

PROJECT PORTFOLIO

*Photograph Courtesy of NOAA*

**Vessel:** *R/V REUBEN LASKER (FSV-6)*  
**Operator:** National Oceanic and Atmospheric Administration (NOAA)  
**Notes:** Complies with ICES Underwater Noise Requirement

**Services Provided:**

- Reviewed and commented on government issued specifications.
- Provided complete acoustic analysis services: noise control plan, underwater noise predictions, sonar self-noise predictions, compartment airborne noise predictions, and finite element modeling and analyses for whole-ship and local structure vibration for habitability.
- Developed the Factory Acceptance Test plan and noise test procedures for all noise-critical machinery and equipment.
- Performed Factory Acceptance Testing and shipboard testing to determine the acceptability of airborne and structureborne noise source levels for all noise critical machinery and equipment.
- Provided noise control design services: Main propulsion (diesel generator) compound mounting systems; auxiliary machinery, fan and diesel exhaust system vibration isolation systems; acoustic insulation; structural damping treatments; and HVAC system treatments.
- Trained shipyard personnel in methods and procedures for quiet ship design and construction.
- Assisted the development and implementation of shipyard QA procedures and conducted shipboard inspections of noise critical constructions.
- Developed noise and vibration test procedures for the as-built ship, planned and performed sea trails testing which included underwater radiated noise (dockside and underway), compartment airborne noise, sonar self-noise, and ship-wide vibration for habitability; and performed compliance assessments.