

# Ohmsett Overview, Recent Activities, and Future Plans

November, 2022

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# Topics

- Overview
- Tank Refurbishment
- Testing/Training
- Future Plans



## One of the largest outdoor saltwater test tanks

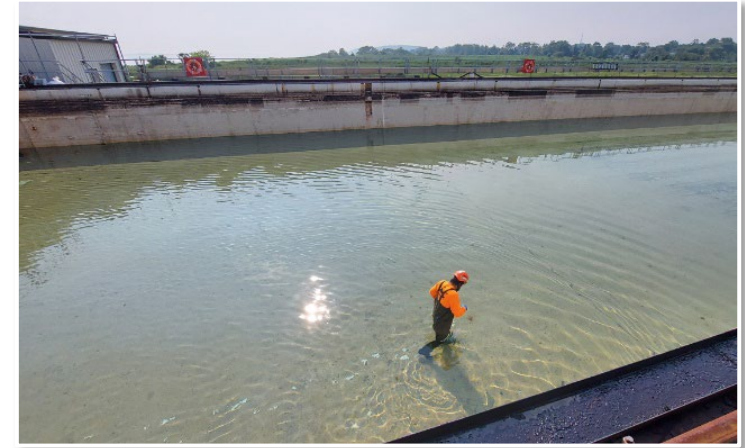
- 203 meters (667 feet) by 20 meters (65 feet) wide by 2.4 meters (8 feet) deep
- 10 million liters (2.6 M gallons)
- Waves up to ~1 meter (~3 feet)
- Open ocean salinity (32 -35 ppt)
- Due south of New York City

*Managed by U.S. Department of Interior's Bureau of Safety and Environmental Enforcement (BSEE) and operated through a contract with Applied Research Associates, Inc. since September 2018*



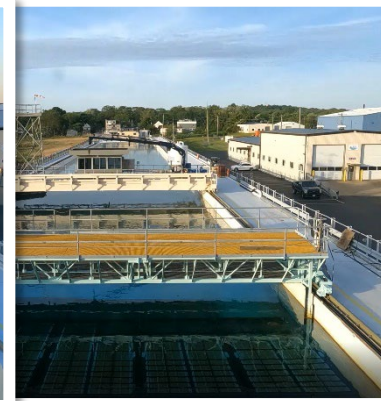
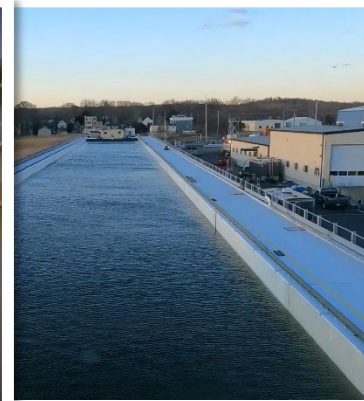
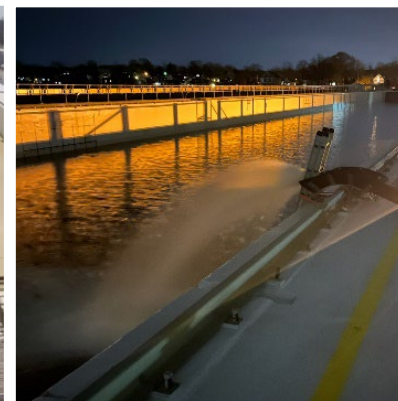
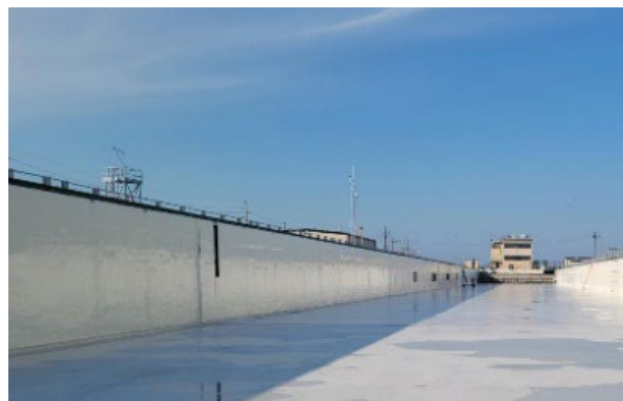
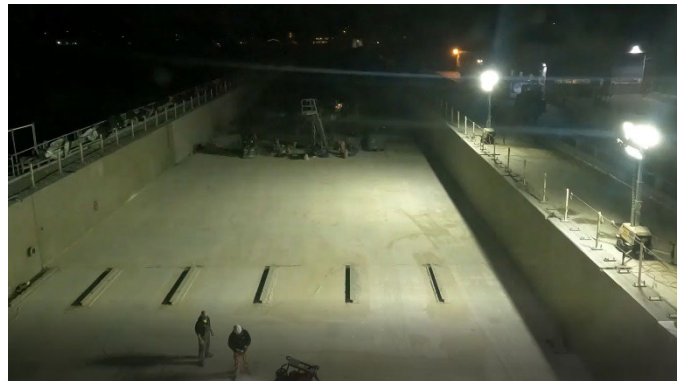
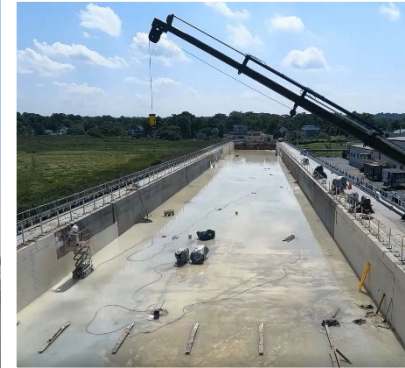
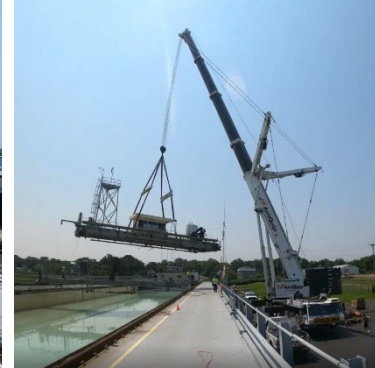
# Tank Renovation Project

- Tank refurbishment June 2021– April 2022
  - The tank was built in 1974 by the US EPA and transferred to the MMS/BSEE following the Oil Pollution Act of 1990
  - Last performed in 2015
  - The tank was drained to Sandy Hook Bay
  - Ancillary equipment was removed: 3 bridges, 400 meters of rails, 12 beach sections, 2 wave flaps
  - Focused on concrete & steel analysis and repair
  - New coatings and general infrastructure improvements, e.g., relocation of pumps and piping
  - Tank was refilled and has been operational for several months



# Tank Renovation Project

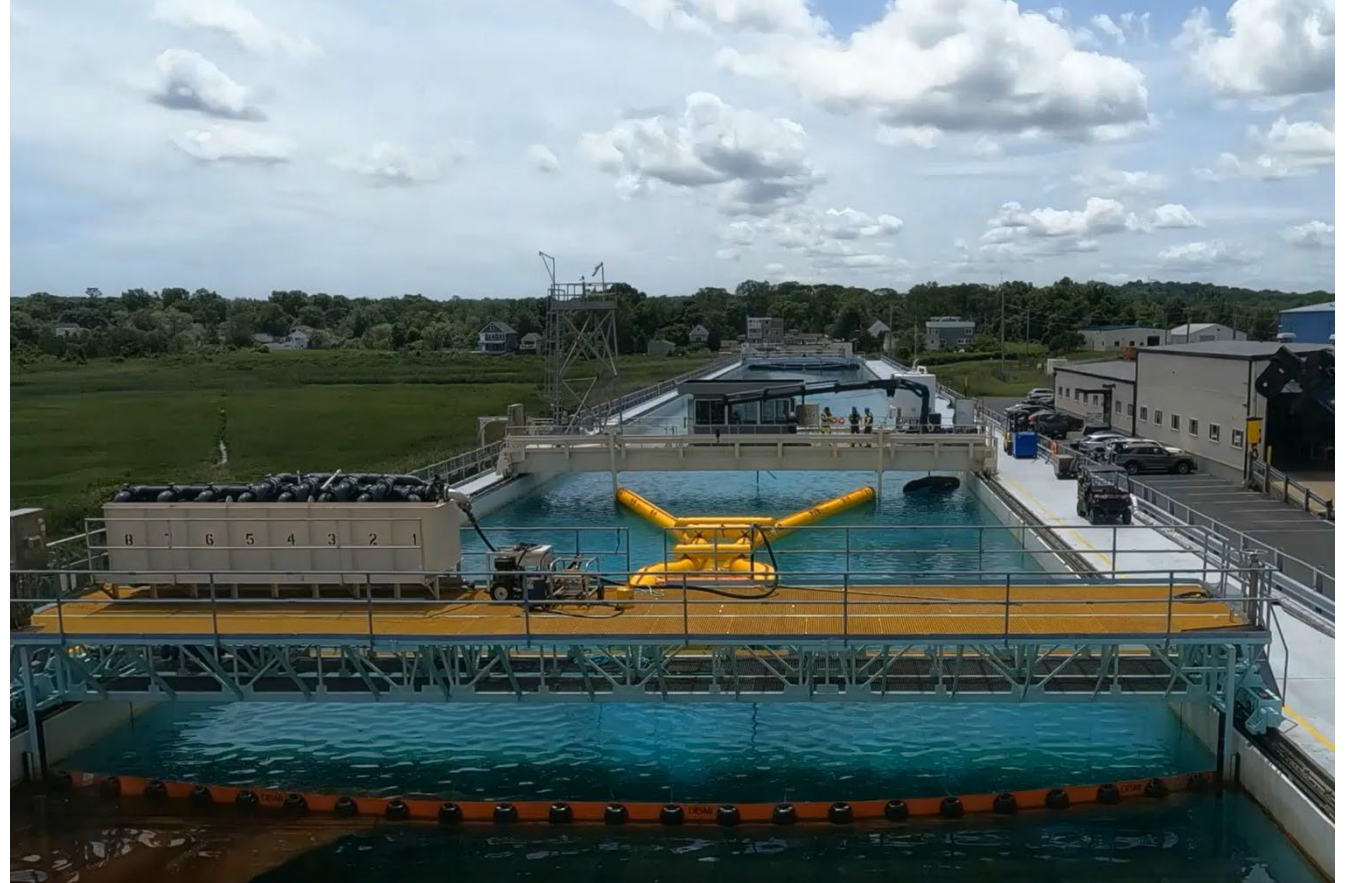
- Snapshots of the entire process





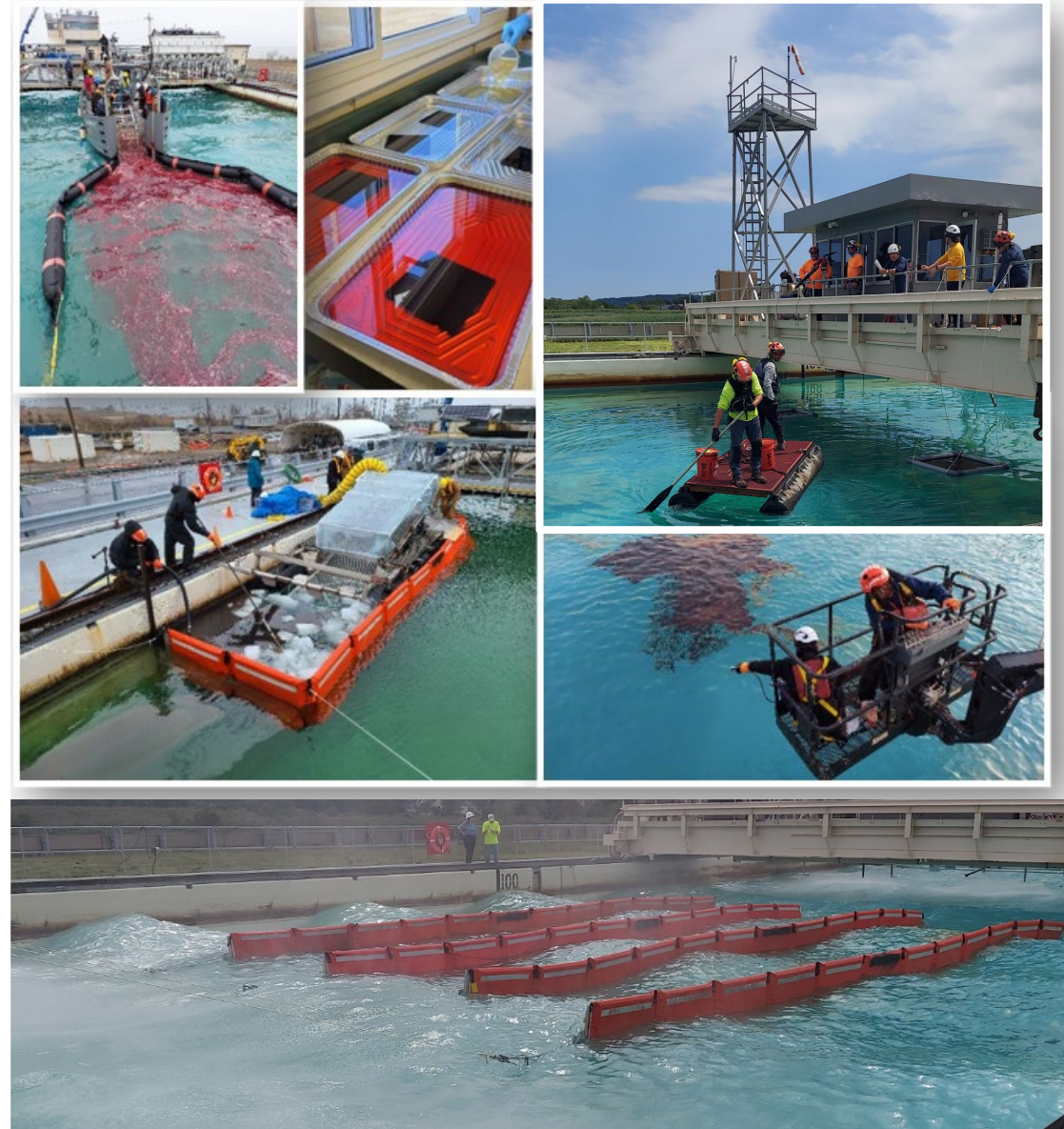
# Tank Renovation Project

- First major on-tank test was of a Current Buster 4
- A full slate of testing and training events taking place
  - Ohmsett and BSEE staff will evaluate and address any operational issues that may arise



# Testing Capabilities

- Mechanical Recovery
  - Containment booms and skimmers
  - Including under ice conditions
- Chemical Treatments
  - Dispersants and Herders
- Oil Behavior, Fate, and Transport
  - Dispersed and weathered oils
  - Emulsions
- Sorbent Testing
- Remote Sensing
- Wave Energy Devices
- Oil Handling
  - Storage, Pumps, Oil/water Separators
- Marine Debris Removal





# Dispersant Testing / Demonstration

One of the few places in the world where oil spill dispersants may be applied to crude oil for:

- Demonstration purposes
  - Visible difference between dispersed and undispersed surface slicks
- Testing
  - Oil dispersibility
  - Dispersant effectiveness
  - Ability of instruments to characterize resulting oil droplets, e.g., fluorescence and droplet size distributions
- Evaluation of new delivery methods, e.g., subsurface application of dispersants to flowing oil



# Spill Response Training

- U.S. Coast Guard
  - (2) 5-day oil spill response training sessions
- Texas A&M National Oil Spill Control School
  - 3 1/2-day spill response course with off-site SCAT session
- Clean Harbors Cooperative / Phillips 66
  - 2-day training with Bayway (NJ) Refinery staff





# Future Plans

- Potential improvements and upgrades include:
  - Enhanced customer meeting and workspace with ongoing focus on health, safety, and remote connectivity capabilities
  - Updated main bridge with enhanced space(s), e.g., observation deck & more inside square footage with focus on integrated measurement, video collection, and data displays
  - Upgraded testing laboratory, e.g., new equipment and test procedures
  - Smaller wave / flume tank, e.g., 25,000 gallons with possibility of fresh and salt water with or without chlorination

# Thank You.

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