NDT PROJECT SOLUTIONS

HMAS CHOULES IS A BAY-CLASS LANDING SHIP DOCK WHICH PREVIOUSLY SAW SERVICE AS RFA LARGS BAY IN THE UK'S ROYAL FLEET AUXILIARY, BEFORE BEING PURCHASED AND RENAMED BY THE ROYAL AUSTRALIAN NAVY IN 2011.

CASE STUDY

FUEL FILTRATION SYSTEM

BACKGROUND

The 16,000-tonne vessel is capable of carrying more than 300 troops and can also operate Navy helicopters including the MH-60R Seahawk and the Australian Army's S-70A Black Hawk.

NDT Australia Project Solutions has been the principal systems integrator for the HMAS Choules Capability Assurance Project (CAP) since 2019. The project involves the design and installation of over 80 engineering changes across 44 capability enhancement areas to assure the capability and support of HMAS Choules until her planned withdrawal date early next decade.

THE CHALLENGE

Fuel safety is critical for deployed ships and crew safety. So as part of HMAS Choules' Annual Maintenance Period, it was decided to install a mobile fuel filtration system. In addition to helping ensure continued safe operation, the new filtration system would also enable peak operating efficiency of helicopters and prolong the lifespan of their engines.

In addition to finding the right experts to carry out the work, A&P Group's Australian arm - A&P Australia – also wanted to deploy an Australian-based company for the project to grow sovereign capability. This approach would ensure the Royal Australian Navy received the best level of assurance for the design and installation of the new system, whilst also optimising Australian Sovereign Capability as part of HMAS Choules' refit.

THE SOLUTION

Taking full advantage of its longstanding connections with the UK to leverage the required expertise, NDT Australia worked in partnership with UK-based Fuel Specialist Services (FSS) on a project to develop, manufacture and install a bespoke mobile fuel filtration system which essentially 'cleans and polishes' fuel.

FSS has been providing engineered fuel solutions for more than four decades and has a longstanding familiarity with the UK Bay Class, having worked extensively on the class in the UK, where its technology has been used on sister ships, including RFA Lyme Bay and Mounts Bay.

Utilising NDT Australia's robust supply chain and in- house engineering capacity, as well as its bespoke digital project management delivery model, the work was completed at Garden Island Defence Precinct. The new system has been successfully integrated into the ship's existing systems on the container deck and will be used for refuelling helicopters. Training has also been delivered to the ship's crew to enable them to use the new system, while updating the ship's operating procedure accordingly.