Ohmsett
Overview, Recent Activities, and Future Plans

API SPILLS ADVISORY GROUP
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Topics

• Ohmsett Overview
• Recent R&D Testing
• Tank Refurbishment
• Future Plans
• Conference Participation
• Staffing

Facility

Largest outdoor salt water test tank in North America

• 203 meters (667 feet) long
• 20 meters (65 feet) wide
• 2.4 meters (8 feet) deep
• 10 million liters (2.6M gallons)
• Wave capacity: ~1 meter (~3 feet)
• Open ocean salinity (32 -35 ppt)
• Computer controlled wave generator

Located in Leonardo, New Jersey

• One hour south of New York City
• Nearby airports:
  Newark (35 Miles)
  LaGuardia (64 Miles)
  JFK (60 Miles)

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
Technical Specialties

Mechanical Recovery
- Containment booms
- Oil spill skimmer systems

Chemical Treatments
- Dispersant testing
- Herder testing

Oil Behavior, Fate, and Transport
- Behavior of dispersed and weathered oils
- Natural emulsions

Sorbents

Wave Energy Converters

Remote Sensing
- ROVs & AUVs
- Rotary and fixed wing aircraft
- Satellite
- Fix mount (crow’s nest/tower)

Oil Handling
- Temporary storage devices
- Viscous oil pumping
- Oil/water separators
- Surface and subsurface releases
- Sunken oil and neutrally buoyant plumes

Marine Debris Mechanical Removal
- Boom performance testing
- Collection systems
Research & Development Projects

NOAA/BSEE/DFO/USCG/EPA CAMPRI
• Compare oil slick thickness sensing technologies
• Pre-test October 2020
• On-going through spring 2022

PARC
• Five free float drifters
• Outfitted with sensors to record sea states, temperature, and salinity

Bowhead
• Ice deflection system (unmanned)

Global PCCI
• US Navy Class V vessel
• Two skimmers – belt & disc
Tank Renovation Project

- Tank refurbishment June – October, 2021
  - Last performed in 2015
  - Focus on concrete / steel repairs & coatings, and general infrastructure improvements
  - Engineering assessment has been performed and RFP was recently issued
  - Also working on a new beach design with improved wave reflection control

- Testing Calendar
  - Fall 2021 & Winter / Spring 2022 dates are already being reserved
Future Plans

Potential improvements and upgrades

• Enhanced customer facilities with ongoing focus on health, safety, and remote connectivity capabilities
• Upgraded / expanded testing laboratory
• Smaller wave / flume tanks (fresh / salt water)
• Development of testing protocols e.g., dispersant effectiveness
• Semi-permanently installed underwater cameras and sensors
• Integrated measurement and video collection
• Updated main wave tank bridge with enhanced space(s), e.g., observation deck & more inside square footage
Conference Participation

• International Oil Spill Conference (IOSC), May 11-15, 2021
  ➢ Virtual Exhibit

• Clean Waterways, September 14 & 15, 2021: Louisville, KY
  ➢ Booth #205

• Clean Gulf, November 16-18, 2021: San Antonio, TX
  ➢ Booth #415
Ohmsett Staffing

Recent Staff Members

- Grant Coolbaugh, Sr. Mechanical Engineer: August 2019
- Joanne Letson, Field and Lab Technician: February 2020
- Dr. Tom Coolbaugh, Program/Facility Manager: August 2020
- Dr. Philip Sontag, Staff Scientist: March 2021
- Summer 2021 Intern
Thank You

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