

Armidale Class Patrol Boat (ACPB) Remediation Project



RUBICON
associates

Hydraulic Oil Systems Analysis

Customer

- BMT Design and Technology/ACPB SPO

Project Location

- Melbourne
- Darwin

Office Location

- Melbourne, Australia

Services

- Marine Engineering

ACPB's were commissioned and built for the Royal Australian Navy (RAN) to provide naval support for civilian authorities on missions such as fisheries protection, custom patrols and illegal immigration protection. Rubicon Associates was contracted to assist in reviewing the Hydraulic Oil (HO) cleanliness procedures on board the vessels and was responsible for developing a new process which addressed the issues surrounding the cleanliness and functionality of the HO systems.



Scope

- Review available correspondence regarding HO sampling and cleanliness procedures between relevant parties.
- Assessing level of compliance of the current system procedures with applicable standards in order to identify deficiencies in the process.
- Create a HO analysis procedure that addressed the trigger points for sampling, the trigger points for action arising from sampling outcomes and the actions for sampling outcomes.

Project Outcome

A more comprehensive HO sampling, testing and analysis procedure was established for ACPB SPO utilization. This procedure outlined sampling frequency and methods for all on board HO systems, spectrographic and viscosity testing and analysis for the HO samples, and the subsequent actions which should be taken based on the test results obtained. This procedure allowed effective maintenance and control of the HO systems on board the ACPB and improved vessel functionality.