



POSITION DESCRIPTION

Position Title:	Undersea Warfare Systems Modeller
Position Reference Number:	ECRMD012b
Division	Maritime Division
Position Classification:	S&T3-4
Position Location:	Edinburgh, SA
Security Level:	NV1
Enquiries:	Jarrad Exelby jarrad.exelby@dst.defence.gov.au (08) 7389 7107

Academic Disciplines

<input type="checkbox"/> Aerospace/ Aeronautical Engineering, Naval Architecture	<input type="checkbox"/> Chemical, Radiological, Biological, Food sciences	<input type="checkbox"/> Materials Science
<input type="checkbox"/> Computer Sciences, IT, Software Engineering, Telecommunications	<input checked="" type="checkbox"/> Mathematics and physics	<input type="checkbox"/> Psychology and Social Sciences
<input type="checkbox"/> Mechanical and Mechatronic Engineering (including robotics)	<input type="checkbox"/> Electronic/ Electrical Engineering	<input checked="" type="checkbox"/> Other
Meteorology, Oceanography or Environmental Sciences		

Position Overview

Australia is in the process of acquiring a fleet of capable, agile and potent Australian Defence Force (ADF) assets including the Future Frigates, Future Submarines, Air Warfare Destroyers, Maritime Patrol Aircraft and Maritime Combat Helicopters that will revolutionise Australia’s defence capability. As a member of a small team you will play a key role conducting modelling and analysis informing ADF decision makers on the employment, operation and evolution of these platforms and associated systems to help re-invigorate Australia’s undersea warfighting capabilities and enhance the survivability of maritime assets.

The Undersea Warfare Systems Modeller will contribute to the development and use of performance modelling, simulation and analysis of systems, technologies and concepts relevant to the undersea environment and warfare operations. They will work as part of a team that supports understanding, tactics development and assessment of the role, performance and employment of ADF assets that exploit sensors and signatures in the undersea environment.

Position Duties

Under guidance and as part of a small team the Undersea Warfare Systems Modeller will:

1. Develop system, platform and tactics representations within existing modelling software;
2. Collaborate with Defence personnel and other subject matter experts within DST to access and understand employment, tactics, system information and non-acoustic performance data;
3. Design, execute and analyse simulation studies to understand and assess the performance of undersea warfare systems and platforms;
4. Understand the strengths and limitations of different modelling approaches, take the initiative to conceive new approaches and contribute to the research, evolution and innovation of the undersea warfare modelling and simulation toolkit;
5. Engage with the military community to understand, develop, and deliver analysis to meet client needs;
6. Engage with the Australian and international scientific communities to further advance collaborative work programmes and application of undersea warfare performance modelling and simulation;
7. Communicate, document and report on technical outcomes to DST, Defence clients and other stakeholders.

Other Requirements

Some interstate and possible overseas travel will be required.