

SELECTED PROJECT PORTFOLIO

**Vessel:** *R/V INVESTIGATOR*

**Operator:** CSIRO (Australia)

**Services Provided:**

- Provided complete acoustic design services: noise control plan, underwater noise predictions, airborne noise predictions, and habitability vibration predictions.
- Recommended noise control treatments: acoustic insulation, damping, vibration isolation, insulation, and structural modifications.
- Performed Factory Acceptance Tests and dockside tests of multiple shipboard machinery items for airborne noise and vibration.
- Reviewed all pertinent shipyard construction drawings.
- Conducted training of shipyard personnel on quiet ship design and construction. Assisted with development of shipyard QA team
- Conducted shipyard inspections during construction.
- Planned and performed sea trials testing which included underwater noise, airborne noise, ship-wide vibration, and shafting measurements.
- Used BAMS™, NCE's proprietary underwater noise measurement system to quantify and demonstrate compliance with DNV Silent-R.

**Results:**

- The *R/V INVESTIGATOR* achieved all of the acoustic requirements including airborne noise, vibration, and most importantly underwater noise.
- The vessel was the first ship to meet the DNV Silent-R underwater noise notation.