



Ohmsett

Overview, Recent Activities, and Future Plans

API SPILLS ADVISORY GROUP
March 24, 2021

Tom Coolbaugh
Program/Facility Manager
Ohmsett Facility
tcoolbaugh@ohmsett.com
732-866-7285
www.ohmsett.com





Topics

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



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

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)



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

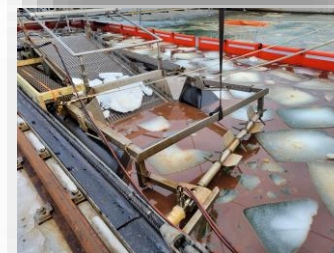
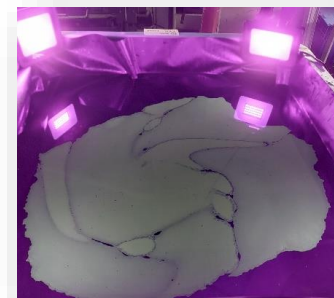
- Five free float drifters
- Outfitted with sensors to record sea states, temperature, and salinity

Bowhead

- Ice deflection system (unmanned)

Global PCCI

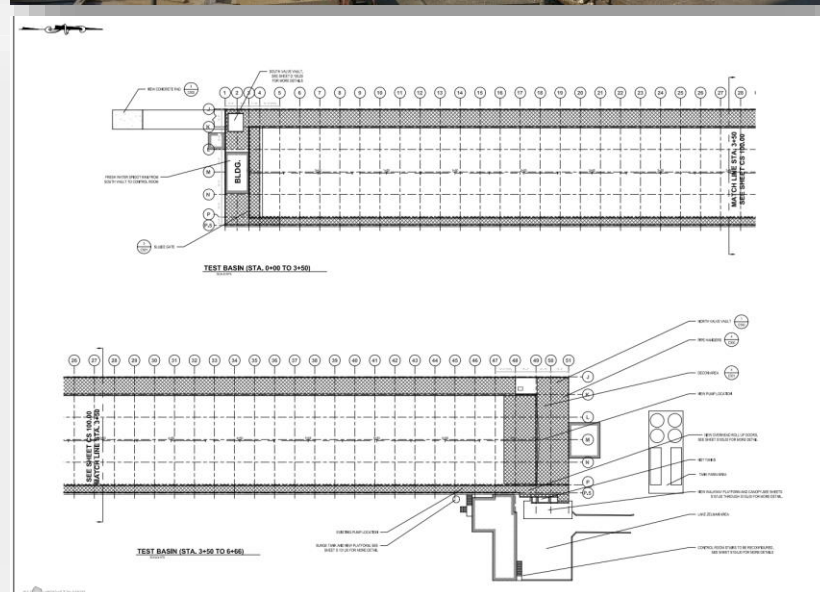
- US Navy Class V vessel
- Two skimmers – belt & disc





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

Contact:

Tom Coolbaugh
Program/Facility Manager, Ohmsett
tcoolbaugh@ohmsett.com
732-866-7285

Jane-Ellen Delgado
Marketing Director, Ohmsett
jdelgado@ohmsett.com
908-601-7082

