

# Coastal Flooding Toolkit

- Developed in partnership with NWS forecast offices
- Delivers wave run up forecast for sites throughout New England
- Integrates key forecasts and observations of water level, waves and winds



The NERACOOS Coastal Flooding toolkit provides forecasts and observations to help prepare for and respond to coastal flooding events.

Please visit the National Weather Service for official coastal forecasts, warnings.

**Beach Erosion and Flooding Forecast**

This experimental forecast predicts the highest point that waves will reach at specific coastal locations

**Buoy Observations and Forecasts**

This tool allows you to view wind and wave data and forecasts from the various ocean buoys and stations

**Water Level Observations and Forecast**

This product displays forecast and observed water levels at locations with water level gauges

**Observation and Forecast Map**

This map displays the location of wave run-up forecast sites, water level gauges and buoys

***The Coastal Flooding Toolkit should be not be solely relied upon to make important decisions about hazard response. NERACOOS provides these forecasts and observations "as is" but assumes no legal liability or responsibility resulting from the use of this information.***

## Available Tools

## Coastal Flooding Toolkit

NERACOOS Coastal Flooding Toolkit

Provides forecasts and observations to help prepare for and respond to coastal flooding events.

Beach Erosion and Flooding Forecast

Provides special coastal forecasts, warnings.

Buoy Observations

Provides the highest point that waves will reach at specific coastal locations

Water Level

Provides wave data and forecasts from the various ocean buoys and stations

Observation and Forecast Map

Provides observed water levels at locations with water level gauges

Provides run-up forecast sites, water level gauges and buoys

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The NERACOOS Coastal Flooding toolkit provides forecasts and observations of coastal flooding events.

Please visit the National Weather Service for official coastal forecasts, warnings, and watches.

**Beach Erosion and Flooding Forecast**

This experimental forecast predicts the highest point that waves will reach on the beach.

**Buoy Observations and Forecasts**

This tool allows you to view wind and wave data and forecasts from the National Weather Service.

**Water Level Observations and Forecast**

This product displays forecast and observed water levels at locations along the coast.

**Observation and Forecast Map**

This map displays the location of wave run-up forecast sites, water level observation sites, and tide gauge locations.

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Coastal flooding events.

**Choose a Beach**

Roque Bluffs, ME

Popham Beach ME

Ferry Beach Ecology School, Saco ME

Camp Ellis, Saco ME

Mile Stretch Road Biddeford, ME

Jenness NH

Hampton NH

Salisbury, MA

Newburyport, MA

Duxbury, MA

*Do not rely on this information for emergency response. NERACOOS provides these forecasts and observations "as is" but assumes no legal liability or responsibility for any damage or injury resulting from use of the information.*



## Beach Erosion and Flooding Forecast

LOCATION: JENNESS BEACH ▾

WAVE MODEL: WAVE WATCH III GLOBAL WAVE MODEL ▾

### Location: Jenness Beach

Inundation Threshold: 8.88 ft  
Erosion Threshold: 6.41 ft

Forecast through: Monday, 12/10 4:00AM

Date/Time	Impact	Max WL
12/3 8:00 am	●	5.23 ft
12/3 9:00 pm	●	4.35 ft
12/4 9:00 am	●	5.05 ft
12/4 9:00 pm	●	4.04 ft
12/5 10:00 am	●	5.27 ft
12/5 10:00 pm	●	4.44 ft
12/6 11:00 am	●	5.08 ft

#### Impact Marker Key

● No Impact	● Erosion	● Overwash	● Inundation
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#### Peak Forecast - Last 3 High Tides

Date/Time	12/5 10:00 am	12/5 10:00 pm	12/6 11:00 am
Wave Height	0.92 ft	0.69 ft	1.61 ft
Tide	5.15 ft	4.11 ft	5.12 ft

#### Models Used

Wave: Wave Watch III Global Wave Model

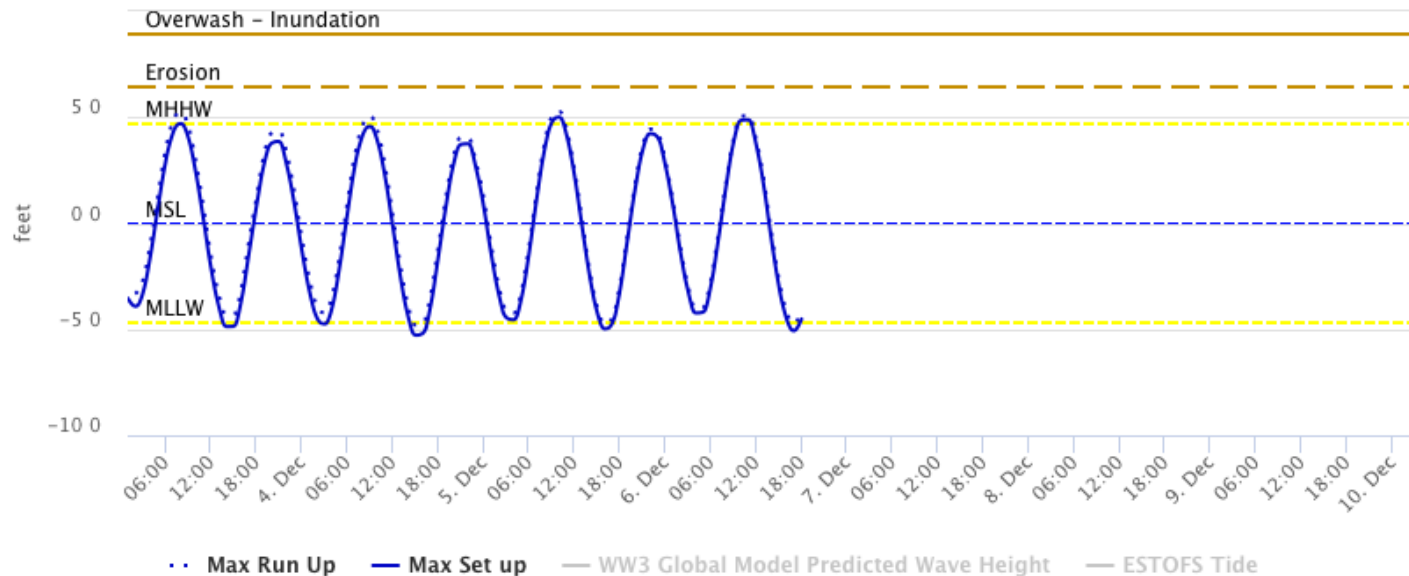
Tide: ESTOFS Tide

Relative To

MSL ▾

### Inundation at Jenness Beach

Displayed relative to MSL



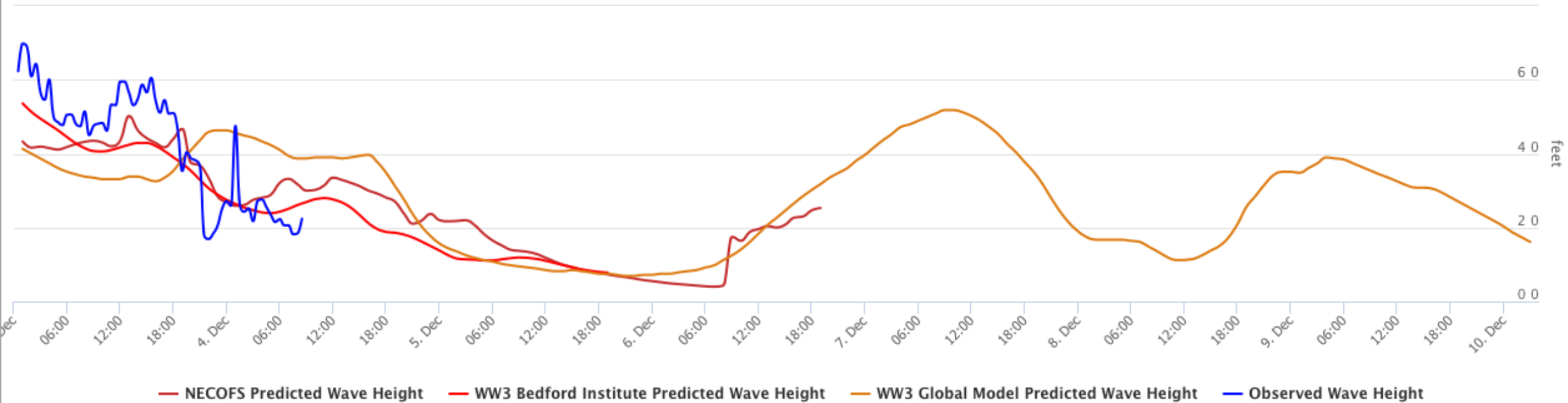
●● Max Run Up    — Max Set up    — WW3 Global Model Predicted Wave Height    — ESTOFS Tide

Highcharts.com



LOCATION: B01 ▾

## NERACOOS Platform B01 Observed Wave Height vs Predicted





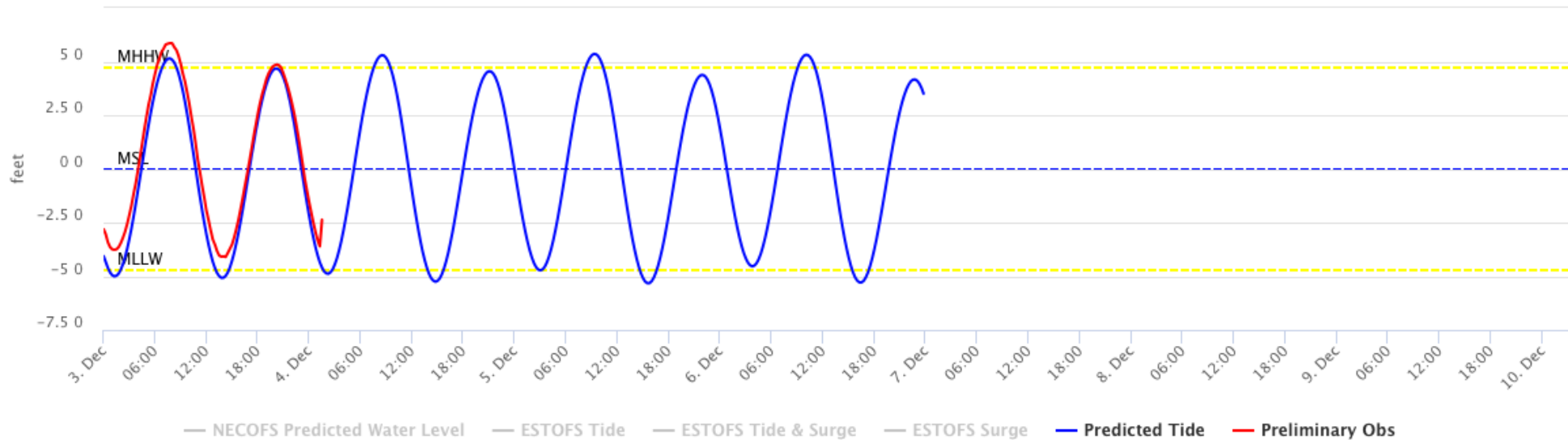
Relative To

MSL

Location

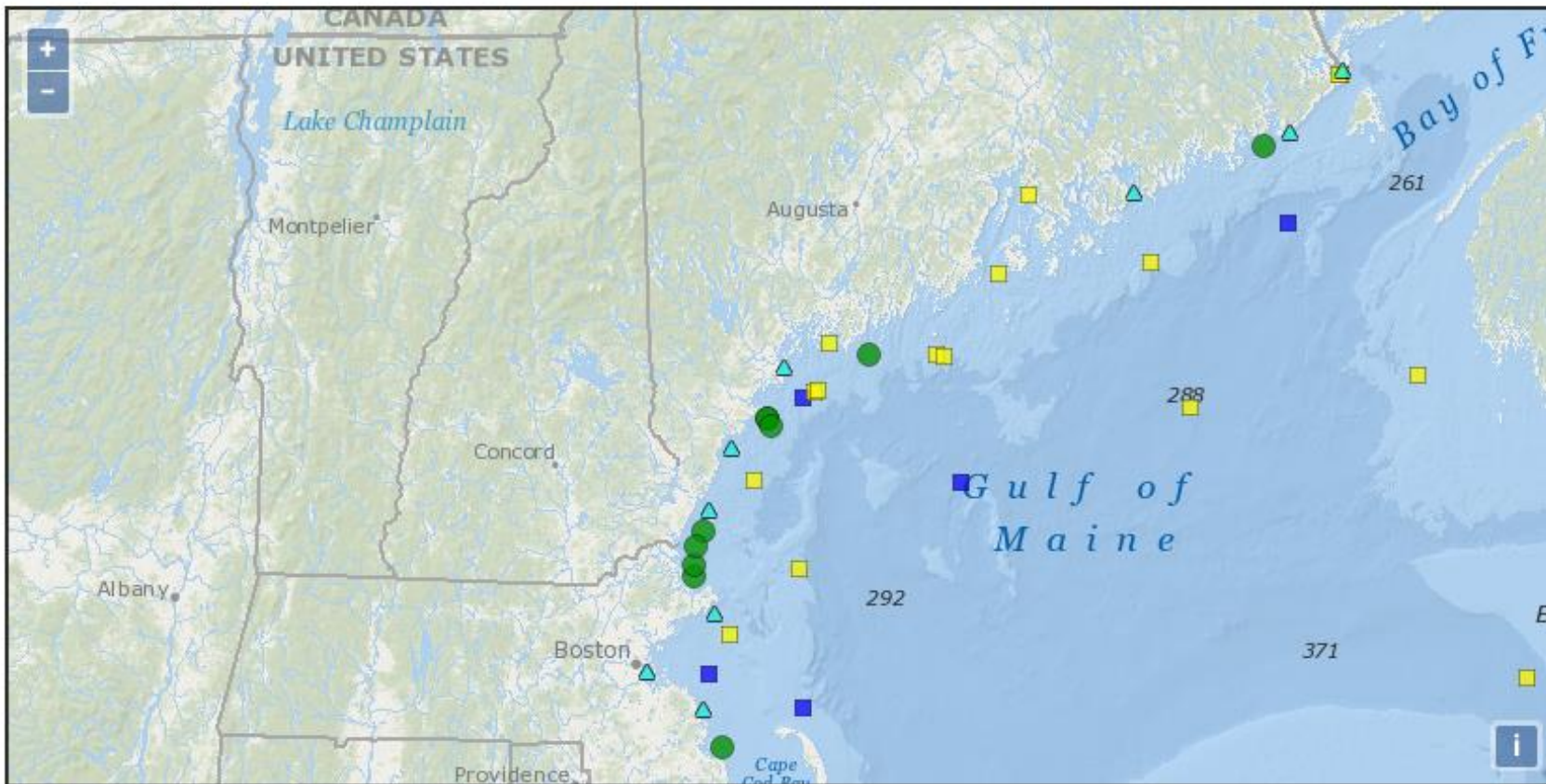
FORT POINT, NH

NOAA/NOS/CO-OPS  
Observed Water Levels at 8423898, Fort Point, NH



Highcharts.com

Date	Day of Week	Time	Predicted (ft)	High/Low
12/2/2018	Sunday	7:18 PM	4.78	H
12/3/2018	Monday	1:24 AM	-5.01	L
12/3/2018	Monday	7:47 AM	5.15	H
12/3/2018	Monday	1:57 PM	-5.08	L
12/3/2018	Monday	8:16 PM	4.69	H
12/4/2018	Tuesday	2:16 AM	-4.89	L
12/4/2018	Tuesday	8:38 AM	5.3	H
12/4/2018	Tuesday	2:52 PM	-5.26	L
12/4/2018	Tuesday	9:10 PM	4.55	H



MAP OPTIONS ▾

## Legend

### Beach Forecast Impact Markers

- No Impact ●
- Erosion ●
- Overwash ●
- Inundation ●

### Buoys and Tide Gauge Platforms

- NERACOOS Buoys ■
- NOAA Buoys ■
- Water Level Stations ▲

### Beach Erosion and Flooding Forecast

The impact markers for the beach locations will update based on the forecast. Click the marker to view the forecast.

### Observation Stations

Click a buoy to view the sensor observations and model forecast data.

Click a tide gauge station to view the tide observations and water level forecast data.