

Ocean Waves Workshop at the University of New Orleans

Over the Waves: An Odyssey of Exploration and Measurement



Workshop Goals

- ▶ Explore recent advances in using wave information to support operations.
- ▶ Share & discuss lessons learned and scenarios encountered that relate to wave forces.
- ▶ Provide a forum for scientists, engineers, and managers to explore the issues relevant to ocean waves.

Schedule

Session 1 (Buoys)

0915 – 0945 Presentation
0945 – 1000 Q&A
1000 – 1030 Group Discussion
1030 – 1045 Coffee Break

Session 2 (Models)

1045 – 1115 Presentation
1115 – 1130 Q&A
1130 – 1200 Group Discussion
1200 – 1245 Lunch

Session 3 (Wave Energy)

1245 – 1:15 Presentation
1:15 – 1:30 Q&A
1:30 – 2:00 Group Discussion
2:00 – 2:15 Coffee Break

Session 4 (Data Access)

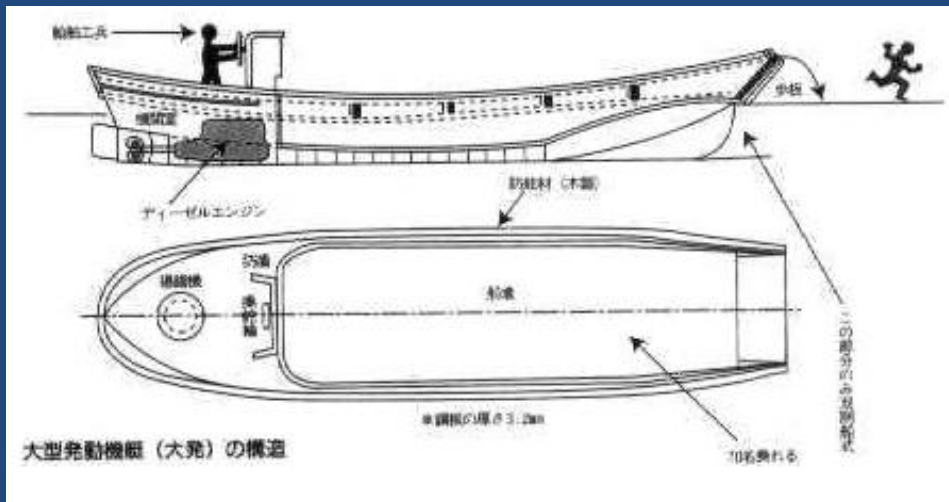
2:15 – 2:45 Presentation
2:45 – 3:00 Q&A
3:00 – 3:45 Group Discussion
3:45 – 4:00 Closing Comments

Second Sino-Japanese War

(July 7, 1937 – September 2, 1945)

- Ship-to-Shore Landings
 - Barges replaced by motorized landing craft (1920s)
 - Kohatsu (1927) and Diahatsu (1929) Landing Craft
- Road to War
 - Amphib Exercises during the 1930s set stage for WWII
 - Shanghai Landing (1932)

DAIHATSU LANDING CRAFT



Higgins Industries (Pre-WWII)

Pontchartrain Test Basin

- Rugged shallow-bottom craft
- Tunnel boats
- Hit obstacles, run aground, and retract
- Eureka Work Boat

Example Customers

- Biological Survey Agency
- Rumrunners
- USCG
- USACE



Navy – Marine Corps

Bureau of Ships

- Barges and Landing Boats
- Various designs by shipbuilders
- Tests at Cape May, NJ during 1936

USCG and Navy Action Officers

- Identified Eureka Boat around 1937
- Modified version was provided for testing in 1938 in Hampton Roads, VA.
- Fleet Landing Exercises 1939 – 1941
- FLEX-5 (1939) Eureka outcompeted other boats

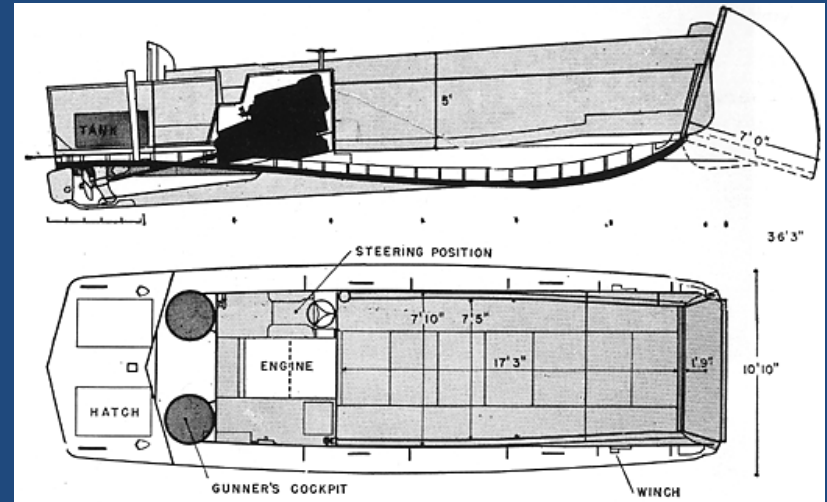
Navy – Marine Corps

Acceptance Testing

- Higgins visit to Quantico (April 1941)
- Modified the 36' Eureka
- Informal tests conducted on Lake Pontchartrain (May 1941)

Production

- Higgins Industries produced 20,094 Landing Craft



Issues Then and Now

Wave Processes

- Ride Quality
- Seakeeping
- Surf Zone Breaching

Wave Impacts

- Broaching
- Capsizing
- Swamping
- Surf Boarding

Operational Products

- Wave Model Output
- Surf Observations
- Surf Forecasts
- Beach Studies

“...From the Sea”

Camp Pendleton's White Beach



Camp Lejeune's Onslow Beach

