



Coastal Storm Impacts & Increasing Resilience in New England

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**Massachusetts Office of
Coastal Zone Management**

2018 Nor'easters

Jan. 4

Mar. 2-4

Mar. 13-14



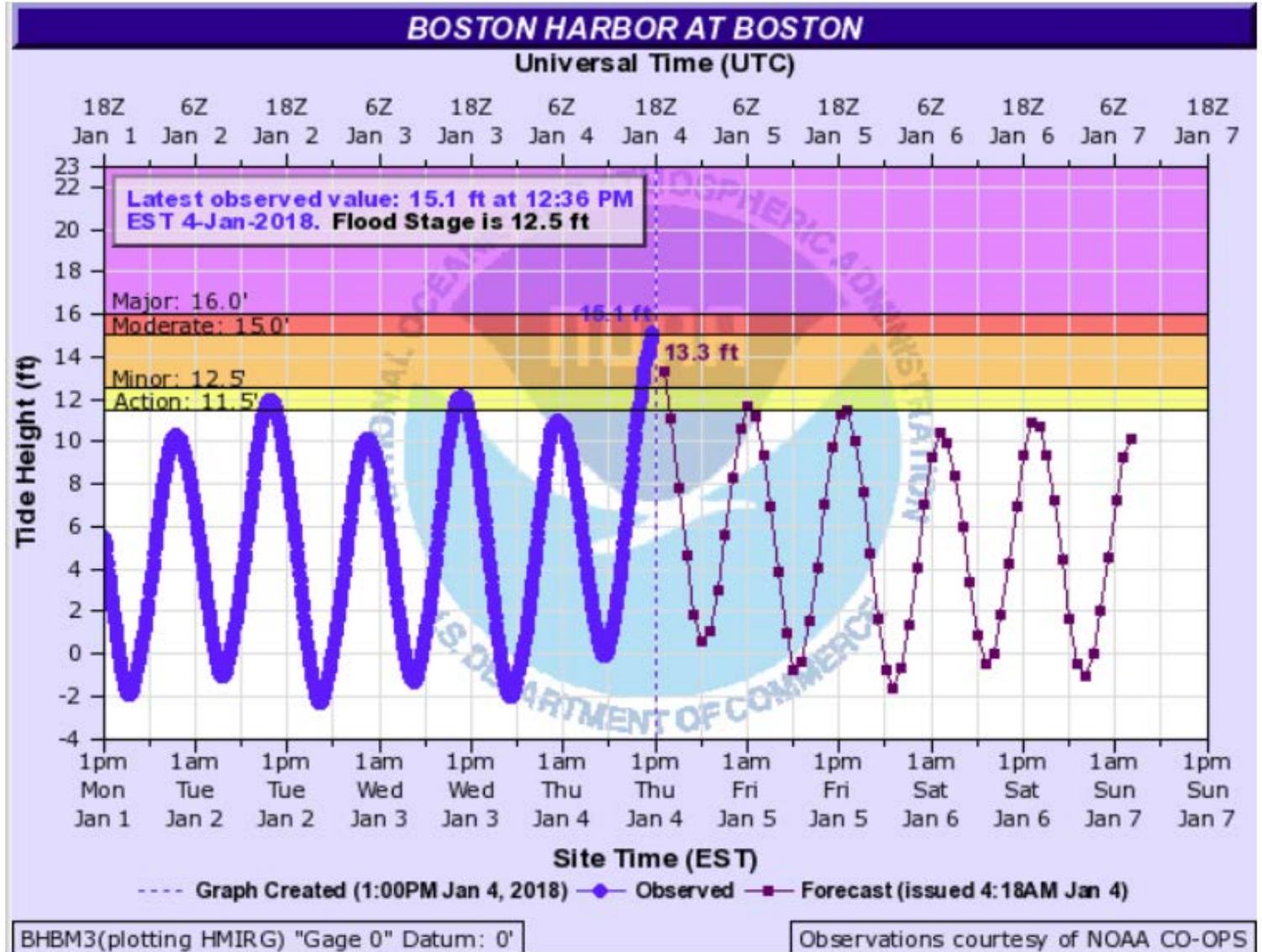
Mar. 8

Mar. 21-22

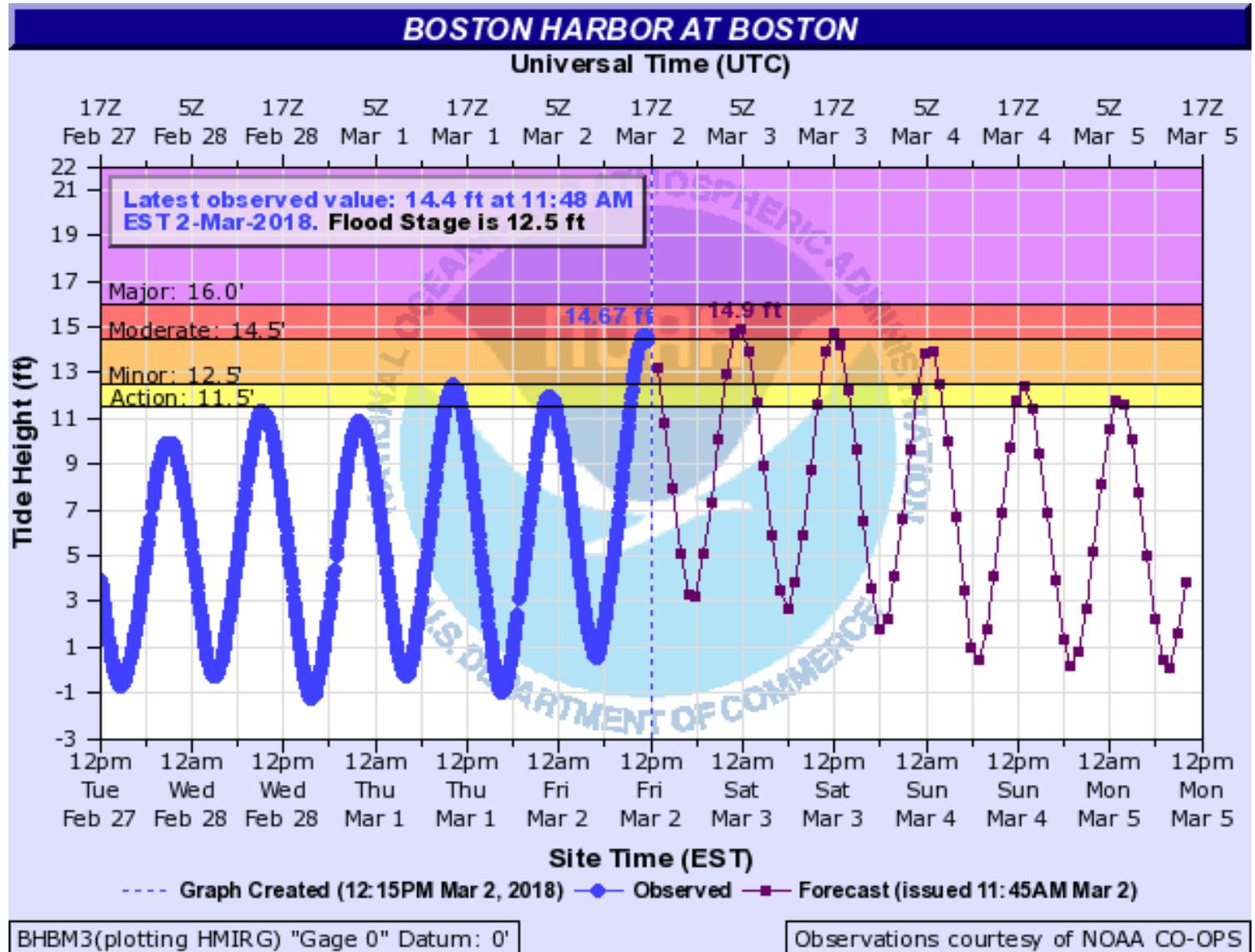




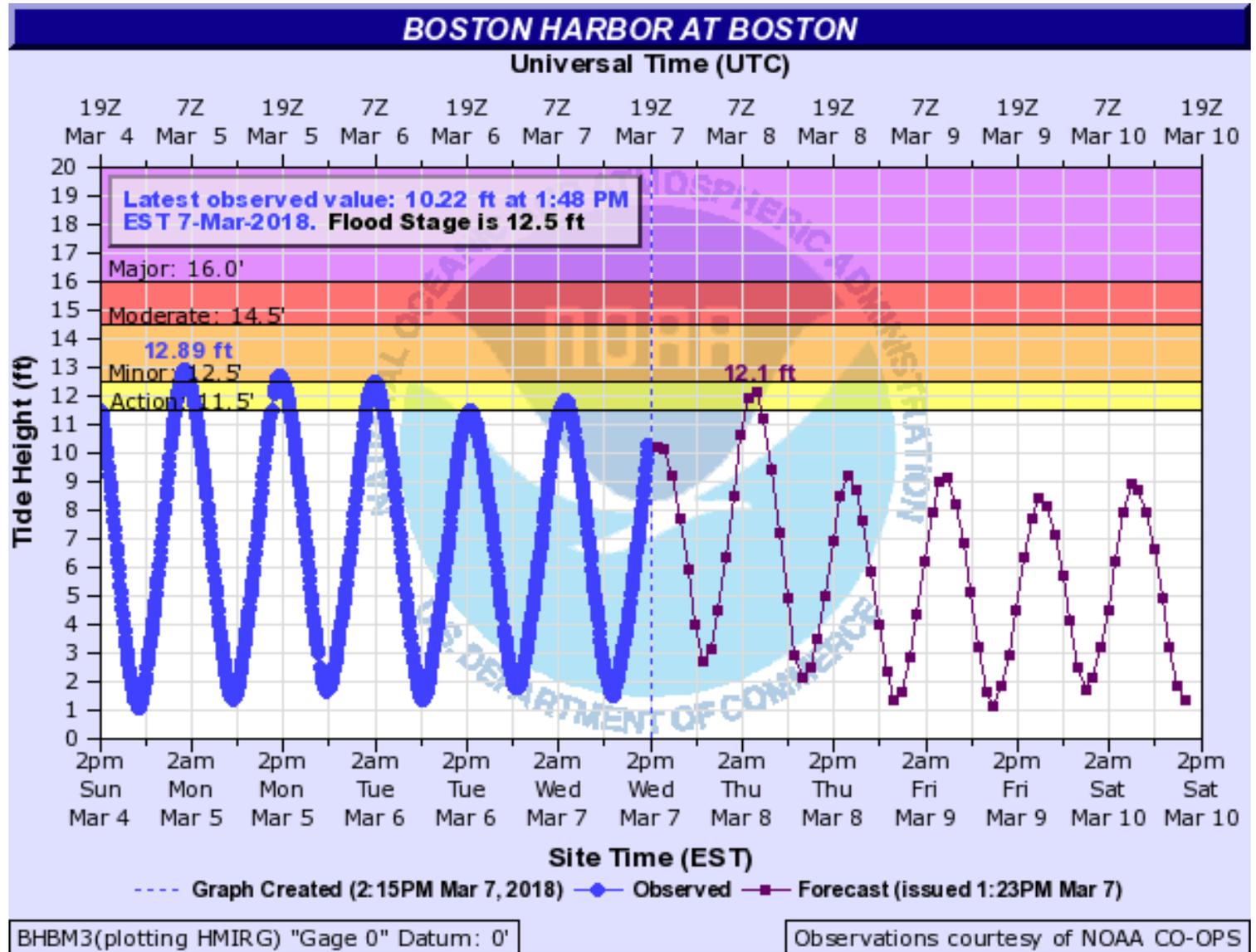
Jan. 4



Mar. 2-4



Mar. 8

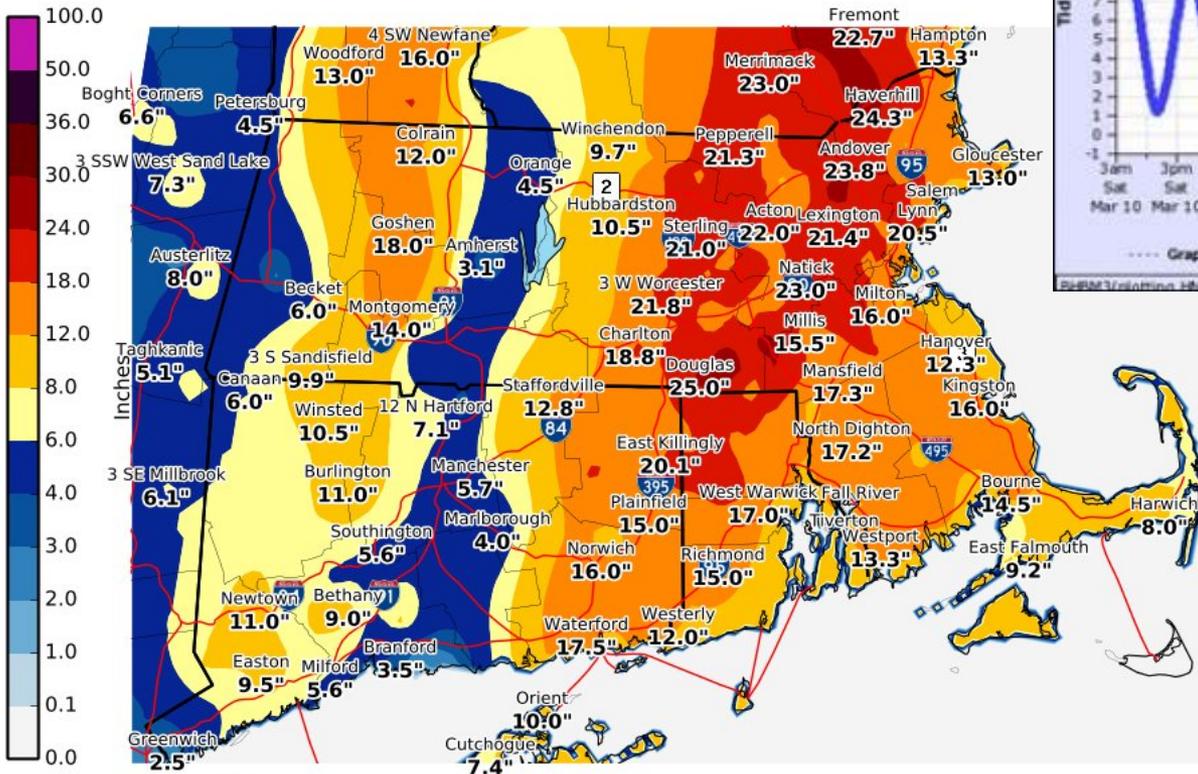


BHBM3(plotting HMIRG) "Gage 0" Datum: 0'

Observations courtesy of NOAA CO-OPS

Mar. 13-
14

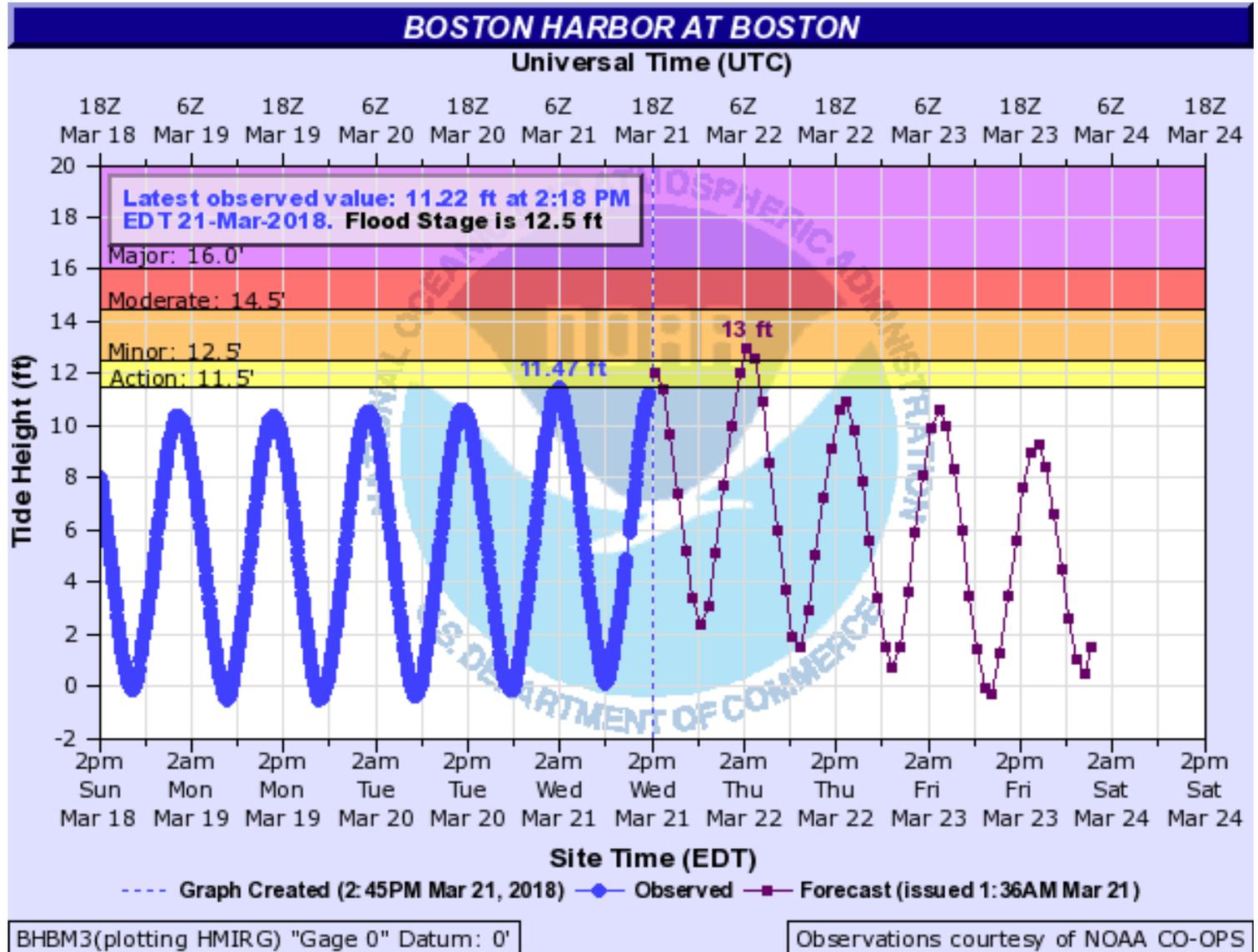
Observed Storm Total Snowfall (in)
Previous 10 Hours Ending: Wednesday, March 14, 2018 at 01



National Weather Service
Taunton, MA
03/14/2018 01:12 AM EDT

Follow Us:   
weather.gov/Boston

Mar. 21-
22





Coastal Flooding Categories

- **MINOR (Coastal Flood Advisory)**

flooding of vulnerable roads, minimal property damage, no significant threat to life

- **MODERATE (Coastal Flood Watch)**

widespread flooding of roads, some damage to vulnerable structures, lives may be at risk when people put themselves in harms way



- **MAJOR (Coastal Flood Warning)**

numerous roads become impassable, structural damage to vulnerable buildings & infrastructure, some evacuations necessary

Splashover & Road Flooding (Hampton, NH)

Photo courtesy of Rich Beauchesne,
Seacoast online



Minor Flooding Impacts (Hampton, NH)



Photo courtesy of Rich Beauchesne,
Seacoast online

Minor Property Impacts (Hampton, NH)



Emergency Response (Hampton, NH)



Photo courtesy of Rich Beauchesne,
Seacoast online

Scour Behind Coastal Structures (Rye, NH)



Sediment & Debris Washed onto Roads (Rye, NH)



Road Clearing (NH)



Low-lying Infrastructure Flooding (Portsmouth, NH)



Photo courtesy of Elizabeth Dinan

Widespread Flooding (Scituate, MA)

Photo courtesy of Mass Wing Civil Air Patrol





Property Damages (Gloucester, MA)



Photo courtesy of fire departments
of New England
on Facebook
[@firedepartmentsofnewengland](#)

Damage to Vulnerable Buildings (Seabrook, NH)



Barrier Beach Overwash (Scituate, MA)

Photo courtesy of Mass Wing Civil Air Patrol



Wave Impacts (Scituate, MA)

Photo courtesy of Mass Wing Civil Air Patrol



Coastal Structure Failure (Rye, NH)



Photo courtesy of Kim Reed

Coastal Structure Failure (Chatham, MA)



Photo courtesy of Mass Wing Civil Air Patrol

Erosion (Chatham, MA)



Erosion & Building Damages (Sandwich, MA)



Photo courtesy of Mass Wing Civil Air Patrol

Destruction of Buildings (Sandwich, MA)



Public Health & Environmental Issues (Sandwich, MA)



Coastal Storm Damage Reporting



MyCoast: Massachusetts



49 communities



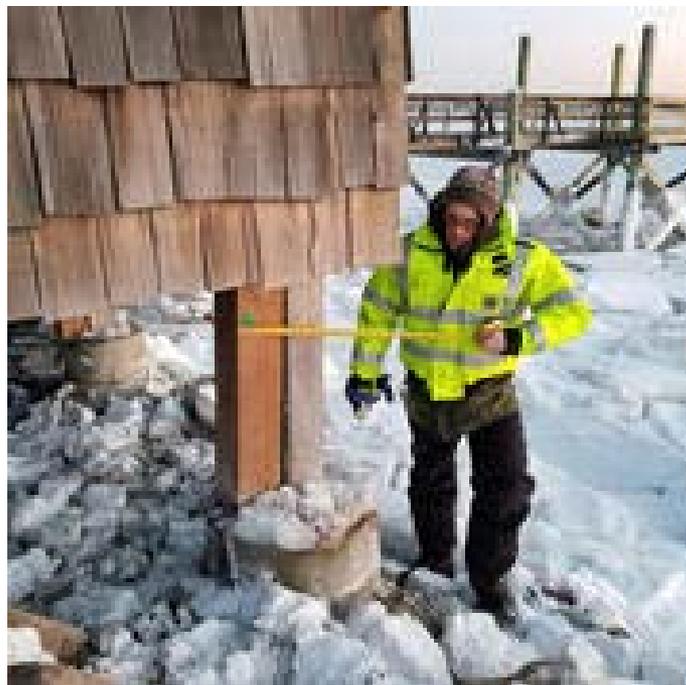
1,143 coastal storm reports



64 king tide photos

Federal Data Collection

- Flagged high water marks
- Deployed storm-tide & wave sensors
- Collected aerial imagery



Promoting Living Shorelines Regionally

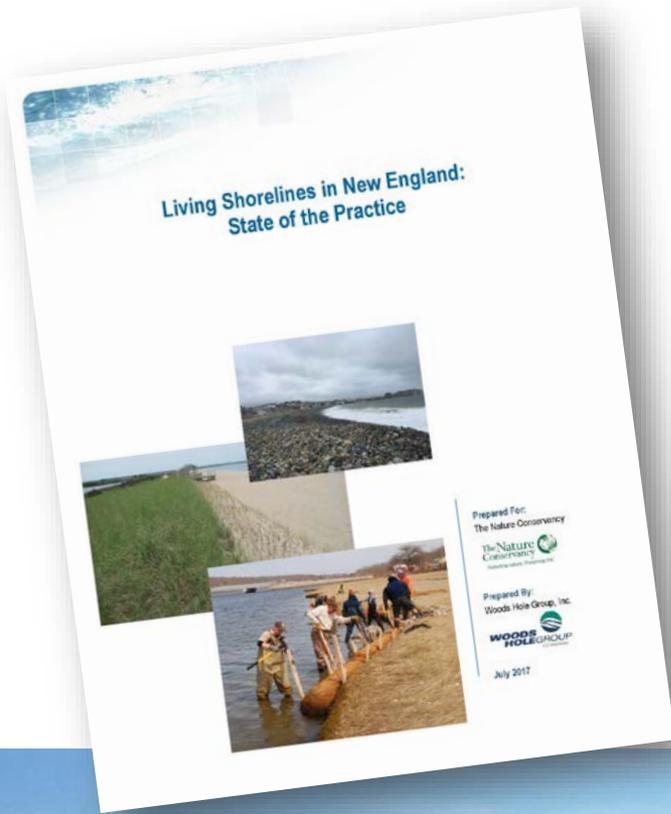


Photo courtesy of Wilkinson Ecological Design