

## Position Description

*All candidates for this position must be Australian citizens or able to meet eligibility criteria. Defence Department security requirements will apply. General conditions of employment are documented in the People Management Manual (000AAL011)*

<b>Position Title (in full)</b>	Systems Engineer – Modelling & Analysis (Weapons Systems)		
<b>Division (Corporate, Operations or Security)</b>	Operations		
<b>Line report</b>	JHBO	<b>Direct report</b>	MXWI
<b>Location</b>	Adelaide	<b>Supervises</b>	System/Software Engineers
<b>Budget</b>	Not applicable	<b>Tenure</b>	Full-time
<b>Delegations /Authorities</b>	Authority limits and descriptions available in Delegation of Authority (000AAF206) As delegated by Project System Design Manager, or R&D Steering Committee.		

### Purpose

Provide specialized skills in Modelling and Analysis and Weapon Systems Analysis.

### Key Responsibilities/Duties

As a member of the Defence Operations Australia (DOAU) division Modelling & Analysis team participate in assigned tasks including:

- Develop/sustain core competencies in the area of weapons systems analysis;
- Lead and/or conduct internal research and development tasks;
- Undertake packages of work within existing Company projects;
- Support company business development activities by providing technical advice, demonstrations and presentations;
- Participate in Tenders and Proposals; and
- Support the DSTO-Saab relationships through participation in Interactive Project Agreements and contracted work;

Specifically:

- Provide core competencies and specialist skills in the area of M&A and Weapon Systems Analysis;
  - Maintain/develop core competencies and specialist skills relating to the modelling and analysis of Surface to Air Missile (SAM) systems, Surface to Surface Missile (SSM) systems and Gun Systems to support their selection and effective integration into Naval platforms and tactical development.
  - This may include engagement modelling incorporating kinematic, guidance and control, fuse and warhead effectiveness within differing environmental conditions against complex targets.
  - An existing suite of models/tools must be maintained and where necessary enhanced or added to.
  - Support mission level modelling to study many-on-many engagements between multiple platforms with multiple effectors and multiple targets.
- Research and Development
  - Contribute to the planning and conduct of Research and Development activities.
- Defence Operations Division;
  - Support activities within the ANZAC Anti-Ship Missile Defence (ASMD) Upgrade Program and Landing Helicopter Deck (LHD) Project. Specific activities include requirements analysis, algorithm design, model development, trials support, and performance analysis.

**Key Responsibilities/Duties**

- Tenders and Proposals;  
Perform analysis and assessment of specific Anti-Air Warfare (AAW) and Anti-Surface Warfare (ASuW) performance requirements or options
- DSTO-Saab Strategic R&D Alliance  
Maintain the relationship with the DSTO under the Strategic R&D Alliance at a Technical level.  
Be commercially cognisant of the Alliance with respect to alliance objectives, interactive project agreements, and Intellectual Property issues.  
Contribute to the proposal and definition of Interactive Project Agreements consistent with the alliance focus areas particularly with regard to Maritime Systems.
- Comply with legislation and Company policies, processes and instructions, including those relating to non-discrimination, safety and duty of care and the quality management system
- Perform other duties as assigned

**Qualifications/experience**

**Essential**

- Formal qualifications (University Bachelor Degree minimum) in Mathematics/Physics/Computer Science/Engineering or equivalent;
- Experience in Modelling and Simulation (M&S) processes, methods, environments, tools, architectures and languages;
- Experience in performance analysis and integration of weapons systems;
- Experience in development, support and execution of test and trials activities for complex warfare systems;
- Technical leadership experience on small to medium sized Defence Contracts;
- Commercial awareness;
- Experience in dealing with the Defence Science and Technology Organisation (DSTO);
- Defence Security Clearance (Secret, AUSTEO); and
- Systems engineering skills.

**Desirable**

- Software engineering skills;
- Experience programming in Matlab, C/C++, Java, FORTRAN and/or Ada;
- Demonstrated software development experience with complex real-time systems; and
- Experience in the design, development or analysis of naval combat system sensors and/or effectors.

**Skills**

- Modeling and Analysis
- Weapon Systems Analysis

**Competencies**

- Engineering Level 3

**Personal attributes**

- Ability to work in a team environment;

**Personal attributes**

- Ability to plan, schedule and prioritise tasks;
- Ability to adapt to new tasks, technologies, processes and procedures;
- Ability to work under pressure;
- Good communication skills (both written and verbal); and
- Capable of generating innovative technical solutions to real world problems.
- Display behaviours that reflect company values