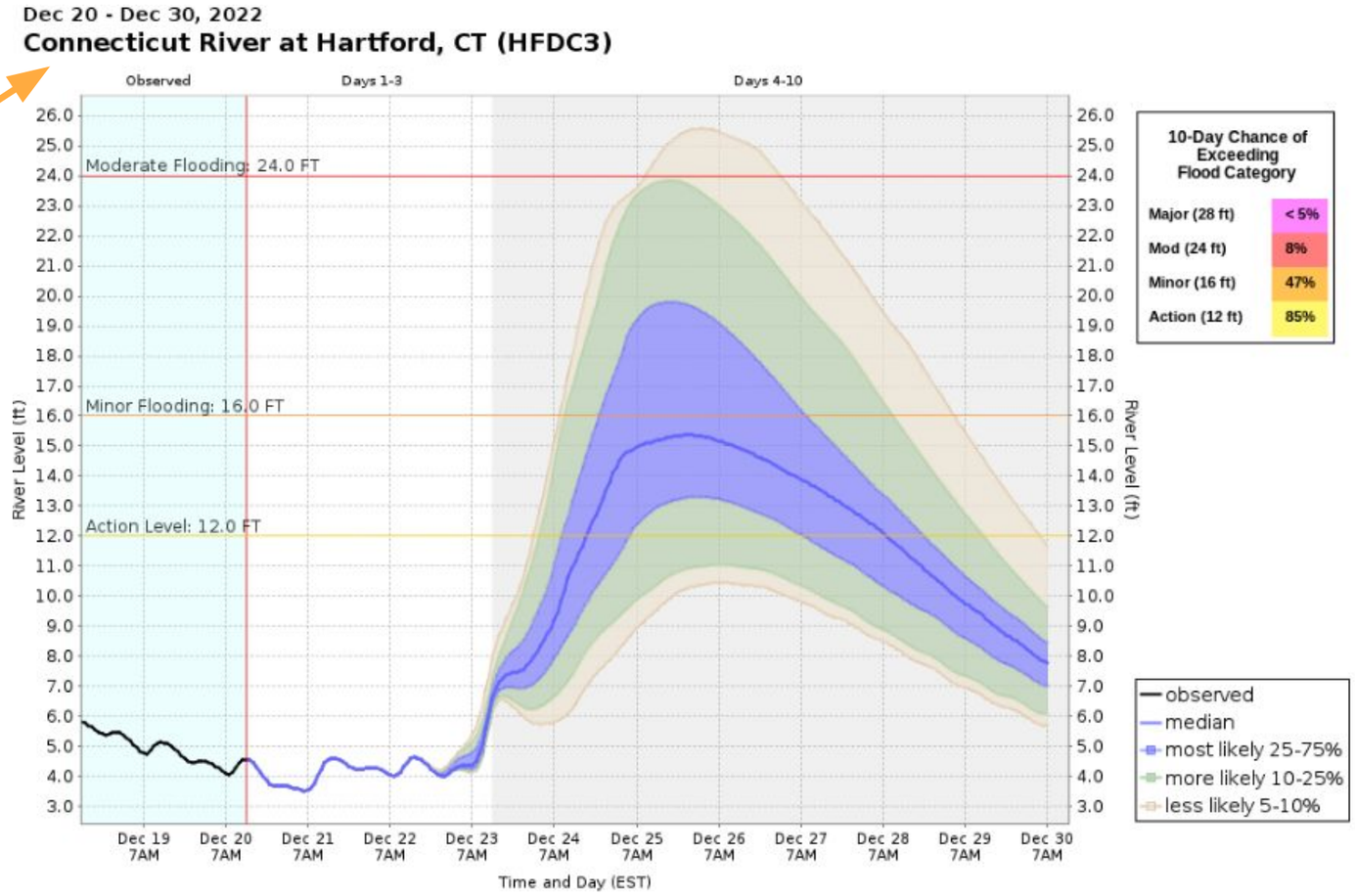

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Coastal Flooding Potential

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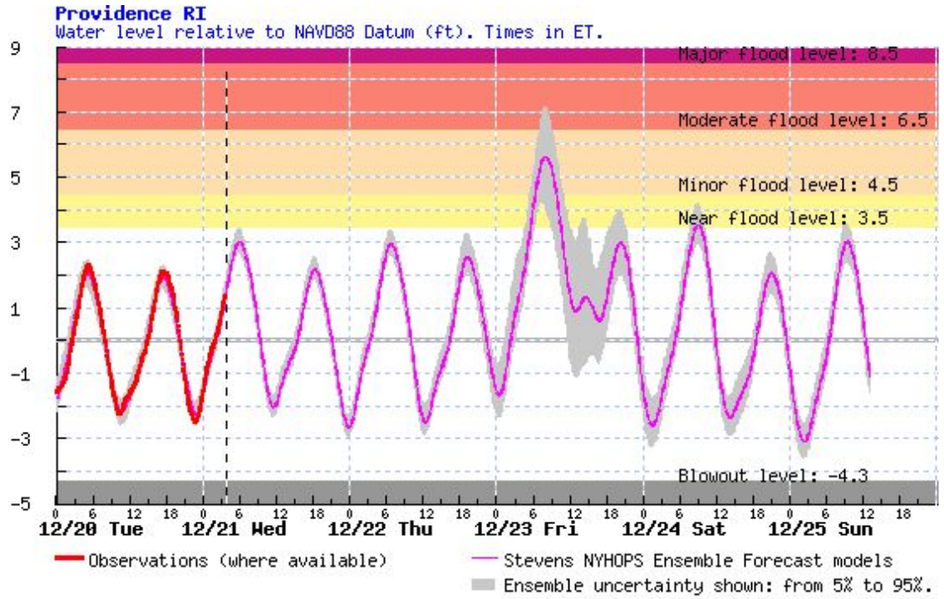

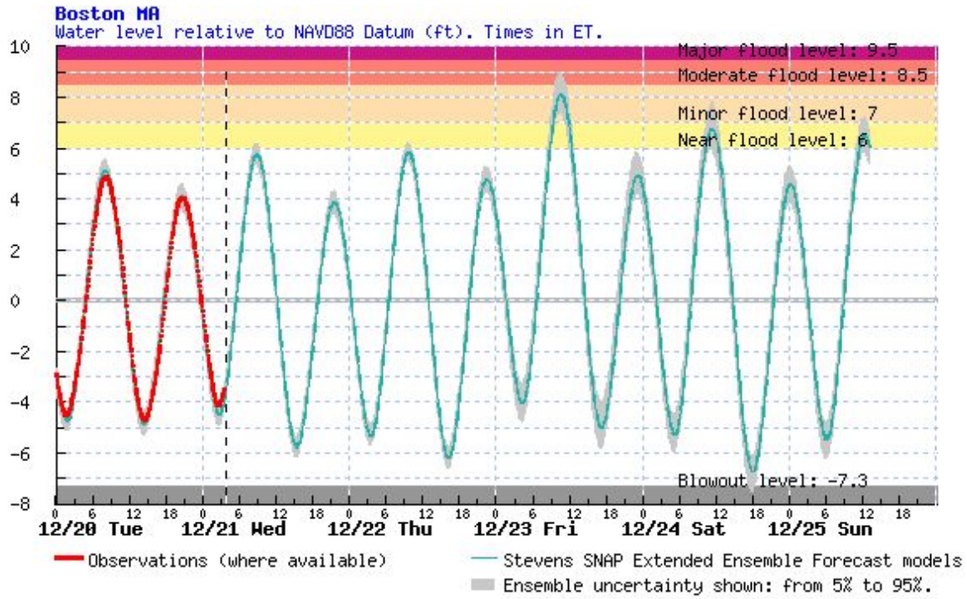

- Minor to moderate flooding Friday morning
- Another round of minor to moderate flooding Friday evening along south coast but more uncertainty with timing of peak surge
- Significant beach erosion along S/SE facing coastline

- Peak surge:
  - 1 to 3 feet Friday morning (both coasts)
  - 2 to 4 feet Friday evening (south coast)
    - Especially Narragansett Bay

Coastal Flooding Definitions

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Minor Coastal Flooding

- Flooding up to 1 foot deep
- Flooding affects the most vulnerable shore roads and/or basements.
- Majority of roads remain passable with only isolated closures due to nuisance flooding.
- There is no significant threat to life and any impact on property is minimal.

Moderate Coastal Flooding

- Flooding 1 to 3 feet deep
- Widespread flooding of vulnerable shore roads and/or basements.
- Numerous road closures are needed.
- Risk to life for those who place themselves in unnecessary danger.
- Some damage of vulnerable structures such as docks or house decks/porches near the high tide line due to waves.

Recap

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3:50 AM

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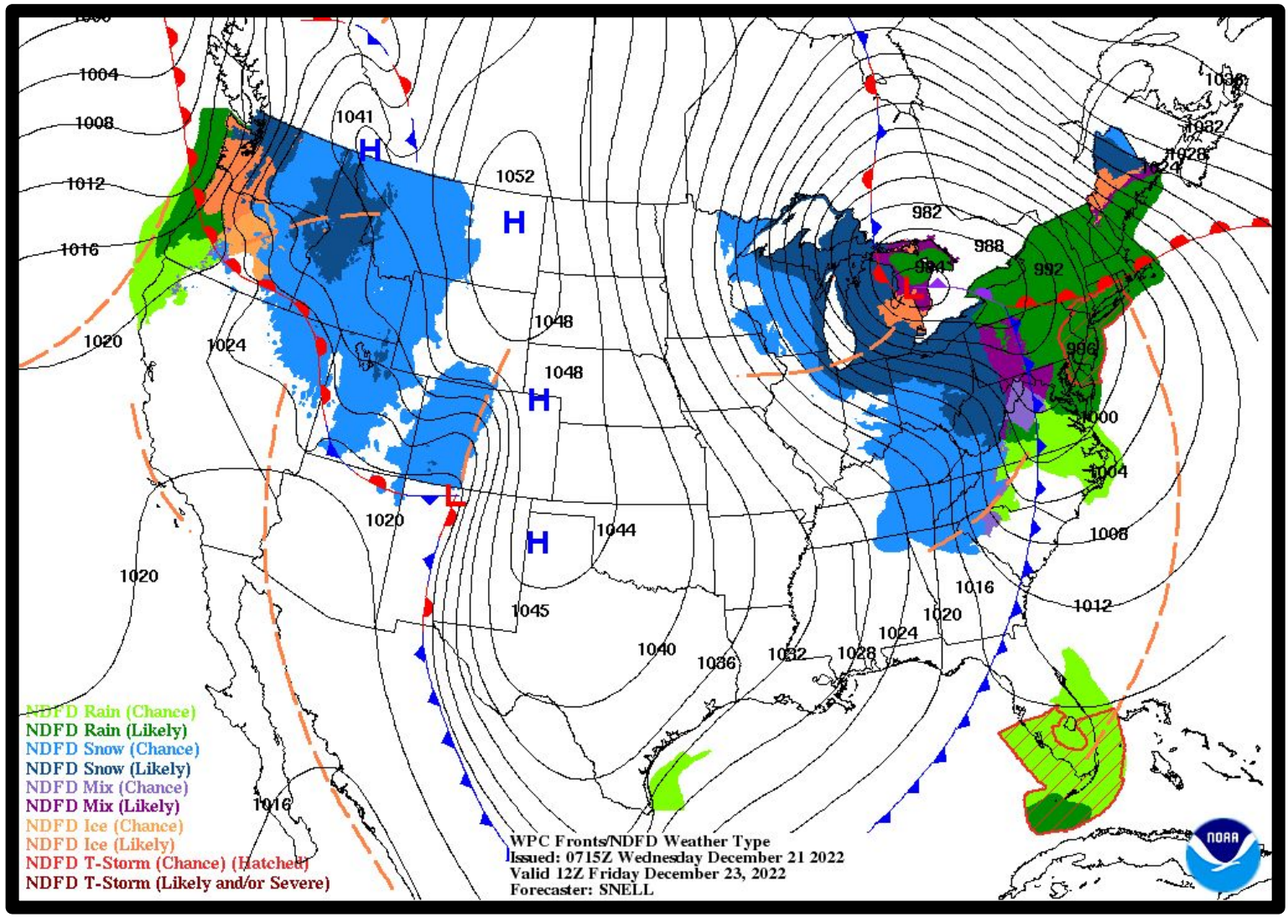

Contact and Next Briefing Information

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For Southern New England

Briefing Webpage

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Next Briefing

➔ By Wednesday at 5 PM

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