



# Recent Testing and Research Conducted at OHMSETT

OSPR-Chevron Technology Workshop  
February 25, 2015

# Overview



- Ohmsett Background
- Recent Tests
- Ohmsett Research

# Ohmsett Facility



Ohmsett is the National Oil Spill Response Research & Renewable Energy Test Facility

## Ohmsett's Mission:

Improve oil spill response through testing, training, research and development

Provide performance testing of marine renewable energy systems

# Where is Ohmsett



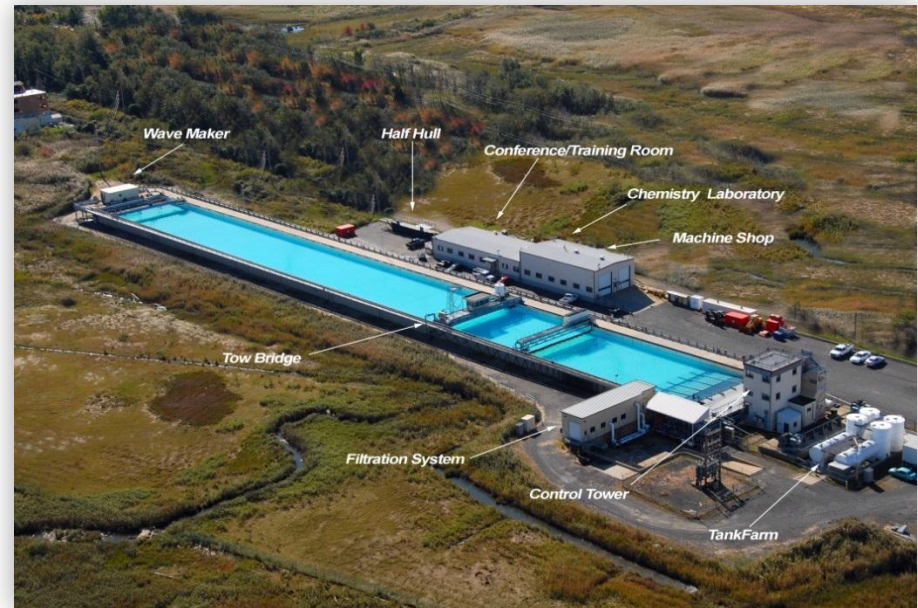
- Located in Leonardo, New Jersey
- One hour south of New York City
- Nearby airports:
  - Newark
  - LaGuardia
  - JFK



# The Ohmsett Facility



- Largest oil spill test tank in North America
- 204 meters (667 feet) long
- 20 meters (65 feet) wide
- 2.4 meters (8 feet) deep
- 10 million liters (2.6 million gallons) of water
- Open Ocean salinity (35 ppt)



# Recent Tests



- High volume oil/water separator
- Sweeping boom system
- Advancing oil skimming system
- Inflatable boom system



# Oil/Water Separator



## Voraxial 4000 Separator

- Tests sponsored by Norwegian Clean Seas Association for Operating Companies (NOFO)
- Separates two fluids by using cyclone action and an internal weir
- Segregated fluids were analyzed and quantified in the Ohmsett oil/water laboratory to determine system performance



# Sweeping Boom System



## OilShaver

- Manufactured by HUSEN AS Norway
- Oil Spill Collection System
- Primary quantified performance for the system was Throughput Efficiency and was calculated as the oil volume encountered /actual oil recovered





# Advancing Oil Skimming System



## Ecoceane

- WG 128 advancing oil skimming system – combination of work boat/oil recovery vessels
- Tested at speeds ranging from 1 to 3 knots in calm and wave conditions
- Primary quantified test performance value was the Throughput Efficiency



# Inflatable Boom System



## HARBO

- HARBO Technologies of Israel
- Tested two inflatable booms
- Booms were tested using different quantities of Hydrocal 300 test oil
- Additional tests were conducted in which the booms were towed in different configurations to observe for losses and left to float in waves.



# Ohmsett Projects



## **Project 1028**

- Acoustic Tool to Measure Oil Slick Thickness at Ohmsett

## **Project 1031**

- Innovative Technology Enhancements for Measuring Test Parameters at Ohmsett

## **Project 1044**

- Studying the Scientific Levels Capabilities of Ohmsett – Effect of Ambient Chemical Levels

## **Project 1045**

- Solidifying the Scientific Capabilities of Ohmsett – Wave Hydrodynamics

## **Project 1059**

- Characterizing Wave-Induced Mixing in Ohmsett Wave Basin for Dispersant Effectiveness Testing



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